

Chapter-II

Performance Audit

CHAPTER-II PERFORMANCE AUDIT

Agriculture Department

2.1 Education, Research and Extension activities in Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishvavidyalaya

Performance audit of education, research and extension activities in Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishvavidyalaya (CSKHPKV) highlighted many financial irregularities, shortage of faculty affecting quality of education, shortfall in enrolment of students in different programmes and delay in completion of research projects. Some of the major findings are as under:

Highlights:

- *Against overall sanctioned strength of 380 faculties, 141 posts (37 per cent) were lying vacant which had affected the quality of education and research activities in the University.*
(Paragraph 2.1.8.1)
- *The percentage shortfall in enrolment of students in undergraduate programmes during 2012-17 ranged between 14 and 25 and in postgraduate programmes it ranged between 27 and 67. About 61 to 70 per cent seats in Doctoral programmes remained vacant.*
(Paragraph 2.1.9.2)
- *Due to running of non-recognised M.Sc. (Biology) programme by the University during 2007-16 and non-accreditation of programmes under College of Home Science during 2013-17, the University had risked the careers of 259 students who passed out upto 2016-17 under these programmes.*
(Paragraphs 2.1.9.4 and 2.1.9.5)
- *Out of 1,545 students passed out under different programmes during 2011-15, only six per cent students (94) got placement through placement cell of the University which indicated that the University was unable to meet the aspirations of the degree holders for securing employment.*
(Paragraph 2.1.9.8)
- *The University had not maintained library of outcome of research projects completed during 2012-17 without which their authenticity/ results could not be verified in audit. Three research projects of ₹6.98 crore to be completed between April 2012 and June 2016, were lying incomplete though expenditure of ₹4.79 crore was incurred on these projects upto March 2017.*
(Paragraphs 2.1.10.2, 2.1.10.6 and 2.1.10.7)
- *During 2013-17, there was shortfall of 42 to 68 per cent in achievement of targets of agriculture extension training to Government functionaries. Though the targets of training to farmers were achieved during 2012-17, the University had not assessed the impact of training to ascertain its effectiveness.*
(Paragraph 2.1.11.1)
- *The University had incurred irregular expenditure of ₹178.26 crore for pensionary benefits to its employees during 2012-17 out of the State grants and contingent advances of ₹20.19 crore paid in 663 cases of 38 departments during 2004-17 were lying un-adjusted as of March 2017 of which, advances of ₹4.55 crore were outstanding for more than five years.*
(Paragraphs 2.1.7.2 and 2.1.7.5)
- *Internal controls and monitoring mechanism were almost non-existent as the University had neither conducted internal inspections of accounts/ stock nor developed integrated management information system for monitoring the programmes/ activities during 2012-17.*
(Paragraphs 2.1.13.2 and 2.1.13.3)

2.1.1 Introduction

Himachal Pradesh is primarily an agrarian State. As per 2011 census, more than 62 *per cent* of its population (42.56 lakh) was engaged in agriculture and allied activities. The role of an agriculture university is very significant for development of modern method of agriculture, animal husbandry, etc., and for improving the economic status of the people of the State.

Himachal Pradesh *Krishi Vishvavidyalaya*, Palampur established in November 1978 was bifurcated into two independent universities viz. Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishvavidyalaya¹ (CSKHPKV) and Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni (Solan) by an enactment of 1987. The main objectives of the Agriculture University include imparting education in agriculture and allied branches of learning, furthering the advancement of learning, agriculture research and undertaking extension of such sciences, especially to the rural people of the State.

Performance audit of the CSKHPKV seeks to assess the standard of teaching, research and extension education in the field of agriculture and allied sectors in the State.

2.1.2 Organisational setup

The Governor of the State is the Chancellor of the University. The overall working of the University is governed by the Senate, Board of Management (BOM), Finance Committee, Academic Council, Research Council, Extension Council and other faculties. The Vice-Chancellor (VC) is the Principal executive, academic and administrative officer and Ex-Officio Chairman of BOM and other councils of the University. In discharge of his duties, the VC is assisted by Deans of five colleges², Directors of Research and Extension Education, Registrar, Comptroller of Accounts, Students' Welfare Officer, Estate Officer and Librarian. At Government level, the University is administered under State Agriculture Department with Additional Chief Secretary as its administrative head. An organogram is depicted in **Appendix-2.1**.

2.1.3 Audit objectives

The objectives of the audit were to see whether:

- Educational norms/ standards prescribed by the Statutes of the University were being adhered to;
- Research activities/ projects were carried out as per norms and standards of University Grants Commission (UGC)/ Indian Council of Agricultural Research (ICAR)/ other sanctioning authorities;
- Extension education activities were carried out economically, efficiently and effectively; and
- Internal control and monitoring mechanisms were adequate and effective.

¹ Himachal Pradesh Krishi Vishvavidyalaya renamed in June 2001.

² College of Agriculture, College of Basic Science, College of Veterinary and Animal Sciences, College of Home Science and Post Graduate Studies.

2.1.4 Scope and methodology of Audit

The performance audit on Education, Research and Extension activities in CSKHPKV, Palampur covering the period 2012-13 to 2016-17, was conducted by test-check of records of Registrar, Comptroller of Accounts, Director of Research, Director of Extension Education, five Deans of Colleges, Students' Welfare Officer, Librarian and Estate Officer. Besides, 12 (out of 40) Departments³, six (out of 13) Regional Research Stations/ Sub-stations⁴ and two (out of eight) *Krishi Vigyan Kendras*⁵ (KVKs) of the University were selected on the basis of simple random sampling method.

Audit objectives, criteria, scope and methodology were discussed with the Additional Chief Secretary (Agriculture) in an entry conference held in March 2017. Audit findings were discussed with the Vice Chancellor (VC) and Additional Chief Secretary (Agriculture) in an exit conference held in July 2017 and views of the Government have been incorporated in the report at appropriate places.

2.1.5 Audit Criteria

The audit criteria used for the conduct of performance audit was derived from the following sources:

- Himachal Pradesh Universities of Agriculture, Horticulture and Forestry Act, 1986 (Act No. 4 of 1987), the CSKHPKV Statutes and Accounts Manual;
- Norms of ICAR/ UGC/ Academic Councils for academic, research and extension activities;
- Plan and budget documents, established accounting principles, guidelines issued by the Finance Committee and minutes/ resolutions of BOM/ financial committee/ councils;
- Guidelines/ instructions/ orders issued by GOI, State Government and ICAR; and
- Periodical reports/ returns furnished to ICAR/ State Government/ GOI.

Audit Findings

2.1.6 Planning

Proper planning is a sine-qua-non for successful implementation of any programme/ activities of an organisation. For smooth functioning of the University, planning includes preparation of perspective plan with long term objectives in view, annual plan with specific physical and financial targets and annual work plan for research stations and *Krishi Vigyan Kendras*.

Audit noticed that the University had not made any provisions for long-term/ short-term planning in its Statutes, Accounts Manual, etc., as of May 2017. No perspective plan and annual plans with specific physical and financial targets were prepared by the University during 2012-17. The Director (Research) stated (May 2017) that due to

³ 1. Organic Agriculture, 2. Tea Husbandry and Technology, 3. Agriculture Engineering, 4. Seed Science and Technology, 5. Fisheries, 6. Teaching Veterinary Clinical Complex, 7. Veterinary Physiology and Biochemistry, 8. Animal Genetics and Breeding, 9. Veterinary Medicine, 10. Textile and Apparel Designing, 11. Food Science, Nutrition and Technology and 12. Biology and Environmental Sciences.

⁴ Regional Research Stations: Bajaura, Dhaula Kuan and Kukumseri and Research Sub Stations: Akrot, Kangra and Salooni.

⁵ *Krishi Vigyan Kendra*: Bajaura and Kukumseri.

non-availability of contingency in the State Grant-in-aid (GIA), the annual plans could not be prepared. It was further stated that research activities in case of specific projects were carried out in accordance with the technical programme approved by the concerned funding agencies. The reply is not tenable as funds under contingencies were available and expended by the University as per details in Table-2.1.1.

2.1.7 Financial Management

2.1.7.1 Receipt and utilisation of grants/ funds

The University receives grants from various sources⁶. Government of India (GOI) provides grants through ICAR for implementation of various projects, development works, strengthening of infrastructure and improvement of academic and extension activities. The State Government provides grants for discharge of establishment liabilities of the University. The budgetary control is exercised by the Comptroller. The position of receipts and expenditure during 2012-17 is depicted below:

Table-2.1.1: Position of receipts and expenditure during 2012-17

(₹ in crore)

Particulars	Year-wise break up					
	2012-13	2013-14	2014-15	2015-16	2016-17	Total
Opening Balance	32.23	26.91	21.08	21.49	17.52	
Grants received						
State Government	66.17	90.71	89.60	95.92	111.13	453.53
ICAR	34.05	32.52	28.14	31.63	30.04	156.38
Other sources ⁷	15.16	13.43	10.16	8.08	8.57	55.40
Domestic income ⁸	30.49	29.67	28.45	27.33	28.01	143.95
Total receipts	145.87	166.33	156.35	162.96	177.75	809.26
Expenditure incurred						
State Government	77.27	104.01	94.77	98.02	113.00	487.07
ICAR	35.60	32.35	30.00	35.58	35.02	168.55
Others*	38.32	35.80	31.17	33.33	34.00	172.62
Total	151.19	172.16	155.94	166.93	182.02	828.24
Salaries	85.80 (57)	107.91 (63)	105.19 (67)	123.98 (74)	141.03 (78)	563.91(68)
Contingencies	38.33 (25)	27.51 (16)	20.98 (14)	21.58 (13)	23.91 (13)	132.31 (16)
Projects/ works	27.06 (18)	36.74 (21)	29.77 (19)	21.37 (13)	17.08 (09)	132.02 (16)
Closing Balance	26.91	21.08	21.49	17.52	13.25	

Source: Figures supplied by CSKHPKV. Note: Figures in parenthesis indicate percentage of total expenditure and figures for 2015-16 and 2016-17 are tentative.

* Expenditure from domestic income and other sources.

- State grants had increased from ₹ 66.17 crore in 2012-13 to ₹ 111.13 crore in 2016-17 whereas receipt of grants from the ICAR had decreased from ₹ 34.05 crore in 2012-13 to ₹ 30.04 crore in 2016-17 mainly due to non-completion

⁶ State Government: Departments of Agriculture, Animal Husbandry, Fisheries and Scheduled Castes, Other Backwards Classes and Minority Affairs (Schedule Castes Sub Plan); GOI: *Ad hoc* projects, common facility and service use, national agriculture innovative project, etc. Indian Council for Agricultural Research: Coordinated/ *ad hoc* projects, *Krishi Vigyan Kendras*, central development assistance, etc.

⁷ Government of India *ad hoc* projects, common facilities and services use, national agricultural innovation projects, foreign aided development projects and miscellaneous income.

⁸ Income from agriculture, co-ordinated projects, *Krishi Vigyan Kendra*, central development assistance, GOI/ ICAR *ad hoc* projects, common facilities and services use, national agricultural innovation projects, foreign aided projects, self-financing scheme, student fee, securities/ earnest money, etc.

of sanctioned projects as discussed in paragraph 2.1.10.2. Besides, the domestic income and income from other sources during 2012-17 had also shown decreasing trends. The decrease was attributed to less funding under GOI *ad hoc* projects, lesser agriculture production, decrease in enrolment of students and under utilisation of infrastructure.

- During 2012-17, there was excess expenditure of ₹ 45.71 crore under ICAR grants (₹ 12.17 crore) and State Government grants (₹ 33.54 crore). The excess expenditure was incurred from the scheme/ projects from other sources in anticipation of receipt of funds under the original heads/ projects.
- Balance of available funds is gradually depleting, coming down from ₹ 32.23 crore at the beginning of 2012-13 to ₹ 13.25 crore at the end of 2016-17. The gradual depletion of the balances of available funds was due to excess expenditure over income against the State Government and ICAR grants and declining income under domestic and other sources.
- Out of total expenditure during 2012-17, 68 *per cent* was incurred on salaries, 16 *per cent* on contingencies and 16 *per cent* on implementation of projects/ works. The expenditure on salaries had increased from 57 to 78 *per cent* of the total expenditure over the period of review. Expenditure on projects/ works had shown decreasing trends from 18 *per cent* in 2012-13 to nine *per cent* in 2016-17.

The University authorities stated (May to July 2017) that excess expenditure was met out of internal adjustments and the expenditure on salary increased due to hike in the salaries. The reply should be seen in the light of the fact that the University had neither secured sufficient funds from the ICAR/ State Government nor made efforts to enhance its domestic and other income. Moreover, the expenditure on salaries was more due to payment of retirement benefits as discussed in paragraph 2.1.7.2.

2.1.7.2 Expenditure on retirement benefits

As per Section 42 of the University Act, the University was to constitute a fund⁹ for the benefits of employees such as pension, insurance and provident fund. Audit noticed that the University had created (January 1997) a pension corpus for payment of pension to its retirees. However, the University was unable to secure sufficient amount under the corpus fund and had paid pensionary benefits of ₹ 178.26 crore¹⁰ to its retirees during 2012-17 from the State Government grants. Besides, the University had also to discharge pensionary liabilities of ₹ 10.76 crore¹¹ as of June 2017. Thus, contrary to the provisions of the Act *ibid*, the funds were diverted from State grants for payment of retirement benefits without approval of the State Government which was irregular.

The University authority stated (May 2017) that the retirement benefits were paid out of State grants due to non-availability of sufficient amount in corpus fund. The reply should be seen in the light of the fact that the University had not secured sufficient funds under corpus fund so as to meet out the requirement of the retirement benefits. In

⁹ By transferring the CPF contribution made at the rate of 10 *per cent* of the emoluments of employees with CPF matching contribution and retirement and death gratuity to be credited by the State Government and other funding agencies.

¹⁰ Retirement gratuity: ₹ 33.01 crore, commuted value of pension: ₹ 13.40 crore, leave encashment: ₹ 13.39 crore and pension: ₹ 118.46 crore.

¹¹ Retirement gratuity: ₹ 3.11 crore; commuted value of pension: ₹ 5.16 crore and pension: ₹ 2.49 crore.

the exit conference, the Additional Chief Secretary stated that the matter regarding unfunded gap in respect of retirement benefits would be taken up with Finance Department.

2.1.7.3 Non-preparation of Balance Sheet

Section 45 of the University Act provides for preparation and submission of annual accounts and balance sheet to State Government by the University. Audit noticed that:

- The University was preparing only the receipts and payment accounts and had not prepared income and expenditure accounts and balance sheets to present a fair view (including assets and liabilities) of the affairs of the University during 2012-17. The receipts and payment accounts for the year 2015-16 and 2016-17 also had not been prepared/ finalised as of July 2017.
- During 2012-15, the Comptroller remitted advances of ₹ 20.75 crore to the Estate Officer for execution of works showing it as expenditure in receipts and payments accounts. On receipt of the adjustment accounts thereof from the Estate Officer, the Comptroller again accounted for the same as receipts in the receipts and payments accounts. Resultantly, the receipts and payments were accounted for twice¹² in the accounts thereby inflating and impairing the true and fair view of the accounts. The University authority stated (May 2017) that annual accounts and balance sheet for 2015-16 was under process. In the exit conference, the Comptroller assured to rectify the accounting error in future.

2.1.7.4 Irregular payment of non-practising allowance

Like the veterinary doctors of the State Government, the veterinary science faculties posted in the University were not assigned any jurisdictional area for treatment of animals of general public and as such, non-practice allowance (NPA) at the rate of 25 per cent of basic pay would not be admissible to them. The State Government had also clarified (September 2014) that main work of the veterinary science faculty of University is teaching and no NPA was admissible to them.

Audit observed that the NPA to the veterinary teachers of the University was not justified and payment of NPA of ₹ 3.40 crore¹³ made to the veterinary teachers by the University on this account from State grants during 2012-17 was irregular. Though asked for (August 2017), the University authority had not furnished reasons for continuance of the NPA to the veterinary teachers/ scientists.

2.1.7.5 Maintenance of cash book, adjustment of advances and unutilised grants

(i) Accounts Manual of the University provides for maintenance of cash book for all monetary transactions and their monthly reconciliation with the bank. Audit noticed that the grants received from different sources by the University, are recorded in register of grants and deposited in banks. However, these grants are not routed through the cash book of the University and the Comptroller had also not maintained any

¹² Receipts: Once when received from the funding agency and again when the detailed accounts received from the Estate Officer and Payments: Once when the payment was made to the Estate Officer and again shown as expenditure when the detailed accounts were received.

¹³ 2012-13: ₹ 0.74 crore (teachers: 58); 2013-14: ₹ 0.78 crore (teachers: 62); 2014-15: ₹ 0.73 crore (teachers: 58); 2015-16: ₹ 0.62 crore (teachers 52) and 2016-17: ₹ 0.53 crore (teachers: 45).

separate cash book for the same during 2012-17. The absence of the cash book for the grants reflected lack of control over cheques, etc., in respect of grants as proper account of the receipts and genuineness of expenditure incurred thereof could not be verified in audit. The University authority stated (May 2017) that cash book except for grants was being maintained and monthly accounts were prepared on the basis of bank reconciliation. The fact, however, remains that the grants were not being routed through the main cash book which was fraught with the risk of misutilisation/ misappropriation.

(ii) All contingent advances are required to be adjusted within a month of their drawal and no advance in any case should remain un-settled by the end of the financial year. It was, however, noticed that contingent advances of ₹ 20.19 crore paid in 663 cases of 38 departments of the University for purchase of material, equipment, execution of civil works, etc., during 2004-17 were lying un-adjusted as of March 2017 of which, advances of ₹ 4.55 crore were outstanding for more than five years. Non-adjustment of advances for prolonged period having the risk of misutilisation/ misappropriation reflected lack of financial controls in the University. The heads of departments stated (March-May 2017) that the advances could not be adjusted due to execution of the works by the estate office and non-purchase of materials/ non-processing of bills in local audit.

(iii) The Estate Officer of the University had completed (between October 2009 and June 2016) 42 civil works under various projects/ schemes under the grants of ICAR/ other agencies after expenditure of ₹ 6.00 crore. However, unspent grants ₹ 0.73 crore were lying with Estate Officer for more than 11 to 90 months instead of refunding the same to the funding agencies. The Executive Engineer (Construction) stated (May 2017) that the funds would be utilised after obtaining sanctions of the competent authority. The reply is not acceptable as unnecessary retention of the amount was not justified.

2.1.8 Human resource management

2.1.8.1 Sanctioned strength and persons-in-position

The details of sanctioned strength, persons-in-position and vacancies of teaching and non-teaching staff of the University as of March 2017 are depicted below:

Table-2.1.2: Details of sanctioned strength and persons-in position of faculty members

(In numbers)			
Name of Category	Sanctioned strength	Persons- in position	Shortage (-)/ Excess (+)
Teaching staff			
Professors	22	149	(+)127 (577)
Associate Professors	45	25	(-) 20 (44)
Assistant Professors	313	65	(-) 248 (79)
Total	380	239	(-) 141 (37)
Non-teaching staff			
Class-I and Class-II	68	53	(-) 15 (22)
Administrative and ministerial	370	236	(-) 134 (36)
Others (Class-III)	322	246	(-) 76 (24)
Class-IV	250	619	(+) 369 (148)
Total	1,010	1,154	
Grand total	1,390	1,393	

Source: Figures supplied by University. Note: Figures in parenthesis represent percentage.

There was shortage of teachers to the extent of 37 *per cent* of the sanctioned strength. The shortage of non-teaching staff (except Class-IV) ranged between 22 to 36 *per cent*

whereas Class-IV category staff was posted in excess (148 per cent) of the sanctioned strength. The shortage of staff especially the teaching staff had impacted the education and research activities of the University as indicated under paragraphs 2.1.9.1, 2.1.9.6 and 2.1.10 and posting of Class-IV in excess of the sanctioned strength was irregular besides being the main reason for increase in expenditure on salaries.

The Assistant Registrar (Establishment) of the University stated (May 2017) that efforts were being made to fill up the posts after obtaining permission of the Government. No reply was given for employment of huge number of Class-IV. Audit is of the view that employment of huge number of Class-IV in excess of sanctioned strength needs reassessment and justification.

2.1.8.2 Irregular deployment of staff from *Krishi Vigyan Kendras*

The ICAR guidelines *inter-alia* provided that salary of only those officials/ officers should be drawn from the ICAR grants who were actually working in the KVKs. Audit noticed that contrary to above provision, during 2012-17, two to five employees were actually working in other departments¹⁴ whereas the University had incurred expenditure of ₹ 54.45 lakh on their salaries out of ICAR grants meant for KVKs which was irregular. The Assistant Registrar (Establishment) stated (April 2017) that salaries were drawn in the interest of University work. The reply was contrary to ICAR guidelines as had the expenditure been charged to the other departments, this would have decreased the expenditure under ICAR grants.

Programme Implementation

The performance of the University in respect of its main activities including academic, research and extension is discussed in the succeeding paragraphs.

2.1.9 Education in agriculture and allied fields

2.1.9.1 Academic activities

The mandate of University is to impart education at undergraduate (UG), postgraduate (PG) and Doctoral (Ph.D.) levels in the fields of Agriculture, Basic Sciences, Home Science and Veterinary and Animal Sciences.

Audit noticed that the number of UG programmes¹⁵ being offered by the University during 2012-17 remained static. However, the PG programmes of the University had decreased from 28 in 2012-13 to 22 in 2016-17 and Doctoral programme had also reduced from 18 in 2012-13 to 15 in 2016-17. The Assistant Registrar (Academic) stated (June 2017) that the degree programmes (UG/ PG/ Doctoral) were decided as per availability of faculty¹⁶.

2.1.9.2 Enrolment of students

Year-wise and programme-wise details of intake capacity, enrolment and dropout of students are depicted in the following table:

¹⁴ Vegetable Science: one (2012-15), Agron Forages and Grass Land Management: one (2012-15), Regional Research Centre Bajaura: one (2012-17), College of Agriculture: one (2013-15) and Directorate of Extension: one (2014-17).

¹⁵ 1. Bachelor of Veterinary Science and Animal Husbandry; 2. Bachelor of Science (Honours) Agriculture; 3. Bachelor of Science (Honours) Home Science; 4. Bachelor of Technology. (Food Science and Technology); 5. Bachelor of Science (Hospitality and Hotel Administration) and 6. Bachelor of Science, Basic Sciences.

¹⁶ 2012-13: 284, 2013-14: 278, 2014-15: 263, 2015-16: 252 and 2016-17: 239.

Table-2.1.3: Year-wise intake capacity, students enrolled and dropout during 2012-17

Year	Intake capacity			Enrolled			Shortage			Dropout
	Ord.	SFS	Total	Ord.	SFS	Total	Ord.	SFS	Total	
	Undergraduate programmes									
2012-13	161	210	371	125	154	279	36 (22)	56 (27)	92 (25)	10 (4)
2013-14	149	210	359	122	158	280	27 (18)	52 (25)	79 (22)	16 (6)
2014-15	149	210	359	128	181	309	21 (14)	29 (14)	50 (14)	10 (3)
2015-16	178	187	365	147	151	298	31 (17)	36 (19)	67 (18)	12 (4)
2016-17	176	194	370	152	155	307	24 (14)	39 (20)	63 (17)	1 (1)
Postgraduate programmes										
2012-13	121	100	221	67	7	74	54 (45)	93 (93)	147 (67)	3 (4)
2013-14	128	96	224	90	11	101	38 (30)	85 (89)	123 (55)	8 (8)
2014-15	123	68	191	82	27	109	41 (33)	41 (60)	82 (43)	9 (8)
2015-16	121	59	180	101	17	118	20 (17)	42 (71)	62 (34)	10 (8)
2016-17	112	46	158	93	22	115	19 (17)	24 (52)	43 (27)	7 (6)
Doctoral (Ph. D) programmes										
2012-13	39	39	78	26	1	27	13 (33)	38 (97)	51 (65)	5 (19)
2013-14	45	37	82	24	1	25	21 (47)	36 (97)	57 (70)	4 (16)
2014-15	44	36	80	31	0	31	13 (30)	36 (100)	49 (61)	4 (13)
2015-16	60	37	97	32	2	34	28 (47)	35 (95)	63 (65)	8 (24)
2016-17	50	30	80	28	3	31	22 (44)	27 (90)	49 (61)	0 (0)

Source: Information supplied by University.

Note: 1. Ord: Ordinary, SFS: Self Financing Seats 2. Figures in parenthesis indicate percentage.

It is observed that:

- During 2012-17, the percentage shortfall in enrolment of ordinary students against the intake capacity in UG programmes ranged between 14 and 22 and that of Self Financing Seats¹⁷ (SFS) students the shortage ranged between 14 and 27. Overall 14 to 25 *per cent* seats in UG programmes remained unoccupied during above period.
- In PG programmes, the percentage shortfall in enrolment of ordinary students during 2012-17 ranged between 17 and 45 and that of SFS students it ranged between 52 and 93 whereas overall 27 to 67 *per cent* seats remained vacant.
- The percentage shortfall of enrolment of ordinary students in Doctoral (Ph.D.) programmes during above period ranged between 30 and 47 and that of SFS students it ranged between 90 and 100 whereas overall 61 to 70 *per cent* seats remained unoccupied.
- The rate of dropout in respect of the students enrolled in UG programmes during 2012-17 ranged between one and six *per cent* and in PG programmes it ranged between four and eight *per cent*. The dropout rate in Doctoral (Ph.D.) programme during 2012-16 ranged between 13 and 24 *per cent*.

Thus, the University was unable to attract and retain full quota of intake capacity of students which resulted in underutilisation of infrastructure created in the University. The shortfall in enrolment of students was attributed by the University to enormous choices of higher studies and frequent changes in their preference/ choice of courses in other institutions/ fields.

In the exit conference, the VC stated that the seats remained vacant as the students go to other better courses. The reply is not tenable as the University is neither able to

¹⁷ Under the Self-Financing Seats (SFS), the additional charges are payable for any degree programmes by the students in addition to the usual fees.

retain the students nor attract new admissions against vacant seats. Moreover, the University should have rationalised/ reviewed the sanctioned strength of the faculty and intake capacity of students as per reduced enrolment.

2.1.9.3 Non-admission of Non-Resident Indians

As per University notification (September 2015), Non-Resident Indians (NRIs) not exceeding 15 *per cent* of the total intake capacity (excluding SFS seats) were to be considered for admission over and above the seats for the UG/ PG/ Doctoral programmes from the academic year 2015-16.

Audit noticed that not even a single seat was filled up against 42 seats approved for NRIs for the academic year 2015 (UG: 4, PG: 13 and Doctoral: 5) and 2016 (UG: 4, PG: 12 and Doctoral: 4). The non-admission of NRIs in the University was attributed to lack of wide publicity in advance of the beginning of the academic sessions.

The Assistant Registrar (Academic) stated (May 2017) that the provision of NRI seats was introduced first time from the academic year 2015. The reply should be seen in the light of the fact that except uploading the prospectus for admission on the website of the University, efforts to give wide publicity through other medium during academic years 2015 and 2016 were not made.

2.1.9.4 Un-recognised degree of M.Sc. (Biology)

The Himachal Pradesh Council of Agriculture, Horticulture and Forestry Education and Research had approved a Master Degree Programme in the discipline of Biology in the College of Basic Sciences from the academic session 2007-08. The minimum eligibility qualification for admission to Ph.D. programme in the discipline of Botany and Zoology in almost all the universities governed by the UGC is either M.Sc. (Botany) or M.Sc. (Zoology). There was no mention of M.Sc. (Biology) as an eligible qualification for M.Phil./ Ph.D./ UGC NET/ Council of Scientific and Industrial Research (CSIR)/ State Eligibility Test (SET). Thus, the students who got M.Sc. degree in Biology were not eligible for NET/ SET/ Ph.D. tests.

The University continued to enrol the students under the above discipline and 49 students had passed out upto 2015-16. Thus, running of a non-recognised degree course had not only resulted in wastage of time and money (₹ 65.34 lakh) of the 49 students but also risked their future employment/ higher educational opportunities. The matter came to the notice of the University authorities in January 2015 and the degree programme was suspended from the academic year 2016-17.

The Assistant Registrar stated (June 2017) that the matter of recognition of the M.Sc. (Biology) was taken up with neighbouring universities and the State Government for pursuing higher education leading to Ph.D. programme and for employment. The reply is not tenable as the matter regarding recognition of the degree course should have been taken up before starting the degree course. In the exit conference, the Additional Chief Secretary stated that it was a serious issue and desired to fix the responsibility of concerned officers for the lapse.

2.1.9.5 Non-accreditation of college of Home Science

With the objective of assisting the people, prospective students, educational institutions, professional societies, potential employers, Government and other concerned agencies to assess the work of the institutions and their programmes, National Agricultural Education Accreditation Board (NAEAB) offers accreditation to the Agricultural Universities, its colleges and programmes.

Audit noticed that the NAEAB had granted (May 2013) accreditation to the University, for a period of five years up to 03 March, 2018 for the Colleges of Agriculture, Veterinary and Animal Science and Basic Sciences. However, no accreditation was granted to the College of Home Science during 2013-17 due to inadequate faculty position. As a result, the University did not receive any grant from the ICAR and students' allotment from All India quotas for the college during above period. The college remained functional without the accreditation and 210 students of the college passed out in Doctoral (six), PG (17) and UG (187) classes during above period. In the absence of accreditation, the career prospects of these students in terms of further education suffered with a likely adverse impact on employment opportunities for them.

In the exit conference, the Vice Chancellor stated that the matter would be taken up with the Government for recruitment of required faculties.

2.1.9.6 Results of students

The details of students enrolled/ appeared and passed out in the final year's examination of UG/ PG programmes of the University during 2011-16 are depicted in table below:

Table-2.1.4: Details of students appeared/ passed out and percentage of marks obtained in final year examination of UG/ PG programmes during 2011-16

(Students in numbers)

Programme	Year	Students appeared	Students passed out (per cent)	Marks obtained by passed out students			
				Below 60 (per cent)	61 to 70 (per cent)	71 to 80 (per cent)	Above 80 (per cent)
UG	2011	171	104 (61)	6 (6)	54 (52)	41 (39)	3 (3)
	2012	211	138 (65)	2 (2)	82 (59)	50 (36)	4 (3)
	2013	264	153 (58)	4 (2)	69 (45)	70 (46)	10 (7)
	2014	250	224 (90)	2 (1)	115 (51)	89 (40)	18 (8)
	2015	271	221 (82)	8 (4)	86 (39)	111 (50)	16 (7)
	2016	288	227 (79)	4 (2)	87 (38)	121 (53)	15 (7)
PG	2011	164	117 (71)	Nil	29 (25)	72 (62)	16 (13)
	2012	133	131 (98)	Nil	57 (44)	40 (30)	34 (26)
	2013	126	87 (69)	Nil	30 (34)	35 (40)	22 (26)
	2014	123	114 (93)	Nil	41 (36)	48 (42)	25 (22)
	2015	134	120 (90)	Nil	43 (36)	42 (35)	35 (29)
	2016	148	93 (63)	Nil	13 (14)	42 (45)	38 (41)

Source: Information supplied by University.

Audit observed that during 2011-16, pass percentage of students in UG programmes ranged between 61 and 90 while in the PG programmes it ranged between 63 and 98.

2.1.9.7 Re-totalling of answer sheets

As per Paragraph 9.12.1 of Academic Regulations of the University, re-totalling of answer scripts was to be done on the request of students who were not satisfied with the valuation of their answer scripts.

Audit noticed that out of 106 students of UG programmes who had applied for re-totalling of answer scripts during 2012-16, 34 students (32 *per cent*) were passed out after re-totalling. Besides, there was increase of 0.1 to 10 marks (one to 56 *per cent*) during 2012-16 and decrease of 01 to 03 marks (two to six *per cent*) in answer scripts during 2016 (Table-2.1.5). This raised questions on the credibility of the evaluation system. Inadequate efforts in evaluation of answer scripts also lead to extra burden of re-checking fee on the students.

Table-2.1.5: Detail of students who applied for revaluation and passed out thereof during 2012-16
(Students in numbers)

Year	Students applied for re-checking	Students passed out (<i>per cent</i>)	Marks increased (<i>per cent</i>)	Marks decreased (<i>per cent</i>)
2012	9	2 (22)	1 to 10 (06 to 42)	Nil
2013	3	1 (33)	5 (06)	Nil
2014	16	2 (13)	1 to 6 (04 to 35)	Nil
2015	33	7 (21)	0.1 to 10 (01 to 41)	Nil
2016	45	22 (49)	01 to 10 (04 to 56)	01 to 03 (02 to 06)
Total	106	34 (32)		

Source: Information supplied by University.

In the exit conference, the VC stated that remedial measures would be taken in future especially keeping in view the high number of students getting revalued and resulting in revision of marks.

2.1.9.8 Functioning of Placement Cell

The University has a training and placement cell for students' counselling and placement. The cell is mandated to organise training programme for students appearing in different examinations and campus interviews for recruitment in public/ private sector companies/ undertakings.

Audit noticed that the University had not maintained complete database to verify the authenticity of placement of the students. Out of 1,545 students passed out under different programmes during 2011-15, only 94 (six *per cent*) students got placement through the placement cell. The University was, thus, unable to meet the aspirations of all the degree holders for securing employment.

The Programme Director stated (May 2017) that improvement in placement of students through placement cell would be done in future.

2.1.9.9 Functioning of Library

(i) As per paragraph 3.8 of Statutes of the University, Librarian was to encourage use of library facilities by students and staff. Audit noticed that during 2012-17, teachers ranging between 33 and 75 *per cent*¹⁸ and students ranging between 44 and 79 *per cent*¹⁹ were enrolled as members of the library which indicated that the library was not used optimally.

¹⁸ 2012-13: 65 (186 out of 284), 2013-14: 68 (190 out of 278), 2014-15: 75 (196 out of 263), 2015-16: 33 (83 out of 252) and 2016-17: 44 (106 out of 239).

¹⁹ 2012-13: 51 (586 out of 1,156), 2013-14: 52 (597 out of 1,140), 2014-15: 50 (641 out of 1,274), 2015-16: 44 (612 out of 1,377) and 2016-17: 79 (1,112 out of 1,414).

(ii) Paragraph 25.20 of Accounts Manual provides for stock-taking of the library at least once in every three years. Audit noticed that contrary to this provision, necessary stock-taking of the library books was not conducted during 2012-17.

(iii) Audit noticed that out of ₹ 1.24 crore received for strengthening of library²⁰ (November 2015: ₹ 0.39 crore and February 2016: ₹ 0.39 crore) and providing of library facilities²¹ (August 2016: ₹ 0.23 crore and October 2016: ₹ 0.23 crore), the University had spent ₹ 0.20 crore²² (16 per cent) and ₹ 1.04 crore were lying un-utilised in bank for more than nine to 20 months due to non-completion of codal formalities for purchase of radio frequency identification device²³ and non-finalisation of tenders for purchase of furniture and equipment.

2.1.10 Research activities

2.1.10.1 Research policies and programmes

As per paragraph 3.3(iii) of the Statutes of the University, the Director of Research was to formulate research policies and programme in consultation with the Deans of the colleges and present the same to the Research Council for its consideration.

Audit noticed that though a Vision-2020 plan envisaging accomplishment of task of achieving the target of required food grain production and harnessing the comparative advantages available in the State, restoration of soil fertility by increasing balanced use of fertilizer, etc., had been prepared by the University, no research policy containing specific goals and strategies in the field of research was formulated by the University. In the exit conference, the Director of Research stated that funds for research were not provided by the State Government. The ICAR is providing funds under All India Coordinated Research Projects and for ad hoc projects; however, Vision 2020 has been prepared by the University. The fact, however, remains that in the absence of specific objectives/ goals/ targets in the Vision-2020, the University was unable to assess its achievements periodically.

2.1.10.2 Research projects

As per paragraph 3.3 (ii and iv) of the Statutes of the University, the Director, Research was required to co-ordinate all research activities and liaise with the funding agencies extending grants for the projects.

Audit noticed that the Director had not maintained/ consolidated year-wise data of implementation of research projects during 2012-17. However, on the basis of information collected from various departments of the University, the details of research projects submitted to funding agencies, approved and completed during 2012-17 are depicted in following table:

- | | |
|----|---|
| 20 | Digitisation of library, integrated library system using open-source software Koha, radio frequency identification device, information and communication technology tools and platforms, e-books and other miscellaneous items. |
| 21 | Purchase of printed text books (excluding consortium for e-resource for agriculture): ₹ 0.16 crore; Purchase of print journals: ₹ 0.04 crore; purchase of e-books: ₹ 0.02 crore and Purchase of equipment: ₹ 0.24 crore. |
| 22 | Strengthening of Library: Purchase of books (₹ 0.01 crore), journals (₹ 0.02 crore), e-books (₹ 0.01 crore), digitisation of thesis (₹ 0.10 crore), software (₹ 0.03 crore) and purchase of journal and periodicals (₹ 0.03 crore). |
| 23 | Radio frequency identification device is a latest technology to be used in library for theft detection. |

Table-2.1.6: Details of projects approved and completed during 2012-17

(₹ in crore)

Year	Proposed		Approved		Completed		In progress	
	No.	Estimated Cost	No.	Approved cost	No.	Expenditure	No.	Approved cost
2012-13	55	38.51	26	8.06	12	5.46	07	0.52
2013-14	76	43.07	14	8.83	07	7.65	02	1.18
2014-15	35	49.29	09	1.18	07	0.43	02	0.76
2015-16	87	88.99	13	2.93	06	1.29	07	1.69
2016-17	59	198.81	10	3.20	03	1.01	07	2.19
Total	312	418.67	72	24.20	35	15.84	25	6.34

Source: Information supplied by University.

- Of 312 research projects (₹ 418.67 crore) submitted by the University to the funding agencies during 2012-17 only 72 projects (23 *per cent*) were approved for ₹ 24.20 crore. Reasons for approval of less number of projects though asked for were not provided which was indicative of the fact that projects were not pursued properly and reflected non-seriousness on the part of the University authorities for the research activities.
- Out of 72 projects taken up for execution only 35 projects (49 *per cent*) were completed after an expenditure of ₹ 15.84 crore and 12 projects (17 *per cent*) having approved cost of ₹ 2.08 crore were terminated (September 2014) after incurring an expenditure of ₹ 0.39 crore as no funds thereto were received from the funding agencies. Termination of the projects mid-way rendered the expenditure infructuous as necessary research activities thereof were not carried out effectively.
- Eight (out of 25) projects stipulated to be completed between March 2016 and October 2016, were lying incomplete entailing a delay of five to twelve months.
- The University had not maintained library of outcome of 35 research projects undertaken/ completed during 2012-17 without which authenticity/ results of the research activities could not be verified in audit.

The Director of Research stated (July 2017) that impact assessment for the project would be done by concerned funding agency. The reply is not acceptable as the University should have included the provision of impact assessment in the project proposals to determine the area which require suitable corrective action and ascertain the outcome of the research projects.

Some of the projects are discussed below:

(i) Development of block level soil fertility map

To assess the block level soil fertility status of the State through improved techniques of soil sample collection based on global positioning system (GPS) a project 'Development of block level soil fertility map of Himachal Pradesh' was sanctioned (April 2010) for ₹ 1.67 crore by the State Level Sanctioning Committee under *Rashtriya Krishi Vikas Yojna* (RKVY). The project including six components²⁴ was to be completed within one year of the sanction.

²⁴ Man power: ₹ 0.12 crore; operational expenses: ₹ 0.12 crore; digitisation and geographic information system based preparation of soil fertility maps: ₹ 0.10 crore; equipment: ₹ 1.12 crore; training officials engaged in soil samples collection (GPS based): ₹ 0.01 crore and analytical laboratory and soil sampling processing: ₹ 0.20 crore.

Audit noticed that out of ₹ 1.67 crore received (August 2010) for the project, the University had incurred expenditure of ₹ 1.65 crore during 2010-14. All the components of the project except equipment had been completed at a cost of ₹ 0.60 crore and the Soil Science Department of the University had uploaded (April 2015) the block level soil fertility map of State of Himachal Pradesh on the University website. However, the Inductivity Coupled Plasma Mass Spectrometer (ICPMS) equipment (soil fertility testing equipment) though installed at a cost of ₹ 1.05 crore in August 2016 had not been made functional as of May 2017 as the soil fertility map were developed and uploaded in the University website with the facility already available in the State Agriculture Department.

The Project Investigator stated (June 2017) that purchase of instrument and infrastructure development was continuous process. The reply is not acceptable as purchase of equipment after development of soil fertility map was not justified and the expenditure to that extent could have been avoided.

Government/ University need to ensure alternative utilisation of ICPMS.

(ii) Project on management strategies in yellow rust of wheat

For implementation of a project 'Management strategies for yellow rust of wheat in Himachal Pradesh' sanctioned (June 2013) for ₹ 2.81 crore under RKVY by the State Level Sanctioning Committee, the University had received ₹ 2.44 crore. The main objective of the project was to assess the enhancement of seed replacement rate of wheat from present level of 17 to 40 *per cent* in the State by increasing the production of nucleus and breeder seed of yellow rust resistant varieties at the University farms. The project having three components²⁵ was to be completed by June 2016.

Audit noticed that the University had utilised the entire amount during 2013-17. However, the University had not secured the balance sanctioned funds of ₹ 0.37 crore from the State Government and the project had not been completed due to following deficiencies:

- Against the provision of ₹ 0.28 crore for 'Development of yellow rust management module(s)', the University had incurred expenditure of ₹ 1.37 crore. This had resulted in excess expenditure of ₹ 1.09 crore. Besides, the development of the required module(s) was not on records which indicated that in spite of the excess expenditure, the University had not been able to develop any yellow rust management module(s) as of July 2017.
- Against the provision of ₹ 1.10 crore for 'Development of yellow rust resistant varieties of wheat', the University had spent only ₹ 0.24 crore (22 *per cent*) which indicated the University had not paid adequate attention towards development of the yellow rust resistant varieties of wheat as of July 2017.
- Under component 'Quality seed production of yellow rust resistant varieties' the University had spent ₹ 0.83 crore against the provision of ₹ 1.43 crore. Besides,

²⁵ Quality seed production of yellow rust resistant varieties: ₹ 1.43 crore; development of yellow rust resistant varieties: ₹ 1.10 crore and development of yellow rust management module(s): ₹ 0.28 crore.

against the targets of 2,025 quintal seed, only 1,489.80 quintal seed (nucleus²⁶ seed: 74.06 quintal and breeder²⁷ seed 1,415.74 quintal) was produced during 2013-16 resulting in shortfall of 535.20 quintal seed. Thus, the quality seed production of yellow rust resistant varieties of wheat was not produced as per targets.

- Assessment of enhancement of seed replacement rate of wheat seed of yellow rust resistant varieties from present level of 17 to 40 *per cent* being the main objective of the project was neither on records nor seems plausible in view of findings above.

The Head of the Department of Crop Improvement stated (June 2017) that impact assessment was not a part of the project and no funds were demanded for the purpose. The reply, however, does not explain the reasons for non-incurring expenditure as per approved project and non-completion of the project in a timely manner. Thus, in spite of incurring expenditure of ₹ 1.37 crore no module could be developed by the University as of July 2017.

2.1.10.3 Patent rights for inventions and discoveries

Paragraph 7.10 (1) of the Statutes of the University provides for sole right of the University in respect of any invention or discovery or any process made in its laboratories, farms or workshops and securing the patent right thereof from the Government. The University was to bear the cost of securing the patent right and receive all royalties, remuneration or income accruing from the sale or commercial exploitation of such a patent.

Audit noticed that the University had not made any inventions or discoveries during 2012-17. In respect of eight inventions made during 2003-09, no patent was secured from the Patent Office of GOI as of July 2017 though necessary applications thereof had been submitted²⁸ (between June 2003 and December 2010) to the National Research Development Corporation, New Delhi. Besides, in respect of a patent of 'Improved tissue chamber assembly for isolated organ bath apparatus' granted (November 2011) by GOI, no royalty/ remuneration or income through the patent had accrued to the University as of May 2017 which indicated that the University had not explored the sale/ commercial exploitation of the patent.

The University may consider establishing a separate wing for commercial exploitation of patents and successful research projects.

²⁶ Genetically pure seed with physical purity and produced by State Agriculture University.

²⁷ Progeny of nucleus seed multiplied in large area.

²⁸ Insecticidal properties of bioactive constituents in methanol extract of *Cnicus wallichii* leaves in 2004 (October 2004); A process for the manufacture of anti-feedant/ repellent material from leaf extracts of *Eupatorium* in 2003 (June 2003); Insecticidal properties of bioactive constituents in methanol extracts of *Pterospermum acarofolium* leaves against stored grain pests in 2003 (August 2005); Pesticidal formulation of bioactive ingredients in methanol extracts of *Agave Americana* leaves in 2003 (March 2005); Repellent activity of bioactive constituents in methanol extracts of *Dodonaea viscosa* leaves against mosquitoes in 2004 (March 2006); An improved process for utilisation of chromosome elimination technique following bread wheat *Triticum aestivum* x *Imperanta cylindrica* system in 2005 (April 2007); Premix Blower Type Biogas Stove with Clinical Burner for Community cooking in 2005 (April 2006) and A process of preparing a liquid bio fertilizer formulation in 2009 (December 2010).

2.1.10.4 Cropping scheme and production of seeds

As envisaged under paragraph 18.6 of Accounts Manual, in respect of the research/ seeds production farms, the University had not prepared cropping scheme indicating cropping pattern for each plot and expected yield of each farm before the commencement of each season (*Kharif* or *Rabi*) during 2012-17. The University had not planned the seed production in the farms and the cropping pattern was adopted on *ad hoc* basis. The details of coverage of area and production of quality wheat and maize seeds in the University farms during 2012-17 are depicted below.

Table-2.1.7: Details of production norms and actual production of seed in University farms during 2012-17

(Area in hectare, seed in quintals and loss ₹ in lakh)

Year	Area covered		Production						Loss ²⁹
			Required as per norms ³⁰		Actual		Shortfall		
	Wheat	Maize	Wheat	Maize	Wheat	Maize	Wheat	Maize	
2012-13	19.15	2.00	421.30	66.00	270.05	51.90	151.25 (36)	14.10 (21)	6.72
2013-14	17.65	2.10	388.30	69.30	296.78	35.48	91.52 (24)	33.82 (49)	5.09
2014-15	16.55	2.00	364.10	66.00	137.88	30.86	226.22 (62)	35.14 (53)	10.91
2015-16	11.95	1.80	262.90	59.40	55.75	5.34	207.15 (79)	54.06 (91)	16.29
2016-17	7.25	0.90	159.50	29.70	53.67	8.08	105.83 (66)	21.62 (73)	7.33
Total	72.55	8.80	1596.10	290.40	814.13	131.66	781.97	158.74	46.34

Source: Information supplied by University. Note: Figures in parenthesis indicate percentage.

- The coverage of area under production of wheat seed had decreased from 19.15 hectare in 2012-13 to 7.25 hectare in 2016-17 and the area under maize seed production had also decreased from two hectare to 0.90 hectare.
- Against the norms, the shortfall in production of wheat seed during 2012-17 ranged between 24 and 79 *per cent* and that of maize it ranged between 21 and 91 *per cent*. The production of seeds in the University farms below the norms resulted in loss of ₹ 46.34 lakh.

The Head of Department of Seed, Science and Technology stated (June 2017) that there were no adequate irrigation facilities in the farm areas and the farms were surrounded by thick forests where birds, stray cattle and wild bears damaged the crops. The fact, however, remains that the Department had not taken steps to protect the crops from stray/ wild animals and birds and arranged adequate irrigation in the farm areas. The University however, had not furnished reasons for decreasing trends of coverage of area for seed production during 2012-17. Even more the shortage of production *vis-a-vis* norms has been consistent despite of less coverage of area during the period. It is not clear if all the area of university was prone to attack from birds and stray animals. University need to identify a secured patch to have production as per norms.

2.1.10.5 Supply of breeder seed

New varieties of seeds are developed by the Crop Improvement Department of the University and issued to the Seed Science and Technology Department and Research Stations/ *Krishi Vigyan Kendras* for multiplication into nucleus and breeder seeds to fulfil the need of State Agriculture Department. The details of demand and supply of seeds to the Agriculture Department during 2012-17 are depicted in following table:

²⁹ Rates of wheat per quintal: 2012-13 (₹ 4,100), 2013-15 (₹ 4,200), 2015-16 (₹ 6,300) and 2016-17 (₹ 5,700) and rates of maize per quintal: 2012-14 (₹ 3,700), 2014-15 (₹ 4,000) and 2015-17 (₹ 6,000).

³⁰ Wheat at the rate of 22 quintals per hectare and maize at the rate of 33 quintals per hectare.

Table-2.1.8: Details of demand and supply of seeds to the Agriculture Department during 2012-17 (In quintals)

Year	Wheat		Maize		Rice		Pulses		Vegetables	
	D	S	D	S	D	S	D	S	D	S
2012-13	250	250	1.00	1.00	25.00	25.00	28.00	13.46	6.00	6.00
2013-14	270	270	0.15	0.15	23.00	23.00	42.05	19.76	32.50	29.28
2014-15	375	375	5.50	5.50	25.00	9.90	48.00	48.00	8.40	5.26
2015-16	390	358	15.00	13.12	25.00	25.00	49.72	46.91	5.70	4.63
2016-17	390	390	0	0	20.00	20.00	51.30	30.20	9.15	7.60
Total	1,675	1,643	21.65	19.77	118.00	102.90	219.07	158.33	61.75	52.77

Source: Information supplied by University. Note: D: Demand and S: Supply.

Against demand of the Agriculture Department, there was short supply of rice breeder seeds during 2014-15 (15.10 quintals) and wheat/ maize breeder seeds during 2015-16 (wheat: 32 quintals and maize: 1.88 quintals). There was also short supply of pulses breeder seeds of 60.74 quintals during 2012-14 and 2015-17 and vegetable breeder seeds of 8.98 quintals during 2013-17. The Head, Department of Seed, Science and Technology attributed (July 2017) the shortfall in supply of seeds to less production.

2.1.10.6 Organic farming promotion in Himachal Pradesh

The State Level Sanctioning Committee sanctioned (April 2010) a project 'Organic farming promotion in Himachal Pradesh' for ₹ 2.78 crore under RKVY to be implemented in two years. The University had received ₹ 2.55 crore from the Director of Agriculture during 2010-11 (₹ 2.12 crore) and 2011-12 (₹ 0.43 crore) for implementation of the project in four districts³¹ by the University³². Audit noticed that:

- As per agreement, the University paid (October 2010) ₹ 0.27 crore as advance to Himachal Organic Farmers Forum (HOFF) an NGO for identification and organisation of farmers for organic farming. However, as per University inquiry report (December 2011) and minutes of review meeting of RKVY projects held in April 2014, the HOFF submitted the accounts for adjustment of the advance of ₹ 0.27 crore in the form of fake bills/ documents without doing any field work as the names of farmers stated to have been identified were taken from the revenue records without visiting the villages. Evidently, the amount had been misutilised by HOFF. Besides, in the absence of penal provision of compensation for damages in the agreement, the University could not take action against the HOFF for claiming refunds as of July 2017.
- In the meantime, the University had also incurred expenditure of ₹ 0.96 crore during 2011-15 on the envisaged activities³³ of the project. Balance ₹ 1.32 crore

³¹ Kangra, Kullu, Mandi and Shimla.

³² Gathering/ assessing innovative organic practices from across the country, testing of identified organic practices, research in organic practices/ technologies, and preparing package of organic guidelines for fruit and vegetable crops: ₹ 1.14 crore (Salaries: ₹ 0.24 crore and operational expenses: ₹ 0.90 crore).

³³ Gathering/ assessing innovative organic practices from across the country, testing of identified organic practices, research in organic practices/ technologies, etc.: Salaries (₹ 0.45 crore) and operational expenses (₹ 0.51 crore).

was refunded (August 2014) to the Agriculture Department and the University had not carried out any activity of the project further. Thus, in the absence of identification and organisation of the farmers towards organic farming and training of farmers for adoption of techniques by HOFF, the entire expenditure (₹ 1.23 crore) incurred on the project proved infructuous.

In the exit conference, the Head of Department of Organic Farming stated that the matter was in arbitration. The fact, however, remains that the University had neither checked the eligibility/ reliability of the HOFF before release of funds nor ensured proper monitoring of the project. Absence of any provision of imposition of penalty in the agreement for wrong doings by the HOFF jeopardised the public interest against losses. Besides, non-completion of the project had also deprived the farming community of the intended benefits.

2.1.10.7 Non-completion of research project on pashmina fibre

The ICAR sanctioned (January 2009) a research project on "A value chain on enhanced productivity and profitability of pashmina fibre" under the National Agricultural Innovation Project (NAIP) for ₹ 1.39 crore. The project was to be implemented by June 2012.

Audit noticed that out of ₹ 1.23 crore³⁴ received during 2008-14 from the ICAR, the University had utilised ₹ 1.12 crore³⁵ on implementation of project and refunded (March 2013) ₹ 0.06 crore to the funding agency leaving balance of ₹ 0.05 crore in bank as of June 2017. However, the University had not received the remaining grant of ₹ 0.16 crore from ICAR and the project had not been completed due to the following reasons/ deficiencies:

- Out of provision of ₹ 0.62 crore under non-recurring component, the University had diverted ₹ 0.27 crore towards other components (Recurring contingencies: ₹ 0.23 crore, Human resource development: ₹ 0.02 crore and Institutional charges: ₹ 0.02 crore) during 2009-14 without approval of funding agency.
- Against equipment of ₹ 0.45 crore required to be purchased for the project, equipment of ₹ 0.11 crore only were purchased which indicated that the University had not procured all the equipment provided.

The Head of Department of Veterinary Medicine stated (July 2017) that the project could not be completed due to limited working season. The reply is not acceptable as the implementation of the project had already been delayed by more than five years from the scheduled date of completion.

2.1.10.8 Non-designing and developing of improved tools and implements

The Department of Agricultural Engineering is functioning with the mandate of need based and strategic research in different areas such as development of improved tools and implements for hilly areas; soil conservation and water management and

³⁴ Recurring contingencies: ₹ 0.57 crore, Human Resource Development: ₹ 0.01 crore, Non-recurring contingencies: ₹ 0.62 crore and Institutional charges: ₹ 0.03 crore.

³⁵ Recurring contingencies: ₹ 0.80 crore, Human Resource Development: ₹ 0.03 crore, Non-recurring contingencies: ₹ 0.24 crore and Institutional charges: ₹ 0.05 crore.

post-harvest technologies. For this purpose, the Department has created necessary infrastructure worth ₹ 2.20 crore³⁶.

Audit noticed that the Department of Agricultural Engineering of the University had incurred an expenditure of ₹ 8.78 crore on salaries of staff and other administrative expenses during 2012-17. However, as mandated, no specific research in areas of agriculture engineering was carried out during the above period. The Head, Department of Agricultural Engineering stated (June 2017) that new research projects could not be prepared/ matured due to shortage of staff. The reply should be seen in the light of the fact that for optimum utilisation of the created infrastructure, the University should have secured sufficient manpower.

2.1.11 Extension activities

Main extension activities of the University include transfer of modern technologies and high yield variety (HYV) seed to farmers to improve productivity in agriculture and allied sectors, impart need based training programmes to officials, extension programmes for the functionaries of the Government and other organisations and farmers with the help of the *Krishi Vigyan Kendras* (KVKs). Eight KVKs of the University were to conduct ICAR sponsored extension programmes on farm testing, training to the personnel regarding agriculture researches, vocational training courses for farmers, front line demonstrations and on farm trials.

2.1.11.1 Training Programmes

Audit noticed that Director of Extension Education had not maintained KVK-wise records of targets fixed and achievements thereagainst for imparting training to extension personnel, farmers, front line demonstrations (FLDs) and on farm trials (OFTs) during 2012-17. However, as per information supplied by the eight KVKs, details of extension training imparted to State Government employees (GEs), University employees (UEs) and farmers are depicted in table below:

Table-2.1.9: Details of extension training to UEs, GEs, farmers and FLDs/ OFTs during 2012-17
(In numbers)

Year	Targets				Achievements			
	UEs	GEs	Farmers	FLDs/ OFTs	UEs	GEs	Farmers	FLDs/ OFTs
2012-13	5	25	543	1,114	5	28 (112)	687 (127)	1,358 (122)
2013-14	6	26	484	1,055	6	11 (42)	571 (118)	1,329 (126)
2014-15	4	21	509	1,007	4	13 (62)	621 (122)	1,202 (119)
2015-16	2	31	452	1,080	2	13 (42)	549 (121)	1,292 (120)
2016-17	5	31	503	981	5	21 (68)	583 (116)	1,008 (103)
Total	22	134	2,491	5,237	22	86	3,011	6,189

Source: Information supplied by KVKs. Note: Figures in parenthesis indicate percentage.

During 2012-17, the University had imparted training to its employees as per targets. In respect of Government employees, there was excess coverage to the extent of 12 *per cent* during 2012-13 whereas the achievements during 2013-17 ranged between 42 and 68 *per cent*. The targets of training to farmers and FLDs/ OFTs were achieved during 2012-17, however, no impact assessment of the training was carried out.

Audit is of the view that the University should conduct impact assessment of benefits of the training accrued to the farmers.

³⁶ Old building (1985: ₹ 0.06 crore), New building (2010: ₹ 0.73 crore), workshop (1985: ₹ 0.25 crore), training hall (1995: ₹ 0.21 crore), agro processing centre (2002: ₹ 0.16 crore), museum (2009: ₹ 0.12 crore) and implement shed (2013: ₹ 0.67 crore).

2.1.11.2 Services rendered by agriculture technological information centre

In order to sell and distribute improved products³⁷ emerging as a results of research, agriculture technological information centre (ATIC) as single window service to the farmers was established (November 2001) in the University under the National Agricultural Technology Project.

Audit noticed that there was improvement in ATIC advisory services of farmers in the University during 2012-17 as telephonic calls had increased from 159 in 2012-13 to 766 in 2016-17 and farmers visits had also increased from 2,147 in 2012-13 to 6,435 in 2016-17. However, the University had not fixed any targets/ system for sale/ distribution of improved products at ATIC during 2012-17. Except 6,013 kilograms (kgs) wheat seed during 2012-14, 286.50 kgs maize seed during 2015-17, 70 kgs *Rajmash* seed and 17.50 kgs Mash seed during 2016-17 sold to the farmers at the ATIC, the other main crop seeds including paddy, barely, etc., were not sold during 2012-17.

The Manager (ATIC) stated (June 2017) that the seed was sold to the farmers as per their demand and in case of non-availability of the seed in the ATIC, the farmers were advised to purchase the same from the concerned Departments of the University. The fact, however, remains that the purpose of establishing the ATIC to provide a single window service to the farmers remained unachieved.

2.1.12 Other Points

2.1.12.1 Delayed construction of hostels

(i) For construction of two hostels (68 UG girls and 84 UG boys) at approved ICAR grants of ₹ 2.50 crore each, the University had received ₹ 2.39 crore in 2015-16 from the ICAR. Audit noticed that the works could not be taken up for execution as of May 2017 due to delay in approval of the competent authority and finalisation of tenders which resulted in parking of funds in saving bank account for more than seven to 15 months.

(ii) For construction of a hostel for 108 girls from State grants of ₹ 1.50 crore, the University had received (August 2015) ₹ 1.50 crore from the Director of Agriculture. Audit noticed that the work could not be taken up for execution as of May 2017 due to non-completion of codal formalities (preparation of architectural drawing, technical sanction and floating of tenders) and the amount was lying unutilised in saving bank account for more than 20 months.

Thus, timely action was not initiated to get these formalities completed and the delay in execution of the work deprived the concerned beneficiaries of the intended benefits.

2.1.12.2 Under-utilisation of international students' hostel

Audit noticed that the University had completed (July 2008) the construction of a double storey international students hostel at a cost of ₹ 1.91 crore. However, against capacity of 12 students, only one to six students³⁸ were allotted accommodation in the hostel during 2012-17. The Students Welfare Officer stated (May 2017) that the accommodation could not be utilised optimally due to admission of less number of NRIs/ foreign students.

³⁷ Seeds and planting materials, livestock breeds and processed products, etc.

³⁸ 2012-13: two; 2013-14: three; 2014-15: one; 2015-16: six and 2016-17: six.

Audit is of the view that the University should explore alternative use of NRI hostel as Guest house or hostel for students.

2.1.13 Internal controls and monitoring

2.1.13.1 Meetings of governing bodies

(i) As per Section-9 of the University Act, 'Council of Agricultural, Horticultural and Forestry Education and Research' under the chairmanship of the State Chief Secretary was to meet thrice in a year to review the work done in the Universities relating to education, teaching, research and extension education in agriculture. Audit noticed that against 15 meetings of the Council to be held during 2012-17, only two meetings (28 July 2012 and 24 June 2014) were held.

(ii) As per Section 11 of the Act *ibid*, the Senate of the University was to meet once in a calendar year on the date to be fixed by the Chancellor (Chairman of the Senate) to review the broad policies and programmes and suggest measures for the improvement and development of the University. Audit noticed that against five meetings of the Senate to be held 2012-16, only two meetings were held.

(iii) Section 13 of the Act *ibid* provides for convening of meeting of the Board of Management (BOM) of the University at least once in every three months to review the financial requirements and estimates and regulate policies relating to the University in accordance with the provision of the Act or the Statutes. Audit noticed that against 20 meetings to be held during 2012-17, only nine meetings were held during 2012-16.

The Assistant Registrar (Administration) stated (May 2017) that being Chairman, meetings of Council of Education and Research were to be fixed by the State Chief Secretary and meetings of the Senate and BOM could not be held due to administrative reasons and lack of agendas. The reply is not acceptable as in the absence of meetings of the Senate/ Board, the receipts and utilisation of grants/ funds, running of academic programmes, research/ extension activities, etc., were not reviewed and lapses had occurred as indicated under paragraphs 2.1.7.1, 2.1.9.1 to 2.1.9.4, 2.1.10.1 to 2.1.10.3 and 2.1.11.

2.1.13.2 Management information system/ integrated university management system

Management Information System (MIS) helps to analyse the monthly inflow and outflow of money, stock, staff performance and business of the institution. Audit noticed that no integrated management information system for the purpose was evolved by the University. While admitting the facts (April 2017) the computer programmer of the University did not furnish reasons for non-development of the MIS.

2.1.13.3 Non-conducting of Inspections

As per paragraphs 3.6 of Statutes and 13.5 of Accounts Manual of the University, the Comptroller of the University effects internal inspection of accounts of all the University campus and research stations through internal inspection unit which was also to conduct surprise visits to various units/ departments/ research stations for stock inspection. However, the frequency and periodicity of the inspections have not been prescribed.

Audit noticed that the inspection unit of the University had neither prepared any inspection plan nor conducted any inspections, surprise visits of various units, etc.,

during 2012-17. This reflected lack of internal controls in the University as absence of inspections led to many financial lapses as indicated under paragraphs 2.1.7.1 to 2.1.7.5. In the exit conference, the Comptroller stated that the inspections could not be carried out due to shortage of staff. The fact, however, remains that there was no shortage of staff in the internal inspection unit³⁹.

2.1.13.4 Non-maintenance of assets register

Audit noticed that assets register of permanent and semi-permanent nature, assets acquired out of grants received from the Government/ ICAR was not maintained by the University as required under the financial rules. The Departments had also not devised any system to see as to what assets were created by the grantee institution and whether the assets so created out of the grants were being utilised for the intended purpose.

2.1.13.5 Recommendations/ action points of monitoring and review team of Indian Council of Agriculture Research

The Monitoring and Review Team of ICAR in its Peer Report for 2012-16 had observed (October 2016) that the University should:

- make provision for internship hostel for College of Veterinary and Animal Sciences;
- create experiential learning unit for modernisation of tea processing unit for value addition and honey bee production;
- make special efforts to develop linkages with various commodity boards as the committee had not seen viable linkages of the University with such boards like Spice Board, Tea Board, National Horticulture Board, Bee Board; etc., and there was a lot of scope for mutual ventures;
- make efforts to motivate the faculty for getting financial assistance through submission of projects on basic and strategic research to funding agencies like ICAR, department of bio-technology, department of science and technology and other departments as the committee had not seen any major project with large funding in College of Agriculture as well as College of Home Science; and
- make funds available for the construction of two hostels as no headway had been made in the construction process for the last one year.

Audit noticed that action taken report in compliance of the above observations had not been submitted by the University to the ICAR as of July 2017. In the exit conference, the VC assured to comply with the observations. Audit is of the view that action on the recommendations of the ICAR being a prime funding agency should have been taken expeditiously.

2.1.14 Conclusion

The performance audit highlighted the shortcomings of the University in the areas of financial management, academic and research activities, extension education and monitoring as under:

³⁹ **Sanctioned strength:** Assistant Registrar (one), Section Officer (one), Senior Assistant (four), Clerk (one) and Peon (one) and **Person in position:** Assistant Registrar (one as additional charge), Section Officer (one as additional charge), Senior Assistant/ Superintendent (three), Clerk (one in 2012-13 only) and Peon (one).

- The financial management was weak as the University failed to prepare the balance sheet and there were instances of excess expenditure under various heads, irregular payments of pension and other retirement benefits out of State grants and non-adjustment of contingent advances for prolonged period.
- In the academic front, the overall shortage in faculty members affected the quality education and research activities. The University was unable to attract and retain full quota of intake capacity of students. Non-recognition of a master degree programme (M.Sc. Biology) and non-receipt of accreditation of College of Home Science had not only resulted in wastage of time and money of many students but also risked their future employment/ higher educational opportunities.
- In the research arena, some of the projects remained incomplete for many years and in the absence of monitoring and impact assessment/ evaluation, the fates of the completed projects were not ascertainable. The University was unable to secure patent of its researches from the patent office of the Government of India since long.
- Extension activities of transferring technology and improved products as a result of researches of the University to farmers were not effective as except sale of improved wheat seed in 2012-14, sale of the major crops seeds through agriculture technology information centre during the period covered under audit was almost negligible. The impact assessment regarding benefit of the training imparted to the farmers was also not conducted so as to verify the authenticity and effectiveness of the training.
- Internal controls and monitoring mechanism in the University were almost non-existent as the internal inspection wing of the University had neither conducted inspections of accounts/ stock nor developed integrated management information system. There was shortfall in convening of meetings of the Government bodies including Senate and the Board of Management to review the policy and performance of programmes of the University.

2.1.15 Recommendations

The Government may consider to:

- Strengthen the internal controls to avoid financial irregularities and prepare balance sheet annually so as to exhibit true and fair picture of the affairs of the University.
- Rationalise the required faculty with reference to the reduced intake and address the shortfall of faculty members and other staff, if any, to improve quality of education and research, and strengthen the placement cell for job opportunity to the degree holder aspirants besides desisting introduction of unviable/ unrecognised programmes in the University.
- Expedite the research activities to ensure their timely completion and also transfer of technology and improved products as a result of research to the farmers to boost production.

Audit findings were referred to Government in August 2017. Reply had not been received (November 2017).

Higher Education and Technical Education Departments

2.2 Establishment and Regulation of Private Universities

The State Government passed the Himachal Pradesh Private Universities (Establishment and Regulation) Act, 2006 for establishment of private universities and notified Guidelines for Establishing Private University in Himachal Pradesh in 2008 (modified in 2009). Thereafter, the Himachal Pradesh Private Educational Institutions Regulatory Commission (HPPEIRC/ Regulatory Commission) was established in February 2011 for regulation of private institutions of higher education. The Departments of Higher Education and Technical Education are responsible for overall policy formulation and regulation of private universities in the State.

Some of the significant audit findings from the Performance Audit are given below:

- *Assessment of need for private universities in the State was not made, and 17 Private Universities had been established of which 10 were located in one district alone (four in one Gram Panchayat) indicating that regional needs/ priorities were not considered.*

(Paragraph 2.2.6.1)

- *The State Government had not prescribed any objective criteria/ norms for assessing the financial soundness, expertise and potentiality of the courses proposed by the sponsoring bodies leading to arbitrary and non-transparent decision-making.*

(Paragraph 2.2.6.2)

- *There was acute shortage of manpower in the Regulatory Commission, which was reflected in large shortfalls in conducting inspections. 1394 courses in private universities during 2011-17 had been approved by the Regulatory Commission without conducting inspections to ascertain availability of infrastructure and staff.*

(Paragraphs 2.2.7.1 and 2.2.8.1)

- *The fees proposed by private universities had been approved by the State Government without considering costing elements; three test-checked private universities had increased fees by 21, 23 and 58 per cent for the academic session 2017-18 as compared with 2016-17 without justification.*

(Paragraph 2.2.9.1)

- *Three test-checked private universities had made unauthorised collection of Development Charges amounting to ₹ 4.58 crore. Four test-checked private universities had not refunded security money of ₹ 2.89 crore to 2,906 passed out students during 2012-16.*

(Paragraphs 2.2.9.2 and 2.2.9.4)

- *Fifteen private universities were functioning in the State with faculty not possessing minimum qualifications especially in the Professor (22 per cent) and Associate Professor (28 per cent) levels.*

(Paragraph 2.2.10.1)

- *There was significant shortage of faculty in private universities, particularly in the Professor (38 per cent) and Associate Professor (61 per cent) levels.*

(Paragraph 2.2.10.2)

- *Out of 17 private universities in the State, only three had obtained accreditation from National Assessment and Accreditation Council as of March 2017.*

(Paragraph 2.2.13.1)

2.2.1 Introduction

Due to increasing demand for higher education, the National Knowledge Commission has noted¹ that while Government financing will remain the cornerstone for the large-scale expansion in higher education, this will not suffice and that it is essential to stimulate private investment in higher education to extend educational opportunities.

In Himachal Pradesh, 17 private universities² have been established between May 2002 and April 2014 through separate Acts of the State Legislature; such as the Jaypee University of Information Technology Act, 2002, or the Chitkara University (Establishment and Regulation) Act, 2008.

Establishment of Private Universities

The State Government first created a framework for establishment and running of private educational institutions in 1999 by promulgating the Himachal Pradesh Private Educational Institutions (Regulation), Act, 1997 which remained in force until 2006. One private university³ was established during the period in which this Act remained in force. In 2006, the Himachal Pradesh Private Universities (Establishment and Regulation) Act, 2006 was promulgated which laid down a detailed framework and process for establishment and regulation of private universities. This legislation remained in force until 2008, and two private universities⁴ were established during this period. After the repeal of the Act of 2006 in the year 2008, the State Government formulated and notified Guidelines for Establishing Private University in Himachal Pradesh (December 2008, revised in November 2009). 14 private universities⁵ were established after these guidelines were notified.

The process for establishment of private universities, as prescribed in the Act of 2006 and the guidelines of 2008 and 2009 is briefly explained below:

- An application/ proposal for establishment of private university, containing prescribed details such as objective of the university, justification regarding necessity of establishment of the university, nature and courses of study, research proposed to be undertaken, etc., is to be submitted by the sponsoring body to the State Government.
- The application is to be considered by a designated committee of the State Government on the grounds of financial soundness and background (experience and expertise) of the sponsoring body, and the potential of the courses proposed to be offered. The committee shall submit its report to the State Government.

¹ National Knowledge Commission, *Report to the Nation*, 2006-09.

² District-wise breakup: Hamirpur: one; Kangra: two; Mandi: one; Shimla: one; Sirmaur: one; Solan: 10 and Una: one.

³ Jaypee University of Information Technology (2002).

⁴ Chitkara University (April 2008) and Eternal University (April 2008).

⁵ Bahra University (September 2009); Shoolini University (October 2009); Baddi University (October 2009); Indus International University (October 2009), Manav Bharti University (November 2009); Arni University (November 2009); Maharshi Markandeshwar University (July 2010); Sri Sai University (September 2010); ICFAI University (June 2011); Career Point University (May 2012); IEC University (June 2012); APG Shimla University (June 2012); Maharaja Agrasen University (July 2012) and Abhilashi University (April 2014).

- On the basis of the report of the committee, the State Government may issue a Letter of Intent (LoI) to the sponsoring body, requiring the sponsoring body to fulfil certain conditions such as establishment of endowment fund, land acquisition, creation of infrastructure, hiring of faculty, etc. The sponsoring body would have to submit a compliance report to the State Government within a prescribed period.
- The compliance report would be verified by the designated committee of the State Government, which would submit a report on whether the sponsoring body had fulfilled the conditions laid down in the LoI.
- If the State Government is satisfied after considering the verification report of the committee, necessary action would be taken by the State Government for establishment of the private university through an Act of the State Legislature.

Regulation of Private Universities

For regulation of private institutions of higher education, including private universities, the Himachal Pradesh Private Educational Institutions Regulatory Commission (HPPEIRC/ Regulatory Commission) was established in February 2011 through an Act of the State Legislature⁶. The Regulatory Commission has the duty of ensuring appropriate University Grants Commission (UGC)/ All India Council for Technical Education (AICTE) norms in respect of standards of admission, teaching, examination, research, qualified teachers and infrastructure, grievance redressal and protection of interest of students in private educational institutions. The Regulatory Commission is vested with the powers of a civil court for the purpose of regulation, and it may conduct inspections and impose penalties for failure of an institution to meet regulatory standards in respect of admissions, fees, faculty, examination, infrastructure, etc.

In addition to the above, all private universities are required to adhere to norms, regulations and standards prescribed by the UGC, AICTE and other professional councils/ regulatory bodies.

2.2.2 Organisational Setup

The Department of Education and the Department of Technical Education, headed by their respective Principal Secretaries, along with their respective Directorates of Higher Education and Technical Education are responsible for policy formulation, establishment and overall regulation of private universities. The Himachal Pradesh Private Educational Institutions Regulatory Commission (HPPEIRC) is directly responsible for regulation of private universities.

In each private university, the chairperson of the respective university's Governing Body is the Chancellor of the private university. The Vice-Chancellor (VC), appointed by the Chancellor, is the overall in-charge and head of the Management Board.

2.2.3 Audit Objectives

The objectives of the performance audit were to ascertain whether:

⁶ Himachal Pradesh Private Educational Institutions (Regulatory Commission) Act, 2010.

- appropriate policy framework was formulated and adhered to for setting up of private universities;
- the regulatory mechanism governing functioning of private universities was being adhered to/ enforced; and
- the outcomes envisaged from establishment of private universities were being achieved.

2.2.4 Audit Scope and Methodology

The performance audit of establishment and regulation of private universities in Himachal Pradesh covered the period from 2009-10⁷ to 2016-17. The audit involved scrutiny of records of the Directorate of Higher Education (in the Department of Education), Directorate of Technical Education (in the Department of Technical Education), and Himachal Pradesh Private Education Institutions Regulatory Commission (Regulatory Commission/ HPPEIRC). Nine out of 17 private universities were also selected⁸ for test-check.

The audit methodology consisted of scrutiny/ examination of records and joint physical inspection of works/ infrastructure. An entry conference was held on 07 April 2017 with the Principal Secretary, Education to discuss the audit objectives, criteria, audit scope and methodology of the performance audit. The audit was conducted between April 2017 and July 2017. Audit findings were discussed in an exit conference with Secretary (Education) on 30th August 2017. The views of the State Government have been incorporated in the report at appropriate places.

2.2.5 Audit Criteria

The audit criteria for the performance audit were derived from the following sources:

- University Grants Commission (UGC) Act, 1956 and rules and regulations made thereunder;
- UGC (Establishment and Maintenance of Standards in Private Universities) Regulations, 2003;
- Himachal Pradesh Private Universities (Establishment and Regulation) Act, 2006;
- Guidelines for Establishing Private University in Himachal Pradesh, notified by the State Government in December 2008 and November 2009;
- Respective Acts establishing private universities;
- Himachal Pradesh Private Educational Institutions (Regulatory Commission) Act, 2010 and rules made thereunder; and
- Acts/ Rules/ Regulations of other Central/ State Regulatory Bodies providing standards/ norms.

⁷ From 2002-03 to 2016-17 in the case of Jaypee University.

⁸ Private Universities (PUs) were divided into two strata based on enrolment. All seven PUs having enrolment more than 2,500 were selected in the sample. Two out of 10 PUs having enrolment less than 2,500 were selected by adopting Simple Random Sampling Without Replacement (SRSWOR) method of sampling.

Audit Findings**2.2.6 Establishment of Private Universities****2.2.6.1 Non-assessment of need for private universities**

The State Government had formulated and notified (December 2008 and November 2009) guidelines for establishment of private universities in the State.

Scrutiny of these guidelines revealed that the State Government had not prescribed any mechanism to assess the need for private universities in the State, or to identify the regions and fields of study where demand for higher education existed but facilities were inadequate. There was no system of inviting applications from interested private parties and selecting the best applicants for establishment of private universities in the regions and fields of study identified. On the contrary, applications were accepted/considered as and when they were received from private parties for establishment of private universities at a location of their choice.

As a result of the above policy, 17 private universities had come up in the State during 2002-14 with uneven geographical spread, as shown in the table below:

Table-2.2.1: Number of Private Universities in each district with respect to population completed education at Higher Secondary/ Intermediate/ Pre-University/ Senior secondary level

District	Population completed education at Pre-University level (In numbers)	Number of private universities
Kangra	45,359	2
Shimla	29,286	1
Mandi	25,945	1
Hamirpur	16,932	1
Una	14,305	1
Solan	13,972	10
Bilaspur	11,492	0
Sirmaur	11,334	1
Kullu	9,987	0
Chamba	7,979	0
Kinnaur	1,402	0
Lahaul & Spiti	912	0
Total		17

Source: Census 2011.

Thus, 10 of the 17 private universities were located in the seventh-least, pre-university completed populous district, i.e. Solan (four were found to be located in the same *Gram Panchayat*), while a total of only six private universities were located in the five most populous districts. Only one private university was located in other six least populated districts.

Further, it was noticed that there was total enrolment of only six *per cent* during 2011-17 in certain courses⁹ in two out of the ten private universities located in Solan district, indicating that demand for these courses in these universities was low.

Thus, the State Government had not devised any policy for ensuring need-based establishment of private universities in Himachal Pradesh.

⁹ ICFAI University (four *per cent* enrolment in Science and Technology, and Management courses) and IEC University (eight *per cent* enrolment in B.Tech., BCA, MCA, and Bachelor of Fashion Designing courses).

The Joint Director, Higher Education agreed that private universities had low enrolment as compared to sanctioned intake.

2.2.6.2 Lack of transparency, objectivity and fairness in considering applications for establishment of private universities

For consideration of an application/ proposal for establishment of private university, the guidelines¹⁰ prescribed that such an application would be examined by a designated committee (having at least one expert) which was to submit its report to the State Government after considering the application on the grounds of financial soundness of the sponsoring body, background (expertise, experience and reputation) and potential of the courses proposed to be offered by the sponsoring body. On the basis of the recommendation of the committee, the State Government would either reject the application/ proposal or process the application further by issuing Letter of Intent (LoI) to the sponsoring body.

Audit, however, observed that no objective or quantifiable criteria/ benchmarks/ norms were prescribed for the assessment of source of finance, experience of the sponsoring body in field of teaching/ research and the potentiality of the proposed courses keeping in view the need/ demand, etc. It was further seen that the designated committees had not submitted any detailed report on the 33 applications which were received and considered (between September 2006 and January 2012), and only proceedings of the committee meetings were prepared which lacked detail of financial position, experience in the field of education and expertise of the sponsor. Thus, the basis on which applications were either recommended for further processing or rejected was not evident. This was indicative of lack of transparency and application of subjectivity and discretion in the process of assessment of applications, resulting in arbitrariness in decision making, as detailed below:

- In the case of M/s Maa Saraswati Education Trust, it was found that the committee constituted for considering its application/ proposal had no subject expert. It was further observed that even though the sponsoring body had three years' experience in running colleges, and members of the management body had extensive experience, the committee decided to reject the application on the grounds that the applicant did not have experience in running a university.
- On the other hand, the application/ proposal of M/s Shikhar Educational Trust was recommended for further processing (i.e. letter of intent or LoI was issued) even though the sponsoring body neither presented any detailed financial plan nor had any experience in running a university.
- In the case of the Shoolini University, the committee constituted (December 2006) for considering the application/ proposal decided to reject the proposal on the grounds that the experience of the sponsoring body was not adequate; this was conveyed (January 2007) by the State Government to the sponsoring body. It was,

¹⁰ Paragraphs 4 and 7 of Guidelines for Establishment of Private University in Himachal Pradesh (December 2008 and November 2009), and Sections 3 and 4 of Himachal Pradesh Private Universities (Establishment and Regulation) Act, 2006.

however, found that subsequently the State Government constituted (October 2007) another committee for reconsidering the proposal. The second committee, without furnishing any detailed report or outlining the basis for its decision, recommended (May 2008) that the application/ proposal be processed further and LoI was issued to the sponsoring body.

The Joint Director, Higher Education confirmed that there were no detailed guidelines/ norms to judge the financial soundness, expertise/ experience and potentiality of the courses proposed by the sponsor. In the exit conference, the Secretary (Education) stated that the State Government will take effective steps in this regard.

2.2.6.3 Deficiencies/ irregularities in verifying fulfilment of stipulated conditions before establishment of private universities

For proposals where it was recommended that the sponsoring body should be given the opportunity to establish a private university, the guidelines¹¹ prescribed that a Letter of Intent (LoI) would be issued to the sponsoring body. The sponsoring body was required to fulfil the conditions stipulated in the LoI (such as establishment of endowment fund, acquiring land, purchase of books, computers, equipment, etc.) and submit a compliance report in this respect alongwith necessary undertakings to the State Government within one year. This compliance report was to be verified and a detailed report on whether the sponsoring body had fulfilled the prescribed requirements/ conditions in the LoI was to be submitted by the designated committees within one month. On the basis of the verification report, the State Government would either reject the proposal or take necessary action for establishment of the proposed private university. Scrutiny of records revealed the following irregularities/ deficiencies in four out of the 17 cases of verification of LoI which were examined:

- In the case of Sri Sai University and Maharishi Markandeshwar University, necessary undertakings – assets of the university would vest with the Government if the University were to be dissolved before 15 years; Bonafide Himachalis would be appointed to 80 *per cent* of the Class-III and Class-IV posts – were not obtained from the sponsoring bodies.
- In the case of Maharaja Agrasen University, the committee recommended (March 2012) setting up of the university despite the fact that the compliance report of the sponsoring body and other records showed that separate hostels for boys and girls were not available, water and sewerage facilities had not been provided, and installation of electricity lines had not been completed; the verification report of the committee did not mention any of these issues.
- In the case of M/s Manav Bharti Charitable Trust, the designated committee, in its verification report (09 July 2009) stated that only 85 *per cent* of the infrastructure had been completed by the sponsoring body. However, just four days later (13 July 2009), the committee recommended establishment of the university without ensuring construction of the required infrastructure.
- In the case of M/s Sri Sai Trust, only 10,000 square metres of space had been acquired against the required 15,000 square metres despite which establishment of the university was recommended.

¹¹ Para 10 of Guidelines for Establishing Private University in Himachal Pradesh (December 2008).

The above lapses indicate lack of proper verification of compliance by sponsoring bodies to the conditions outlined in the LoI.

The Joint Director, Higher Education stated that the universities concerned would be asked to submit the undertakings. In the exit conference, the Secretary (Education) expressed that the State Government will take effective steps in this regard.

Regulatory Framework

2.2.7 Functioning of the Himachal Pradesh Private Educational Institutions Regulatory Commission (HPPEIRC)

The State Government established the Himachal Pradesh Private Educational Institutions Regulatory Commission (HPPEIRC) for ensuring appropriate standards of admission, teaching, examination, research, protection of interest of students in private educational institutions and for matters connected therewith.

2.2.7.1 Shortage of manpower in the Regulatory Commission

According to Section 4 of the HPPEIRC Act, 2010, the Regulatory Commission shall consist of a Chairperson and maximum of two members. According to Section 6 of the HPPEIRC Act, 2010, there shall be Secretary of the Regulatory Commission, and the Regulatory Commission may appoint such officers and employees as it considers necessary, after approval of the State Government.

The State Government had sanctioned 28 posts (of different categories) for the Regulatory Commission. Audit observed that there were persistent vacancies in various posts, as depicted in table below:

Table-2.2.2: Position of sanctioned strength and persons-in-position in Regulatory Commission (In numbers)

Category of post	Sanctioned strength	Persons-in-position					
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Chairperson	1	1	1	1	1	1	0
Member	2	0	1	0	1	1	2
Secretary	1	1	1	1	1	1	1
Advisor	2	0	1	1	1	0	0
Law Officer	1	0	0	0	0	0	1
Finance Officer	1	1	1	1	1	1	1
Programmer	1	0	0	1	1	1	1
Class-III and Class IV posts	19	6	7	10	09	13	13
Total	28	9	12	15	15	18	19

Source: Departmental figures.

Vacancies in the posts of Member, Advisor and Law Officer were persistent and have adversely impacted the ability of the Regulatory Commission to discharge its responsibilities as detailed in subsequent paragraphs 2.2.7.2 to 2.2.7.6. Further it was seen that there was no dedicated cadre of inspecting officers for undertaking inspection of private educational institutions, resulting in huge shortfalls in conducting inspections (vide paragraph 2.2.7.4).

The Finance Officer, HPPEIRC stated that the posts of Chairman, Members and Advisors are filled by the State Government and request for filling of other posts had been sent to the Himachal Pradesh Staff Selection Commission. In the exit conference,

the Secretary (Education) advised the Commission to take up the matter with the State Government.

2.2.7.2 Non-deposit of fee with HPPEIRC

According to Section 8 of the HPPEIRC Act, 2010 read with notification (2011) of HPPEIRC, one *per cent* of the total fee (except refundable securities) received was to be deposited by each private institution of higher education with the Regulatory Commission. The amount was to be credited into the fund established by the Regulatory Commission and was to be utilised for management of its affairs.

Audit observed that eight test-checked private universities (data was not made available by Jaypee University) received ₹ 718.93 crore as tuition fees during 2012-16 and one *per cent* of fees amounting to ₹ 7.19 crore was required to be deposited with the HPPEIRC. Against this, only ₹ 1.25 crore was deposited with the Regulatory Commission which resulted in short-receipt of ₹ 5.94 crore during the above period. In this regard, it was informed by HPPEIRC that there was a stay on the relevant provision of the Act as a result of an order (2012) of the Himachal Pradesh High Court, in respect of which an appeal in the Supreme Court was pending as of July 2017. In the absence of the aforementioned source of funds, the Regulatory Commission was managing its affairs through loans from the State Government.

2.2.7.3 Lack of proper reporting mechanism for regulation of private universities

According to Section 9 (1) of the HPPEIRC Act, 2010, it is the duty of the Regulatory Commission to ensure that standards of admission, faculty, teaching, examination, research, etc., are being maintained by private educational institutions in accordance with guidelines issued by regulatory bodies of the Central/ State Government.

Audit observed that neither the State Government nor the Regulatory Commission had prescribed any periodic returns/ reports for private universities so as to obtain data on adherence to standards of admission, faculty, teaching, examination, research, etc., by these universities. As a result, there was no database on adherence to various norms and standards by private universities.

The Secretary, HPPEIRC stated that the Regulatory Commission had no role in prescribing any return/ report on behalf of the State Government. The reply is not acceptable as the Regulatory Commission had been established with the mandate of ensuring appropriate standards of admission, teaching, examination, research, etc., from which it is implicit that the Regulatory Commission was competent to prescribe any reporting mechanism for private universities for the purpose of effective regulation. In the exit conference, the Secretary (Education) and Chairman, HPPEIRC accepted the audit contention.

2.2.7.4 Shortfall in conducting of inspections

HPPEIRC notified (June 2012) an inspection schedule according to which inspection of private universities (biannual) was to be conducted either by the Regulatory Commission or by expert committees constituted by the Regulatory Commission.

Audit noticed that during 2011-17, the Regulatory Commission had conducted only 44 inspections against the required 198 inspections, i.e. a shortfall of 154 inspections (78 per cent). Thus, the extent of monitoring through inspections was inadequate as quality of education, sufficient infrastructure, and qualified faculty was not ensured as discussed in paragraphs 2.2.6.3, 2.2.10.1 and 2.2.12.1. Further, in the absence of any periodic returns (as detailed above in para 2.2.7.3), the large shortfall in inspections meant that regulation left much to be desired.

The Secretary, HPPEIRC stated that inspections could not be carried out owing to shortage of funds, experts and manpower. In the exit conference, the Secretary (Education) suggested to HPPEIRC to prepare a calendar of inspections for every financial year and disclose the record/ proceedings of inspections online so that the general public/ stakeholders could see its progress/ status.

2.2.7.5 Non-preparation of annual reports and annual accounts

The Regulatory Commission was required¹² to prepare and submit an annual report and annual accounts at the end of every financial year to the State Government. It was observed that the Commission had not prepared the annual reports for the years 2015-16 and 2016-17 and annual accounts for the financial year 2016-17 as of May 2017.

In the exit conference, the Secretary (Education) and Chairman, HPPEIRC assured that the annual accounts and reports would be prepared at the earliest, and timeliness in preparation of the accounts/ reports would be followed in future.

2.2.7.6 Lack of grievance redressal mechanism in the Regulatory Commission

The Regulatory Commission was required¹³ to develop a grievance redressal mechanism. Complaints were to be redressed within a fixed period and action taken was to be recorded.

Audit observed that the Regulatory Commission had not prepared any register of complaints since its establishment in 2011. Although a software application for grievance redressal had been developed in 2012, it was not working since 2012-13. Thus, the grievance redressal mechanism in the Regulatory Commission was not satisfactory and there was no record of the total number of complaints received, disposed of, or pending.

The Secretary, HPPEIRC stated that a register for complaints was being maintained from April 2017. The reply is not acceptable as there was still no mechanism to ensure redressal of complaints within stipulated period, as required by the Act.

¹² According to sections 12 and 13 of the Himachal Pradesh Private Educational Institutions (Regulatory Commission) Act, 2010.

¹³ Section 9 (3) of Himachal Pradesh Private Educational Institutions (Regulatory Commission) Act, 2010.

2.2.8 Approval of Courses

2.2.8.1 Approval of courses in private universities without inspection by HPPEIRC

The respective Act(s) of the private universities provided that prior approval of HPPEIRC was required for starting new courses which would be subject to recommendation of the inspection committee set up for this purpose.

Audit noticed that HPPEIRC had given approval for 1394 courses (306 new courses and 1,088 existing courses) in private universities during 2011-17 without conducting any inspections. Non-conducting of inspections is very serious in the case of new courses, as it meant that adequacy of infrastructure, staff, etc., was not ascertained before grant of approval.

The Secretary, HPPEIRC stated that courses had been approved strictly on the basis of infrastructure/ faculty of the university concerned. The reply is not acceptable as in the absence of inspections; it was not clear how HPPEIRC had been able to establish the adequacy of infrastructure, faculty, etc. In the exit conference, the Secretary (Education) stated that in future, no courses would be approved without conducting inspections.

2.2.8.2 Running of courses by private universities without seeking approval

The respective Act(s) of the private universities provided that prior approval of HPPEIRC was required for starting new courses.

Audit, however, observed that two (Eternal University and Shoolini University of Technology and Management Sciences) of the nine test-checked private universities had not obtained approval for running different courses¹⁴ during 2009-12.

In addition to these cases, it was found that Jaypee University of Information Technology had not obtained approval for any of its courses as the Act establishing the university did not contain such a provision. The State Government had not taken any action to amend the legislation in order to bring the courses run by the university within its regulatory ambit.

2.2.8.3 Running of unspecified courses by private universities

UGC has specified (March 2014) the nomenclature of degrees that can be offered by universities and mentioned that the universities shall not introduce any new nomenclature for degrees. A university intending to introduce any new nomenclature for a degree must seek prior permission of the UGC.

Audit noticed that Shoolini University of Management and Biomedical Sciences was running (2014-16) two unspecified courses namely M.Sc. (Honours), Biotechnology and M.Sc. (Honours) Microbiology without seeking prior approval of UGC. Since the nomenclature of these courses was not specified/ approved by UGC, it was not clear whether the degrees awarded to the students who had completed these courses were valid.

¹⁴ B.Tech. (ECE); B.Tech. (CSE); MBA; Ph.D. (Chemistry) and Ph.D. (Physics).

The Joint Director, Higher Education replied that details of students admitted in these courses would be obtained and the matter would be examined.

2.2.8.4 Non-adoption of Choice Based Credit System (CBCS)

The UGC issued guidelines for adoption of Choice Based Credit System (CBCS) which was applicable to all undergraduate/ postgraduate degree, diploma and certificate programmes for providing more flexibility to students. CBCS was required to be implemented in all universities from the academic session 2015-16.

Scrutiny of available records showed that three (APG, Arni and Eternal universities) out of nine test-checked private universities had not implemented CBCS as of March 2017.

The Registrars of APG University and Arni University stated that CBCS would be implemented from the academic session 2017-18. The Registrar, Eternal University stated that CBCS has been implemented since 2013-14 except for implementation of grade system.

2.2.9 Fees and other charges

2.2.9.1 Non-formulation of guidelines for determining/ examining fee structure of private universities

The respective Acts establishing private universities provide that the fee structure of a private university would be examined by the State Government keeping in view that the proposed fee structure is sufficient for generating resources for meeting recurring expenditure, savings required for the further development of the university and not unreasonably excessive. Further, the Supreme Court has held¹⁵ that private unaided educational institutions are allowed to earn reasonable surplus only for the purpose of expansion and augmentation of education, and that profiteering is strictly prohibited.

In this context, audit observed that the State Government had not framed any norms/ guidelines for determining/ examining the fee structure proposed by a private university. Thus, fee structures proposed by private universities were being approved without considering costing elements such as operating costs, nature of courses, cost of fixed assets, reasonable surplus required for growth, etc. Analysis of data on fees charged by the test-checked universities for a particular course (B.Tech.) showed that Bahra University, Chitkara University, and Jaypee University had increased their fees by 21, 23 and 58 *per cent* respectively (for 2017-18 as compared with 2016-17) without any justification. This resulted in arbitrariness in charging of fees.

The Joint Director, Higher Education replied that the matter of framing of norms for fee structure would be taken up with the Government. In the exit conference, the Secretary (Education) accepted the audit findings.

¹⁵ Islamic Academy of Education vs. State of Karnataka & Others, Writ Petition (Civil) 350 of 1993; and TMA Pai Foundation vs. State of Karnataka & Others, Writ Petition (Civil) 317 of 1993.

2.2.9.2 Unauthorised collection of Development Charges by private universities

According to a decision (April 2016) of the High Court of Himachal Pradesh, no private education institution is allowed to charge fees towards building fund, infrastructure fund, development fund, etc.

Audit scrutiny, however, showed that three of the nine test-checked private universities had charged ₹ 4.58 crore on account of “Development Charges” during 2016-17, as detailed in table below:

Table-2.2.3: Details of Development Charges collected during 2016-17

Name of University	Number of Students from whom charges were collected	Amount collected as “Development Charges” (₹ in crore)
Baddi University	512	0.51
Jaypee University	488	2.93
Shoolini University	1,135	1.14
Total	2,135	4.58

Source: Data supplied by the test-checked universities.

In the exit conference, the Secretary (Education) stated that the matter would be examined and action taken accordingly.

2.2.9.3 Non-refund of advance against fees by private university

Scrutiny of available annual accounts of the test-checked private universities showed that Arni University had not refunded advance collected against fees amounting to ₹ 27.67 lakh. This amount had been collected by the university between April 2010 and March 2016 from students at the time of counselling, and was required to be refunded as these students had not taken admission in the university.

The Registrar, Arni University confirmed the facts and stated that university had not received any request for refund from the students. The reply is not acceptable as contact details of the students concerned were available with the university and the amount should have been refunded by the university *suo motto*. In the exit conference, the Secretary (Education) stated that the matter would be taken with the private university to refund the advance against fee/ security money.

Audit is of the view that Government should ensure refund of fee to bank account of students.

2.2.9.4 Non-refund of security money to passed out students by private universities

Audit found that four¹⁶ test-checked private universities had not refunded security money amounting to ₹ 2.89 crore to 2906 students passed out between 2012 and 2016 as of March 2017.

The Registrar, Shoolini University stated that the students had not applied for refund of security money. The reply is not acceptable as the responsibility to refund the security money rested with the university and not the students. In the exit conference, the

¹⁶ Arni University: ₹ 0.61 crore to 610 students; Baddi University: ₹ 1.25 crore to 1,251 students; Jaypee University: ₹ 0.12 crore to 136 students and Shoolini University: ₹ 0.91 crore to 909 students.

Secretary (Education) stated that private universities concerned will be directed to refund the security money to the students.

2.2.10 Faculty and Staff

2.2.10.1 Faculty without minimum prescribed qualification in private universities

UGC regulations¹⁷ prescribe that the minimum qualification for the post of Professor/ Associate Professor is a Ph.D. degree, and that for the post of Assistant Professor is a Master's degree.

From the records available for 15 private universities (records for the other two¹⁸ were not available), it was observed that faculty who did not possess the minimum qualifications prescribed had been appointed, as detailed in table below:

Table-2.2.4: Details of faculty without minimum prescribed qualification

(In numbers)

Private University	Position as in	Professor		Associate Professor		Assistant Professor		Total under-qualified
		Total	Under-qualified	Total	Under-qualified	Total	Under-qualified	
Abhilashi	October 2016	10	3 (30)	6	2 (33)	90	7 (8)	12 (11)
APG	-do-	14	9 (64)	23	14 (61)	120	29 (24)	52 (33)
Arni	-do-	4	1 (25)	8	2 (25)	76	9 (12)	12 (14)
Baddi	January 2017	8	2 (25)	5	0 (0)	129	0 (0)	2 (01)
Bahra	November 2016	8	0 (0)	10	3 (30)	104	1 (1)	4 (03)
Career Point	October 2016	4	0 (0)	5	0 (0)	57	0 (0)	0 (0)
Chitkara	-do-	12	7 (58)	26	12 (46)	108	0 (0)	19 (13)
Eternal	-do-	15	4 (27)	10	5 (50)	77	1 (1)	10 (10)
ICFAI	-do-	0	0 (0)	9	3 (33)	18	2 (11)	5 (19)
IEC	-do-	3	0 (0)	2	0 (0)	67	8 (12)	8 (11)
Jaypee	-do-	11	0 (0)	13	0 (0)	73	0 (0)	0 (0)
Shoolini	March 2017	20	4 (20)	16	4 (25)	115	0 (0)	8 (05)
Sri Sai	October 2016	9	0 (0)	3	2 (67)	83	10 (12)	12 (13)
Manav Bharti	-do-	18	1 (6)	47	0 (0)	130	12 (9)	13 (07)
Maharaja Agrasen	-do-	20	4 (20)	14	9 (64)	121	5 (4)	18 (12)
Total		156	35 (22)	197	56 (28)	1,368	84 (06)	175 (10)

Source: Course approval files of HPPEIRC. Figures in parenthesis denote percentage.

(i) It is observed that 64 *per cent* and 58 *per cent* of Professors in APG and Chitkara Universities respectively were underqualified.

(ii) It is also observed that 67, 64, 61, 46 and 50 *per cent* of Associate Professors in Sri Sai, Maharaja Agrasen, APG, Chitkara and Eternal Universities respectively were underqualified. A large number of faculty was underqualified in APG University.

(iii) It can also be seen from the above table that the percentage of faculty not possessing minimum qualification was particularly high at Professor (22 *per cent*) and Associate Professor (28 *per cent*) levels.

2.2.10.2 Shortage of faculty in private universities

AICTE notification, 2010 had prescribed teacher-student ratio of 1:15, and 1:2:6 ratios for Professors, Associate Professors, and Assistant Professors.

¹⁷ UGC (Minimum Qualification for Teachers) Regulations, 2010.

¹⁸ Indus International University and Maharishi Markandeshwar University.

Analysis of available data for selected courses showed that availability of faculty in two (Shoolini University and Chitkara University) out of the nine test-checked private universities was satisfactory whereas in seven private universities there was significant shortage of faculty, as depicted in the table below:

Table-2.2.5: Details of shortage of faculty in private universities in March 2017

(In numbers)

Private University	Professor		Associate Professor		Assistant Professor		Total required	Total shortage
	Required	Shortage	Required	Shortage	Required	Shortage		
APG	16	6 (38)	30	12 (40)	91	6 (7)	137	24 (18)
Arni	10	4 (40)	21	14 (67)	61	21 (34)	92	39 (42)
Baddi	15	10 (67)	30	23 (77)	75	1 (1)	120	34 (28)
Bahra	6	1 (17)	12	7 (58)	40	1 (3)	58	9 (16)
Eternal	27	12 (44)	31	21 (68)	124	30 (24)	182	63 (35)
Jaypee	15	4 (27)	30	13 (43)	92	12 (13)	137	29 (21)
Manav Bharti	13	2 (15)	26	19 (73)	72	0 (0)	111	21 (19)
Total	102	39 (38)	180	109 (61)	555	71 (13)	837	219 (26)

Source: Data supplied by the test checked Private Universities and Regulatory Commission.
Figures in parenthesis denote percentage.

It is observed that there was 67, 44 and 40 *per cent* shortage of Professors in Baddi, Eternal and Arni Universities respectively. Similarly, there were 77, 73, 68, 67 and 58 *per cent* shortage in the cadre of Associate Professors in Baddi, Manav Bharti, Eternal, Arni and Bahra universities respectively. There was also shortage of 34 *per cent* of Assistant Professors in Arni University and 24 *per cent* in Eternal University. Shortage in the Professor and Associate Professor levels is bound to impact the quality of education imparted.

Audit is of the view that shortage and unqualified faculty would adversely impact the quality of education imparted by the private universities in the State.

The Secretary, HPPEIRC stated that the universities were running short of faculty in different disciplines for which directions had been issued.

2.2.11 Admissions

2.2.11.1 Excess admissions by private universities against approved intake

UGC regulations¹⁹ stipulate that Diploma or B.Sc. degree holders are eligible for admission to second year of engineering degree courses up to a maximum of 20 *per cent* over and above the approved intake.

Audit found that Eternal University had admitted 114 students in two courses during 2011-14 through lateral entry mode against the maximum allowed limit of 60. The excess admission granted to 54 students was irregular. The Regulatory Commission, had, however, not taken any cognisance/ action in this regard.

2.2.12 Examinations

2.2.12.1 Lack of robust system of examinations

According to Rule 5(1) of the HPPEIRC Rules, 2011, the Commission shall ensure good standard of setting of papers, conduct of examinations, method of internal evaluation, evaluation of final examination, etc., in accordance with the Act(s), rules and provisions governing private universities.

¹⁹ UGC (Approval of Colleges offering Technical Education by Universities) Regulations, 2013.

It was observed that all nine test-checked private universities had an internal system for conduct of examinations including setting of question papers and evaluation of answer scripts. The following specific instances of lack of robustness of the examination system were seen:

- An expert committee (consisting of 11 members) of UGC had commented (May 2015) that in APG University, the quality of question papers was poor and papers were being set internally.
- In Arni and Bahra Universities, evaluation of answer scripts was being done by the teachers concerned, or by other designated faculty. External examiners were invited for evaluation only during final practical examinations.

There was no system of external evaluation to assess students as in the case of colleges affiliated to a university where question papers are set and answer scripts are evaluated independently by the university. Thus, HPPEIRC had not been able to ensure good standard of question papers and evaluation of examination papers in private universities, as was required by rules.

The Joint Director, Higher Education stated that the matter would be brought to the notice of the State Government and after making necessary norms, assessment would be conducted to ascertain the standards of examination in private universities. In the exit conference, the Secretary (Education) agreed that quality control with regard to examination system is vital.

2.2.13 Accreditation and Internal Quality Controls

2.2.13.1 Non-accreditation by private universities

Each of the Acts for establishing a private university prescribed that the university shall obtain accreditation from National Assessment and Accreditation Council (NAAC). Further, UGC regulations²⁰ stipulate that it is mandatory for every higher educational institution to get assessed and accredited by NAAC within the period of passing out of two batches or six years, whichever is earlier. NAAC was to accredit institutions on the basis of benchmarks such as curricular aspect, teaching-learning and evaluation, research, innovations and extension, infrastructure and learning resources, student support and progression, governance, leadership and management, and institutional values and best practices.

Audit observed that out of 17 private universities in the State, 11 were due for accreditation but only three²¹ had obtained accreditation from NAAC. The remaining eight private universities had not got accreditation from NAAC as of July 2017.

In the absence of accreditation, there was no independent/ external assessment of whether these institutions conformed to the prescribed quality parameters/

²⁰ Clause 4.1 of UGC (Mandatory Assessment and Accreditation of Higher Educational Institutions) Regulations, 2012.

²¹ Chitkara University; Jaypee University of Information Technology and Shoolini University of Technology and Management Sciences.

benchmarks. In the exit conference, the Secretary (Education) stated that all such private universities would be asked to obtain accreditation from NAAC.

2.2.13.2 Non-adherence to norms on internal quality system by private universities

UGC guidelines²² state that every university is required to submit Annual Quality Assurance Report (AQAR) based on the quality parameters/ criteria of assessment set by NAAC and other regulatory bodies such as curricular aspect, teaching-learning and evaluation processes, research, innovations and extension, infrastructure and learning resources, student support and progression, developed by the relevant quality assurance body.

Audit observed that although Internal Quality Assurance Cell (IQAC) had been set up in all the nine test-checked private universities (after a delay of more than two to 14 years from the date of establishment), only Chitkara University had prepared AQARs. Two²³ private universities had not conducted any academic assessment at all, while the other six had not prepared any AQAR after having conducted academic assessments.

The Registrar, Shoolini University stated that being a newly established institution, performance is evaluated through frequent meetings of academic committees. The Registrar, Manav Bharti University stated that IQAC is making policies for quality education in the university.

Thus, adherence to UGC norms on internal quality systems was not satisfactory, and there was a risk that quality assurance and enhancement activities were not being undertaken in the cases highlighted above.

2.2.14 Establishment matters

2.2.14.1 Shortfall in appointment of bonafide Himachalis by private universities

Guidelines²⁴ stipulated that private universities were required to ensure that 80 *per cent* of the Class-III and Class-IV posts were filled by bonafide Himachalis.

Analysis of data showed that out of the nine test-checked private universities, only five private universities had provided employment to bonafide Himachalis to the required extent while in four private universities, there was significant shortfall in the appointment of bonafide Himachalis to Class-III and Class-IV posts, during 2008-17 as given in table below:

Table-2.2.6: Details of appointment of bonafide Himachalis by private universities
(In numbers)

Name of private university	No. of posts filled	Posts required to be filled by bonafide Himachalis	Posts filled by bonafide Himachalis	Shortfall (per cent)
Arni	221	177	124 (56)	53 (24)
Baddi	174	139	120 (69)	19 (11)
Eternal	29	23	4 (14)	19 (66)
Chitkara	240	192	155 (65)	37 (15)
Total	664	531 (80)	403 (61)	128 (19)

Source: Figures supplied by the test checked Private Universities.
Figures in parenthesis denote percentage.

²² UGC Guidelines for Establishment and Monitoring of the Internal Quality Assurance Cells (2012-17).

²³ Baddi University and Manav Bharti University.

²⁴ Guidelines for Establishment of Private University in Himachal Pradesh, 2009

Employment to local people to the required extent, which was one of the positive externalities of establishment of private universities, had not been fully ensured either by private universities or by the HPPEIRC/ State Government.

The Registrar, Eternal University stated that the required percentage was not filled by bonafide Himachalis owing to non-availability of suitable persons for the Class-III and Class-IV posts. However, no records to support the contention were made available to audit. No reasons were furnished by the remaining three private universities.

2.2.14.2 Non-coverage of employees of private universities under Employees Provident Fund scheme

Paragraph 26(1) of the Employees Provident Fund (EPF) Scheme, 1952 provides that every employee employed in or in connection with the work of any establishment to which this scheme applies shall be entitled and required to become a member of the Fund. According to guidelines²⁵ on establishment of private universities, the sponsoring bodies were also required to submit an undertaking for establishment of provident fund for employees.

Scrutiny of records showed that eight out of the nine test-checked private universities had not enrolled employees ranging between 140 and 1,075 during 2008-17 for the EPF scheme, thus depriving these employees of the social security benefits to which they were entitled.

It was also found that although Arni University had deducted employees contribution from salaries of employees, this amount of ₹ 38.60 lakh²⁶ for the period October 2015 to March 2017 had not been deposited by the university concerned with the Commissioner, Provident Fund, Shimla.

The Registrar of Arni University stated that EPF contributions of both employer and employees had not been deposited due to paucity of funds and decrease in admissions as compared to approved intake. The fact remains that the university had not fulfilled its statutory obligations. In the exit conference, the Secretary (Education) stated that the matter would be taken up with the Labour Commissioner. Audit is of the view that university should discharge its statutory liabilities without further delay.

2.2.14.3 Non-provision of gratuity for employees by private universities

According to a provision contained in the respective Acts establishing private universities, the General Fund constituted by every university shall be utilised for, *inter-alia*, payment of gratuity and other benefits to employees of the university.

Audit, however, noticed that none of the nine test-checked universities had made any provision for payment of gratuity to its employees.

The Registrar, APG and Shoolini University stated that the university was in the process of making a provision for General Fund for making payment of gratuity to its employees. In the exit conference, the Secretary (Education) stated that the matter would be taken up with the Labour Commissioner.

²⁵ Paragraph 10 of Guidelines for Establishing Private University in Himachal Pradesh (December 2008).

²⁶ 2015-16: ₹ 18.80 lakh and 2016-17: ₹ 19.80 lakh.

2.2.14.4 Short-deposit of labour cess by private universities

According to Building and Other Construction Workers' Welfare Cess Act, 1996, every establishment engaged in construction activity is liable to pay cess not less than one *per cent* of the cost of construction. Each such establishment is required to deposit the amount of labour cess due (on the basis of cost of construction) to the office of the labour inspector concerned, who shall conduct an assessment as to whether the amount of labour cess deposited is correct or not (Section 4 of the Cess Act, 1996).

Audit scrutiny showed that five²⁷ private universities (for which data was available) had undertaken construction (both through contractors and their own civil wings) worth ₹ 286.93 crore during 2008-16, against which labour cess due was ₹ 2.87 crore. However, only ₹ 0.29 crore of labour cess had been deposited by these private universities²⁸ resulting in short-deposit of ₹ 2.58 crore.

The Registrars of Bahra University and Shoolini University stated that no assessment had been made by the Labour Officer. Registrar of Arni University stated that the matter would be taken up in the next governing body meeting.

In the above context, audit observed that while the private universities (and contractors concerned) were at fault for non/ short depositing of labour cess, the Department of Labour was also at fault as it had not conducted any assessment of the construction undertaken in the aforementioned five private universities during 2008-16.

Audit is of the view that Government should direct Labour Department to ensure coverage of employees under EPF scheme, provision of gratuity and ensure deposit of labour cess in respect of all the private universities.

2.2.14.5 Non-creation of endowment fund to the required extent

Guidelines²⁹ prescribed that a sponsoring body would establish an endowment fund of ₹ 5.00 crore which should be pledged to the Government as security deposit to ensure strict compliance of the provisions of guidelines, and Act enacted for the University, rules, regulations, statutes and ordinances made thereunder. The income from Endowment Fund was to be utilised for the development of the infrastructure of the university.

Audit, however, noticed that due to failure of the Education Department to effectively monitor the above provisions of guidelines, Act, etc., three³⁰ out of 16 sponsoring bodies had not created endowment fund to the required extent (shortfall of ₹ 2.00 crore in each case) leading to less amount of endowment fund to the extent of ₹ 6.00 crore. The other 13 sponsoring bodies had created the endowment fund to the required extent in accordance with the guidelines.

²⁷ APG, Arni, Baddi, Bahra and Shoolini universities.

²⁸ APG University: ₹ 0.07 crore; Arni University: no amount deposited; Baddi University: no amount deposited; Bahra University: ₹ 0.14 crore and Shoolini University: ₹ 0.08 crore.

²⁹ Guidelines for Establishing Private University in Himachal Pradesh (2009).

³⁰ Sri Sai University; Maharishi Markandeshwar University and Abhilashi University.

2.2.15 Annual Reports, Accounts and Disclosures

2.2.15.1 Non-submission of annual reports and annual accounts by private universities

Private universities were required³¹ to prepare and submit an annual report and annual accounts at the end of every financial year to the Regulatory Commission and the State Government. The advice of the Government or Regulatory Commission, if any, arising out of the accounts and reports of the university were to be placed before the Governing Body which was required to comply with such advice.

It was observed that eight private universities had not submitted any annual reports or annual accounts to the Regulatory Commission since their establishment. The remaining nine³² private universities had also not submitted annual reports and annual accounts regularly during 2010-17. Thus, private universities were not adhering to the reporting mechanism that had been prescribed and no action was taken by HPPEIRC for the default as of August 2017.

Further, the Regulatory Commission had not conducted any scrutiny of the annual accounts submitted by the nine private universities. Non-scrutiny of the annual accounts by HPPEIRC meant that there was a risk of financial irregularities, if any, in private universities remaining undetected.

In the exit conference, the Secretary (Education) stated that directions would be issued to the private universities for timely submission of the accounts/ reports.

2.2.15.2 Non-disclosure of information on the website by private universities

According to an order (April 2016) passed by the Regulatory Commission, all private universities were required to make disclosures on their respective websites regarding number of students eligible for award of degree, course-wise degrees awarded, list of candidates passed out but awaiting award of degrees, etc. Audit, however, noticed that none of the universities had made these disclosures on their websites.

The Director, Higher Education stated that all universities would be directed to upload all mandatory information on the website.

2.2.16 Outcomes- Placement record

2.2.16.1 Placement record of private universities

Placement record of test-checked private universities is given in Table 2.2.7:

³¹ According to the respective Acts passed for establishment and regulation of private university.

³² **Annual Reports submitted** – Indus International University: 2010-11; Career Point University: 2012-13; Eternal University: 2010-11, 2012-13 and 2014-15; Chitkara University: 2010-11; Baddi University: 2011-12; Bahra University: 2011-12; Shoolini University: 2013-14 and 2014-15; Jaypee University: 2013-14 and 2014-15 and APG University: 2013-14 and 2014-15.
Annual Accounts submitted – Indus International University: 2010-11; Eternal University: 2010-11, 2012-13 and 2014-15; Chitkara University: 2009-10 and 2010-11; Baddi University: 2011-12; Bahra University: 2009-10 and 2010-11; Shoolini University: 2013-14 and 2014-15; Jaypee University: 2013-14 and 2014-15 and APG University: 2013-14 and 2014-15.

Table-2.2.7: Placement record of private universities

				(In numbers)
Sl. No.	Name of PU	Period	Students passed out	Students placed (<i>per cent</i>)
1.	APG University	2012-16	384	252 (66)
2.	Arni University	2011-16	2,074	159 (08)
3.	Baddi University	2014-16	2,131	603 (28)
4.	Bahra University	2010-16	1,335	641 (48)
5.	Chitkara University	2010-16	4,547	3,270 (72)
6.	Eternal University	2012-16	1,029	649 (63)
7.	Jaypee University	2006-17	4,174	3,461 (83)
8.	Manav Bharti University	2010-16	1,361	167 (12)
9.	Shoolini University	2012-16	2,912	1,333 (46)
Total			19,947	10,535 (53)

Source: Figures supplied by test-checked private universities.

It is observed that:

- APG University, Chitkara University, Eternal University, and Jaypee University had placed over 60 *per cent* of their students.
- Arni University, and Manav Bharti University did not even manage to get 15 *per cent* of their students placed.

It is also observed from Table 2.2.5 that there was shortage of 42 *per cent* of faculty in Arni University and 25 *per cent* of its Professors and Assistant Professors were unqualified.

In the exit conference, the Secretary (Education) stated that there is a need to build linkages with industry so as to produce skilled manpower having demand in the market. Audit is of the view that shortage of faculty and engagement of unqualified faculty combined with weak regulatory framework are the main reasons for low placements.

2.2.17 Research Activities

2.2.17.1 Status of research activities in private universities

State Government guidelines³³ prescribe that the project proposal/ report of the sponsoring body for establishment of a private university must contain details of research proposed to be undertaken by the university and its relevance to the development goals/ needs of the State.

Audit scrutiny revealed that 352 Ph.D. candidates had been enrolled in only four³⁴ out of the nine test-checked private universities. 67 research projects³⁵ had been undertaken with GoI/ State Government funding of ₹ 17.00 crore in these four private universities, of which 32 projects had been completed after incurring an expenditure of ₹ 5.25 crore while 34 projects were lying incomplete after expending ₹ 4.15 crore and one project had been abandoned. By not placing sufficient emphasis on conducting research work, private universities were not adhering to the proposals submitted by them at the time of seeking approval for establishment.

³³ Guidelines for Establishing Private University in Himachal Pradesh, 2008.

³⁴ Arni University: 19 students; Eternal University: 31 students, Shoolini University: 298 students and Chitkara University: 04 students.

³⁵ Arni University: One project with funding of ₹ 5.58 lakh; Shoolini University: 48 projects with funding of ₹ 12.72 crore; Eternal University: Eight projects with funding of ₹ 3.11 crore and Chitkara University: 10 projects with funding of ₹ 1.11 crore.

The Registrar of Arni University stated that the university was encouraging its faculty members to submit proposals for research projects. The Registrar of Manav Bharti stated that no research project was being undertaken till date. The Registrars of the remaining private universities did not furnish any reply.

2.2.18 Conclusion

The State Government had not assessed the need for private universities in the State, leading to regional disparities in establishment of these universities and very low enrolment levels in some private universities. Although a policy had been formulated detailing the process through which a private university would be established, it left significant scope for subjectivity, leading to arbitrary and non-transparent decision-making. In addition to this, significant lapses were observed in adherence to the procedure prescribed.

The Regulatory Commission, established for regulation of private institutions of higher education, was handicapped by shortage of funds, manpower and absence of a dedicated cadre of inspecting officers resulting in large shortfalls in inspections. The lack of a proper reporting mechanism only exacerbated the gap in regulation. Thus, courses in private universities were being approved without inspections, and some private universities were running courses without seeking approval of the Regulatory Commission. In the absence of detailed guidelines for determining the fee structure, there was large variation in the fees being charged by private universities, and some cases of fees being hiked substantially were also observed. In some cases, approval for fee structure had not been sought, and cases of unauthorised collection of development charges, in violation of a court order, also came to light. Not only was there acute shortage of senior faculty in private universities, it was also seen that a large percentage of faculty did not possess the minimum prescribed qualifications. The system of examinations in private universities was not robust as examinations were being conducted internally. Progress on obtaining accreditation and setting up of internal quality systems was not satisfactory.

2.2.19 Recommendations

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

- Establishing new private universities in the State after assessment of need and keeping in view regional priorities, and formulating transparent and objective criteria for evaluation of applications for establishment of private universities.
- Strengthening the Regulatory Commission particularly in respect of human resources and finances, enabling it to discharge its functions; and creating a robust reporting mechanism for private universities in order to obtain key information at regular intervals for more effective regulation.
- Formulating objective criteria for assessing the fees being charged by private universities, creating a mechanism for ensuring adherence to prescribed norms on engaging faculty, and making the examination system more robust.
- Conducting inspections/ reviews at regular intervals to evaluate the extent of adherence to standards/ norms.

The audit findings were referred to the Government in August 2017. Reply had not been received (November 2017).

Irrigation and Public Health Department

2.3 Flood protection and flood control

A performance audit of implementation of flood protection projects in the State of Himachal Pradesh showed execution of flood protection projects/ works without adequate planning, delay in execution/ completion of the projects and ineffective monitoring. Some of the significant audit findings are summarised as under:

Highlights:

- *Department had neither made scientific assessment of flood prone areas nor prepared basin-wise comprehensive master plan and action plan for execution of flood protection works. Out of 2.31 lakh hectares estimated flood prone area of the State only 25,116.21 hectares (11 per cent) could be covered as of March 2017.*
(Paragraphs 2.3.6.1 and 2.3.6.3)
- *Absence of morphological studies in construction of flood protection projects/ works during 2012-17 and non-planning/ execution of all structural and non-structural measures (except embankments) were unlikely to achieve better results to control and mitigate disasters by floods.*
(Paragraphs 2.3.6.2 and 2.3.6.9)
- *There was short release of ₹657.36 crore by GOI and ₹21.25 crore by State Government under Flood Management Programme projects during 2008-17 resulting in delay of more than 12 to 60 months in execution/ completion of the projects.*
(Paragraph 2.3.8.1)
- *Against seven Flood Management Programme projects approved during 2008-13 and stipulated to be completed during March 2012 to March 2017, only four projects were completed and embankment of kms 275.873 (50 per cent) against the target of kms 548.995 was constructed upto March 2017.*
(Paragraph 2.3.8.2)
- *Non-levy/ recovery of compensation for delay and non-restoration/ recovery of loss of a damaged work and non-obtaining/ renewal of performance guarantees in 48 contracts resulted in extension of undue financial benefits of ₹11.97 crore to the contractors.*
(Paragraphs 2.3.10.1 and 2.3.10.2)
- *Against ₹67.48 crore withdrawn by six test-checked divisions during 2006-15 and irregularly charged to works without actual utilisation, ₹57.45 crore were utilised during subsequent financial years and balance ₹10.03 crore were lying unspent under deposit head for more than two to four years.*
(Paragraph 2.3.11.1)
- *Robust flood forecasting system was non-existent in the State and the Department had not constituted standing committee and review committee for joint inspection of critical/ major flood protection maintenance works and review of major works respectively.*
(Paragraphs 2.3.12.1, 2.3.13.2 and 2.3.13.3)

2.3.1 Introduction

Himachal Pradesh being predominantly a hilly State forms catchment of five major rivers- Beas, Chenab, Rabi, Satluj and Yamuna and their tributaries. These rivers and tributaries flow through steep slopes at high velocity causing erosion of cultivable land besides heavy loss of life and property during floods. Main causes of floods in the State include cloud bursts in the catchment areas of rivers, heavy rainfall in upper reaches, sudden breach/ burst of man-made dams/ natural lakes, landslide leading to obstruction of flow and change in river course and tectonic movement leading to slope

failure/ landslide. Out of 55.67 lakh hectares area of the State, an estimated area of 2.31 lakh hectares is prone to floods. Chamba, Kinnaur, Kullu, Mandi, Shimla, Sirmour and Una districts are more prone to or affected by flood in the State.

The State had faced several¹ major floods/ flash floods since its inception in 1971 in which about 309 persons lost their lives and 1,905 livestock perished besides causing estimated loss of properties of more than ₹ 2,385.45 crore. Floods are natural phenomena but its impact can be reduced by better preparedness through a comprehensive and effective Flood Management Programme. Flood protection measures in the State are carried out under Flood Management Programme (FMP) of the Government of India (GOI) and State scheme.

Handbook for flood protection anti-erosion and river training works of Central Water Commission (Flood Management Organisation) provides for structural (flood embankments, drainage/ channel improvement, reservoirs, flood walls and diversion of flood) and non-structural measures (flood forecasting, flood routing through reservoirs and flood plain zoning) to reduce the flood/ erosion, losses and protect the flood plains.

2.3.2 Organisational set up

The Irrigation and Public Health (IPH) Department is looking after the flood protection works in the State. Principal Secretary (IPH) at Government level has overall responsibility for implementation of the projects relating to flood control. Engineer-in-Chief (E-in-C) as Head of Department, E-in-C (Project), Chief Engineers of four IPH zones, Superintending Engineers of 14 circles and Executive Engineers (EEs) of 53 divisions are responsible for survey, planning and preparation of project proposals and execution of works.

The proposals for flood protection works under FMP after securing mandatory clearances from State Technical Advisory Committee (STAC) constituted (May 2006) under the chairmanship of E-in-C and State Planning Commission are finalised for Central Assistance by an Empowered Committee headed by Secretary (Expenditure), GOI for implementation by IPH Department in the State. Works proposed under State scheme after their approval by STAC are taken up on the basis of budget/ funding arrangement approved by the Department.

2.3.3 Audit Objectives

The objectives of the audit were to assess whether:

- Planning for management of floods was done in the State and was comprehensive;
- Approval of projects was in consonance with the priorities set in the state level plan;

¹ Cloud bursts (September 1988) leading to flash floods in Soldang *Khad* in Kinnaur district; flash floods (August 1997) in Shimla, Mandi, Kinnaur, Chamba, Kullu and Una districts; natural calamities (August 2000) leading to unprecedented rise in the water level of Satluj river in Shimla, Mandi and Kullu districts; flash floods (July 2001) in Hamirpur, Kangra, Kullu, Mandi, Solan and Una district; sudden rise/ breach (June 2005) of Parichu river in Chinese territory led to an unprecedented rise of water level of Satluj river in Kinnaur, Kullu, Mandi, Shimla and Sirmour districts and excessive rains/ cloud bursts (July 2005) created flood situation in Satluj, Beas, Pabbar, Ravi, Parvati, Tirthan and Baspa rivers in different parts of the State (Source: Geographical analysis made by Himachal Pradesh University).

- Adequate funds were provided by the GOI and State Government; and
- Implementation of the projects was economic and efficient and monitoring and evaluation was effective.

2.3.4 Audit Scope and Methodology

The performance audit of all seven flood protection projects² (cost: ₹ 1,364.94 crore) approved (2008-13) under FMP of GOI and flood protection works taken up under the State scheme during 2012-17 in the State was conducted by test-check of records of Engineer-in-Chief (E-in-C), Project Director-Central Water Commission (CWC) and EEs of 11 (out of 53) divisions³. Besides, site visits of three⁴ (out of 23) large dams in the State was also conducted. Though there is no State level data of the projects available centrally, we examined all 22 State scheme works of selected divisions (cost: ₹ 75.00 crore) at above units. An entry conference was held with the Principal Secretary (IPH) in March 2017 wherein the objectives, scope, methodology and criteria were discussed. Audit findings were discussed in exit conference with the Principal Secretary in August 2017 and responses of the Government have been incorporated in the Report at appropriate places.

2.3.5 Audit Criteria

The audit criteria used for the performance audit were derived from the following sources:

- Guidelines for the Flood Management Programme issued by GOI in 2007, 2009 and 2013;
- Recommendations of Standing Committee on Water Resources (2013-14);
- National Water Policy (2012) and State Water Policy (2013);
- Minutes of meetings of State Technical Advisory Committee;
- Central Public Works Account Code, Himachal Pradesh Treasury Rules, 2007 and Himachal Pradesh Financial Rules, 2009; and
- Orders/ instructions issued by the Government of India and State Government from time to time.

Audit findings

2.3.6 Planning

2.3.6.1 Scientific assessment of flood prone areas

Scientific assessment of flood prone areas involves use of latest satellite imageries and satellite remote sensing coupled with geographical information system, frequency of flooding, duration and depth of inundation, etc.

² HP-01: Channelisation of Bata river (Paonta Sahib); HP-02: Swan river flood management and integrated land development project (Gagret); HP-03: Flood protection works to Soan *khad* (Sarkaghat); HP-04: Swan river flood management project (Gagret and Haroli); HP-05: Channelisation of Chhounchh *khad* (Indora); HP-06: Providing stabilisation of Seer *khad* and flood control works from Jahoo to Bum (Ghumarwin) and HP-07: Channelisation for tributaries of Bata river (Sunkar- Paonta Sahib).

³ Barsar, Gagret, Ghumarwin, Hamirpur, Haroli, Indora, Kullu, Nalagarh, Paonta Sahib, Sarkaghat and Shahpur.

⁴ Bhakra, Chamera-I and Largi.

On the recommendations of the GOI Expert Committee, the GOI had constituted (January 2014) a Regional Committee under the chairmanship of Additional Chief Secretary (IPH) with Director, Central Water Commission (CWC), Shimla as Member Secretary and 11 members for scientific assessment of flood prone areas in the State. However, the Regional Committee had not adopted definition of flood prone areas and no scientific assessment thereof was done in the State as of June 2017. Thus, the State had not identified the flood prone areas scientifically. In the exit conference, the Principal Secretary admitted the facts and assured that the flood prone areas would be assessed scientifically.

2.3.6.2 Morphological studies

Paragraph 10.3 of National Water Policy (NWP) 2012 envisaged that revetments, spurs, embankments, etc., should be planned, executed, monitored and maintained on the basis of morphological studies⁵ involving mathematical models for judging the capacity of the river to hold total quantity of water estimated to flow.

Audit noticed that as required under paragraph 16.2 of NWP 2012, the provision of morphological studies was not adopted in the State Water Policy 2013. In 13 flood protection projects⁶ approved by the GOI/ State Government during 2012-17, no morphological studies were conducted by the Department.

Further, as per mathematical model studies of two FMP projects (HP-02 and HP-04) on Swan River in Una district conducted (September 2012 and March 2013) by Centre Water and Power Research Station (CWPRS), Pune, catchment area of the projects consisted fragile rock vulnerable to erosion, steep slopes, high drainage density and less forest cover resulting in flash floods in the river. As such, the morphological studies of all the projects would have achieved better results in construction of revetments, spurs and embankments in the area to control and mitigate the disaster likely to be caused by floods. Thus, in the absence of the morphological studies, the flood protection projects/ works were liable to be damaged. The Department did not furnish reasons for the deficiencies.

2.3.6.3 Comprehensive master plan

As per paragraph 19.1 of State Water Policy-2013 and recommendations of Standing Committee on Water Resources (2013-14), the Department was to prepare master plan for flood protection and flood management for implementation of comprehensive plans prepared by Ganga Flood Control Commission (GFCC). Further, six⁷ severely flood affected States were to constitute Implementation Committee headed by the State Principal Secretary to ensure preparation of action plans for implementation of the comprehensive plans in a time bound manner.

Audit observed that the Department had neither prepared basin-wise comprehensive master plan for speedy execution of flood protection projects nor constituted the

⁵ Morphological studies of rivers deal with the change of river plan, form and cross sections due to sedimentation and erosion with dynamics of flow and sediment transport being the principal elements.

⁶ GOI: two FMP projects (HP-05 and HP-07) and State scheme: 11 projects.

⁷ Bihar, Himachal Pradesh, Jharkhand, Uttarakhand, Uttar Pradesh and West Bengal.

implementation committee. No action plan for speedy implementation of the flood protection projects in a time bound manner was prepared. Thus, the observations of the Standing Committee were not complied with and the Department had taken up emergent flood protection measures without taking into account the comprehensive plan of GFCC. In the absence of proper planning, the coverage of flood protection measures in the flood prone area was quite low as out of 2.31 lakh hectare estimated flood prone areas of the State, only 25,116.21 hectares (11 *per cent*) could be covered as of March 2017. In the exit conference, the Principal Secretary assured the preparation of the comprehensive master plan in future.

2.3.6.4 Frequency based flood inundation maps and digital elevation maps

Clause 10.6 of National Water Policy-2012 provides for preparation of frequency based flood inundation maps to evolve strategies/ methods for coping with floods including supply of safe water during and immediately after floods. Further, as per Recommendation-28 of Standing Committee on Water Resource (2013-14), the digital elevation maps were to be prepared to demarcate the flood affected area in the State.

Audit noticed that the Department had not prepared the frequency based flood inundation maps and digital elevation maps during 2009-17. Thus, critical estimates of flood prone areas and probability of getting floods was not taken into account in planning the flood protection projects during above period. Besides, non-preparation of digital elevation maps led to non-demarcation of various flood zones digitally and absence of scientific images of the flood affected areas in the State. In the exit conference, the Principal Secretary stated that inundation maps were being prepared in Una district. However, no document thereof was provided to audit by the Department.

2.3.6.5 Legislation for flood plain zoning

Flood plain zoning measures aim at demarcating zones or areas likely to be affected by floods of different magnitudes or frequencies of probability levels and specify the types of permissible development in these zone so as to minimise the damage due to floods.

As per Recommendations-28 of Standing Committee (2013-14), the State was required to enact legislation for the flood plain zoning to prevent encroachments and non-permissible activities in the areas located in the flood plain zone.

Audit noticed that necessary legislation for the flood plain zoning was not enacted in the State as of June 2017. Due to non-enactment of the flood plain zoning, the Department was also unable to avoid/ minimise the risk of damages in flood events, if any. In spite of assurance in the exit conference, the Department did not furnish reasons for the same.

2.3.6.6 Preparation of glacial lake outburst flood and landslide dam break floods studies

With a view to increase preparedness for sudden and unexpected flood related disasters in hilly reaches, clause 10.7 of National Water Policy 2012 provides for glacial lake outburst flood and landslide dam break flood studies with periodic monitoring alongwith instrumentation. Audit noticed that specific studies on glacial lake outburst

flood and landslide dam break floods were not carried out by the Department in State during 2012-17. The Department had not evolved any early warning system in the State as of June 2017. Though asked for (March 2017), the Department did not furnish reasons for the same.

2.3.6.7 Mathematical study of channelisation of Beas river

With a view to carry out mathematical model study for channelisation of Beas River from Shah Nehar Barrage to Mirthal bridge including four *khads* (length: 16 kms.) in Kangra district, Executive Engineer, Indora division released (November 2013) ₹ 19.75 lakh to Central Water and Power Research Station (CWPRS), Pune.

Audit noticed that the CWPRS had not conducted the requisite study as of May 2017 due to non-providing of topographic, hydraulic and sediment data for the study by the Department. For the survey data required (August 2014) by the CWPRS Pune, the division awarded (May 2016) the work to a firm for ₹ 20.71 lakh with a stipulation to complete it by February 2017. However, the firm had not commenced the work as of May 2017 and the Department had not initiated any action in the matter. Thus, failure of the Department to provide the survey data to CWPRS had resulted in non-completion of the mathematical model study for more than three years.

The EE of the division stated (May 2017) that the initiative was delayed due to non-availability of sufficient funds for survey data. The fact, however, remains that the division should have taken into account all these aspects earlier and secured sufficient funds.

2.3.6.8 Approval of flood protection proposals

The flood protection proposals are initially approved by STAC before their further processing for securing funding for their execution. Audit noticed that out of 25 flood protection proposals (estimated cost: ₹ 3,669.81 crore) approved by STAC during 2012-17, two FMP projects (HP-04 and HP-05) involving estimated cost of ₹ 1,102.08 crore approved by GOI (2013) and three projects having estimated cost of ₹ 3.94 crore approved under the State scheme, were only taken up for execution during above period. Thus, taking up the execution of only five projects out of 25 approved during 2012-17 indicated that the Department could not take up the remaining projects expeditiously and secure funds for the same.

2.3.6.9 Non-planning of other flood protection measures

Paragraph 1.6 of CWC (Flood Management Organisation) Handbook for flood protection anti- erosion and river training works provides for structural and non-structural measures to reduce the flood/ erosion, losses and protection of the flood plains.

The details of structural and non-structural measures in respect of the seven FPM projects in the State are depicted in Table 2.3.1:

Table-2.3.1:- Details of structural and non-structural measures in respect of seven FMP projects

Structural measures	HP-01	HP-02	HP-03	HP-04	HP-05	HP-06	HP-07
Flood embankments	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Drainage improvements	No	Yes	No	Yes	No	No	No
Channel improvement	No	No	No	No	No	No	No
Reservoirs	No	No	No	No	No	No	No
Flood Wall	No	No	No	No	No	No	No
Diversion of flood water	No	No	No	No	No	No	No
Non-structural measures	HP-01	HP-02	HP-03	HP-04	HP-05	HP-06	HP-07
Flood forecasting	No	No	No	No	No	No	No
Flood routing through reservoirs	No	No	No	No	No	No	No
Flood Plain Zoning	No	No	No	No	No	No	No
Disaster Preparedness	No	No	No	No	No	No	No

Source: Information supplied by Department.

Thus, in spite of CWC guidelines and mathematical study of CWPRS, except embankments (all projects) and drainage improvement (HP-02 and HP-04), other structural and non-structural measures were not planned and executed without which the flood/ erosion and losses would not be reduced effectively. Though asked for (March-April 2017), the EEs did not furnish reasons for the same.

2.3.7 Funding arrangements

Being Special Category State, the funding for the flood protection projects under FMP was shared by the GOI and State Government in the ratio of 90:10 upto July 2013 as per paragraph 4.2 of FMP guidelines, 2009 and thereafter in the ratio of 70:30 as per paragraph 5.3.3 of FMP guidelines, 2013. The central assistance was to be released in two instalments in a financial year. The first instalment equal to 50 *per cent* of central share provided in the Annual State Budget was to be released after submission of a certificate of release of full matching State share and the second instalment of GOI share was to be released after submission of certain certificates⁸ by the State Government and in the case of flood protection works under State scheme, the funds are provided under the State budget.

2.3.8 Execution of projects under Flood Management Programme (GOI)

2.3.8.1 Availability and utilisation of funds

Details of availability and utilisation of funds against the projects approved under FMP during 2008-17 are depicted in Table 2.3.2:

⁸ Utilisation certificate for utilisation of 50 *per cent* of central share released earlier, recommendation of the monitoring agency, corresponding budget provision made by the State and submission of certificate for release of full State share.

Table-2.3.2: Details of availability and utilisation of funds under FMPs during 2008-17

(₹ in crore)

Project code and Division	Year of approval	Approved cost		Funds released		Exp.	Shortfall in GOI share
		GOI share	State share	GOI share	State share		
HP-01 Paonta Sahib	2009	31.20	3.47	16.20	18.27	34.55	15.00
HP-02 Gagret	2008	165.84	18.43	155.29	55.74	211.02	10.55
HP-03 Sarkaghat	2011	5.74	0.64	3.19	3.18	6.35	2.55
HP-04 Gagret/ Haroli	2013	645.74	276.75	163.35	221.32	384.70	482.39
HP-05 Indora	2013	125.71	53.88	5.21	17.04	23.00	120.50
HP-06 Ghumarwin	2011	20.85	2.32	4.99	9.27	13.76	15.86
HP-07 Paonta Sahib	2012	12.93	1.44	2.42	10.86	11.98	10.51
Total		1,008.01	356.93	350.65	335.68	685.36	657.36

Source: Departmental figures. Exp.: Expenditure.

Against approved cost, there was short release of ₹ 657.36 crore by GOI and ₹ 21.25 crore by State Government during 2008-17. Resultantly, there was delay of more than 12 to 60 months in execution/ completion of the projects as indicated under paragraph 2.3.8.2.

2.3.8.2 Physical and financial progress

As per clause 4.9 of FMP guidelines, 2009 the flood management works of critical nature, should be completed in a time bound manner, within a maximum of two to three financial years. The physical and financial progress of all the seven projects is depicted below:

Table-2.3.3: Details of execution of projects under FMP

(₹ in crore)

Project code	Approval of project		Stipulated month/ year of completion	Length of embankment (kms)		Exp.	Actual date of completion	Delay in months upto March 2017
	Year	Cost		Target	Achieved			
HP-01	2009	34.67	March 2012	18.470	16.660	34.55	In progress	60
HP-02	2008	184.27	March 2013	56.680	56.680	211.02	March 2013	Nil
HP-03	2011	6.38	September 2012	3.715	4.727	6.35	October 2016	48
HP-04	2013	922.49	March 2017	387.580	167.339	384.70	In progress	*
HP-05	2013	179.59	March 2017	68.000	16.000	23.00	In progress	*
HP-06	2011	23.17	March 2014	2.900	2.867	13.76	March 2015	12
HP-07	2012	14.37	March 2013	11.650	11.600	11.98	October 2016	42
Total		1,364.94		548.995	275.873	685.36		

Source: Departmental figures. * Likely to be delayed in view of physical/financial progress.

- All the seven flood protection projects approved during 2008-13 were required to be completed between March 2012 and March 2017. Of four projects completed (between March 2013 and October 2016), there was delay of 12 to 48 months in completion of three projects (HP-03, HP-06 and HP-07). The delay in completion of the projects was attributed to short release of funds under the FMP by the GOI.
- Of the remaining three projects in progress as of March 2017, project (HP-01) had already been delayed by more than 60 months from the stipulated date of completion.

- Against 548.995 kms embankment to be constructed under the projects, embankment of only 275.873 kms (50 *per cent*) could be constructed during 2009-17.
- In case of HP-05 embankment of only 16 kms against target of 68 kms could be constructed though the project was to be completed by March 2017.

Thus, due to undue delay in construction of flood protection works, the intended benefits of reclaiming of land to be utilised for agriculture, horticulture, fisheries or other economic activities, etc., could not be derived in a timely manner.

2.3.8.3 Project wise deficiencies

HP-01: Channelisation of Bata river (Paonta Sahib)

The project approved by GOI (January 2009) for ₹ 34.67 crore under Paonta Sahib division, required to be completed by March 2012 was under progress after incurring an expenditure of ₹ 34.55 crore (March 2017). The Executive Engineer attributed the delay to slow pace of work by the contractor.

HP-02: Swan river flood management and integrated land development project (Gagret)

Non-execution of integrated development works and cost overrun

Against approved (October 2008) cost of civil works of ₹ 184.27 crore, the project was completed (March 2013) at a cost of ₹ 211.02 crore. The excess expenditure of ₹ 26.75 crore incurred without approval of GOI was irregular.

Besides, the DPR of the project included integrated development of 5,000 hectares at an estimated cost of ₹ 20.27 crore (Fisheries works in 400 hectares: ₹ 10.58 crore, Horticulture works in 670 hectares: ₹ 4.38 crore, Forestry works in 1,330 hectares: ₹ 2.92 crore and Agriculture works in 2,600 hectares: ₹ 2.39 crore). However, execution of the integrated development works by the concerned departments was not on the records of the Gagret division. Resultantly, accretion of intended project benefits of ₹ 46.67 crore (projected in the DPR) could not be verified in audit. The Department had not monitored the actual execution of the integrated development works of the project by the concerned departments so as to ascertain the intended benefits derived, if any.

The EE concerned stated (March 2017) that cost overrun of the project was due to increase in the rates of material and labour and integrated development works were not executed due to the fact that the concerned departments had already been carrying out such type of activities in their respective fields. Audit is of the view that the Department had not ensured the actual execution of integrated development works by the concerned departments.

HP-03: Flood protection works on Soan *khad*

In flood protection work on Soan *Khad* from Sayathi Awal to Kalswai-Dharampur in Mandi district (Sarkaghat division) under FMP project HP-03 approved (September 2011) by GOI for ₹ 6.38 crore, the specified apron⁹ was not constructed in kms 3.775

⁹ Apron is thick stone cover to protect the face of the guide bank at the river bed level.

and the height of the embankment at Tawari *nallah* in kms 0.232 was reduced to 1.25 metres from the specified height of 2.5 metres. Incidentally, 0.310 kms embankment was damaged (August 2014) in floods which had not been rectified as of May 2017. Thus, flood protection work was executed below specification. The EE concerned did not furnish reasons for the same.

HP-04: Swan river flood management project (Gagret and Haroli)

The project was approved (September 2013) by the GOI at estimated cost of ₹ 922.49 crore and was scheduled to be completed by March 2017. However, the project had not been completed due to short release of funds by GOI and expenditure of ₹ 384.70 crore (42 *per cent*) only had been incurred on it upto March 2017. Audit noticed that:

(i) Against the provision of ₹ 0.30 crore for complete survey and investigation alongwith preparation of working estimates under 'Preliminary' component in the DPR, the EE of Gagret division had incurred expenditure of ₹ 1.24 crore resulting in excess expenditure of ₹ 0.94 crore without approval of the GOI. Further, expenditure of ₹ 2.58 crore was incurred by EE of Haroli division during November 2014 to March 2016 on construction of flood monitoring centre at Ghaluwal (₹ 2.40 crore) and additional office accommodation (₹ 0.18 crore) at Haroli without any provision thereof in the DPR of the project. The diversion of funds beyond the scope of the DPR would result in shortage of funds under the project thereby hampering the execution of other works/ components.

The EE of Gagret division stated (April 2017) that the excess expenditure would be adjusted against the other components of the project. The EE of Haroli division stated (March 2017) that the expenditure on monitoring centre and office accommodation was incurred after obtaining the sanction of Swan Channelisation Authority. The replies, however, do not explain the reasons for incurring expenditure beyond the scope of the DPR and the Swan Channelisation Authority constituted (February 2014) by the State Government for monitoring the execution of the project was not competent to sanction changes in the DPR approved by the GOI under FMP.

(ii) Construction of earthen embankment¹⁰ including wire crated apron, stone pitching, etc., on both sides of Mawa Kuthera Jaswalan *Khad* (length: 2.0 kms) on right bank of Swan River under FMP (HP-04) under Gagret division was awarded (January 2015) to a firm at a tendered cost of ₹ 3.31 crore and stipulated to be completed by July 2015. The contractor started the work in January 2015. However, after execution of the work of value of ₹ 1.80 crore, the contractor stopped (July 2015) the work due to private land dispute in 0.781 kms on both sides of the *Khad*. The work was taken up without ensuring the encumbrance free site in spite of the fact that the land dispute was already in the notice of the Department. The work was lying in a suspended state as of March 2017 and the expenditure already incurred remained largely unfruitful.

¹⁰ Length: 2.000 kms (both sides of *Khad* at kms 37.500/1.000 to 2.000).

The EE of the division stated (March 2017) that it was in the knowledge of the Department that the private land was involved on the alignment of the work and efforts were being made to resolve the issue.

(iii) Undue favour to contractor due to non-execution of work

Audit noticed that the construction of earthen embankment including wire crated apron, stone pitching, etc., on both side of Una *Khad* (Kms 11.590/0 to 5.500) on left bank of Swan River under FMP HP-04 under Gagret division was awarded (June 2014) to a firm at a tendered cost of ₹ 4.50 crore with a stipulation to complete it by January 2015.

The firm started the work in October 2014. After execution of the work of the value of ₹ 2.09 crore, the firm stopped the work (September 2015) without assigning any reasons. In spite of repeated notices (February 2015 to December 2015) from the EE of the division, the firm did not execute/ resume the work. The Department had not taken any action for levy of compensation of ₹ 0.45 crore for delay on the firm as per clause-2 of the contract. Besides, the division had issued (April 2015) material worth ₹ 0.59 crore¹¹ to the firm which also had not been recovered as of March 2017. Evidently, non-initiation of action for breach of the contractual obligations led to extension of undue financial benefits to the firm. Though asked for (March 2017) the EE did not furnish reasons for the lapse.

HP-05: Channelisation of Chhounchh *khad* (Indora)

The project approved by GOI (July 2013) under Indora division with a stipulation to complete by March 2017, was still incomplete.

(i) Irregular laying of sand below geo textile

As per DPR and mathematical study report (April 2012) of Central Water and Power Research Station, Pune in FMP project HP-05, a 15 cm thick layer of coarse sand or gravel was required to be provided over the geo-textile¹² (geo-fabric as filter) to avoid damage to the geo-fabric during placement of stones in crates.

Audit noticed that contrary to above provisions, in works of the value of ₹ 2.28 crore (excluding excavation work) of the project executed upto March 2015, the placement of sand layer was below (instead of above) the geo-textile filter. Thus, the work was not executed by the contractor as per specification which would affect the life cycle of flood protection work. The EE stated (May 2017) that the sand was laid below the geo-textile inadvertently.

(ii) Non-testing of geo-textiles

Central Water Commission had issued guidelines (June 2012) under which it was required to get tests of geo-textile filters conducted. Further as per condition 22 of term and conditions of contract award letter geo-textile supplied by the contractor, was to be got tested from Government agency/ institution at his own cost. Audit noticed that in Indora division (FMP HP-05) geo-textile of 57,510 square metre valuing ₹ 49.74 lakh

¹¹ Galvanised iron wire: 90 MT (₹ 57.48 lakh); cement: 200 bags (₹ 0.52 lakh) and tor steel 2.00 MT (₹ 1.01 lakh).

¹² Multifilament yarn sheet used to prevent the structural fill from being washed into the rock voids in the event of a rainfall and to drain off excess water from the structural fill.

was laid by two contractors but the requisite tests were not got conducted through any Government laboratory. Thus, quality specifications of the geo-textile filter could not be ensured. The EE stated (May 2017) that the requisite tests were not got conducted inadvertently.

HP-06: Providing stabilisation of Seer *khad* and flood control works from Jahoo to Bum (Ghumarwin)

As per paragraph 10.1 of FMP guidelines, 2013, on completion of FMP project, the State Government was to submit a completion report giving brief account of the project approved, works actually executed, details of expenditure incurred, etc. Audit noticed that FMP project (HP-06) approved by GOI (September 2011) for ₹ 23.17 crore under Ghumarwin division was completed in March 2015 after expenditure of ₹ 13.76 crore. However, the project completion report thereof had not been sent to the GOI as of August 2017. The EE of the division had not furnished the reasons for the same.

Besides the above, as required under Central Water Commission guidelines (June 2012) indicated under point (ii) of FMP HP-05 *ibid*, geo-textile of 28,001.95 square metre valuing ₹ 25.35 lakh was laid by two contractors in Ghumarwin division (FMP HP-06) without conducting the requisite tests through any Government laboratory.

HP-07: Channelisation for tributaries of Bata river (Sunkar- Paonta Sahib)

It was noticed that:

(i) Non-integration of embankment

According to Section 4.1 of FMP guidelines, 2009 flood management works were to be taken up in an integrated manner covering entire river/ tributary or a major segment of rivers/ tributaries.

Audit noticed that project approved by GOI in 2012 for ₹ 14.37 crore was completed in October 2016 at a cost of ₹ 11.98 crore. However, the division had not made provision of embankment and apron in kms 3.450 (1.650 to 5.100) due to forest land. Resultantly, the flood protection works were not executed in the area.

Thus, due to non-integration of the flood management works soil erosion was noticed at site as depicted in the following photographs:



The concerned EE stated (April 2017) that the provision of embankment was not kept in the portions where forest land was involved. The reply was not acceptable as the Department had neither sought clearance for flood protection works in the forest land nor made provision for embankment or other flood protection measures in the DPR so as to protect the area from floods effectively.

(ii) Non laying of geo-textile

Audit noticed that three flood protection works under the project were awarded (February 2014) to three contractors at tendered cost of ₹ 7.13 crore¹³. The works had been completed (between December 2015 and April 2016) and the division had paid ₹ 7.06 crore to the contractors. However, against geo-textile of 46,500 square metre required to be provided and laid in the embankment (25,976 square metre) and apron (20,524 square metre), the contractor had provided and laid the geo-textile in embankment only whereas geo-textile was not provided and laid in the apron. Due to non-laying of the geo-textile, the boulders in the apron had been disturbed by erosion in the base of apron (Photographs). Besides, the disturbance of apron would also damage the embankment.



The EE of the division confirmed the facts and stated (April 2017) that the geo-textile was not laid below the launching apron as per the verbal directions of higher authorities.

2.3.9 Execution of flood protection works under State Scheme**2.3.9.1 Budget allotment and expenditure under State scheme**

Details of budget allocation and expenditure incurred thereagainst for flood protection works under State scheme during 2012-17 are depicted below.

Table-2.3.4: Details of budget allocation and expenditure under State scheme during 2012-17
(₹ in crore)

State as a whole			
Year	Budget	Expenditure	Excess(+)/ Saving (-)
2012-13	13.03	13.04	(+) 0.01
2013-14	3.69	3.70	(+) 0.01
2014-15	2.01	2.09	(+) 0.08
2015-16	8.44	8.44	--
2016-17	10.23	10.22	(-) 0.01
Total	37.40	37.49	

Source: Appropriation Accounts for State.

It is observed that budget of ₹ 37.40 crore was approved for the flood protection works under State scheme during 2012-17. Flood protection proposals with an estimated cost of ₹ 3,669.81 crore were approved by STAC (under Central and State funding) during

¹³ Embankment and apron on left bank in kms 2.350 to contractor-I (Agreement 273 of 2013-14): ₹ 2.05 crore; embankment and apron on right bank in kms 2.350 to 4.700 to contractor-II (Agreement 274 of 2013-14): ₹ 3.08 crore and embankment and apron on left side of Khala *khad* in kms 0.300 to 1.200 and kms 1.250 to 1.650 to contractor-III (Agreement 277 of 2013-14): ₹ 2.00 crore.

2012-17 and meagre funds were provided by the State under the State scheme. Besides, due to non-availability of sufficient funds, there was also delay in execution/ completion of many flood protection works under State scheme as indicated under paragraph 2.3.9.2.

2.3.9.2 Status of execution

The data of execution of flood protection works under State scheme during 2012-17 had not been maintained/ consolidated at E-in-C level. The details of flood protection works approved and executed during above period in the test-checked divisions are depicted below:

Table-2.3.5: Details of flood protection works sanctioned and executed under State scheme in test-checked divisions during 2012-17

Year	Works sanctioned		Works started		Completed		Incomplete as of March 2017	
	No	Amount	No.	Amount	No.	Exp.	No.	Exp.
Prior to April 2012	11	59.70	11	59.70	7	20.11	4	3.25
2012-13	2	1.31	2	1.31	2	1.32	0	0.00
2013-14	2	1.49	2	1.49	2	1.51	0	0.00
2014-15	4	4.90	4	4.90	1	0.85	3	2.96
2015-16	2	0.95	2	0.95	1	0.16	1	0.56
2016-17	1	6.65	0	0.00	0	0.00	0	0.00
Total	22	75.00	21	68.35	13	23.95	8	6.77

Source: Departmental figures. Note: Exp.: Expenditure.

Eight incomplete flood protection works sanctioned (between July 2008 to September 2015) were lagging behind their scheduled date of completion by more than 10 to 96 months as of June 2017 though expenditure of ₹ 6.77 crore had been incurred on these works. Thus, the pace of execution of the flood protection work was very slow and the divisions failed to derive the intended benefits in a timely manner.

2.3.10 Tendering and contract management

2.3.10.1 Non restoration of damages

Construction of earthen embankment including crated apron, stone pitching, etc., from kms 1.000 to 5.000 on both sides of Chhounchh *khad* under FMP HP-05 in Indora division was awarded (July 2015) to a contractor for ₹ 14.54 crore and stipulated to be completed by April 2016.

Audit noticed that the contractor started the work in December 2015 and did not achieve the pace of the work as work valuing ₹ 6.29 crore (43 *per cent*) only could be executed upto June 2016. The contractor left the work unexecuted in June 2016 without assigning any reasons. The Department did not initiate action for levy of compensation of ₹ 1.45 crore (10 *per cent* of the awarded amount) for delay in terms of clause-2 of the contract.

Further, out of 4.000 kms embankment and apron required to be constructed on both sides, embankment was not constructed in kms 2.410 (right side: kms 0.885 and left side: kms 1.525) and apron was not executed in kms 3.778 (right: kms 1.587 and left: kms 2.191). Due to non-construction of embankment and apron in an integrated manner, the executed work got damaged at various locations during rainy season-2016 resulting in loss of work executed to the extent of ₹ 1.67 crore. As per terms and

conditions of the contract, in case any damage/ loss to the work due to slow progress, the contractor was liable to restore the damages/ losses or the amount at double rates was to be recovered from him. However, the Department had neither taken action to get the damaged work restored nor effected recovery of loss of ₹ 3.34 crore at double rates from the contractor as per the conditions of the contract.

Thus, non-levy of compensation for delay (₹ 1.45 crore) and non-recovery of loss of the damaged work (₹ 3.34 crore) as per the provisions of the contract led to extension of undue financial benefits to the contractor. The EE stated (May 2017) that in spite of directions, the contractor had not resumed the work and necessary action would be taken as per terms and conditions of the contract.

2.3.10.2 Performance Bank Guarantee from contractors

As per clause 21.1 of Central Public Works Manual (CPWM), the successful tenderer was to deposit an amount equal to five *per cent* of the tendered amount as performance guarantee. Audit noticed that:

- Out of 16 contracts (between May 2014 and February 2016) in three FMPs (HP-02, HP-04 and HP-05), the clause of performance bank guarantee in five contracts was kept at the rate of five *per cent* of the tendered amount whereas in the remaining 11 contracts, the same was kept at the rate of two and half *per cent* of the tendered amount (₹ 86.87 crore) which resulted in short-receipt of performance guarantee of ₹ 2.17 crore from the contractors.
- In one contract (July 2015) of FMP HP-05, against performance bank guarantee of ₹ 0.36 crore required to be obtained, only ₹ 0.12 crore had been obtained from the contractor.
- In FMP HP-04, performance bank guarantee of ₹ 2.22 crore obtained from 12 contractors against the tendered cost of ₹ 75.80 crore had expired (between February 2015 and November 2016)) whereas the works had not been completed and the division had also not renewed the same as of March 2017.
- In 23 contracts (between March 2007 and February 2016) of FMPs HP-01, HP-05 and HP-07, the required performance bank guarantee of ₹ 2.55 crore was not obtained from the contractors.

Thus, variation in the contract clause and non/ short obtaining of performance bank guarantee from the contractors in violation of the provision of the CPWM *ibid* resulted in extension of undue favour to the contractors besides jeopardising the public interest against losses. The EEs stated (March-May 2017) that the matter would be taken up with the contractors to revalidate the performance bank guarantee.

2.3.10.3 Irregular payment due to non-approval of deviation

Paragraph 24.2.4 of CPWM provides that any deviation necessitated during execution of the work should have prior approval of the competent authority. Audit noticed that in respect of 14 works of three FMPs in three divisions awarded (between March 2007 and October 2012) at a tendered cost of ₹ 25.57 crore which had been completed (between August 2010 and March 2015) the EEs had paid ₹ 29.85 crore to the

contractors upto March 2017. Thus, payment of ₹ 4.28 crore¹⁴ made to contractors over and above the amount of contracts without approval of deviations from the competent authority was irregular.

The concerned EEs stated (March and April 2017) that final bills of the contractors had not yet been paid due to non-approval of deviation. The reply was not acceptable as the EEs of the divisions should have secured prior approval of deviation from the competent authority.

2.3.10.4 Extra expenditure due to split up of works

The estimate of FMP HP-07 under Paonta Sahib division having approved cost of ₹ 14.37 crore was split-up (February to August 2014) into five jobs with a view to execute the work speedily, achieve the targets and utilise the funds. A comparison of item rates of the jobs awarded to different contractors revealed variations, which resulted in excess payment of ₹ 1.71 crore to contractors due to higher items rates under respective contracts which could have been avoided. Moreover, intended objective of speedy execution of works was not achieved as the works were completed after delay of nine to 14 months from stipulated date of completion.

The EE stated (April 2017) that the work was split up for speedy execution and entire process for tendering was adhered to. The reply is not acceptable as the split up resulted in uneconomical execution besides delay in completion of the works.

2.3.10.5 Non-recovery of royalty of minerals from contractors

As per terms and conditions of contract, royalty for stone/ boulders, earth, sand and stone aggregate used in the works as per rates approved by the State Mining Department is to be made good by the contractors. For this purpose, the division is either to obtain royalty receipts (issued by mining department) from the contractors or effect recoveries from as per the approved rates. Audit noticed that in respect of works of seven FMP projects executed during 2009-16, against royalty of ₹ 6.66 crore¹⁵ to be recovered from the contractors for stone/ boulders, earth, sand and stone aggregate used in the works, the EEs of the concerned divisions had recovered ₹ 2.28 crore leaving unrecovered balance of ₹ 4.38 crore as of April 2017. The concerned EEs stated (February-April 2017) that necessary recovery would be effected from the contractors shortly.

2.3.11 Management of funds

2.3.11.1 Irregular drawl of funds

Rule 2.10(b) (5) of Himachal Pradesh Financial Rules (HPFRs), 1971 and Rule 5.71(c) of Himachal Pradesh Treasury Rules (HPTRs), 2007 stipulate that no money should be drawn from treasury unless it is required for immediate disbursement. Audit noticed that:

¹⁴ Ghumarwin: HP-06 (₹ 2.88 crore), Paonta Sahib: HP-01 (₹ 0.70 crore) and Sarkaghat: HP-03 (₹ 0.70 crore).

¹⁵ FMP projects HP-01: ₹ 1.66 crore, HP-02 and HP-04: ₹ 2.37 crore, HP-03: ₹ 0.28 crore, HP-05: ₹ 0.77 crore, HP-06: ₹ 0.37 crore and HP-07: ₹ 1.21 crore.

- Executive Engineer (EE) of Paonta Sahib division on the basis of letter of credit (LOC) received from the SE, Nahan withdrew ₹ 32.42 crore¹⁶ from treasury during last week of financial years 2006-15 and showed it as final expenditure against flood protection works not actually executed on the ground. The divisions further transferred the amount to local sub-divisions which kept the funds under deposit head. Of this, expenditure of ₹ 22.44 crore was incurred in the subsequent years and balance of ₹ 9.98 crore was lying unspent under deposit head for more than two to four years.
- Executive Engineers of five test-checked divisions¹⁷, on the basis of LOC received from the concerned SEs, withdrew ₹ 35.06 crore from treasury during last week of financial years 2012-15 and showed it as final expenditure against flood protection works. The divisions further transferred the amount to other divisions or to local sub-divisions on the same day. However, in the subsequent financial years, the same were accounted for under head 'Public Works Deposits'. The division had utilised ₹ 35.01 crore¹⁸ in the subsequent financial years, and ₹ 0.05 crore transferred (March 2014) by Haroli division were lying unutilised with Gagret division for more than three years. Evidently, withdrawal of ₹ 35.06 crore from treasury without immediate requirement in contravention of the rules *ibid* was irregular.

Thus, parking of regular budgetary funds in deposit head to avoid its lapse and merely booking of expenditure to works also resulted in depiction of incorrect expenditure without actual execution of works.

The EEs of concerned divisions stated (March and April 2017) that the funds were drawn to avoid lapse of LOC or allotment at the fag end of the financial year. The replies, however, do not explain the reasons for withdrawal of amount from treasury without actual execution of the works.

2.3.11.2 Irregular purchase of vehicle

Flood Management Programme guidelines, 2009 do not provide for purchase of vehicle. Audit noticed that contrary to this provision, the EE of Gagret division purchased (October 2014) one vehicle for ₹ 15.14 lakh and charged the expenditure to FMP project (HP-04) even though there was no provision for the same in the approved detailed project report (DPR). Further, the purchased vehicle was not being used for the purpose of inspection/ supervision of the flood protection works executed under the project. Rather, it was transferred to Shimla Division-I.

The EE stated (March 2017) that the vehicle was purchased for Vice-Chairman, State Water Management Board in order to monitor the overall activities of the Department in the State. The reply is not acceptable as to monitor the activities of the Department, the funds should have been met out of the State budget.

¹⁶ 2006-07: ₹ 2.41 crore; 2008-09: ₹ 2.51 crore; 2009-10: ₹ 5.83 crore; 2010-11: ₹ 10.22 crore; 2012-13: ₹ 4.65 crore; 2013-14: ₹ 5.53 crore and 2014-15: ₹ 1.27 crore.

¹⁷ Haroli: 2013-15 (₹ 4.25 crore); Ghumarwin: 2014-15 (₹ 5.87 crore); Gagret: 2014-15 (₹ 15.94 crore); Indora: 2014-15 (₹ 2.65 crore) and Sarkaghat: 2011-12 (₹ 6.35 crore).

¹⁸ 2013-14: ₹ 3.50 crore; 2014-15: ₹ 2.17 crore; 2015-16: ₹ 29.17 crore; and 2016-17: ₹ 0.17 crore.

2.3.11.3 Irregular charging of contribution towards annual subscription

Audit noticed that the EE of Paonta Sahib division had released (March 2010) ₹ 30.00 lakh to the Accounts Officer, Ministry of Water Resources, GOI on account of annual subscription of Upper Yamuna Board by debiting the expenditure to flood protection works of FMP project (HP-01) whereas there was no provision thereof in the detailed project report. Besides, complete details/ documents in support of the payment were not available on records of the division. The Executive Engineer of the division did not furnish reasons for non-availability of details/ documents of the payment.

2.3.11.4 Inadmissible expenditure incurred prior to approval

As per clause 4.10.3 of FMP guidelines, 2009 central assistance towards the expenditure incurred by the State Government on a project in the previous financial year(s) before its approval by the Empowered Committee (EC) would not be entertained.

Audit noticed that FMP project HP-01 under Paonta Sahib division was approved by the GOI in January 2009 whereas the project had already been started in 2006-07. Contrary to the above provisions, the central funds of ₹ 11.02 crore had been adjusted against the expenditure already incurred on the project prior to the approval of the project by GOI which was irregular and should not have been taken into account while releasing the funds for the project in future.

2.3.12 Flood forecasting, emergency action plan/ disaster management plan

2.3.12.1 Flood forecasting

'Flood forecasting' as a non-structural measure is recognised as effective tool for flood management by providing advance warning to flood prone area. During audit of seven FMPs projects and 22 projects/ works under State scheme, it was noticed that:

- In order to modernise snow-melt runoff forecasting system, snow hydrology division of CWC, Shimla was established in May 1984. However, the division had not conducted flood forecasting in the State as of March 2017.
- For developing a robust flood forecasting system, the Regional Committee for scientific assessment of flood prone area advised (September 2014) the Director, CWC to take up the matter with the State Energy Department to collect/ share related information and real time data available with project authorities/ independent power producers but no progress had been made as of March 2017.

Thus, basic data for undertaking flood protection works was not obtained/ collected indicating the lacklustre attitude of the State Government and monitoring agencies.

2.3.12.2 Emergency action plan

The State Government constituted (August 2013) a Dam Safety Organisation to look into various dam safety aspects of large dams. The Dam Safety Organisation is also a member of National Committee on Dam Safety as per GOI orders (October 2015). Out of 23 large dams in the State, 18 have been commissioned and five are under construction. Audit noticed that:

- Emergency Action Plan (EAP) for all 18 commissioned dams had been prepared. However, the inundation maps for dam break eventuality indicating the low lying area and nearby high level ground/ areas where the affected people could be shifted in case of dam break in respect of two (out of three) selected dams (Bhakra and Chamara-I) had been prepared whereas the inundation maps in respect of the third selected dam (Largi) had not been prepared as of May 2017.
- The glacial lake outburst flood and landslide dam break floods studies with periodic monitoring alongwith instrumentation were not undertaken by any of the selected dams as required under para 10.7 of National Water Policy.

2.3.12.3 Compliance of disaster management plan and dam safety regulation

As per directions (June 2014) of the State Government, the owners of all dams/ barrages of hydroelectric power (HEP) projects were to comply with the provisions of "Disaster Management Plan (DMP)" and "Dam Safety" regulations in line with the CWC guidelines after an incident in which 24 students and one tour operator were washed away in river Beas owing to sudden release of water from Largi dam. However, there was no co-ordination amongst different Departments/ wings of the State Government indicating lack of preparedness and heightened risk of damage in the case of any eventuality. The IPH Department responsible for flood protection and control in the State had also not been specifically involved for DMP and Dam Safety regulations as per State Government directions (June 2014) *ibid*. The following deficiencies were noticed during site visits of selected dams:

- No Dam Safety Cell was created for implementation of dam surveillance programme by any of the selected dam authorities.
- As required, no disaster management cell was constituted by any of the selected dam authorities at each project site to ensure immediate response with regards to relief and rescue operation.
- As required, the scientific and technical instruments including strain metre, stress metre, joint metre, upliftment measurement devices, piezometer, etc., for the purpose of ensuring the safety of dam and the life and property of people downstream were installed. However, these were not functioning in the selected dams as of May 2017.
- In all the three selected dams, against the required 18 pre/ post-monsoon inspections, nine inspections¹⁹ were carried out by the dam authorities during 2014-17 resulting in shortfall of nine inspections. The compliance of observations in the inspection reports of Bhakra dams had not been made as of May 2017.
- As required, no third party inspection (every three years) of the selected dams for monitoring the comprehensive safety evaluation comprising of review and analysis of available data on the design, construction, operation, maintenance and performance of the structure; general assessment of hydrologic and hydraulic conditions with mandatory review of design floods as defined in the CWC guidelines, etc., was carried out.

¹⁹ Bhakra Dam: five, Largi Dam: one (pre monsoon 2015) and Chamara-I: three.

- As required the dam authorities were required to carry out mock drill to judge the efficacy of Emergency Action Plan (EAP)/ Disaster Management Plan (DMP) for keeping the staff and downstream habitants to prepare for any eventuality. As per information supplied by the Directorate of Energy, out of 18 completed dams, mock drills were conducted by ten dams whereas no mock drill was conducted by the remaining eight dams. In selected dams, only four mock drills were conducted by two dam authorities²⁰ whereas no mock drill was conducted at Lurgi dam as of May 2017.
- Risk assessment study as required under central dam safety organisation, had not been conducted in respect of any of the selected dams.
- Comprehensive safety evaluation for the purpose of determining the conditions of dam and reservoir was conducted by Chamera-I dam during February-March 2015 whereas no such study was conducted by any of the remaining selected dam authorities.
- No safety audit of the dams/ barrages with reference to healthiness of civil, hydro, mechanical and electromechanical structures/ equipment in line with operation and maintenance manual was carried out by State Directorate of Energy which was to be carried out once in every six months.

In the exit conference, the Principal Secretary (IPH) assured that the matter would be taken up with the Directorate of Energy.

2.3.13 Monitoring and evaluation

2.3.13.1 Monitoring of FMP projects

(i) As per FMP guidelines, 2007 monitoring of the execution of the flood protection projects was to be carried out by the Ganga Flood Control Commission (GFCC) in FMPs HP-01 and HP-07 and Central Water Commission (CWC) in other FMPs (HP-02 to 06). However, periodicity of the monitoring has not been specified in the guidelines. Audit noticed that during 2012-17, the CWC had monitored four FMPs (HP-03 to HP-06) eight times²¹ whereas FMP project HP-02 completed in March 2013 had not been monitored. Monitoring of two FMP projects (HP-01 and HP-07) by GFCC were not on records of Paonta Sahib division. Besides, the divisions had not maintained proper records of monitoring without which the extent of effective monitoring could not be verified in audit.

(ii) Paragraph 5.7 of FMP guidelines, 2009 provides for monitoring the physical progress of the FMP projects in association with the Department of Space/ National Remote Sensing Agency through advanced techniques such as remote sensing. Audit noticed that no such techniques in association with the above Department/ agency were adopted by the CWC for the monitoring of physical progress of FMPs. CWC stated (June 2017) that the projects have been monitored by making physical visits of the projects. The reply is not acceptable as monitoring of physical progress through remote sensing would have brought out real time changes alongwith status of execution of projects.

²⁰ Bhakra: two and Chamera-I: two.

²¹ HP-03: twice (March 2012 and January 2013); HP-04: thrice (June 2014, December 2014 and August 2015), HP-05: twice (September 2014 and August 2015) and HP-06: once (August 2015).

2.3.13.2 Constitution of standing committee for joint inspection of works

Paragraph 3.3 of FMP guidelines, 2009 provides for constitution of standing committee by CWC having representatives of State Government and Non-Government Organisations in the State for joint inspection of critical/ major flood protection maintenance works and damaged flood management works. Audit noticed that no standing committee was constituted by the CWC in the State as of June 2017, which resulted in non-conducting of joint inspection of the flood protection maintenance works/ damaged flood management works during 2012-17. Due to non-conducting of joint inspection, quality of executed flood protection works would remain unchecked.

2.3.13.3 Constitution of review committee for major projects

For reviewing the progress of the works costing ₹ 5.00 crore and above, rule 90 of Himachal Pradesh Financial Rules (HPFRs), 2009 provides for constitution of review committee consisting of the executing agency, Head of Department and representatives of Administrative and Finance Departments. Audit noticed that no such review committee was constituted by the Department as of June 2017. Resultantly, all seven FMP projects (approved cost ₹ 1,364.94 crore) exceeding ₹ 5.00 crore were not reviewed as per the provision of HPFRs *ibid*. Due to non-monitoring of the projects by the review committee, the Department had not ensured the execution of quality flood protection works in a timely manner.

2.3.13.4 Non-submission of audited statements of expenditure

As per paragraph 4.14 of revised FMP guidelines, 2009 the State Government was required to submit audited statements of expenditure incurred on the works within nine months after completion of the financial year to the GOI. Audit noticed that necessary audited statements were not submitted in any of the FMP projects except FMP HP-06 under Ghumarwin division sent in August 2016.

2.3.13.5 Concurrent evaluation study

As per paragraph 5.4 of FMP guidelines, 2009 for initiation of mid-course correction at appropriate time, the State Government was required to commission concurrent evaluation studies (analysis of strength, weakness, opportunities and threats of the projects progress) for the project costing more than ₹ 7.50 crore through reputed organisation (not under the administrative control of the Ministry of Water Resources/ IPH Department). Audit noticed that the concurrent evaluation study in respect of HP-02 and HP-04 was conducted (September 2015) through National Institute of Technology (NIT) Hamirpur whereas no such study was conducted in remaining four FMP projects²² costing more than ₹ 7.50 crore each. Thus, the Department had not ensured the execution of quality flood protection works.

2.3.13.6 Performance evaluation study

Paragraph 9.2 of FMP guidelines, 2013 stipulates that the State Governments would commission performance evaluation of the completed projects with regard to the objectives as defined in the DPRs through Indian Institute of Technology (IIT). Audit

²² HP-01: Channelisation of Bata river (Paonta Sahib); HP-05: Channelisation of Chhounchh *khad* (Indora); HP-06: Providing stabilisation of Seer *khad* and flood control works from Jahoo to Bum (Ghumarwin) and HP-07: Channelisation for tributaries of Bata river (Sunkar- Paonta Sahib).

noticed that performance evaluation was conducted (February 2016) in respect of FMP HP-06 completed in March 2015 through NIT, Hamirpur instead of IIT whereas no performance evaluation was conducted in the other three completed FMPs²³. As per performance evaluation report of HP-06, the people of the area demanded stabilisation/ channelisation of the stream along its both banks in the balance reaches and tributaries to ensure complete protection against the flash floods and erosion. However, no follow up action was taken by the Department as of April 2017. Non-following up on such evaluation study renders the whole exercise futile.

2.3.14 Conclusion

Planning for flood management was not done in as pro-active a manner as desirable as the Department had neither made scientific assessment of flood prone areas nor formulated basin-wise comprehensive master plan/ action plan for speedy execution of flood protection works. Absence of morphological studies for execution of flood protection projects/ works and non-planning/ execution of all structural and non-structural measures (except embankments) were unlikely to achieve better results to control and mitigate disasters by floods. The frequency based inundation maps and digital elevation maps for flood affected areas were also not prepared. Financial management for flood protection projects/ works was marred by short/ non-release of funds, non-utilisation of funds optimally, projects held up for want of funds and diversion of funds to other works. Works were not executed efficiently and effectively as there was delay in execution/ completion of the projects/ works, execution of work below specification, non-execution of works in an integrated manner, undue favour to contractors due to non-levy/ recovery of compensation for delay, loss of damages and royalty, etc. Flood forecasting system had not been devised in the State as of March 2017. The Department had not constituted standing and review committee for joint inspection of critical/ major works.

2.3.15 Recommendations

The Government may consider:

- Formulating a basin-wise comprehensive long-term master plan for flood protection works based on scientific assessment and morphological studies of flood prone areas and frequency based inundation maps and digital elevation maps for flood affected areas in the State to ensure speedy and effective execution of flood protection works.
- Preparing and complying with all checklists regarding availability of land and other codal formalities before approval of the works for flood protection so as to ensure their execution expeditiously.
- Evolving a robust flood forecasting system in the State so as to ensure the issue of early warning and shifting of people to safer places thereby minimising the loss of life and property.
- Effective monitoring and evaluation of projects at regular intervals so as to take remedial actions.

The audit findings were referred to the Government in August 2017. Reply had not been received (November 2017).

²³ HP-02: March 2013, HP-03 and HP-07: October 2016.

Information Technology Department

2.4 Information Technology Audit on e-Procurement Project

The State Government introduced (June 2011) electronic procurement (e-Procurement) project aimed at increasing the efficiency and transparency in procurement of goods, works and services. The performance audit of the conception and implementation of the project was done during March 2017 to June 2017 to assess its effectiveness. Some of the significant audit findings are summarised as under:

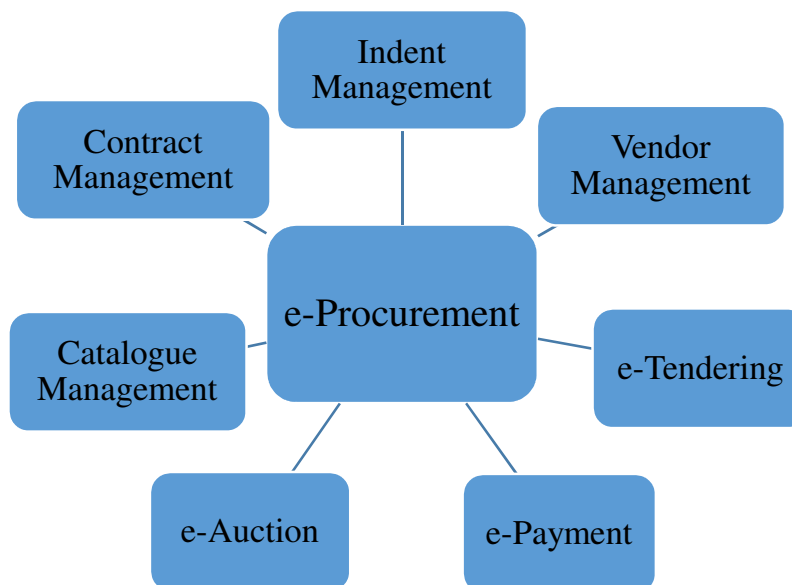
Highlights:

- *E-Procurement was a part of Mission Mode project of GoI on e-Governance. Only one module (e-tendering) out of seven modules of e-Procurement had been considered for implementation in 26 out of 90 organisations in the State. Even in the e-tendering module the critical activities such as online opening of bids, negotiations and award of contract is being done manually.*
(Paragraphs 2.4.1, 2.4.7.1 and 2.4.7.2)
- *Business rules have not been mapped in the application software leading to irregular opening of the tenders before the stipulated period.*
(Paragraph 2.4.6.1)
- *Use of same digital signature certificate by multiple users and participation in the tendering process defeated the very purpose of secured online bidding.*
(Paragraph 2.4.6.2)
- *Time cycle in processing of tenders through e-Procurement system could not be reduced due to non-revision of tendering rules, and time taken in processing of tenders during 2011-17 ranged between 122 and 554 days.*
(Paragraph 2.4.6.4)
- *Act/ rules, service level agreement and rollout plan for effective implementation of e-Procurement system have not been prepared/ executed.*
(Paragraphs 2.4.7.3 and 2.4.8.1)
- *Performance of multiple jobs by single user due to non-segregation of duties rendered the system susceptible to high risk and will make it impossible to enforce accountability.*
(Paragraph 2.4.8.3)
- *There was a shortfall of 98 per cent in providing training to the prospective bidders for effective use of e-Procurement system and monitoring was also inadequate as the requisite meetings of the Core Committee were not held.*
(Paragraphs 2.4.9.7 and 2.4.9.8)

2.4.1 Introduction

E-Procurement is a collaborative procurement of goods, services as well as selection of bidder for award of works by using internet and related technologies for bringing efficiency and transparency. It provides equal access to all eligible and qualified bidders without discrimination to promote integrity, fairness, accountability and public confidence in the procurement process. E-Procurement process also results in competitiveness and saving of cost and time by shortening of procurement cycle. The e-Procurement has seven modules as shown below:

Modules of e-Procurement



The Government of India (GoI) under Mission Mode Project of National e-Governance Plan (NeGP) identified (June 2009) the State of Himachal Pradesh as pilot State for implementation of e-Procurement. The Government of Himachal Pradesh (GoHP), requested National Informatics Centre (NIC), Himachal Pradesh to submit a project proposal for implementation of the e-Procurement system of NIC called ‘Government e-Procurement System of National Informatics Centre (GePNIC)’. After acceptance of the proposal, the GePNIC was implemented (June 2011) in three¹ departments of the GoHP on pilot basis. The threshold limit for e-procurement was initially fixed (April 2011) at ₹ 40 lakh for Public Works Department (PWD) and Industries Department (ID), and ₹ 25 lakh for Irrigation and Public Health Department (IPH) which was subsequently reduced (January 2012) to ₹ 10 lakh for PWD and IPH and ₹ 20.00 lakh for ID. The e-Procurement system was extended to 26² out of 90 organisations up to February 2017. Although, threshold limit was only fixed for three pilot selected departments yet other organizations implementing e-Procurement were also following the threshold limit of ₹ 10 lakh. However, only one module i.e., e-tendering consisting of six³ sub-modules, as detailed in paragraph 2.4.7.2 was implemented (March 2017), partially, in 26 organizations of GoHP. Even in the e-tendering module crucial activities such as negotiation and award of the contract were being done manually.

As per data supplied by the NIC, 26 organisations had published 18,678 tenders valuing ₹ 11,052.80 crore during 2011-17; out of which 13,315 tenders valuing ₹ 8,546.92 crore were opened. The organisations have not maintained details of tenders floated during 2011-17, however, as per the State Finance Accounts (Statement No. 4) total expenditure of ₹ 20,441.38 crore was incurred on procurement of goods, services and works in Government departments during 2011-16. Against this, 7,957 tenders

¹ Public Works Department (PWD), Irrigation and Public Health Department (IPH) and Industries Department (ID).

² Government Departments: eight and Corporations/ Public Sector Undertakings: 18.

³ Tender creation, Tender publication, Bid submission, Bid opening, Negotiation and Award of contract.

valuing ₹ 6,183.86 crore were processed through e-Procurement project in eight⁴ departments which constitutes 30 *per cent* of total procurement. The information in respect of remaining 18 organisations, though called for in audit, was not supplied.

2.4.2 Organisational set-up

The e-Procurement in the State of Himachal Pradesh is managed by the Department of Information Technology (DIT), GoHP which is designated (December 2009) as the nodal agency for implementation of e-Procurement. A Core Committee headed by the Principal Secretary (IT) and six⁵ other members were constituted (September 2011) for implementation of e-Procurement and taking policy decisions like revision of tendering rules, issue of executive instructions, vetting of standard bidding documents, drafting and signing of Memorandum of Understanding with Banks for e-Payment, etc. The Director, Information Technology is the Member Secretary of the core committee who is assisted by an Additional Director, Joint Director, Deputy Director and Assistant Controller (Finance and Accounts) for handling all the technical and financial tasks and acts as an interface between user organisations and NIC.

2.4.3 Audit Objectives

The IT Audit of e-Procurement project had the following objectives:

- To review whether core objectives of e-Procurement viz., transparency in the bidding process, competitiveness, streamlining of process and reduction in the cost procurement have been achieved as envisaged;
- To evaluate the adequacy of mapping of business rules into the system; and
- To analyse the data for completeness, integrity, reliability, accuracy, and security controls had been built into the system.

2.4.4 Audit Scope and Methodology

The IT Audit of e-Procurement was conducted during March 2017 to June 2017 by covering seven sampled⁶ organisations, (out of 26 organisations in which it was implemented) and scrutiny of documents and related computer operations for the period 2011-17.

The audit objectives, criteria, and scope of audit were discussed with Principal Secretary (IT) in an entry conference held in April 2017. The data of e-Procurement was analysed by using a Computer Aided Audit Tool “Interactive Data Extraction and Analysis” (IDEA). The audit findings were discussed in the exit conference held with the Principal Secretary (IT) in August 2017. The views of the State Government have been appropriately incorporated in the report.

⁴ Information Technology, Irrigation and Public Health, Public Works, Industries, Revenue, Fisheries, Printing and Stationery and Urban Development Departments.

⁵ Principal Secretary (Finance), Principal Secretary (PWD), Principal Secretary (IPH), Controller of Stores, Joint Director/ Deputy Director (IT) and any other technical expert co-opted by the committee.

⁶ Department of Information Technology (DIT), HP State Electronics Development Corporation Limited (HPSEDCL), HP Tourism Development Corporation Limited (HPTDCL), HP State Industrial Development Corporation Limited (HPSIDCL), HP State Civil Supplies Corporation Limited (HPSCSCL), Industries Department and Public Works Department.

2.4.5 Audit Criteria

Audit criteria used for conduct of the performance audit were:

- Guidelines issued by Central Vigilance Commission/ Competition Commission of India (CCI);
- Information Technology Act 2000 and amendment of 2008;
- e-Procurement guidelines issued by Standardisation Testing and Quality Certification (STQC) Directorate and e-Safe GD220 guidelines issued by the Ministry of Communications and Information Technology, GoI; and
- Himachal Pradesh Financial Rules (HPFR), 2009 and orders/ instructions issued by the State Government/ Departments for e-Procurement.

The Audit Findings of e-Procurement are detailed in the succeeding paragraphs:

2.4.6 System Design issues

2.4.6.1 Non-mapping of business rules in the application software

Section 4 of Rule 102 of HPFR, 2009, provides that minimum time allowed for submission of bids shall be three weeks from the date of publication of the tender notice. Further, Rule 192 of HPFR, empowers the Department of industries to issue detailed instructions and guidelines for procurement of goods and services from time to time with the approval of Government and the procurement in all the organizations was to be done according to these instructions and guidelines. Accordingly, the Industries Department had issued (October 2013) instructions which provide that a period of three weeks from the date of publication shall be given for the receipt of tenders, except in case of urgent demands where the period may be reduced to two weeks. For effective implementation of e-Procurement, these rules should have been mapped in the application software but the rules were not mapped.

During analysis of data in respect of 26 e-procurement implementing organisations in the State, Audit noticed that:

- In 10,135 and 5,537 work items (out of 19,121 work items), tenders were opened before 21 and 14 days respectively from the date of publication of tenders in 23 organisations. Further, in seven selected organizations, in 4,630⁷ and 2,209 work items⁸, the tenders were opened before 21 and 14 days respectively. No mention of short tender was made in these cases.
- Of above, in 184 work items, the tenders were opened in less than five days in six organisations and in two organisations tenders for 94 work items were opened within two days of publication.
- In five work items, the date of publishing and opening of tender was same.

Non-mapping of the business rule (specifying the period of receipt and opening of tenders from the date of publication of tender) in the application software resulted in

⁷ PWD: 4,274, HPSIDCL: 132, HPSCSCL: 72, HPTDCL: 63, ID: 45, HPSEDCL: 43 and DIT: one.

⁸ PWD: 2,026, HPSIDCL: 82, HPSCSCL: 22, HPTDCL: 36, ID: 13, HPSEDCL: 29 and DIT: one.

irregular opening of the tenders before the stipulated period and as a result, prospective bidders deprived of participation in tendering process could not be ruled out.

In the exit conference, the Principal Secretary stated that the business rules should have been mapped in application software so as to comply with the HPFRs, to provide adequate time to the prospective bidders and ensured compliance of the audit observations.

2.4.6.2 Inadequate validation controls in the registration of users

a. Deficiencies in use of Digital Signature Certificate

The online corporate/ bidder enrollment form had provision for enrolling vendors and assigning them login ID/ password through website for logging into the application software and system generates user ID for each user. Further, the user ID had to be mapped with the Digital Signature Certificate (DSC). Audit noticed that the application software failed to link the DSC with the user ID used at the time of registration due to absence of validation check. In this context, analysis of data revealed that:

- The data in table public_gep_user_certificate showed that the name of the user was not validated at the time of renewal of DSC and different names were captured against the same user ID in the table. In one case, against the user ID 73, bidding was done by using DSC registered in the name of different person. Evidently, any DSC can be mapped with the user ID and the legal sanctity of DSC was not ensured.
- Five DSCs were mapped against same user ID 3176 in the application software during the period from 30 September 2013 to 11 March 2017 which showed that there was no provision for validation of the name of the DSC holder with registered application user, resulting in unauthorised use of DSC by the users.
- For submission of single bid number 48283, two DSCs were used by the bidder having user ID 5049, as the bill of quantity (BOQ) was uploaded through SIGNINGCERTID 12513 and the other documents such as EMD, machinery details, service tax/ sales tax certificates and CA report were submitted through SIGNINGCERTID 14232 which proves that the bid can be uploaded by using multiple DSCs due to lack of validation control for mapping of the DSC in application software.

Thus, due to improper mapping of DSC with the user ID and in the absence of validation checks, the authenticity of the bid could not be ensured.

The Principal Secretary (IT) admitted that there should be provision of mapping of DSC with the user ID. The Senior Technical Director and State Informatics Officer (SIO), NIC stated that the needful will be done.

b. Participation of Dummy users in the bid process

Application software allowed registration of all users without proper validation. Analysis of the data showed that, out of 12,430 users, 5,463 were registered with DSC,

6,803 registered without DSC, 110 users were blocked and the registration was in process for 54 users. The analysis further revealed that:

- In one case, 'Registered' user having user ID 1661 in the name of (n)Code ahmedabad test user (mobile no 8888888888 and email id bhaveshs@ncode.in) had participated in 1,768 out of 15,061 work items which indicated that dummy bidders were captured in the table resulting in non-reliability of data and authenticity of the application of software.
- 23 users with blocked status had participated in 23 bidding processes during 2011-17. Also, 2,679 users without DSC had participated in the bid process during 2011-17.

Thus, due to non-mapping of registered users with DSC, the ineligible users have participated in the bidding process raising questions about reliability of the system.

The Principal Secretary (IT) admitted that there should be provision of mapping of DSC with the user. The Senior Technical Director and SIO, NIC stated that the needful will be done.

c. Duplicate mobile numbers, same/ alternate email ID and existence of non-DSC registered users

Analysis of data of all individual/ corporate bidders and departmental users revealed that:

- In 573 out of 5,463 DSC registered users, same mobile number was captured more than once with different users. In 514 cases, login ID was different but their alternate email ID provided for recovery of login ID was same which indicated that either the DSC registered users are linked to each other or multiple login IDs were operated by the single user which shows that the validation check on basic unique field/ data was not provided.
- User ID numbers are system generated numbers and should be in continuous form. There were six gaps with 73 missing serial numbers in generation of user ID.

Thus, due to absence of validation checks in the application software the possibility of participation to subvert the tendering activity by manipulation of data could not be ruled out.

The Principal Secretary (IT) accepted that there is no validation of credentials in the system and the application software should be dynamic and designed to authenticate the identity of bidders and further suggested that user ID should be linked with Aadhar numbers for making it reliable and authentic. The version of the Principal Secretary (IT) confirms the audit observation.

d. Gaps in system generated row ID numbers

In order to detect any unauthorised changes to the database, the system auto-generates row ID numbers, sequentially, while capturing the data of bids submitted through the application software for ensuring integrity and reliability of data.

Audit noticed that in 790 gaps there were 1,107 missing numbers in the table that contained the details of tenders along with critical dates. The gaps in row ID

numbers (serial number) raises serious concerns about the integrity and reliability of the database.

The Principal Secretary (IT) assured for making necessary arrangement in the system to monitor the gaps to make the system reliable and secured.

e. Inadequate validation checks

The user ID and password are issued by the Project Management Unit (PMU) of the NIC to the user Department whereas the bidders register themselves on website (<https://hptenders.gov.in>) by inserting their e-mail ID (login ID), password of their choice and other credentials against which the user ID is generated. After registering login ID, users have to map the DSC in the application software. During verification of the data, it was noticed that:

- In 116 out of 554 cases of the gep_tenderer table, duplicate email ID addresses were registered due to lack of validation of email ID at the time of registration of the bidders.
- Though the mobile numbers were captured in the system, the same were not verified at the time of registration by sending one time password (OTP) on the registered mobile number as incorrect mobile/ telephone numbers (32 cases) and same mobile numbers were captured (158 cases) more than once by the bidders at the time of online registration.
- Permanent Account Number (PAN) is a unique data entered by the bidder at the time of enrollment. In 152 (out of 554 cases) cases, PAN number appeared more than once against the same name with different user ID. Further, the sample PAN number (AESTG2458A) shown in the 'Enrolment of Corporate/ Bidder Form' was entered by six bidders which shows that validation check for the PAN number was not provided in the registration form.
- In seven (out of 554) cases, bidders age less than 18 years was captured, which indicated lack of input validation on date of birth. In six cases, the date of birth was shown as 0000, despite the fact that date of birth field is mandatory in Corporate/ Bidder enrolment form which shows that the validation check was not effective and had resulted in invalid entries.
- Though there was provision in the system for sending the alert through sms/ e-mails to the registered bidders at the time of publishing the tenders but the bidders were not intimated through the available system as there was no mechanism to verify the correctness of mobile/ telephone numbers. In 32 cases invalid mobile/ telephone number were entered by the bidders while registering themselves and uploading the tenders. In the absence of above provision, the possibility of non-participation of registered bidders could not be ruled out.

Validation of registration of Government users was also not done and it was noticed that:

- In 215 out of 823 cases, same mobile numbers were captured against more than one Government official (registered user). In 62 cases, dummy mobile numbers⁹ were captured against the registered users and 34 serial numbers of user ID were missing in two gaps.
- In 81 out of 823 cases, same e-mail ID was captured more than once against different Government users. In 11 out of 81 cases, incorrect names¹⁰ were captured in the first name column of the table.

The Principal Secretary (IT) accepted that there is no validation of credentials in the system and the application software should be dynamic and designed to authenticate the identity of bidders and further suggested that user ID should be linked with Aadhar numbers for making it reliable and authentic.

Thus, due to non-providing of validation checks in the application software there was incorrect registration of bidders. The possibility of participation of fake bidders in the bids could not be ruled out. Further, the objective of providing transparency in the procedure could not be ensured.

2.4.6.3 Participation of multiple bidders in a particular work from same machine/ IP address

- (a) One of the main objectives of the e-Procurement was to provide transparency and competitiveness in tendering process.

Analysis of the data of tenders processed through the NIC e-Procurement software revealed that:

- For 3,896 work items, two to 14 bidders had submitted the bids from the same IP address in 24 organisations for a particular work.
- In 2,339 work items of seven¹¹ selected organisations, same IP address was used for submission of bids by the bidders and in these cases, three to 14 bidders had submitted the bids from the same IP address for a particular work.
- The DIT which is a nodal Department for implementation of e-Procurement had floated only a single tender in December 2016 in which six bidders had participated out of which four bidders had submitted the bid from the same machine having common IP address.
- The Executive Engineer HPPWD, Una had called (November 2014) a tender for construction of Model Rural Health Research unit at Haroli vide work item ID number 6816, for which three bidders had participated. Of these, two bids were submitted from same machine having same IP address by using different user ID which had the same alternate e-mail ID. This indicated that the same bidder had participated in the bid through different DSC and e-mail ID. The third bidder had not submitted the earnest money deposit (EMD) and could not fulfill the basic criteria.

⁹ Mobile number 123456789 and 9999999999.

¹⁰ DM: four, First Name: two, Test: one and Deptuser: four times.

¹¹ PWD: 1,927, ID: 262, HPSCSCL: 100, HPSIDCL: 26, HPTDCL: 22, HPSEDCL: one and DIT: one.

The submission of bids from the same machine/ IP address in addition to inadequate validation checks in the registration of users, points to the possibility of submission of multiple bids by the same user. The Principal Secretary during exit conference accepted the fact of cartelization amongst bidders and stated that multiple bidding from same machine/ IP address should have been prevented by the system and further stated that there has been no improvement in the competitiveness and same bidders are participating and getting the contracts even after implementation of e-Procurement. The reply of the Principal Secretary confirmed the existence of risk of multiple bidding by the same user.

(b) The Himachal Pradesh State Industrial Development Corporation Limited (HPSIDCL) switched over to the software developed by a private firm in April 2015 due to non-provision of e-payment and e-auction modules in the NIC e-Procurement software. Analysis of the data of tenders processed through the e-Procurement application software of the private vendor revealed that:

- HPSIDCL had floated 347 tenders¹² valuing ₹ 268.04 crore during 2015-17. In 57 tenders, two to five bids were submitted from the same IP address for a particular work. Of these, in 14 tenders, all the bids were submitted by participating bidders from the same IP address.
- In five works¹³, one to three bids in each tender was submitted from machine of the HPSIDCL having same IP address which was used for creation/ processing of tenders. Out of the five tenders, in one work "construction of plant health clinic building at Ghumarwin, Bilaspur" having event ID 22983, all the three bidders had submitted their bids from the same machine of the HPSIDCL.
- In the application software provided by the private vendor, the rights for processing the tenders were exercised by the deputed staff of the private vendor and all the tendering process was done by him. In the event of his absence, the rights were assigned to the officials of the HPSIDCL having Digital Signature Certificates through the system. Audit noticed that in 81 cases, the bids were submitted from the same machines having two similar IP address from where the rights were also assigned by the deputed staff to the official of the HPSIDCL for creation and opening of tender which shows that the bids were submitted by the deputed staff of the vendor and the manipulation in tendering process could not be ruled out.

The submission of bids for a particular work from same machine/ IP address in HPSIDCL, which was used for processing the tenders indicates that transparency and competitiveness in tendering process could not be ensured.

The organisations stated (June 2017) that there is no such mechanism to restrict the bidders for submission of bids from same IP address and further stated the deputed staff of e-Procurement technologies limited was involved in creating cartel/ pooling with bidders by submitting bids from the same machine/ IP address of the HPSIDCL.

¹² 2015-16: 198 tenders valuing ₹ 98.15 crore and 2016-17: 149 tenders valuing ₹ 169.89 crore.

¹³ event ID # 24239, 22985, 22984, 22983 and 22981.

The reply confirms the audit observation. The Principal Secretary (IT) stated that the matter will be taken up with the HPSIDCL.

2.4.6.4 Time taken in processing of tenders and non-capturing of date of award of tender in application software

One of the objectives of implementation of e-Procurement was to ensure reduction in time cycle in processing of tenders. Rule 110 of HPFR, 2009 provides that to ensure efficiency, economy and accountability in procurement system appropriate time frame for each stages of procurement shall be specified by the respective departments for avoiding delay. Further, the Core Committee was to revise the tendering rules for e-Procurement accordingly. Audit noticed that the Core Committee had not revised the tendering rules for reducing the processing time in finalisation of tenders.

The details of the award of contract was not captured in 97 *per cent* (13,974 out of 14,431) of the work items due to which the actual time taken for processing the tenders could not be verified by audit. Out of the remaining 627 items of work, in 188 work items, time taken in processing the tenders from the closing date to award ranged from 122 to 554 days during 2011-17 indicating that the e-Procurement system did not result in reduction of processing time.

The Director, Industries stated (July 2017) that the matter would be taken up with the DIT for making provision of capturing related data in the application software. In the exit conference, the Principal Secretary (IT) assured to take remedial actions.

2.4.6.5 Non-supply of Software Design Document, Functional Requirement Specifications Document, Back up policy and Disaster Recovery Plan

For analysis of e-Procurement data in audit, documents such as Software Design Document (SDD), Functional Requirement Specifications Document (FRSD), Back-up policy and Disaster Recovery Plan is essential to ascertain the availability of all tables, their location and utility in the application.

The Director IT was requested (March 2017 and June 2017) to supply the Software Design Document (SDD), Functional Requirement Specifications Document (FRSD), Data Flow Diagram (DFD), Back-up policy, Disaster Recovery Plan and data pertaining to the e-Procurement. These documents were required for understanding and reviewing the application and data of the e-Procurement. In the absence of requisitioned documents, audit could not ascertain the availability of data in all tables, their location, purpose of each table and their utility in the application software due to which the flow of data could not be analysed effectively.

The NIC intimated (June 2017) that these documents are copyright of the Department and copy of the same could not be prepared and can be seen in the office of the NIC, Himachal Pradesh, Shimla. Though the Backup Policy and Disaster Recovery Plan prepared by the NIC was scrutinised in audit in the office of the NIC but no documents regarding their execution and implementation were produced to audit.

Due to non-supply of backup policy and Business Continuity plan the adequacy of the documents as well as the procedure followed to ensure the security of data and business continuity could not be ensured.

2.4.7 Implementation issues

2.4.7.1 Non provision of modules

The GoHP while reviewing (October 2011) the progress of e-Procurement decided that the application software should have the modules such as Vendor Management, Indent Management, e-Tendering, e-Payment, Contract Management, e-Auction and Catalogue Management. However, against the said requirement only one module i.e. e-Tendering was implemented only through GePNIC on <https://hptenders.gov.in> web portal. The impact of non-provision of the modules by the NIC is as under:

- **Indent Management:** The flow of documents during the course of preparing a tender is handled by the work flow automation module. The process starts from demand aggregation of goods for procurement, making a plan for works and ends with the calculation of final probable amount of contract. The objective of using this module was to reduce the time taken in movement of documents leading to issue of tender monitor the process to identify clog areas and taking remedial action. However, due to non-provision of the module the benefits of reduction of time in processing of documents through monitoring of clog area could not be achieved.
- **Vendor Management:** The Vendor Management Module helps in creation of data relating to probable vendors/ suppliers who fulfill the pre-determined criteria based on their qualification, infrastructural capabilities, past performance, etc. The main objective of e-Procurement was to promote competition by fostering participation of qualified supplier and contractors. However, in 2,556 and 3,492 out of 15,061 work items, one and two bidders only participated in the tendering process. The bidders are required to register themselves before participating in any tendering activity. Audit noticed that 7,330 out of 10,725 registered bidders had participated in the tendering process. However, 2,302 bidders (31 *per cent*) had participated only once and 1,141 bidders (16 *per cent*) had participated only twice and remaining 3,887 (53 *per cent*) bidders had participated more than twice, whereas 3,395 bidders had not participated in any tendering activity. Due to non-deployment of the module the participation of prospective vendors, to obtain competitive rates, could not be enhanced.

Further, the credential such as registration, manufacturing capacity, quality control system, past performance, after sales service and financial background submitted at the time of registration as bidders have not been captured in the application software as master data. As a result, the bidders have to submit the documents in each tender for verification and the organisations had to verify the same each time resulting in unnecessary delay in processing of tenders as shown in para 2.4.6.4.

- **e-Auction:** The auction module is a facility that allows suppliers to dynamically out-bid their competitors within a time-frame specified by a buying agency. The auction module was to have facilities for both buying (reverse auction) and selling (forward auction) of goods, works and services. Non-implementation of e-Auction module affected the prospects of obtaining highest rates for sale of material through online auction in a transparent manner.

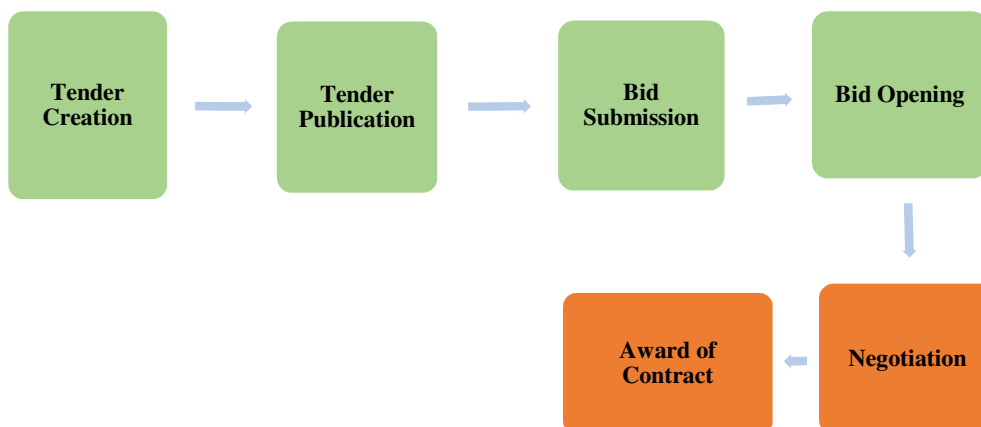
- **Catalogue Management:** In the catalogue management module, the information about rate contracts negotiated by the Government is hosted in an online environment. End users in the Government use the negotiated rate contracts and directly place orders for goods and services with the supplier community. Due to non-deployment of the module, the benefit of rate contracts negotiated by Government could not be derived to save the cost and time involved in processing of fresh bids.
- **e-Payment:** The e-Payment functionality facilitates online transfer of funds both inflows and outflows happening during the course of public procurement activity covering transactions such as sale of tender documents, online transfer of earnest money deposit (EMD), making payments to suppliers/ contractors for purchase of goods and completion of works. Analysis of the data of e-Procurement revealed that fee and other charges were deposited by the bidders/ suppliers offline by visiting the respective tendering office. Due to non-provision of e-payment gateway the access to unhindered secured facility for e-Payment of tender fee, EMD at the comfort and ease of bidding from any place could not be provided to the bidder. Further the visit of the bidder for submission of tender fee and EMD manually, affected the transparency as the collusion to vitiate the tendering process could not be ruled out.
- **Contract Management:** This module covers the processes involved in between issuance of work order and completion of the work with an objective of maintaining an overview of the works in progress and monitor and measure performance of the contractor. The module has features for processing of bills associated with the work already completed, approval of bills and making payment to the supplier by transferring funds from the Government's bank account to that of the suppliers account. Due to non-deployment of the module, the progress of work and monitoring of performance of contractors and online payment of bills to the contractor in a time bound and transparent manner could not be ensured.

Thus, non-provisioning of six modules i.e Indent Management, Vendor Management, e-Auction, Catalogue Management, e-Payment and Contract Management affected the efficiency and effectiveness of tendering process as intended objectives to bring economy, transparency and reduction of time in tender cycle could only be achieved in a limited manner.

The Principal Secretary (IT) while accepting the shortcomings stated that in the initial phase of the project only e-Tendering module was made functional and assured for implementation of rest of the modules in all the implementing organizations.

2.4.7.2 Partial implementation of e-Tendering module

The e-Tendering module was designed to have following features:

e-Tendering sub module

The department users, having creator roles, by logging in the tenders portal create the tender online, using Digital Signature Certificates (DSCs) and authorised credentials, then the authorised department users having publisher roles verifies the created tender and then publishes it online. The bidder/ contractor by using their DSCs, submit the bid online and upload all the required documents before the time period pre-defined in the notice inviting tenders. On the bid opening date, the department users having bid opening roles, opens/ decrypts the bids with their DSCs. The bid opening comprises of four stages i.e. Technical Bid Opening, Technical Evaluation, Financial Bid Opening and Financial Evaluation. Once the comparative chart is generated and L1, L2, L3... are identified, the L1 is then called upon for negotiation or sample checking. The last stage of e-Tendering was award of contract where the department user uploads the award of contract mentioning the final rate which is finalised with the selected bidder.

Audit observed that of the above critical functions i.e. online bid opening, negotiation and award of contract, were done manually by the user organisations which affected the transparency of the tendering process.

The Principal Secretary (IT) stated that requisite corrective action based on audit findings will be taken.

2.4.7.3 Non-framing of Act/ Rules for implementing e-Procurement Project

The State Government had not framed any Act/ Rules for implementing the e-Procurement in the State. In the absence of Act/ Rules the organisations are not bound to implement e-Procurement. Implications of non-framing of Act/ Rules to regulate the e-Procurement are as under:

- 64 out of 90 organisations had not implemented e-Procurement even after lapse of six years.
- HPSIDCL had opted out of the e-Procurement portal (provided free of cost) of the State Government after using it for four years from 2012-13 to 2014-15 and had switched over (April 2015) to the software developed by a private firm. Avoidable expenditure of ₹ 21.90 lakh¹⁴ was incurred by the HPSIDCL though the facilities

¹⁴ One time payment of ₹ 11.50 lakh and recurring expenditure of ₹ 10.40 lakh at a rate of ₹ 0.40 lakh per month for 26 months from May 2015 to June 2017.

such as e-Auction, required to be provided by the private firm along with e-Tendering and e-Payment module, were not provided.

- The threshold limit of ₹ 10 lakh fixed by State Government for e-Tendering was not adhered to in 78 cases by four¹⁵ out of seven sampled organisations as the tenders above ₹ 10 lakh were floated manually.
- The DIT which is the nodal Department had also floated six tenders manually above the threshold limit of ₹ 10 lakh during 2011-17.

The DIT in its reply stated that no Act/ Rules were framed for e-Procurement and organisations are governed by Himachal Pradesh Financial Rules for procurement of goods, works and services. The reply is not acceptable as no provision for e-Procurement had been made in the HPFR, 2009 and the Act/ Rules should have been framed for effective implementation of the e-Procurement.

2.4.8 Operational issues

2.4.8.1 Implementation of e-Procurement without executing Service Level Agreement

A service level agreement (SLA) is a contract between a service provider and the end user that defines the level of service expected from the service provider. Consequent upon acceptance of project proposals submitted by NIC, the State Government implemented the GePNIC without executing the SLA for monitoring of delivery of services. Due to non-execution of the SLA it was noticed in audit that:

- The e-Procurement project was conceived for a period of five years (2011-16). NIC and DIT were responsible for formulation of roll out plan after the completion of pilot project phase. Though the period of implementation had elapsed in 2015-16, the roll out plan was not prepared and e-Procurement was implemented only in 26 out of 90 organisations as the deliverables were not defined in absence of SLA.
- The user requirement specification, software design document, functional requirement specification document, back up policy, disaster recovery plan were not provided by NIC to State Government due to which neither the monitoring of the e-Procurement was done nor security of the data in system and business continuity in the event of disruption could be ensured.
- The DIT was neither provided any independent tool by the NIC to record and monitor the downtime of the server nor did any service quality parameters were defined to ensure availability of the site for tendering activity.
- The PMU formulated by the NIC was to provide necessary training to the organisations and bidders, and manpower support for effective implementation of e-Procurement. The PMU was discontinued during the period from 01 April 2016 to 31 August 2016 due to which no new organisation could be added under e-Procurement and no training was imparted during above period for which no action was taken against the NIC for the lapse.

¹⁵ DIT: six, HPSEDCL: five, HPTDCL: 32 and Public Works Department: 35.

- As per project proposal submitted (August 2010) by NIC, the application software was to be customised as per the requirements of State Government for which domain expert and change management group was to be formed by DIT in consultation with the organisations. Audit noticed that neither the domain expert and change management group was formed nor the customisation of the application software was done in absence of any SLA.
- The Change Management policy was not formulated. Further, for making necessary changes in the application software, no authority had been authorised by the State Government. Analysis of the data revealed that changes were made in the application software of e-Procurement on 10 occasions during 2011-17 by the NIC as the nodal department (DIT) had no access on the application software and database. However, nodal department had not maintained any record of the changes made in the application software which may create maintenance issues in future.
- The milestones to be achieved by NIC for implementation and maintenance phase were not linked to the payments. Audit noticed that the DIT released the entire implementation cost of ₹ 1.99 crore to National Informatics Centre Services Incorporated (NICS), during October-November 2010. However, funds of ₹ 0.61 crore remained unspent with the NICS up to June 2014 due to partial implementation of the e-Procurement software as only seven out of 90 organisations were covered during implementation phase. Injudicious release of funds in advance had not only resulted in blocking of ₹ 0.61 crore but also resulted in loss of interest of ₹ 0.17 crore¹⁶ on unutilised funds kept out of Government account from November 2010 to June 2014.
- Due to non-availability of downtime logs of the server of the NIC no report confirming the downtime logs were produced to audit.

The Department stated (April 2017) that no agreement was executed as NIC was also implementing other IT projects in the State. The reply is not acceptable as the roles and responsibilities, timelines and deliverables must have been clarified by executing the SLA between both the parties for smooth implementation of e-Procurement. However, due to non-execution of SLA by the DIT, the level of services expected from the NIC/ internet services provider could not be achieved and the e-Procurement could not be implemented effectively. Moreover penalties for under or non-performance, if any, could not be levied in the absence of defined service level parameters.

The Principal Secretary (IT) accepted the facts and assured that the matter will be taken up with all the Administrative Departments of the State Government and necessary orders will be issued for effective implementation of e-Procurement. It was also apprised that matter will be taken up with HPSIDCL and action will be taken accordingly and further stated that matter will be taken up with the Cabinet for making necessary budgetary provision for effective implementation and action will be taken with regard to SLA.

¹⁶ Calculated at the rate of 7.86 per cent for 43 months being average borrowing rate of the State Government for the year 2010-15.

2.4.8.2 Password policy management

Though requisitioned in Audit, the password policy formulated, if any, was not supplied by the DIT. The GoI had issued password policy which *inter alia* provides that all user level password shall be changed periodically (at least once every three months) and the user shall not be able to re-use previous password. Further, the Central Vigilance Commission (CVC) guidelines provides that the sensitive data should be encrypted or hashed in the database and file system. Analysis of data revealed that:

- For recovery of login ID, a provision of hint question was designed in the application software but the answer to the hint question was not encrypted due to which a person having access to the database can view the hint answer which can be mis-utilised and poses a threat to the security of the data.
- The password was changed by 3,151 users ranging between two to 51 times during 2011-17. As the hint question was not encrypted, the change of password and credential by the unauthorised persons and the breach of security of the user's data cannot be ruled out. The password was not changed even once by 9,277 users from date of enrollment.

There was nothing on record to suggest that password policy formulated, if any, by the DIT, was shared with the users resultantly they were not complying with any password policy. Further the lack of implementation of any password policy as well as lack of encryption of user data at database level, made system vulnerable to breach of security.

The Principal Secretary (IT) admitted the facts and assured to look into the matter.

2.4.8.3 Non-segregation of duties for e-Procurement system

The State Government had given duties and financial power to the officers working in implementing organisations. As per system design and work flow, each and every official had different access roles such as super admin, system admin, application admin, nodal officer, procurement officer admin, procurement officer publisher, procurement officer opener, procurement officer evaluator, admin reports, etc., and these roles were to be performed through login ID and DSC of the concerned officers. Audit noticed that:

- The nodal department had not issued any notification regarding assigning of roles for implementation of e-Procurement. The role of super admin, system admin and application admin was performed by the NIC which is the vendor agency for providing of e-Procurement application software and the nodal department had neither used above mentioned roles nor has access on the data of the e-Procurement.
- The nodal officer was designated by the implementing organisation and created by the NIC who can further assign the role of procurement officer admin, procurement officer publisher, procurement officer opener and procurement officer evaluator. In six¹⁷ organisations, the nodal officer had further created nodal

¹⁷ Industries Department, HP State Forest Development Corporation Limited, Irrigation and Public Health, HP Agriculture Development Society, HP Bus Stand Management and Development Authority and Department of Information Technology.

officer for the same organisation which indicated that multiple nodal officers can be created by the user organisation and there was no provision of validation check in application software.

- Specific duties for creating tender, uploading of tender, release of tender, issuing of corrigendum, closing and opening of bids were not specified, and multiple roles were assigned to the DSC holders. In 788 out of 812 Government users, the role of nodal officer, office admin, office opener, office evaluator and office publisher were performed by the same person with same login ID.
- The HPSIDCL had not assigned any roles and duties to its staff and the e-tendering activities¹⁸ were performed by the deputed staff of the private company through DSC of the staff of the HPSIDCL.

Thus, duties and powers had not been performed by the officials as per system design, and the work was handled by one or two individuals performing the different roles exposing a sensitive system to lack of accountability.

HPSIDCL stated that no instructions/ guidelines have been issued and two officials of the corporation have been involved in all the activities from creation to opening of bids and their DSC is being used by the designated employee of the private agency.

The Principal Secretary (IT) assured to take up the matter with the NIC for incorporation of requisite checks to ensure segregation of duties at different levels.

2.4.9 Other issues

2.4.9.1 Negotiation with the bidders without justification

The Central Vigilance Commission (CVC) guidelines (October 2005) provides that there should not be any negotiation. Negotiation if at all, shall be an exception and only in the case of proprietary items or in the case of items with limited source of supply, and negotiations can be recommended in exceptional circumstances only after due application of mind and recording valid and logical reasons justifying negotiations.

Audit noticed that in six¹⁹ out of seven selected organisations, the negotiations were held with the lowest bidders in 115 cases out of 240 test-checked tenders without any logical reasons recorded by these organisations in contravention of the CVC guidelines. Due to negotiation held with the bidders without quoting any justified reasons, the possibility of sub-standards work/ supply could not be ruled out and violation of guidelines may result in unethical action on the part of user departments.

The Director IT stated (May 2017) that the negotiations were held with the L-1 bidder over the terms and conditions to make them more stringent. The Director, Industries stated (June 2017) that the negotiation is done to reduce the quoted rates. The reply is not acceptable as the negotiation is contrary to the provisions of CVC guidelines and in the above said cases the reasons for holding negotiations were not recorded.

¹⁸ Creation of tender, publishing of tender, issue of corrigendum, opening of eligibility bid, opening of technical bid and opening of financial bids.

¹⁹ DIT: one; PWD: four; HPSEDCL: seven; HPSIDCL: nine; HPTDCL: 21 and Industries Department: 73.

The Principal Secretary (IT) accepted the facts and assured to look into the matter and to take appropriate action.

2.4.9.2 Absence of internal control due to non-maintenance of registers relating to e-tendering

For adequate internal control in floating of tenders, the organisations have to maintain tender register. The format of tender register form is prescribed in the Quality Management System Forms and Format Manual of HPPWD. The DIT being nodal department for implementation of e-Procurement in the State was required to maintain the data pertaining to the tendering being held in each organisation for accessing the feasibility of implementation of e-Procurement in all the organisations of the State Government.

Audit noticed that DIT had not maintained any data regarding the total number of tenders floated in each organisation. Further in five²⁰ out of seven selected organisations, the tender registers were not maintained. The register for tenders floated at E-in-C level was though maintained, the same was neither maintained in proper form nor were all the tenders entered in the register due to which the actual tenders floated could not be verified in audit.

The Director, IT admitted (May 2017) that the consolidated data in respect of total number of tenders floated had not been maintained. Further, the HPSEDC Limited and Industries Department stated (May-June 2017) that the tender register had not been maintained and the same were processed through concerned files.

The Principal Secretary (IT) admitted the fact and stated that the matter will be taken up with the concerned implementing organisations.

2.4.9.3 Management of Earnest Money Deposit

As per rule 106 of HPFR, 2009, the bidder had to submit the earnest money deposit (EMD) alongwith each bid submitted by him. The earnest money of the unsuccessful bidders shall be refunded at the earliest after the expiry of the validity period and the EMD of the successful bidders shall remain in the custody of the procuring department till further period depending upon the nature of contract.

Audit noticed that the consolidated records in support of the EMD/ tender fee and total number of tenders floated was not maintained in five²¹ out of seven selected organisations due to which the total amount of EMD and tender fees received, refunded and retained could not be verified in audit.

However, analysis of data revealed that an amount of ₹ 19,297.19 crore was received against 14,337 work items from 50,506 bidders in 26 organisations. The amount of EMD was captured in the database but the bank drafts in support of the EMD were received manually in the concerned offices. Though there was a provision to capture the details of refund of EMD in the system, the amount was not entered in the said column. Due to non-feeding of data in the application software, the actual amount

²⁰ DIT, HPSIDCL, HPSEDC, HPSCSCL and Industries Department.

²¹ DIT, HPSCSCL, HPSEDC, HPSIDCL and Industries Department.

retained and refunded by all the implementing organisations could not be verified. The objectives of transparency and ease-of-use to the bidders could not be achieved because of non-availability of e-Payment services for tender fees and EMD.

The DIT stated (May 2017) that matter for implementation of e-Payment gateway was raised with the NIC and the same was pending due to issue of service charges. The reply is not acceptable as the e-Payment gateway should have been provided in time. Regarding non-maintenance of records the HPSEDCL and Industries Department stated that the EMD register will be maintained in future and no reply was furnished by the DIT, HPSCSCL and HPSIDCL.

The Principal Secretary (IT) also accepted the fact and assured to take up the matter with NIC to make provision in the application software for management of EMD by implementing the e-Payment module in the near future.

2.4.9.4 Splitting up of work leading to circumvention of e-tendering

To complete the work in all respect and in timely manner it should be awarded as per the approved estimated cost and to a single person. The work should not be split up to avoid the prescribed threshold limit of ₹ 10.00 lakh for e-tendering.

Audit noticed that the works were split up into two or more parts by keeping the value of work item in a single work less than the threshold limit of ₹ 10.00 lakh by HPSIDCL Limited to avoid e-tendering and the following points had emerged:

- Special repair and maintenance of toilet of Udyog Bhawan, Shimla was approved (December 2015) for ₹ 16.27 lakh and the tenders were invited by reducing the estimated cost to ₹ 9.06 lakh. The work items were further split up into ten parts keeping the amount below ₹ 1.00 lakh. It was further noticed that two to three same bidders have participated in all the ten work tenders and the works were awarded to the single contractor in all the ten split up works.
- Special repair and maintenance of Ayurvedic Health Centre at Gondpur Jaichand, Una district was sanctioned (September 2016) for ₹ 19.26 lakh. The work was split up into two parts by reducing the estimated cost to ₹ 6.50 lakh and ₹ 5.88 lakh and both the works were awarded (July and September 2016) to the same contractor for ₹ 8.10 lakh and ₹ 8.55 lakh against the estimated cost.

The HPSIDCL stated that works were split up due to urgency of works. The fact, however, remains that the works were split up to circumvent e-tendering and defeating the objectives of transparency and competitiveness in tendering procedures.

The Principal Secretary (IT) admitted the fact and assured that the matter will be taken up with HPSIDCL.

2.4.9.5 Non-publishing of corrigendum

HPFRs provide for publishing of tenders in the official gazette and print media. The CVC guidelines provides that any change in the tender terms and conditions, specifications and tender opening date be notified to all the bidders sufficiently in advance of the revised tender opening date.

Audit noticed that in five²² out of seven selected organisations, 216 corrigenda were issued but the same were not published in the media i.e. official gazette and leading newspaper.

Thus, non-publishing of corrigendum in the media and non-providing of adequate time to the bidders was in contravention of the *ibid* provision of HPFRs and CVC guidelines, and also depriving of the prospective bidders from participation in tendering process could also not be ruled out.

The Principal Secretary (IT) accepted the facts and assured to look into the matter and take appropriate action.

2.4.9.6 Non-availing of benefit of Mission Mode Project

For implementation of e-Procurement project in Mission Mode Project (MMP), GOI proposed (December 2009) for integration of e-Procurement process with the centralised server of Director General of Supply and Disposal (DGS&D). Software already developed by NIC and hardware/ technical support of DGS&D was offered for implementation of e-Procurement in the State. For this purpose, financial incentives were available from GOI if requirement of funds alongwith rollout activities were submitted to GOI within 45 days from the date of proposal.

Audit noticed that the State instead of submitting the proposal to GOI, obtained (March-June 2010) proposals from three Government undertakings for implementation of the project. The proposals could not be implemented mainly due to non-confirmation of Application Service Provider and non-receipt of commercial offer from the undertakings. The NIC was requested for implementation of e-Procurement project in August 2010. An amount of ₹ 1.99 crore was paid (October-November 2010) to National Informatics Centre Services Incorporated (NICSi) for setting up of Project Management Unit (PMU) and providing technical support to the implementing organisations. Audit observed that the expenditure of ₹ 1.99 crore²³ incurred by the DIT for setting up of PMU and providing technical support could have been saved had the State accepted the proposal of the GOI for integration of e-Procurement process with that of DGS&D.

The Director IT stated (May 2017) that proposal could not be submitted to GOI in the first instance as the matter was taken up for seeking clarification (February 2010) on terms and conditions for usage of DGS&D data centre to host e-Government Procurement application. The reply is not acceptable as financial incentives for all back end facilities and technical support were to be provided by the GOI by integrating their e-Procurement process through the DGS&D system which was to be implemented by the NIC.

²² HPTDCL: eight; HPSEDCL: four; HPSCSCL: eight; HPSIDCL: 195 and Industries Department: one.

²³ October 2010: ₹ 1.98 crore and November 2010: ₹ 0.01 crore.

2.4.9.7 Shortfall in holding of meetings and non-formulation of policy decisions

The Core Committee was constituted (September 2011) for implementation of the e-Procurement which was to guide the smooth roll out of GePNIC by taking swift decisions and following up implementation plan at each stage. Further all policy related decisions such as revision of tendering rules, issue of executive instructions, vetting of standard bidding document, drafting and signing of Memorandum of Understanding (MoU) with banks were to be taken by the Core Committee and meet once every month during initial six months of implementation.

Audit observed that against required six meetings at the initial stage of implementation, only two meetings were held resulting in shortfall of four meetings (67 *per cent*). Though there was no mention about the periodicity of holding meetings after initial period of six months, only one meeting was held between February 2012 and March 2017. In these three meetings, the matter regarding fixing of threshold limits, providing training to user organisations and bidders help desk, inclusion of all the e-Procurement modules, registration of bidders and sending sms/ e-mail alert of published tenders and inclusion of left out Government organisations were discussed. No decisions thereon, except implementing the threshold limit was achieved. It was noticed in audit that for effective implementation of e-Procurement the policy related decisions such as revision of tendering rules, issue of executive instructions, vetting of standard bidding document, drafting and signing of MoU with banks, etc., could not be taken. Due to non-convening of the required meetings e-Procurement was not effectively implemented in Government organisations. As a result, objectives of e-Procurement could be achieved in a limited manner.

The Principal Secretary (IT) accepted the fact and asserted that issue of proper planning and mandate to implement e-Procurement will be taken up in the Core Committee.

2.4.9.8 Shortfall in providing training to the bidders

Paragraph 6.1 of the project proposal provides for necessary training and support in e-Procurement system to the concerned State departments and bidders. Though necessary training was provided to officials of the implementing organisations, said training was only provided to 259 (two *per cent*) out of 11,911 registered bidders during 2011-17, thus, depriving the prospective bidders the necessary capacity building in e-Procurement.

The Principal Secretary (IT) accepted the fact and assured for compliance of the audit observation.

2.4.10 Conclusion

E-procurement project was not conceived and implemented in the State of Himachal Pradesh properly. The main deficiencies noticed in audit were:

- Only one out of seven modules on e-tendering was implemented in 26 out of 90 organisations for tenders above ₹ 10 lakh. Even in this module the crucial activities of on-line opening of bids, negotiations and award of contracts was being done manually.

- Business rules were not completely mapped in the application software in critical areas like advancing the tender submission time and non- publication of corrigendum.
- It did not promote transparent bidding as instances of multiple bids from a single IP address and formation of cartels could not be contained.
- Inadequate mapping of DSCs with user ID made system vulnerable to misuse.
- Validation checks were not designed properly which directly affected the integrity of data in the system.
- Because of deficiencies like non-framing of rules for implementation of project, non-finalisation of SLAs with NIC, the desired level of service was not ensured and no remedial action could be taken.
- Non-segregation of critical functions may lead to absence of controls, irregularities and affect data integrity.

Due to seriousness of the deficiencies noticed it is apparent that the key objective of transparency in the bidding process, increased competition and reduction in cost of procurement could not be achieved.

2.4.11 Recommendations

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

- System design deficiencies should be set right by full mapping of business rules and embedding of validation checks into the system to make it reliable.
- In order to reap the benefit of synergy, all the modules may be fully deployed to bring out transparency, economy and effectiveness in public procurement.
- Act/ rules, service level agreement and rollout plan should be prepared/ executed for effective implementation of e-Procurement in all the organisations of the State Government.
- The required level of services expected from the service provider may be defined and mechanism to monitor delivery of quality services should be evolved through Service Level Agreement.
- Access controls, password policy and segregation of duties for execution of assigned roles should be strengthened to enhance the reliability and utility of the e-Procurement system.
- Training programmes should be conducted for prospective users/ bidders to enhance vendor participation for obtaining competitive rates.

The audit findings were referred to the Government in August 2017. Reply had not been received (November 2017).