

# **Chapter II**

## **Planning and Financial Management**



The Detailed Project Report of the Yettinahole Integrated Drinking Water Project (Project) was revised twice, *i.e.*, from the originally approved ₹8,323.50 crore in July 2012 to ₹12,912.36 crore during February 2014 and to ₹23,251.66 crore during January 2023. None of the DPRs mentioned a definite completion period for the Project. The works were taken up in packages in a disjointed manner without achieving the Project objective even after 12 years of conception.

The DPR envisaged construction of Balancing Reservoir to store water diverted from Yettinahole and provide continuous supply of water to Kolar and Chikkaballapura during summer months. However, the location of the Balancing Reservoir was changed twice in the DPRs. The capacity of the Balancing Reservoir was also substantially reduced from the originally proposed 10 TMC to two TMC finally. These resultant changes in design increased the cost of the Project by ₹621.45 crore.

The rainfall data adopted for calculation of available yield of water for the Project was on the higher side compared with the rainfall data of Government gauge stations located in and around the catchment area of the Project. The comparison of actual recorded flow data of the eight weirs constructed across Yettinahole revealed that available volume of water in the weirs ranged from 7.20 TMC to 24.70 TMC as against the estimated volume of 32.15 TMC considered in the DPR.

The Project suffered from financial constraints as the Government provided only 25 to 54 *per cent* of the budget requirements during 2018-19 to 2022-23. The request of VJNL for availing fresh loans for completing the Project was yet (May 2024) to be approved by the Government. Consequently, VJNL faces a shortage of ₹7,954.63 crore as of March 2024 for completing the Project.

## 2.1 Planning and Designing of the Project

GoK accorded (July 2012) administrative approval for the Yettinahole Integrated Drinking Water Project (Project) based on the Schedule of Rates (SR) of WRD for the year 2011-12 at a cost of ₹8,323.50 crore. The Project envisaged construction of eight weirs across the selected streams<sup>11</sup> and providing lifting arrangements to convey around 24.01 TMC at 50 *per cent* dependability<sup>12</sup> and 20.58 TMC at 90 *per cent* dependability to Chikkaballapura and Kolar districts. Out of 24.01 TMC divertible yield<sup>13</sup>, 15.029 TMC was dedicated for drinking water and balance

<sup>11</sup> Yettinahole, Kadumanehole, Kerihole and Hongadahalla

<sup>12</sup> Means availability of minimum yield for the half of the period considered (say 5 years out of 10 years)

<sup>13</sup> The annual yields likely to be available from the reservoirs as per simulation studies. It is the net yield available for diversion after deducting the committed downstream requirement.

8.981TMC was for ground water recharge. As per the first DPR (July 2012) the works to be taken up were broadly divided into two phases, which included the following:

**Phase-I :** (₹3269.50 crore)

- Construction of weirs at the selected locations<sup>14</sup> across the streams
- Construction of jackwell cum pump house at all the lifting locations
- Construction of Raising Mains (pipeline) to convey the water to the Delivery Chambers (DC) crossing the Western Ghats.

**Phase-II :** (₹5054 crore)

- Construction of Gravity Canal of length 233.00 KM to convey water to the Balancing Reservoir
- Construction of the Balancing Reservoir of 10 TMC capacity near Devarayanadurga, Tumakuru Taluk.
- Construction of Raising Mains (pipeline) from Balancing Reservoir towards Chikkaballapura and Kolar districts.

However, the above approved project report was revised twice incorporating the design and alignment changes as detailed in **Table 2.1**:

**Table 2.1: Details of revision of DPR of the Project**

	<b>Date of administrative approval</b>	<b>Cost approved (₹in crore)</b>	<b>Major revisions</b>
<b>First revision (DPR-II)</b> based on SR 2012-13	February 2014	12,912.36 (Phase-I: 3,527.17 and Phase-II: 9,385.19)	<ul style="list-style-type: none"><li>• The Balancing Reservoir of 10 TMC capacity proposed at Devarayanadurga taluk involved submergence of forest land to the extent of 578 hectares, major roads, two villages and one historical place. Due to the above reasons, the location of the Balancing Reservoir was changed to Bhairagondlu village, Korategere taluk with reduced capacity of 5.78 TMC. The reasons for reduction in capacity of Balancing Reservoir were not mentioned in the DPR-II.</li><li>• Increase in length of Gravity Canal from 233 KM to 273 KM.</li><li>• Construction of Feeder Canals to supply water to the beneficiary areas.</li><li>• Construction of storage reservoirs for drinking water in beneficiary Taluks.</li></ul>

<sup>14</sup> Hongadahalla, Kadumanehole and its tributary, Kerihole, Yettinahole and its three tributaries

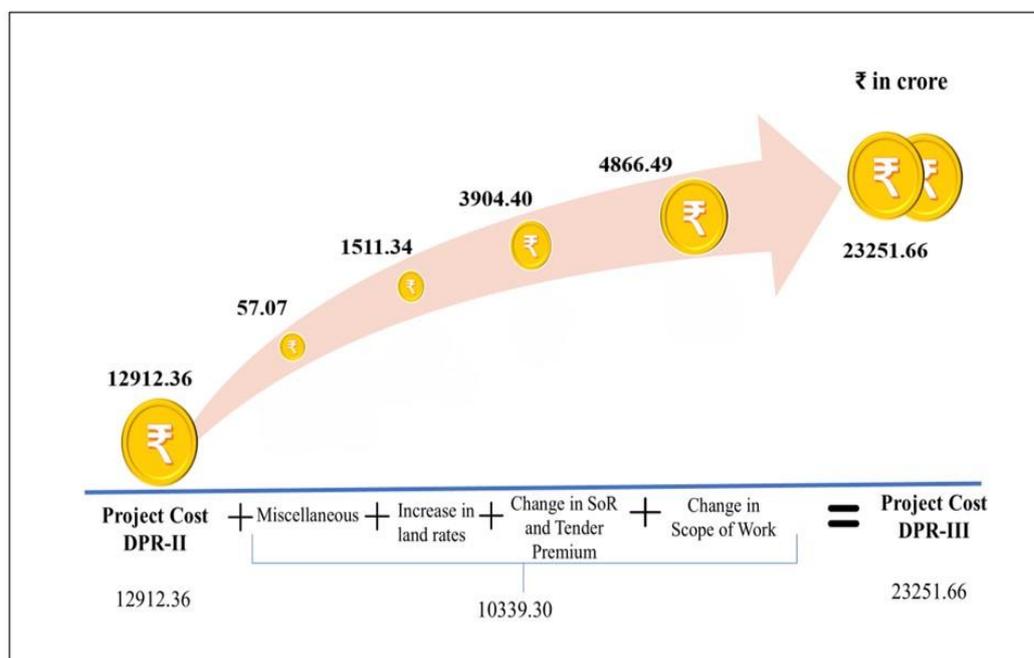
	Date of administrative approval	Cost approved (₹in crore)	Major revisions
<b>Second revision (DPR-III)</b> based on SR 2018-19	January 2023	23,251.66 (Phase-I: 4,711.45 Phase-II: 18,540.21)	<ul style="list-style-type: none"> <li>• The location of Balancing Reservoir was again changed from Bhairagondlu to Lakkenahalli village, Doddaballapura Taluk citing the reason that the reservoir at Bhairagondlu would involve submergence of five villages in Korategere Taluk and two villages in Doddaballapura Taluk. Also, the affected farmers in both taluks objected to the land acquisition demanding uniform rate for land acquired. Hence it was decided to restrict the capacity of Balancing Reservoir to two TMC which involved submergence of only three villages in Doddaballapura taluk.</li> <li>• The storage reservoirs proposed in DPR-II were dispensed with and the water pumped during June to November was proposed to be stored in Minor Irrigation tanks identified by user departments ( Rural Water Supply and Karnataka Urban Water Supply and Drainage Board).</li> <li>• Reduction in length of Gravity Canal <i>i.e.</i>, to 261 KM.</li> <li>• Increase in size of Raising Mains (pipeline), gravity pipes, pump heads <i>etc.</i>, (for Feeder Canals) due to change of capacity of the reservoir.</li> <li>• Change in method of conveyance from open canal to closed conduit in case of feeders.</li> </ul>

**Source: Approved DPRs**

The effect of the above revisions was that there was three-fold escalation in project cost from ₹8,323.50 crore to ₹23,251.66 crore *i.e.*, an increase of ₹14,928.19 crore. The project which was initially approved during July 2012 was still under progress (December 2024).

The **Chart 2.1** below indicates component wise cost overrun from DPR-II to DPR-III that resulted in huge escalation of the project cost:

**Chart 2.1: Component wise increase in project cost**



Change in Schedule of Rate: from the price level 2012-13 to 2018-19

Change in scope of work: increase in size of raising mains, gravity pipes, pump heads and change in conveyance from open canal to close conduit in respect of feeder canals.

**Source: Approved DPR-II and DPR-III**

As illustrated above, the major factor in escalation of the project cost was change in scope of works due to revision of project design and alignment as explained in *Paragraph 2.1.2*. The other contributing factors were revision in Schedule of Rates and increased cost of land due to the delay in its acquisition.

Government replied (March 2024) that the design changes were due to the reduction in capacity of the Balancing Reservoir to two TMC. This was necessitated due to the construction of separate dedicated storage space for drinking water within the existing Minor Irrigation tanks to be undertaken by the user departments such as RWS, KUWSDB and BWSSB. The availability of the above storage locations obviated the necessity for construction of Balancing Reservoir with higher capacity.

The reply was not acceptable since in DPR-II, there was provision for construction of storage tanks for drinking water under the Project itself, even when the capacity of the envisaged Balancing Reservoir was 5.78 TMC. In DPR-III, the above storage tanks were dispensed with, and the drinking water was envisaged to be stored in dedicated storage spaces within Minor Irrigation tanks by the user departments. Hence the above justification offered for reduction in capacity of Balancing Reservoir was not acceptable as the provision for storage tanks was available in both the DPRs.

Audit observed the following lapses in planning of the project as detailed below:

### **2.1.1 Non-specification of the completion period in DPRs**

Project Implementation Manual<sup>15</sup> released (June 2010) by Ministry of Statistics and Programme Implementation, Government of India prescribes that DPR should contain complete breakdown of all components of a project with specific time schedule and firmed up costs which can be used as an instrument for controlling and monitoring the physical and financial progress of the project. However, Audit observed that timeline for the completion of the Project and delivery of intended benefit of drinking was neither decided by GoK nor committed by the VJNL. None of the DPRs stipulated the date of completion of the Project. Audit observed that the works of Phase-I and Phase-II are being executed in packages without any synchronisation. This major lacuna in planning resulted in non-prioritisation of work components leading to disjointed execution of works and creation of infrastructure in patches. The Project could not be made operational even after 12 years of conception.

Government replied (March 2024) that drawing timelines in the DPR for such a complex project which involved construction of major structures and construction of canal over a length of 273 KM and land acquisition of around 9141 acres was difficult. This involved various components of the project such as collection of required data (topographical sheets, demarcation of catchment area, identification of suitable locations for the construction of diversion structures, pump house, Raising Main (pipeline), *etc.*) as well as clearance of Ministry of Environment and Forest and hence, it was not possible/practical to provide the probable date of completion in DPR. The Government further submitted that deadlines for completion of project is now fixed and project would be completed by 01 November 2026.

Reply cannot be accepted as non-specification of completion period in the DPRs contravened the norms prescribed by the Project Implementation Manual. As seen from the submission of the Government, the Project was commenced without specifying timelines for completion of various components and execution was on *ad-hoc* basis. In the absence of a specified timeline for completion of the project, co-ordination and synchronisation of the different components was not possible; it also led to long delays in finalising the design/alignment, inadequate allocation of financial resources and creation of infrastructure in disjointed patches during execution resulting in non-achievement of the intended objective even after 12 years of inception of the Project.

### **2.1.2 Inordinate delay in finalisation of the location of storage reservoir**

The construction of Balancing Reservoir is a critical component of the Project as water sourced from Western Ghats during monsoon months need to be stored to

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<sup>15</sup> Guidelines for implementation of major projects under Central and State sector funding

ensure continuous supply of drinking water to Chikkaballapura and Kolar districts during summer months. Audit observed that the Government/VJNL failed to firm up the location of Balancing Reservoir which was changed twice (February 2014 and January 2023) from what was originally envisaged in 2012. The initial proposal for construction of Balancing Reservoir of 10 TMC capacity (DPR-I/ July 2012) at Devarayanadurga was abandoned due to concerns regarding submergence of 1428.27 acres of forest land, major roads and a historical place. Subsequently, in DPR-II (Feb 2014), it was proposed to construct Balancing Reservoir with reduced capacity of 5.78 TMC at Bhairagondlu. This required acquisition of 5078 acres of private land (2388 acres in Doddaballapura taluk and 2690 acres in Korategere taluk). In view of large difference in guidance value of land in the villages of the two taluks, the farmers demanded payment at uniform rates for the land of all the villages by considering it as a single unit. Even though, the VJNL sent (September 2019) a proposal to the Government for payment of uniform rates for all villages, the Government did not convey its approval for the same. Thus, thereafter in DPR-III (January 2023), it was proposed to construct Balancing Reservoir at Lakkenahalli village, Doddaballapura Taluk with a capacity of only two TMC, which involved submergence of 1200.50 acres in three villages of Doddaballapura taluk.

Audit further observed that though the VJNL has finalised the new location for construction of Balancing Reservoir as per DPR-III in January 2023, the necessary process for acquisition of required land such as preliminary/final notification and fixation of award *etc.*, has not been initiated by VJNL till date. (December 2024).

The analysis of DPRs and related records revealed the following:

- The reasons stated in DPR-II for non-suitability of land at Devarayanadurga for construction of 10 TMC reservoir was not justifiable as these were known facts and should have been identified at the feasibility study stage. This indicates lack of due diligence in framing of DPR-I as it is apparent that it was prepared without care and accuracy in survey and collection of information.
- In DPR-II, out of 24.01 TMC of water to end users, the quantity of water allotted for Chikkaballapura and Kolar districts was 12.33 TMC. Out of the above, 6.66 TMC (54 *per cent*) of water was planned to be pumped during monsoon season (June to October) and balance 5.73 TMC (46 *per cent*) during November to February as the Balancing Reservoir could store 5.78 TMC. Since the storage capacity of the Balancing Reservoir was reduced to two TMC in DPR-III, 10.30 TMC (84 *per cent*) of the water was required to be pumped during monsoon season from June to October. This requires enhancing the capacity of pumps and size of Raising Mains (pipeline) to pump the increased quantity of water to the identified Minor Irrigation tanks.
- In DPR-III, the reason cited for reduction in capacity of Balancing Reservoir (from 5.78 to 2 TMC) and change of location of Balancing Reservoir was the

farmers demand for uniform rate for land to be acquired in villages coming under two taluks of Doddaballapura and Korategere. As per guidance value of 2017, the compensation payable for the lands in the Doddaballapura taluk and Korategere Taluk was ₹32.00 lakh and ₹20.00 lakh *per* acre respectively. Accordingly, VJNL submitted the proposal (September 2019) to the Government with an additional financial implication of ₹319.47 crore for payment of uniform rates to both the taluks. Audit observed that the financial impact of newly proposed Balancing Reservoir at Lakkenahalli village in DPR-III (January 2023) amounted to ₹940.92 crore owing to changes in scope of work *i.e.*, increase in pumping capacity, additional length of 3.6 KM Gravity Canal, additional carrying capacity of Gravity Feeder Canal as well as revision of Schedule of Rates. Thus, inaction on the part of the Government in finalising the proposal for Balancing Reservoir at Doddaballapura and Korategere taluks resulted in additional cost of ₹621.45 crore (₹940.92 crore - ₹319.47 crore) due to changes in scope as discussed above.

- Had a decision to acquire land at Doddaballapura and Korategere taluks been taken expeditiously by the GoK, the work of Balancing Reservoir was expected to have been completed within 18 months of land acquisition at much lower cost with higher capacity of 5.78 TMC, thereby enhancing the utility of the Project.

The above facts indicate failure to identify and acquire required land for construction of the Balancing Reservoir as well as lack of forethought on the part of GoK as evidenced by withholding of approval for land acquisition. This resulted in frequent changes of alignment and design of the project leading to cost overruns on account of scope changes and revision of Schedule of Rates besides non-completion of the Project.

In response (March 2024), the Government did not submit any specific reply in respect of audit observations relating to DPR-I and DPR-II. In respect of reasons for changes in DPR-III, the Government stated that the provisions of Land Acquisition Act, 2013 did not provide for payment of uniform rate for land acquired in two different taluks and any such payment would become a precedence for other irrigation projects.

The reply cannot be accepted for the following reasons:

- i) Land Acquisition Act, 2013 did not prohibit the payment of uniform rate as stated.
- ii) In the instant case, the Deputy Commissioner of Tumakuru District who was the Chairman of price fixation committee and BoD of VJNL also recommended the payment of uniform rate for these two taluks.

- iii) VJNL had already made payment at uniform rate for purchasing land measuring 448 acres in 22 villages of Sakaleshpura Taluk for Phase-I works of this Project.

### **2.1.3 Inaccurate calculation of available yield**

Yield was a critical parameter for planning and designing of the Project. KNNL took up (September 2010) the feasibility study of the Project through M/s EI Technologies Pvt. Ltd., Bangalore (Consultant) in which eight streams were identified for diversion of water. The divertible water was estimated to be about 24.01 TMC at 50 *per cent* dependability. Audit observed that the methodology adopted for calculation of the yield in the study report suffered from the following deficiencies:

#### **2.1.3.1 Inaccuracies in collating data for calculation of yield**

- The Consultant utilised past 12 to 15 years rainfall data of private landowners' gauge station situated within/near the catchment area (Kottanahalli, Hongadahalla and Kadumane Estate) of the weirs to arrive at the average rainfall data. There was no independent verification of the authenticity of data sourced from private gauge stations. The consultants did not utilise the rainfall data available with Government rain gauge stations situated at Maranahalli and Harley within the proposed catchment area of weirs and three rain gauge stations (Hethur, Yeslur and Banagere) situated very close to the catchment area.
- The Consultant with the help of data accessed from private rain gauge stations had arrived at annual rainfall of 6280 mm. The same annual average rainfall was taken uniformly for the entire catchment area of 176.74 sq. km. However, Audit noticed from the annual reports published (during 2011-2018 excluding 2013) by the Department of Economics and Statistics of Karnataka that annual rainfall in and around the catchment area varied with the change in location. The details are given in **Table 2.2:**

**Table 2.2: Details showing rainfall recorded in gauge stations around the catchment areas of weir**

Rain gauge Station	Rainfall recorded (in mm)							Variation Range (mm)	Average (in mm)
	2011	2012	2014	2015	2016	2017	2018		
Maranahalli	5135	5238	4733	3677	4022	3347	6605	3347 to 6605	4680
Yeslur	2447	1995	2565	2057	1981	2121	3435	1981 to 3435	2372
Hethur	4267	3280	3841	2837	2577	2833	5124	2577 to 5124	3537
Banagere	4855	3845	4632	3086	3703	3762	7480	3086 to 7480	4480
Harley	3389	2995	3730	2387	1670	1990	4144	1670 to 4144	2901

**Source: Reports published by Department of Economics and Statistics**

Thus, the rainfall measured in government gauge stations located in and around the catchment area was much lower compared to the annual rainfall

data collated from the private gauge stations which was used for runoff calculations at each weir in the DPR.

- During 2009, Karnataka Power Corporation Limited (KPCL)<sup>16</sup> had installed three water flow gauge stations (Bidalli, Mukanamane and Maranahalli) in the neighbourhood of the proposed weirs. The Consultant arrived at average catchment flow per square kilometer based on four years (2009-12) data available at the above gauge stations. The flow and the catchment area of the above gauge stations were compared with the available flow data at Bantwal gauge station of Central Water Commission (CWC) located downstream to derive the co-relation between the same. Based on the above co-relation, flow data for 37 years *i.e.*, from 1971 to 2007 was arrived at for each weir which was considered in the DPR. However, Audit is of the opinion that extrapolation of flow data for 37 years based on only four years actual flow data was not a reasonable assessment.

The Government in its reply (March 2024) stated that calculation of flow data was based on Irrigation Manual which provides for adopting average of 35 years of yearly rainfall. The reduction in rainfall recorded at KPCL gauge stations was considered and the divertible yield was arrived at 22.14 TMC as against 24.01 TMC. Government also contended that rainfall data of Government gauge stations mentioned (by Audit) in **Table 2.2** was not available at the time of preparation of DPR-II. Government further stated that Audit considered rainfall data on a yearly basis, instead of data pertaining to June to November. The reply also mentioned that opinion of experts in the field of hydrology, National Institute of Hydrology (NIH), CWC and National Green Tribunal (NGT) was obtained to confirm the divertible yield.

The reply is not acceptable, as it does not address the audit observation which was regarding adoption of rainfall data from private gauge stations which projected uniform rainfall data of 6280 mm for the whole project area without considering the variation from place to place within the catchment area. The reply also did not justify the adoption of 24.01 TMC as divertible yield in the DPR even though the yield calculated using extrapolated data for 37 years was only 22.14 TMC. Reply of the Government regarding non-availability of rainfall data in respect of Government rain gauge stations mentioned in **Table 2.2** is not acceptable, as Audit observed that the rainfall data for the above stations was available for the period from 1976 onwards. It is further submitted that the Audit compared the rainfall data on yearly basis (instead of June to November), similar to the Consultant, who also adopted annual rainfall data of 6280 mm in respect of private rain gauge stations. Regarding opinion of NIH, CWC and NGT, Audit observed that while CWC and NGT had not made independent comments regarding the availability of yield as per the DPR, the

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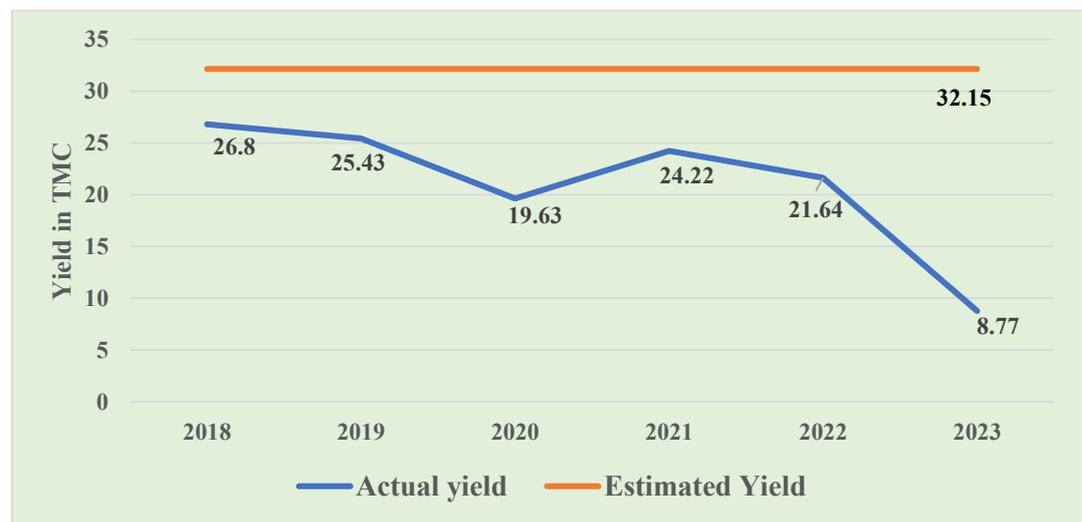
<sup>16</sup> A power generation company owned by GoK

reports of NIH indicated available yield of 22.48 to 23.41 TMC as against 31.54 TMC (at 50 per cent dependability) projected in the DPR as detailed in **Paragraph 2.1.3.2**

**2.1.3.2 Non-achievement of expected yield as per actual flow data**

The Consultants had proposed a divertible yield of 24.01 TMC at 50 per cent dependability out of average available inflow of 32.15 TMC<sup>17</sup> across eight weirs identified. In 2018 and 2019, the VJNL installed gauges at all eight weirs as per the orders of the National Green Tribunal (NGT) and Karnataka Forest Department. The recorded flow data was available for six years from 2018 to 2023, which was provided to Audit. Based on the recorded flow data of these gauges, Audit calculated the available yield for each weir as detailed in the **Chart 2.2** below:

**Chart 2.2: Estimated Yield (DPR) Vs Actual Yield (recorded data at weirs)**



**Source: Flow data provided by VJNL** (The data was updated till 17 October 2023. Actual yield for 2018 does not include the flow data of weir 3 which was installed only in 2019)

Results suggest that during 2018-23, maximum yield (in the year 2018 & 2019), was less than the estimated yield (32.15 TMC) as per the DPR. Highest available volume of 26.80 TMC was in the year 2018 and lowest was 8.77 TMC in the year 2023.

Audit further observed that the Ministry of Environment, Forest, and Climate Change in its order dated 06 January 2016 stipulated that VJNL shall provide an undertaking on restricting the pumping operation under the project from June 15 to October 31 for maintaining ecological balance in the region. This provided a window of only 139 days for pumping the water as against the estimated 183 days (From June to November) considered in the DPR. Audit calculated the available flow for 139 days with the help of gauge data provided for all the weirs and results are indicated in **Table 2.3**:

<sup>17</sup> 31.54 TMC at 50 per cent dependability

**Table 2.3: Flow data for 139 days (from 15 June to 31 October) at the weirs**

Year	Weir 1	Weir 2	Weir 3	Weir 4	Weir 5	Weir 6	Weir 7	Weir 8	Total
2018	4.29	0.82	NA	1.47	3.02	3.61	5.65	5.82	24.70
2019	4.39	0.81	1.33	1.15	1.51	2.88	5.98	5.48	23.54
2020	2.68	0.01	1.40	1.14	2.16	2.22	7.04	1.15	17.80
2021	3.70	0.47	1.60	1.00	2.26	2.87	7.40	1.59	20.90
2022	4.50	0.56	1.25	1.60	2.65	2.00	5.70	1.48	19.75
2023	1.60	0.34	0.94	0.90	1.70	0.29	0.59	0.84	7.20
50 per cent dependable flow	4.00	0.51	1.33	1.14	2.21	2.54	5.84	1.53	19.12

Source: Flow data provided by VJNL

From **Table 2.3**, it can be observed that for a period of 139 days, the available volume of water in the eight weirs ranged between 7.20 TMC to 24.7 TMC as against the estimated volume of 32.15 TMC in DPR. Adopting the calculation methodology in the DPR, 50 per cent dependable volume comes to 19.12<sup>18</sup>TMC as against the estimated 31.54 TMC and the divertible yield was 14.55<sup>19</sup> TMC as against 24.01 TMC. This indicated the possibility of non-availability of the estimated quantity of water as projected in the DPRs.

The audit contention was strengthened by the opinion provided by National Institute of Hydrology (NIH) after studying the yield data as per the request of KNNL. The report (March 2015) furnished by the NIH provided that the 50 per cent dependable yield at all the weirs combined was 22.48 TMC using SWAT<sup>20</sup> model and 23.41 TMC using ARNO<sup>21</sup> model as against estimated 31.54 TMC. NIH utilized the annual rainfall data of Marenahalli rain gauge station for the period 1993 to 2012 which was 4880 mm and in consonance with the audit contention.

In view of the above, the possibility of the actual availability of water being less than the estimated yield as per the DPR cannot be denied. The pumping capacity of 85 cumecs<sup>22</sup> was planned for pumping divertible yield of 24.01 TMC in 93 days. However, if the divertible yield gets reduced to 14.55 TMC as per audit calculation, the pumping capacity can be reduced to 52 cumecs. In this scenario, the possibility of installed capacity of machinery and structures to pump and carry the diverted water to the beneficiary area being in excess of requirement, cannot be ruled out. Government replied (March 2024) that flow assessment carried out in DPR was for a longer period of more than 30 years as compared to the flow data of six years

<sup>18</sup> 50 per cent dependable flow has been arrived by using percentile function

<sup>19</sup> The divertible yield at 50 per cent dependability is arrived at by using the same ratio, used in the DPR to arrive at the divertible yield of 24.01 TMC.

<sup>20</sup> SWAT model is a long term, continuous and simulation watershed rainfall-runoff model.

<sup>21</sup> ARNO model is a conceptual precipitation-run off model that simulates discharges using a daily time step.

<sup>22</sup> Cubic meters per second

adopted by Audit. The pumping capacity of 85 cumecs was decided based on the above hydrological studies. Further it was replied that the excess water available during years of heavy rainfall can be diverted only if higher pumping capacity was maintained.

The reply cannot be accepted as flow data at the weirs for 37 years arrived through correlation between flow data recorded at KPCL weirs and the Bantwal gauge stations based on live data for only four years (2009-12) as described in **Paragraph 2.1.3.1** above. The Government contention that pumps of higher capacity was required during seasons of heavy rainfall was also not justifiable in view of the reduction in size of the Balancing Reservoir and the limit in pumping capacity (38 cumecs) provided at the tail end of the Balancing Reservoir.

## **2.2 Financial Management**

The project is being funded by the State Government through the capital grants apart from borrowings by VJNL from commercial banks based on Government guarantee. The abstract of budget allocation, releases (including borrowings) and expenditure for the project is depicted in **Table 2.5** below:

**Table 2.5: Budget allocation and expenditure under the project**

**(₹ in crore)**

Year	Budget proposed by VJNL	Budget Allocation/Releases			Short Release	Percentage of short release	Expenditure incurred
		GoK	Borrowings	Total			
Up to 2017-18		2909.26	206.69	3115.95			3115.95
2018-19	2882.61	783.26	767.69	1550.95	1331.66	46	1550.95
2019-20	5000.00	1357.80	640.43	1998.23	3001.77	60	1998.23
2020-21	7939.15	1717.39	228.39	1945.78	5993.37	75	1945.78
2021-22	5637.63	1951.44	181.63	2133.07	3504.56	62	2133.07
2022-23	8700.00	2567.44	542.83	3110.27	5589.73	64	3110.27
2023-24	5000.00	1249.00	Nil	1442.78	3557.22	71	1442.78
<b>Total</b>	<b>35159.39</b>	<b>12535.59</b>	<b>2567.66</b>	<b>15297.03</b>			<b>15297.03</b>

Source: Information furnished by VJNL

The audit observations are detailed below:

### **2.2.1 Allocation of budgetary grants by Government on ad-hoc basis.**

As observed in **Table 2.5**, the release of funds by the State Government under the Project was deficient with respect to the budget requirements proposed by VJNL. The percentage of shortage varied from 46 to 75 per cent during the period 2018-19 to 2023-24. VJNL has spent the entire amount of ₹15,297.03 crore (GoK grants- ₹12,535.59 crore and borrowings - ₹2,567.66 crore) released for the project.

The Government replied (March 2024) that VJNL was allotted 26 per cent of the funds allocated to Water Resources Department in the annual budget and with the

available resources VJNL had to plan for spill over works and new works under the Project.

This shows that the requirement/demand placed by the VJNL for the project was not a criterion and the allotment of budget was made on *ad hoc* basis without any linkage with the actual requirement for the project.

### **2.2.2 Uncertainty in raising finances for project completion**

VJNL revised the DPR for the second time during January 2023 and the latest project cost was estimated at ₹23,251.66 crore. Thus, VJNL requires balance amount of ₹7,954.63 crore<sup>23</sup> for completion of the Project as per the latest DPR. Audit observed from the communications from the banks that henceforth, they would not be funding the project as VJNL was not generating any revenue out of the project and was dependent on releases from GoK for repayment.

In view of the above, VJNL proposed to avail long term loan from the Power Finance Corporation (PFC) and Rural Electrification Corporation Limited (REC) for completion of the project and both had sanctioned loans at the interest rate of 9.50 and 9.65 *per cent*, respectively. Since the terms of sanction of loan stipulated provision of guarantee by the GoK, the matter was referred to Government for providing guarantee during June 2023.

However, GoK has not taken any decision on the request of VJNL for availing fresh loans for completing the Project. As a result, VJNL faces a shortage of ₹7,954.63 crore as of March 2024 to complete the project.

In reply, VJNL stated (March 2024) that the proposal for availing the loan from the proposed financiers is pending with Government and on receipt of suitable directions, necessary action would be taken. Finance Department, GoK replied (May 2024) that the proposal of VJNL for availing loan from PFC and REC was still under scrutiny.

As such there is lack of clarity of the source of funds to finance the balance works of the Project.

### **Audit Recommendations**

***Recommendation 1: VJNL should adhere to the fixed timeline of 01 November 2026 for completion of the Project and work in a mission mode to achieve the same.***

***Recommendation 2: VJNL should prioritise the construction of Balancing Reservoir so that the assets already created can be put to use.***

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<sup>23</sup> ₹23251.66 - ₹15297.03 = ₹7954.63 crore

*Recommendation 3: VJNL should make use of reliable data for the calculation of flow and availability of yield while planning a Project.*

*Recommendation 4: Government needs to take timely decision regarding the provision of required funds for completion of the Project within the stipulated timeline.*