

## CHAPTER II

### COMPLIANCE AUDIT OF GENERAL, SOCIAL AND ECONOMIC SECTORS

#### Snapshot of chapter:

This chapter contains results of four Compliance Audits pertaining to departments under General, Social and Economic Sectors, viz. Food, Civil Supplies and Consumer Protection Department; Social Welfare Department; Public Works Department (PWD) and Water Resources Department (WRD).

Compliance Audit of Management of distribution of additional foodgrains through Public Distribution System during pandemic was conducted to assess the distribution of foodgrains to the targeted beneficiaries under *Pradhan Mantri Garib Kalyan Anna Yojana* (PMGKAY) and *Atma Nirbhar Bharat Scheme* (ANBS) launched by the Government of India during COVID-19 pandemic. During the Audit, deficiencies in distribution of additional rice and *chana* to intended beneficiaries during pandemic were noticed. The State Government failed to distribute rice and *chana* to the 30,218 migrant persons and 20,395 families respectively under ANBS who were registered under the scheme but did not turn up to Fair Price Shop (FPS). Due to multiple generation of ID for the same beneficiary under ANBS, 2,644 persons and 1,641 families were listed more than once and distributed excess quantity of rice (283.01 quintal) and *chana* (35.98 quintal) against the entitled quantity. Separate stock and distribution registers were not maintained for the PMGKAY and ANBS in 88 *per cent* and 85 *per cent* respectively test checked Fair Price Shops.

The Compliance Audit of implementation of Direct Benefit Transfer (DBT) under Indira Gandhi National Old Age Pension Scheme was conducted to ascertain whether the implementation of scheme through DBT has resulted in bringing efficiencies and minimize intermediary levels and delays in the process of transfer of pension to the beneficiaries. Audit observed deficiencies in implementation of DBT under IGNOAPS such as delays in sanction and disbursement of pension; duplication of beneficiaries; pensioners of more than 80 years of age not getting pension at enhanced rates; delays in discontinuation of pension after the death of a pensioner; sanction of pension to ineligible beneficiaries (having age less than 60 years) as well as shortcomings in verification and digitization of data of pensioners.

Compliance Audit of deduction of royalty charges of minor minerals consumed in works in PWD and WRD was conducted to assess whether these departments are deducting royalty charges as per provisions of Chhattisgarh Minor Mineral (CGMM) Rules, 2015, and in accordance with directions issued by Mineral Resources Department and Finance Department. Audit observed that the two Departments did not revise the existing royalty clause in the contracts executed for construction works in accordance with the amended rules. Final payments were made without obtaining RCCs from the contractors. Market value of minor minerals used in government works was not deducted from the contractors' bills. There were delays in issue of market

rates by District Collectors. Royalty charges recovered from contractor's bills were not remitted into Mineral Resources Department's account within stipulated time period.

The objective of Compliance Audit of "Execution of Cement Concrete works as per standard specification (Indian Standards- 456:2000)" was to review execution of the cement concrete works (Plain Cement Concrete: PCC and Reinforced Cement Concrete: RCC) as per the prescribed norms of IS Code 456:2000, and availability of adequate manpower and apparatus/machinery with Department for conducting quality tests for cement concrete. Audit observed that there was shortage of manpower ranging up to 80 *per cent* in four out of the five quality control units of the Department and the required number of machinery/apparatus were also not available in quality control labs. Due to shortage of manpower and machinery, frequency of testing of concrete cubes was less than the norms envisaged in the IS code and average specimens required for each sample were not taken. Further, test results of concrete cubes indicated that 93 *per cent* specimens failed to achieve the acceptance criteria for the desired strength of concrete. The Department did not adhere to IS code 456:2000 and executed works with lower grade of concrete i.e. M-7.5 and M-10 for PCC works and M-15 and M-20 for RCC works. In five agreements, 6,252 cum of work valuing ₹ 9.70 crore was executed through nominal mix without preparation of design mix resulting in irregular execution of work.

## Food, Civil Supplies and Consumer Protection Department

### 2.1 Management of distribution of additional foodgrains through Public Distribution System during pandemic

#### 2.1.1 Introduction

The Public Distribution System (PDS) evolved as a system of management of scarcity through distribution of foodgrains at affordable prices and is operated under the joint responsibility of the Central and the State Government. PDS in Chhattisgarh is governed by the National Food Security Act (NFSA), 2013, the Chhattisgarh Food and Nutrition Security Act (CGFSA), 2012 and orders/circulars issued there under by Government of India (GoI) and Government of Chhattisgarh (GoCG). Coverage under the NFSA is under two categories: households covered in *Antyodaya Anna Yojana* (AAY) and Priority Households (PHH). There were 217.12 lakh beneficiaries registered in AAY and PHH categories under NFSA and CGFSA in the state, as shown in **Table 2.1.1:**

**Table 2.1.1: Number of beneficiaries (in lakh)**

Category	AAY		PHH		Total	
	Cards	Members	Cards	Members	Cards	Members
NFSA	7.25	19.65	40.33	167.31	47.58	186.96
CGFSA	2.93	8.51	2.35	7.73	5.28	16.24
CGFSA PHH	3.82	13.92	0	0	3.82	13.92
<b>Total</b>	<b>14.00</b>	<b>42.08</b>	<b>42.68</b>	<b>175.04</b>	<b>56.68</b>	<b>217.12</b>

(Source: Data provided by the Department and compiled by Audit)

To prevent the spread of COVID-19 pandemic in the country, nationwide lockdown was imposed by GoI from 25 March 2020 to 31 May 2020 in four phases<sup>1</sup>. Subsequently, GoI announced the *Pradhan Mantri Garib Kalyan Anna Yojana* (PMGKAY) for all NFSA beneficiaries and the *Atma Nirbhar Bharat* Scheme (ANBS) for all migrants/stranded migrants and all those who were not covered under the NFSA or the State PDS scheme. The phased lifting of restrictions in a series of “unlock” started in June which extended up to November 2020.

Under the above schemes of GoI and GoCG scheme, additional foodgrains were provided over and above regular NFSA/CGFSA entitlement, free of cost to poor people so that they would not face difficulties in essential supplies during the pandemic.

<sup>1</sup> Phase I: 25 March-14 April (21 days), Phase II: 15 April-3 May (19 days), Phase III: 4 May -17 May (14 days), Phase IV: 18 May-31 May (14 days)

### 2.1.2 Scheme interventions under PDS by GoI and GoCG during COVID-19 period

The details of scheme interventions by GoI and GoCG during COVID-19 period were as shown in **Table 2.1.2**:

**Table 2.1.2: Details of scheme interventions during pandemic period**

Scheme	Intervention	Period of scheme	Eligibility
<i>Pradhan Mantri Garib Kalyan Anna Yojana</i> (PMGKAY-Central scheme)	Additional five kg rice per person per month and one kg preferred pulses per family per month free of cost	April - November 2020 and May 2021-March 2022	All NFSA beneficiaries under <i>Antyodaya Anna Yojana</i> (AAY) and Priority Household (PHH)
<i>Atma Nirbhar Bharat Scheme</i> (ANBS - Central scheme)	Five kg rice per person per month and 1kg <i>chana</i> per family per month free of cost.	May - June 2020	Stranded migrants who were not covered under NFSA or State scheme PDS cards
<i>Mukhyamantri Khadyan Sahayta Yojana</i> (MKSY - State scheme)	Additional five kg rice per person and one kg preferred pulses per family per month free of cost	April - November 2020 and May 2021-March 2022.	Ration Card holders covered under CGFSA

### 2.1.3 Mechanism of PDS in Chhattisgarh

In Chhattisgarh State, Department of Food, Civil Supplies and Consumer Protection is responsible for management of Public Distribution System, procurement of food grains at support prices, and implementation of NFSA, 2013 and CGFSA, 2012 besides other works. The procurement, lifting and transportation of food grains is done by the Directorate through the Chhattisgarh State Civil Supplies Corporation Limited (CGSCSCL) to the Fair Price Shops (FPSs) for distribution to the targeted beneficiaries under PDS. The Food Controller (FC)/Officer (FO) in the district ensures distribution of the foodgrains to the beneficiaries as per their entitlement. The foodgrains are distributed through 13,284 FPSs in the State to beneficiaries by Biometric Aadhaar authentication. GoCG had suspended (March 2020) Biometric Aadhaar authentication in PDS during lock down period and directed distribution of foodgrains by uploading photograph of beneficiary or One Time Password (OTP).

### 2.1.4 Allotment, off-take/lifting and distribution of rice

The details of total quantity of allotment, lifting and distribution of regular and additional rice through PDS under NFSA and CGFSA during the period 2019-20 and 2020-21 are shown in **Table 2.1.3**.

Table 2.1.3: Allotment, lifting and distribution of rice

*(Quantity in quintal)*

2019-20	NFSA (Regular and additional)	CGFSA (Regular and additional)	Total quantity
Allotment	13988539	8266284	22254823
Lifting	13847531	8085609	21933140
Distribution	13846516	8127101	21973617
<b>2020-21</b>			
Allotment	19923658	7729477	27653135
Lifting	19818942	7721795	27540737
Distribution	18581415	8819868	27401283
<b>2021-22 (up to June 2021)</b>			
Allotment	4447693	2547417	6995110
Lifting	4451773	2537694	6989467
Distribution	4410620	2528679	6939299

(Source: The data have been compiled from the official website <https://khadya.cg.nic.in/> of Food, Civil Supplies and Consumer Protection Department, Chhattisgarh)

### 2.1.5 Organisational set up

Secretary, Food, Civil Supplies and Consumer Protection Department, GoCG is the administrative head and is responsible for implementing PDS by ensuring compliance of provisions of the NFSA and the CGFSA in the State. Director, Food, Civil Supplies and Consumer Protection Department, Chhattisgarh is entrusted with the responsibility of executing PDS in the State and is assisted by 28 FCs/FOs in 28 districts. In each district there are Food Inspectors (FIs) to inspect distribution of foodgrains under PDS. CGSCSCL is a company under the Department which procures, lifts and transports allotted foodgrains to the FPSs for distribution.

### 2.1.6 Focus areas

The compliance audit was conducted with focus on additional foodgrains provided during COVID-19 pandemic under PDS to assess the distribution of additional foodgrains as per the schemes.

### 2.1.7 Audit Criteria

Audit criteria were derived from the following sources:

- The National Food Security Act, 2013 and the CG Food and Nutrition Security Act, 2012 and PDS (Control) orders issued there under.
- Scheme guidelines and orders/circulars/notifications issued by GoI and GoCG for implementation of PDS for COVID-19 period.

### 2.1.8 Scope and methodology

The compliance audit covered the apex level units viz. Directorate of Food, Civil Supplies and Consumer Protection Department and the nodal agency

CGSCSCL and FCs/FOs and District Manager, CGSCSCL in 20 selected districts. In each selected district, six FPSs (three urban and three rural) were covered along with survey of 10 beneficiaries under each FPS thus covering 120 FPS and 1,177 beneficiaries. The audit period covered was from April 2020 - June 2021.

The audit methodology included test-check of records and documents, collection of information and data in the formats, interaction with management and issue of audit queries/observations. Audit also conducted joint inspection with the officials of the Department of 120 selected FPSs.

### **2.1.9 Audit sampling**

Out of 28 districts in the State, 14 districts were selected on the basis of Probability Proportional to Size and Without Replacement (PPSWOR) method. In addition, six districts were also selected. Accordingly, total 20 units of FCs/FOs were covered in compliance audit, as detailed in **Appendix 2.1.1**.

In each selected district, six FPSs were selected on the basis of Simple Random Sampling without Replacement (SRSWOR) method.

Selection of 10 beneficiaries for survey under each selected FPS was done on the basis of availability of beneficiaries at the time of joint inspection of the FPS.

### **2.1.10 Audit Findings**

#### **2.1.10.1 Allotment, off-take/lifting and distribution of rice during pandemic**

GoI and GoCG allocated additional rice to the Department under different schemes for distribution to the beneficiaries through FPSs. The details of quarterly allotment, off-take/lifting and distribution of regular and additional rice through PDS under NFSA and CGFSA for the ten months period of April to November 2020 and May to June 2021 during pandemic are as shown in **Table 2.1.4**.

Table 2.1.4: Allotment, lifting and distribution of rice

(Quantity in quintal)

Scheme		2020-21			2021-22	Total
		Apr-Jun 20	Jul-Sep 20	Oct-Nov 20	May-Jun 21	
Allotment	NFSA Regular	4998335	3488604	2314465	2306823	13108227
	NFSA Additional	0	2506404	2003530	987464	5497398
	CGFSA Regular	2413465	1251300	493109	1624040	5781914
	CGFSA Additional	0	215070	175028	117876	507974
	<b>Total</b>	<b>7411800</b>	<b>7461378</b>	<b>4986132</b>	<b>5036203</b>	<b>24895513</b>
Lifting	NFSA Regular	4999250	3426109	2300130	2316370	13041859
	NFSA Additional	0	2506078	1992223	987455	5485756
	CGFSA Regular	2480305	1226944	483638	1624501	5815388
	CGFSA Additional	0	214992	172632	117934	505558
	<b>Total</b>	<b>7479555</b>	<b>7374123</b>	<b>4948623</b>	<b>5046260</b>	<b>24848561</b>
Distribution	NFSA Regular	3791235	3456104	2296790	2297052	11841181
	NFSA Additional	0	2471113	1987859	969363	5428335
	CGFSA Regular	3566747	1232719	487778	1614399	6901643
	CGFSA Additional	0	206547	172486	114261	493294
	<b>Total</b>	<b>7357982</b>	<b>7366483</b>	<b>4944913</b>	<b>4995075</b>	<b>24664453</b>

(Source: The data have been compiled from the official website <https://khadya.cg.nic.in/> of Food, Civil Supplies and Consumer Protection Department, Chhattisgarh)

It can be seen from the table that allotment, lifting and distribution of additional rice in the first quarter i.e. April-June 2020 was shown as nil as the additional rice during this period was not accounted for separately and included under the regular component of the scheme.

#### 2.1.10.2 Beneficiaries not benefited with additional quantity of food grains during COVID-19 pandemic

GoI launched (March 2020) *Pradhan Mantri Gareeb Kalyan Anna Yojana* (PMGKAY) as a part of economic measures to mitigate the hardships faced by the poor and needy people due to economic disruptions caused by COVID-19 pandemic. Under the scheme, additional five kg free rice per person per month was to be provided for distribution to all the beneficiaries covered under NFSA. Coverage under the NFSA is under the two categories-household under *Antyodaya Anna Yojana* (AAY) and Priority Household (PHH). The additional five kg free rice was over and above the regular

admissibility under NFSA. The scheme was initially implemented for a period of eight months from April- November 2020. GoI implemented (April 2021) the scheme again for the period May-November 2021, which was further extended up to March 2022.

The State Government, prior to launch of PMGKAY had been providing (since July 2019) additional quantity of rice every month at subsidised prices to these PHH beneficiaries based on number of persons in each ration card. Accordingly, PHH card holder having only one person was provided total 10 kg, two persons 20 kg, three to five persons 35 kg and more than five persons seven kg per person per month at the subsidised rate of ₹ one per kg. These quantities are inclusive of five kg rice per person provided regularly by GoI under NFSA.

After the launch of PMGKAY, the State Government issued (April 2020) order with reference to quantity of additional free rice revising the total quantity of rice to be provided to PHH beneficiaries of the State, as given in the **Table 2.1.5**. Due to withdrawal of additional quantity of rice earlier provided to beneficiaries by the State Government, the NFSA and CGFSA beneficiaries were not benefitted with additional quantity of rice at the rate of five kg per person over and above the existing entitlement, as detailed in next paragraphs:

➤ ***Distribution of additional free rice under PMGKAY to NFSA beneficiaries***

Audit noticed (June 2021) that after issue of the above order by the State Government, the NFSA- PHH beneficiaries were not provided any additional rice in comparison to the quantity of regular rice admissible prior to implementation of the PMGKAY as shown in **Table 2.1.5**:

**Table 2.1.5: Provision of regular and additional admissibility of rice**

*(Quantity in kg)*

Number of person/s in each ration card (PHH)	Regular admissibility (State Government vide Gazette notification dated 12/July/2019) prior to PMGKAY	Additional quantity as per PMGKAY vide GoI order dated (March 2020)	Total quantity after implementation of PMGKAY	Total admissibility as per the State Government order (April 2020)	Additional benefit to beneficiaries (w.r.t. Col.2)
1	2	3	4 (col.2+col.3)	5	6 (col.5-col.2)
01	10	5	15	10	Nil
02	20	10	30	20	Nil
03	35	15	50	35	Nil
04	35	20	55	40	5
05	35	25	60	50	15
06	42	30	72	60	18
07	49	35	84	70	21

It can be seen from the above table that one to three members of NFSA-PHH ration card holders were not benefitted with additional rice and PHH card holders having more than three members were benefitted with additional quantity of rice at the rate of three kg per person instead of five kg per



persons, as envisaged under the PMGKAY. A total of 31.05 lakh NFSA-PHH beneficiaries (one to three members) in the State were provided the same quantity of rice that they were receiving prior to implementation of the PMGKAY. Similarly, 136.27 lakh beneficiaries (PHH cards having more than three members) were provided additional quantity of three kg per month. Thus, 167.32 lakh NFSA-PHH beneficiaries in the State, were not benefitted with the additional support as intended under the scheme.

Thus, the objective of implementation of the PMGKAY to ameliorate the hardships faced by the poor due to economic disruption caused by COVID-19 by providing assistance of additional free rice was not fully achieved.

On being pointed out (January 2022), the Special Secretary to GoCG, Food, Civil Supplies and Consumer Protection Department stated (May 2022) that as per Section 3(1) of the NFSA, 2013, monthly entitlement of PHH card holders is five kg foodgrain per person. GoI allocated five kg additional foodgrain per person per month to PHH card holders under PMGKAY along with the monthly entitlement under NFSA. On that basis, the entitlement of foodgrain for PHH ration card holders based on number of members, was fixed and rice equal to combined monthly total of entitled quantity of regular and additional rice or more was distributed to them.

Reply is not acceptable because the NFSA-PHH beneficiaries of the State were provided and distributed same quantity of rice (regular plus additional) during pandemic period as in pre-pandemic period since July 2019 and were not effectively benefitted additional rice during pandemic.

➤ ***Distribution of chana under PMGKAY***

GoI provided (April 2020) one kg *chana* per household per month to NFSA households under PMGKAY for the period April-November 2020<sup>2</sup>. GoCG had issued (April 2020) orders to provide one kg *chana* to CGFSA<sup>3</sup> households and had also ordered for distribution of maximum two kgs per household per month in Modified Area Development Authority (MADA<sup>4</sup>) *kshetra* and scheduled notified area subject to the condition of one kg free as per the GoI scheme and one kg at the rate of ₹ five per kg. Whereas AAY and PHH card holders of these areas were already in receipt of two kgs *chana* per month at the rate of ₹ five per kg under the state scheme *Chana Vitaran Yojana*. In these areas, 25.34 lakh households were distributed the same quantity of *chana* during pandemic period as they were receiving in pre-pandemic period.

There were average 51.45 lakh number of NFSA households in the State who were entitled to receive one kg *chana* for the period April-November 2020. The month-wise detail of number of cards/families under NFSA, allotment, lifting and distribution of *chana* during the seven months period is shown in **Table 2.1.6**.

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<sup>2</sup> Except for the month of June where *arhar* dal was provided.

<sup>3</sup> Excluding the Above Poverty Line (APL) category.

<sup>4</sup> MADA *kshetra* are identified pockets (consisting of one or more revenue villages) in contiguous areas with a concentration of tribals with 50 *per cent* or more within total population of 10,000 or more in such area

**Table 2.1.6: Statement showing non-distribution of *chana* to 51.45 lakh NFSA households/card holders**

Name of the month	Chana_GoI				Non-distribution (in quintal)
	NFSA family/Cards	Allotment	Lifting	Distribution	
Apr-20	5150023	51500.36	51647.87	50930.97	569.39
May-20	5150023	51500.22	51339.48	50589.57	910.65
Jul-20	5149500	51495.24	51259.16	45231.48	6263.76
Aug-20	5149254	51493.26	51481.27	45722.45	5770.81
Sep-20	5148321	51483.98	51395.96	48957.63	2526.35
Oct-20	5147587	51475.89	50714.07	50497.67	978.22
Nov-20	5120520	51205.60	50878.07	50421.65	783.95
<b>TOTAL</b>		<b>360154.55</b>	<b>358715.88</b>	<b>342351.42</b>	<b>17803.13</b>

The Department allotted 3.60 lakh quintal *chana* against which 3.59 lakh quintal *chana* was lifted and only 3.42 lakh quintal was distributed to the beneficiaries. This resulted in non-distribution of 17,803 quintal *chana* to 2.54 lakh households.

On being pointed out (January 2022), the State Government did not furnish any specific reply with respect to the observation.

### 2.1.10.3 Implementation of Atma Nirbhar Bharat Scheme

GoI launched (May 2020) the *Atma Nirbhar Bharat* Scheme (ANBS) to provide five kg free rice to each person and one kg free *chana* to each family of the migrants/stranded migrants, who were not covered under NFSA or state scheme PDS ration cards with the objective to mitigate their plight and to ensure availability of foodgrains to them during COVID-19. Under the scheme, GoI had allocated rice and *chana* to the State for two months *i.e.* May 2020 and June 2020 for distribution to these targeted beneficiaries. The State Government was responsible for identifying beneficiaries and distributing foodgrains to such beneficiaries. GoI had extended validity period (up to 15 June 2020) for lifting of unlifted rice up to 25 June 2020 barring further extension in future. GoI also extended time for distribution (30 June 2020) of already lifted (up to 25 June 2020) quantity of foodgrains up to 31 August 2020. Allocation, lifting and distribution of rice and *chana* under the scheme were as shown in **Table 2.1.7**:

**Table 2.1.7: Allocation, lifting and distribution of rice and *chana* under ANBS***(Quantity in MT)*

Item	Allocation by GoI	Lifting	Distribution	Identified Beneficiaries	Benefitted
Rice	20076	2108	1964.41	222605 persons	196441 persons
<i>Chana</i>	1056	1056	173.29	109179 families	86645 families

*(Source: GoI order dated 15 May 2020 and GoCG letter dated 11 September 2020)*

Audit observed irregularities and shortcomings in implementation of the scheme as discussed below:

- i. **Multiple generations of IDs resulted in excess distribution of foodgrains:** As per information on distribution of foodgrains under ANBS submitted (September 2020) to GoI by the State Government, 1,09,179 migrant families with 2,22,605 members had been registered in the State under ANBS scheme. A total of 1,964.41 MT rice to 1,96,441 members and 173.29 MT *chana* to 86,645 families were distributed for two months under the scheme.

Audit noticed from the distribution list that rice was distributed to 1,92,387 persons and *chana* to 88,784 families. Scrutiny of the list provided by the Directorate revealed that details such as *Aadhar* numbers, gender and age were same for different persons shown in the list. Audit analysis further revealed that due to multiple generations of IDs for each person/family, 2,644 persons were listed multiple times and benefitted with excess distribution of rice of 283.01 quintal<sup>5</sup>. Similarly, due to multiple generation of ID for the same family, 1,641 families were listed more than once and distributed excess quantity of *chana* of 35.98<sup>6</sup> quintal against the entitled quantity. However, the possibility of diversion of food grains shown as distributed in excess of the entitled quantities to beneficiaries listed multiple times cannot be denied.

On being pointed out (January 2022), the State Government did not furnish any specific reply with respect to the observation.

- ii. **Non-distribution to beneficiaries:** The State Government had identified 2,22,605 members under 1,09,179 families of migrants to be covered under ANBS in Chhattisgarh. Out of which 1,92,387 persons and 88,784 families were distributed rice and *chana* respectively and 30,218 persons (14 *per cent*) and 20,395 families (19 *per cent*) could not be covered. The State Government stated (May 2022) that these persons/families did not turn up in FPSs to receive rice and *chana*.
- iii. **Non maintenance of separate stock registers:** Apart from the above issues, 73 FPSs out of 86 FPSs in 19 districts did not maintain separate distribution registers for the Scheme.

The State Government did not furnish any specific reply to the observations.

#### 2.1.10.4 Irregularities noticed in joint inspection of Fair Price Shops (FPSs)

Audit team along with departmental staff conducted joint inspection of 120 FPSs and interacted with 1,177 BPL beneficiaries regarding availability of foodgrains and schemes launched and implemented during pandemic period. Deficiencies noticed in joint inspection are discussed below:

- i. In test-checked 1,177 ration cards, 4,665 members were distributed 5,127 quintal rice and 105 quintal *chana* against allotted quantity of

<sup>5</sup> Excess rice (283.01 quintal)=Actual distributed (547.41quintal) - admissible qty. (264.40 quintal)

<sup>6</sup> Excess *chana* (35.98 quintal)=Actual distributed (68.80 quintal) - admissible qty. (32.82 quintal)

5,302 quintal rice and 129 quintal *chana* respectively which resulted in non-distribution of 175 quintal rice and 24 quintal *chana*.

- ii. Separate stock register and distribution register prescribed in the PMGKAY were not maintained in 106 (88 *per cent*) FPSs. FPSs distributed rations in offline/manual mode and uploaded later in the departmental website due to poor internet coverage.
- iii. In 96 (80 *per cent*) FPSs, monthly inspection had not been carried out by the Department and inspection registers were not maintained for the period from April 2020 to June 2021.

On being pointed out (May 2022), the State Government did not furnish any reply.

- iv. As per Section 23 of the CGFSA, every local body or any other authority or body as may be authorised by the State Government, shall conduct periodic social audit on the functioning of FPSs for ensuring transparency and accountability. Audit noticed in joint inspection of 120 selected FPSs that social audit was not conducted in 117 (98 *per cent*) FPSs in non-compliance of the provision of the Act.

On being pointed out (January 2022), the State Government stated (May 2022) that no social audit of FPSs was conducted in the year 2019-20 and 2020-21.

### **2.1.11 Conclusion**

To mitigate the hardships faced by the poor and needy people due to economic disruptions caused by COVID-19 pandemic, GoI under *Pradhan Mantri Gareeb Kalyan Anna Yojana* provided for distribution of additional five kg free rice per person to the NFSA (AAY households and PHH) beneficiaries in addition to the regular quantity. The State Government was providing extra five kg rice to NFSA/CGFSA beneficiaries in Chhattisgarh prior to the launch of PMGKAY. However, after the launch of PMGKAY, maximum quantity of free rice admissible to beneficiaries was restricted as per the GoI scheme due to which NFSA-PHH beneficiaries in the State were not actually benefitted with the extra quantity of free rice during the pandemic period over and above the regular quantity being received by them earlier, as intended in scheme.

Due to multiple generation of IDs for the same beneficiaries, 318.99 quintal foodgrains (283.01 quintal rice and 35.98 quintal *chana*) was distributed to the migrant beneficiaries in excess of the entitled quantities under *Atma Nirbhar Bharat* Scheme. The State Government failed to distribute rice and *chana* to the migrant beneficiaries of 30,218 members and 20,395 families respectively under ANBS who were registered under the scheme but did not turn up to FPS.

Separate stock and distribution registers were not maintained for the PMGKAY and ANBS in the 88 *per cent* and 85 *per cent* respectively in test checked Fair Price Shops (FPSs). Monthly inspection was not carried out in 80 *per cent* FPSs by the Department and inspection registers were not maintained. Social audit was not found to have been conducted in 98 *per cent* FPSs.

**2.1.12 Recommendations**

1. *Any additional foodgrain provided under any scheme launched specifically in the wake of pandemic /disaster should be provided to the targeted beneficiaries over and above the regular entitled foodgrains.*
2. *Periodical inspection of FPSs as prescribed should be conducted regularly and inspection records may be maintained by the Department to prevent irregularities and their follow-up.*

## Social Welfare Department

### 2.2 Implementation of Direct Benefit Transfer under Indira Gandhi National Old Age Pension Scheme (IGNOAPS)

#### 2.2.1 Introduction

The Directive Principles of the State Policy in the Constitution of India enjoin upon the State to undertake welfare measures within its means, targeting the poor and destitute in particular. Further, Article 41 of the Constitution of India directs the State to provide public assistance to its citizens in the case of old age, unemployment, sickness and disablement. Social security and old age pensions figure as item 23 of the Seventh Schedule of the Constitution of India in the Concurrent List. In accordance with these guiding principles, the Government of India (GoI) launched National Social Assistance Programme (NSAP) on 15th August, 1995. National Old Age Pension Scheme (NOAPS) was one of the component of the NSAP. The National Old Age Pension Scheme was renamed as Indira Gandhi National Old Age Pension Scheme (IGNOAPS) and formally launched on 19th November, 2007. In Chhattisgarh the IGNOAPS, as a sub scheme of NSAP is implemented by Social Welfare Department with the help of local bodies. As per the scheme, a beneficiary fulfilling the eligibility criteria<sup>7</sup>, of age between 60 and 79 years gets a pension amount of ₹ 350 (₹ 200 by Central Government and ₹ 150 by State Government) per month and after attaining the age of 80 years the pension amount is enhanced to ₹ 650 (₹ 500 by Central Government and ₹ 150 by State Government) per month.

In order to credit the amount of pension payable to each beneficiary directly into his account and to increase the transparency and accountability in the implementation, an online platform i.e. National Social Assistance Programme-Pension Processing System (NSAP-PPS) was created by Ministry of Rural Development (MoRD), Government of India (GoI) with help of National Informatics Centre (NIC). It is a web based application/software which captures all the essential processes from identification till termination of the pension and facilitates the MoRD in monitoring the implementation of scheme closely. However, in Chhattisgarh State, process of identification and verification of new beneficiaries is being done manually. After completion of rejection/selection process, details of only eligible beneficiaries is being entered into NSAP MIS.

Further, in order to bring transparency and ensure quick payment of pension to beneficiaries, Direct Benefit Transfer (DBT) using Public Financial

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<sup>7</sup> Eligibility Criteria for IGNOAPS:

- The old person of age 60 years or above
- Applicant is resident of Chhattisgarh
- Applicant belongs to Below Poverty Line (BPL) list of families (BPL list 2002 is considered for deciding the BPL criteria).

Management System<sup>8</sup> (PFMS) through online NSAP-PPS was introduced in 2013 for making pension payment.

Direct Benefit Transfer aims to transfer benefits directly into the bank/postal accounts, preferably Aadhaar seeded, of accurately targeted beneficiaries. The basic objectives of the DBT were ensuring electronic transfer of benefits, minimising intermediary levels involved in benefit flow, reducing delay in payments, accurate targeting of the beneficiary and curbing pilferage and duplication. The State Government has started implementation of DBT for IGNOAPS through PFMS using NSAP-PPS in August 2018.

### 2.2.2 Organisational Set up

At the Central level, Ministry of Rural Development (MoRD) exercises overall control on implementation of IGNOAPS. The responsibility of implementation of IGNOAPS in the State is vested with the Social Welfare Department which works as the Nodal Department. At the district level the implementation of the scheme is entrusted to district offices of Social Welfare Department. At the block level, the Janpad Panchayats (Intermediate Panchayat) are responsible for sanction/rejection of pension cases and implementation of scheme. Gram Panchayats have been given roles in selection of beneficiaries, supervision and monitoring.

### 2.2.3 Audit objectives

The Compliance Audit, covering the period from 2018-19 to 2020-21 was undertaken to ascertain:

- Whether necessary process re-engineering was done for implementation of DBT to minimize intermediary levels and delay in payments to intended beneficiaries and prevent duplication of beneficiaries
- Whether the infrastructure, organisation and management of DBT under IGNOAPS was adequate and effective

### 2.2.4 Audit Criteria

Audit findings were benchmarked against the criteria sourced from the following:

- Guidelines of the Pension Scheme and circulars, orders issued by the Ministry of Rural Development, GoI and Department of Social Welfare, Government of Chhattisgarh (GoCG),
- Management Information Software Operational Manual, DBT Manual, Standard Operating Procedures and Handbook on DBT, and
- Guidelines of Scheme on process of identification and authentication of beneficiaries and payments.

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<sup>8</sup> The Public Financial Management System (PFMS) is a web-based online software application developed and implemented by the Ministry of Finance, Government of India. PFMS serves as a common central portal for registering implementing agencies and beneficiaries which facilitates the implementing agencies in Direct Benefit Transfer (DBT) of funds/amounts to a beneficiary, directly into her/his bank account.

### 2.2.5 Audit Scope and Methodology

Audit scrutinised the records for period 2018-19 to 2020-21 at the Social Welfare Directorate and offices of the Joint Director/ Deputy Director, Social Welfare Department in nine districts<sup>9</sup>. In each district, two blocks (total 18 blocks<sup>10</sup>) were selected. At block level, the offices of Chief Executive Officer, Janpad Panchayat and two Gram Panchayats in each block were also covered. The sample selection of audit units was done using sampling methodology of Probability Proportional to Size without Replacement. Apart from examination of records at these offices, the data from NSAP-PPS was also examined.

### 2.2.6 Beneficiaries covered and Financial Outlay

The number of beneficiaries covered from 2018-19 to 2020-21 and details of beneficiaries and expenditure incurred under IGNOAPS during the last three years is as shown in **Table 2.2.1**:

**Table 2.2.1: Financial outlay and beneficiaries covered**

(₹ in crore)

Year	Number of beneficiaries	Expenditure (Central share)	Total Expenditure (Centre and State)
2018-19	661623	169.26	288.35
2019-20	666576	184.55	303.99
2020-21	662415	248.05	367.27
2021-22 (Till Nov 2021)	652376	126.01	204.29

(Source: As per information provided by the Department and State expenditure is calculated at the rate of ₹ 150 per beneficiaries)

### 2.2.7 Audit Findings

#### 2.2.7.1 Coverage of beneficiaries under DBT and existing intermediary levels in fund transfer

One of the main objectives of the implementation of Direct Benefit Transfer (DBT) was to reduce the intermediary levels involved in the benefit flow. In Chhattisgarh, Direct Benefit Transfer has been adopted for IGNOAPS since August 2018. For making DBT payments, a State level Nodal Account (SNA) was maintained at directorate office through which pension was paid directly into the beneficiaries' account.

During audit it was noticed that 95 per cent of pension payments under IGNOAPS was made through DBT. In these cases, pension amount was directly transferred into the beneficiaries' account from the State nodal account eliminating three intermediary levels (district offices, block

<sup>9</sup> Jashpur, Korea, Raigarh, Bilaspur, Baloda Bazar, Korba, Dhamtari, Kondagaon, Narayanpur

<sup>10</sup> Jashpur (Patthalgaon, Jashpur), Korea (Baikunthpur, Manendragarh), Raigarh (Sarangarh, Baramkela), Bilaspur (Belha, Masturi), Baloda Bazar (Bilaigarh, Simga), Korba (Podi Uparoda, Katghora), Dhamtari (Nagri, Magarlod), Kondagaon (Kondagaon, Baderajpur), Narayanpur (Narayanpur, Orchha (Abujhmad))



panchayats and village panchayats) in transfer of benefit. District wise details of coverage of beneficiaries under DBT is as shown in **Table 2.2.2:**

**Table 2.2.2: District wise details of DBT and Non-DBT Payments**

Districts	Total Payments	Total DBT payments (percentage of total payments)	Non-DBT payments (Percentage of total payments)
Baloda Bazar	31601	31174 (99)	427 (1)
Bilaspur	41976	40419 (96)	1557 (4)
Dhamtari	13007	12144 (93)	863 (7)
Jashpur	23534	21197 (90)	2337 (10)
Kondagaon	14078	13589 (97)	489 (3)
Korba	26169	25318 (97)	851 (3)
Korea	13236	12868 (97)	368 (3)
Narayanpur	5171	2342 (45)	2829 (55)
Raigarh	59871	58355 (97)	1516 (3)
<b>Total</b>	<b>228643</b>	<b>217406 (95)</b>	<b>11237 (5)</b>

(Source: Compiled from information provided by the Department about DBT and Non-DBT payment details of month November 2021)

From the above table it can be seen that in six out of the nine test checked districts the percentage of DBT payments were 95 per cent or above, in two districts it was between 90 to 95 per cent while in one district (Narayanpur) it was only 45 per cent. The reason for low DBT payments in Narayanpur, as informed by the Department was non-availability of banks at accessible distance. In non-DBT cases, the pension payments were made by Gram Panchayats to beneficiaries which were initiated from the state level and routed through districts, block panchayats and village panchayats.

Audit further noticed that pension funds were initially allotted by the Department to district authorities. The district offices, after drawing the funds from treasury to their bank account on the basis of number of beneficiaries, transferred the funds required for DBT payment to the SNA of Directorate office and non-DBT payments to local bodies. After receipts of funds from all district offices, the Directorate office approved the transfer of funds into beneficiaries account through DBT. Here, as the final payments are being made at directorate level from one nodal account, drawl of funds first in districts accounts and then transfer it back into nodal account could have been avoided.

On being pointed out the Government replied (May 2022) that process of allotting the fund to districts and then deposit into nodal account is being followed due to reasons that works of real time updation of data, sanction of new pension, deletion due to death or otherwise, bifurcation of non-DBT data are done at district level and further for direct allotment the Directorate office has to withdraw funds from treasury which will hamper the monitoring and the district offices will try to shift their responsibilities to State level.

However, funds can be drawn from treasuries by district authorities for direct deposit into the SNA by avoiding the transfers from treasuries to district bank accounts.

#### **2.2.7.2 Delay in Direct Benefit Transfers**

As per the guidelines issued by the State Government the payment of pension to beneficiaries should be made regularly as being paid to government servants. In this regard, the Supreme Court has also directed to make payments promptly by the 7<sup>th</sup> of each month. The primary objective of the introduction of DBT was also to reduce the delay.

During audit it was observed that for making the pension payments, initially the funds were allotted to districts offices of Social Welfare Department of respective district. District offices calculated the pension amount for the beneficiaries of IGNOAPS every month through online platform of NSAP-PPS. This calculation of pension was done automatically on online portal of NSAP. After the pension calculation, pension computation file was pushed ahead by respective district offices towards Directorate office for making payments. Simultaneously, the district offices draw the allotted funds from treasury and transferred the amount required for DBT payments back into a State nodal account maintained by directorate office. The pension computation files received from various districts were approved by the Directorate office and the DBT payments were made through PFMS directly into beneficiaries' accounts.

Audit examined the monthly payments made during period January 2020 to November 2021 which revealed that even after introduction of DBT, the disbursement of pension was not being made till 7<sup>th</sup> of the next month. Out of 204 monthly payments cases it was noticed that in 194 cases the payments were delayed. In 161 cases the delay ranged from one day to one month, in 28 cases delay ranged between one to two months while in five cases delay ranged between two to three months. The details have been shown in **Appendix 2.2.1**. These transfers were delayed mainly as the districts were transferring the funds to SNA with delay. Out of the above delayed cases on 97 occasions the districts transferred the amount after lapse of due date (7<sup>th</sup> of the next month). Funds were transferred with a delay between one day to one month in 91 cases, between one to two months in 5 cases and between two to three months in one case.

Audit further observed that during month of November 2021 in nine districts total 3,325 (1.5 *per cent*) payments out of 2,17,406 DBT payments were failed. This shows that data relating to these beneficiaries was not updated. Persisting delays in DBT payments even after three years of implementation of DBT is defeating the purpose of DBT to ensure timely payments.

On being pointed out the Government replied (May 2022) that efforts were always made to disburse the pension on 7<sup>th</sup> of each month and in maximum months it was disbursed by the due date. In few months there were delays due to technical issues like jamming of files with heavy transactions and delays caused by district offices in pushing the payment files in NSAP-PPS.

Reply in itself corroborates that delay was caused due to delay in pushing the payment files from districts. The step of transferring the funds to districts accounts and taking it back into SNA may be avoided to curb the delay.

### 2.2.7.3 Existing duplicates even after implementation of DBT

According to para 12.1 of the guidelines for implementation of pension schemes issued (April 2014) by the State Government, a person can avail benefit of only one pension scheme at a time operational in the state, whether it is central or State Government scheme. Further, point number 7 of guidelines stipulates that the concerned applicant will have to open his own savings account or post office account immediately after the sanction of pension, where the pension will be paid. And the primary objective of the DBT was to curb the pilferage and duplication.

Audit examination revealed that a beneficiary getting pension under IGNOAPS was also being benefitted under other pension schemes of State. During test check in districts, 848 cases were found where two pensions were sanctioned against one Aadhaar number. Further, scrutiny also revealed that in 54 out of the 848 cases the bank account number was also found same. It was noticed that two pensions under the single scheme (IGNOAPS) or in two different schemes (one scheme IGNOAPS) were sanctioned to the same beneficiary against two application numbers with minor modifications in the personal details like applicant name and husband/father's name and address etc. District wise details of beneficiaries and multiple payments against one Aadhaar number in a month are shown in **Table 2.2.3**:

**Table 2.2.3: District wise details of beneficiaries with same Aadhaar number**

Sl. No.	District	Total DBT IGNOAPS beneficiaries	No. of beneficiaries having two pensionary benefits on same Aadhaar number	Percentage of duplicate against total number	Avoidable pension payment (In ₹ lakh)
1	Baloda Bazar	34581	18	0.05	0.56
2	Bilaspur	46597	0	0.00	0
3	Dhamtari	18245	52	0.29	1.68
4	Jashpur	24443	226	0.92	4.74
5	Kondagaon	14454	4	0.03	0.09
6	Korba	28089	174	0.62	6.15
7	Korea	13217	60	0.45	2.59
8	Narayanpur	4087	16	0.39	0.66
9	Raigarh	61574	298	0.48	9.6
<b>Total</b>		<b>245287</b>	<b>848</b>	<b>0.35</b>	<b>26.07</b>

(Source: As per information provided by the Department (NSAP-PPS-July 2021) and compiled by audit)

As can be seen from above table the percentage of cases of Aadhaar duplications in the districts varied between zero and 0.92 per cent. This constituted 0.35 per cent of total beneficiaries (2,45,287) in these districts. This also reflects the lack of adequate controls in online platform of NSAP as the system failed to prevent the duplication. Further, these duplicates were

also generated as a MIS report by the NSAP-PPS but the Department failed to remove these duplicates which resulted in avoidable pension payments amounting to ₹ 26.07 lakh.

On being pointed out the Government accepted the fact and replied (May 2022) that database has been upgraded and now while entering data, NSAP database does not accept same Aadhaar or account number. Removing of duplicate Aadhaar was almost done and at present only 194 duplicate cases were pending.

#### **2.2.7.4 Lack in digitization of data of all beneficiaries**

In April 2014, instructions were issued by the Secretary, Social Welfare Department, Government of Chhattisgarh for smooth operation of various pension schemes. According to the paragraph 3.4 of above instructions, “Applications will be entered in the computer/online database in the prescribed format. Online entry will be required in the online monitoring software.” In this regard, vide letter dated 23.12.2016 instructions were issued to complete the digitization of beneficiaries under pension schemes by December 2016. Further, first and foremost need for enabling the DBT was the digitization of data.

During test check of records at office of Director, Social Welfare Department, Raipur it was noticed that online data entry of all beneficiaries under IGNOAPS had not been completed in NSAP-PPS till the date of audit (October 2021). The status of digitization of data of beneficiaries under the scheme is shown in **Table 2.2.4**:

**Table 2.2.4: District wise details of digitization of beneficiaries as on July 2021**

Sl. No.	District	Number of beneficiaries under IGNOAPS	No of beneficiaries whose details entered in NSAP MIS	Number of beneficiaries whose data not available in NSAP MIS	Percentage (data not digitized)
1	Baloda Bazar	34947	34581	366	1.05
2	Bilaspur	46918	46597	321	0.68
3	Dhamtari	18390	18245	145	0.79
4	Jashpur	24772	24443	329	1.33
5	Kondagaon	14506	14454	52	0.36
6	Korba	30936	28089	2847	9.2
7	Korea	13240	13217	23	0.17
8	Narayanpur	4092	4087	5	0.12
9	Raigarh	62821	61574	1247	1.99
	<b>Total</b>	<b>250622</b>	<b>245287</b>	<b>5335</b>	<b>2.13</b>

(Source: As per instructions issued by the Department vide letter dated 12.08.2021)

It is evident from above table that till July 2021, details of total 5,335 (2.13 per cent) beneficiaries have not been entered in the online portal. The percentage of non-digitization ranged between 0.12 and 9.2 per cent in different districts. As details of these beneficiaries have not been entered in the database, the DBT payment to these beneficiaries cannot be ensured. This

indicates failure of the monitoring mechanism to complete data digitization in a timely manner for DBT implementation.

On being pointed out the Government replied (May 2022) that sanctioning of pension is a continuous process and is running through out months in all the districts. Digitization work has been almost completed in all districts. Instructions have been issued to district offices to complete the digitization of all beneficiaries. 100 per cent digitization will be ensured at the earliest.

### 2.2.7.5 Status of availability of Aadhaar, its verification and seeding with bank accounts

As per point no. 7 of the guidelines issued by the State Government vide circular 28.04.2014, as far as possible, the pension will be paid to the beneficiaries through DBT directly in their account. Online platform for disbursement of pension (NSAP-PPS) was also developed to enhance efficiency in sanction, payment and disbursement of pension process by MoRD. The basic requirements for implementing DBT were the digitization of data of beneficiaries, enrolling the Aadhaar and opening of bank accounts etc. Aadhaar seeding of bank accounts was also desirable as an important step for avoiding duplication of beneficiaries and for a real time DBT implementation. According to the DBT instructions issued, the Aadhaar number based DBT transfer was to be enhanced. As an exception, in rural areas where there are no banks/post offices within a distance of 10 km, cash pension can be paid in the meeting of Gram Panchayat.

In pursuance of the provisions of section 7 of the Aadhaar Act, 2016, Ministry of Rural Development notified (February 2017) that an individual desirous of benefit under NSAP scheme was required to furnish proof of possession of Aadhaar or undergo Aadhaar authentication.

The position of Aadhaar numbers available, verified Aadhaar and seeding with bank accounts in districts are as shown in **Table 2.2.5**:

**Table 2.2.5: District wise details of availability of Aadhaar number, verification and seeding**

Sl. No.	District	Total Beneficiary under IGNOAPS	Aadhaar Available	Aadhaar availability per cent	Aadhaar Verified	Aadhaar Verified per cent	Aadhaar seeded with bank A/C	Aadhaar seeded with bank A/C per cent
1	Balodabazar	34581	33810	98	32868	97	11529	34
2	Bilaspur	46597	39319	84	38437	98	27911	71
3	Dhamtari	18245	16367	90	15624	95	7866	48
4	Jashpur	24443	23626	97	20374	86	7680	33
5	Kondagaon	14454	13800	95	13251	96	9519	69
6	Korba	28089	27014	96	24976	92	16584	61
7	Korea	13217	12025	91	11871	99	7548	63
8	Narayanpur	4087	2704	66	2483	92	1635	60
9	Raigarh	61574	60476	98	59475	98	48220	80
	<b>Total</b>	<b>245287</b>	<b>229141</b>	<b>93</b>	<b>219359</b>	<b>96</b>	<b>138492</b>	<b>60</b>

(Source: Information as per the Department's letter dated 12.08.2021)

From above table it is evident that in different districts the percentage of availability of Aadhaar ranged between 66 and 98 *per cent*. Availability of Aadhaar in Narayanpur (66 *per cent*) and Bilaspur (84 *per cent*) was below 90 *per cent* while in other districts it was above 90 *per cent*. Verification of available Aadhaars ranged between 92 and 99 *per cent*. It can also be seen that percentage of Aadhaar seeding with bank accounts ranged between 34 and 80 *per cent*. Thus, requirement of obtaining Aadhaar and its authentication process for all beneficiaries was yet to be achieved.

Use of Aadhaar simplify the process of identifying the person and provides increased transparency to the Government in implementation of its scheme. Non-availability, authentication and seeding of bank account with Aadhaar involves the risk of existence of duplicate and fake beneficiaries and reduces the transparency in implementation of scheme to that extent.

On being pointed out the Government replied (May 2022) that as per guidelines issued by the State Government/GoI, collection of Aadhaar in portal is mandatory but seeding of Aadhaar with bank depends on bank and account holders. Maximum number of available Aadhaar have been verified. Efforts are being made to encourage the beneficiaries for Aadhaar seeding with bank account.

Availability of Aadhaar seeded bank accounts would enable the desirable Aadhaar based DBT payment by accurate targeting of beneficiaries and can be a major tool in de-duplication of beneficiaries. Department had verified Aadhaar in 89 *per cent* cases but Aadhaar seeding was done only in 60 *per cent* cases. Pending Aadhaar number may be obtained and verification may be completed.

#### **2.2.7.6 *Beneficiaries could not get pension at enhanced rates after attaining the age of 80 years***

According to Para 11.1 of the guidelines for implementation of IGNOAPS issued by the State Government, beneficiaries attaining the age of 80 years under other schemes (Indira Gandhi National Widow Pension (IGNWPS) and Indira Gandhi National Disabled Pension (IGNDPS)) were to be brought under Indira Gandhi National Old Age Pension scheme (IGNOAPS). Under the IGNOAPS, the beneficiaries attaining the age of 80 years are entitled for pension at enhanced rate of ₹ 650 per month.

Further, para 11.2 and 11.3 of State guidelines also stipulated that the beneficiaries of two state schemes *Samajik Suraksha pension Yojana* (SSPY) and *Sukhad Sahara Yojana* (SSY), with similar eligibility criteria of BPL as for sub schemes of NSAP with relaxed age and other conditions, were to be transferred to IGNOAPS after attaining the age of 60 years.

Audit noticed that the beneficiaries of IGNDPS and IGNWPS after attaining the age of 80 years were not transferred into IGNOAPS, hence they could not get the pension benefits at enhanced rates. Similarly, in SSPY and SSY beneficiaries of 80 years and above were not getting the enhanced pension due to non-transferring them into IGNOAPS as envisaged in the guidelines. The details of beneficiaries of 80 years and above under different schemes are as shown in **Table 2.2.6**:

**Table 2.2.6 : District wise details of beneficiaries of age 80 years and above**

Sl. No.	District	Beneficiaries of age 80 years and above under IGNOAPS (getting enhanced pension)	Beneficiaries of age 80 years and above (Pension not enhanced)				
		IGNOAPS	IGNDPS	IGNWPS	SSPY	SSY	Total
1	Baloda Bazar	4586	3	187	1020	191	1401
2	Bilaspur	4422	2	1	219	15	237
3	Korba	5656	13	84	1132	102	1331
4	Dhamtari	1467	7	39	589	55	690
5	Jashpur	1701	1	58	584	22	665
6	Kondagaon	1599	2	0	94	12	108
7	Korea	1948	2	29	358	19	408
8	Narayanpur	408	0	0	0	0	0
9	Raigarh	6715	8	88	990	80	1166
	<b>Total</b>	<b>28502</b>	<b>38</b>	<b>486</b>	<b>4986</b>	<b>496</b>	<b>6006</b>

(Source: As per information provided by the Department (NSAP-PPS-July 2021) and compiled by Audit.)

It is evident from table above that there were 524 beneficiaries under IGNWPS and IGNDPS and 5482 beneficiaries of SSPY and SSY in the nine districts who were 80 years and above age but not transferred to IGNOAPS. Thus, 6006 beneficiaries (17.4 per cent of total 34508) of 80 years and above in these nine districts were kept devoid of the pension benefits at enhanced rates. These beneficiaries were continuing with the pension at normal rate which was less than the rates for 80 years and above.

On being pointed out the Government replied (May 2022) that the beneficiaries of IGNWPS and IGNDPS would be transferred into IGNOAPS. But the state schemes SSPY and SSY have the beneficiaries of destitute ('*Nirashrit*') category who would not be eligible for transfer into IGNOAPS. However, other beneficiaries of SSPY and SSY who are eligible for IGNOAPS will be transferred into IGNOAPS for ensuring pension at enhanced benefits.

### **2.2.7.7 Continued disbursement of pension even after death of beneficiaries**

According to para 4.5 of guidelines issued vide circular dated 28.04.2014 by Social Welfare Department, Government of Chhattisgarh, payment of pension amount was to be stopped immediately on receipt of information about the death of the pensioner. As per the guidelines, Sarpanch of the Gram Panchayat was required to inform the Janpad Panchayat soon after the death of any beneficiary.

Audit noticed that after death of a beneficiary the pension was not stopped immediately. During audit, 109 cases were test checked to assess the delay in stopping the pension. It was found that in eight cases pensions were stopped timely, in 39 cases it was stopped with delay up to six months, in 16 cases it delayed from six months to one year, in 13 cases it was delayed from one year to two years, in eight cases it was delayed from two years to three years while in four cases it was delayed up to four years. In case of five beneficiaries the

pensions have not been stopped even after a lapse of seven to 51 months from their death. In case of 16 beneficiaries the date of death was not mentioned hence the delay in discontinuation of pension could not be ensured. This shows failure of the Department in effective monitoring and discontinuation of pension immediately after the death of a beneficiary and resulted into an excess payment of ₹ 3.65 lakh. The main reason of the delay in discontinuation of the pension was delayed receipt of the information from Gram Panchayats.

On being pointed out the Government replied (May 2022) that the delay in stopping the pension was mainly due to delayed receipt of the information from Gram Panchayat and absence of information from bank/post office where pension was not drawn for three months.

#### ***2.2.7.8 Non-entering of new application details in NSAP-PPS before sanctioning resulted in ineffective monitoring***

As per the NSAP guidelines of MoRD, GoI as well as state guidelines and existing mechanism, the applications are needed for enrollment of a new beneficiary. In this regard, specimen application form in local language was to be made available widely at free of cost to the beneficiaries. It was further emphasised that the application form was to be made available for downloading from the website. After receipt of applications, the Gram Panchayats and Janpad Panchayats were required to capture the details of receipt of pension applications in a register and enter the details thereof into the online monitoring software. This online entry was to be done at Janpad Panchayat level. Further, after receipt, the processing of applications (starting from the time of receipt till sanction or rejection) was not to exceed sixty days and in the event of being eligible for pension, the pension amount will be sanctioned from the month of registration of the application.

Audit noticed that the Department was providing the application forms physically at free of cost to the beneficiaries at District Social Welfare offices, Janpad Panchayats as well as Gram Panchayats. However, download section of the website of the Social Welfare Department did not contain any tab for downloading the application form. Further, facility of online submission of application for pension directly through portal or website of the Department instead of physical submission of application forms was not made available to beneficiaries.

Audit further observed that after receipt of the application from beneficiary, the Gram Panchayats forwarded those applications to Janapad Panchayats. The process of verification and sanction/rejection of applications was completed at Janpad Panchayat level. Audit noticed that the register for recording the details of receipt of application was not being maintained at Janapd Panchayat level and the application forms were not entered into NSAP-PPS immediately on receipt. The process, starting from the receipt of application till sanction or rejection was being completed manually and the details of only sanctioned applications were being entered into NSAP-PPS. However, the documents attached with the applications to establish the eligibility of the applicant such as photographs, age certificate, residence certificate etc. were also not uploaded to NSAP-PPS. Thus, in the absence of online trail for receipts of application, processing of applications including the grounds of sanction or



rejection, start of pension etc. the timeliness in sanction of pension and effectiveness of the process could not be ensured.

In this regard, Audit test checked 62 physical applications and noticed delays in sanctioning of pension beyond stipulated period of two months. During scrutiny, Audit noticed that in 14 cases there was no delay, in 11 cases delay was up to one month, in 13 cases delay was from one to six months, in 11 cases delay was from six months to one year and in 2 cases delay was beyond one year. While in 11 cases, the application forms did not bear the application date, hence delay could not be ensured. After sanction, further delays from one to three months in starting of pension were also noticed.

Thus, the objective of implementing the pension programme as envisaged in the guidelines could not be fulfilled and delays in sanction of pension and further failure in starting the pension from effective month, deprived the beneficiaries of the pension benefits for those delayed months despite being eligible.

On being pointed out the Government replied (May 2022) that targeted beneficiaries belong to very sensitive group. They will need third party to fill up online form. In such cases suspicious entries are also possible. So, after sanction, details of only eligible beneficiaries were entered in NSAP-PPS. Instructions are being issued for uploading the documents. Delays in sanctioning and starting the pension happened mainly due to Covid-19 pandemic which restricted the functioning of offices. Further, possibility of uploading details of all received applications (whether sanctioned or rejected) at later stages will be explored.

Government further replied that, separate download section for application form on website of the Department will be provided. At present applying online at NSAP-PPS or website of SWD is not available. Possibilities for the same are being explored.

The matter of creation of front-end capture of application forms and documents may be taken with MoRD and NIC.

#### **2.2.7.9 Release of pension to ineligible beneficiaries**

As per eligibility criteria the person of 60 years or above having name in BPL list and resident of Chhattisgarh was eligible to receive pension under IGNOAPS.

However, out of nine districts, Audit noticed in Raigarh district that 36 beneficiaries (total beneficiaries in district-61,574) having age less than 60 years, were sanctioned and disbursed pension under IGNOAPS. These beneficiaries were not eligible as per age criteria. The Department did not provide the application forms of these beneficiaries and related documents to establish their eligibility.

On being pointed out the Government replied (May 2022) that now database has been upgraded. So, if age below 60 years is entered it reflects the message of below age. The cases are being scrutinised and pension distribution will be discontinued if found to be of lower age.

#### **2.2.7.10 Pro-active identification of beneficiaries**

As per guiding principles of the scheme the persons eligible for pensions/assistance under this scheme belong to the most vulnerable category of society. Therefore, it becomes the moral duty of the implementing agency to ensure least burden on them, in the identification, sanction and verification processes.

In this process it may be ensured that onus is not on the beneficiary to prove her/his eligibility. The implementing agency should also ensure coverage on special priority for the vulnerable groups like manual scavengers, persons affected by leprosy, AIDS, Cancer, TB and other serious ailments, bonded labourers, families affected due to natural or manmade disaster etc. Transgender, Dwarfs who fulfill the eligibility criteria must also be included.

During audit it was observed that the Department did not take any pro-active effort to identify the eligible beneficiaries such as manual scavengers, persons affected by leprosy, bonded labourers etc. who could be covered under IGNOAPS.

On being pointed out the Government replied (May 2022) that for the welfare of mentioned category, other related departments of the State Government are implementing specific schemes. So, to avoid duplication and to reduce financial burden, the Department did not take any pro-active effort. However, efforts are being taken to cover vulnerable groups and instructions in this regard are being issued to district offices.

Department may organize awareness generation programme and liaison with other departments of the State Government to reach out to such eligible beneficiaries.

#### **2.2.7.11 Data on DBT transactions were not reflected on the State DBT portal**

In order to enable adoption and understanding of the DBT framework at the State Level and to act as a nodal point for activities and matters related to DBT operations, coordinating the implementation of DBT in various schemes, the State DBT Cell was constituted. Further State DBT Committee within the Social Welfare Department was also formed for monitoring and implementation of DBT under NSAP. Primary functions of the State DBT Cell were to analyze and identify DBT applicable schemes and programs being implemented at the State Level. IGNOAPS was one of the identified schemes for DBT. Further, in order to supplement the activities for the State DBT Cells through an electronic platform, the Central DBT Portal and State DBT Portal were made available as an independent and configurable solution for the State Governments to manage the DBT information. As per the guidelines of DBT, the details of progress of DBT under the scheme were to be updated on State DBT Portal.

Audit noticed that the DBT data relating to IGNOAPS were not being updated on the State DBT Portal. Data pertaining up to 2019-20 was available on State DBT portal but no data for years 2020-21 was made available on the State DBT Portal.

On being pointed out the Department replied that the State DBT Portal is not integrated with NSAP-PPS and payment module. The details of DBT data are to be entered manually and for making entries on portal, the access is available only up to year 2019-20. Hence, no data for years 2020-21 and afterwards is available on State DBT portal.

The matter of integration of State DBT Portal with NSAP-PPS and payment module may be taken up with NIC.

### **2.2.8 Conclusions**

The basic objectives of the DBT were ensuring electronic transfer of benefits, minimising intermediary levels involved in benefit flow, reducing delay in payments and curbing pilferage and duplication. After implementation of DBT in the State, 95 per cent of pension payments were made through DBT in the Indira Gandhi National Old Age Pension Scheme in nine test checked districts. Aadhaar number had been obtained in 93 per cent cases however, the verification of Aadhaar was pending in four per cent cases. Digitization of data required for DBT transfer was not completed in respect of 5,335 (2.13 per cent) beneficiaries. There were 6,006 beneficiaries of 80 years and above who were not getting the pension at enhanced rates. There were delays in discontinuation of pension after death of a beneficiary. There were cases of delay in sanction and disbursement of pension to beneficiaries. Instances of duplicates beneficiaries were noticed in audit. Application form for pension was not easily downloadable from the website of the Department and facility of filling the forms online was not made available to beneficiaries those who want to apply online. Application forms were not being entered into NSAP-PPS immediately after receipt rather the details of eligible applicants were entered without uploading the supporting documents such as photographs, age certificate, residence certificate etc., which resulted in non-monitoring of sanctioning process through online portal.

### **2.2.9 Recommendations**

- 1. Digitization of remaining 2.13 per cent beneficiaries should be completed at the earliest.*
- 2. DBT payments may be ensured by 7<sup>th</sup> of each month and for this a suitable mechanism should be evolved to reduce the delays in transferring the funds to districts and taking it back into SNA or do away with this step.*
- 3. Verification of remaining duplicates should be done and removed accordingly, in order to check them from getting double benefits and necessary validation controls may be developed in the IT system of NSAP-PPS to prevent the sanctions of multiple pensions to single beneficiary.*
- 4. The Department should endeavor to get the Aadhaar number of all remaining beneficiaries and pending cases of Aadhaar verification may also be completed in a time bound manner.*
- 5. Beneficiaries of age 80 years or above and eligible to get pension under IGNOAPS should be given the pensionary benefits at enhanced rates as envisaged in the guidelines.*

6. *Pension forms should be made easily downloadable and the facility for online applications may also be provided. Efforts must be taken for entry and processing of all applications (whether sanctioned or rejected) through NSAP-PPS. The matter may be taken up with MoRD and NIC.*

## Public Works Department and Water Resources Department

### 2.3 Deduction of royalty charges of minor minerals consumed in works

#### 2.3.1 Introduction

The Public Works Department (PWD) and Water Resources Department (WRD) are the principal agencies of the Government of Chhattisgarh responsible for construction/improvement of roads/buildings/bridges and irrigation projects. These departments execute the works as per the provisions laid down under Works Department (WD) manual through contractors.

In the construction works, minor minerals such as stone, metal, sand, *moorum*<sup>11</sup> etc. are used by the contractors. The Executive Engineers (EEs) deduct the royalty charges of minor minerals used in the works from contractors' running/final bills. The royalty amount so deducted is kept under deposit head (8443 Civil Deposit-108-Public Works Deposit) of the works department and is refunded to the contractor after the submission of Royalty Clearance Certificate (RCC). In case of failure of submission of RCC by the contractor, the deducted royalty amount is deposited into Mineral Resources Department account. As per the WD Manual, extraction of materials and levy of royalties on construction materials are governed by the Chhattisgarh Minor Mineral Rules, amended from time to time. The Mineral Resources Department and Finance Department of Chhattisgarh had issued instructions<sup>12</sup> to all the works departments to ascertain that the minor minerals used in the construction works are brought by the contractor from an authorised<sup>13</sup> source and contractor submits RCC issued by District Mining Officer (DMO) before payment of final bill.

Compliance Audit of two works departments viz. PWD and WRD was conducted with the focus on deduction of royalty charges of minor minerals consumed in works, in accordance with directions issued by Mineral Resources Department and Finance Department, and non-compliance of the same are commented in audit.

#### 2.3.2 Royalty charges deducted by works department

The details of royalty charges recovered from contractors' bills and paid into Mineral Resources Department account by works departments during 2019-20 to 2021-22 is as detailed in **Table 2.3.1**.

<sup>11</sup> *Moorum* is a type of soil, mostly used for construction purposes. It is deep brown or red in color used in plinth filling, road pavements, backfilling in trenches, footing pits.

<sup>12</sup> Vide letters dated 18.10.2001 and 13.10.2004 of Mineral Resources Department; dated 28.12.2002 of Finance Department and letter dated 18.02.2015 and 03.06.2016 of Director, Geology and Mining of Government of Chhattisgarh.

<sup>13</sup> Authorised sources means minerals obtained by the contractor for use in government work should be procured from approved quarries after submission of valid transit pass

**Table 2.3.1: Royalty charges deducted by works department**

(₹ in crore)

Sl. No.	Department	Year					
		2019-20		2020-21		2021-22	
		Royalty deducted from contractors bills <sup>14</sup>	Royalty paid to Mineral Resources Department <sup>15</sup>	Royalty deducted from contractors bills	Royalty paid to Mineral Resources Department	Royalty deducted from contractors bills	Royalty paid to Mineral Resources Department
01.	PWD	78.56	9.09	109.21	21.49	163.35	10.97
02.	WRD	18.75	19.05	19.24	18.33	10.28	10.99
	<b>Total</b>	<b>97.31</b>	<b>28.14</b>	<b>128.45</b>	<b>39.82</b>	<b>173.63</b>	<b>21.96</b>

(Source : PWD website and Engineer-in-Chief office, WRD)

Out of total ₹ 399.39 crore royalty deducted from contractors' bills, only ₹ 89.92 crore was deposited into Mineral Resources Department account.

### 2.3.3 Audit objectives

The Compliance Audit was conducted with the following audit objectives:

- Whether the provisions in the contracts were compliant to the Act, Rules and directions issued by the State Government.
- Whether deduction of royalty from contractor's bills was made as per provisions of Act, rules and government directions.

### 2.3.4 Audit criteria

The audit criteria was derived from the following sources-

- Works Department manual
- Contract documents
- Chhattisgarh Minor Mineral Rules 2015 (CG MMR,2015)
- Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act)
- Circulars issued by Chhattisgarh Mineral Resources Department/Finance Department on recovery of royalty charges of minor minerals
- Gazette notifications prescribing royalty rates of minor minerals
- Orders issued by district Collectors/District Mining Officers on market value of minor minerals

### 2.3.5 Scope of Audit

The Compliance Audit covered audit of all EE offices and seven Apex<sup>16</sup> level units of PWD and 18 EE offices of WRD, covering the period 2019-20 and 2020-21. Audit scrutinised 285 out of 964 contracts of PWD and 41 out of 149 contracts of WRD in which final bills were paid during audit period. The

<sup>14</sup> Royalty deducted from contractor's bill has been kept under 8443-Civil Deposits-108-Public Works Deposit account with the division.

<sup>15</sup> Royalty need to be paid in to Mineral Resources Department account 0853-Non-ferrous mining and metallurgical industries-Other receipts.

<sup>16</sup> Engineer-in-Chief (E-in-C), Chief Engineer (CE) and Superintending Engineer (SE) offices.

Compliance Audit was conducted during October 2020 to December 2021. Five highest value contracts finalised during audit period in each PWD division and three highest value contracts in each WRD division were selected for detailed scrutiny.

### **2.3.6 Audit findings**

Rule-71 of CG MMR, 2015 and clause-21 (5) of CG Mines and Minerals (Development and Regulation) Act, 1957 provide for recovery of penalty on account of unauthorised extraction and transportation of minor minerals as decided by District Collector/Mining officer. The Director, Geology and Mining directed (February 2015 and June 2016) the District Collectors to issue necessary directions to the works department for deduction of royalty and market value of minor minerals along with District Mineral Foundation Fund (DMF) from the contractors' bills and to ensure obtaining RCC before payment of final bill to contractors on completion of work. These orders were issued with reference to the orders issued by the State Government under Mineral Resources Department (October 2001 and October 2004) and Finance Department (December 2002).

Rule-71 (A) of CG MMR, 2015, amended in June 2020 stipulates that the concerned works department should deduct the amount equivalent to the market value of minor minerals used in construction work done through contractors from the bills of contractors. Contractors may obtain RCC through Collector concerned by submitting an application to mining office along with valid transit passes of the mineral used, after which amount deducted by the works department may be returned and final bills settled to contractors. It further provided that if the contractors fail to submit valid transit passes of minor minerals used in construction works, action shall be taken under section 21 to 23-B of the MMDR Act, 1957.

The audit findings on non-compliance of the above mentioned orders of the Mineral Resources Department and CGMM Rules, 2015 are discussed in succeeding paragraphs.

#### **2.3.6.1 Non amendment in contract provisions**

As per standard contract document issued (31 October 2005) by PWD, the contractor shall pay all quarry, royalty charges etc. If the contractor fails to produce the RCC from concerned department, then the EE shall deduct the royalty charges from the bills and keep in deposit head (8443- Civil Deposit-108-Public Works Deposit), which shall be refunded to the contractor on production of RCC from the concerned department. If he fails to produce the RCC within 30 days of submission of final bill, then royalty charges kept under deposit head by the EE shall be deposited to the concerned department and his final bill payment shall be released<sup>17</sup>. Similarly, as per contract document prescribed by WRD, the royalty charges for material shall be paid by the contractor as per rules, which will not be refundable to contractor.

As per directions issued (2001 to 2004) by the Mineral Resources Department and Finance Department, and the orders issued (2015-16) by Director,

<sup>17</sup> In ADB project works, the clause for royalty stipulates that the contractor shall pay all royalties, rent and other payments for natural materials obtained from outside the site.

Geology and Mining, the final bill of the contractor was to be paid only after submission of RCC by the contractor against the minor mineral consumed in the work.

Subsequently, the State Government amended the CG MMR vide Gazette notification dated 26 June 2020 incorporating rule-71(A), which stipulates deduction of market value of minor minerals used in construction work from the bills of contractors. It further provided that amount deducted by the works department may be returned and final bills settled to contractors after contractor obtained RCC for the mineral used from the concerned Collector.

Audit observed that despite the above orders and amendment in rules relating to deduction of royalty and payment of final bill, the royalty clauses in the contract documents of both works departments did not include such provisions conforming to government orders. On the contrary, the royalty clauses in PWD contracts stipulate that the EE shall pay the final bill and deposit royalty charges in to concerned department, if the contractor fails to produce RCC within 30 days of submission of final bill while, there was no such provision for withholding payment of final bill in case of non-submission of RCC in WRD contracts.

Thus, the royalty clause in the contract documents was not revised by both PWD and WRD in line with the directions issued by the Mineral Resources Department and Finance Department. The royalty clause was not revised despite amendment to CG MMR by the State Government in June 2020. Further, Audit also noted lack of standard royalty clause in the contract documents of various Divisions of works departments of the State Government.

Work orders in 8,417 agreements (PWD : 8,134 and WRD : 283) were issued by works departments after June 2020 without revising royalty clauses as per amendment of CG MMR 2015 made by State Government.

On being pointed out in audit, the Engineer-in-Chief (E-in-C), PWD did not furnish reply (June 2022) and the E-in-C, WRD stated that the matter is being forwarded to Government for further directions.

The fact remains that appropriate action has not been taken by the works departments to amend the contract provisions.

### ***2.3.6.2 Irregular payment of final bills in agreements without obtaining royalty clearance certificates***

Scrutiny of 285 agreements<sup>18</sup> in 51 PWD Divisions revealed that the contractors had submitted RCCs in 76 agreements. In 209 agreements (48 divisions), the contractors had not submitted RCCs and the final bills amounting to ₹ 368.91 crore was paid, as detailed in **Appendix 2.3.1**, violating the orders issued by Finance Department and Mineral Resources Department. Out of 51 divisions, five<sup>19</sup> divisions had complied with the

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<sup>18</sup> The period of agreements were - 2012-13 : 3, 2013-14 : 10, 2014-15 : 16, 2015-16 : 33, 2016-17 : 51, 2017-18 : 58, 2018-19 : 76, 2019-20 : 27 and 2020-21 : 11, final payments were made during 2019-20 and 2021-22.

<sup>19</sup> EEs, PWD (B&R) Division-Champa, Korba, Pendra, Raigarh under CE-Bilaspur zone and EE, PWD (Bridge) Division-Ambikapur under CE-Bridge zone, Raipur.



directions issued by the State Government and recovered the market value of minor minerals in case of non-submission of RCCs by the contractors and remaining 46 divisions did not comply with the directions issued by the Mineral Resources Department/Finance Department.

Similarly, scrutiny of records in WRD divisions revealed that in eight out of 41 agreements<sup>20</sup>, the contractors had submitted RCCs. The contractors, in two agreements of Kelo Project Survey division had submitted RCCs for partial quantity and royalty charges for the remaining quantity were recovered as per market rates. In 16 divisions directions issued by the Mineral Resources Department/Finance Department was not complied and payment of final bills amounting to ₹ 24.01 crore was made in 33 agreements though RCCs were not submitted by the contractors, as detailed in **Appendix 2.3.2**.

### **2.3.6.3 Loss of revenue due to non-deduction of market value of minor minerals from the contractors**

The Director, Geology and Mining issued order (February 2015 and June 2016) to all District Collectors for issuing instructions to deduct the royalty and market rate of minerals along with the DMF from the contractors' bills in respect of minerals used in government works so that only after submission of RCC, payment of final bill can be made to contractor by the works departments.

Audit noticed that the Collectors of only 10<sup>21</sup> out of 28 districts in the State had issued the orders within a year specifying the market rate of minerals and directed the works departments for deduction of market value of minor minerals along with royalty and DMF and ensure submission of RCCs by them. In eight<sup>22</sup> districts, the orders were issued after commencement of audit between August 2020 to August 2021, while in remaining nine<sup>23</sup> districts the orders were issued with a delay ranging from one to five years after issue of orders by Director, Geology and Mining. In Raipur district, the Collector has not issued orders for recovery of market value of minor minerals till date (May 2022). It was informed to Audit that a Committee has been constituted under the chairmanship of District Collector to decide the market rates of minerals. At present market rate equivalent to four times of royalty was being charged.

Audit examined 242 agreements in 62 Division of PWD and WRD and noticed non-realisation of market value of minor minerals of ₹ 307.09 crore in 203 agreements due to non-deduction of market rates of minor minerals used in the construction works for which RCCs were not submitted by the contractors as detailed below.

<sup>20</sup> The period of agreements were – 2011-12 : 1, 2013-14 : 3, 2014-15 : 2, 2015-16 : 2, 2016-17 : 5, 2017-18 : 7, 2018-19 : 11, 2019-20 : 4 and 2020-21 : 6, final payments were made during 2019-20 and 2021-22.

<sup>21</sup> (i) Bijapur (ii) Jashpur (iii) Korba (iv) Korea (v) Raigarh (vi) Surajpur, (vii) Surguja (viii) Janjgir-Champa (ix) Durg and (x) Rajnandgaon

<sup>22</sup> (i) Bemetera (ii) Baloda Bazar (iii) Dhamtari (iv) Garyaband (v) Kawardha (vi) Mahasamund, (vii) Narayanpur and (viii) Balrampur-Ramanujganj

<sup>23</sup> (i) Dantewada (ii) Balod (iii) Sukuma (iv) Kanker (v) Kondagaon (vi) Bilaspur (vii) Gorela-Pendra-Marwahi (viii) Bastar (ix) Mungeli

**2.3.6.3 (i) *Non-realisation of market value of minerals due to delay in issue of market rates***

Scrutiny of records revealed that payment of final bills to contractors in 66 agreements under 20 Divisions (PWD-18, WRD-2) in 12<sup>24</sup> districts were made by the works department without obtaining RCCs from the contractors. In the absence of market rates, only royalty charges<sup>25</sup> amounting to ₹ 38.74 crore (PWD- ₹ 38.46 crore, WRD- ₹ 0.28 crore) were deducted from the contractors' bills for the minor minerals used in the government works. Thus, delay in issue of market rates resulted in non-realisation of market value of minerals amounting to ₹ 137.61 crore for which RCCs were not submitted by the contractors, as detailed in **Appendix 2.3.3**.

**2.3.6.3 (ii) *Non-realisation of market value despite orders of district Collectors on market rates***

The Collectors in 21<sup>26</sup> districts issued orders specifying the market rate of minor minerals and directed the EEs of works department to recover market value of minor minerals in case of non-submission of RCCs by the contractors.

Audit scrutiny revealed that in 137 agreements (PWD-119 in 35 divisions and WRD-18 in 12 divisions) in these 21 districts the final bills of contractors were paid by the EEs without complying with the orders of District Collectors and market value of minor minerals was not recovered although RCCs were not submitted by the contractors.

This resulted in non-realisation of market value of minor minerals amounting to ₹ 169.48 crore (PWD - ₹ 158.71 crore and WRD - ₹ 10.77 crore), as detailed in **Appendix 2.3.4** and **2.3.5**.

In the absence of RCCs in above cases, procurement of minerals for use in the government work by the contractor from a valid source cannot be ascertained and the possibility of unauthorised transportation and usage of mineral and consequent leakage of government revenue could not be ruled out.

On being pointed out in audit, the E-in-C, PWD did not furnish reply (June 2022) and the E-in-C, WRD stated that the matter is being forwarded to Government for further directions. The EEs of PWD divisions stated that royalty charges have been recovered at rates notified in Gazette as per agreement provisions.

The reply of EEs of PWD is not acceptable as the market value of minerals consumed in the works was not recovered contrary to the orders issued by State Government and District Collectors which resulted in loss of revenue to State Government.

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<sup>24</sup> Bastar, Balodabazar, Bemetera, Dhamtari, Gariyaband, Kawardha, Kanker, Mahasamund, Narayanpur, Raipur, Balrampur-Ramanujganj and Sukuma

<sup>25</sup> Royalty rates applicable for minerals taken from the sanctioned quarry lease as per Gazette notification dated 23 March 2018 : Metal-₹ 130 per cum, sand-₹ 50 per cum and moorum-₹ 50 per cum; earlier as per Gazette notification dated 31 December 2012 : Metal-₹ 103 per cum, sand-₹ 20 per cum and moorum-₹ 20 per cum

<sup>26</sup> Bastar, Balod, Balrampur-Ramanujganj, Bijapur, Bilaspur, Balodabazar, Durg, Dantewada, Jashpur, Jangir-Champa, Kawardha, Kanker, Korba, Korea, Kondagaon, Mungeli, Raigarh, Rajnandgaon, Surguja, Surajpur and Sukuma

#### **2.3.6.4 Irregular retention of royalty amount of ₹ 65.39 crore under deposit head without remitting it into final head of account**

As per orders issued (October 2004) by the Government of Chhattisgarh (GoCG), Mineral Resources Department, the royalty amount deducted from contractor's bills should be remitted to Mineral Resources Department's account within one month period after the payment of final bill.

Scrutiny of records revealed that an amount of ₹ 68.63 crore was deducted towards royalty charges under 142 agreements in 44 PWD divisions. However, the amount of ₹ 65.39 crore deducted as royalty was kept under deposit head (8443-Civil Deposit-108-Public Works Deposit) with the division and was not yet deposited in the final head account of royalty (0853-Non-ferrous mining and metallurgical industries-other receipts) under the Mineral Resources Department despite the lapse of more than one month after payment of final bills. The period of retention of royalty amount under deposit head with the divisions ranged between six to 47 months, as detailed in **Appendix 2.3.6**. Retention of royalty amount under deposit head with the division for a long period and lack of monitoring could result in irregular release of the same to contractors.

On being pointed out in audit, an amount of ₹ 5.34 crore in 24 agreements were deposited into Mineral Resources Department's account by 11<sup>27</sup> divisions, while the EEs of other divisions stated that the same will be deposited into Mineral Resources Department's account at the earliest as soon as allotments are received from Chief Engineers.

The fact remains that the EEs failed to deposit the royalty charges into Mineral Resources Department account within one month of payment of final bill as stipulated under agreements. The Department may fix responsibility of the respective EEs for non-remittance of royalty to the final head of account of Mineral Resource Department within the stipulated time.

The matter was brought to the notice of State Government (January 2022, February 2022 and July 2022); reply had not been received (December 2022).

#### **2.3.7 Conclusion**

The State Government amended the CG MM Rules, 2015 by inserting royalty clearance clause regarding deduction of amount equivalent to market value of minor minerals used in construction work done through contractors in government/semi government works departments, from the bills of contractors and withholding of final bill until contractor submits Royalty Clearance Certificate (RCC). The Public Works Department and Water Resources Department did not revise the existing royalty clause as per the amended Rules in the contracts executed.

In above two works departments, payments of final bills in 242 agreements were made without obtaining RCCs from the contractors for the minor mineral used in the construction works. Further, market value of minor minerals used in the construction works without supporting RCCs in 203 agreements was not

<sup>27</sup> Baloda Bazar, NH-Bilaspur, Dhamtari, Gariyaband, No.2-Jagdarpur, Khairagarh, Pathalgaon, Dn.2 Raipur, No.1 Raipur, Raigarh and Division-Vidhan Sabha

deducted from the contractors. In 12 districts, under 66 agreements, delay in issue of market rate by the Collector resulted in non-realisation of market value of minor minerals amounting to ₹ 137.61 crore from the contractors in 20 divisions. Further, market value of minor mineral amounting to ₹ 169.48 crore was not realized under 137 agreements in the 47 divisions of works departments despite issue of market rates by the Collectors.

In 44 PWD divisions, royalty charges of ₹ 65.39 crore recovered from contractor's bills in 142 agreements was not deposited in the final head of account of Mineral Resources Department within one month period after the payment of final bill. Delay ranged from six to 47 months.

Thus, non-compliance of orders issued by the Mineral Resources Department resulted in irregular finalisation of agreements without obtaining RCCs and loss of revenue to the State Government due to non-recovery of market value of minor minerals used in the government works from the contractors.

### **2.3.8 Recommendations**

- 1. *The works departments should ensure recovery of market value of minor minerals from the contractors along with royalty and DMF to avoid loss of revenue to the Government, in case of non-submission of RCC.***
- 2. *The works departments should ensure submission of RCC by the contractor for the mineral consumed in the government works to ensure validity of its source and prevent unauthorised transportation and usage of minor minerals.***
- 3. *The agreement provision on deduction of royalty charges should be amended suitably as per the prevailing orders and rules relating to use of minor minerals.***
- 4. *The works departments should prepare a complete database of all the works being executed and keep proper records for minor minerals consumed in these works. Royalty should be deducted from the contractor's bills based on the actual quantity of mineral consumed in the works executed.***
- 5. *An adequate monitoring mechanism should be developed to watch the recovery of royalty charges and their timely remittance into government account.***

## Water Resources Department

### 2.4 Execution of Cement Concrete works as per standard specification (Indian Standards-456:2000)

#### 2.4.1 Introduction

Water Resources Department (WRD) is the principal water conservation agency of the Government of Chhattisgarh (GoCG) and is responsible for sustainable supply of water for irrigation, drinking and industrial purposes of the State. One of the major responsibilities of the WRD is to carry out design and construction of major, medium and minor irrigation projects. These projects include construction of dams, barrages, tanks, anicuts and canals which require significant quantity of concrete works. Quality control of irrigation projects is one of the key functions of WRD.

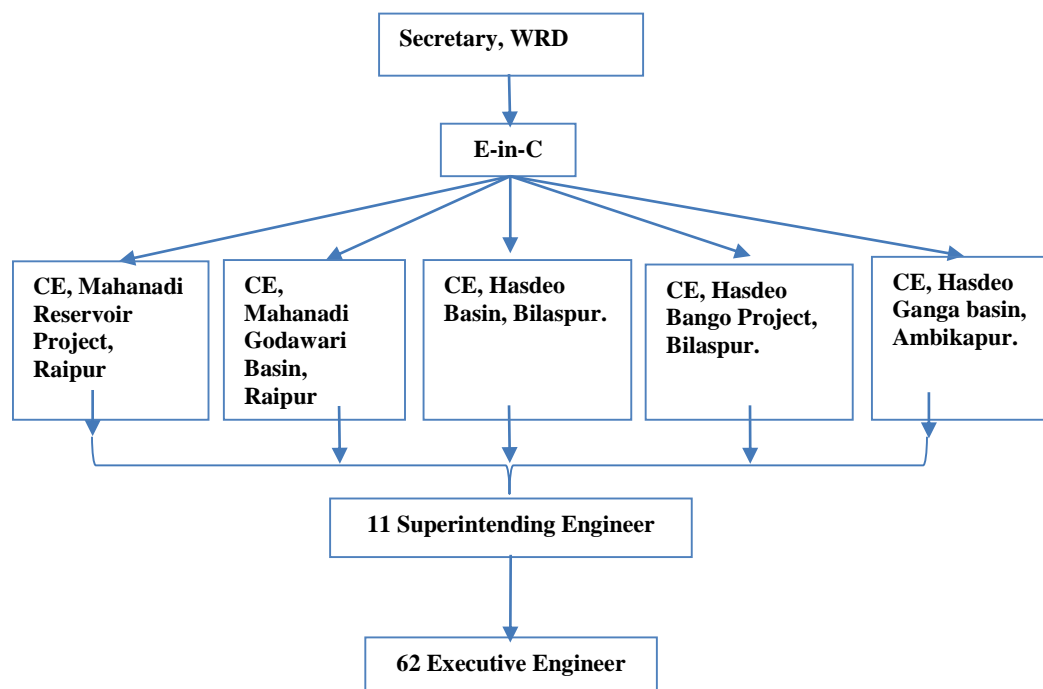
In recent years, durability of concrete structures has become the cause of concern to all concrete technologists. The Bureau of Indian Standards (BIS) adopted Indian Standard Code IS 456:2000- "Plain and Reinforced Concrete Code of Practice" which elaborates durability requirements by way of the acceptance criteria, target strength and frequency of test. Various revisions including compressive strength compliance requirement for concrete were made from time to time in the above mentioned IS code.

WRD was required to ensure the quality of work particularly in execution of cement concrete work as per standard specification (Indian Standards-456:2000) as mentioned in various notes of Schedule of Rates (SoR). Thus, the Compliance Audit of WRD was conducted with the focus on execution of cement concrete works in consonance with standard specifications (Indian Standards-456:2000) and non-compliance of the same are reported thereon.

#### 2.4.2 Organisational Set-up

The WRD is headed by the Principal Secretary/Secretary at Government level, while the Engineer-in-Chief (E-in-C) is the Head of the Department (HoD) and acts as a technical advisor to the Government and is responsible for the overall working of the WRD. The Department is divided into five zones each headed by Chief Engineer (CE). The zones are further divided into 11 circles, headed by Superintending Engineer (SE). Under the circles there are 62 divisions which comprise 291 sub-divisions. Divisions and Sub-Divisions are headed by Executive Engineers (EEs) and Sub Divisional Officers (SDO) respectively and they are responsible for implementing various programmes/schemes and execution of the works.

## Organisational Set-up of Water Resources Department



### 2.4.3 Financial Performance

Engineer-in-Chief is the budget controlling officer and is responsible to the Government for planning, obtaining approval and utilisation of the funds. The year wise allotment and expenditure of the Department during the period from 2018-19 to 2020-21 is given in **Table 2.4.1**:

**Table 2.4.1: Year-wise Allotment and Expenditure**

<i>(₹ in crore)</i>		
Year	Total Allotment	Total Expenditure
2018-19	2403.37	1545.16
2019-20	2143.73	1092.70
2020-21	2217.75	1124.58

*(Source: Information provided by E-in-C, WRD)*

### 2.4.4 Audit Scope and Methodology

In accordance with Clause 3.3 of CAG's Compliance Audit guidelines, top down, risk-based approach was adopted for planning the Compliance Audit due in the year 2020-22. Out of 80 auditable units, 65<sup>28</sup> units, including executing and supervisory offices, were selected for Compliance Audit. In respect of quality control laboratories (labs), out of five labs and 11 sub-labs, Audit conducted joint physical verification of two labs.

<sup>28</sup> E-in-C office, five CE offices, nine SE offices and 50 divisional offices

Audit test checked the records in the office of E-in-C, CEs, SEs and all selected divisional offices during September 2020 to March 2021 (for the financial year ended March 2021) and from July-2021 to December 2021<sup>29</sup> (for the financial year ended March 2022). Audit covered 50 divisions and selected 152 agreements on the basis of amount of payment<sup>30</sup> involved for concrete work in these divisions for audit scrutiny.

#### **2.4.5 Audit Objectives**

The Compliance Audit was conducted with the following audit objectives:

- Whether the cement concrete works (Plain Cement Concrete: PCC & Reinforced Cement Concrete: RCC) are being executed as per the prescribed norms of IS Code 456:2000.
- Whether adequate manpower and apparatus/machinery are available with Department for conducting quality tests for cement concrete.

#### **2.4.6 Audit Criteria**

The execution of concrete works in various irrigation projects of WRD was evaluated with reference to the following sources of audit criteria:

- Indian Standard Code IS 456:2000 (Fourth Revision- April 2007) “Plain and Reinforced Concrete Code of Practice” with amendments;
- Schedule of Rates (2010) issued by the E-in-C, WRD Chhattisgarh, Raipur with amendments.
- Detailed Project Reports (DPRs) and detailed estimates approved by the Chief Engineers.
- Agreements and relevant records of irrigation projects.

#### **2.4.7 Organisational set-up of Quality Control Unit**

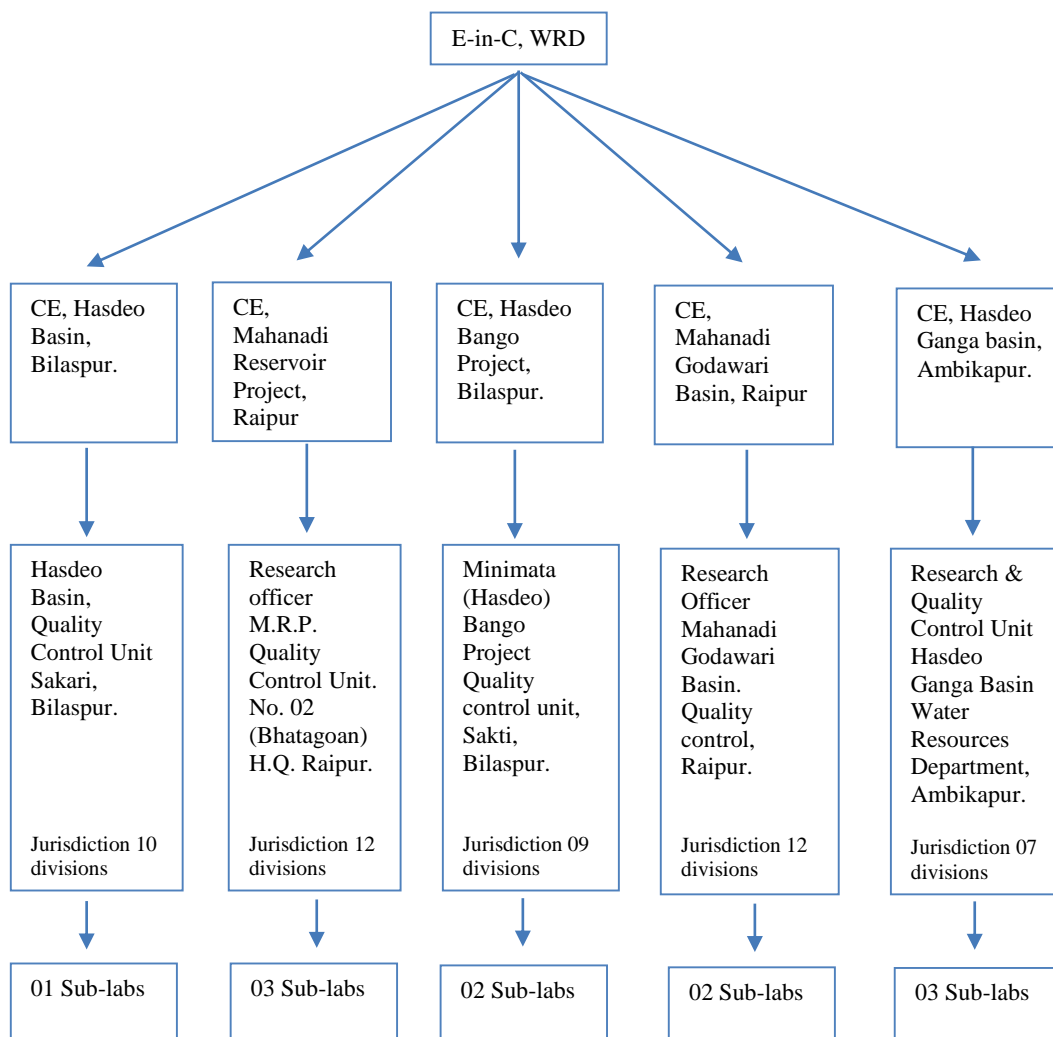
The Quality Control Units are responsible for conducting all the tests relating to quality of work and functions under CE of the Department. Under five CEs, there are five quality control labs each headed by Research Officer and 11 sub labs each headed by Assistant Research Officer covering the quality control work in 50 divisions. Research Officers carry out the tests as specified in the IS code and submit reports on the quality of works to authorities specified. Details are shown in diagram below: -

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<sup>29</sup> The CA Report also included findings of previous audit of Department.

<sup>30</sup> Three highest payment cases in each division.

### Organisational Set-up of Quality Control Units



## 2.4.8 Audit findings

### 2.4.8.1 Shortage of manpower and testing machinery/apparatus in Quality Control units

As per Paragraph 6.001 of Volume-I of Works Department Manual, quality control is necessary for safety, reliability, and durability of all structures and also for optimum use of buildings and scarce materials.

#### 2.4.8.1 (i) Availability of manpower in Quality Control Units

The responsibility of quality control units of WRD is to ensure the quality of irrigation project works by conducting various types of tests including tests related to concrete works. Audit observed that in five quality control units and 11 sub-labs, the working strength of quality control official/staff was only 35 against the sanctioned strength of 81. Details are shown in **Table 2.4.2**:



**Table 2.4.2: Shortage of manpower in Quality Control Units**

Sl. No.	Name of CE	Name and Number of Quality control Unit	No. of sub labs functioning under labs	Sanction strength of Technical Officer/ staff	Working strength of Technical Officer/ staff	Shortage	Shortage of Technical officer/ staff (in per cent)
1	CE, Hasdeo Basin, Bilaspur	Quality Control Unit Sakri, Bilaspur	1	7	7	0	0
2	CE, Mahanadi Reservoir Project, Raipur	Research officer Control Division. No. 02 (Bhatagoan, Raipur)	3	10	8	2	20
3	CE, Minimata (Hasdeo), Bango Project, Bilaspur	Quality control unit, Sakti	2	10	9	1	10
4	CE, Mahanadi Godawari Basin, Raipur	Research Officer. Quality control, Raipur	2	51	10	41	80
5	CE, Hasdeo Ganga Basin, Ambikapur	Research & Quality Control Unit, Ambikapur	3	3	1	2	67
	<b>Grand Total</b>	<b>Central lab-5 Sub-lab-11</b>	<b>11</b>	<b>81</b>	<b>35</b>	<b>46</b>	<b>57</b>

(Source: Information provided by E-in-C, WRD)

It is evident from the above table that there was shortage of manpower up to 80 per cent in four quality control units.

On being pointed out, E-in-C accepted (December 2021) the shortage of staff in the quality control units. It further stated that efforts were being made for provisioning necessary budget to fill up the existing vacancies of quality control officers/officials.

#### **2.4.8.1 (ii) Availability of testing machinery/apparatus in quality control labs**

As per Paragraph 6.016 of WD manual, quality testing of all irrigation projects was to be conducted by department's main lab under Research Officer/Assistant Research Officer. In addition to this, field labs were to be established at work sites which would be part of the main lab to conduct daily routine tests. Further, as per Appendix 6.02 of WD Manual, 17<sup>31</sup> different standard tests are prescribed for ensuring quality of concrete work.

Audit observed that out of 17 standard tests, machinery/apparatus for conducting only three to seven tests were available with the labs/sub-labs. During scrutiny of information provided by all five CEs, it was observed that

<sup>31</sup> List of tests for which machinery/apparatus were not available in labs/sub-labs: (1) Silt on fine aggregates, (2) Clay, fine silt and fine dust in aggregate (Sedimentation method), (3) Surface moisture content in fine aggregate (Hot plate method), (4) Surface moisture content in fine aggregate, (5) Bulking of fine aggregates, (6) Specific gravity and air contents of fresh concrete, (7) Compressive strength of stone, (8) Dry and air contents of fresh concrete (9) Laboratory Permeability, (10) In-situ permeability.

only 492 machinery/apparatus were available against the requirement of 662 number of machinery/apparatus for conducting various tests in the quality control labs. Further, 81 (16 per cent) out of available 492 machinery/apparatus were unserviceable, as per the information provided by the Department.

The quality control test of concrete as per IS-456 Code requires two types of apparatus i.e. (i) Compressive strength testing machine and (ii) Cube mould. It was observed that against the requirement of 454 number of above two machinery/ apparatus only 411 machinery/ apparatus were available, out of which 362 were serviceable and the remaining 49 were unserviceable. There was shortage of 43 machinery/ apparatus which is nine per cent of total requirement.

During joint physical verification of two labs, it was observed that against the 155 required number of machinery/apparatus for conducting standard 17 test, 34 machines/appartus were not operational and there was shortage of quality control staff.

Photos shown below depict the condition of testing machines during joint physical verification.

**Photographs of Quality Control Unit at Janjgir and Sakri**



1. Cube moulds  
Dated: 04.10.2021(Janjgir lab)



2. Compressive strength Testing machine Dated: 04.10.2021(Janjgir lab)



3. Electric Mild steel motor cube vibrating machine Dated: 06.10.2021 (Sakri lab)

On this being pointed out, E-in-C (December 2021) stated that necessary action would be taken for making provisions in the upcoming budget for procurement of new machinery/apparatus and replacement of old unserviceable machinery/apparatus.

#### **2.4.8.2 SoR not in consonance with IS Code 456:2000 resulted in irregular execution of work**

The schedule of rates (SoR) for Water Resources Department in Chhattisgarh was in force from 1 August 2010 and the rates provided therein were applicable on various irrigation works done by Department. The SoR provides that “IS 456:2000 code of practice for plain and reinforced concrete”, (Third revision with amendment No.1 and 2 reaffirmed 2005) may be referred to for Plain Cement Concrete (PCC) & Reinforced Cement Concrete (RCC) items in execution of concrete work.

Audit observed that the structures of irrigation related works (like anicuts, canal lining, barrage, tanks, diversion scheme) are exposed to moderate environment. IS 456:2000 code read with Table-3 explains the moderate environment as an environment, where concrete surfaces sheltered from severe rain or concrete, is continuously under water or concrete is in contact or buried under non-aggressive soil/ground water. In such environmental condition, the minimum grade for PCC & RCC would be M-15 & M-25 respectively, as prescribed in IS code under clause 6.1.2 read with Table 5. However, in the prevailing SoR minimum grade of concrete for PCC and RCC was provided as M-10 and M-15 respectively. Further, only characteristic strength of grade of concrete and its corresponding mix was mentioned in SoR 2010. The target mean strength and acceptable criteria of concrete as given in IS code was not mentioned anywhere in the SoR.

The E-in-C also issued an amendment/circular (May 2019) and directed all the subordinate offices to execute the work as per IS Code 456:2000.

On being pointed out, E-in-C stated (March 2022) that the Department had decided to revise the prevailing SoR-2010 and order has been issued to the concerned section to prepare new SoR in consonance with the IS code.

Although the Department has issued circular for minimum grade of concrete to be used, the respective items of SoR are yet to be amended. The audit findings relating to the irregular execution of works due to non-adherence of IS code 456:2000 are discussed in the succeeding paragraphs.

#### **2.4.8.2 (i) Execution of PCC and RCC item of work with lower grade of concrete**

Clause 6.1.2 of IS Code 456:2000 read with Table-5 stipulates that minimum grade of cement concrete to be executed should not be less than M-15<sup>32</sup> for PCC and M-25 for RCC under moderate environment. E-in-C of the WRD had also issued a circular (May 2019) regarding adoption of minimum grade of concrete as M-15 and above for PCC and M-20 and above for RCC in mild exposure, as mentioned in the IS code 456:2000.

During scrutiny of 152 agreements executed by 48 divisions (in two divisions no concrete work was executed), it was observed that in 150 agreements, the estimates for PCC and RCC items were provided and executed below the prescribed grade, in non-compliance to the IS code. The strengths of these

<sup>32</sup> Letter M refers to the mix and number to the specified characteristic compressive strength of 15-cm cube at 28 days, expressed in N/mm<sup>2</sup>.

below grade concretes were lower by around 33 to 40 *per cent* from the required strength of M-15 for PCC and M-25 for RCC. This resulted in execution of 8,51,539.82 cum & 1,48,985.71 cum of PCC & RCC work with lower grade of concretes respectively involving expenditure of ₹ 312.54 crore without adhering to the IS Code (as detailed in **Appendix 2.4.1**) as shown in **Table 2.4.3**:

**Table 2.4.3: Execution of various grades of PCC below M-15 and RCC below M-25**

Types of concrete	PCC		RCC	
Grades of concrete	1:4:8 (M-7.5)	1:3:6 (M-10)	1:2:4(M-15)	1:1.5:3(M-20)
Quantity executed (in cum)	2852.7	848687.11	66579.01	82406.69
Total Qty. (in cum)	851539.82		148985.71	
Cost of concrete work as per the running bill (in ₹ crore)	234.40		78.14	

(Source: Information provided by audited divisions of WRD)

Further, 19 Notice Inviting Tenders (NITs) were floated, and agreements were executed after issue of the circular (May 2019) regarding adoption of minimum grade of concrete as M-15 and above for PCC and M-20 and above for RCC in mild exposure, as mentioned in the IS code 456:2000. Out of 19 agreements, the revisions were fully implemented in only one agreement whereas in the remaining 18 agreements revisions were partially implemented. The quantity of PCC and RCC items executed after issue of circular is shown in **Table 2.4.4**.

**Table 2.4.4: Execution of various grades of PCC below M-15 & RCC below M-25 after issue of the circular**

Types of concrete	PCC		RCC	
Grades of concrete	1:4:8 (M-7.5)	1:3:6 (M-10)	1:2:4(M-15)	1:1.5:3(M-20)
Quantity executed (in cum)	0	13101.56	6357.02	2605.75
Total Qty. (in cum)	13101.56		8962.77	

(Source: Information provided by audited divisions of WRD)

Thus, the Department continued to execute lower specification work contrary to IS Code 456:2000 even after the issue of the circular.

E-in-C stated (March 2022) that the respective Divisions had executed the PCC/RCC work as these items are provided in SoR 2010. It further stated that the grade of concrete for PCC and RCC items have been revised at the instance of audit and all the subordinate offices have been instructed to follow the above instructions. After issue of circular substantial improvement regarding preparation of SoR and execution of concrete works according to IS code has been noticed.

The reply is not acceptable as even after the issue of circular instances of use of lower grade of concrete had been noticed by Audit. Though the Department

had issued the circular revising the minimum grade of concrete in mild conditions for PCC and RCC work, the entries for respective items of works in the SoR were not amended.

**2.4.8.2 (ii) *Conducting of lesser number of cube tests than prescribed in IS 456:2000***

As per clause 15 of IS Code 456:2000, for first 50 cum of concrete, test of four samples, each consisting of average of three specimens of size 15cm x 15cm x 15cm should be conducted and thereafter, for every additional 50 cum or part thereof, test of four plus one additional sample was to be conducted. Further, as per clause 15.4 of IS code, the test results of sample should be the average of the strength of three specimens. Variation of more than  $\pm 15$  per cent of the average in the test results was to be treated as invalid.

The Sub Divisional Officer of the respective project was required to send the list of casted concrete cubes along with details of work, nature of work and date of casting to Research Officer/ Assistant Research Officer of respective labs. After 28 days, Research Officer/Assistant Research Officer was required to send the test results to the Executive Engineer of respective divisions.

Audit scrutiny of 152 works which included 43 anicuts/stop dam, 71 Cement concrete canal lining and structures, 24 barrage/diversion/tanks, nine protection works and five bridge works executed by 48 divisions revealed that the Department had executed and accepted 16.33 lakh cum PCC and RCC items without carrying out the prescribed number of cube tests (as detailed in **Appendix 2.4.2**). Against the required 53,119 number of concrete cube sample tests, not a single sample test by taking average of three specimen was conducted. For 53,119 sample tests, 1,59,357 number of specimens of concrete cubes were to be tested whereas only 7,401 (4.6 per cent) number of specimens were tested. Further, in EE, WR Division, Bijapur<sup>33</sup>, not a single specimen test was conducted against required 219 number of tests. Thus, the concrete cube testing was not done as per the prescribed frequency to ensure the quality of concrete work.

E-in-C (March 2022) in its reply stated that the frequency was clearly mentioned in the IS Code-456 (2000). However, the quality control units are presently functioning with shortage of officers/officials and there was also shortage of testing machinery/apparatus. Efforts are being made to fill the vacancies and replace/procure the machinery/apparatus. After revamp of quality control units frequency of sample test of compressive test of concrete cube will definitely improve.

**2.4.8.2 (iii) *Non-compliance to the standard compressive strength requirement in execution of concrete work***

Clause 9 read with Table-8 and clause 16 of IS code 456 specifies the target mean strength and acceptable criteria for various grades of concrete in terms of assumed standard deviation. Further, as per amendment 4 of IS Code 456:2000, the acceptable criteria of grade of concrete should not be

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<sup>33</sup> EE, WR Dn, Bijapur, CG  
Nature of work: two anicut and one stop dam.

less than the greater of value “ $f_{ck}^{34}+3$  or  $f_{ck}+0.825*sd$ ” for mean of the group of four non-overlapping consecutive test results, as shown in the Table 11 of IS Code 456:2000. Further, for individual test result it should not be less than  $f_{ck}-3$  N/Sqmm. The value of acceptance criteria and target mean strength is derived using the formula prescribed in IS code by Audit for different grades of concrete as shown in **Table 2.4.5**.

**Table 2.4.5: Assumed standard deviation and formulae to derive targeted mean strength and acceptable criteria of compressive strength of concrete cube at 28 days as per IS Code 456:2000**

Grade of concrete (M represent mix of concrete)	Characteristic compressive strength ( $f_{ck}$ ) of 28 days	Assumed standard deviation (sd)	Target Mean strength ( $f_{ck}+(1.65*sd)$ )	Acceptance criteria (greater of ( $f_{ck}+3$ or $f_{ck}+0.825*sd$ )) Rounded up to nearest 0.5 N/sqmm
M-10	10 N/sqmm	3.5	15.8	13
M-15	15 N/sqmm	3.5	20.8	18
M-20	20 N/sqmm	4	26.6	23.5
M-25	25 N/sqmm	4	31.6	28.5
M-30	30 N/sqmm	5	38.3	34
M-35	35 N/sqmm	5	43.3	39.1

In SoR, only characteristic strength of grade of concrete and its corresponding mix was mentioned. The target mean strength and acceptance criteria, as given in the IS code was not mentioned anywhere in the SoR. The E-in-C however issued an amendment circular (May 2019) in SoR showing acceptance criteria and target mean strength in accordance with the IS Code 456:2000, as given in **Table 2.4.6**.

**Table 2.4.6: Targeted mean strength and acceptance criteria of strength of concrete cube at 28 days as per the amendment**

Concrete Mix	Target Mean Strength of cube of the Concrete at 28 days	Acceptance Criteria for strength of cube of Concrete at 28 days
M-20	26.6 N/sqmm	24 N/sqmm
M-25	31.6 N/sqmm	29 N/sqmm
M-30	38.5 N/sqmm	34 N/sqmm

(Source: Information provided by E-in-C, WRD)

Audit noticed that in 152 numbers of agreements executed by 48 divisions, concrete work of PCC item of 14.53 lakh cum and RCC item of 1.69 lakh cum (as detailed in **Appendix 2.4.3**) was executed amounting to ₹ 527.57 crore. Audit scrutiny of test report results in test checked agreement revealed that out of 7,401 number of specimens tested, only nine specimens had achieved the targeted mean strength and 540 specimens had achieved the acceptance criteria whereas the remaining 6,852 specimens (93 per cent) failed to achieve acceptance criteria, as derived in **Table 2.4.5**. Thus, due to non-achievement

<sup>34</sup>  $f_{ck}$  denotes Characteristic Compressive strength, sd means Standard Deviation.

of desired strength (Target strength) inferior quality of concrete work amounting to ₹ 527.57 crore was executed and accepted by the Department.

Thus, execution of concrete works with lower grade of concrete without adhering the testing norms as per the IS code and without ensuring standard compressive strength entails the risk of damage to the concrete structures before completion of their assumed life. Further, repair and maintenance of the damaged structure due to inferior quality of concrete work would also increase the cost of the project.

E-in-C (March 2022) stated that prior to amendment circular issued by the E-in-C regarding desired strength and acceptable criteria, the respective divisions have executed the PCC & RCC work as provided in the SoR 2010 considering characteristic strength as desired strength. It further stated that at the instance of audit, the Department had defined the design strength and acceptable criteria of concrete work separately by issuing amendment on 26.05.2019 and accordingly instructed all the subordinate offices to follow the above amendments. After issue of the said instruction, substantial improvement in test report has been noticed. Further, the Department has also conducted training programmes in Raipur Training Center regarding quality control of concrete works from the year 2021-22 for field engineers and quality control officers.

Audit also examined PCC and RCC works executed after issue of the amendment, and found that only 2,235 specimens of concrete cube tests were conducted wherein not a single specimen achieved the desired target strength, 332 specimens achieved acceptance criteria while the remaining 1,903 number of specimens failed to achieve even acceptance criteria.

**2.4.8.2 (iv) *Acceptance of lower specification work due to execution of RCC and PCC work with nominal mix instead of design mix***

As per clause 9.1.1 of IS Code 456:2000, design mix concrete is preferred to nominal mix. If design mix concrete could not be used for any reason on the work for grade of M-20 or lower, nominal mix may be used with the permission of Engineer in charge.

Contrary to the above provision, 2,948 cum of PCC M-25, 3,053.11 cum of RCC M-25 and 250.52 cum of RCC M-30 was executed in five agreements (as detailed in **Appendix 2.4.4**) without preparation of design mix and executed through nominal mix<sup>35</sup> which resulted in irregular execution of work.

E-in-C accepted (March 2022) the audit observation and stated that used quantity of concrete in execution of RCC/PCC work with nominal mix instead of design mix was very less. Although, a directive would be given to the divisions concerned for not repeating the same mistake in future.

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<sup>35</sup> Nominal Mix: As per clause 9.1, Nominal Mix method was used with assurance to achieve desired strength without varying the proportion of mix of component required of concrete

### 2.4.8.2 (v) Damaged concrete Structures

During the Compliance Audit, records related to five<sup>36</sup> damaged structures were examined. Audit noticed from the inspection reports of the Department that in one out of five cases, no official inspection after the damage/breach of structure was conducted by the Department but tentative survey to assess the cost of damage and preparation of estimates was conducted. In two cases, as per the inspection report, the damage to the structure was attributed to heavy rain. In one case (*Chatapara II Anicut*) reason for damage mentioned in the inspection report was lack of planning and quality of work due to non-testing of concrete as per the departmental standard. In another case the reason of the damage was non-completion of work by the contractor within the timelines.

These cases were also examined to ensure the compliance to IS code in execution of PCC and RCC work (as detailed in **Appendix 2.4.5**). Audit noticed non-compliance to the IS standard relating to the use of minimum grade of concrete, testing of concrete cube and compressive strength requirement. Out of five cases, four cases have been physically verified while the remaining one case was verified from the official records. Details of four cases are mentioned below:

#### Complete damage of *Chatapara Anicut*



Date of Photograph: 28.07.2020

<b>Agreement No.</b>	03 DL/2009-10
<b>Name of Division</b>	W R Division-Kota
<b>Name of Work</b>	<i>Chatapara II anicut</i> scheme
<b>Total actual cost of work</b>	₹ 7.10 crore
<b>Date of completion</b>	25.03.2013
<b>Date of Damage</b>	25.05.2014

<sup>36</sup> 1. *Chatapara II Anicut*, 2. Const. of Flood protection work on river *Arpa*, 3. *Hatkul Diversion scheme*, 4. *Turi Diversion scheme* & 5. *Taragaon Anicut*



### Complete damage of *Turi* Diversion Scheme



Date of Photograph: 27.07.2021

<b>Agreement No.</b>	18 DL/2012-13
<b>Name of Division</b>	WR Division-Kanker
<b>Name of Work</b>	Construction of <i>Turi</i> Diversion Scheme (Head work)
<b>Total actual cost of work</b>	₹ 3.74 crore
<b>Date of completion</b>	23.05.2014
<b>Date of Damage</b>	13.08.2018

**Complete damage of *Hatkul* Diversion scheme**



Date of Photograph: 27.07.2021

<b>Agreement No.</b>	24 DL/2010-11
<b>Name of Division</b>	WR Division-Kanker
<b>Name of Work</b>	Construction of <i>Hatkul</i> Diversion scheme
<b>Total actual cost of work</b>	₹ 1.72 crore
<b>Date of completion</b>	11.09.2012
<b>Date of Damage</b>	12.08.2018

**Damaged portion of Taragaon Anicut**



Date of Photograph: 05.08.2021

<b>Agreement No.</b>	07 DL/2013-14
<b>Name of Division</b>	W R Division-Narayanpur
<b>Name of Work</b>	Construction of <i>Taragaon</i> Anicut
<b>Total actual cost of work</b>	₹ 2.67 crore
<b>Date of completion</b>	17.06.2015
<b>Date of Damage</b>	24.07.2021

On being pointed out, regarding breached concrete structure due to non-adherence of IS code 456:2000, E-in-C replied (March 2022) that due to discrepancy in SoR, below graded items of PCC and RCC was provided as these items are economical and also provided in the prevailing SoR prior to 2010. Further due to non-clarity in respect of targeted mean strength and acceptable criteria in the SoR, the same was rectified by issuing amendment.

**2.4.9 Conclusion**

The Water Resources Department did not comply with the IS code of practice 456:2000 in execution of cement concrete work. There was shortage of manpower and machines in the quality control units of the Department. Audit noticed that the prescribed number of cube testing to ensure the quality of cement concrete work were not being conducted and the average of three specimens were not taken for each sample to be tested. Out of the 7,401 number of samples tested by the Department in test checked works, 6,852 (93 per cent) samples failed to meet the acceptance criteria indicating that the target strength of work executed was not achieved. Department provided and executed lower specification or grade of PCC work (lower than M-15) and RCC work (lower than M-25) which are not in consonance with the IS code. Design Mix for higher grade of concrete (M-25 and above) was not adopted in five test checked works. Thus, due to non-adherence of IS code

456:2000 the quality control units failed to assure the quality of cement concrete works executed by the Department.

#### **2.4.10 Recommendations**

- 1. *The SoR should be amended and updated periodically in consonance with the relevant IS code.***
- 2. *The Quality Control units should be strengthened with adequate staff and machinery/apparatus to maintain the required testing frequency for effective functioning of the quality control units.***
- 3. *The Department should ensure proper testing of concrete cube as specified in IS code to ensure required quality of concrete works in irrigation projects.***
- 4. *The Department should ensure the compliance with the IS code specifications in execution of cement concrete works under irrigation projects.***