Chapter-III
Compliance Audit

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AGRICULTURE DEPARTMENT

3.1 Avoidable payment of land compensation

Delay in release of funds by Punjab Mandi Board for payment of land compensation led to avoidable extra payment of ₹ 2.80 crore.

Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (New Act) came into force with effect from 1 January 2014 in place of Land Acquisition Act, 1894 (Old Act). The Department of Revenue, Rehabilitation & Disaster Management, Government of Punjab (Revenue Department) clarified (March 2014) that in respect of the land acquisition proceedings, where notification under Section 4 of the Old Act had been published prior to 1 January 2014, the declaration is required to be issued under Section 6 of the Old Act; however, compensation shall be awarded under the provisions of the New Act. Before issue of declaration under Section 6, the acquiring department should ensure provision of adequate funds for payment of the compensation.

Test check of records (November 2017) of the Director, Colonisation Department, Punjab (Director) showed that the Department of Agriculture, Government of Punjab (Department), issued (August 2013) notification under Section 4 of the Old Act for acquisition of 269 *Kanal* and 6 *Marla* land for setting up of a new *Mandi* by the Punjab State Agricultural Marketing Board (known as Punjab Mandi Board-PMB) at Bhucho in district Bathinda. District Land Price Fixation Committee (DLPFC), Bathinda, under the chairmanship of the Deputy Commissioner, Bathinda, fixed the rates of the land on 21 October 2013. The Department approved (December 2013) these rates and published declaration under Section 6 of the Old Act on 01 March 2014.

For making payment of compensation to the land owners, the Department sanctioned a draft award amounting to ₹ 33.48 crore[1] on 21 July 2014 but PMB, the acquiring department, released amount of the draft award on 19 January 2016. As a result, the award could be announced on 20 January 2016 and possession of the land was also taken. But the amount of award had to be increased to ₹ 36.38 crore due to updation of 12 *per cent* per annum payable[2] on market value of the land. Thus, delay in providing funds

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1 ₹ 13.90 crore-Market value of land and assets; ₹ 13.90 crore-*Solatium* (100 *per cent*); ₹ 1.57 crore-Appreciation at the rate of 12 *per cent* per annum for the period 10 August 2013 to 17 July 2014; and ₹ 4.11 crore-14 *per cent* departmental charges.

2 From the date of notification under Section 4 till the date of award or the date of taking possession of the land, whichever was earlier.

by PMB led to avoidable payment of compensation of ₹ 2.80 crore ***(Appendix 3.1)*** on account of 12 *per cent* per annum on market value for 537 days from 1 August 2014[3] to 19 January 2016 (₹ 2.46 crore) and 14 *per cent* departmental charges paid to the Colonisation Department (₹ 0.34 crore).

On being enquired (April 2018), the Secretary, PMB admitted (August 2018) that though the Land Acquisition Officer requested (June 2014) PMB to release the award amount but PMB obtained sanction of its 'Board of Directors' for obtaining loan from banks for the land acquisition on 25 August 2014. PMB, being the acquiring department, had to ensure the provision of adequate funds for payment of compensation before 1 March 2014, the date of declaration under Section 6, which was not done. Further, scrutiny of financial statements of PMB revealed that sufficient funds[4] were available with PMB but these were not provided to make payment for compensation of land award as per the requirement. Hence, the decision of the Board to obtain loan from the banks for acquisition of land had prolonged the announcement of award leading to extra payment of compensation of ₹ 2.80 crore.

On being pointed out (March 2018), the Director stated (April 2018 and August 2018) that it was the PMB which had to provide funds for the award and the delay occurred on their part. Award was announced on 20 January 2016 after receipt of funds from PMB on 19 January 2016. The reply was not acceptable as the award was to be announced within a period of six months from the date of declaration under section 6 of the Land Acquisition Act, but it was announced after a period of one year 10 months and 19 days.

Thus, delay by PMB in providing the funds for payment of compensation coupled with failure of the department to announce the award within scheduled period had led to avoidable extra payment of ₹ 2.80 crore.

The State Government may ensure timely availability of funds for announcement of award alongwith compliance of instructions contained in the Land Acquisition Act to avoid burden on State exchequer.

The matter was referred to Government in July 2018; reply was awaited (August 2019).

[3] Excluding 10 days for announcement of award after its sanction on 21 July 2014 (which have been taken on higher side keeping in view that the Director announced the award on the very next day of receipt of funds).

[4] (₹ 104.11 crore in March 2014 and ₹ 127.56 crore in March 2015).

EDUCATION, FINANCE AND PUBLIC WORKS (BUILDINGS & ROADS) DEPARTMENTS

3.2 Suspected fraudulent drawal of pay and allowances

Failure of the Drawing and Disbursing Officers and the District Treasury Officers to exercise prescribed checks on the bills presented to treasury facilitated suspected fraudulent drawal and misappropriation of ₹ 29.13 lakh.

Rule 2.31(a) of Punjab Financial Rules, Volume I provides that a drawer of bill for pay, allowances, contingent and other expenses will be held responsible for any overcharges, frauds and misappropriations. Therefore, he should acquaint himself with various financial checks which are required to be exercised for prompt detection of any attempt at defalcation. With a view to see that all amounts drawn from the treasury have been entered in the cash book, the head of office should obtain from the Treasury Officer by the 15th of every month a list of all bills drawn by him during the previous month and trace all the amounts in the cash book. Rule 192 of the Punjab Treasury Rules, Volume I provides that if a bill received in the treasury as a claim for money is, on examination, found deficient *inter alia* in respect of arithmetical correctness and of totals, quotations of sanctions or authority where necessary, it shall not be passed for payment but shall be returned to the drawing officer for completion. Note 1 below Rule 192 further provides that the Treasury Officer is required to ensure that the arithmetic calculations in a bill have been checked properly.

(a) Test check of the records (December 2017) of the Executive Engineer, Electrical Division, PWD (B&R), Amritsar (EE) and information collected subsequently (March 2018) showed that in 15 bills[5] submitted by the EE to the District Treasury Officer, Amritsar (DTO) for drawal of salary of the staff, the total amount payable against each bill was overstated by an amount ranging between ₹ 26,539 and ₹ 12 lakh as compared to the total of the salary of the individual employees. Though the correct details of employees in respect of whom salary was claimed and the correct salary of each of these employees was included in the salary statement appended to the respective bills, the total amount of salary in this statement was deliberately overstated to match with the amount entered in the bill. The number of employees entered on the face of the bills was also inflated by one. Difference between the correct salary total and the inflated total amount was credited to the account of this additional fictitious employee. In all these cases, the DTO ordered the payment of the full amounts claimed in the respective bills without matching the figure of number of employees entered on the face of the bill with the actual number of employees whose details were included in the appended statements and without totaling the individual salary of each employee to

[5] Four in March 2017; 10 in April 2017; and one in September 2017 for drawal of salary for the months of February, March & April and September 2017, respectively.

ensure that the total matched with the amount claimed in the bills. An examination of the pay orders issued by the DTO and those kept on the record of the Division revealed that the pay orders on the records of the Division and on whose basis entries in the cash book were made were not the same as the actual pay orders issued by the DTO. The pay orders had been altered by a Junior Assistant to remove the details of the beneficiary in whose accounts the excess drawn amount was credited. The pay orders kept in the records of the Division, therefore, contained the correct details of the employees and their correct salaries and did not indicate that excess money had been fraudulently drawn in the name of an additional fictitious beneficiary.

In all the 15 salary bills, ₹ 24.17 lakh ***(Appendix 3.2)*** were drawn in excess of the actual amount due and the excess drawn amount was credited in two[6] bank accounts held by the same person.

The Under Secretary while admitting (August 2018) the facts stated that a Junior Assistant of EE's office used to download bill tracking reports and pay orders issued by DTO from Integrated Financial Management System (IFMS) website and manipulated them and entries in the cash book were made accordingly. He further stated that the Junior Assistant was suspended in January 2018. The EE stated (October 2018) that ₹ two lakh were recovered from the Junior Assistant.

This shows weak internal controls of the Division as neither the bills were properly checked before submission to treasury nor the amounts entered in the cash book were reconciled with the amounts drawn as per the treasury records (the respective pay orders generated by DTO) which were available online on IFMS and were also meant for verification purposes. Had proper check been done as per ibid rules and had the DTO ensured the correctness of arithmetic calculations of the bills, no excess amount could have been drawn from the treasury.

The DTO stated (July 2018) that the responsibility for drawing a bill rests on the drawer of the bill. Further, DTO stated that IFMS is an online system wherein there was no possibility of arithmetic mistakes. However, bill can be prepared on this system by mentioning wrong figures. The reply was not acceptable because advent of IFMS does not absolve the DTO from carrying out his assigned functions. While sending bills online, the DDO also sends hardcopies to the DTO. Hence, it is incumbent upon the DTO to check the arithmetic accuracy as well as to check whether the online bill and the manual copy submitted to treasury were same.

(b) Similarly, test check of records (November 2017) related to pay bills of the Block Primary Education Officer (BPEO) Jagraon, District Ludhiana

[6] IDBI Bank account No. 00721404000327039 - ₹ 11,00,000 and ICICI Bank account No. 366501500845 - ₹ 13,17,175.

showed that pay bills were prepared by a junior official which were passed by the Drawing and Disbursing Officer (DDO) before their submission to the Treasury Officer (TO) for drawal and disbursement through e-payments. Scrutiny of arrear bills revealed that an amount of ₹ 4.96 lakh was irregularly drawn through six bills from the treasury between March and December 2015 as arrears of pay bills of various officials (***Appendix 3.3*). **The drawer adopted the procedure of preparing the bills in the names of various employees and these bills were submitted to be credited in the name of one person (Nacchhatar Singh, JBT). The TO issued the Pay Orders in his name and account without verifying the sanctions submitted by the DDO as required under *ibid* rules. In three cases[7], where ₹ 2,73,991 were drawn, the sanction was accorded in the name of Nacchhatar Kaur and Ravinder Kaur but without verifying the details in the sanction, the TO issued Pay Orders in the name/account of Nacchhatar Singh. Similarly, in case of two bills[8], where ₹ 4,00,159 were drawn on account of arrears of pay (including ₹ 29,913 belonging to Nacchhatar Singh), the Pay Orders for ₹ 1,55,826 were issued in favour of Nacchhatar Singh. An amount of ₹ 96,143 (***Serial No. 1 of Appendix 3.3***) was drawn through bill No. 254 dated 24.03.2015 which was not authenticated by the DDO. This led to fraudulent drawal of ₹ 4.96 lakh.

On being pointed out (November 2017), the DDO, while accepting the inadmissible payments made to the official, stated (October 2018) that FIR against the defaulting officials had been lodged and they were suspended.

On being enquired (June 2018), the TO stated that the DDO was submitting the prepared bills through online mode by filling bank account details of the officials and that their office had neither the data of the officials nor a mechanism to check the authenticity of the data submitted by the DDO. The reply was not acceptable because the TO was required to check the sanctions submitted by the DDO with the detailed bills before issuing the Pay Orders. The TO failed to carry out this check which led to irregular/fraudulent drawl of ₹ 4.96 lakh and loss to the State exchequer.

Thus, failure of the Drawing and Disbursing Officers and the District Treasury Officers to exercise the prescribed checks on the bills presented to treasury for payment and proper accountal thereof facilitated suspected fraudulent drawal and misappropriation of Government money of ₹29.13 lakh.

The matter was referred to the Government in May 2018; reply was awaited (August 2019).

[7] Serial No. 4,5 and 6 of Appendix 3.3.

[8] Serial No. 2 and 3 of Appendix 3.3.

HEALTH & FAMILY WELFARE AND MEDICAL EDUCATION & RESEARCH DEPARTMENTS

3.3 Unfruitful expenditure arising from non-functional upgraded building of hospital

Due to laxity on the part of the Department and Baba Farid University of Health Sciences in providing requisite grant-in-aid and additional staff, the upgraded building constructed at a cost of ₹ 4.88 crore could not be put to use even after more than four years of its taking over by Senior Medical Officer, Civil Hospital, Badal, thereby rendering the expenditure of ₹ 4.88 crore unfruitful.

In order to have a good hospital as per norms[9] prescribed by Indian Nursing Council (INC) for imparting training to the students of the State Institute of Nursing and Para-Medical Sciences (SINPMS), village Badal, district Sri Muktsar Sahib under the jurisdiction of Baba Farid University of Health Sciences (BFUHS), Faridkot, the Government of Punjab (GoP) accorded (May 2011) approval to the proposal (April 2011) of the Vice Chancellor (VC), BFUHS, Faridkot for upgradation of the Civil Hospital (CH) i.e. Sub Divisional Hospital (SDH), village Badal, district Sri Muktsar Sahib (being situated within 30 kms of SINPMS) under Health and Family Welfare Department from 50 to 100 bedded under a Core Plan for upgradation of civil infrastructure of civil hospitals. Subsequently, GoP transferred (December 2011) the charge of CH, Badal to BFUHS with effect from 1 January 2012. As per terms and conditions of the notification (December 2011), requisite staff could be provided on deputation to CH, Badal and in case of non-availability of required staff on deputation, BFUHS was free to recruit requisite doctors and other staff for CH, Badal. BFUHS was also responsible for providing requisite infrastructure including machinery and equipment to CH, Badal. In order to meet salary of staff and other expenses, GoP was to provide grant-in-aid (GIA) of ₹ 0.50 crore to BFUHS during 2011-12 (January to March 2012) and ₹ 2.20 crore during 2012-13 onwards with increase of 10 *per cent* every subsequent year.

Audit of records (March 2018) of SDH (CH), Badal revealed that the upgradation work[10] (floor area: 35,076 square feet) of the hospital was completed in September 2012 at a cost of ₹ 4.88 crore and the upgraded building was taken over by Senior Medical Officer (SMO), CH, Badal in August 2013. However, the same was not put to use even after more than four years of its taking over by SMO as neither the requisite GIA nor the additional

[9] Norms include *inter alia* (i) college of nursing should have 100 bedded parent hospital; (ii) bed occupancy of the hospital should be minimum of 75 *per cent;* and (iii) maximum distance between affiliated hospitals and institutions should be 30 kms.

[10] Upgradation work includes provision for 50 beds, extension of OPD block, operation theatre block, x-ray room, ultrasound room, labour room, drug de-addiction block including counselling room and ward, blood bank, four private rooms and many other amenities for staff and patients.

staff (October 2018) was provided by Department of Medical Education and Research (DMER) and BFUHS respectively during January 2012 to May 2018[11], in contravention of the provisions *ibid* under the notification (December 2011).

On being enquired (June-November 2018) about the reasons for non-provision of requisite GIA by DMER and additional staff by BFUHS to make the upgraded building functional; no reply was received (November 2018).

Thus, due to laxity on the part of DMER and BFUHS in providing GIA and additional staff**,** the upgraded building constructed at a cost of ₹ 4.88 crore could not be put to use even after more than four years of its taking over by SMO, CH, Badal. This not only resulted into deprival of improved medical facilities to the masses in and around village Badal, but the objective of having a good hospital for imparting training to the students of SINPMS could also not be achieved, thereby rendering the expenditure of ₹ 4.88 crore as unfruitful.

The State Government may provide requisite funds and manpower to make the upgraded building of the hospital functional to fulfil its objective of having a good hospital for imparting training to the students of SINPMS.

The matter was referred to Government in May 2018; reply was awaited (August 2019).

HEALTH & FAMILY WELFARE DEPARTMENT

3.4 Suspected misappropriation of Government money

Failure of the Drawing and Disbursing Officers to observe codal provisions and compromise of the internal control mechanism facilitated suspected misappropriation of ₹ 0.83 lakh in Primary Health Centre, Alamwala and Sub-Divisional Hospital, Badal. The amount had been deposited in treasury/with the hospital by the concerned officials after being pointed out by Audit.

Rule 98 (1) of Punjab Treasury Rules provides that before signing the receipt and initialing its counterfoil, the head of an office or the person so authorized shall satisfy himself that the amount has been properly entered in the cash book. Rule 2.2 of the Punjab Financial Rules (PFR) Volume-1 requires that every officer receiving money on behalf of the Government should maintain a cash book and all monetary transactions should be entered in the cash book as soon as they occur and attested by the head of the office in token of check. The cash book should be closed regularly and completely checked. At the end

[11] GoP withdrew the charge of CH, Badal from BFUHS on 31 May 2018.

of each month, the head of the office should verify the cash balance in the cash book and record a signed and dated certificate to that effect. Further, Rule 2.4 of PFR also stipulates that the head of the office, at the close of the day while signing the cash book, should see that the departmental receipts collected during the day are credited into the treasury on the same day or on the morning of the next day at the latest.

Government of Punjab had allowed (February 1997) the Punjab Health Systems Corporation (PHSC) to retain user charges collected from patients at the point of collection and use the same for meeting non-salary expenditure. PHSC instructed (February 2013) that user charges collected by the field offices should be deposited on daily basis in a separate savings bank account. It was further directed that no expenditure should be made out of the cash collections and the expenditure should be incurred after depositing the collections in the bank.

a) Audit of records (November 2017) in Community Health Centre (CHC), Alamwala, district Sri Muktsar Sahib revealed that the CHC was taken over by PHSC on its upgradation from Primary Health Centre (PHC) on 18 July 2016. Hence, the CHC was to retain the user charges received from patients with effect from 18 July 2016 and deposit the same in the savings bank account to be opened by Senior Medical Officer (SMO). Scrutiny of cash collection register and cash book, however, revealed that OPD charges amounting to ₹ 0.49 lakh[12], collected from patients between March 2016 and July 2016, of which ₹ 0.40 lakh pertained to the period before upgradation of CHC and its coming under the jurisdiction of PHSC, were neither entered in the cash book nor were deposited into treasury/bank. The SMO holding the charge of Drawing and Disbursing Officer (DDO) did not sign/verify the cash book with relevant records (cash collection register) to see as to whether the departmental receipts collected had been accounted for and credited into treasury/bank, as was required under the rules *ibid*. This resulted into suspected misappropriation of Government money amounting to ₹ 0.49 lakh.

On this being pointed out (29 November 2017) in audit, the SMO, CHC, Alamwala accounted for the OPD charges amounting to ₹ 0.49 lakh in the cash book, signed the cash book retrospectively and deposited the amount in treasury on 30 November 2017. The SMO stated (September 2018) that the money was lying in cash chest of the hospital because at that time the PHC was being upgraded to CHC and it could not be decided in which account (treasury or bank) the amount was to be deposited. The reply of SMO was not acceptable as the money had neither been accounted for in the cash book nor any certificate of cash verification conducted, if any, at that time showing availability of excess cash in chest was furnished to Audit. In the absence of

[12] March (₹ 0.03 lakh); April (₹ 0.03 lakh); May (₹ 0.08 lakh); June (₹ 0.18 lakh); and July (₹ 0.17 lakh).

this, it could not be proved that it was lying in the cash chest. Further, the orders for transferring the charge of CHC, Alamwala to PHSC with effect from 18 July 2016 were received by SMO on 29 July 2016. Therefore, prior to the effective date (18 July 2016), there should not have been any confusion about remitting the receipt into treasury or bank, as the amount of ₹ 0.40 lakh (out of ₹ 0.49 lakh) pertaining to the period from March 2016 to 17 July 2016 were to be deposited into treasury as per the codal provisions *ibid*.

b) Test-check of records[13] (March 2018) in Sub Divisional Hospital (SDH), Badal, district Sri Muktsar Sahib revealed that the SDH had collected user charges amounting to ₹ 19.01 lakh during the period from January 2017 to February 2018. Of these, ₹ 0.34 lakh was neither accounted for in daily collection register and cash book nor were deposited into the bank account being operated in the name of SMO, Civil Hospital, Badal ***(Appendix 3.4)***. The SMO while signing the cash book did not take cognizance of the actual cash collected by the cashier as per receipt books. This resulted into suspected misappropriation of Government money amounting to ₹ 0.34 lakh.

The SMO, SDH Badal stated (August 2018) that after verification of records, the due amount had been deposited (April and June 2018) by the concerned officials, who had also been warned for making such irregularity in future.

Thus, failure of the Drawing and Disbursing Officers to observe codal provisions *ibid* and compromise of internal control mechanism facilitated suspected misappropriation of Government money amounting to ₹ 0.83 lakh, which had been deposited in treasury/with the hospital by the concerned officials after being pointed out by Audit.

The State Government may impress upon all the concerned to ensure strict compliance to the codal provisions ibid to have a strong and reliable internal control mechanism with a view to prevent reoccurrence of such cases of suspected misappropriation of Government money.

The matter was referred to Government in May 2018; reply was awaited (August 2019).

[13] Counterfoils of receipt books, daily collection register, cash book, bank account statements, etc.

HOME AFFAIRS AND JUSTICE DEPARTMENT

3.5 Management of police buildings

The Department had not prepared comprehensive Strategic Policing Plan. Adequate funds for police buildings were not provided by the State Government. Twenty *per cent* of the police stations were functioning in dilapidated/condemned buildings. Infrastructural facilities ranging between 8 and 96 *per cent* were not available in 14 inspected police stations. The State could achieve only 16 *per cent* satisfaction level in providing accommodation to police personnel against 100 *per cent* as recommended by the National Police Commission. Twenty-eight *per cent* of the available family quarters (including 24 *per cent* dilapidated/ condemned quarters) were lying vacant for the period ranging up to 24 years.

3.5.1 Introduction

An efficient police force is essential for maintenance of law and order and ensuring effective check on crimes and other unlawful activities. Since Police is a State subject, its modernisation and strengthening is the primary responsibility of the State Government. For effective policing, buildings[14] are important infrastructural requirement of police. Police units, especially the police stations where the police and public interact on a day-to-day basis, should have proper buildings equipped with necessary facilities and amenities. For police personnel whose duties are onerous; whose job is hazardous; and who have to put in regularly plenty of overtime, proper housing is all the more important.

The Additional Chief Secretary (ACS) to Government of Punjab, Department of Home Affairs and Justice is the administrative head at Government level. The Director General of Police (DGP) is head of the Department who is assisted by Additional Director General of Police (ADGP) at police headquarter and Commissioner of Police (CP) or Senior Superintendent of Police (SSP) at district level for management of police buildings. Besides, a dedicated construction agency - 'Punjab Police Housing Corporation' (PPHC) was established in 1989 to construct buildings (including houses) of the Police Department.

With a view to assessing the adequacy, efficiency and effectiveness in management of police buildings in the State, an audit covering the period 2015-18 was conducted (November 2017-April 2018) by test-checking the records of the offices of ACS, DGP, PPHC and seven[15] out of 27 police districts. In the selected police districts, 106 police stations, 36 police posts, seven police lines and 2,957 residential quarters were existing. The records pertaining to the selected police buildings were test-checked, besides 18 police

[14] Police buildings include police offices, police lines, police stations/posts, residential units, etc.

[15] (i) Amritsar; (ii) Batala; (iii) Jalandhar (Rural); (iv) Ludhiana; (v) Mansa; (vi) Rupnagar; and (vii) SBS Nagar, selected through random sampling. The selection of police stations, residential buildings and police posts was made on judgemental basis.

stations/posts were also physically inspected to assess the adequacy of infrastructural facilities in police buildings.

Audit findings

3.5.2 Planning and financial management

The details of police stations and residential police quarters as on 31 March 2018 are given in **Table 3.1** below*:*

Table 3.1: Details of police stations and residential police quarters as on 31 March 2018

Number of Police Districts	27	-
Number of police stations	383	Excluding Government Railway Police (11) and State level police station/cells (6). Including 58 dilapidated and 20 condemned police stations.
Number of police stations in own buildings	252	Excluding one police station (NRI), Amritsar, information for which was not provided.
Number of police stations in buildings not owned by Punjab Police	130	Including 42 in rented buildings
Number of police personnel	55,363	-
Number of quarters available	9,018	Including 1,546 dilapidated and 662 condemned quarters

Source: Departmental information

3.5.2.1 Strategic Policing Plan

(i) Section 29 (1) of Punjab Police Act, 2007 provided for drawing up a Strategic Policing Plan[16] for a period of five years, in consultation with the State Police Board[17] (SPB), duly identifying the objectives of policing sought to be achieved during the said period and setting out an action plan for implementation.

Audit observed that the Department had prepared a Strategic Policing Plan for the period 2016-21 which included a plan for construction of 162 police stations in the State, but it did not include any proposal for construction of other buildings. However, the Department did not confirm as to whether the Strategic Policing Plan was prepared after consultation with SPB.

On being enquired (January and May 2018) about preparation of any comprehensive Strategic Policing Plan identifying objectives/requirements in respect of other police buildings, the Department stated (August 2019) that

16 A plan setting out the proposed arrangement for policing during a specified period, and includes priorities of the financial resources expected to be available and of the proposed allocation of those resources.

17 Comprising of the Chief Minister, Punjab (Chairperson); Home Minister (Vice Chairperson); three members (Chief Secretary, Punjab, Principal Secretary to Government of Punjab, Department of Home Affairs and Justice and the Advocate General, Punjab); and Director General of Police (Member Secretary).

PPHC had taken (November 2018) a loan of ₹ 150 crore from the Housing and Urban Development Corporation Limited (HUDCO) for construction of police stations and other police buildings.

(ii) There were 383 police stations operating in 27 police districts as of March 2018. Of these, 130 police stations were not situated in their own buildings. Further, 78 police stations i.e. 20 *per cent* (including 24 police stations not situated in their own buildings) in 16 civil police districts were dilapidated (58) and condemned (20).

The Department prepared (February 2016) a Strategic Policing Plan for construction of 162 police stations in 27 police districts in a phased manner during 2016-21[18] involving an expenditure of ₹ 307.80 crore. As many as 70 out of 162 police stations were to be constructed during 2016-18 at an estimated cost of ₹ 133 crore. While preparing AAPs for the years 2016-17 and 2017-18, only 13[19] police stations were included out of 162 police stations as envisaged in the Strategic Policing Plan 2016-21. However, the State Government did not release funds for construction of any of the police stations during 2016-18. It was further noticed that AAPs for the years 2016-18 also included five other police stations and police buildings like residences, central *malkhanas*, office of ACP traffic, garages, toilets for staff, stables, etc. not forming part of Strategic Policing Plan 2016-21. The Police Department did not justify the reasons for deviation from Strategic Policing Plan while preparing AAPs. The Finance Department attributed (August 2019) the reasons for non-release of funds to critical fiscal position of the State.

The Department stated (August 2019) that PPHC had taken a loan of ₹ 150 crore from HUDCO for construction of police stations and other police buildings and tender for construction work of 22 police stations in Punjab had been initiated in January 2019.

Thus, AAPs so prepared were based on short term planning and in an adhoc manner which did not flow from the strategic policing plan 2016-21 and even these AAPs could not be implemented due to non-release of funds by the Finance Department. This impaired the effective management of police buildings.

3.5.2.2 Budget and expenditure

(i) Funding under MSPF Scheme

(a) In order to assist the States in adequately equipping their police forces, the Government of India (GoI) introduced (1969) the scheme for "Modernisation of State Police Force" (MSPF) to augment the operational efficiency of the State Police forces. The scheme was revised in 2000-01 by GoI which continued till 2010-11. The scheme was further revised for five years from 2012-13 to 2016-17. Under the scheme, central assistance was

[18] 2016-17 (35); 2017-18 (35); 2018-19 (30); 2019-20 (31) and 2020-21 (31) at the rate of ₹ 1.90 crore per police station.

[19] 2016-17 (12); and 2017-18 (10, which included nine police stations planned to be constructed in AAP 2016-17).

provided under Non-plan and Plan components. The items required by the State Police under mobility, weapons, equipment, training, etc. were to be funded under Non-Plan whereas the construction/upgradation of police stations, police posts, police lines, police housing, etc. were to be funded under the Plan budget of Ministry of Home Affairs.

Under the scheme, the States were grouped into two categories, i.e. Category 'A' (90:10) and Category 'B' (60:40) for the purpose of funding both under Non-Plan and Plan budget of the Scheme. Punjab being a category 'B' State was eligible for financial assistance on 60:40 (Centre and State) sharing basis. GoI continued the funding under Plan component till 2014-15 after which funds were provided only for the Non-Plan components of the scheme.

The fund flow for MSPF under the Construction (Plan) component for the period from 2013-14 to 2017-18 is detailed in **Table 3.2** below:

Table 3.2: Position of funds under MSPF (police buildings) during 2013-14 to 2017-18

(₹in crore)

Year	Sanctioned		Approved		Released by FD		Date of release		Expenditure (as on 03/2018)	
	Centre	State	Centre	State	Centre	State	Centre	State	Centre	State
2013-14	29.34	19.64	29.34	19.64	29.34	19.64	12/2014	01/2015	29.34	19.64
2014-15	23.91	16.18	23.91	16.18	23.91	16.18	12/2014	03/2016	23.91	16.18
2015-16	No funds were provided for Plan component since 2015-16									
2016-17										
2017-18										

Source: Departmental data

Audit observed that the State share of ₹ 35.82 crore (2013-14: ₹ 19.64 crore and 2014-15: ₹ 16.18 crore) under MSPF scheme was released in January 2015 and March 2016 with delay of one and 15 months respectively from the release of Central Share (December 2014).

(b) Submission of incorrect utilisation certificate

As per guidelines of MSPF Scheme issued (February 2013) by GoI, the State Government was required to furnish utilisation certificate (UC) after utilising the funds for intended purposes. Further, GoI asked (May 2016) the State Government to provide status of utilisation of State share along with UC in respect of Central share. Details of funds allocated and their utilisation under MSPF are depicted in **Table 3.3** below:

Table 3.3: Details of allocation and utilisation of funds under MSPF

(₹in crore)

Department	Funds released by GoI	Funds released by State	Funds transferred to PPHC by State	Funds actually utilised by PPHC	
				GOI	State
Police	23.91	16.18	40.09	18.82	6.21
Home Guards and Vigilance Bureau	1.12	0.50	1.62	0.89	0.22
Total	**25.03**	**16.68**	**41.71**	**19.71**	**6.43**

Source: Departmental records

Audit observed that out of the funds released by GoI (₹ 25.03 crore as its share of 60 *per cent)* in August 2014 and the State Government (₹ 16.68 crore as its share of 40 *per cent*) in March 2016 under MSPF Scheme, funds of ₹ 23.91 crore (Central share) and ₹ 16.18 crore (State share) pertained to the Police Department. The State Government transferred the Central share and State share to PPHC in December 2014 and March 2016 respectively for execution of various construction works of police buildings. It was noticed that the Department furnished (June 2016) UC of Central share along with status of utilisation of State share to GoI disclosing that the entire funds i.e. Central share of ₹ 23.91 crore and State share of ₹ 16.18 crore (excluding funds pertaining to Home Guards and Vigilance Bureau) had been utilised. Whereas, as of March 2018, Central share of ₹ 18.82 crore and State share of ₹ 6.21 crore in respect of Police Department had only been utilised by PPHC, thereby submitting incorrect UC to GoI.

The Department stated (August 2019) that PPHC had issued UC as most of the works were under progress and some were being allotted. It was added that UC was issued as per the requirement of GoI. The reply of the Department was not in line with the MSPF guidelines which provided to furnish UC after utilising the funds for intended purposes.

(ii) Funding from State resources

The position of funds from State resources on management of police buildings[20] is given in **Table 3.4** below:

Table 3.4: Budget and expenditure during 2015-18

(₹in crore)

Year	Funds demanded by the Department	Budget provision	Funds released	Expenditure	Savings
2015-16	68.76	1.82	1.82	1.82	0
2016-17	74.52	12.25	12.25	0	12.25
2017-18	74.30	0.26	0.25	0	0.25
Total			**14.32**	**1.82**	**12.50**

Source: Departmental data

Audit observed that though the Department had utilised full budget provision of ₹ 1.82 crore during 2015-16, no expenditure was incurred during 2016-18 against the release of ₹ 12.50 crore due to non-passing of bills by treasury.

The Finance Department attributed (July 2019) the reasons for non-clearance of bills by treasury to shortage of funds, as the State had unfunded gap during the past three years. It was stated that targets of expected revenue during these years were also not achieved rendering the budget provisions unrealistic.

Thus, due to non-provision/non-release of adequate funds by the State Government, various works relating to construction/special repair of police stations, residential quarters, etc. could not be undertaken, which

[20] Excluding armed battalion, Home Guards and training.

compromised the objective of providing adequate infrastructure for policing needs.

The State Government may consider improving its planning to identify and remedy shortfalls in infrastructure. It may also revamp its financial management for better implementation of AAPs in order to fulfill the requirement of police buildings.

3.5.3 Adequacy of building infrastructure

3.5.3.1 Non/Delayed completion of works

The MSPF Scheme guidelines (2013) provided that projects to be covered under the Scheme should be prepared keeping in mind their actual requirement and land for the buildings free from all encumbrances would be provided by the State Government. Further, as per codal provisions (Paragraph 2.92 of PWD Code), no work should be commenced on land which has not been duly made over by the competent authority.

(i) Construction works of police buildings under MSPF Scheme

Audit examination in respect of works carried out under MSPF Scheme revealed that:

➢ Out of Central share of ₹ 23.91 crore under MSPF scheme (2014-15) released (December 2014) to PPHC, an expenditure of ₹ 18.82 crore was incurred for construction of eight police buildings[21]. As of March 2018, six out of eight construction works started between January 2015 and January 2016 had been completed (June 2016-January 2017) at a cost of ₹ 16.12 crore. It was noticed that –

- Out of six completed works, one work of construction of Police Station, Kila Lal Singh, Batala was completed with a delay of 184 days at a cost of ₹ 1.28 crore.
- Two works *viz.* (i) Construction of Police Station, Ropar City; and (ii) Construction of 11 out of 37 rest rooms with attached toilets for women personnel in police stations in seven police districts[22] were yet to be completed/started (June 2018). The construction of Police Station, Ropar City was delayed by 669 days on which expenditure of ₹ 0.97 crore had been incurred.

[21] (i) Police Station, Kila Lal Singh, Batala; (ii) Police Station, Ropar City; (iii) Construction of ORs barrack and NGO Mess in New Police Lines, Fazilka; (iv) Construction of Administrative Block, Quarter Guard, hospital building and MT wing in New Police Lines, Fazilka; (v) Construction of GO Mess in New Police Lines, Fazilka; (vi) Essential services in New Police Lines, Fazilka; (vii) Construction of barracks for 200 men in Police Lines, PAP Line, Jalandhar Cantt; and (viii) Construction of rest rooms with attached toilets for female police personnel.

[22] (i) Pathankot: City Pathankot, Sadar Pathankot; (ii) Hoshiarpur: Sadar Hoshiarpur, Mukerian; (iii) Sri Muktsar Sahib: Sadar Muktsar; (iv) Patiala: City Rajpura, (v) Fatehgarh Sahib: Badali Ala Singh; (vi) SAS Nagar: Phase-8, Phase-I, City Kharar; and (vii) Commissioner of Police, Ludhiana: Focal Point.

➢ Out of State share of ₹ 16.18 crore released (March 2016) to PPHC under MSPF, one (out of 13) construction work of police station at Chohla Sahib, Tarn Taran, started in January 2016 was completed (November 2016) at a cost of ₹ 1.50 crore. The remaining twelve[23] works were started between March 2017 and October 2017 i.e. after 12-18 months from receipt of funds and were to be completed between October 2017 and June 2018. However, these works were in progress on which ₹ 4.71 crore had been incurred as of March 2018.

The delay in completion of works was attributed (April 2018 and August 2019) to non-availability of clear site, increase in scope of work, delay in demarcation of site by Revenue Department, change of site, diversion of funds, etc.

(ii) Construction works of police buildings under State budget

In order to provide robust organizational and infrastructural support by the Government for a stress-free working environment, GoI issued (May 2014) guidelines to the State Government to provide basic infrastructure amenities for Women Police Force.

Audit observed that the Department transferred (March 2015) funds of ₹ 2.80 crore out of State budget to PPHC for construction of 35 rest rooms with attached toilets (at the rate of ₹ eight lakh per rest room) for women police personnel in police stations. As of July 2018, 25 rest rooms with attached toilets had been constructed at a cost of ₹ 1.56 crore[24] and construction of remaining ten rest rooms with attached toilets had not yet been started despite availability of funds with PPHC. In test-checked districts, seven out of 35 rest rooms with attached toilets were to be constructed. Of these, six rest rooms with attached toilets in three police districts[25] had been constructed at a cost of ₹ 0.30 crore and construction of one rest room with attached toilet in police station, Jhunir, district Mansa had not yet been started.

The Department stated (August 2019) that remaining 10 rest rooms with attached toilets were not constructed due to non-availability of suitable space, non-receipt of tenders, etc.

Thus, due to non-adherence to the guidelines/codal provisions *ibid*, the police buildings planned to be constructed could not be completed timely despite availability of funds, thereby depriving the Police Department of the much needed building infrastructure.

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[23] Construction of police station buildings at (i) Kathgarh, SBS Nagar; (ii) Urban Estate, Patiala; (iii) Sadar Rajpura; police posts at (iv) Jandu Singha, Jalandhar; (v) Ghariala, Tarn Taran; (vi) Bhunga, Hoshiarpur; (vii) Nadala, Kapurthala; (viii) Bassi Pathana; (ix) Jogewala Ferozepur; (x) 28 rest rooms with attached toilet for women police personnel; (xi) Quarter Guard and Magazine Room at Police Lines, Sri Muktsar Sahib; and (xii) 12 ORs Quarters at Amritsar.

[24] Final bills were yet to be settled.

[25] (i) Batala: Dera Baba Nanak, Fatehgarh Churian, and Sri Hargobindpur; (ii) Mansa: Bareta; and (iii) Rupnagar: Morinda and Chamkaur Sahib.

3.5.3.2 Inadequate infrastructural facilities in police buildings

In order to assess the adequacy of infrastructural facilities in police stations/police posts, Audit inspected (February-April 2018) 18 units (14 police stations and four police posts) in seven[26] test-checked police districts and found the following discrepancies:

(i) Audit noticed during physical inspection of Police Station, Sadar Mansa that the police station housed in a more than 100 years old building was in a dilapidated condition. However, the building was not got declared dilapidated from the competent authority i.e. Public Works Department by SSP, Mansa.

100 years old building of PS Sadar, Mansa (22-02-2018)

The Deputy Commissioner (DC), Mansa offered (February 2016) a piece of land measuring two acres to SSP, Mansa for construction of police station, which was accepted by the SSP in February 2016 itself. Subsequently, the SSP repeatedly (March 2016-December 2017) took up the matter with the local authorities i.e. District/Block Development Programme Officer (BDPO) for handing over the possession of said land. Despite not receiving any response from the local authorities, the SSP did not approach DGP, Punjab to intervene in the matter for possession of land.

The Department stated (August 2019) that some private persons had filed appeal to Divisional Commissioner, Faridkot claiming themselves as owners of this land, and Gram Panchayat, Mansa Khurd and BDPO were perusing the case. The fact, however, remains that police station continued to work in the dilapidated building, endangering lives of staff and public visiting the police station.

(ii) In two (Amritsar and Ludhiana) out of seven test-check police districts, quarter guards and magazine rooms in Police Lines were functioning in old and dilapidated buildings having problems like leakage in roof of buildings, etc., giving rise to the risk of harm to arms and ammunition. Though PPHC submitted (May-June 2017) rough cost estimates to

Magazine Room in Police Lines, Ludhiana (28-03-2018)

[26] (i) Amritsar (1 police station and 3 police posts); (ii) Batala (1 police station and 1 police post); (iii) Jalandhar Rural (2 police stations); (iv) Ludhiana (3 police stations); (v) Mansa (3 police stations); (vi) Rupnagar (2 police stations); and (vii) SBS Nagar (2 police stations), selected on judgmental basis.

DGP for construction of buildings for quarter guards and magazine rooms in Ludhiana (₹ 55.78 lakh) and Amritsar (₹ 55.78 lakh), funds for the purpose were not provided by the State Government in 2017-18.

The Department stated (August 2019) that work would be taken up on allocation and release of funds.

(iii) The Bureau of Police Research and Development (BPRD), Ministry of Home Affairs, GoI prescribed (2016) norms for common facilities in modern police stations buildings. Audit examined the provision of these facilities in 14 police stations across seven police districts of Punjab and observed that the requisite facilities ranging between 8 and 96 *per cent* ***(Appendix 3.5)*** were lacking in these police stations, as discussed below:

- Recreation Room and Gym was not available in any of the test-checked police stations.

- Facilities *viz.* barracks for lady officials, counselling room, conference room, witness examination room and room for officers were not available in 13 police stations.

- Reader room, witness examination room and reception area in 12 police stations, whereas disabled friendly entry, ladies room, canteen/kitchen, duty officers' room in 11 police stations were yet to be provided.

- Facilities *viz.* armoury, proper *malkhana*, store rooms, separate lock-ups for men and women, women help desks, rest rooms with toilets, etc. were lacking in 6-10 police stations.

Improper *malkhana* at Police Station, Salem Tabri, CP Ludhiana (28-03-2018)

Non-functional toilet at Police Post, Shivala, Amritsar (06-04-2018)

Further, three[27] out of four police posts inspected in the police district Amritsar were functioning in dilapidated buildings. Besides, basic amenities like potable water, washroom/toilet, etc. were also not available. Though the Commissioner of Police (CP), Amritsar had requested (October 2015-March 2018) DGP for release of funds for repair of these police posts, no

[27] Police posts at (i) Shivala; (ii) Court Complex; and (iii) Lawrence Road.

funds were released by the Department/State Government. The Finance Department attributed (August 2019) the reasons for non-release of funds to critical fiscal position of the State.

The Department stated (August 2019) that funds were being demanded in budget and the requisite facilities would be provided on allocation and release of funds.

Thus, despite the fact that the police personnel were working from old/dilapidated buildings and without having required infrastructural facilities, no timely action was taken by the Department/State Government to get the buildings inhabitable nor were adequate funds made available for construction of new buildings in lieu of dilapidated ones, thereby impairing effective management of police buildings.

3.5.3.3 Shortage of residential quarters

The National Police Commission (NPC) recommended (1977) 100 *per cent* accommodation for all police personnel. Further, Bureau of Police Research and Development (BPRD) in its five-year projection on modernisation and upgradation of police infrastructure was of the view (March 2000) that the performance of the police was better in States where accommodation was available in large numbers. The Review Committee of Ministry of Home Affairs (MoHA), GoI also endorsed the recommendation of NPC to provide 100 *per cent* accommodation to police personnel.

Audit observed that against the men-in-position of 55,363 police personnel, 9,018 family quarters were available in 27 civil police districts as on 31 March 2018 leaving a shortfall of 46,345 family quarters. Thus, the State could achieve only 16 *per cent* satisfaction level against 100 *per cent* as recommended by NPC. In seven[28] test-checked police districts, the satisfaction level in providing accommodation to police personnel remained between 2 and 33 *per cent* as of March 2018.

Despite huge shortfall in fulfilling the requirement of residential accommodation, the Department demanded funds for only 1-143 family quarters during 2015-18[29]. This showed lack of priority in providing residential quarters to police personnel.

The Department attributed (April 2018 and August 2019) the reasons for non-construction of family quarters as per recommendation of NPC to non-availability of land and non-provision/release of funds by the State Government. As regards CP Amritsar, it was stated that construction of 12 quarters was under process and a new proposal for construction of family quarters was being sent to PPHC. The Finance Department stated (August 2019) that due to critical fiscal condition of the State, adequate

[28] (i) Amritsar (19 *per cent*); (ii) Batala (5 *per cent*); (iii) Jalandhar-Rural (2 *per cent*); (iv) Ludhiana (28 *per cent*); (v) Mansa (10 *per cent*); (vi) Rupnagar (33 *per cent*); and (vii) SBS Nagar (4 *per cent*).

[29] 2015-16 (143); 2016-17 (131); and 2017-18 (1).

financial support could not be provided to improve the satisfaction level for residential accommodation.

3.5.3.4 Utilisation of family quarters

(i) Audit observed that out of 9,018 family quarters available in 27 civil police districts, 2,488 family quarters[30] (28 *per cent*) were lying vacant for the period ranging between 1 and 24 years. Of these, 2,208 quarters (i.e. 24 *per cent* of the total quarters) were uninhabitable (dilapidated: 1,546 and condemned: 662).

(ii) In one test-checked police district Rupnagar, 194 family quarters allotted to police personnel as of March 2018 included 126 dilapidated quarters. The SSP, Rupnagar stated (June 2018) that the dilapidated quarters were allotted on need basis of individual officials.

(iii) Audit observed from the information in respect of all 27 civil police districts obtained from DGP office that 98 family quarters (Police Lines, Mansa city: 56 i.e. 24 for Non-Gazetted Officers (NGO) and 32 for Other Ranks (OR); and Police Lines, Muktsar city: 42 i.e. 30 for NGOs and 12 for ORs) handed over to SSP Mansa (April 2012) and SSP Sri Muktsar Sahib (January-December 2012) were not allotted to the police personnel despite the fact that 321 police personnel were posted in the vicinity of Mansa city (182 police personnel i.e. 25 NGOs and 157 ORs) and Muktsar city (139 police personnel i.e. 12 NGOs and 127 ORs). These quarters were being used for other purposes *viz.* dog squads, stay of outside forces, motor transport store, miscellaneous store, etc.

The SSP Mansa assured (August 2019) to allot the quarters to the applicants very soon while the SSP, Sri Muktsar Sahib stated (August 2019) that funds for construction of police office building had been demanded from the State Government and on construction of the office building, the quarters would be vacated.

Thus, the recommendations of NPC ensuring availability of residential accommodation to all personnel were not given due importance by the State Government, as against the prescribed level of 100 *per cent*, the achievement of satisfaction level was 16 *per cent* only. Even 24 *per cent* of the available quarters were not inhabitable.

The State Government may consider prioritizing provision of adequate residential quarters to the police personnel to achieve satisfaction level in a phased manner so as to improve the performance of police personnel.

3.5.4 Conclusion

The management of police buildings in the State was sub-optimal due to various reasons. The Department had not prepared comprehensive Strategic Policing Plan. Adequate funds for police buildings were not provided by the

[30] Status of six family quarters was not provided to Audit.

State Government. Twenty *per cent* of the police stations were functioning in dilapidated/condemned buildings. Infrastructural facilities ranging between 8 and 96 *per cent* were not available in 14 inspected police stations. The State could achieve only 16 *per cent* satisfaction level in providing accommodation to police personnel against 100 *per cent* as recommended by the National Police Commission. Twenty-eight *per cent* of the available family quarters (including 24 *per cent* dilapidated/condemned quarters) were lying vacant for the period ranging up to 24 years.

The matter was referred to Government in May 2018; reply was awaited (August 2019).

3.6 Security mechanism in jails

Funds ranging between 31 and 100 *per cent* could not be utilised. The jails lacked adequate modern security equipment besides having deficiencies in building structures. There was shortage of Warder staff ranging between 30 and 45 *per cent;* and that of periodical inspection of jails ranging between 15 and 88 *per cent* during 2015-18. Due to various weaknesses found in jail security, cases of possession of prohibited articles with the prisoners were noticed and 31 prisoners escaped during January 2015 to March 2018.

3.6.1 Introduction

Prison means any jail or place used permanently or temporarily under the general or special orders of the State Government for detention of prisoners. The Home Affairs and Justice Department (Jails Department) seeks to protect society from criminals and also endeavour to reform and re-assimilate offenders in the social milieu by giving them appropriate correctional treatment. The management and administration of jails fall exclusively in the domain of the State Government and are mainly governed by the Prisons Act, 1894 and Punjab Jail Manual, 1996 (PJM).

There are 26 jails of six types in Punjab, as briefly detailed in **Table 3.5** below:

Table 3.5: Details of various categories of jails in Punjab

Sr. No.	Type of jail	Number of jails	Brief description
1.	Central Jail	9[31]	Any prison in which criminal convicted prisoners are received, for the purpose of undergoing their sentence, by transfer from any other jail and in which such prisoners are not, when committed to prison, in the first instance are ordinarily received.
2.	Maximum Security Jail	1 (Nabha)	Prison which is meant for confinement of dangerous, habitual, professionals, terrorists, organised and sophisticated types of criminals.

[31] (i) Amritsar; (ii) Bathinda; (iii) Faridkot; (iv) Ferozepur; (v) Gurdaspur; (vi) Hoshiarpur; (vii) Jalandhar at Kapurthala; (viii) Ludhiana; and (ix) Patiala.

Sr. No.	Type of jail	Number of jails	Brief description
3.	District Jail (Medium Security Jail)	6[32]	Any prison to which prisoners from one or more districts are in the first instance, ordinarily committed and includes every jail other than a central jail or a special jail.
4.	Special Jail	2[33]	Any prison provided for the confinement of a particular class or classes of prisoners and classed as a Special Jail by the State Government.
5.	Open Jail (Minimum Security Jail)	1 (Nabha)	Prison meant for keeping well-behaved prisoners, governed by a system based on self-discipline and sense of responsibility of the inmates.
6.	Sub Jail	7[34]	Any place so declared by the State Government by general or special order, and used permanently or temporarily under that authority for the detention of prisoners.

Source: Punjab Jail Manual

The Additional Chief Secretary (ACS) to Government of Punjab, Department of Home Affairs and Justice is the administrative head at Government level. The Director General of Police[35] (DGP) (Prisons) is head of the Department who is assisted by Inspector General of Prisons (IGP) and Deputy Inspector General of Prisons (DIGP). The jails in the State are managed by Jail Superintendents/Deputy Superintendents.

With a view to assessing security mechanism in jails, an audit for the period 2015-18 was conducted (January-May 2018) by test-checking the records of offices of ACS, ADGP (Prisons) and 9[36] out of 26 jails.

Apart from PJM 1996, the Model Prison Manual (MPM) prepared (2003) by the Government of India (GoI) following the directions of Supreme Court (1996) and revised in 2016 representing the best practices across the country had been circulated to all the States with an advisory to revise their existing prison manuals in line with the MPMs 2003 and 2016. Though the Government of Punjab (GoP) has not revised its PJM (February 2019), the provisions of MPMs 2003 and 2016 were being followed in the State, thus, the same have also been taken as criteria to assess security mechanism in jails in the State.

The findings arising out of the Chief Controlling Officer (CCO) based audit of Jails Department were included in the Comptroller and Auditor General of India's (C&AG) Report on Social, General and Economic Sectors (Non-Public Sector Undertakings) for the year ended 31 March 2012 – Government of

[32] (i) Barnala; (ii) Mansa; (iii) Muktsar; (iv) New Jail Nabha; (v) Rupnagar; and (vi) Sangrur.

[33] (i) Borstal Jail, Ludhiana; and (ii) Women Jail, Ludhiana.

[34] (i) Dasua; (ii) Fazilka; (iii) Malerkotla; (iv) Moga; (v) Pathankot; (vi) Patti; and (vii) Phagwara.

[35] Additional Director General of Police (ADGP) (Prisons) was holding the charge of the Jails Department.

[36] Central Jails: (i) Amritsar, (ii) Gurdaspur, (iii) Jalandhar at Kapurthala, (iv) Ludhiana; District Jails: (v) Maximum Security Jail, Nabha, (vi) Sangrur, (vii) Rupnagar; Sub Jails: (viii) Patti and (ix) Pathankot, selected by adopting Probability Proportion to Size without Replacement method taking into account the expenditure incurred by Central and District Jails and population of inmates in Sub Jails during the period 2014-18.

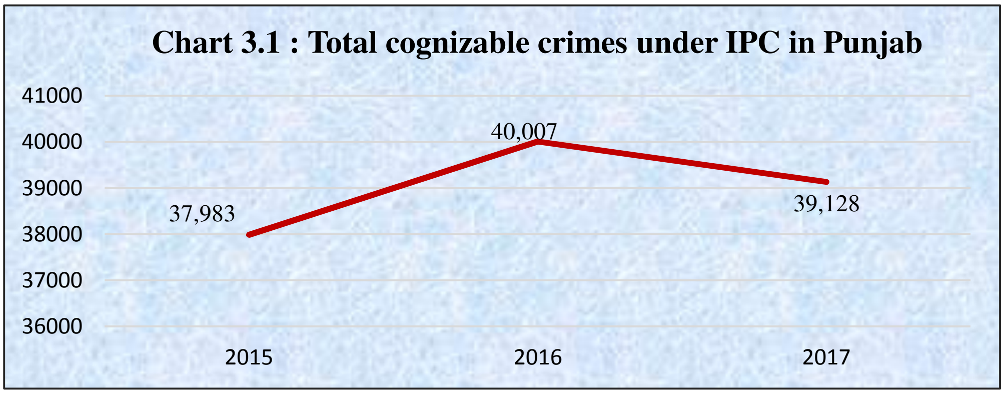
Punjab. The report was discussed in the Public Accounts Committee (PAC) in September 2014.

On 27.11.2016, the Nabha Jail break incident took place by a daring act of gangsters in breaking the security of a high security prison in Punjab, from where four gangsters and two hardcore terrorists escaped. A committee[37] constituted (November 2016) by the State Government to look into the lapses that led to this jail break at Nabha and for security of other jails in the State, submitted (January 2017) a report highlighting the lapses/shortcomings and recommending various measures to revamp security in the jails of Punjab.

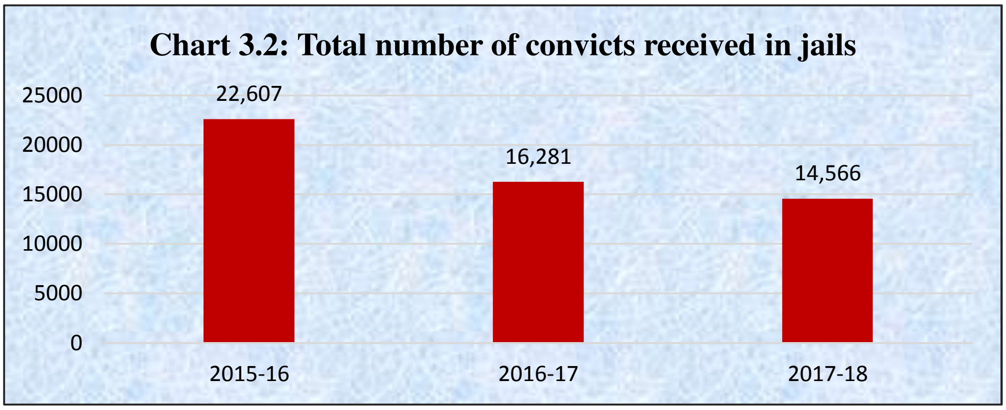
Audit also examined the follow-up action of the Department on related issues on the recommendations of PAC and Nabha Jail break report.

Incidence of crime and its relation to prisons

The number of inmates in prisons is related to the incidence of crimes and conviction rates in a State. The yearly incidences of crime in Punjab, as published in Statistical Abstract of Punjab 2018, during the period from 2015-18 indicated a gradual increase, as depicted in the **Chart 3.1** below:



The number of convicts in jails of Punjab during 2015-18 ranged between 14,566 and 22,607, as shown in **Chart 3.2** below:



[37] Comprised of Additional Chief Secretary (Home); DGP (Law & Order); and ADGP (Prisons).

Though suitable action was taken by the State Government to increase the capacity of prisons in line with the number of convicts *vis-a-vis* available capacity, a few instances of overcrowding in some of the jails were noticed, as discussed in paragraph 3.6.3.4.

Audit findings

3.6.2 Financial management

The expenditure for providing security (other than salary) in jails was being met out of the general budget under the Capital Head of Account[38]. The position of budget and expenditure for the purpose during 2015-18 is given in **Table 3.6** below:

Table 3.6: Budget and expenditure on machinery and equipment during 2015-18

(₹in crore)

Year	Budget	Expenditure	Savings (percentage)
2015-16	4.58	--	4.58 (100)
2016-17	12.00	5.24	6.76 (56)
2017-18	7.88	5.47	2.41 (31)
Total	**24.46**	**10.71**	**13.75 (56)**

Source: Departmental data

Audit observed that as against the budget of ₹ 24.46 crore, the Department spent ₹ 10.71 crore only and there was persistent savings ranging from 31 to 100 *per cent* during 2015-18. During 2017-18, though the Department utilised the full budget allocation of ₹ 4.88 crore provided for Central Jails, it utilised only ₹ 0.59 crore out of ₹ 3.00 crore provided for District and Sub Jails, leaving a saving of ₹ 2.41 crore, which included ₹ 0.69 crore due to non-clearance of bills by the treasury.

The Home Affairs and Justice Department (Department) stated (August 2019) that budget for the year 2015-16 lapsed due to non-clearance of bills by the treasury and during 2016-18 bills were not submitted to the treasury due to non-procurement of 4G jammers as no model of 4G jammer was approved by GoI during 2016-18. The reply of the Department was not acceptable, as Bharat Electronics Limited (BEL), in September 2016, had submitted techno-commercial proposal for installation of 4G Jammers (Model: JTLS201) which showed that 4G jammers were available at that time. Moreover, the funds could have also been utilised to overcome the problems of shortage/ non-functional machinery and equipment; and other shortcomings in building infrastructure of jails, as discussed in paragraphs 3.6.3.1 and 3.6.3.2. The Finance Department attributed (July 2019) the reasons for non-clearance of bills by treasury during 2015-16 and 2017-18 to shortage of funds, as the State had unfunded gap during the past three years. It was stated that targets of expected revenue during these years were also not achieved rendering the budget provisions unrealistic.

[38] 4055-Capital outlay on Police, 800-Other Expenditure (NP), 02-Central Jails/District Jails, 52-Machinery and Equipment.

Thus, lack of funds impacted creation and maintenance of infrastructure of prisons which were found deficient in various jails as also brought out in the Nabha Jail break report, affecting provision of adequate safety measures that could prevent security breaches.

The State Government may consider improving financial management ensuring provision of adequate funds to improve security mechanism in jails.

3.6.3 Security mechanism

3.6.3.1 Lack of modern equipment, arms and ammunition

Paragraph 4 (xii) of PJM stipulates that custody being the basic function of prisons, appropriate security arrangements shall be made in accordance with the need for graded custody. Further, as per paragraph 23.18 of MPM 2003 and paragraph 25.17 of MPM 2016, the prisons shall be equipped with modern security equipment like jammers, metal detector and other electronic devices for maintaining security. A report on security measures for jails (January 2017) after Nabha Jail break also emphasised the need for upgradation of the jammers from 3G to 4G technology, installation of X-ray baggage inspection machines and other security equipment like CCTV cameras, metal detectors, etc. While discussing paragraphs 5.1.11.4 and 5.1.11.5 of the C&AG's Report on Social, General and Economic Sectors (Non-PSUs) for the year ended 31 March 2012, regarding lack of modern equipment, arms and ammunition, the PAC recommended (September 2014) that the State Government may provide requisite funds from time to time for modernization of jails and efforts should be made to replace the old equipment.

Test-check of records of ADGP and nine selected jails revealed that the jails in the State still lacked adequate gadgets and equipment required for security, surveillance and search, as discussed below:

(i) Mobile jammers

Audit noticed that out of 26 jails, 2G/3G mobile jammers were installed (October 2012-December 2016) only in four jails i.e. Central Jail (CJ) Jalandhar at Kapurthala (13), CJ Gurdaspur (10), District Jail (DJ) Sangrur (8) and Maximum Security Jail (MSJ) Nabha (6). In these four test-checked jails, the following shortcomings were noticed:

- **CJ Jalandhar at Kapurthala:** In accordance with the approval (November 2015) of the Secretary (Security), GoI, the Department got 13 mobile jammers installed (December 2016) in CJ Jalandhar at Kapurthala, from an authorised public sector undertaking i.e. Bharat Electronics Limited (BEL) at a cost of ₹ 4.35 crore to restrict the mobile signal inside the jail premises. It was, however, observed that installation (December 2016) of a

Base Transceiver Station (BTS) at the jail residential quarters within the same campus affected the effective functioning of the mobile jammers. The BEL recommended (December 2017) removal of BTS tower for effective functioning of jammers. But no reply in this regard was furnished by the Department (August 2019). This not only defeated the purpose of restricting mobile signals in CJ Jalandhar at Kapurthala, but also resulted into unfruitful expenditure of ₹ 4.35 crore.

As many as 10 out of 13 mobile jammers installed (December 2016) in CJ Jalandhar at Kapurthala were not functional (seven: since May 2017; and three: since January 2018) as their accessories (antenna, cables, etc.) were damaged by the inmates. These jammers could not be repaired for want of funds amounting to ₹ 11.63 lakh.

➢ **CJ Gurdaspur**: 7 out of 10 mobile jammers installed (January and August 2015) in CJ Gurdaspur were damaged by the inmates and were non-functional since March 2017 for want of repair despite availability of funds. Thus, the Jail authorities did not ensure safety of mobile jammers by installing these beyond the reach of inmates.

BEL had recommended (December 2017) ADGP (Prisons) certain measures to be taken for safety of mobile jammers such as blocking all such points/places from where the prisoners can climb and damage jammers using barbed/blade wire, removing concrete platforms above the windows etc., or by using 20 feet high concrete tower in the centre point of barracks secured with blade wire. The status of implementation of these recommendations by the Department was not made available to Audit (July 2019).

➢ **DJ Sangrur and MSJ Nabha**: The 2G/3G mobile jammers installed in remaining two jails[39] i.e. DJ Sangrur (8) and MSJ Nabha (6) were working satisfactorily to restrict 2G/3G mobile signals. Audit, however, noticed that with the current availability of 4G signals in the State, 2G/3G mobile jammers installed in four test-checked jails would not be able to restrict 4G signals in the jail premises.

The Department stated (August 2019) that the repair of 3G jammers was not carried out as the purpose of restricting signal of mobile phones would not have been achieved due to availability of 4G technology and model of 4G jammers was approved by GoI in August 2018. The contention of the Department for not getting the jammers repaired was not acceptable, as BEL, in November 2016, had submitted the proposal to upgrade the jammers from 3G to 4G for CJ Kapurthala, which showed that 4G jammers technology was available at that time.

[39] Fourteen 2G/3G jammers were installed in DJ Sangrur and MSJ Nabha between October 2012 and August 2015.

(ii) Other security equipment

Audit noticed that:

- In seven[40] test-checked jails, door frame metal detectors (DFMD), hand held metal detectors (HHMD) and CCTV cameras were not functional for want of repair since April 2014-February 2018, as required under the provisions of MPMs 2003 and 2016. The Department stated (August 2019) that repair of damaged security equipment was carried out from time to time.

- All the nine test-checked jails were not equipped with modern security equipment like binoculars, breath analyzer (alcohol meter) and flash/search lights. The Department stated that a proposal to procure these equipment had been initiated.

- Communication connectivity from ward-to-ward and ward-to-*deodi* (courtyard) was lacking in the test-checked jails.

- X-ray baggage inspection machine had not been provided in any of the seven Sub Jails (SJ) in the State. The Department attributed (August 2019) the reasons for this to presence of less number of inmates in SJs and stated that checking of inmates were being done manually. The reply of the Department was not in line with the provisions/recommendations under PJM, MPMs 2003 & 2016 and Nabha Jail break report.

(iii) Arms and ammunition

Provision of arms and ammunition is governed by PJM (Paragraphs 275, 308 & 312) which require that all Warders be provided with arms which would be stored in the armoury. Further, paragraph 23.18 of MPM, 2003 and paragraph 25.17 of MPM 2016 provide that the armoury of the prison should be well equipped with all types of sophisticated and automatic weapons.

- Authorities at eight test-checked prisons stated that adequate arms were available. However, in the absence of any specific norms in PJM with regard to scale of arms required, Audit could not examine the adequacy of provision of armoury in test-checked jails.

- Women Jail, Ludhiana was not having any arms and ammunition (except for two revolvers) in the jail armoury.

The Department stated (August 2019) that funds of ₹ 3.30 crore had been received from the State Government and 71 pistols of 9 mm had been procured and remaining arms would be received by October 2019. It was

[40] (i) CJ Amritsar: 2 out of 5 DFMDs since April 2016; 4 out of 9 HHMDs since August 2016 and 7 out of 83 CCTV cameras since February 2018; (ii) CJ Jalandhar at Kapurthala: 5 out of 74 CCTV cameras since February 2018; (iii) CJ Ludhiana: 8 out of 11 HHMDs and 1 out of 3 DFMDs; (iv) CJ Gurdaspur: 64 out of 75 CCTV cameras since March 2017; (v) MSJ Nabha: 1 out of 2 DFMDs since January 2018; (vi) SJ Pathankot: 1 out of 2 DFMDs since December 2016, 2 out of 4 HHMDs since December 2016; and (vii) Patti: 1 out of 2 DFMDs since April 2014 and 2 out of 6 HHMDs since April 2014.

added that no provision with regard to scale of arms required in each jail had been prescribed in the jail manual. Thus, in the absence of specific information of such norms, Audit could not examine the adequacy of provision of armoury in test-checked jails.

Thus, despite recommendations (September 2014) of PAC and highlighting the seriousness of the issue in the Nabha Jail break report (January 2017), the much needed security practices being followed in the jails were still lacking and not in tune with the modern security and surveillance needs.

The State Government may consider improving/ensuring provision of required security equipment besides timely repair/replacement of defective ones.

3.6.3.2 Shortcomings in jail building structure

Paragraph 23.03 of MPM 2003 and paragraph 25.03 of MPM 2016 provide that the high security enclosures/prisons should have a thick outer masonry wall at least 20 feet in height, with watch towers at all its corners and one central tower within the enclosure.

Information collected from the office of ADGP (Prisons) in respect of all 26 jails showed that 10 jails i.e. eight CJs (excluding CJ Gurdaspur), one MSJ Nabha and one DJ Sangrur were having high security zones. Audit noticed the following shortcomings in structure of jail buildings:

- There was no central watch tower in two jails *viz.* CJ Ludhiana and DJ Sangrur having high security enclosures/prisons.

- The height of jail boundary was below the prescribed standard of 20 feet (as per provisions under MPMs) in five[41] jails.

The Department stated (August 2019) that a proposal had been made to install central watch tower in CJ Ludhiana. No reply with regard to shortcomings in building infrastructure in remaining jails was furnished.

Audit also observed that poor infrastructure conditions were also highlighted in the Nabha Jail break report which recommended (January 2017) re-construction of seven[42] jails, which were unsafe structures and were no longer suitable for putting in place security measures that could effectively prevent security breaches. The status of re-construction of these jails was called for; no reply was furnished by the Department (August 2019).

The State Government may consider putting in place a suitable system to monitor timely repair of jail buildings and conduct of regular structural safety audits to ensure that security is not breached due to defective and old structures.

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[41] Central Jails: (i) Ferozepur; (ii) Ludhiana; (iii) Hoshiarpur; District Jails; (iv) Sangrur; and (v) MSJ, Nabha.

[42] (i) MSJ, Nabha (being 100 years old and in dilapidated condition); CJs (ii) Ferozepur; (iii) Gurdaspur; (iv) Hoshiarpur; SJs (v) Malerkotla; (vi) Moga; and (vii) Patti.

3.6.3.3 Management of prisoners

Paragraph 4 (xii) of PJM provides for provision of appropriate security arrangements for prisoners to be made in accordance with the need for graded custody. Paragraph 23.01 of MPM 2003 and paragraph 25.01 of MPM 2016 provide that High Security Prisoners (HSP) are to be lodged in separate enclosures demarcated as high security enclosures within the existing prisons and under no circumstances should HSPs be kept with under-trial prisoners and other convicts. Further, paragraph 2.05 (xiv) of MPMs 2003 & 2016 also provide that under-trials will be lodged in separate enclosures away from convicted prisoners.

Audit noticed that:

- Seven out of 11 HSPs along with four other inmates created ruckus and vandalism in CJ Gurdaspur on 24 March 2017 and attempted to escape from jail by making a small hole in the outer wall of *Kot Moka* (armoury), breaking CCTV cameras, mobile jammers and rampaging of other articles/medicines, which inflicted a loss of ₹ 32.82 lakh. It was noticed that CJ Gurdaspur did not have any high security zone (HSZ) and thus these prisoners should not have been lodged there. Two of these inmates were transferred from CJ Amritsar and CJ Jalandhar at Kapurthala, where HSZ existed. All 11 HSPs were transferred (24-26 March 2017) to CJs Bathinda (3), Ludhiana (2); Ferozepur (2); Patiala (3); and Amritsar (1) having HSZ.

- As of March 2018, 11 HSPs were lodged in two jails which did not have any HSZ *viz.* CJ, Gurdaspur (1) and DJ Rupnagar (10) along with under trials and other convicts. Though HSZ existed in DJ Sangrur, six HSPs were kept in the same cell along with under-trial prisoners and convicts.

- In all nine test-checked jails, though the double gate/locking system was being followed as per provisions contained in PJM and MPMs 2003 & 2016, the under-trials were being lodged together with the convicts in the same barrack/cell in contravention of the provisions *ibid*. The ADGP attributed (September 2019) the reasons to overcrowding in jails and shortage of watch & ward.

Thus, there were lapses in following norms prescribed in management of prisoners which could lead to a security threat. Deficiency in availability and management of HSZ in jails was also highlighted in the Nabha Jail break report. Remedial action taken in management of HSZ was not furnished to Audit.

3.6.3.4 Overcrowding in jails

Paragraph 903 of PJM provides that when the population of the jail is approaching the maximum number for which there is accommodation, the Inspector General and Superintendent of Police should be informed with a view to having some of the convicts transferred or arrangements made for their temporary shelter outside, as the case may be. Mention in this regard was also made in paragraph 5.1.8.2 of the C&AG's Report on Social, General and Economic Sectors (Non-PSUs) for the year ended 31 March 2012.

Audit analysis of the existing capacity of the jails taking into account the inmates housed therein revealed that the problem of overcrowding still persisted in 12 out of 24 jails[43] as the capacity was not utilised optimally in a scientific manner, as 2,405 convicts (male: 2,298 and female: 107) from 11 jails could have been shifted to other jails having capacity to adjust more inmates, as detailed in ***Appendix 3.6***.

Had the jail administration adjusted the convicts out of total inmates evenly in proportion to the capacity of the jails, not only the problem of overcrowding would have been solved at large, but would have also resulted in better security administration.

The Department stated (August 2019) that the inmates were kept in the jails as per orders of the Hon'ble Court. As per State policy, the convicts were to be kept in home districts so that their family members could meet them. It was added that to mitigate the overcrowding in jail, proposal was under process for construction of two jails at Mohali and Goindwal at Amritsar. The reply of the Department was not convincing as PJM provided for transfer or making arrangements for some of the convicts for their temporary shelter outside, as the case may be.

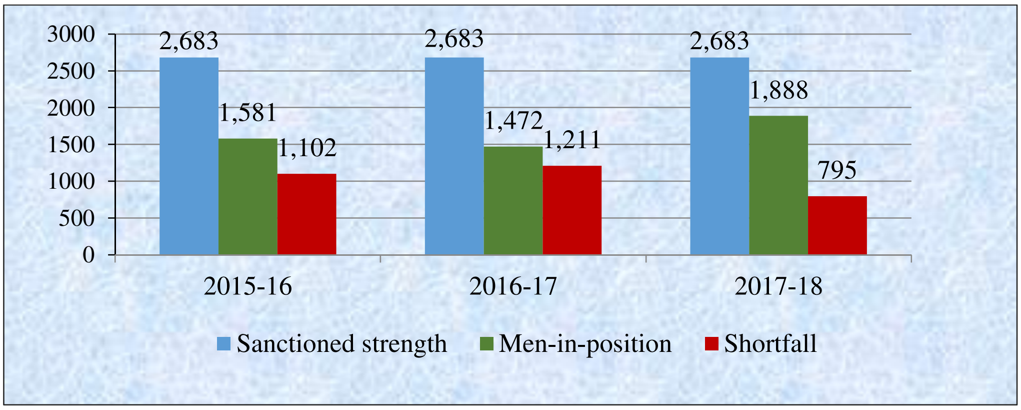
3.6.4 Manpower management

3.6.4.1 Shortage of Warder staff

Paragraph 4.02 of MPMs 2003 and 2016 provides that the strength of custodial/guarding staff will be determined keeping in view the requirements of security, discipline, programme emphasis, duty posts, workload and distribution of functions. It also recommends one guarding staff for every six prisoners. While discussing paragraphs 5.1.11 (I) and 5.1.11.1 of the C&AG's Report on Social, General and Economic Sectors (Non-PSUs) for the year ended 31 March 2012, regarding shortage of Warder staff and disproportionate deployment of watch and ward staff, the PAC recommended (September 2014) that the Finance Department may release requisite funds to meet the shortage of staff.

The position of overall sanctioned strength and men-in-position of Warder staff during 2015-18 is given in **Chart 3.3** below:

Chart 3.3: Details of sanctioned strength, men-in-position and shortfall of Warder staff during 2015-18



Source: Departmental data

[43] Excluding Open Air Jail at Nabha and Borstal Jail, Ludhiana.

The above chart shows that there was shortage of Warder staff ranging between 30 and 45 *per cent* during 2015-18. Audit further noticed that:

- Ratio of sanctioned strength of Warder staff (2,683) to authorized capacity (23,218 inmates) of jails was 1:9 and that of Warder staff in position (1,888) to actual population of inmates (22,375 inmates) was 1:12 as of March 2018 which was below the norms of MPMs of providing one guarding staff for every six prisoners.

- Although the authorized capacity of six jails[44] was increased during the period 2015-17, yet the sanctioned strength of Warder staff in these jails was not increased (March 2018).

- As of March 2018, despite shortage, 21 Warder staff of six jails[45] drawing salary from the respective jails were posted at headquarters (ADGP office) since the period between 2005 and 2017.

The Department stated (August 2019) that the process for recruitment of 670 Warders was under process. In addition, to strengthen the security of jails, 2,197 employees of Punjab Armed Police (PAP), India Reserve Battalion (IRB), Home Guard and Punjab Ex-servicemen Corporation (PESCO) had been deployed. Audit, however, observed that Nabha Jail break report disclosed that deployment of Home Guards for security was not effective and deployment of PESCO personnel was an undesirable practice, as far as jail security was concerned.

Thus, despite recommendations (September 2014) of PAC and those included in the report on security measures for jails after Nabha Jail break to fill up the vacant posts, the shortage of staff was still persisting.

The State Government may consider providing adequate manpower to revamp security in jails.

3.6.4.2 Non-availability of reserve guard/quick reaction team

Paragraph 120 (1) of PJM provides that the Deputy Superintendent shall satisfy himself that a sufficient strength of the guard to meet all emergencies is at all times present at the jail. Further, Paragraph 5.04 of MPMs 2003 and 2016 provides that in all Central and District Prisons, there will be a reserve guard/quick reaction team consisting of eight to twenty Warders, who have undergone commando training, with use of modern weapons and unarmed combat. This reserve guard will always be ready in the guard room to meet any emergency.

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44 Central Jails: (i) Amritsar: 1,615 to 2,266 in 2016-17; (ii) Bathinda: 1,146 to 2,375 in 2015-16; (iii) Gurdaspur: 750 to 950 in 2015-16; (iv) Patiala: 1,401 to 1,801 in 2016-17; (v) New District Jail, Nabha: 600 to 800 in 2016-17; and (vi) District Jail, Sri Muktsar Sahib: 69 to 900 in 2015-16.

45 Central Jails: (i) Ferozepur (1); (ii) Ludhiana (1); (iii) Hoshiarpur (3); (iv) Patiala (2); (v) District Jail, Rupnagar (8); and (vi) Borstal Jail, Ludhiana (6).

Audit noticed that six[46] out of seven test-checked Central/District Jails were not provided with reserve guard/quick reaction team to meet with any emergency situation in jails. Though the reserve guard/quick reaction team was available in CJ Amritsar, the commando training with use of modern weapons was not imparted to the Warders.

The Department stated (August 2019) that process to recruit 670 Warders was under process and reserve guard would be provided in jails thereafter.

3.6.5 Internal control mechanism

Internal control and monitoring mechanism of activities of a department plays a vital role in successful implementation of various measures and efficient and effective running of the department. Some of the deficiencies in internal control and monitoring mechanism noticed during the test-check of records with regard to security mechanism in jails are discussed as under:

3.6.5.1 Inadequate inspection of jails

Paragraph 25 of Chapter V of PJM provides that the Inspector General, as far as may be, shall visit and inspect every jail at least once in each year with a view to satisfy himself that the provisions of the Prisons Act, 1894 are duly enforced and that the management of each jail is in all respects efficient and satisfactory. While discussing Paragraph 5.1.12.1 of the C&AG's Report on Social, General and Economic Sectors (Non-PSUs) for the year ended 31 March 2012, the PAC recommended (September 2014) that the Department could prepare a calendar to conduct periodical inspection of jails.

Test-check of records of ADGP office revealed that shortfall in inspection of jails ranged between 15 and 88 *per cent* during 2015-18, as out of 26 jails in the State, ADGP/IGP inspected only 3 jails (12 *per cent*) in 2015-16, 13 jails (50 *per cent*) in 2016-17 and 22 jails (85 *per cent*) in 2017-18. **It was also noticed that in spite of recommendation of PAC, the Department had not prepared any calendar to conduct periodical inspection of jails (July 2018).**

3.6.5.2 Non-maintenance of history tickets of under-trial prisoners

Paragraphs 422 to 427 of PJM provide that every prisoner shall immediately on his reception into jail be provided with a history ticket throughout the period during which such prisoner remains in confinement. The history ticket shall contain the name, prison number and other particulars necessary for the identification of prisoner, medical status, a brief record of every occurrence of any importance affecting the prisoner, which takes place while he remains in confinement, etc.

Audit noticed that as of March 2018, 26 jails of the State were not maintaining the history tickets in respect of 13,400 under-trial prisoners though the same was being maintained in respect of convicts in all jails.

[46] Central Jails: (i) Gurdaspur; (ii) Jalandhar at Kapurthala; (iii) Ludhiana; District Jails (iv) MSJ Nabha; (v) Sangrur; and (vi) Rupnagar.

The Department stated (August 2019) that requisite instructions had been issued in July 2019 to maintain history tickets of under-trial prisoners.

3.6.6 Impact assessment

Audit noticed that due to various weaknesses found in jail security, as discussed in this report, the following lapses occurred in jails during 2015-18:

- As many as 2,151 mobiles, 907 mobile SIMs, 34 mobile accessories were recovered from inmates.

- Arms and ammunition *viz.* one pistol, two cartridges, five live rounds of .32 bore besides substantial quantity of narcotic drugs[47] and cash amounting to ₹ 1.27 lakh were also seized.

- Thirty-one[48] prisoners (including four gangsters and two hard-core terrorists from High Security Jail, Nabha) escaped from 13[49] jails during the period from January 2015 to March 2018 by adopting various measures i.e. scaling/jumping jail boundary, external help, from outside jail garden, etc. owing to shortcomings in building structures i.e. insufficient height of jail boundary, inadequate watch towers, shortage of Warder staff, etc.

The Department stated (August 2019) that data depicted above itself showed that search of inmates were being done as a result of which the recoveries had been made by the Department. However, reasons for breach of security as to how the mobiles and arms reached inmates were not furnished by the Department.

3.6.7 Conclusion

The security mechanism in jails left a lot of scope for improvement. Funds ranging between 31 and 100 *per cent* could not be utilised. The jails lacked adequate modern security equipment besides having deficiencies in building structures. There was shortage of Warder staff ranging between 30 and 45 *per cent;* and that of periodical inspection of jails ranging between 15 and 88 *per cent* during 2015-18 which showed weak internal control system in the Department. Due to various weaknesses found in jail security, cases of possession of prohibited articles with the prisoners were also noticed and 31 prisoners escaped during January 2015 to March 2018.

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[47] Ganja, afeem, smack, poppy husk, heroin, intoxicating pills/tablets, cigarettes, tobacco, etc.

[48] 18 (out of 31) prisoners escaped from police custody for the period from 01.01.2017 to 31.03.2018.

[49] Central Jails: (i) Amritsar (7); (ii) Ferozepur (2); (iii) Jalandhar at Kapurthala (3); (iv) Ludhiana (1); (v) Faridkot (2); (vi) Hoshiarpur (2); (vii) Bathinda (1), (viii) Patiala (2); District Jails: (ix) Barnala (1); (x) Rupnagar (1); (xi) Mansa (1); (xii) MSJ Nabha (6); and (xiii) Sub Jail, Phagwara (2).

HOME AFFAIRS & JUSTICE AND FINANCE DEPARTMENTS

3.7 Avoidable extra payment of interest

There was delay in paying instalments by the Police Department for land made available by Chandigarh Administration due to non-release of funds and non-passing of bills by Finance Department. This resulted in avoidable burden of ₹ 1.35 crore on the State exchequer on account of interest for late payment.

Rule 2.10 of Punjab Financial Rules (PFR), Volume-I provides that every Government employee incurring or sanctioning expenditure from the revenues of the State should be guided by high standards of financial propriety. Each Head of Department is responsible for enforcing financial order of strict economy at every step. It further provides that every Government employee is expected to exercise the same vigilance in respect of expenditure incurred from public money as a person of ordinary prudence would exercise in respect of expenditure of his own money.

Test-check of records (February 2017) of the office of Director General of Police (DGP), Punjab revealed that the Chandigarh Administration allotted (June 2007) a piece of land measuring 5,065.555 square yards (revised to 5,064.960 square yards in July 2008) to the Punjab Police Department (Department) for construction of Punjab Police Integrated Transit Complex in Chandigarh on free hold basis at a premium[50] (cost) of ₹ 4.01 crore (i.e. ₹ 7,920/- per square yard). On payment (September 2007) by the Department of ₹ 1.01 crore towards 25 *per cent* of the total premium of the land, the Estate Officer (EO), Chandigarh Administration issued an allotment letter for the purpose in October 2007. As per terms and conditions of the allotment letter, the balance 75 *per cent* of the premium together with interest thereon at the rate of 10 *per cent* per annum was payable in three equated annual instalments of ₹ 1.21 crore each falling due[51] on 11 October during the years 2008, 2009 and 2010. In case the instalment was not paid on due date, interest at the rate of 20 *per cent* per annum was payable from the due date to the date of actual payment.

Audit observed that the Department paid the first and second instalment of ₹ 1.21 crore each on 06.11.2008 (by due date) and 23.12.2009 (with a deficit of ₹ 404 and after a delay of 74 days) respectively due to late release of funds by the Finance Department (FD). The EO kept raising demand from time to time for payment of third instalment of ₹ 1.21 crore (including the deficit of ₹ 404 of the second instalment) along with interest at the rate of 20 *per cent* per annum, as per terms and conditions of the allotment letter. The Department, however, could not pay the due amount from October 2010 to January 2016, as despite budget provisions/sanctions, the funds were either not released by FD on time or, if released, the bills were not passed by the treasury during 2010-11 to 2014-15. During 2012-13, the bill was returned by

[50] "Premium" means the price paid or promised for the transfer of a right to enjoy immovable property.

[51] Payable up to 10 November of 2008, 2009 and 2010.

the treasury due to non-holding of Drawing and Disbursing Officer powers with the Department to operate the head of account and non-furnishing of other requisite documents/certificates along with the bill. Finally, the Department paid (February – November 2016) the due amount of ₹ 2.56 crore together with interest of ₹ 1.35 crore[52] at the rate of 20 *per cent* per annum for the period from October 2009 to February 2016.

The Home Affairs and Justice Department while reiterating the facts stated (May 2019) that the delay in payment of instalments was due to non-release of funds and non-clearance of bills by the State Government/treasury. However, the FD did not furnish any reply (May 2019).

Thus, non-fulfillment of requisite conditions for passing the bill, by the Police Department and non-release of funds and non-passing of bills by FD/treasury for making payment of instalments of land by due dates despite budget provisions resulted in an avoidable extra burden on State exchequer on account of payment of interest amounting to ₹ 1.35 crore.

IRRIGATION DEPARTMENT

3.8 Blockade of expenditure

The Department awarded a work of construction of an irrigation distributary without obtaining the requisite prior permission from the Railway authorities despite the fact that a railway line crossed the proposed alignment of the distributary. As a result, the irrigation facility had not become functional thereby resulting in blockade of an expenditure of ₹ 3.86 crore.

Paragraph 2.22 of 'Punjab Public Works Department Code' (Code) provides that whenever the alignment of a new road, canal, drain, etc. passes close to, or involves any alteration to or diversions of pre-existing railways, or interferes with any works or land appurtenant to the same, the written acceptance of the authorities in charge of such Railways to the proposals involved by the construction of the new road, canal, drain, etc. must invariably be obtained before any work thereon is put in hand, and the departmental authorities concerned should, therefore, obtain the views of the responsible Railways authority in such cases during the survey.

Test check of the records (June 2017) of the Executive Engineer, Investigation Division (J), Hoshiarpur (EE) showed that with a view to provide irrigation facility to 748 hectare land, EE awarded (April 2016) the work of construction of Mehangrowal distributary[53] from RD 4360 to 8053 metres at a cost of ₹ 2.98 crore . The work was to be completed latest by 18 August 2016. Subsequently, the EE allotted (19 October 2016) another work of construction of underground irrigation distribution system of the Mehangrowal distributary at a cost of ₹ 4.07 crore to the same contractor. The work was to be completed within 90 days i.e. by 16 January 2017.

[52] Total amount paid (₹ 5.98 crore) *minus* amount due (₹ 4.63 crore).
[53] Off taking at RD 88731 metre of Kandi Canal Stage-II.

Audit observed that though the Department was aware that a railway line crossed the proposed alignment of the distributary at RD 6713, it did not seek prior approval of the Railways authority as required under afore-mentioned provisions of the Code. While sanctioning the estimate of the work (11 February 2016), it was specifically mentioned that sanction from the Railways Department would be obtained if any objection was raised by the Railways. The EE took up the matter with the Railways only on 3 June 2016 for obtaining No Objection Certificate for laying a pipeline underneath the railway line[54]; but it was yet to be obtained. The matter was still under correspondence (September 2019) with the Railways and the two sections of the Mehangrowal distributary on either side of the railway line had not been linked. As a result, the main distributary could only be made functional upto RD 6713 metres and pipelines laid from RD 6713 metres to RD 8053 metres could not be made functional after a lapse of more than two years from the scheduled date of completion (18 August 2016). The works costing ₹ 1.05 crore[55](out of ₹ 2.90 crore) of the main distributary and ₹ 2.81 crore[56](out of ₹ 3.74 crore) of the distribution system had been completed but remained non-functional at site, thereby resulting in blockade of expenditure.

Thus, due to not obtaining prior clearance from the Railway authorities for laying a pipeline below the railway line, an expenditure of ₹ 3.86 crore incurred on two works remained blocked and failed to achieve the intended objectives.

The matter was referred to the Government in May 2018; reply was awaited (August 2019).

MEDICAL EDUCATION AND RESEARCH DEPARTMENT

3.9 Non-functional Diagnostic and Superspeciality Block

Guru Teg Bahadur Diagnostic and Superspeciality Block constructed at a cost of ₹ 24.27 crore could not be made functional for intended purposes for more than three years since its completion due to non-provision of requisite staff and funds by the Department of Medical Education and Research.

With a view to providing access to specialized tertiary healthcare services to people of Punjab, especially those living in sensitive Indo-Pakistan border areas and to boost medical education facilities, Government of India (GoI), Ministry of Health and Family Welfare, selected (January 2009) Government Medical College, Amritsar (GMC) for upgradation, on the proposal of the Government of Punjab (GoP). The upgradation *inter alia* included provision of a Diagnostic and Superspeciality Block[57] (DSB) under Pradhan Mantri

[54] At km 60.5 to 60.8 on upstream of Railway bridge No.205 near village Bharatpur Jattan.
[55] ₹ 2.90 x (1,340/3,693) = ₹ 1.05 crore.
[56] 75 *per cent* of ₹ 3.74 crore = ₹ 2.81 crore.
[57] In the name of Guru Teg Bahadur Diagnostic and Superspeciality Block consisting of ground plus five floors.

Swasthya Suraksha Yojna (PMSSY). As per PMSSY guidelines, the State Government was to provide manpower, support staff and meet the recurring expenditure for running this block.

Audit of records (May 2017) of GMC, Amritsar revealed that GoI had the DSB constructed (January 2012-May 2015) at GMC, Amritsar through a contractual agency at a cost of ₹ 24.27 crore. In the meantime, on the proposal[58] (September 2011) of GMC, the Department of Medical Education and Research (DMER), GoP notified (October 2013) some posts of specialists/faculty for recruitment for running the superspeciality services in GMC, Amritsar. However, no suitable candidates could be shortlisted by the Department. The State Government also did not provide funds for running the block. The GMC did not take over the DSB primarily due to non-provision of additional manpower (medical and para-medical) and requisite funds for meeting recurring expenses and for maintenance expenditure (October 2018).

Although it was clear at the time of approval of the project that the State Government would be required to provide staff and funds for running the super-speciality block, the DMER and the State Government has been unable to do so even after three years of construction of the block. As a result, the State could not obtain value for money for ₹ 24.27 crore spent on the construction of the block, thereby not achieving the intended objectives.

The State Government may provide requisite manpower and funds to make the Guru Teg Bahadur Diagnostic and Superspeciality Block functional to deliver envisaged medical facilities to public.

The matter was referred to the Government in May 2018; reply was awaited (August 2019).

3.10 Idle expenditure arising from non-functional machine for treatment of cancer patients

Non-provision of requisite manpower to make the Bhabhatron-II machine functional not only rendered the expenditure of ₹ 1.39 crore idle, but also denied the in-house treatment of advance cases of cancer for more than two years from its procurement.

The Secretary to Government of Punjab, Department of Medical Education and Research (DMER) requested (December 2014) the Tata Memorial Centre, Department of Atomic Energy (DoAE), Government of India (GoI) for provision of Bhabhatron-II machine[59]- an advanced digital Cobalt therapy machine - with Cobalt source to be installed at Government Medical College (GMC), Patiala for treatment of cancer patients. While making the request, the Secretary, DMER assured DoAE (GoI) that requisite infrastructure was

[58] Proposal for creation of 1,294 posts (Group 'A' specialist/faculty: 209; Group B:447; Group C: 269; and Group D: 369).

[59] In place of old Theratron 780 machine.

available at GMC, Patiala for operating the machine. Accordingly, DoAE, GoI granted (May 2015) financial assistance of ₹ 2.80 crore for the purpose.

Audit of records (October 2017) of GMC, Patiala revealed that the Department, through Punjab Health Systems Corporation, procured (June 2016) the Bhabhatron-II machine from a firm at a cost of ₹ 2.01 crore, of which ₹ 1.39 crore had been paid as of March 2018. The machine was installed in GMC, Patiala between October 2016 and June 2017. However, the same could not be put to use for want of requisite manpower i.e. Radiation Oncologist and Medical Physicist since June 2016[60] and February 2018[61] respectively. Though the Department had initiated (May 2016) the process for filling up the posts of Radiation Oncologist, the same could not be finalized (May 2018) despite repeated requests of GMC, Patiala till April 2018. Although the Department appointed two Radiation Oncologists in May and August 2018, it could not deploy the Medical Physicist as of December 2018.

The Department stated (December 2018) that the State Government had advertised the posts of Medical Physicist in December 2018. Subsequent reply of the Department was awaited (August 2019).

Thus, non-provision of requisite manpower to make the Bhabhatron-II machine functional not only rendered the expenditure of ₹ 1.39 crore idle, but also denied the in-house treatment of advance cases of cancer for more than two years from its procurement.

The matter was referred to Government in April 2018; reply was awaited (August 2019).

3.11 Idle expenditure arising from non-functional Multidisciplinary Research Units

Laxity on the part of the Department to complete the process of selection of staff for more than four years from receipt of funds from GoI not only resulted in idle expenditure of ₹ 0.76 crore on procurement of equipment but the objectives of the scheme also remained unachieved.

The Government of India (GoI) approved (July 2013) a scheme for "Establishment of Multi-Disciplinary Research Units (MRUs) in Government Medical Colleges/Research Institutions" (Scheme) in the 12th Plan period during 2013-15, which would be continued till 2019-20. The main objective of the scheme was to improve the overall health status of the population by creating evidence-based application of diagnostic procedures/processes/ methods. Under the scheme, one time financial assistance of ₹ 5.25 crore[62]

[60] The Radiation Oncologist i.e. Professor and Head of Radiotherapy Department, available at the time of procurement of the machine was transferred (June 2016) on his request to GMC, Amritsar.

[61] The Medical Physicist (deployed on contract basis) first remained absent from duties from February 2018 and then resigned in July 2018.

[62] ₹ 5.00 crore for purchase of equipment; and ₹ 0.25 crore for minor civil works.

was to be provided to the selected Government medical college for setting up a modern biological laboratory/multi-disciplinary research unit.

Audit of records (June 2018) of the Government Medical College (GMC), Patiala and subsequent information collected up to January 2019 revealed that GoI sanctioned (September 2014) the establishment of MRU in GMC and released (October 2014) first instalment of ₹ 1.25 crore[63] to GMC. Subsequent two instalments of ₹ two crore each were to be released on achievement of the laid down markers/milestones[64] and after submission of utilisation certificate (UC) along with the audited statement of account to GoI. Besides, financial assistance of ₹ 0.34 crore[65] per year towards staff to be engaged on contractual basis (₹ 0.19 crore) and for consumables/training/ contingencies (₹ 0.15 crore) were also to be provided by GoI for a period of five years.

Audit observed that GMC, after a delay of more than two years, procured (September 2016-October 2018) 12 machinery and equipment valuing ₹ 0.76 crore[66] and spent ₹ 0.24 crore on civil work, thereby utilizing a total grant of ₹ 1.00 crore. The UCs in respect of partial expenditure of ₹ 1.00 crore were sent to GoI during July 2017-November 2018, leaving ₹ 0.25 crore unspent with GMC. The procurement of remaining three[67] equipment was pending due to non-finalization of technical specifications (two equipment) and tendering process (one equipment). Further, though the GMC had constituted (October 2016) the Local Research Area Committee (LRAC), it did not complete the process for selection of contractual staff, due to which 12 machinery and equipment procured between September 2016 and October 2018 were lying idle with GMC, Patiala (January 2019).

The GMC, Patiala assured (July 2018) to complete the process of purchase of remaining equipment at the earliest and take up the matter with GoI for release of second instalment. The Department further stated (January 2019) that the contractual staff would be recruited to make the idle equipment/machines functional by the end of May/June 2019. Subsequent reply of the Department was awaited (August 2019).

Thus, due to laxity on the part of the Department to complete the process for procurement of equipment and selection of contractual staff for more than four years from receipt of funds (October 2014), the UC for the entire amount of first instalment could not be sent to GoI, thereby causing non-release of subsequent funds from GoI. This not only resulted in idle expenditure of

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63 ₹ 1.00 crore for purchase of 15 equipment; and ₹ 0.25 crore for minor civil works.

64 Release of second instalment on (i) completion of civil work; (ii) constitution of Local Research Advisory Committee (LRAC) and development of research projects; (iii) placement of orders for procurement of equipment with clear delivery scheme; and (iv) completion of the process for selection of contractual staff whereas third instalment was to be released on (i) holding of at least two meetings of Research Committees; (ii) certification of appointment of contractual staff after release of second instalment; and (iii) review of performance by ICMR Evaluation Committee.

65 Enhanced (May 2018) to ₹ 0.47 crore (₹ 0.25 crore for salary and ₹ 0.22 crore for contingency) till 2019-20.

66 Payment of ₹ 0.02 crore in respect of one equipment *viz.* Centrifuge Machine (4 Nos.) procured in October 2018 was yet to be made (January 2019).

67 (i) Fully automatic Hematology Analyzer; (ii) Cryostat; and (iii) Microtone.

₹ 0.76 crore on procurement of equipment but the objectives of the scheme remained unachieved.

The State Government may ensure completion of process for selection of requisite staff to make the existing machinery and equipment functional. It may also ensure procurement of remaining equipment and send the utilization certificate of entire amount along with other requisites to get subsequent funds from GoI so as to achieve envisaged benefits under the scheme.

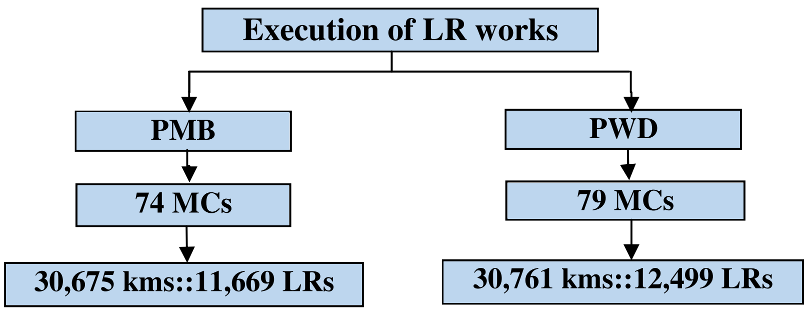
The matter was referred to Government in September 2018; reply was awaited (August 2019).

PUBLIC WORKS (BUILDINGS & ROADS) AND AGRICULTURE DEPARTMENTS

3.12 Construction, upgradation and repair of link roads by Public Works Department (Buildings & Roads) with Punjab Mandi Board and State budgetary funds

Annual maintenance plan was not prepared for regular maintenance of link roads. 197 link road works and 44 badly damaged roads were lying incomplete due to short/non-release of funds besides creating liability of ₹ 12.35 crore. Repeated change in scope of work led to cost overrun of ₹ 20.83 crore. Execution of all road safety items was not ensured. Six physically verified link roads were in dilapidated condition due to poor quality of execution within two to six years of completion.

Punjab has 50,362 sq. km of area and 63 *per cent* of its population reside in rural areas. The State has total road network of 72,243.36 kms which includes 61,436 kms (85 *per cent*) of link roads (LRs[68]) numbering 24,168. Therefore, rural/link roads are lifeline of rural economy of the State, facilitating carriage of agricultural produce to markets. The LRs of the State fall under jurisdiction of 153 Market Committees (MCs) under the administrative control of Punjab State Agricultural Marketing Board, also known as Punjab Mandi Board (PMB). PMB, under the administrative control of Department of Agriculture, is the nodal agency for link roads in Punjab. The repair and maintenance works of LRs are done both by PMB and the Public Works Department (PWD) in the areas falling under their jurisdiction as illustrated below:



[68] Link/Village Roads are roads connecting villages or cluster/group of villages with each other and to the nearest road of higher category. The road way width of rural roads is on the basis of single lane carriage way of 3.75 metres.

The scope of audit was restricted to scrutinise the records of PWD executing maintenance and repair works with PMB and State budgetary funds. Audit covering the period 2013-18 was conducted by test checking the records of the Secretary, PMB, Chief Engineer (CE), PWD and Quality Control *cum* Chief Vigilance Officer, PWD. For test checking the execution of LR works, out of 21 districts executing the LR works in the State, six districts, having 15 divisions (out of 39) of PWD, were selected. During the period covered under audit, following irregularities were noticed:

3.12.1 Non-preparation of annual maintenance plan

Government of Punjab (Department of Agriculture) notified (December 2015) 'Policy on maintenance of village roads' (Policy) by PWD and PMB. Para 5.4 read with Para 6.4 of the Policy makes it mandatory for every division to send the proposal for routine maintenance works to PMB, preferably by September each year. This would form the basis of working out an Annual Maintenance Plan (AMP) for each division. The annual maintenance includes routine maintenance, particularly pot holes' repairs, maintenance of shoulders and cleaning of cross drainage works, etc.

However, examination of records of PMB and CE, PWD showed that neither any AMP was prepared nor any work of routine maintenance of LRs was executed during 2013-18. Only special[69] repair of LRs, after six years of the last date of repair, was done based on condition of the road and availability of funds.

The PMB while admitting the observation stated (July 2019) that funds for maintenance could not be earmarked in the budget proposal due to financial constraints.

3.12.2 Delay in release of funds

(a) PMB transferred funds of ₹ 518.56 crore under the scheme RB-09 (2015-16) to the EEs of PWD for making payments for repair/maintenance works of LRs. Similarly, under the SRP of 2013-14 and 2016-17, PMB was periodically releasing the funds to PWD.

However, audit observed that in 15 selected divisions, funds of ₹ 384.85 crore were released after a delay ranging between 31 and 900 days by PMB against the demands raised by EEs. Due to which 66 *per cent* (969 out of 1458) LR works (***Appendix 3.7)*** in 11 selected divisions[70] allotted during November 2013 to July 2016 were completed after delay ranging between 19 and 527 days beyond the stipulated dates of completion.

[69] Under special repairs, the repairs such as filling of large potholes, side settlements, pavement rectification, etc. are carried out.

[70] (i) Central Works Division No. 2, Amritsar-94 roads; (ii) CD No. 2, Bathinda-120 roads; (iii) CD No. 1, Hoshiarpur-79 roads; (iv) CD No. 2, Hoshiarpur-64 roads (v) PD, Hoshiarpur-109 roads; (vi) CD No. 1, Kapurthala-82 roads; (vii) CD No. 2, Kapurthala-124 roads; (viii) CD No. 1, Ludhiana-38 roads; (ix) CD No. 3, Ludhiana-73 roads; (x) PD, Ludhiana-79 roads; and (xi) CD, Mukerian-107 roads.

Similarly, in eight[71]divisions, out of 366 LRs, 197[72] LR works ***(Appendix 3.8)*** of special repair were still lying (31 March 2018) incomplete after lapse of 243 to 758 days beyond the respective stipulated dates of completion due to short release of funds, despite spending ₹ 28.22 crore. As against the demand of ₹ 415.07 crore, ₹ 384.85 crore were released during 2013-18. The demands were raised between June 2013 and March 2017 whereas the funds were released between July 2013 and January 2018.

(b) Short/non-release of funds leading to non-completion of badly damaged roads

GoP accorded (December 2016) administrative approval to immediate special repair of 559.32 kms of badly damaged 80 roads at a cost of ₹ 102.04 crore. The State Finance Department (FD) sanctioned (December 2016) ₹ 40 crore during 2016-17 under the Head 5054-'Capital Outlay on Roads and Bridges'.

Audit observed that despite lapse of more than 27 months after the administrative approval, works of only 123.03 kms (30 *per cent*) in respect of 24 LRs were completed out of 68 link roads[73] allotted for 406.95 kms**.** Whereas, remaining 44 roads having length of 283.92 kms were still lying incomplete after execution of works between eight and 85 *per cent*. It was noticed that the premix carpet (PC) ranging between 18 and 86 *per cent* was not completed in 19 roads and in case of 25 roads having length of 110.43 kms, no PC was laid.

In 10[74] out of 15 test checked divisions, 18 special repair works, having length of 125.44 kms, were allotted (December 2016 to January 2017) to 10 agencies at a cost of ₹ 15.26 crore for completion within 2-4 months. However, audit observed that Premix Carpet (PC) was completed in 45.40 kms length of 10 roads and eight roads were lying incomplete after execution of works between 38 and 85 *per cent*. The PC ranging between zero and 70 *per cent* only was laid (March 2019) due to which these LRs were not traffic worthy as depicted in pictures below:

[71] (i) Construction Division (CD) No. 1, Amritsar-09 roads; (ii) Central Works Division No. 2, Amritsar-03 roads; (iii) Provincial Division (PD), Amritsar-26 roads; (iv) CD No. 2, Bathinda-11 roads; (v) PD, Bathinda-10 roads; (vi) PD, Hoshiarpur-70 roads; (vii) CD No. 1, Hoshiarpur-49 roads; and (viii) CD, Mukerian-19 roads.

[72]

Year	No. of Divisions	Total roads	Incomplete roads
2015-16	1	93	18
2016-17	8	273	179
Total		**366**	**197**

[73] Out of 80 roads approved, work of 12 link roads were not allotted.

[74] (i) Construction Division (CD) No. 2, Amritsar-2 roads; (ii) Provincial Division (PD), Amritsar-1 road; (iii) Central Works Division No. 2, Amritsar-1 road; (iv) PD, Hoshiarpur-1 road; (v) CD No. 1, Hoshiarpur-2 roads; (vi) CD No. 2, Hoshiarpur-2 roads; (vii) CD No. 1, Kapurthala-1 road; (viii) CD No. 2, Kapurthala-5 roads; (ix) CD No. 1, Ludhiana-2 roads; and (x) CD, Mukerian-1 road.

Ajnala Chogawan Road to Kotla Doom on to Amritsar Chogawan Ranian Road, Amritsar (23 July 2019)

L.M. road to Kaind to Dulley to Chupki to Jassowal to Bihla, Ludhiana (29 July 2019)

Plying of traffic on incomplete roads would not only create environmental pollution but also deteriorate the pavement of roads, reduce the life of vehicles and increase the risk of accidents.

The works could not be completed because only ₹ 0.66 crore were released/spent during 2016-17. The works were lying incomplete since December 2017, after execution of works valuing ₹ 37.57 crore, due to non-release of funds.

The Deputy Secretary admitted (May 2019) that due to financial constraints, works could not be completed and added that the matter had been sorted out. Payment of ₹ 25.22 crore had been made to the contractors and works would be completed shortly. The reply was not acceptable because audit did not notice any physical progress since December 2017 till March 2019.

Thus, failure of the department to arrange sufficient funds for the completion of works had resulted in non-completion of the badly damaged road works, besides creating liability of ₹ 12.35 crore *(Appendix 3.9)*.

3.12.3 Repeated change in scope of works after allotment led to cost over run

Paragraph 2.89 of PWD code provides that no work shall commence unless a properly detailed design and estimate have been sanctioned and allotment of funds made by the competent authority. Further, as per instructions (February 2009) of GoP, the works had to be allotted within 105 days[75] after receipt of administrative approval under all circumstances. Rule 2.67(3) of PWD code provides that if any necessity arises of making change in specifications after tenders have been invited but before they have been received or accepted, fresh tenders should, as a rule, be invited.

Audit observed that the Secretary, PMB accorded (03 May 2013) administrative approval to special repair of 3,372.37 kms length of 1,674 link roads at a cost of ₹ 401.21 crore. It was, however, observed from the records

[75] Period for issue of Detailed Notice Inviting Tender after receipt of administrative approval must be limited to a maximum period of two months and acceptance of tender within 45 days thereafter.

of 13[76] out of the 15 selected divisions, that 132 tenders in respect of 580 LRs out of 863 initially approved were allotted (November 2013 to February 2014) with a delay of 84 to 193 days beyond the prescribed period of 105 days.

Meanwhile, audit observed that a committee[77] was constituted (December 2013) which decided to delete those roads from the received tenders where work was not commenced, if the codal rules permit so. Thereafter, without taking cognizance of codal provisions mentioned *ibid*, Secretary, PMB accorded (February 2014) revised administrative approval to special repair of 1,911.90 kms length of 1,141 LRs at a cost of ₹ 277.35 crore, which was re-revised (March 2014) to ₹ 297.59 crore in respect of 1,994.37 kms length of 1,192 LRs on the recommendations (March 2014) of the Chief Minister.

Table 3.7: Details of repeated change in scope of work after allotment

Approval	Date of approval	Number of LRs	Length of LRs (kms)	Cost (₹ in crore)	Reasons for change
1st approval	May 2013	1,674	3,372.37	401.21	--
Revised approval	February 2014	1,141	1,911.90	277.35	On the recommendation of committee, but without following the codal rule
Re-revised approval	March 2014	1,192	1,994.37	297.59	On the recommendation of Chief Minister

This frequent change in scope of work after allotment resulted into:

- **deletion of 1,378 kms length of 482 LRs initially approved which were not repaired till the date of audit;**
- **completion of 1,910.78 kms of roads at a cost of ₹ 248.25 crore against 3,372.37 kms originally envisaged; and**
- **repeated change in the scope of work after allotment is in violation of *ibid* codal provisions and had defeated the objective of competitive biddings.** This vitiated the tendering process by creating entry barriers for other prospective small bidders and Labour & Co-operative Societies due to high value of works as per Notice Inviting Tenders; thus, depriving them of the opportunity of bidding for the works. Consequently, competition was curtailed in the bidding process.

PMB stated (July 2019) that tenders were called four times during 2013-14 by including the maintenance clause, but no agency had applied for the works. Thereafter, maintenance clause was deleted, and number of roads

[76] (i) Central Works Division No. 2, Amritsar-39 works; (ii) Provincial Division (PD), Amritsar-63 works; (iii) Construction Division (CD) No. 2, Bathinda-28 works; (iv) PD, Bathinda-90 works; (v) Construction Division (CD) No. 2, Hoshiarpur-81 works; (vi) CD No. 1, Hoshiarpur-47 works; (vii) PD, Hoshiarpur-50 works; (viii) CD No. 1, Ludhiana-18 works; (ix) CD No. 3 Ludhiana-37 works; (x) PD, Ludhiana-23 works; (xi) CD No. 1, Kapurthala-11 works; (xii) CD No. 2, Kapurthala-18 works; and (xiii) CD, Mukerian-75 works.

[77] Comprising of Financial Commissioner (Development), Lieutenant General (Retd.) Shri B.S. Dhaliwal (Special invitee), Secretary, PWD and Secretary, PMB.

was reduced due to paucity of funds. However, it was seen that, as per balance sheet, sufficient funds were available with PMB, whereas changes after receipt/allotment of tenders was in violation of codal provisions.

Non-allotment of the works within the prescribed time coupled with frequent changes in length and number of LRs to be repaired had delayed the completion of the works and consequent increase in cost. This resulted in extra expenditure of ₹ 20.83 crore[78].

3.12.4 Non-execution of mandatory items of road safety

Para 6.1 of Rural Road Manual (RRM) provides that an adequate drainage is required for maintaining the structural and functional adequacy of the road. Paragraph 1 of the PMB guidelines (February 2013) provides that detailed estimates for LRs were to be prepared in accordance with a prescribed standard estimate containing different items and specifications. Further, Para 8 of the guidelines provides that 100 *per cent* payment of premix carpet should only be released after ensuring installation of village sign boards, rumble strips, kilometre stones, boundary pillars and dressing of berms, etc.

Audit observed that in six[79] divisions, out of 86 LRs, in case of 24 link roads measuring 80.78 kms executed by PWD at a cost of ₹ 20.15 crore, cross drainage works such as side/span type culverts, hume pipe culverts and side drains, etc. were not executed though these were allotted to the contractors in the agreements.

Similarly, in five[80] divisions out of 904 LRs, in case of 110 LRs measuring 267.17 kms, the contractual agencies short executed the items of village sign boards (43 numbers) rumble strips (1,951.77 meters), kilometre stones (58 numbers), boundary pillars (325 numbers) and dressing of berms (1,70,628.29 sqm) and videography (55 numbers) against that provided[81] in the respective estimates and allotted to the contractors, **due to which fatal accidents could not be ruled out.** Despite non-completion of road safety items, the EEs concerned had released the final payments to the contractors in violation of the guidelines *ibid*.

G.T. road to Khurampur via DhakPalahi road, Kapurthala, showing non construction of boundary pillars (26 November 2018)

[78] Cost per km as per original approval =₹ 11.90 lakh.
Cost per km for the completed roads= ₹ 12.99 lakh.
Excess expenditure = 1910.78 x 1.09= ₹ 20.83 crore.

[79] (i) Provincial Division (PD), Bathinda-3 roads; (ii) Construction Division (CD) No. 2, Bathinda-6 roads; (iii) PD, Hoshiarpur-7 roads; (iv) CD No. 1, Hoshiarpur-2 roads; (v) PD, Ludhiana-4 roads; and (vi) CD No. 3, Ludhiana-2 roads.

[80] (i) Provincial Division (PD), Bathinda-3 works (17 LRs); (ii) Construction Division (CD) No. 2, Bathinda-4 works (42 LRs); (iii) PD, Hoshiarpur-3 works (14 LRs); (iv) CD No. 3, Ludhiana-5 works (23 LRs); and (v) PD, Ludhiana-4 works (14 LRs).

[81] Village sign boards (100 numbers), rumble strips (2,141.60 meters), kilometre stones (96 numbers), boundary pillars (740 numbers) and dressing of berms (5,77,917.56 sqm) and videography (95 numbers).

The Deputy Secretary stated (May 2019) that these works were executed by other agencies like Gram Panchayats, whereas in some cases, the residents of area opposed the execution of cross drainage works. Other items such as rumble strips, earth-work, etc were executed as per site requirements. The reply was not acceptable because there was shortfall in the execution of the mandatory items as per records. **The fact of non-execution of mandatory items verified by Audit during field visit as depicted in the photograph *ibid* reflect that department had compromised with the safety of commuters.**

3.12.5 Poor quality of execution of roads

During field visit (May 2018 - January 2019) of 48 LRs[82], audit noticed patches/pot holes in 19 LRs of 10 divisions. Out of these, five LRs which were completed at a cost of ₹ 1.57 crore between July 2014 and May 2017 were found damaged/dilapidated condition as detailed in **Table 3.8** below:

Table 3.8: Details of poor quality of execution of roads

Sr. No.	Name of Division	Name of the Road	Periodicity (in years)	Actual date of completion	Expenditure incurred (₹ in lakh)	Picture of Roads
1.	Provincial Division, Hoshiarpur	Patti Harmoya Badla	>5<6	12.10.2016	46.03	
2.	Construction Division No. 2, Hoshiarpur	Garhshankar Santokhgarh road to Pipli to Tibbian	>4<5	28.05.2017	29.71	
3.	Provincial Division, Bathinda	Phirni Village Bajjoana	>3<4	22.07.2014	29.97	
4.	Construction Division No. 1, Ludhiana	Pakhowal Road to DAV School Chhabra Colony	>3<4	20.06.2016	20.45	
5.	Construction Division No. 2, Hoshiarpur	Mahilpur Garhshankar road to Meghowal Jandialan	>3<4	28.03.2017	31.03	
Total					**157.19**	

[82] > 10 years old : 15
>6 and <10 years: 14
<6 years old: 19

The premature damage to the roads reflects poor quality of execution by the department.

Another work of special repair of link road Ponga to Kotli Koka to Raipur Kalan[83] having length of 3.75 kms in MC Ajnala, district Amritsar was completed (June 2016) at a cost of ₹ 68.37 lakh under SRP 2015-16. But during physical visit (May 2018), the road was found damaged within two years after its completion as depicted in the photographs below:

Ponga to Kotli Koka to Raipur Kalan link road, Amritsar (18 May 2018)

The Additional Chief Secretary directed (November 2018) that technical audit would be conducted for the executed works before payments are released to the contractors.

3.12.6 Inefficient internal control and monitoring system

(i) Due to inefficient internal control an overpayment of ₹ 0.92 crore[84] to 14 contractors was made on account of incorrect calculation of price adjustment of bitumen in respect of 21 works in six divisions.

(ii) The panel of independent monitors to conduct technical audit of the village/link roads had not been constituted as provided in para 7.4 of the policy of village/link roads.

(iii) No road user satisfaction survey was conducted by the department (June 2018) despite having provision under Para 8.4 of the Policy.

3.12.7 Conclusion

Thus, the Department had not prepared Annual Maintenance Plan for regular maintenance of LRs. Funds administratively approved were not released timely by the PMB as well as State Government leading to inadequate flow of funds which in turn led to non/delayed completion of the works. The repeated changes in scope of work led to cost overrun. Execution of the works was also

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[83] Executed by EE, Central Works Division No.2, Amritsar.

[84] (i) Construction Division (CD) No. 2, Amritsar-₹ 0.07 crore (3 works); (ii) Provincial Division (PD), Hoshiarpur-₹ 0.17 crore (3 works); (iii) CD No.1, Hoshiarpur-₹ 0.26 crore (1 work); (iv) CD No.1, Kapurthala-₹ 0.07 crore (1 work); (v) CD No.2, Kapurthala-₹ 0.15 crore (6 works); and (vi) CD No.3, Ludhiana-₹ 0.20 crore (7 works).

found deficient as audit noticed irregularities in calling tenders and award of works such as post tender changes leading to vitiating the tendering process and curtailing the competition in bidding. The works of special repair of badly damaged roads were lying incomplete due to non-release of funds. Internal control and monitoring system was found weak and inefficient.

PUBLIC WORKS (BUILDINGS & ROADS), FINANCE AND TOURISM & CULTURAL AFFAIRS DEPARTMENTS

3.13 Irregular waiver and non-deduction of cultural and cancer cesses

Irregular waiver of cultural and cancer cesses and non-deduction of culture cess by the respective Executive Engineers from the contractors' payments had inflicted loss of ₹ 8.72 crore on the State exchequer and extended undue financial benefit to the contractors.

(a) Under Section 6 of the Punjab Ancient, Historical Monuments, Archaeological Sites and Cultural Heritage Maintenance Board Act, 2013 enacted[85] on 15 April 2013 (Punjab Act No. 29 of 2013), a cess at the rate of one *per cent* is to be levied on the construction cost of roads, bridges, flyovers, rail over bridges, rail under bridges, etc. undertaken by the Public Works Department (PWD), Punjab Mandi Board, Punjab Infrastructure Development Board and Punjab Roads & Bridges Development Board. The cess is also to be levied on all buildings costing more than ₹ 50 crore (revised to ₹ 15 crore in December 2013) constructed by the agencies of the State out of their own or the State's resources. The amount of cess so imposed is to be deposited into the consolidated fund of the State.

Test check of records (November 2017) of the Executive Engineer (EE), Construction Division (CD) No. 2, Amritsar and information collected subsequently (May-June 2018) from six other divisions[86] revealed that in case of 11 works tendered after the date of the enactment of the Act *ibid*, against the due amount of ₹ 8.01 crore on account of cultural cess, only ₹ 0.22 crore were deducted from the contractors against the payments of ₹ 800.98 crore ***(Appendix 3.10)***, leaving ₹ 7.79 crore unrecovered.

The short deduction was due to irregular waiver of cultural cess as discussed below:

On a request made by a contractor (27 February 2017) to the Deputy Chief Minister (Deputy CM), Punjab to issue suitable instructions to PWD to release the amount of cultural cess deducted from his payments in respect of a work[87]

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[85] To provide for a dedicated fund for conservation and preservation of the protected and unprotected built heritage of the State as well as funding for heritage memorials to be created/constructed, and operation and maintenance and upkeep thereof.

[86] (i) Central Works Division No. 2, Amritsar; (ii) Provincial Division (PD), Bathinda; (iii) PD, Chandigarh; (iv) CD, Fazilka; (v) CD No. 1, Kapurthala; and (vi) CD, Sri Muktsar Sahib.

[87] Development and beautification of roads and junctions from Town Hall to Golden Temple, Amritsar.

awarded to him in October 2015 on the grounds that there was no provision for deduction of the cess in the tender of the work, the Deputy CM constituted a Committee[88] headed by the Additional Chief Secretary (Finance) and ordered (28 February 2017) it to resolve the matter within a week. The Committee, in addition to the above said work also considered the issue of recovery of the cultural cess from the contractors' payments in respect of 13 other works[89] awarded after the date of notification of Punjab Act No. 29 of 2013 as per the list submitted by the Chief Engineer (South), (CE) PWD, convener of the Committee.

The Committee decided (8 March 2017) that no recovery be made from the contractors on account of the cess in respect of the work, "Development and beautification of roads and junctions leading to Golden Temple, Amritsar" and 12[90] out of 13 other works.

The decision of the Committee was not warranted in view of advice already tendered (20 March 2015) by the Legal Remembrancer-*cum*-Secretary to Government of Punjab, Department of Legal & Legislative Affairs (LR) which *inter alia* clarified that in case of the projects awarded prior to issuance of the notification dated 15 April 2013, a tax/cess can be recovered if there was specific clause regarding recovery of any tax/cess to be levied by the Government in future in the tender. In case of projects awarded after the date of issuance of the notification, the LR clarified that cultural cess was applicable even though levy of cess was not mentioned in DNIT. Thus, in view of clauses 13 and 42 of the contract agreement (which states that the bid price quoted by the contractors was inclusive of all taxes, levies, etc.) and advice of the LR, the cess was recoverable in all the works.

The waiver ordered (March 2017) after completion of the tendering process and allotment of the works (October 2013-March 2016) vitiated the tendering process as it jeopardized the rights of all the other bidders as well as other prospective bidders, and extended financial favour to the contractors amounting to ₹ 7.79 crore as detailed in ***Appendix 3.10***.

The EEs furnished (May 2018) different replies for non-deduction of cultural cess which were not convincing due to reasons indicated against each in ***Appendix 3.10.***

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88 Having three other members viz. Secretary, PWD (B&R); Director Cultural Affairs; and Chief Engineer (South), PWD who was also convener of the Committee.

89 Mention of non-deduction of cultural cess in two out of 14 works *viz.* (i) furnishing work of basement of the plaza except four halls of interpretation centre at main entrance of Sri Harmandir Sahib, Amritsar; and (ii) construction of Judicial Court Complex at SAS Nagar, had already been made in paragraphs No. 3.16.4 (i) and 3.17 respectively of the Comptroller & Auditor General's Audit Report on Social, General and Economic Sectors (Non-Public Sector Undertakings) for the year ended March 2017-Government of Punjab.

90 Except one work *viz.* Construction of Girls Hostel, Married Students Hostel and outer development in Punjab Technical University, Main campus, Jalandhar-Kapurthala Highway (PTU), Phase-IV in case of which PWD clarified during pre bid that the bid price was inclusive of all taxes, levies, etc. as per clause 42 of Detailed Notice Inviting Tender (DNIT).

(b) Section 6(d) of the Punjab State Cancer and Drug Addiction Treatment Infrastructure Fund Act[91], 2013 (Act No. 27 of 2013) dated 09 April 2013 read with Government of Punjab, Department of Health and Family Welfare notification of 30 April 2013 stipulates that one *per cent* of the tender amount of the infrastructural development projects such as construction of roads, bridges and flyovers having value of more than ₹ 50 crore (revised to ₹ 15 crore in December 2013) is to be deposited in Government account[92] on account of cancer cess under Head 0210-Medical and Public Health. It was further clarified (March 2015) by the Chief Engineer (Infrastructure Projects) Punjab PWD (B&R) that this one *per cent* cancer cess is to be deducted from the running bills of the contracting agencies.

Audit observed that the Executive Engineer (EE), Central Works Division No. 2, PWD (B&R), Amritsar invited tenders (September 2015) for the work "Development and beautification of roads and junctions from Town Hall to Golden Temple", Amritsar and the work was allotted (October 2015) to a contractor for ₹ 71.40 crore. The work was completed (November 2016) at a cost of ₹ 93.36 crore. The department had deducted (upto October 2016) cancer cess of ₹ 0.92 crore.

Subsequently, the contractor made a request on 27 February 2017 to the Deputy Chief Minister (Deputy CM), Punjab to issue suitable instructions to PWD to release the amount withheld on account of cancer cess which was deducted without justification, as there was no such provision in the tender. The Deputy CM constituted a Committee[93] headed by Additional Chief Secretary (Finance) and ordered (28 February 2017) that the matter be resolved within a week. The Committee decided (8 March 2017) that no recovery was to be made from the contractor on account of cancer cess in respect of the said work. As a result, the deducted cancer cess was refunded (March 2017) to the agency.

Audit further observed that the decision of the Committee was not warranted as clause 13 of 'Instruction to Bidders' of the Detailed Notice Inviting Tender (DNIT) provided that all taxes, duties and other levies payable by the bidder under the contract, or for any other cause would be included in the rates, prices and total bid price submitted by the bidder. This had resulted into loss to the Government.

The EE stated (July 2018) that though the cancer cess of ₹ 0.92 crore was deducted but it was refunded to the agency in the light of waiver order of the

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91 (a) to create and upgrade infrastructure including buildings, machinery and equipment for treatment and rehabilitation of cancer patients and for de-addiction of drug addicts; (b) to create awareness about and prevention, detection and treatment of cancer through any means; (c) to create awareness about mal-effects of drugs and drug addiction and prevention thereof and opportunities of treatment of drug addiction; and (d) for any other object for furtherance of the welfare of patients afflicted with cancer and drug addiction in the State.

92 Notification No. 5/5/13-4c4/782 dated 30 April 2013.

93 Having three other members viz. Secretary, PWD; Director, Cultural Affairs; and Chief Engineer (South), PWD who was also convener of the Committee.

Committee. The waiver order of the Committee was in contravention of the *ibid* clause of DNIT, resulting in a loss of ₹ 0.93 crore[94] to the state exchequer besides providing undue financial benefit to the contractor.

Thus, irregular waiver of cultural and cancer cesses and non-deduction of culture cess by the respective EEs from the contractors' payments had inflicted loss of ₹ 8.72 crore on the state exchequer and extended undue financial benefit to the contractors.

The matter was referred to Government in June 2018; reply was awaited (August 2019).

PUBLIC WORKS (BUILDINGS & ROADS) DEPARTMENT

3.14 Idle expenditure on consultancy

The decision to award the consultancy works of eight road corridors without considering the financial implications and midway abandonment thereof coupled with non-commencement of work after completion of consultancy activity rendered the expenditure of ₹ 5.34 crore as idle.

Rule 2.10(a)(1) of Punjab Financial Rules, Volume I provides that every Government employee is expected to exercise the same vigilance in respect of expenditure incurred from public money as a person of ordinary prudence would exercise in respect of the expenditure of his own money. Before taking up implementation of any project, it must be ensured that adequate funds are available for its execution.

Test check of records (July 2015) of the Executive Engineer (EE), Construction Division No. 3, PWD (B&R), Ferozepur and information collected subsequently (January 2016-May 2018) from the Chief Engineer (Infrastructure Projects), Punjab PWD (B&R Branch) (CE) and the Managing Director, Punjab Infrastructure Development Board (PIDB) showed that based on recommendation of the CE and approval (October 2012) of the then Public Works Minister, the Executive Committee (EC) of the Board approved (December 2012) upgradation, operation and maintenance of 12 roads on Public Private Partnership (PPP) basis. These 12 roads were clubbed into nine[95] road corridors[96], which were then divided into three packages for bidding purposes. The CE awarded (May 2013) the work of preparation of detailed projects reports on Design, Build, Finance, Operate and Transfer basis

[94] Cost of work completed ₹ 93.36 crore; therefore, cancer cess required to be deducted at the rate of one *per cent* = ₹ 0.93 crore.

[95] (i) SAS Nagar-Landran-Chunni-Sirhind-Patiala road; (ii) Phillaur-Naggar-Rahon road; (iii) Mukerian-(NH-1A)-Gurdaspur (NH-15) road; (iv) Barnala (NH-64)-Mansa-Sardulgarh-Sirsa (Upto Haryana Border) road; (v) Ratiya (SH-21)-Boha-Budhlada-Bhikhi (SH-12A) road; (vi) Rampura-Maur-Talwandi Sabo-Rama Mandi road; (vii) Ferozepur (NH-95)-Zira-Dharamkot road; (viii) Kapurthala-Tarn Taran-Chhabal-Attari road; and (ix) Muktsar-Malout road.

[96] Under the name of Package III divided into three sub packages III-A, III-B and III-C.

to two consultants at the rate of ₹ 1,20,000, ₹ 1,16,800 and of ₹ 1,41,000 per km for packages III-A, III-B and III-C, respectively.

Audit observed that after one year of awarding these works and after preparation of 84 *per cent* project development activities, a decision was taken (30 June 2014) in the meetings held under the chairmanship of the Chief Minister of Punjab *cum* Co-Chairman, PIDB[97] to put on hold eight[98]out of nine road corridors due to change in priority of projects for ensuring better utilisation of financial resources. The Managing Director, PIDB requested (30 July 2014) the CE not to proceed with project development activities in respect of these eight projects which were consequently lying abandoned since August 2014. These works were not revived till date (June 2019). An amount of ₹ 4.46 crore had been paid to the consultants for the consultancy services in respect of the abandoned eight road corridors. Further, consultancy work of one road corridor which was not put on hold, was completed in November 2016 after incurring an expenditure of ₹ 0.88 crore. However, construction of this road could not commence till date (June 2019) due to non-providing of funds by PIDB. Hence, expenditure of ₹ 5.34 crore incurred on the nine road corridors has been rendered idle.

The Under Secretary, PWD stated (August 2018) that the consultants were asked not to proceed with the project development activities of the eight projects as per decision of PIDB. The General Manager, PIDB (GM) stated (May 2018) that in order to ensure proper utilisation of the available funds, prioritisation of projects was done in the meetings held on 14 July 2014 and accordingly the works were put on hold. It was further stated that EC noted the decision in its meeting held on 15 September 2014. The reply of the GM was not acceptable as the financial implications of the projects and availability of sufficient funds should have been assessed before awarding the consultancy works, which was not done as can be gauged from the agenda as well as minutes of meeting of EC wherein the projects were approved. The fact that as many as eight out of the nine corridors had to be shelved after a year of approval indicates that there was lack of adequate due diligence before proceeding with these projects and awarding the work of preparation of DPRs to consultants. Further, the meeting dated 14 July 2014, which was attended by only two[99] participants apart from the Co-chairman was, thus, neither of the Board nor of EC which were the only two bodies empowered under the Act for selection, prioritisation and sequencing of infrastructure projects. The plea of taking note of the decision by EC was not acceptable as all the project development activities of the eight roads had already been stopped (August 2014) by the CE in compliance to PIDB's request of 30 July 2014 much before the meeting of EC on 15 September 2014.

Thus, the decision to award the consultancy works of eight road corridors without considering the financial implications and their mid-way abandonment

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[97] And thereafter under the chairmanship of the Deputy Chief Minister, Punjab on 14 July 2014.
[98] Except SAS Nagar-Landran-Chunni-Sirhind-Patiala road.
[99] Managing Director, PIDB and Principal Secretary to Deputy Chief Minister, Punjab.

coupled with non-commencement of construction work after completion of consultancy activity on one work, rendered the expenditure of ₹ 5.34 crore as idle.

PUBLIC WORKS (BUILDINGS & ROADS) AND LOCAL GOVERNMENT DEPARTMENTS

3.15 Avoidable payment of interest

Failure of the PWD to ensure hindrance free site prior to award of work coupled with delay in providing sufficient funds for payment of award by MC, Ludhiana resulted in avoidable payment of ₹ 0.80 crore.

Paragraph 2.92 of the Punjab Public Works Department code (Code) provides that no work should be commenced on land which has not been duly made over by the responsible civil officers. Further, Paragraph 2.112(IV) of the Code provides that in case of deposit works, the necessary funds for the prosecution of the work must be realised and paid into the Government treasury either in a lump-sum or in such instalments and by such dates as the Government may decide in each case.

The Superintending Engineer, Municipal Corporation (MC), Ludhiana accorded (October 1996) administrative approval for construction of approach roads to Rail Over Bridge in place of existing wooden bridge in Ludhiana at a cost of ₹ 9.36 crore. The work was to be executed by Public Works Department (Department) as a deposit work.

Test check of records of the Executive Engineer, Provincial Division, Ludhiana (EE) showed (October 2017) that the EE allotted (10 March 1997) the work[100] to a contractor for completion by 9 September 1998 (within 18 months) at a cost of ₹ 5.99 crore without ensuring the availability of hindrance free site[101] as well as deposit of sufficient funds[102] for the completion of work. As the EE could not provide a hindrance-free site and necessary funds to the contractor, the work could not be completed till June 2006 and the EE terminated (June 2006) the agreement on 'as is where is' basis. Aggrieved by non-fulfillment of contractual obligations by the Public Works Department, the contractor sought (14 May 2008) arbitration. The Arbitrator-*cum*-Superintending Engineer, Construction Circle, Ludhiana awarded (29 March 2011) a compensation of ₹ 1.55 crore[103] and nine *per cent pendente lite* interest to the contractor. In case of non-payment of the award

[100] 'Construction of flyover bridge (excluding Railway portion) in replacement of existing pedestrian wooden bridge at Km 376.164 on Ludhiana-Amritsar Rail Section at Ludhiana'.

[101] PWD was aware in June 1996 that many shops/khokhas were lying on both sides of the road where the work was to be executed.

[102] Only ₹ 3.78 crore was deposited by MC, Ludhiana against the allotted cost of ₹ 5.99 crore.

[103] (i) ₹ 1.51 crore on account of prolongation of contract; and (ii) ₹ 3.60 lakh on account of interest on delayed payments.

amount within 30 days, the contractor was entitled to nine *per cent* per annum future interest from the date of award till the date of payment. The EE requested (April–May 2011) the MC to provide funds for settling the award but the latter did not respond.

On the matter being referred (April 2011) to the District Attorney, Ludhiana (DA) by the EE for his opinion, the DA viewed (28 April 2011) that the judgement was correct and the Department also had no objection to it. The EE thereafter referred (27 June 2011) the case to the Chief Engineer, PWD (B&R) (CE) along with an undertaking from the contractor that he would not claim interest on award amount after the date of award i.e. after 29 March 2011, if total award amount and interest upto 29 March 2011 was released to him at an early date. But despite the repeated (April-May 2011) requests of PWD, the MC did not deposit the requisite funds for payment of award due to which the Department filed an appeal[104] against the award in the Court of Additional District Judge, Ludhiana which was rejected (January 2014) on the ground of being time barred. Thereafter, the Department filed appeals in the Punjab & Haryana High Court and then in the Supreme Court of India, which were also dismissed on 24 April 2014 and 13 February 2015, respectively.

The EE again requested (28 April 2014) the Commissioner, Municipal Corporation, Ludhiana to deposit the award amount of ₹ 1.97 crore (₹ 1.55 crore award money as on 29 March 2011 and ₹ 0.42 crore as interest on award). However, the MC kept on denying the funds on the plea that the project and the consequences thereupon was to be dealt with exclusively by the Public Works Department, including arbitration and further litigation in the courts, and there was no involvement of MC. After prolonged correspondence, the MC transferred (December 2015 to January 2017) ₹ 2.77 crore to the EE who paid the same to the contractor. Thus, award of work without ensuring hindrance free site and sufficient funds resulted in termination of contract and late payment to the contractor which consequently led to avoidable payment of interest amounting to ₹ 0.80 crore for the period 30 April 2011 to 28 January 2017.

The Under Secretary (PWD) stated (June 2018) that they had made all possible efforts to get the money from the funding agency as well as from their own department but did not receive any funds for making payment to the contractor on account of the award. Thus, allotment/ commencement of work without ensuring hindrance free site as well as deposit of sufficient funds, resulted in delay in completion of the work and avoidable arbitrage, which led to payment of ₹ 0.80 crore as interest.

[104] As per directions (July 2011) of Chief Engineer.

TECHNICAL EDUCATION AND INDUSTRIAL TRAINING DEPARTMENT

3.16 Inadmissible payment of pay and allowances

Full pay and allowances were allowed to newly recruited faculty of the University instead of minimum of pay band in violation of the Notification issued by Finance Department resulting in inadmissible payment of ₹ 2.42 crore.

The Finance Department, Government of Punjab (FD) issued Notification and a subsequent amendment (January 2015) governing the service conditions of new recruits in Government/Boards/Corporations/Autonomous bodies, etc. As per condition 2(i) of the amendment, a newly recruited employee is to be paid fixed emoluments i.e. minimum of the pay band of the service or post to which concerned employee is appointed and shall not include Grade pay, annual increment or any other allowance except travelling allowance during the period of probation of two years.

Examination of the records (June 2017) of the Maharaja Ranjit Singh Punjab Technical University, Bathinda (University) showed that the Finance Committee of the University in its 2nd meeting held on 5 April 2016 decided to seek exemption from condition 2(i) of the Notification from the FD, which was declined by the FD (June 2016). Ignoring the rejection of this request by the FD, the Board of Governors, in their meeting held on 3 August 2016, approved the proposal to allow full pay and allowances to newly recruited employees. Resultantly, the University paid excess amount of ₹ 2.42 crore (***Appendix 3.11***) as full pay and allowances to 34 newly faculty instead of minimum of pay band, in violation of Notification *ibid*.

The University stated (February 2018) that as per clause 13 (7) of University Act, the Board of Governors was the supreme authority of the University and as per sub clause (l), the Board had the power to approve the emoluments and terms and conditions of the service of the faculty and staff of the University. The University further stated that the Principal Secretary, FD was a member of the Finance Committee and the Board of Governors and was present in the 2nd meeting (April 2016) of Finance Committee whereas his representative was present in the meeting of Board of Governors. Hence, no separate sanction of FD was needed.

The reply of the University was not acceptable as the University was established under an Act of Punjab Government and the notification of January 2015 specifically covered all Boards/Corporations/Autonomous Bodies, etc. of the State. Further, mere presence of a representative of the FD in the meeting of the Board of Governors did not imply automatic approval of the FD to the decisions taken in the meeting. The fact that the University had referred the matter seeking exemption of condition 2(i) of the notification to the FD, which was declined, shows that the University was aware that permission of the FD was required for allowing full pay and allowances to its newly recruited faculty.

Thus, payment of full pay and allowances to newly recruited faculty of the University in violation of the notification resulted in inadmissible payment of ₹ 2.42 crore.

The matter was referred to Government in March 2018; reply was awaited (August 2019).

TOURISM AND CULTURAL AFFAIRS DEPARTMENT

3.17 Unfruitful expenditure on amphibious bus project

Expenditure of ₹ 8.63 crore incurred on amphibious bus project in Harike Wetlands had been rendered unfruitful as the bus operated for 10 days only; besides creation of liability on account of cost of operations.

Rule 2.10(a)(1) of Punjab Financial Rules, Volume I provides that every Government employee is expected to exercise the same vigilance in respect of expenditure incurred from public money as a person of ordinary prudence would exercise in respect of the expenditure of his own money.

Test check of records (May 2018) of the Punjab Heritage and Tourism Promotion Board (Board) showed that the Chief General Manager (Projects) submitted (May 2015) a proposal for water based tourism through amphibious bus to the Chief Minister, Punjab (CM) seeking in-principle approval. The CM directed the Chief Secretary, Punjab (CS) to put up the complete proposal after examining the same. The CS *inter alia* proposed (July 2015) that the Board should get all the technical, financial and administrative aspects of the project evaluated by hiring the services of appropriate technical consultants. The CM approved this proposal on 12 August 2015. However, the Deputy Chief Minister, Punjab in another meeting held on 12 August 2015 directed that project of water based tourism through amphibious buse be implemented in Harike Wetlands by December 2015.

The Board placed (January 2016) an order for procurement of one amphibious bus[105] for ₹ 4.52 crore after evaluation of two bids received for this purpose without conducting any technical, financial and administrative feasibility of the project. A concession agreement was signed (November 2016) with a firm (concessionaire) for operation and maintenance of the bus on Public-Private-Partnership basis for 4,500 engine hours or 10 years, whichever is later. The concessionaire was to be paid an upfront one-time payment of ₹ 53.13 lakh for purchase of boats, life jackets and drafting and buoys for marking, ₹ 1.30 crore towards annual maintenance contract besides, ₹ 2.60 crore per annum was fixed on account of cost of operations on monthly basis. As per the concession agreement, the concessionaire shall pay to the Government, by way of revenue sharing, 80 *per cent* of the daily total ticket sale in case of sale upto ₹ one lakh, 70 *per cent* in case of sale between ₹ one to two lakh and 60 *per cent* in case of sale above ₹ two lakh.

[105] Make : SCANIA G310 4X2; and Model : November 2015.

The firm delivered the bus on 13 February 2017. An amount of ₹ 8.63 crore[106] (including cost of the bus) was spent on various activities for operating the bus which commenced its commercial operations with effect from 31 May 2017. The bus was operated for trial run of 10 days and it managed to garner revenue of ₹ 70,600 only against the projection of ₹ 19.58 lakh[107] during this period. Therefore, it was stopped after trial run of 10 days only which was not a sufficient period to assess actual financial viability of the project. Further, in view of the decision (June 2018) of the Minister of Tourism and Cultural Affairs, Punjab to shelve the project, no further action was required to be taken to implement the project. Thus, making the State exchequer liable for payment of cost of operations payable monthly to the concessionaire under the concession agreement.

The Deputy Secretary admitted (April 2019) the facts that no feasibility report was prepared but feasibility of the project was discussed in the various meetings of the technical committee constituted in October 2015. He further stated that during the discussion with the State Government, number of trips, estimated number of tourists and amount of revenue expected to be generated was discussed at the top level. As such, it is incorrect to say that no feasibility was worked out. The reply was not acceptable as the site was selected for implementation of the project without preparation of any feasibility study report of the project by way of evaluation of the technical, financial and administrative aspects of the project. As regards discussion of the feasibility in the meeting of the committee[108] constituted in October 2015, it was observed from the minutes of the meetings of the committee that it deliberated upon implementation of the project at Harike rather than assessing the feasibility. Further, the bus was operated only for 10 days whereas the committee, constituted (February 2018) to examine the unviable project, was of the opinion that financial viability can only be assessed after running the amphibious bus for a minimum period of six months to one year.

Thus, expenditure of ₹ 8.63 crore incurred on amphibious bus project in Harike Wetlands had been rendered unfruitful as the bus operated for 10 days only, besides creation of liability on account of cost of operations.

[106] Cost of bus- ₹ 4.52 crore; insurance charges- ₹ 5.61 lakh; construction of ramps in Harike lake- ₹ 87.36 lakh; upfront payment- ₹ 53.13 lakh; operation and maintenance charges- ₹ 1.30 crore; construction of boundary wall, parking, tuck shop for facility of tourists- ₹ 1.25 crore; advertisement expenses- ₹ 3.45 lakh; designing charges for four cladding panels of the bus- ₹ 0.47 lakh; TA/DA including taxi charges- ₹ 3.04 lakh; inauguration expenses- ₹ 2.08 lakh; salary and wages of security guard- ₹ 0.78 lakh; expenditure for repair and maintenance- ₹ 0.25 lakh.

[107] At the rate of ₹ 1,95,795 per day projected for three trips per day.

[108] With Principal Secretary, Tourism and Cultural Affairs, Punjab as Chairman and four other members viz. (i) Additional Chief Secretary to Government of Punjab (GoP), Public Works Department or representative; (ii) Financial Commissioner to GoP, Forest Department or representative; (iii) Secretary, Irrigation Department; and (iv) Director, Tourism and Cultural Affairs.

TOWN AND COUNTRY PLANNING DEPARTMENT

3.18 Loss of revenue to the State exchequer

Imprudent decision of the Chief Town Planner not to allow the developer to deposit CLU charges in December 2015 coupled with undue extensions beyond permissible limits led to loss of ₹ 3.04 crore to the State exchequer and ₹ 16.11 crore to PUDA/GMADA.

Government of Punjab (GoP), Department of Housing and Urban Development (Department) notified (May 2013) various charges to be deposited by the promoters/developers seeking to acquire land for residential/commercial purposes. Notification provides that Change of Land Use (CLU) charges at the rate of ₹ 8.00 lakh per acre plus 10 *per cent* moratorium alongwith other charges[109] for the residential area under the jurisdiction of Greater Mohali Area Development Authority (GMADA) would be deposited by the promoters/developers.

Test check of records (February 2017) of the Chief Town Planner, Punjab (CTP) revealed that permission for CLU was granted (March 2014) to a developer[110] for 108.58 acre land to construct a residential housing colony in village Palheri and Raihamanpur, district SAS Nagar, Mohali. The developer was directed to deposit ₹ 8.69 crore as CLU charges alongwith a condition to submit the consents given by the land owners duly verified from Notary in original and further stated that if there was any change in the land area due to change in the consents, the revised amount of CLU charges would be intimated. A reminder was issued to the developer (April 2014) to deposit ₹ 8.69 crore. Thereafter, a demand notice to deposit CLU charges was again issued (01 July 2014) whereby a time extension of three months was granted upto 22 August 2014 from the date of notification (May 2014)[111]. After verification of records, it came to the notice of CTP that an area of 82 kanal 11 marla was overlapping with another developer[112]**.** The developer requested the Department (October 2014) to grant permission for CLU for total land including 82 kanal 11 marla to deposit the required CLU charges. The overlapping area was got surrendered (November 2014) from M/s. Altus Space Builders Pvt. Limited. Thereafter, the department directed (January 2015) the developer to deposit the CLU charges upto 22 January 2015 i.e. after lapse of stipulated period of five months as mentioned in notification (May 2014). A revised demand notice for deposit of CLU charges of ₹ 8.69 crore and processing fee of five months amounting to ₹ 5.65 lakh was issued on 14 January 2015. The developer showed his

109 External Development Charges (EDC) at the rate of ₹ 36 lakh per acre, Licence Fee (LF) at the rate of ₹ 4 lakh per acre, State Infrastructure Fund (SIF) at the rate of 5 *per cent* of CLU to PUDA and at the rate of 5 *per cent* of total sum of EDC and LF to GMADA.

110 M/s. Indian Co-operative House Building Society Limited.

111 Notification regarding time limit for extension was issued vide No. 18/17/14-5Hg2/226614/1 dated 23 May 2014.

112 M/s. Altus Space Builders Pvt. Limited.

inability (January 2015) to deposit the CLU charges and demanded further extensions without any time limit. The Department neither rejected the case due to non-deposit of processing fee by the developer nor granted any time extensions.

In December 2015, the developer showed his intent to deposit the CLU charges on the basis of revised demand notice issued in January 2015. But the Department adopted delaying attitude to further extend the case by re-verifying the land with revenue records *ab initio* (though this process was completed in January 2015 while issuing the revised demand notice) and extended the case till May 2016, when a new notification (May 2016) was issued by the GoP. According to this, charges leviable for residential area were reduced[113] in GMADA area.

As the case was already approved in March 2014 and revised in January 2015, it did not fall under the ambit of new notification. Moreover, in response to the clarification[114] sought (03 March 2016) by Special Secretary, Housing and Urban Development, Punjab, the CTP clarified (16 March 2016) that in case the extensions for 19 months (upto 22 March 2016) be granted, the Government would get ₹ 21.47 lakh scrutiny fees alongwith CLU charges and thus, the Government would get higher revenue if the developer is granted extensions. The proposal was approved on 02 May 2016. Despite that, another proposal to approve the case as per the new notification was made and a demand notice at the reduced rates was issued (May 2016) which led to a loss of ₹ 3.04 crore to the State exchequer along with loss of ₹ 16.11 crore to PUDA/GMADA (**Table 3.9**).

Table 3.9: Details of loss to the State exchequer and PUDA/GMADA in respect of CLU, EDC, SIF and LF charges

(Amount in ₹)

Particulars	CLU	SIF	EDC	LF	SIF
	To State exchequer	To PUDA	To GMADA		
1	2	3 = 5 *per cent of* Col. 2	4	5	6 = 5 *per cent of* Col. (4 + 5)
Amount required to be obtained vide Notification dated May 2013	9,55,50,400	47,77,520	42,99,76,800	4,77,75,200	2,38,87,600
Amount required to be obtained as per Notification dated May 2016	6,51,48,000	32,57,400	29,31,66,000	3,25,74,000	1,62,87,000
Difference	**3,04,02,400**	**15,20,120**	**13,68,10,800**	**1,52,01,200**	**76,00,600**
Say	**3.04 crore**	**16.11 crore**			

Source: Departmental data

[113] External Development Charges (EDC) at the rate of ₹ 27 lakh per acre, Change of Land use (CLU) charges at the rate of ₹ 6 lakh per acre, Licence Fee (LF) at the rate of ₹ 3 lakh per acre, State Infrastructure Fund (SIF) at the rate of 5 *per cent* of CLU to PUDA and at the rate of 5 *per cent* of total sum of EDC and LF to GMADA.

[114] How the Government would get higher revenue? Whether by granting extensions in the earlier case or by getting afresh application?

Thus, lapse on the part of the Department:

- ➢ to get the CLU deposited in December 2015 when the developer intended to deposit it;
- ➢ to grant irregular extensions without deposit of any processing fee as required under the notification of May 2014; and
- ➢ to adopt delaying attitude in dealing with the case for more than two years from the original approval (March 2014) had resulted in loss of ₹ 3.04 crore to the State exchequer.

The CTP stated (November 2018) that though the demand notice issued in March 2014 was extended upto August 2014 but the developer did not deposit the CLU charges. In May 2016, the charges were reduced and on the demand notice dated 30 May 2016, the conversion/CLU charges were received as per Para 8(c) of the notification dated 22 June 2010 which stipulated that the conversion/CLU charges would be charged at the rate as on the date of grant of permission of CLU. The reply was not acceptable because the Department failed to enforce the notification dated 23 May 2014 which provides that maximum extension of five months could be granted[115] and that too with receipt of processing fee. Moreover, the case was prolonged without granting any extensions on the plea (January 2015) of shortage of funds with the developer.

Thus, imprudent action of the Department not to allow the developer to deposit the CLU in December 2015 coupled with irregular extensions beyond permissible limits had not only provided undue favour to the developer but also inflicted loss of ₹ 3.04 crore to the State exchequer and ₹ 16.11 crore to PUDA/GMADA.

The matter was referred to the Government in March 2018; reply was awaited (August 2019).

[115] In order to avoid financial loss and technical hassles and to fix a timeframe within which the charges could be deposited by the developer.

WATER RESOURCES, AGRICULTURE AND SOIL & WATER CONSERVATION DEPARTMENTS

3.19 Groundwater Management in Punjab

Annual groundwater extraction as compared to annual recharge was very high in the State mainly due to irrigation of water intensive paddy crop. Free power to farmers coupled with absence of any legislation and negligible artificial recharging efforts rendered more than three-fourth of the blocks as over-exploited. Very high groundwater contamination especially in the south-western region of the State was awaiting State's attention. Groundwater monitoring required structured approach.

3.19.1 Introduction

Water is essential for life, living and livelihood and thus, indispensable for life but its availability and sustainability is not uniform on earth. Considering its importance, United Nations Member States jointly committed (September 2015) to the Sustainable Development Goal-6 (SDG-6) which *inter alia* provide for ensuring availability and sustainable management of water and sanitation. India is home to nearly 18 *per cent* of the world's population but has only four *per cent* of the average global annual runoff in rivers. Thus, groundwater, a valuable natural resource, has become the primary source of water for agriculture, domestic and industrial uses.

Punjab is one of the smallest states of India having only 1.5 *per cent* (50,362 sq. kms) geographical area of the country but is a major contributor of wheat and rice to the central pool. During 2017-18, Punjab contributed 38 *per cent* of wheat and 31 *per cent* of rice to the central pool which accounted for 66 *per cent* and 88 *per cent* of its own yield of wheat and rice respectively.

Despite enactment of "The Punjab Preservation of Sub-soil Water Act, 2009" (April 2009) to prohibit sowing nursery of paddy and transplanting paddy before the notified dates, agriculture in Punjab continued to be dominated by paddy (a water intensive crop) which has led to over-exploitation of water resources in Punjab. In addition to the surface water fed through canal system, there was an increasing pressure on the groundwater resource which was being over-exploited to meet the needs of intensive irrigation. As per Report of Ground Water Resources of Punjab (March 2017), the stage of Groundwater Development[116] in Punjab has increased to 165 *per cent* from 149 *per cent* in 2013 which was the highest in the country and was 240 *per cent* of the national average (62 *per cent*). It is, therefore, most essential that groundwater be used and managed in a sustainable manner to meet present and future demands.

[116] Stage of GW Development or (Stage of GW Extraction) = $\dfrac{\text{Gross groundwater extraction for all uses}}{\text{Recharged groundwater from all sources}} \times 100$

Water Resources and Environment Directorate, Punjab (WRED) is responsible for groundwater related activities in the State including framing of policy matters like groundwater legislation, State water policy, groundwater monitoring, dynamic groundwater estimation, deep groundwater investigation to identify aquifer parameters, etc. In the Department of Water Resources, a separate 'Directorate of Ground Water Management' was setup in November 2017 with a view to focus on designing policies, programs and strategies for the conservation, utilisation and management of groundwater resources of the State in a judicious, equitable and sustainable manner and to ensure optimal utilisation of surface water resources with the objective of conserving Groundwater.

3.19.2 Audit Framework

With a view to assess adequacy of State's information about groundwater, measures to control groundwater access and to protect the groundwater from depletion and contamination, an audit was conducted (April to August 2018) by test checking the records of WRED, Punjab. Data from the report on "Ground Water Resources of Punjab–2017", prepared jointly by WRED and Central Ground Water Board (CGWB), was taken into consideration and information was also obtained from CGWB, Agriculture and Soil & Water Conservation Departments.

To ensure correctness of data analysis and technical issues, experts from IIT, Rupnagar and Department of Geology and Department of Environment Studies, Panjab University, Chandigarh were consulted. The views of these experts have also been taken into consideration.

3.19.3 Financial management

The budget allotment and expenditure incurred by the Punjab Water Resources and Environment Directorate under various schemes during the period 2013-18 was as follows:

Table 3.10: Funding position of Water Resources and Environment Directorate

(₹in crore)

Year	Allotment	Expenditure	Remarks
Hydrology Project (Plan)			
2013-14	14.72	5.21	
2014-15	21.00	19.71	
2015-16	3.46	2.09	Project closed on 31.03.2016
NABARD			
2013-14	Nil	Nil	
2014-15	5.17	5.17	
2015-16	2.29	2.15	Project closed on 31.03.2016
National Hydrology Project (NHP)			
2016-17	2.22	Nil	
2017-18	5.44	0.43	

Source: Departmental information

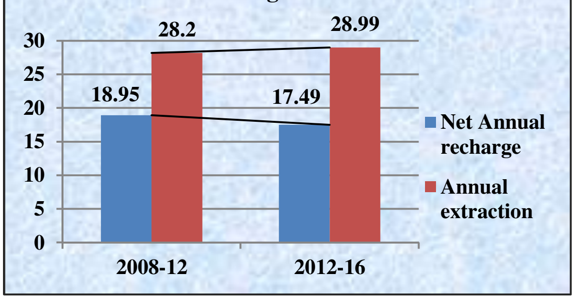
Audit observed that ₹ 2.22 crore provided by Ministry of Water Resources (MoWR) remained unspent in 2016-17. The MoWR revalidated it for

2017-18 and in addition released a sum of ₹ 3.22 crore. Out of these, only ₹ 0.43 crore were spent on works/ activities under NHP during 2017-18.

3.19.4 Availability and utilisation of groundwater in Punjab

As per Report on 'Groundwater Resources of Punjab' (31 March 2017) prepared jointly by CGWB and WRED, against 'Net Annual Groundwater Availability'[117] of 17.49 Million Acre Feet (MAF), during 2012-16, groundwater extraction for all uses was 28.99 MAF.

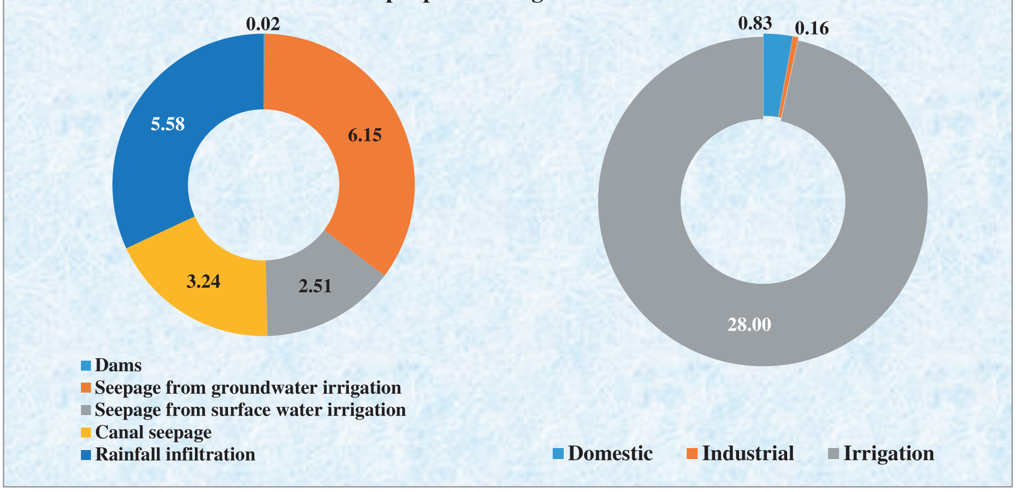
Chart 3.4: Annual recharge *vis-à-vis* Annual extraction



Source: Report on Groundwater resources of Punjab

Further, during 2012-16, the net annual groundwater recharge decreased by eight *per cent* (1.46 MAF) over 2008-12. On the other hand, the groundwater extraction increased by three *per cent* (0.79 MAF) during the same period.

Chart 3.5 : Net groundwater recharge by source and extraction by purpose during 2017-18



Source: Report on Groundwater resources of Punjab

As is evident from **Chart 3.5**, out of 28.99 MAF groundwater extracted for all purposes, 28.00 MAF (97 *per cent*) was being utilised for irrigation alone and 0.99 MAF for domestic and industrial purposes. Thus, single major contributor for decreasing availability of groundwater was irrigation.

Audit analysis and the reasons for decreasing availability of groundwater are discussed in the subsequent paragraphs:

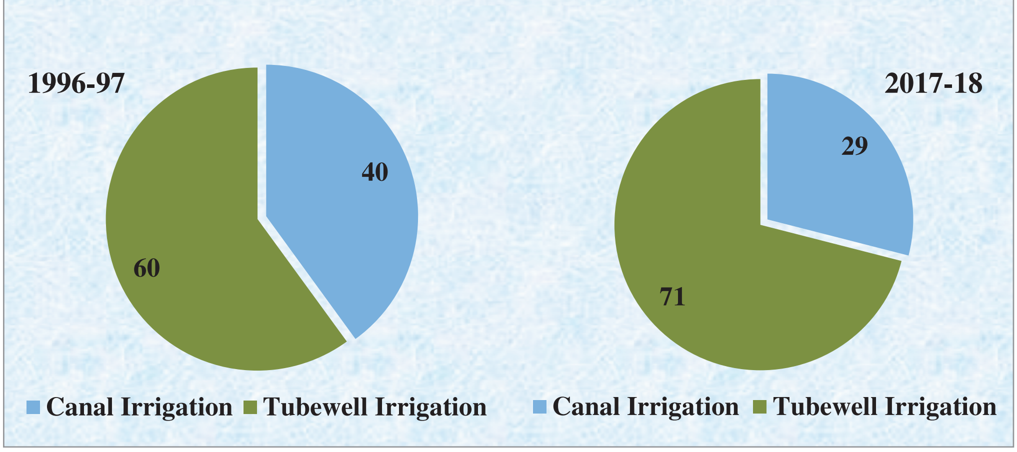
3.19.4.1 Indiscriminate withdrawal of groundwater for irrigation

Although there was network of canal system in Punjab which was fed through three perennial rivers namely Sutlej, Beas and Ravi and one non-perennial

117 It is the sum of annual recharges from rainfall and other sources during monsoon and non-monsoon seasons offset by natural discharges.

river Ghaggar, it was observed that there was shifting preference of irrigation from canal to electricity operated tube-wells. The number of electricity operated tube-wells increased by 84 *per cent* from 7.25 lakh in 1996-97 to 13.36 lakh in 2017-18. Further, it was observed that 40 *per cent* (1,620 thousand hectare) of the net irrigated area (4,035 thousand hectare), which was under canal irrigation in 1996-97 was gradually taken over by electricity operated tube wells, thereby reducing the canal water irrigated area to 29 *per cent* in 2017-18 i.e. 1,176 thousand hectare out of 4,124 thousand hectare.

Chart 3.6: Comparison of source of irrigation during 1996-97 vis-à-vis 2017-18



Source: Statistical abstract of Punjab

Increased preference for tube well irrigation was on account of non-availability of canal water at right time and in required quantity. Besides this, providing free electricity to the agriculture sector since March 1997 and levying of water charges[118] on usage of canal water provided an added impetus to the users for shifting to tube-well irrigation. This resulted in unchecked withdrawal of groundwater, besides putting burden of subsidy on electricity on the State exchequer.

Audit noticed that State's expenditure on subsidy to meet the expenses for providing free power to agriculture in 2017-18 was ₹ 6,578 crore, which was 94 *per cent* of the total subsidies of ₹ 6,982 crore and 11 *per cent* of total revenue expenditure of ₹ 62,465 crore.

3.19.4.2 Preference for water intensive paddy cultivation

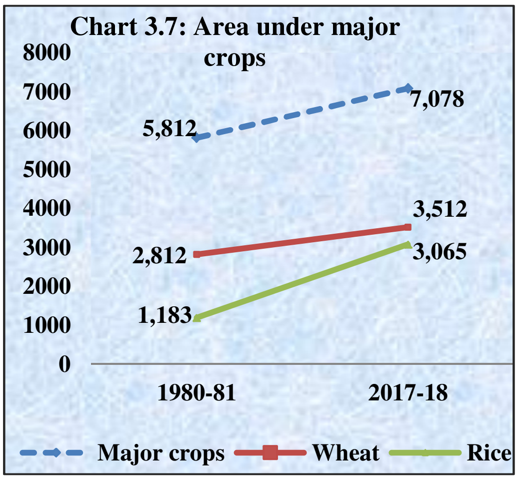
Even though rice is neither a native crop nor the staple food of Punjab, still the area sown under paddy was increasing.

118

(Amount in ₹)

Crop season	Rate of abiana per crop / per acre (prior to 12.11.2014)	Rate of water cess per crop / per acre (w.e.f. 12.11.2014)
Rabi	75	50
Kharif	75	50

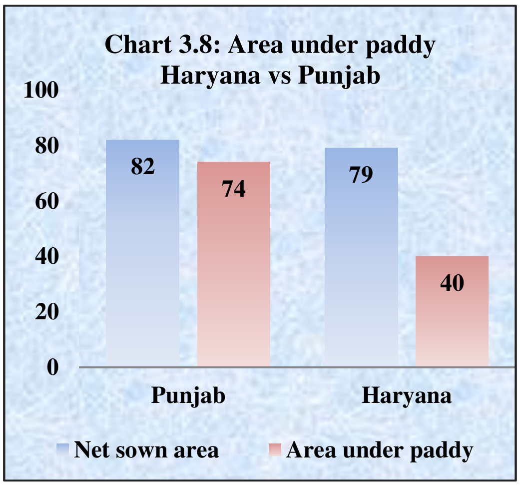
(i) Audit observed that the area under major crops[119] in Punjab had increased from 5,812 thousand hectare in 1980-81 to 7,078 thousand hectare ***(Appendix 3.12)*** in 2017-18 (22 *per cent*). The area under wheat crop increased proportionately to total increase in area under major crops i.e. from 2,812 thousand hectare to 3,512 thousand hectare (25 *per cent*), whereas the area under water intensive rice crop increased significantly from 1,183 thousand hectare to 3,065 thousand hectare (159 *per cent*) over this period.



Source: Statistical abstract of Punjab

Further, comparison with the neighbouring State of Haryana showed that although the net sown area in both the states, Punjab and Haryana was around 80 *per cent*, yet area under paddy had shown a gross disparity. Despite paddy being the most water intensive crop, it covers 74 *per cent* of the net sown area in Punjab, whereas in Haryana it was restricted to 40 *per cent* only.

Thus, sown area of paddy in Punjab was 185 *per cent* of Haryana's coverage as shown in **Chart 3.8.**



Source: Statistical abstract of Punjab & Statistical abstract of Haryana

It was further seen that power required to extract groundwater was supplied free of cost to agriculture sector in Punjab and power supply to 90 *per cent* farmers was not metered even. The neighbouring State of Haryana charges ₹ 200 per British Horse Power (BHP) per year from all the agricultural consumers. This was found to be the significant factor for difference in area under rice cultivation among both the States.

Thus, continuous increase in area under rice crop put tremendous pressure on the water resources as rice requires 15-20 irrigations[120] after its transplantation which was maximum among kharif crops[121].

As per an estimate of Punjab Agricultural University (PAU) that has featured in draft Agriculture Policy of Punjab-2013, paddy cultivation

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119 Sugarcane; oil seeds; cotton and food grains.

120 Paddy fields are filled with water 15-20 times during growth period.

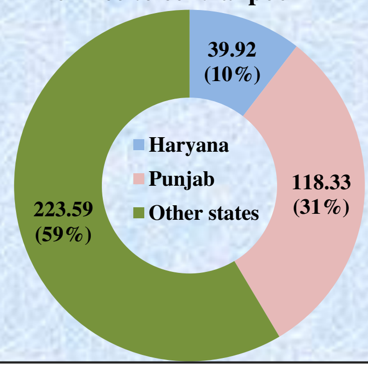
121 (i) Bajra 2-3; (ii) Cotton (American) 4-6; (iii) Cotton (Desi) 3-4; (iv) Groundnut 2-3; (v) Jowar 1-2; (vi) Maize 3; (vii) Soya Beans 2-3; and (viii) Sugarcane 2-9.

covering an area of 3,065 thousand hectare in 2017-18 was proposed to be reduced to 1,600 thousand hectare only, so as to contain its adverse effects on the groundwater levels.

(ii) Further, the system for its assured procurement for supply to other states through the public distribution system, besides supply of free electricity, had attracted farmers into growing paddy.

Out of the Centre's total procurement of rice from rice growing states for Kharif Marketing Season (KMS) 2017-18, Punjab's contribution was 31 *per cent* whereas Haryana contributed only 10 *per cent* as exhibited in **Chart 3.9**. Punjab contributed 88 *per cent* rice of its own yield, whereas Haryana contributed 82 *per cent* of its yield**.**

Chart 3.9: Contribution of rice to central pool



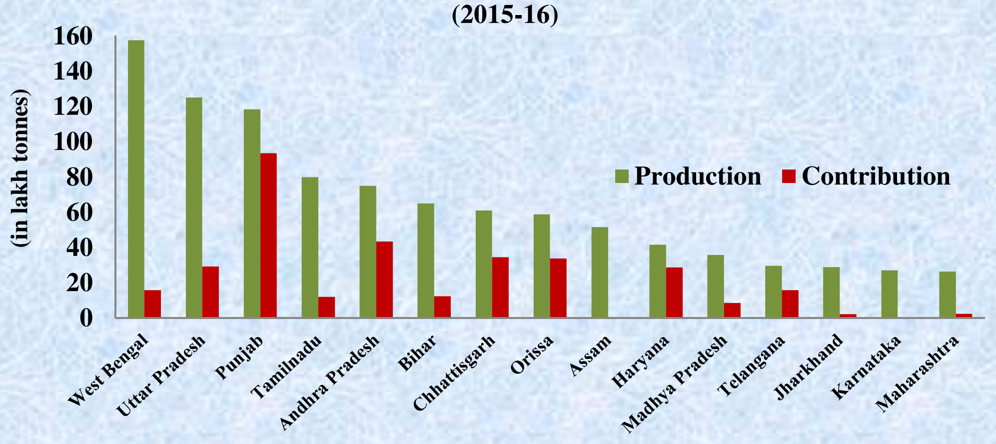
Source: www.fci.gov.in

As per Punjab Agricultural University, Punjab uses 2,488 litres of water to grow 1 kg of rice. During 2017-18, Punjab's contribution to the central pool of rice was 118.33 lakh tonnes which required 23.87 MAF of water.

Thus, a water starved State was using most of its water to fulfil the food security needs of the nation.

Audit analysis of the production of rice by the top 15 rice growing states in the country *vis-a-vis* their contribution to the central pool during 2015-16 disclosed that Punjab was contributing maxium rice to the central pool though it falls at third place in production of rice after West Bengal and Uttar Pradesh.

Chart 3.10: Production of rice *vis-a-vis* contribution to central pool (2015-16)

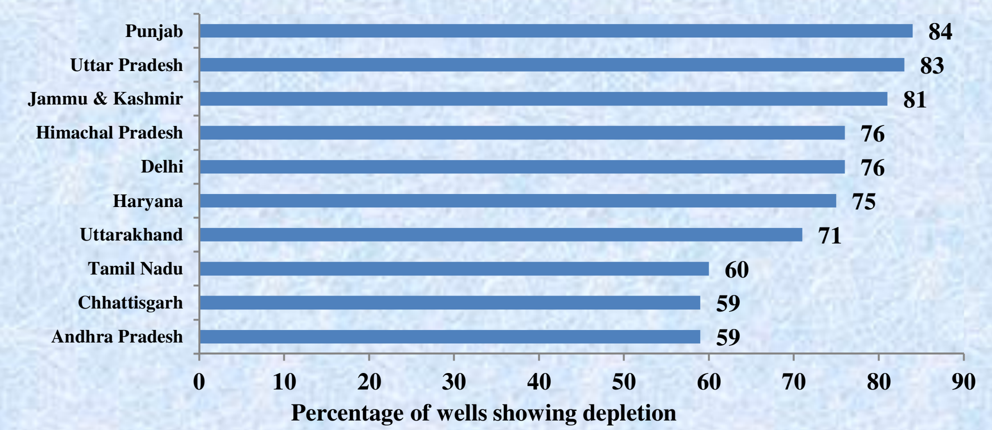


Source: www.mospi.nic.in (for production) & www.fci.gov.in (for contribution)

Thus, free unmetered power supply to agriculture consumers and assured procurement of paddy on MSP for the central pool induce the farmers to cultivate paddy despite it being the most water intensive crop thereby putting tremendous pressure on the groundwater.

(iii) According to the answer given to a question in Lok Sabha on 27 June 2019, Punjab has the maximum percentage of observation wells showing depletion in groundwater among the top ten affected Indian States in pre-monsoon water level data 2018 when compared with the decadal average (2008-2017) water levels as is shown in the **Chart 3.11** below:

Chart 3.11: Comparison of 2018 pre-monsoon data with decadal average of 2008-17



Source: www.indiaenvironmentportal.org.in

As per report of WRED on water resources in Punjab as on March 2017, 37 *per cent* of the area in Punjab exhibited fall up to 10 metres in groundwater in June 2016 as compared to June 1984. During the same period, groundwater in as much as 48 *per cent* of the area fell by more than 10 metres. In the remaining about 15 *per cent* area of the State groundwater had risen during this period.

Thus, the continuous practice of sowing paddy along with availability of free power required for extracting groundwater to irrigate paddy fields lead to decrease of groundwater availability in the State. The study conducted (July 2017) by Punjab Agricultural University, Ludhiana[122] also concluded that high irrigation requirement dependent on the cropping pattern and rainfall and subsidized or free power were responsible for the rapid depletion and over-exploitation of groundwater resources.

3.19.5 Cost of irrigation

The Commission for Agricultural Costs and Prices (CACP), Government of India is mandated to advise on the price policy of paddy/rice, wheat, etc. with a view to evolve a balanced and integrated price structure in the perspective of the overall needs of the economy and with due regard to the interests of the

[122] Study conducted by i) Samanpreet Baweja; ii) Rajan Aggarwal; and iii) Mandeep Brar of Department of Soil & Water Engineering, Punjab Agricultural University, Ludhiana.

producer and the consumer. While recommending price policy, the Commission keeps in mind, the cost of cultivation (CoC), which, among other factors, is an important factor that goes as an input in determination of minimum support price (MSP). The cost of cultivation includes irrigation charges.

The CACP uses crop-wise, state-wise cost estimates provided by the Directorate of Economics & Statistics (DES), Ministry of Agriculture and Farmers Welfare compiled under Comprehensive Scheme (CS) for studying the CoC of principal crops in India.

3.19.5.1 Impeding diversification from paddy crop

Audit observed that among the major kharif crops i.e. Paddy, Maize and Cotton, the factor of irrigation cost was the maximum for paddy in CoC – it being a water intensive crop, as detailed in **Table 3.11** below:

Table 3.11: Cost of irrigation of major kharif crops

Year	Cost of irrigation in cost of cultivation of major kharif crops (₹ per hectare)		
	Paddy	Maize	Cotton
2013-14	2,164	NA	175
2014-15	2,623	787	615
2015-16	2,400	807	611
2016-17	2,419	408	525
2017-18	NA	NA	NA

Source : DES estimates

In Punjab, irrigation in as much as, 71 *per cent* of the net irrigated area was by means of tube-wells using groundwater and in only 29 *per cent* canal water was being used. The cost of irrigation using groundwater was being borne by the State Government in Punjab as free power was being provided to farmers to extract groundwater. As regards canal water irrigation, the water charges[123], though levied, but were recovered between zero and nine *per cent* only. Thus, the cost of irrigation included in the CoC was passed to the farmers through MSP, without it being incurred by them.

Since the factor of irrigation cost was the maximum in the CoC of paddy (which was borne by the State Government through free power supply to the farmers) among all major kharif crops, it was one of the major incentives to the farmers and in-turn a deterrent factor for diversification to crops other than paddy, which may be considered by the State Government in crop diversification schemes.

123 ***(₹ in crore)***

Period	Nomenclature of water charges	Recoverable	Recovered up to 03/19	Percentage
Outstanding as on 12.11.2014	*Abiana*	400.95	Nil	Zero
12.11.2014 to 31.03.2019	Water cess	181.81	16.83	9.26

3.19.6 Indiscriminate extraction of groundwater by industries

With a view to ensure sustainability of groundwater both in terms of quantity and quality, Central Ground Water Authority (CGWA) from time to time, has been issuing guidelines for evaluation of proposals/requests for groundwater extraction by industries. As per guidelines, obtaining No Objection Certificates (NOCs) for groundwater withdrawal was made mandatory for all industries/projects using groundwater irrespective of its date of coming into existence, category of the area and quantum of groundwater withdrawal. This was to ensure regulated groundwater extraction and installation of rain water harvesting structures by the industries.

Central Ground Water Authority notified (between December 1998 and November 2012) 45 areas (blocks) in Punjab for the purpose of regulation of groundwater extraction. These 45 notified areas of Punjab fall under 14 districts. The District Administrative Heads (Deputy Commissioner/ District Magistrate/District Collector) in case of Administrative Blocks or Taluka, or the Head of the Municipality (in case of Municipal Area) of the District is nominated 'Authorised Officer' for grant of NOC in notified area and CGWA issues NOCs in the non-notified areas for groundwater abstraction by Industries/ Infrastructure/Mining projects.

Audit observed that not all the notified 45 blocks were having highest levels of groundwater development.

3.19.6.1 Mechanism of issue of NOCs in Notified Areas

All issues pertaining to granting of NOCs for groundwater withdrawal, checking violations, sealing of groundwater extraction structures, launching of prosecution against offenders, attending to complaints, etc., are to be addressed by the Authorised Officers in notified areas.

Out of 14 districts, in which notified areas fall, only 36 'No Objection Certificates' (NOCs) for groundwater extraction falling in six[124] districts were issued by the respective Authorised Officers during 2013-18.

3.19.6.2 Functioning of District Advisory Committees in the notified areas

It was seen that District Advisory Committee[125] under the chairmanship of all the six Authorised Officers (DC) was a dedicated agency for regulation of groundwater extraction.

Scrutiny of records of these six Authorised Officers revealed that:

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[124] (i) Fatehgarh Sahib (16); (ii) Sangrur (7); (iii) Ludhiana (5); (iv) Patiala (5); (v) Rupnagar (2); and (vi) Jalandhar (1).

[125] (i) Deputy Commissioner, Chairman; (ii) Asstt. Geologist; (iii) Regional Director, Central Ground Water Board; (iv) Executive Engineer, Punjab Pollution Control Board; and (v) General Manager, Industry, etc.

(i) Only three[126] Authorised Officers had fixed time period of 60 days for processing of NOCs. However, Audit observed that all the Authorised Officers except Ludhiana issued NOCs within a period of 60 days. In Ludhiana, five applications seeking NOCs were pending (March 2018) which were cleared in October 2018 with a delay ranging between 91 and 180 days.

(ii) No guidelines/norms for site inspection were available with the Authorised Officers. Further, four Authorised Officers[127] had no mechanism to monitor the compliance of conditions of NOCs issued. However, Authorised Officers at Patiala and Ludhiana constituted the monitoring teams to monitor the required compliance but no site inspection was carried out during 2013-18 by both the Authorised Officers.

(iii) No Authorised Officer had any mechanism to ensure that project/ industry whose NOC was due for renewal actually applied for renewal in time or not.

(iv) There was no fixed periodicity to hold meetings of the advisory committee. It was seen that meetings were held only when applications for issue of NOCs were to be discussed.

3.19.6.3 Deficiencies in NOCs issued in notified areas

Permission to extract groundwater was granted by the Authorised Officers in consultation with the advisory committees constituted for this purpose in accordance with CGWA guidelines. Audit examined records and carried out site inspection in respect of 36 NOCs issued and found following deficiencies:

- 21 NOCs were issued without obtaining proof of not having public water supply in the premises. These NOCs were granted by obtaining a self-declaration only from the proponents about having inadequate or no public water supply.
- 26 NOCs were granted without incorporating any condition of installation of piezometers. Ten[128] units where the condition of installation of piezometer was incorporated in the NOC, piezometer was not installed except for one unit only i.e. Dream Land Palace, Sangrur.
- Out of 36 units:
  - In 16 units, either the condition of installation of water meter (three[129]) or the quantum of groundwater extraction permitted (nine)

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[126] (i) Fatehgarh Sahib; (ii) Patiala; and (iii) Rupnagar.

[127] (i) Fatehgarh Sahib; (ii) Sangrur; (iii) Rupnagar; and (iv) Jalandhar.

[128] (i) Branco Industry, Sangrur; (ii) R.V. Industry, Jalandhar; (iii) Raghuvesh Infrastructure, Sunam; (iv) Raghuvesh Infrastructure, Malerkotla; (v) Raghuvesh Infrastructure, Ahmedgarh; (vi) Dream Land Palace, Sangrur; (vii) Ramsons Crown Hotel, Sangrur; (viii) PGIMER, Sangrur; (ix) Thapar University, Patiala; and (x) Pawani Buildwell, Patiala.

[129] (i) A-Z Waste Management Ltd, Ludhiana; (ii) Shri Guru Amardas Hospital and Institute of Medical Science, Sec. 32, Ludhiana; and (iii) ESIC Dispensary-3, Ludhiana.

was not mentioned in the NOCs and four units, though were permitted, did not construct groundwater extraction structures.

- In the remaining 20 units, where groundwater was being extracted, four units[130] were not maintaining log books, extraction of groundwater by seven units was within the limits permitted in the NOCs, 8 units[131] were extracting groundwater without installation of water meters and Thapar University, Patiala exceeded (October 2015–March 2018) the permissible limits.

➢ While 22 units constructed 27 bore-wells as permitted, four units, though permitted, did not install any bore-well. Of the remaining 10 units:

- three units[132] constructed two bore-wells each against permission of one; and
- seven units constructed 13 bore-wells without having any mention of number of bore-wells permitted in the NOCs. Of these seven units, one unit had two out lets on one bore-well and water metre was fixed on one outlet. Thus, groundwater being extracted from another out-let remained off the records.

➢ Only 30 out of 47 requisite rain water harvesting/artificial recharge structures were found constructed though 36 units were granted NOCs to extract groundwater on the assurance of installation of rain water harvesting structures.

➢ In seven units[133] (five infrastructure projects and two industries) out of 36, groundwater extracted through tube-well/bore-well was also being used for purposes other than drinking such as in the chilling unit and building construction.

➢ 17 out of 31 units, where groundwater extraction structures were constructed, did not monitor the groundwater quality for its onward intimation to the authorized nodal agency and CGWB.

130 (i) Virasat Vila, Fatehgarh Sahib; (ii) The Bath Grand, Fatehgarh Sahib; (iii) RSD Rice Mills, Fatehgarh Sahib; and (iv) M/s Modi Construction Company, Morinda.

131 (i) Guru Nanak Cold Store, Amloh; (ii) M/s Waheguru Cold Store, Amloh; (iii) PGIMER, Sangrur; (iv) Principal Captain Ram Singh Educational Society, Sunam; (v) Ramsons Crown Hotel, Sangrur; (vi) Dream Land Palace, Sangrur; (vii) R V Industries, Jalandhar; and (viii) Guru Nanak Rice Mills, Khera.

132 (i) A-Z Waste Management Ltd, Ludhiana; (ii) Aulakh Health Care Hospital, Ludhiana; and (iii) M/s Waheguru Cold Store, Amloh, Fatehgarh Sahib.

133 (i) Guru Nanak Cold Store, Amloh; (ii) Ashoka Builders, Fatehgarh Sahib; (iii) Balvinder Singh, Rupnagar; (iv) Modi Construction Company, Morinda; (v) PGIMER at Sangrur; (vi) A-Z Waste Management, Ludhiana; and (vii) Guru Nanak Rice Mills, Fatehgarh Sahib.

- In 32 out of 36 units where bore-wells/hand-pumps were constructed, it was noticed that during 2013-18, only one unit had submitted the details to the Authorised Officer and CGWB. Eight units did not submit the details to Authorised Officer and CGWB whereas 23 units submitted strata details to the Authorised Officers only after it was pointed out by audit during site inspection.
- Out of 31 units inspected, it was noticed that one unit[134] constructed tube well of 8.4 inches diameter against prescribed 3 inches and it was abstracting groundwater after expiry of NOC on 28 March 2016. In the remaining five units[135], capacity of the pump was found between 15 HP and 35 HP against the permissible limit of 5 HP.

The Department admitted (July 2019) the facts.

3.19.6.4 Grant of NOC in non-notified areas to extract more water than permissible

With a view to ensure sustainability of groundwater both in terms of quantity and quality, CGWA had been issuing guidelines from time to time, for evaluation of proposals/requests for groundwater extraction. As per guidelines issued by CGWA in November 2012, revised in November 2015, CGWA fixed criteria, as detailed below, for issuing of NOCs for groundwater withdrawal for industries based on the categorisation of the area/block in which such industry was located.

Category	Withdrawal permitted (*per cent* of proposed recharge)
Safe	NOC is required for groundwater withdrawal subject to adoption of artificial recharge to groundwater.
Semi-critical	Withdrawal may be permitted subject to undertaking of groundwater recharge measures. The withdrawal should not exceed 200 *per cent* of the recharged quantity.
Critical	Withdrawal may be permitted subject to undertaking of groundwater recharge measures. The withdrawal should not exceed 100 *per cent* of the recharged quantity.
Over-exploited	Withdrawal may be permitted subject to undertaking of groundwater recharge measures. The withdrawal should not exceed 50 *per cent* of the recharged quantity.

Scrutiny of 50 NOCs out of 170 NOCs selected randomly revealed that 36 NOCs were issued to industries and 14 to infrastructure projects. Out of 36 NOCs issued to industries, 11 falls under safe zone, one in critical and 24 in over-exploited areas.

Audit observed that, in seven out of 24 NOCs issued in over-exploited areas, the industries proposed to recharge 111.88 lakh cum of groundwater without

[134] Pawani Builders, Patiala.

[135] (i) Aulakh Health Care, Ludhiana (15 HP); (ii) M/s Pawani Builders, Patiala (15 HP); (iii) Thapar University, Patiala (15-35 HP and 25 HP); (iv) Raghuvesh Infrastructure (15 HP), Sunam; and (v) Raghuvesh Infrastructure (15 HP), Sangrur.

having any mention of hydro-geological conditions in the NOC, against which maximum of 55.94 lakh cum (50 *per cent* of recharge quantity) of groundwater withdrawal was permissible. However, CGWA permitted groundwater withdrawal of 108.27 lakh cum ***(Appendix 3.13)***, thereby exceeding the permissible limits by 52.33 lakh cum (94 *per cent*). The permission to withdraw groundwater in safe and critical areas was as per the prescribed criterion.

This violation of the guidelines in over-exploited areas resulted not only in defeating the very purpose of exercising control over groundwater extraction but also allowed further over-exploitation of the already over-exploited zones. Further, CGWB had put no mechanism in place to assess its impact on groundwater post NOC.

On being pointed out (July 2018, February 2019 and July 2019); no reply was furnished by the CGWB (August 2019).

The cases pointed out are based on the test-check conducted by Audit. The Department may consider not generalizing the grant of NOC to industries for withdrawal of groundwater; rather exercise due diligence and consider peculiarities of each case while processing cases of NOC.

3.19.6.5 Extraction of groundwater without NOCs due to lack of co-ordination

Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 provides that the entrepreneur was required to obtain consent of the Punjab Pollution Control Board (PPCB) to operate an outlet before putting into operation any industrial plant/project/activity.

During 2013-18, PPCB granted 'Consent to Operate' (CTO) to 17,311 water using industries. The CTOs were granted on the condition that the project proponent will obtain NOC for groundwater extraction from the concerned authority. During this period, only 206 NOCs were issued by the Authorised Officers (36) in the notified areas and by CGWB (170) in the non-notified areas to Industries/Infrastructure projects.

Among the industries issued consent to operate, 20 industries were selected randomly for field inspection, to ascertain the compliance of obtaining NOC. During site inspection of these units, it was noticed that:

- 13 units were extracting groundwater by installing 17 tube-wells without getting NOC from the competent authority[136]. However, five[137] out of these 13 units had applied (between May 2017 and November 2018) for the NOC but their applications were pending (December 2018) with the competent authority for want of clarification and/or submission of rain water harvesting plans.

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[136] Deputy Commissioner is the competent authority in Notified areas and CGWA in non-notified areas.

[137] (i) M/s Kay Jay Forgings Pvt. Ltd. Ludhiana; (ii) M/s Deluxe Fabrics Limited, Ludhiana, (iii) M/s Friends Printers, Ludhiana, (iv) M/s Schreiber Dynamics Dairies Pvt. Ltd. Fazilka and (v) M/s J R Agrotech Pvt. Ltd, Gurdaspur.

➢ Groundwater extraction structures were not constructed by seven[138] units, thus were not extracting any groundwater.

Audit observed that there was no mechanism with six test checked Authorised Officers to ensure that each infrastructure project (other than individual households) requiring NOC for groundwater extraction had applied for NOC. However, Authorised Officer, Patiala stated that instructions were issued to line departments to ensure compliance of CGWA guidelines and notifications. Further, no estimation of number of individual households/infrastructure projects that were extracting groundwater without proper NOC existed. No show cause notices were issued/penalty imposed by the Authorised Officers against the defaulters during 2013-18 except in Ludhiana. In Ludhiana, four show cause notices were issued and the groundwater extraction structure of one defaulter was dismantled.

Thus, absence of co-ordination between the PPCB and the Authorised Officers (DC) or the CGWA, as the case may be, to ensure that all the industries operating on CTO issued by PPCB and started using groundwater, had applied for NOC to the authority concerned led to unchecked extraction of groundwater by these industries.

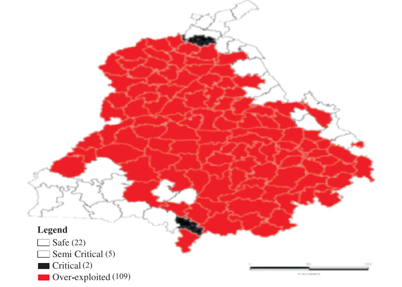
The cases pointed out are based on the test-check conducted by Audit. The Government may examine similar cases and consider adopting an effective mechanism for enforcing penal provisions strictly against the cases of violation of conditions mentioned in the NOCs for effective groundwater regulation by industries. The department may fix responsibility of officials who failed to monitor industries operating without NOCs.

3.19.7 Over-exploitation of groundwater

Based on the stage of groundwater extraction and long-term groundwater level trend, assessment units (blocks) are categorized as over exploited, critical, semi-critical and safe. The criteria of categorization of blocks are as under:

Stage of groundwater extraction	Category
≤70%	Safe
>70% and <90%	Semi Critical
>90% and <100%	Critical
>100%	Over-exploited

Chart 3.12 : Categorization of blocks



Source: Report on Groundwater resources of Punjab

Out of total 149 blocks of the State, 138 blocks were taken for study in the Report on Groundwater resources of Punjab (March 2017) of which 109 blocks (79 *per cent*) were assessed as over-exploited, two blocks (one *per cent*) as critical, five blocks (four *per cent*) as semi-critical and only 22 blocks (16 *per cent*) falls under safe category.

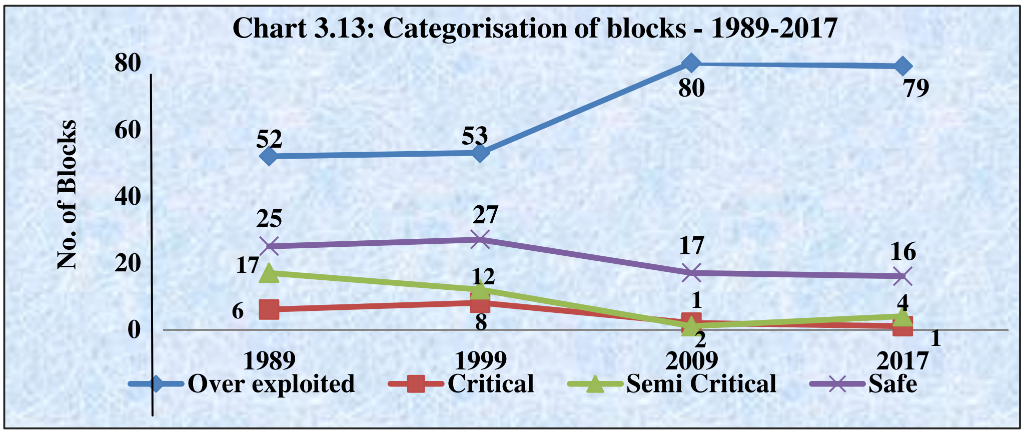
138 (i) M/s B. H Enterprises, Ludhiana; (ii) M/s Birdi Steel Industries, Ludhiana; (iii) M/s Lloyds Infra systems, Ludhiana; (iv) M/s Sabharwal Cycle Industries, Ludhiana; (v) Shree Ram Polymers, Ludhiana; (vi) M/s G.S. Engineering Works, Hoshiarpur; and (vii) Schreiber Dynamix Dairies Pvt. Ltd., Fazilka.

Audit observed that as per report on groundwater resources of Punjab (March 2017), ten[139] central western districts of Punjab were the worst affected, where average groundwater extraction was 207 *per cent* (ranging between 148 and 260 *per cent*). Of these, in eight central western districts, the groundwater extraction even exceeded the State's average of 165 *per cent*.

At the same time, three south-western districts[140] had water logging problem, as groundwater extraction in these districts was less than the recharge. In other parts of the south-western districts[141] high levels of groundwater extraction, ranging between 141 and 167 *per cent*, was recorded.

As per 2017 report, in the districts falling in Kandi[142] area of Punjab, groundwater extraction was also recorded in excess of the total recharge.

Audit further analysed that the results of groundwater assessment made between 1989 and 2017 showed an increasing trend of over-exploited blocks, as shown in **Chart 3.13** below:



Source: Report on Groundwater resources of Punjab

Thus, the unchecked groundwater extraction deteriorated the groundwater table, which led to converting critical, semi-critical and safe blocks into over-exploited ones.

3.19.8 Aggravating water logging in south-western Punjab

The State is facing the dual phenomenon of rising water table (mostly in south-western parts, where water extraction is limited due to brackish/saline quality) and falling water table in north-western, central, southern and south-eastern parts of the State, where groundwater is generally fresh and fit for irrigation.

[139] Amritsar-148 *per cent*, Tarn Taran-153 *per cent*, Ludhiana-183 *per cent*, Fatehgarh Sahib-208 *per cent*, Barnala-211 *per cent*, Patiala-217 *per cent*, Kapurthala-224 *per cent*, Moga-229 *per cent*, Jalandhar-239 *per cent* and Sangrur-260 *per cent*.

[140] Sri Muktsar Sahib-74 *per cent*, Bathinda-98 *per cent* and Fazilka-99 *per cent*.

[141] Mansa-141 *per cent,* Ferozepur-164 *per cent* and Faridkot-167 *per cent*.

[142] Hoshiarpur-103 *per cent,* Nawanshahr-116 *per cent*, Rupnagar-117 *per cent*, Mohali-119 *per cent* and Gurdaspur-134 *per cent*.

Out of 41.24 lakh hectare irrigated area in Punjab, 13.01 lakh hectare (32 *per cent*) irrigated area falls under six[143] south-western districts of Punjab. In these districts, groundwater in area ranging between 48 and 96 *per cent* (of individual districts) was saline and unsafe for all purposes.

Audit observed that during 2017-18, 75 *per cent* of area in these south-western districts (area of individual districts ranging between 29 and 100 *per cent*) of Punjab was being irrigated through canal water as compared to seven *per cent* in the rest of Punjab (area of the individual district ranging between zero and 46 *per cent*).

Punjab exhibited an increase of 3.60 *per cent* (68.32 lakh hectare to 70.78 lakh hectare) in area under major crops during last two decades (1996-97 to 2017-18). However, south-western districts witnessed decrease of 2.98 *per cent* (13.41 lakh hectare to 13.01 lakh hectare) in area under major crops during this period.

Despite decrease in the total area under cultivation in these districts during 1996-97 to 2017-18, the area under water intensive rice crop (which requires 15-20 irrigations) increased by 118 *per cent* (3.90 lakh hectare to 8.49 lakh hectare) and the area under cotton crop (which requires 3–6 irrigations) decreased by 46 *per cent* (5.18 lakh hectare to 2.81 lakh hectare).

Increased area under rice crop augmented the use of canal water for irrigation, thereby aggravating the already persisting problem of water logging and salinisation. **Panjab University opined that rice production especially by freshwater use be reduced.**

Thus, irrigating the paddy fields in south-western districts majorly with canal water impacted the water logging. The fact has been substantiated by WRED in its report on water resources of Punjab as on March 2017. Long-Term Fluctuation data pertaining to the period from June 1984 to June 2016 disclosed that the average yearly rate of rise of water level (more than 5 m) in Bathinda, Fazilka, Sri Muktsar Sahib and Mansa worked out to be approximately 0.32 m/year.

Experts opined that to contain the problem of water logging, the State may consider way outs like conjunctive use of groundwater and surface water for irrigation and/or artificial sub-surface drainage.

3.19.9 Regulatory control over groundwater extraction

It was observed that efforts of the State Government to control and regulate the extraction of groundwater were not adequate despite declining groundwater level, as explained below:

[143] (i) Bathinda; (ii) Faridkot; (iii) Fazilka; (iv) Ferozepur; (v) Mansa; and (vi) Sri Muktsar Sahib.

(a) Non-implementation of Indian Easement Act, 1882

Section 7 (g) of Indian Easement[144] Act, 1882, adopted by Punjab vide Act No. 29 of 1961, states that every owner of land has the right to collect and dispose within his own limits of all water under the land which does not pass in a defined channel. Hence, by this Act, the owner of a piece of land does not own the groundwater under the land if it passes through a defined channel. The groundwater passes in aquifers under the land, however, the State did not take measures to own the right of the aquifer groundwater and to check its extraction by the owners of the land.

The WRED stated (October 2018) that Aquifer cannot be termed as a defined channel as only the direction of flow of underground water can be known from lithological studies but other parameters like its width, depth, length, gradient, velocity and discharge, etc. cannot be established as of now. The reply of the Department was not tenable as the Master Plan prepared by CGWB, GoI for artificial recharge in India (2013) classified aquifers in Punjab as fairly thick, narrow and regionally extensive on parameters of width, depth and length. **The experts (Panjab University) have also clarified that principle of public trust, as is applicable to surface water, applies to flowing groundwater in the aquifers and not to the percolating groundwater.**

(b) Non-adoption of Groundwater Model Bill

With a view to regulate and control the extraction and management of groundwater, the Central Government, from time to time, came up with a Model Bill[145]. The latest Model Bill was brought out by the Central Government in 2016 with the objectives to ensure that groundwater is protected, conserved, regulated and managed through enactment. But it was observed that no effort was made by the State to enact an Act to control use of groundwater. Despite setting up of a separate 'Directorate of Groundwater Management' in November 2017, the Model bill was still not passed and was in the consideration of the State Government (March 2019).

Hence, neither the Central Act was implemented, nor any State Act had been enacted to prevent indiscriminate withdrawal of groundwater.

(c) Absence of State Water Policy

The WRED submitted a Draft State Water Policy to the Government in November 2008 with the overall objectives to ensure equitable distribution among agriculture, industry and domestic sectors, safe drinking water, develop water resources, restore depletion, manage water logging, promote awareness & participation of stakeholders, contain water pollution, maintain ecological

[144] Easement is a right which the owner or occupier of certain land possesses, as such, for the beneficial enjoyment of that land, to do and continue to do something, or to prevent and continue to prevent something being done, in or upon, or in respect of, certain other land not his own.

[145] 1970, 1992, 1996, 2005 and 2016.

balance, encourage safe disposal and re-cycling the waste water, introduce systematic irrigation reforms and develop a scientific hydrological information system etc.

This policy was yet to be approved. WRED admitted the facts (October 2018). By the year 2012, fourteen States[146] had formulated their State Water Policies.

Thus, inadequacy of regulatory control through enactment and policy lead to over-exploitation of groundwater and continuous increase in the area under water intensive paddy crop. This resulted in 79 *per cent* of the blocks to fall under over-exploited category.

3.19.10 Recharging of groundwater

Central Ground Water Board (CGWB) in consultation with the State Governments developed (January 2013) a master plan for artificial recharging of groundwater in India by assessing the total recharge potential available in the country along with suitable designs of structures for such recharge. The master plan was to be implemented over a period of 10 years.

3.19.10.1 Negligible creation of artificial recharging structures

As per Master Plan, Punjab is one of the States requiring highest quantities of recharge with assessment of 43,340 sq. kms area of the State feasible for artificial recharge. A total of 70,071 MCM of surface water was required to be recharged by artificial methods to saturate the aquifer up to three meters below ground level. However, volume of water available for recharge was assessed to be 1,201 MCM in addition to 187 MCM of water through Roof Top Rain Water Harvesting. For this, 4.55 lakh artificial recharge structures[147] were assessed to be feasible for the State.

Audit observed that against 4.55 lakh recharge structures assessed by CGWB in consultation with State Government, only 103 structures had been constructed (1992-2015) in the State so far which were just 0.02 *per cent* of the total requirement. Of the 103 structures, the Department of Soil and Water Conservation, Punjab constructed 73 small rainwater harvesting dams/ structures during the Eighth Five Year Plan (1992-97); WRED constructed (January 2013 to March 2015) 27 artificial recharge schemes under NABARD assisted project within the premises of Government rest houses; and CGWB constructed (February–March 2015) three artificial recharge structures in the State.

Further, these recharging structures have never been got de-silted/serviced since their completion (between February 2013 and March 2015) and were in

[146] Andhra Pradesh, Chhatisgarh, Goa, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Sikkim, Tamil Nadu & Uttar Pradesh.

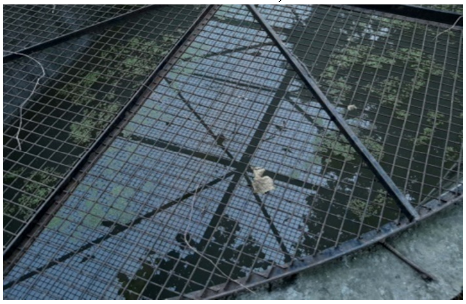
[147] Recharge Shafts: 79,839, Check Dams: 85, Rooftop Rainwater Harvesting (Housing): 3,00,000, Rooftop Rainwater Harvesting (Government and Institutional Buildings): 75,000.

a dilapidated condition as shown in the pictures (taken on 12 July 2019) below:

Artificial recharge structure at Allowal canal rest house, Patiala

Artificial recharge structure at Amloh canal rest house, Patiala

Artificial recharge structure at Dhangeria canal rest house, Patiala



Artificial recharge structure at Devigarh canal rest house, Patiala

The Department was preparing (July 2019) detailed project report for seeking funds from GoI under Pradhan Mantri Krishi Sinchai Yojna for maintenance of the recharging schemes.

The WRED stated (October 2018) that 372 structures were constructed through 38 Artificial Recharge Schemes till March 2015 under NABARD and Centrally Sponsored Schemes. On being asked (October 2018) regarding details of 372 structures, no reply was furnished (August 2019) by the Department. It was further stated that Detailed Project Report for Artificial Recharge schemes approved (June 2017) by the State Level Sanctioning Committee was under preparation for seeking funds from MoWR. However, the Chief Conservator of Soil, Punjab admitted (January 2019) that no structure had been installed after 2012-13.

Thus, efforts to recharge the groundwater in the State had been negligible despite the fact that State had the highest stage of groundwater extraction in the country.

3.19.10.2 Non-prioritising the over-exploited area for recharging

As per criteria prescribed in the master plan, the priority areas suitable for artificial recharge schemes have to be identified on the basis of i) notified areas; ii) declining water level trends during post monsoon; and iii) stage of groundwater extraction (highest to lowest). In Punjab, WRED started (December 2011 to January 2015) 27 artificial recharge schemes to augment groundwater resources under NABARD assisted project. Audit observed that:

(a) Out of 27 schemes, 11 schemes were installed in notified areas, but the sites were not chosen in the descending order of Groundwater Extraction (GWE) as the areas with comparatively lower GWE were taken up for recharge schemes leaving the areas having higher GWE ***(Appendix 3.14 & 3.15).***

(b) First four recharge schemes undertaken (December 2011) by the Department in the areas where GWE was between 237 and 197 *per cent* leaving the areas with much higher GWE, that ranged upto 416 *per cent* ***(Appendix 3.15)***.

(c) Audit further analysed that for all the remaining artificial recharge schemes, the priority in the descending order of GWE was also not adhered to ***(Appendix 3.14).***

WRED stated (October 2018) that the stage of groundwater extraction is not the only governing criteria for fixing priorities of the recharging schemes to be executed. The reply of WRED was not acceptable as the artificial recharge schemes installed were not as per the criteria prescribed in the master plan for artificial recharge. Since stage of groundwater extraction was worked out by taking into consideration various factors including pre/post monsoon water level trends and areas were also notified on the basis of higher groundwater extraction. Therefore, groundwater extraction was the major criteria. The WRED had no comments to offer on the issue of impact assessment of these recharging structures.

Thus, negligible creation of recharge structures that too in the Government rest houses without considering the hydro-geological conditions coupled with non-maintenance thereof indicate that groundwater recharge had not found requisite priority in the State plans so far. Even the areas covered with recharge structures were not prioritised in order of stage of groundwater extraction.

The Department may consider simulation of proposed recharging efforts at the planning stage and also assess its actual impact after execution.

3.19.11 Direct Benefit Transfer to farmers to save groundwater

The GoP notified (June 2018) a scheme titled *"Pani Bachao Paise Kamao"* to incentivise the agriculture consumers to save the precious groundwater and earn money for the same.

Under this scheme, agriculture consumer of electricity, based on crop season and sanctioned load of the consumer, is given a fixed electricity entitlement for every month of the year. To encourage the farmers to volunteer for this scheme, the energy entitlement of paddy season is enhanced by 20 *per cent* over the previous year[148]. Any consumption measured lower than the

148 Power supply to agriculture consumers is being recorded at Feeder level, as power supply to agriculture pumpset is unmetered.

entitlement was to be reimbursed at the rate of ₹ 4.00 per KWH and excess consumption was to attract no charges. For recording actual power consumption, the State would meter power supply to individual farmers.

Audit of Agriculture Department showed that the scheme was being implemented in six feeders[149] as pilot project where 940 agriculture consumers were being fed. Analysis of status of enrolments and meter installations revealed the following in one year (as on 13 May 2019) since the scheme was notified:

- Out of 940 agriculture consumers, only 264 (28 *per cent*) had been enrolled.
- Of the 264 consumers enrolled, meters could only be installed for 190 consumers (20 *per cent*).

Despite implementation of the scheme in June 2018, so far only 20 *per cent* of the targeted consumers could actually be covered, which shows poor implementation of the scheme. However, the impact of the scheme on groundwater is yet to be assessed.

The Government should proactively incentivise farmers to opt for diversification of crops.

3.19.12 Groundwater Monitoring

As Punjab has the highest stage of groundwater extraction in the country, groundwater monitoring becomes critical to manage interventions for future.

3.19.12.1 Un-designed network of observation wells

The WRED is monitoring groundwater in the State through 802 Medium and Deep Groundwater Observation Wells (observation wells) spread in all the 22 districts of the State. Out of 802 observation wells, 43 were non-functional as these had been closed, dried or filled up ***(Appendix 3.16)***.

The WRED, in its report on Groundwater Resources of Punjab, proposed that there should be at least three spatially well distributed observation wells in the assessment unit (administrative block), or one observation well per 100 sq. km.

A block-wise analysis disclosed that four blocks[150] were having 1-2 observation wells and the coverage of area of 70 observation wells in 11 blocks of three districts[151] was not even meeting the set norms of having one observation well per 100 sq. km. Despite being asked specifically (July 2019) about the pattern adopted by the WRED to install observation

[149] 11 KV feeders at (i) Dhanoya in district Hoshiarpur; (ii) Nawajipur; (iii) Bambiwal-1 in district Jalandhar; (iv) Sunderpura; (v) Haripur and Kharora in district Fatehgarh Sahib.

[150] i) Adampur; ii) Jalandhar-East in Jalandhar district; iii) Bholath in Kapurthala district; and iv) Ahmedgarh in Sangrur district.

[151] i) Barnala (3 blocks & 14 wells); ii) Fazilka (4 blocks & 30 wells); and iii) Sri Muktsar Sahib (4 blocks and 26 wells).

wells, the WRED did not furnish any reply (August 2019). The department, however, intimated (October 2018) that selection of site of observation wells depend on suitable strata, geological conditions, safety of structures, etc.

3.19.12.2 Manual and non-recording of groundwater level

For the effective groundwater estimation, three water level readings during pre and post monsoon seasons and in the month of January/May preferably in successive years, are the minimum requirements. It would be ideal to have monthly water level measurements to record the peak rise and maximum fall in the groundwater levels.

Audit observed that groundwater levels were measured manually as well as with instruments like Piezometers and Digital Water Level Recorders (DWLRs). There were 802 observation wells installed in Punjab for monitoring groundwater levels, of which 43 were non-functional. Out of 759 functional observation wells, data from 546 observation wells was being recorded manually; from 115 it was being recorded with piezometers and only 98 wells were fitted with DWLRs for recording water level digitally ***(Appendix 3.16)***. Out of these 98 digital recorded observation wells, only 50 wells were equipped with telemetry system, capable of providing automated real time data to the receiving equipment for monitoring. Thus, except from these 50 observatory wells, the water level was being recorded manually by visiting the site on monthly basis and in case of 48 digital observation wells fitted with DWLRs, the data was being retrieved on quarterly basis by visiting the site.

Audit also observed that the department was facing shortage of field staff and therefore, water level data from 59 observation wells (7.8 *per cent*) in district Hoshiarpur was not recorded (October 2017) due to retirement of the surveyor.

The WRED proposed installation of 550 DWLRs with telemetry system under National Hydrology Project and in its justification submitted (June 2016) that manual recording of groundwater levels makes the data prone to errors and the department was also facing difficulties in collection of the data due to declining strength of field staff. The financial bids for the proposed National Hydrology Project were in evaluation process (July 2019).

As regards, the sites being non-functional, the department while admitting the fact also attributed (October 2018) it to fall in the water table, change in land use of site, accidental filling of the well, etc. and stated that it was a continuous process, as on reviving some of the non-functional sites, some other sites would become non-functional; however, further stated (July 2019) that no observatory well was revived during the last five years.

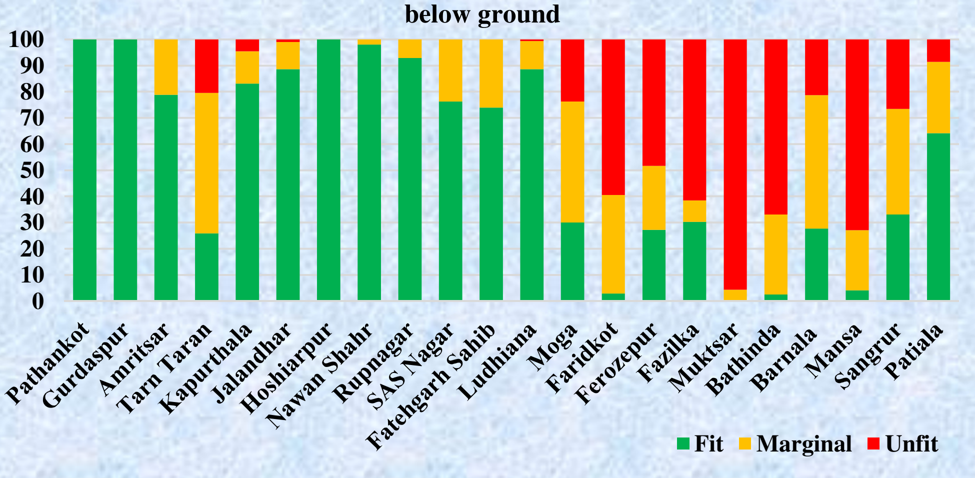
Thus, to have accurate assessment of groundwater, the State may consider spreading observation wells scientifically, expedite installation of DWLRs with telemetry to minimise manual recording of groundwater levels and consider making this data available in public domain.

3.19.13 Water pollution

3.19.13.1 Quality of groundwater

The quality of groundwater is classified as Fit, Marginal and Unfit on the basis of Electrical Conductivity[152] (EC) and Residual Sodium Carbonate[153] (RSC) which is indicative of salinity and alkalinity effect. The permissible limits for the classification of groundwater quality for irrigation purpose as determined and followed by Punjab Agricultural University is maximum 4000 micro mhos/cm at 25^{o}C for EC and 5.0 meq/l for RSC. District wise status of quality of groundwater is exhibited in the **Chart 3.14** below:

Chart 3.14: Quality of water w.r.t. E C & RSC at 45 to 60 metres below ground



Source: Report on soil and groundwater quality in Punjab

In Punjab, about 60 *per cent* of groundwater was fresh and of good quality mostly in districts of Amritsar, Fatehgarh Sahib, Nawanshahar, Gurdaspur, Rupnagar, Hoshiarpur, Jalandhar, Kapurthala, Ludhiana and Pathankot, nearly 30 *per cent* saline/alkaline (marginal to moderate) in districts of Patiala, Moga, Ferozepur and Mansa and nearly 10 *per cent* was saline/alkaline which was unsafe for all purposes mostly in the districts of Faridkot, Sri Muktsar Sahib, Bathinda and Sangrur.

Audit observed that in 32 *per cent* area under cultivation of the South-Western districts[154] of Punjab, about 46 *per cent* of the total insecticides used in Punjab were used[155] in these districts during 2017-18.

While admitting the facts, WRED stated (October 2018) that study of salinity and assessment and monitoring of water logging problem in south western districts is proposed to be undertaken under the National Hydrology Project.

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152 It is the measure of the amount of electrical current a material can carry.

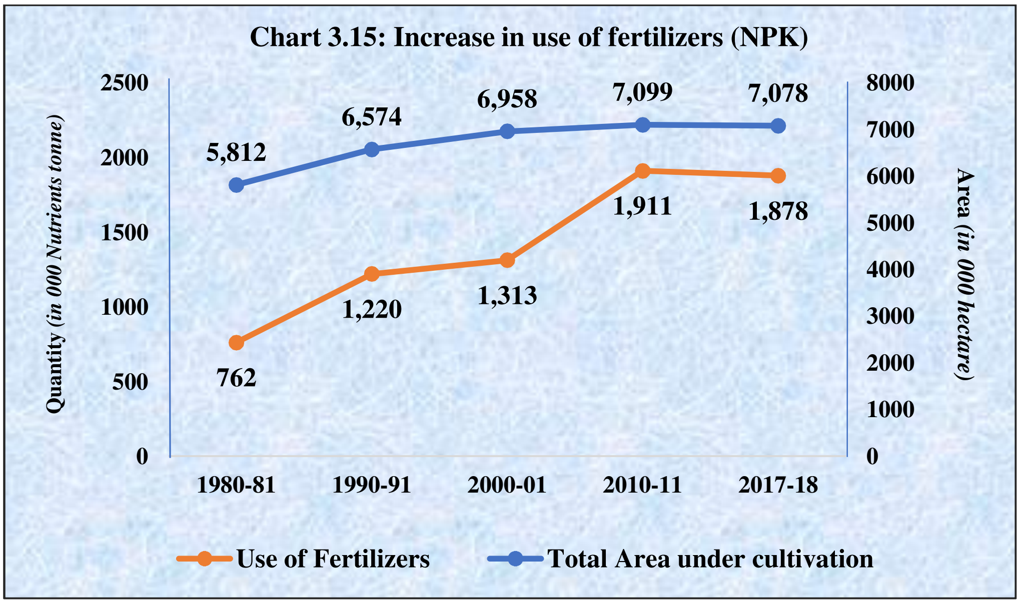
153 The RSC index is of irrigation water or soil water issued to indicate the alkalinity hazard for soil.

154 (i) Bathinda; (ii) Faridkot; (iii) Fazilka; (iv) Ferozepur; (v) Mansa; and (vi) Sri Muktsar Sahib.

155 As per information supplied by the Agriculture Department, GoP.

3.19.13.2 Use of fertilizers to increase production

After saturation of increase in area under cultivation, which was already 82 *per cent* of total area of the State, there was a shift to increased use of fertilisers to increase production of MSP supported crops. A comparison of trends of increase in the area under cultivation and increase in use of fertilisers disclosed that against the increase of 21.78 *per cent* in the land under cultivation, there was an increase of 146.46 *per cent* in the use of fertilisers during 1980-2018 as is exhibited in **Chart 3.15** below:



Source: Statistical abstract of Punjab ***N=Nitrogenous, P=Phosphatic, K=Potassic**

Increased use of fertilisers was causing water quality deterioration in both surface and groundwater, thereby affecting the net availability of fit/good quality water. Audit is of the opinion that increasing trend of use of fertilisers during 1980-2018 for enhancing the production of crops (particularly paddy) was one of the factors for deterioration in the quality of groundwater.

Experts from Panjab University also recommended controlling of excessive use of chemical pesticides and fertilisers to decrease water contamination.

3.19.13.3 Contamination of groundwater

As per concept note on geogenic contamination of groundwater in India prepared by the Central Ground Water Board (CGWB) in February 2014, groundwater in Punjab was found to be contaminated with chemicals and heavy metals beyond permissible limits, as discussed below:

(a) Chemical contamination in groundwater beyond norms

In 16 districts, Fluoride (above 1.5 mg/l), in 19 districts Nitrate (above 45 mg/l), in six districts Arsenic (above 0.05 mg/l) and in nine districts Iron (above 1.0 mg/l) was found beyond norms set by the Bureau of Indian Standards.

(b) Presence of heavy metals in groundwater

Punjab was one of the 15 States where heavy metals like Lead (above 0.01 mg/l), Cadmium (above 0.003 mg/l) and Chromium (above 0.05 mg/l) had been found in the groundwater over and above the permissible limits.

Heavy metal	Affected districts
Lead	Amritsar, Bathinda, Ferozepur, Gurdaspur, Sri Muktsar Sahib and Rupnagar.
Cadmium	Fatehgarh Sahib, Ludhiana, Nawanshahar, Patiala, Rupnagar, Sangrur, SAS Nagar and Tarn Taran.
Chromium	Amritsar, Barnala, Bathinda, Gurdaspur, Kapurthala, Mansa, Rupnagar, Sangrur, SAS Nagar and Tarn Taran.

Besides above, presence of radio active element such as uranium in groundwater had also been reported in significant proportion beyond the permissible limit in south and south-western part of the State by various agencies, as per Report on Groundwater Resources of Punjab (March 2017).

3.19.14 Decreasing sustainability of groundwater in the State

All United Nations (UN) Member States jointly committed to the Sustainable Development Goals (SDGs) in September 2015. The UN Member States declaration on the SDGs, *"Transforming Our World: The 2030 Agenda for Sustainable Development,"* noted that "Our Governments have the primary responsibility for follow-up and review, at the national, regional and global levels, in relation to the progress made in implementing the goals and targets over the coming fifteen years". SDG 6 is targeted for ensuring availability and sustainable management of water and sanitation for all which *inter alia* is to be achieved by substantially increasing the water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

It has, however, been observed that State was yet to give greater emphasis for ensuring the sustainability of this scarce natural resource, as is evident from the fact that State has neither implemented Indian Easement Act, 1882 nor yet adopted any Groundwater Legislation and even State Water Policy still eludes the State. Indiscriminate withdrawal of water continues in the State due to availability of free power to extract groundwater and ever increasing demand for water intensive cropping pattern leading to depleting water levels in the State which is aggravated due to negligible efforts for recharging the groundwater. The water quality of a significant portion of the State had also deteriorated as 10 *per cent* groundwater of the State was unsafe for all purposes and 30 *per cent* was marginally to moderately saline/alkaline. Groundwater resources of the State had witnessed contamination by fluoride, nitrate, arsenic, iron, heavy metals such as lead, cadmium, chromium and radioactive uranium.

3.19.15 Conclusion

The level of groundwater in the State was declining due to over-expolitation of groundwater which is very high (165 *per cent*) in the State mostly for irrigation of paddy crop which is highly water intensive. Free power to agriculture sector was a stimulus for State's high groundwater extraction, especially in the absence of any legislation having control over extraction of groundwater for irrigation in the State. The control over extraction of groundwater for industrial use was also weak especially in over-exploited blocks. The State was yet to enact legislation to protect, conserve, regulate and manage groundwater. Recharging potential of the State was not being tapped optimally as efforts in this direction were almost negligible. The problem of very high groundwater contamination, leaving only 60 *per cent* of groundwater fit for usage, was also awaiting the State's attention. Monitoring of groundwater resources required a structured approach to have a realtime, precise and dependable data for future interventions of groundwater management.

3.19.16 Recommendations

In the light of audit findings, the State Government may consider to:

(i) formulate State Groundwater Policy and undertake vigorous awareness campaigns for motivating farmers and also incentivising them to cultivate non-water intensive crops, avoid over-irrigation and control agricultural pumping of groundwater;

(ii) simulate the expected impact of proposed groundwater recharging schemes at the planning stage and also conduct mandatorily Impact Assessment to check if there has been reduction in rate of decline of groundwater;

(iii) follow certain scientifically designed pattern of observatory wells and minimizing errors in monitoring groundwater levels to enhance reliability of the data for sustainable development of groundwater resources;

(iv) estimate impact of groundwater withdrawal before grant of NOC to juxtapose post project actual impact; and

(v) strengthen control over use of excessive fertilisers and pesticides, groundwater extraction for industrial use and encourage effective groundwater recharging.

The matter was referred to the Government in August 2018; reply was awaited (August 2019).

CHANDIGARH	**(PUNAM PANDEY)**
The 22 October 2019	**Principal Accountant General (Audit), Punjab**

Countersigned

NEW DELHI	**(RAJIV MEHRISHI)**
The 30 October 2019	**Comptroller and Auditor General of India**