

**Immediate Release**



**PRESS BRIEF**



**Performance Audit Report of the  
Comptroller and Auditor General of India  
on  
Outcomes of Surface Irrigation  
Projects in Bihar**

**Government of Bihar**  
***Report No. 3 of the year 2022***

## **Press Brief**

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### **C&AG's Performance Audit Report on Outcomes of Surface Irrigation Projects in Bihar**

This Performance Audit Report of the Comptroller and Auditor General of India for the period 2015-21, containing the results of performance audit of outcomes of selected surface irrigation projects in Bihar was presented to the Bihar Legislature on 16 December, 2022.

#### **Performance Audit on “Outcomes of Surface Irrigation Projects in Bihar”**

Agriculture in Bihar is highly dependent on rains and ground water. Thus, strengthening of infrastructure for adequate and assured supply of water for surface irrigation is very much required. This Performance Audit attempted to analyse the achievements of outcomes of surface irrigation projects, as envisaged in Detailed Project Reports (DPRs) and the factors for underachievement, if any, in the sampled projects.

*(Introduction)*

The five sampled surface irrigation projects were (i) Extension, Renovation and Modernization (ERM) of Eastern Gandak Canal System (EGCS), pertaining to 2015-21, across East Champaran, West Champaran, Muzaffarpur and Vaishali districts (ii) ERM of Eastern Kosi Canal System (EKCS), pertaining to 2015-21, across Araria, Katihar, Purnea, Madhepura, Saharsa and Supaul districts (iii) ERM of Uderashthan Barrage Scheme (UBS), pertaining to 2017-21, across Jehanabad, Nalanda and Gaya districts (iv) Jamania Pump Canal Scheme (JPCS), pertaining to 2015-21, covering Kaimur district and (v) Chancken Irrigation Project (CIP), pertaining to 2018-21, covering Munger district.

*(Paragraph 1.4)*

### Key Facts

Particulars	EGCS	EKCS	UBS	JPCS	CIP
Project evaluation period	2015-21	2015-21	2017-21	2015-21	2018-21
Project status	Complete	Complete	Ongoing	Ongoing	Incomplete
Project expenditure (₹ crore)	723	764	752	134.56	35.78
Culturable Command Area (CCA) (lakh Ha)	4.81	6.12	0.41	0.09	0.10
Irrigation intensity ( <i>per cent</i> )	138	120	100	157.10	100
Gross area to be irrigated during evaluation period (lakh Ha)	39.80	42.82	1.64	0.85	0.30
Reported Irrigation during evaluation period (lakh Ha)	28.09	29.91	1.29	0.58	Nil
Maximum possible irrigation during evaluation period based on net water availability (lakh Ha)	11.85	8.16	0.85	0.51	Not operational
Post-project yearly agriculture produce contemplated (lakh MT)	45.58	25.74	1.73	0.71	Not operational
Maximum possible post-project agriculture produce (attributable to surface irrigation) <i>vis-a-vis</i> contemplated produce ( <i>per cent</i> )	24 to 34	11 to 27	42 to 59	53 to 76	Not operational

As contemplated in the projects deliverables, 85.41 lakh Ha was to be irrigated during the evaluation period. According to the Department's reporting, irrigation was provided to 59.87 lakh Ha (70 *per cent*) only. However, Audit observed that the report of the Department was not correct. As per net availability of water in the canal system and duty of water (*i.e.* relationship between the volume of water and the area of crop it matures) decided by the Department, irrigation was possible maximum in 16.58 lakh Ha for *Kharif* crops and 4.79 lakh Ha for *Rabi* crops. Thus, against the reported irrigation to 59.87 lakh Ha, irrigation was possible maximum in 21.37 lakh Ha (25 *per cent*) only.

**(Paragraphs 2.2, 3.2, 4.2, 5.2 and 6.1)**

Low irrigation was attributable to non-operational field channels and outlets, siltation, breaches in canals, shortage of funds for operation and maintenance, ineffective Participatory Irrigation Management, including non/inadequate formation of Water User Association *etc.* Resultantly, the intended objective of the project, to maximise the farm production through creation/restoration of irrigation facilities, could not be achieved.

The agriculture production, attributable to surface irrigation, in the sampled irrigation projects, ranged from 11 to 76 *per cent* only.

**(Paragraphs 2.2 to 2.6, 3.2 to 3.6, 4.2 to 4.6, 5.2 to 5.6)**

The post-project cropping pattern varied from the proposed post-project cropping pattern in the DPR. The variation ranged from (-) 99 to 262 *per cent* and (-) 94 to 40 *per cent*, in EGCS and JPCS, respectively.

**(Paragraphs 2.7 & 5.7)**

Scrutiny of records related to project execution disclosed instances of deficient planning of construction of settling basin and desiltation, leading to non-achievement of the intended purpose, even after incurring expenditure of ₹ 90.92 crore; double payment of ₹ 1.93 crore to Contractor, rescinding/closure of contract, leading to loss of ₹ 15.66 crore to the Department (including fraudulent liquidation of Performance Guarantee of ₹ 1.32 crore); excess payment of ₹ 14.57 crore etc.

***(Paragraphs 2.9, 3.10, 4.9 & 5.9)***

Contrary to the Bihar Irrigation Rules, 2003, elaborate monitoring mechanism viz. maintaining register of outlets, preparation of *Sudkar* by the Irrigation Divisions, Scrutiny of *Sudkar* by the Executive Engineer/Superintending Engineer and inspection of Circle Offices by the Chief Engineer, were not duly followed.

***(Paragraphs 2.10, 3.11, 4.10, & 5.10)***

Shortages of front line field engineers i.e. Junior Engineer and Assistant Engineer, were 46 to 76 per cent and 60 to 83 per cent, respectively, under the divisions of four irrigation projects (except Chanken). Shortage of frontline field staff led to under-preparation of *Sudkar/Khatiyani*, as well as short raising of demand and collection of water charges. Audit observed that revenue demand of ₹111.38 crore was to be raised against reported irrigation. However, demand of ₹5.67 crore (five per cent) only was raised. Against that, the revenue collection was ₹ 1.73 crore only.

***(Paragraphs 2.11, 3.12, 4.11 & 5.11)***

The Chanken Irrigation Project (for Culturable Command Area of 10,251 Ha) was meant only for irrigation during the *Kharif* season and was to be completed by May 2015. Despite expenditure (January 2018) of ₹ 35.78 crore, it could not be completed, as the work related to the distributary system was not carried out. Therefore, irrigation potential utilisation was nil. Joint physical verification disclosed that even the executed work was damaged at some places.

***(Paragraphs 6.1 & 6.3)***

The Department should contemplate measures to improve actual irrigation at the field level. Developing command area with construction of sufficient number of *pucca* field channels, duly connected with outlets/water courses; Participatory Irrigation Management, with formation of sufficient number of Water User Associations; desiltation of canals; lining of canals; and repairing of non-functional outlets, may facilitate better irrigation. The Department may further strengthen its existing control mechanism, to avoid excess/irregular payments. Adequate availability of manpower may help in improvement of raising demand and effective revenue collection.

***(Paragraph 2.13, 3.13, 4.13, 5.13 & 6.3)***



**For any further information on these subjects; please contact us at the following address:**

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