

CHAPTER I

PERFORMANCE AUDIT

This chapter contains performance audit of National Rural Health Mission (1.1), Functioning of Osmania University (1.2), Third Party Quality Control/ Assurance in execution of irrigation projects (1.3) and Accelerated Irrigation Benefit Programme (1.4).

HEALTH, MEDICAL AND FAMILY WELFARE DEPARTMENT

1.1 National Rural Health Mission

Highlights

Government of India launched the National Rural Health Mission (NRHM) in April 2005 throughout the country for providing accessible, affordable, effective and reliable healthcare facilities in the rural areas. The programme was launched in Andhra Pradesh without conducting facility survey and without the preparation of perspective plan by the District Health Societies (DHS). The State Government did not pay adequate attention for creation/strengthening of infrastructure facilities in the Health Centres despite availability of funds. Majority of the test checked Community Health Centers (CHCs) and Primary Health Centers (PHCs) lacked the basic infrastructure facilities. The Mobile Medical Units were functioning without essential equipment/Medical Officers in all the eight test checked districts. The implementation of Reproductive and Child Health Scheme suffered in the areas of institutional delivery care, antenatal care, etc. The functioning of Rogi Kalyan Samithis was deficient and the coverage under Immunization Programme was inadequate. Monitoring of the Programme was poor.

As against the GOI releases of Rs 1,603 crore under the Programme during the 4-year period 2005-09, Rs 1,505 crore were utilised leaving 21 to 29 per cent of the available funds remaining unspent. State Health Society (SHS) and all the District Health Societies (DHS) did not maintain the accounts in the prescribed format envisaged in the guidelines. In all the eight DHSs, cash book and other initial records were not also properly maintained.

[Paragraphs 1.1.6.1 and 1.1.6.3]

Facility surveys intended for identifying the healthcare needs of the people were not conducted in the State. Perspective Plan for the whole mission period 2005-12 was not prepared by DHS and the SHS.

[Paragraphs 1.1.7.1 and 1.1.7.2]

There was a shortfall in setting up of 387 Community Health Centres (CHCs), 464 Primary Health Centres (PHCs) in rural areas of the State. In tribal areas the shortfall was 63 CHCs, 63 PHCs and 303 Sub-Centres with adverse implications with regard to accessibility of rural/tribal population to comprehensive primary healthcare.

[Paragraph 1.1.8.1]

Adequate attention was not paid by the State Government for strengthening of infrastructure in the Health Centres. Construction of 44 CEMONC Centers remained incomplete even two years after taking them up while the works of 30 centres were yet to be taken up despite availability of funds. The Physical infrastructure available at the existing centres was far below the desired level envisaged in Indian Public Health Standards. Majority of the CHCs/PHCs test checked lacked even the basic infrastructure facilities. Mobile Medical Units were functioning without essential equipment/Medical Officers.

[Paragraphs 1.1.8.2 and 1.1.8.3]

The implementation of Reproductive and Child Health (RCH) programme suffered from deficiencies in the areas of institutional delivery care, antenatal care, 24x7 delivery services and the Medical Termination of Pregnancy. The State was yet to evaluate the prevalent rate of Infant Mortality Rate, Maternal Mortality Rate and Total Fertility Rate after launching of NRHM.

[Paragraph 1.1.9.1]

The objective of converging various National Disease Control Programmes remained unachieved. Thus, the planning process was deficient. The achievement of cataract operations in Government Hospitals was far below the prescribed target of 50 per cent. No survey was conducted after launch of NRHM to identify areas of iodine deficiency disorders.

[Paragraphs 1.1.7, 1.1.9.5 and 1.1.9.6]

Monitoring Committees under Rogi Kalyan Samithis (RKS) were not formed in 46 per cent of CHCs and 67 per cent of PHCs test checked. Even in the CHCs/PHCs where RKSs were formed their functioning was found to be deficient. There was significant shortfall (up to 39 per cent) in the Immunization Programme (Second stage of 10-16 age group).

[Paragraphs 1.1.9.2 and 1.1.9.4]

Implementation of the schemes by the NGOs was very poor, attributable to poor monitoring by the Department. The entire amount of Rs 7 crore released to eight municipal corporations for establishing First Referral Units (FRUs) remained unspent.

[Paragraph 1.1.9.7]

Financial management was deficient. There were significant variations (short receipt of GOI release: Rs 168 crore) between the figures of release as per the records of GOI and those stated to have been received by the State Health Society (SHS) which remained unreconciled (March 2009). Test-check revealed cases of avoidable extra expenditure on procurement of Vaccine/bed nets, wasteful expenditure, ineligible payments and diversion of programme funds amounting to Rs 23.36 crore in the eight districts alone.

[Paragraphs 1.1.6.2 and 1.1.10]

The Programme suffered from lack of adequate monitoring mechanism. This resulted in the planning process not receiving regular inputs on nature and direction of required future interventions. The Computer-based Management Information System intended for use of network for Integrated Disease Surveillance Project was defunct since 2005.

[Paragraph 1.1.11]

1.1.1 Introduction

In April 2005, Government of India (GOI) launched the National Rural Health Mission (NRHM) throughout the country with special focus on 18 States including Andhra Pradesh. The Mission aimed at providing accessible, affordable, effective and reliable healthcare facilities in the rural areas. The Mission also aimed at an architectural correction¹ in the healthcare delivery system by converging seven other stand alone existing National Disease Control Programmes (NDCP²) of the Ministry of Health and Family Welfare. The new components of the NRHM include bridging the gaps in healthcare facilities, facilitating decentralised planning in health sector and addressing the issue of health in the context of the sector-wise approach encompassing sanitation, hygiene and nutrition as basic determinants of good health by seeking convergence of related social sector departments like Women Development and Child Welfare, Panchayat Raj, etc.

In Andhra Pradesh the Mission was operationalised with effect from September 2005 through the formation of the State Health Society (SHS) in December 2005.

The objectives of the Mission for 2005-12 are:

- (i) Access to integrated comprehensive primary healthcare
- (ii) Prevention and control of communicable and non-communicable diseases including locally endemic diseases
- (iii) Reduction of infant and maternal mortality rate
- (iv) Population stabilisation, control, gender and demographic imbalances

1.1.2 Organisational Set-up

At the State level the scheme is implemented through State Health Mission (SHM) headed by Chief Minister. The State Programme Management Support Unit (SPMSU) headed by the Mission Director acts as Secretariat to the SHM and State Health Society (SHS). The governing body of the Mission headed by

¹ Modification or remedial measures in the healthcare delivery system

² Reproductive and Child Health (RCH)-II, National Vector Borne Disease Control Programme (NVBDCP), Revised National Tuberculosis Control Programme (RNTCP), National Leprosy Eradication Programme (NLEP), National Blindness Control Programmes (NBCP), Integrated Disease Surveillance Project (IDSP) and National Iodine Deficiency Disease Control Programme (NIDDCP)

Principal Secretary, Health, Medical and Family Welfare Department is entrusted with the task of scrutiny and approval of the annual State plans; monitoring the status of the follow-up action on decision of SHM, etc.; review of expenditure and implementation; approval of the accounts of the district and other implementing agencies and execution of approved action plans including release of funds for the programme. The Commissioner of Family Welfare (CFW) is the Member Secretary of the State Health Society.

At the district level, the District Health Society (DHS) is headed by District Collector. District Medical & Health Officer (DM&HO) as head of the Executive Committee is responsible for planning, monitoring, evaluation, accounting, database management and release of funds to health centres. The implementation of various national disease control programmes is supervised by the Additional Directors.

As of March 2009 there were 167 Community Health Centres³ (CHCs), 1,570 Primary Health Centres⁴ (headed by Medical Officer-in-Charge) and 12,522 Sub-centres in the State for providing healthcare services to the rural population.

1.1.3 Audit objectives

The performance audit had the following objectives:

- Whether planning was designed at State, district and village levels to effectively meet the mission objectives for ensuring accessible, effective and reliable healthcare to rural population;
- Whether public spending on health sector over the years 2005-09 increased to the desired level and assessment, release of funds in the decentralised set up and utilisation of funds released and accounting thereof was adequate;
- Whether the Mission achieved capacity building and strengthening of physical and human infrastructure at different levels as planned and targeted;
- Whether the systems and procedures of procurement and equipment were cost effective and efficient; and
- Whether the performance indicators and targets fixed specially in respect of reproductive and child healthcare, immunization and disease control programmes were achieved.

³ For a population of 1.20 lakh in rural and 0.80 lakh in tribal, there should be one CHC with a minimum 30 bedded accommodation and one operation theatre. In addition to two regular medical officers, there should be specialist services in surgery, gynaecology and paediatrics

⁴ For a population of 0.30 lakh in rural areas and 0.20 lakh in tribal areas, there should be one PHC with a minimum six bedded accommodation and two medical officers

1.1.4 Audit criteria

The audit was conducted with reference to records maintained for implementation of NRHM. The audit criteria adopted were:

- GOI guidelines on the scheme and instructions issued from time to time;
- State Programme Implementation Plan (PIP) approved by GOI; and
- Indian Public Health Standards (IPHS) for up-gradation of CHCs/PHCs.

1.1.5 Scope and Methodology of Audit

The performance audit was conducted (March – August 2008 and February - March 2009 and May 2009) covering the period from 2005-06 to 2008-09 by test check of records in the Mission Commissionerate, eight DHSs⁵ (out of 23) along with 24 (out of 167) CHCs, 48 (out of 1,570) PHCs and 96 (out of 12,522) Sub-centres. The selection of sample was based on Simple Random Sampling without Replacement method. The details are given in [Appendix-1.1](#). The percentage of expenditure covered in sample districts ranged from 11 to 32 *per cent* during 2005-09. An entry conference was held (May 2008) with the Mission Commissionerate, wherein audit objectives and criteria were explained. The exit conference was conducted in January 2009 with the Additional Director, NRHM and the Programme Officers. Replies of the Government have been considered and incorporated while finalising the Performance Audit review. The results of the Performance Audit are discussed in the succeeding paragraphs.

Audit findings

1.1.6 Release and utilisation of funds, accounting and auditing arrangements

1.1.6.1 Financial outlay and expenditure

Twenty one to twenty nine *per cent* of available funds remained unutilised every year during 2005-09

The Programme was fully funded by GOI during the years 2005-06 and 2006-07. From the year 2007-08 onwards, the funding was to be in the ratio of 85:15. During the period 2005-09 GOI released Rs 1,603.12 crore and with an inclusion of opening balance of Rs 17.53 crore relating to RCH-I programme which was under implementation prior to 2005-06 the total funds available with the State Government were Rs 1,620.65 crore. As against this, the expenditure was Rs 1,505.06 crore leaving Rs 115.59 crore unspent. The year wise details are given in Table-1.

⁵Adilabad, Khammam, Krishna, Kurnool, Nellore, Vizianagaram, Karimnagar and Kadapa

Table-1

(Rupees in crore)

Year	Opening Balance	GOI Releases [§] Grant-in-Aid	Expenditure*	Closing Balance	Unspent Balance Percentage
2005-06	17.53	255.85	214.31	59.07	22
2006-07	59.07	425.39	381.22	103.24	21
2007-08	103.24	556.96	470.39	189.81	29
2008-09	189.81	364.92	439.14	115.59	21
Total		1603.12	1505.06		

[§]These amounts are based on the records maintained by SHS and are less than the releases made by GOI as detailed in para 1.1.6.2

*Release to districts shown as expenditure: Rs 1,095.44 crore, Expenditure incurred at State level by SHS: Rs 409.62 crore

Thus, every year 21 to 29 *per cent* of the available funds remained unutilised in the bank accounts⁶ while several gaps/shortfalls were noticed by Audit in creation/strengthening of infrastructure in the implementation of various schemes under NRHM as discussed in paras 1.1.8.1 to 1.1.8.3.

Audit also observed that the State did not contribute its share of 15 *per cent* during the year 2007-08 and 2008-09⁷. The deficiencies in utilisation of funds are discussed in para 1.1.10.

1.1.6.2 Discrepancies in figures relating to receipt of funds

Huge variations were noticed between the figures of releases by GOI and those received by SHS

There were significant variations (short receipt by SHS: Rs 168.23 crore to end of March 2008) between the releases made by GOI and the funds received by SHS as detailed in Table-2.

Table-2

(Rupees in crore)

Year	Funds released to SHS (GOI figures)*	Funds stated to have been received by SHS	Difference
2005-06	383.90	255.85	128.05
2006-07	424.70	425.39	0.69
2007-08	597.83	556.96	40.87
2008-09	Not available	364.92	-

Source: Information provided by Ministry of Health and Family Welfare, GOI

Similarly, substantial variations (amount involved: Rs 11.49 crore) were also noticed between the figures of releases by SHS and those received by DHS in all the eight sampled districts. The district-wise details are given in [Appendix-1.2](#).

⁶ ICICI Bank, a private entity benefited immensely from such large funds being maintained in SB accounts

⁷ The amounts released and paid under the State sponsored schemes like Sukhibhava, Family Planning incentives and Rural Emergency Health Transport Service were shown as State share but as these schemes were in vogue prior to introduction of NRHM, the expenditure on these schemes can not be construed as contribution to NRHM

Government in its reply (June 2009) stated that the variations were due to release of the funds to Director of Health directly by Government of India who in turn was releasing to the Programme Officers at district level and the accounts being rendered by the Programme Officers to the Ministry through Director of Health. It was also stated that Chartered Accountants were instructed to take action to reconcile the discrepancies.

1.1.6.3 Accounting and auditing arrangements

The accounts of the SHS and DHS are based on commercial accounting system with a provision for certification by a Chartered Accountant. For ensuring accountability for expenditure incurred from Government funds, two kinds of audit are carried out (i) Certification of accounts which merely confines itself to whether accounts prepared are backed by vouchers (ii) the transaction audit to ascertain whether the utilisation of funds is in conformity with the principles of economy, efficiency, effectiveness and propriety including equality of opportunity for executing works or providing services.

The present arrangements are confined to activity (i) and there is no assurance with regard to conformity with vital conditions which are scrutinised in activity (ii).

The following deficiencies were noticed in maintenance of books of accounts in DHS and SHS:

1.1.6.4 Non-maintenance of accounts in double entry system

Though prescribed, the accounts at State and district level were not maintained in double entry system leading to non-drawing up of trial balance. Ledger, journal were also not maintained.

1.1.6.5 Non-maintenance of initial records at District Health Societies

In all the DHSs test checked, cash books and other initial records were not maintained properly and were not closed periodically due to which the DHSs were not able to ascertain the balance available with them on any given day. For this purpose, they were relying on statements furnished by the banks in which the scheme funds were deposited. The accounts of the scheme were not also certified at district level by CA though prescribed in the guidelines.

Reconciliation of SHS/DHSs figures with banks was also not being done as initial records at district level were not maintained properly.

1.1.7 Planning for Implementation of the Mission

Planning process was deficient. The objective of converging various National Disease Control Programmes remained unachieved

The NRHM is aimed at decentralised planning and implementing arrangements to ensure need based and community owned district health action plan which would form the basis for intervention in the health sector. The guidelines envisaged household survey, facility survey, preparation of perspective plan for the entire Mission period (2005-12), annual action plan, and the Project Implementation Plan (PIP). Scrutiny of the records revealed that household survey was completed in 21 districts (i.e. except Adilabad and East Godavari) in the State. There were deficiencies in the planning process, as follows:

1.1.7.1 Perspective plans for the Mission period

NRHM guidelines envisage preparation of perspective plans for the entire Mission period (2005-2012) outlining the year-wise resources and activity needs of the district. The annual plan was to be based on availability and prioritisation exercise.

DHSs in the State have not prepared the perspective plan for the entire Mission period. Thus, the requirement and availability of resources and physical and financial targets remained un-assessed. In fact, the funds earmarked for preparation of Perspective Plan were diverted by DM & HOs for other purposes (Para 1.1.10 refers).

1.1.7.2 Facility Survey

In order to set up a benchmark for quality service and utilisation and identify input needs, Facility Survey (Specialist service, manpower, investigating facilities, equipment and other infrastructure, etc.) was to be conducted in each facility i.e., CHC, PHC, and Sub-centres. These surveys were to provide critical information in terms of gaps in infrastructure and human resource which needed to be addressed through planning process.

No Facility Survey was however, conducted in the State. At a belated stage in April 2008, this was entrusted to Indian Institute of Health and Family Welfare requiring to be completed by October 2008 at a cost of Rs 46.50 lakh. No progress was noticed as of May 2009. Thus, the programme was implemented during the period 2005-09 without the benefit of facility survey. Due to non-conduct of facility survey, deficiencies in specialist services, manpower services and infrastructure facilities were not identified.

1.1.7.3 Preparation of Project Implementation Plan (PIP)

PIP for the State was to be prepared annually by the SHS by aggregating the annual District Health Action Plan of each district. The National Programme Co-ordination Committee (NPCC) at the Ministry under the Chairmanship of the National Mission Director was to evaluate the PIP.

After incorporation of the feedback of the NPCC the PIP was to be approved by the Secretary, Ministry of H&FW. The directives issued by the NPCC were to be complied with by the SHS.

The SHS had no details of PIPs for the two year period 2005-07.

Audit observed that except DHS, Vizianagaram, the district health action plan was not prepared by any DHS in the State. This indicated that the PIPs were prepared without considering the DHAPs and the programme was implemented in an adhoc manner and is not need based. While approving (August 2007) the PIP in respect of 2007-08 NPCC gave the following directives:

- Provision of 10 *per cent* increase in budgetary outlay per year by the State
- Utilisation of not exceeding 25 *per cent* of funds for strengthening of infrastructure

- Drawing a monitoring plan for NRHM in consultation with National Health State Resource Centre (NHSRC)
- Construction of new CHCs and PHCs

It was observed that none of the above directives were complied with by the State Health Society (SHS) as of June 2009. Non-establishment of new CHCs and PHCs after launching NRHM had the adverse implications on delivery of healthcare to the targeted population (Para 1.1.8.1 also refers). Government replied (June 2009) that monitoring plan in consultation with NHSRC is under process. Government did not offer specific remarks on the other directives issued by NPCC.

1.1.8 Infrastructure and Capacity Building

In rural areas there was a shortage of 387 CHCs and 464 PHCs. In tribal areas the shortage was 63 CHCs, 63 PHCs and 303 Sub-Centres

The mandate of NRHM stipulates creation of infrastructure/buildings for health centres and strengthening the existing ones for improving accessibility and quality of healthcare services. Adequate attention was not paid by the State Government for creation/strengthening of physical infrastructure in CHCs/PHCs/Sub-centres as discussed in Paras 1.1.8.1 to 1.1.8.4 below:

1.1.8.1 Shortfall in number of Health Centres

NRHM framework seeks to provide one Sub Centre for 5,000 population (3,000 in tribal areas), one Primary Health Centre for 30,000 population (20,000 in tribal/desert areas) and one Community Health Centre for 1,00,000 population (80,000 in tribal/desert areas).

No new health centres had come up after launching NRHM in 2005-06, defeating the objective of accessibility of healthcare to rural/tribal population

For the rural population of 554.01 lakh (Census 2001) in the State, there was a shortage of 387 CHCs and 464 PHCs. For tribal population of 50.24 lakh the shortage was 63 CHCs, 63 PHCs and 303 Sub-Centres. Audit observed that during the entire period 2005-09 i.e., after launching the NRHM no new CHCs or PHCs had come up in the State despite specific directive by the Ministry to propose the setting up of new CHCs, PHCs through PIPs from the year 2007-08. Government in its reply (June 2009) stated that construction of 250 Sub-centres would be taken up (outlay: Rs 36 crore) in 2009-10.

Non-setting up of the required number of health centres as per the population norms defeated the objective of the programme with adverse implication on the accessibility of health facilities to rural/tribal population.

The physical infrastructure at health centres was inadequate and far below the desired level envisaged in Indian Public Health Standards. Majority of CHCs/PHCs test checked lacked basic infrastructure facilities

1.1.8.2 Inadequate physical infrastructure at health centres

The framework for implementation of the Mission has set the target of providing certain guaranteed services at Sub-centres, PHCs and CHCs. To achieve this, the Ministry of Health and Family Welfare, GOI has formulated the Indian Public Health Standards (IPHS) for different levels of health centres for ensuring availability of facilities.

Audit scrutiny revealed that even the basic infrastructure was not available in any of the health centres test checked (CHCs: 24, PHCs: 48, Sub centres: 96) as follows:

Item/ subject and requirement	Audit findings																														
<p>Operation Theatres</p> <p>According to IPHS norms major equipments are necessary to make an Operation Theatre (OT) functional.</p>	<p>Important equipments were not available in CHCs as mentioned below:</p> <table border="1" data-bbox="760 312 1453 1031"> <thead> <tr> <th data-bbox="764 317 1166 428">Nature of equipment</th> <th data-bbox="1169 317 1448 428">Number of CHCs (out of 24 CHCs test checked) where equipment was not available</th> </tr> </thead> <tbody> <tr> <td data-bbox="764 432 1166 491">Boyles apparatus to provide artificial respiration</td> <td data-bbox="1169 432 1448 491">11</td> </tr> <tr> <td data-bbox="764 495 1166 531">Cardiac Monitors</td> <td data-bbox="1169 495 1448 531">21</td> </tr> <tr> <td data-bbox="764 535 1166 571">Ventilators Verticals</td> <td data-bbox="1169 535 1448 571">19</td> </tr> <tr> <td data-bbox="764 575 1166 611">High Pressure sterilizers 2/3 capacity drum</td> <td data-bbox="1169 575 1448 611">15</td> </tr> <tr> <td data-bbox="764 615 1166 651">Shadow less lamps pedestal for minor OT</td> <td data-bbox="1169 615 1448 651">11</td> </tr> <tr> <td data-bbox="764 655 1166 690">Gloves and dusting machines</td> <td data-bbox="1169 655 1448 690">7</td> </tr> <tr> <td data-bbox="764 695 1166 730">Nitrous Oxide Cylinders</td> <td data-bbox="1169 695 1448 730">12</td> </tr> <tr> <td data-bbox="764 735 1166 770">EMO machines for surgery</td> <td data-bbox="1169 735 1448 770">21</td> </tr> <tr> <td data-bbox="764 774 1166 810">Defibrillators</td> <td data-bbox="1169 774 1448 810">23</td> </tr> <tr> <td data-bbox="764 814 1166 850">Horizontal High Pressure Sterilizers</td> <td data-bbox="1169 814 1448 850">15</td> </tr> <tr> <td data-bbox="764 854 1166 890">Shadow Less Lamp Ceiling Tract Monitors</td> <td data-bbox="1169 854 1448 890">9</td> </tr> <tr> <td data-bbox="764 894 1166 930">OT Care/Fumigation Apparatus</td> <td data-bbox="1169 894 1448 930">9</td> </tr> <tr> <td data-bbox="764 934 1166 993">Oxygen Cylinder 660 litres for one Boyles apparatus</td> <td data-bbox="1169 934 1448 993">7</td> </tr> <tr> <td data-bbox="764 997 1166 1033">Hydraulic Operation Table</td> <td data-bbox="1169 997 1448 1033">11</td> </tr> </tbody> </table> <p>Due to non-availability of important/essential equipment in Operation Theatres in the CHCs (supposed to be First Referral Unit) the targeted people in rural areas were deprived of quality surgical treatment. Government accepted the audit observations.</p>	Nature of equipment	Number of CHCs (out of 24 CHCs test checked) where equipment was not available	Boyles apparatus to provide artificial respiration	11	Cardiac Monitors	21	Ventilators Verticals	19	High Pressure sterilizers 2/3 capacity drum	15	Shadow less lamps pedestal for minor OT	11	Gloves and dusting machines	7	Nitrous Oxide Cylinders	12	EMO machines for surgery	21	Defibrillators	23	Horizontal High Pressure Sterilizers	15	Shadow Less Lamp Ceiling Tract Monitors	9	OT Care/Fumigation Apparatus	9	Oxygen Cylinder 660 litres for one Boyles apparatus	7	Hydraulic Operation Table	11
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<p>CEMONC Centre⁸</p> <p>The objective was to provide life saving emergency care to mother and child and was designed to have 4 Obstetricians, one Paediatrician, and one Anaesthetist with Blood Storage Centre.</p>	<ul style="list-style-type: none"> As of March 2008 out of 329 and 546 sanctioned posts of Gynaecologists and Staff Nurses respectively, 183 (56 per cent) and 428 (78 per cent) posts were vacant. In Adilabad, Khammam, Krishna and Nellore Districts the CEMONC Centres were not functioning due to non-availability of Specialist doctors viz., Gynaecologist, Paediatrician and Anaesthetist. In the absence of doctors the Staff Nurses could not attend to emergency cases like caesarean, blood transfusion, administering anaesthesia. Government in its reply (June 2009) attributed the vacancies to experienced specialist doctors not generally willing to work at rural centres even after offering better remuneration. 																														

⁸ Comprehensive Emergency Obstetric and Neo-natal Care

<p>Emergency Services</p> <p>The Mission provides for 24 hours emergency services for management of injuries and accident first aid, stabilisation of patients before referral, dog/snake/scorpion bite cases, etc. by posting 3 staff nurses at PHCs.</p>	<p>Out of the 48 PHCs emergency services were available only in 18 PHCs. Lack of services in other PHCs was due to non-availability of the staff.</p>
<p>Diagnostic Services</p> <p>Mission provides for essential lab services at PHCs/CHCs level for routine urine, stool and blood test, blood grouping, bleeding time, clotting time, diagnostic for RTI/STD, Sputum testing for TB, Blood Smears examination for Malaria Parasites, rapid test for pregnancy/ malaria and RPR for Syphilis/Yarn.</p>	<ul style="list-style-type: none"> • In all the 48 PHCs test checked lab services were available partially only. • In 24 CHCs and 48 PHCs though equipment for lab tests were present diagnostic services were not carried out due to absence of Technician/Reagents/Electricity. • In 3 CHCs and 15 PHCs facilities for diagnostic services were non-functional due to non-availability of lab technicians.
<p>Labour Room</p> <p>The frame work of the implementation of the scheme provides for facility of labour room for safe delivery at PHC and CHC.</p>	<p>Labour rooms were available in 37 out of 48 PHCs test checked.</p>
<p>Radiological/X Ray services</p>	<p>In 10 out of 24 test checked CHCs, X-ray facilities were not available.</p>
<p>Blood storage facilities</p>	<p>Due to lack of equipment/staff, Blood storage facilities were not available in the 12 CHCs (out of 24) test checked.</p>
<p>Basic infrastructure</p> <p>Basic facilities such as buildings, vehicles, utilities, labour rooms, OTs, etc. at CHCs, PHCs and Sub-centres level are to be provided as per IPHS norms.</p>	<ul style="list-style-type: none"> • 3 PHCs were functioning in private buildings. • In 38 PHCs and 11 CHCs no vehicle/ambulance were provided. • In 85 Sub-centres, 11 PHCs and 2 CHCs, there were no separate utilities for men and women. • In 8 PHCs and 1 CHC, out-patient department (OPD) rooms were not present. In 14 PHCs Operation theatres were not present. • In 9 PHCs Labour rooms were not functional. • In 10 CHCs Waiting Rooms were not available. • In 21 PHCs and 12 CHCs no standby power supply/generator was available. • In 89 Sub-centres, 31 PHCs and 9 CHCs telephone connections were not available. • In 26 PHCs and 21 CHCs computers were not available.

	<ul style="list-style-type: none"> • In 82 Sub-centres the accommodation facilities for doctors were not available. • Residential quarters were not available for 34 medical officers and 32 staff nurses at PHC level. In 16 CHCs partial accommodation only was provided to medical officers.
<p>AYUSH services</p> <p>One of the objectives of the NRHM was to revive AYUSH (Ayurvedic, Unani, Siddha and Homoeopathy) services through revitalising local traditions, by providing an AYUSH doctor at PHCs and by establishing AYUSH clinics at CHC.</p>	<p>Out of 48 PHCs and 24 CHCs test-checked no AYUSH practitioner was provided in 41 PHCs and in all the CHCs either through regular posting or through contractual appointment. This would adversely affect the objective of providing AYUSH services at the health centres under NRHM. Government replied (June 2009) that although notification was issued in April 2008 for recruiting doctors, there was no response.</p>
<p>Mobile Medical Units (MMUs)</p> <p>To make healthcare available at the door steps of the public in the rural areas, Mobile Medical Units were to be provided for providing outreach service.</p>	<ul style="list-style-type: none"> • 93 MMUs were launched in 23 districts in 2005-06. Of these, only 50 MMUs are functional in 17 districts as of May 2009; 43 MMUs were closed reportedly due to poor performance and lack of Medical Officers and equipments. • In all the 8 test checked districts MMUs were not provided with required equipments and hence were non-functional. • The equipment viz., Ultra Sound ECG, BP Apparatus, Lab equipment were not available in the MMUs. Interventions like RTI/STI, Blood smear, ECG investigation like Urine, Blood, Sputum were not carried out in MMUs. • In Krishna District MMUs were providing services in areas where accessibility to the healthcare centre was not a problem, leaving the remote/outreach areas un-covered. • In Adilabad, Nellore and Vizianagaram the MMUs were providing only curative services i.e., administering medicines for fever, cold etc., ignoring preventive and diagnostic services. In Adilabad, Krishna and Vizianagaram, MMUs were providing healthcare services in outreach areas without a Medical Officer. Government while accepting the audit points stated (June 2009) that the equipment could not be supplied promptly due to lengthy procurement tender process.

1.1.8.3 Construction of Health Centres

The building works taken up for construction during 2005-09 under NRHM are given in Table-3.

Table-3

(Rupees in crore)

Type of building	Number proposed to be constructed	Estimated/ Sanctioned cost	Amount released	Expenditure incurred up to February 2009	Number completed	Number of works in progress	No. of completed works handed over	No. of works not taken up
CEMONC ⁹ Centres	151	88.49	31.62	40.35	77	44	51	30 ¹⁰
Paediatric and Maternal ward at SVRR Hospital ¹¹ , Tirupati	1	12.50	5.00	4.23	-	1	-	-
Birth waiting homes	38	4.05	1.76	1.57	26	7	-	5
Maternal and child health control room	1	0.11	0.11	NA	NA	1	-	-

The following were observed:

Construction of 44 CEMONC Centres remained incomplete and works of 30 centres were not taken up

- Even though funds were released, 44 CEMONC centres remained incomplete. Construction of 30 CEMONC centres was not taken up due to site disputes and lack of response from bidders. Construction of 12 birth waiting rooms (all in tribal areas) also remained incomplete.
- The Paediatric and Maternal ward at SVRR Hospital, Tirupati still remained incomplete even after two years of its sanction and release of funds (pending completion of works the ward was inaugurated in February 2009)
- The Commissioner did not ensure establishment of Maternal and child health control room despite specific provision of funds, which were lying with APHMHIDC. Government replied (June 2009) that it had introduced 104 toll free 24X7 call centre service to provide Health Information Helpline in the State. The amount (Rs 11.50 lakh) was however, not yet remitted back to the NRHM account by APHMHIDC.

The delay in completion of civil works led to denial of intended benefit to the beneficiaries besides escalation in construction cost.

1.1.8.4 Manpower

Huge shortage of manpower in key areas had adverse implication on providing reliable and quality medical services to rural population

Provision of manpower is a key component of delivery of health services. The Mission aimed to provide adequate medical and other manpower at different health centres. The details of sanctioned strength vis-à-vis men in position and the vacancy position in the Medical and Health Department as of September 2008 are given in the [Appendix-1.3](#).

⁹ Comprehensive Emergency Obstetric and Neo-natal Care

¹⁰ Vizianagaram-3, Visakhapatnam-6, West Godavari-2, Krishna-2, Chittoor-1, Anantapur-2, Kurnool-2, Mahboobnagar-2, Ranga Reddy-2, Nalgonda-2, Medak-1, Nizamabad-2, Warangal-1, Khammam-1, Adilabad-1

¹¹ Sri Venkateswara Ramnarain Ruia Government General Hospital

Shortfall was noticed in the key functions of Civil Surgeon Specialist (46), Dy. Civil Surgeon (120), Civil Assistant Surgeon (1,279), Non-Medical Supervisor (104), Non-Medical Assistant (660), Sr. Entomologist (14), Staff Nurses (865), Community Health Officer (201). The huge shortfall in manpower had wide ranging inter-health centre variations, with adverse implications on providing reliable and quality medical services to the targeted population in rural areas.

1.1.9 Implementation of schemes

The implementation of RCH programme suffered from deficiencies in the areas of institutional delivery care, antenatal care, delivery services 24x7 and MTP

1.1.9.1 Reproductive and Child Healthcare (RCH)

NRHM aimed to provide an overarching umbrella to the national level health and family welfare programmes including (a) Janani Suraksha Yojana (JSY), (b) Immunization routine and Pulse Polio (c) National Vector Borne Disease Control Programme (NVBDCP), (d) Revised RNTCP (e) NPCB, NLEP and IDSP.

Audit observed the following deficiencies in the implementation of RCH scheme:

Item/Subject and requirement	Audit findings																												
<p>Milestones NRHM prescribed national targets for reducing Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR) and Total Fertility Rate (TFR).</p>	<p>The State also prescribed specific targets/intermediate goals/outcomes/ milestones by adopting the Contraceptive Prevalence Rate as indicator to measure the effectiveness of the implementation of activities of Family Welfare Programme for the Mission period 2005-12 as indicated below:</p> <table border="1"> <thead> <tr> <th>Particulars</th> <th>2006-07</th> <th>2007-08</th> <th>2008-09</th> <th>2009-10</th> <th>2010-11</th> <th>2011-12</th> </tr> </thead> <tbody> <tr> <td>Infant Mortality Rate (IMR) per 1000 live births</td> <td>56</td> <td>50</td> <td>45</td> <td>40</td> <td>35</td> <td>30</td> </tr> <tr> <td>Maternal Mortality Rate (MMR) per 100000 live births</td> <td>195</td> <td>176</td> <td>157</td> <td>138</td> <td>119</td> <td>100</td> </tr> <tr> <td>Total Fertility Rate (TFR)</td> <td>1.80</td> <td>1.74</td> <td>1.68</td> <td>1.62</td> <td>1.56</td> <td>1.50</td> </tr> </tbody> </table> <p>However, the State did not evaluate the prevalent rate of IMR, MMR and TFR for the years 2005-06 to 2007-08. No bench marks were prescribed to measure the achievement with regard to accessible, affordable, accountable, effective and reliable healthcare. No mechanism also existed to measure the impact of the programme.</p>	Particulars	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	Infant Mortality Rate (IMR) per 1000 live births	56	50	45	40	35	30	Maternal Mortality Rate (MMR) per 100000 live births	195	176	157	138	119	100	Total Fertility Rate (TFR)	1.80	1.74	1.68	1.62	1.56	1.50
Particulars	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12																							
Infant Mortality Rate (IMR) per 1000 live births	56	50	45	40	35	30																							
Maternal Mortality Rate (MMR) per 100000 live births	195	176	157	138	119	100																							
Total Fertility Rate (TFR)	1.80	1.74	1.68	1.62	1.56	1.50																							
<p>Antenatal care To reduce MMR, NRHM aims for safe motherhood which was to be achieved by registering all pregnant women before they attain 12 weeks of pregnancy,</p>	<p>The following basic information was not maintained in all the CHCs, PHCs and Sub-centres test checked.</p> <p>(i) Micro birth plan at the PHCs level (in Adilabad, Kurnool, Karimnagar and Nellore Districts).</p>																												

<p>provision of four antenatal checkups, issue of ninety or more Iron Folic Acid (IFA) tablets, administering two doses of TT, advising the correct diet and vitamin supplements and in cases of complication referring them to more specialised gynaecological care.</p>	<p>(ii) Details of registration of pregnant women (in Adilabad District). (iii) Systematic records of checkups.</p>
<p>Institutional Delivery Care Janani Suraksha Yojana (JSY) was started during 2005-06 with an objective to encourage pregnant women for Institutional delivery in Government/Private institutions which contributes to reduction of maternal mortality and infant mortality.</p>	<p>To encourage institutional delivery, the Centrally sponsored Janani Suraksha Yojana (JSY) scheme provides all pregnant women in low performing States and BPL pregnant women in high performing States a cash compensation of Rs 700 for undergoing institutional delivery irrespective of their age and number of previous children with them. Of the total deliveries of 15.12 lakh, 15.01 lakh, 15.13 lakh and 15.59 lakh during 2005-09, the status of institutional delivery in the State was 12.55 lakh, 12.77 lakh 13.33 lakh and 14.20 lakh constituting 83, 85, 88 and 91 <i>per cent</i> of targets.</p> <p>In Vizianagaram District there was a delay of five months in payment of compensation to 1475 beneficiaries involving Rs 13.80 lakh due to non-release of State matching share of Rs 300 per delivery under Sukhibhava scheme.</p>
<p>Delivery Services 24x7 Under RCH-I, the State Government launched a strategy in March 1996 to make Emergency Maternal Healthcare Services available round the clock to the people in Rural Public Health Institutions, where at least a Staff Nurse and MPHA(F) was to be available 24 hrs a day and 7 days a week to provide normal delivery service. These PHCs have been authorised to obtain the services of Gynaecologist and a Paediatrician on a 'per-call' payment basis from the private sector, if specialists are not available.</p>	<p>Out of total 1570 PHCs in the State only 800 PHCs (29 out of 48 PHCs in the sampled districts) had the facility of 24x7 delivery services.</p> <p>Audit observed that these PHCs were not catering to the services satisfactorily due to non-availability of Gynaecologist and Paediatrician, required number of staff Nurses (3) and Labour room etc.</p>
<p>Essential Obstetric Care</p>	<p>In 14 out of 24 CHCs test checked the emergency obstetric care including caesarean facility was not available due to absence of specialists in obstetrics and gynaecology, anaesthesia though required as per IPHS norms and non-functional operation theatre, lack of adequate infrastructure, supporting staff, blood storage facility etc.</p>

<p>Medical Termination of Pregnancy (MTP)</p> <p>Medical Termination of Pregnancy is permitted in certain conditions under the MTP Act, 1971.</p>	<p>Enhancing number and quality of facilities for MTP is an important component of the programme. The programme envisaged need based training to medical officers and nurses, provision of equipment and operation theatre and MTP kits at District Hospitals, CHCs and PHCs.</p> <p>It was observed that none of the 24 CHCs and 48 PHCs test checked in the six districts had the facilities of MTP.</p>
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Government while accepting the above audit observations promised to take remedial action.

1.1.9.2 Rogi Kalyan Samithis (RKS)

Functioning of Rogi Kalyan Samithis was found to be deficient. RKSs were yet to be formed in one CHC and 54 PHCs

NRHM guidelines envisaged constitution of RKSs with the representatives of legislature, health officials and leading members of the community and PRI Representatives, to be registered under Societies Registration Act, 1860 for healthcare centres up to PHC level. Audit observed the following deficiencies in implementation of RKSs:

- Out of 19 District Hospitals, 167 CHCs and 1,570 PHCs in the State, RKSs were not constituted in one CHC and 54 PHCs to end of 2007-08.
- A monitoring committee has to be constituted by RKS to collect patient's feed back and complaints if any, for taking remedial action. In eight District Hospitals, 24 CHCs and 48 PHCs test checked monitoring committees were not constituted in 11 CHCs (46 per cent) and 32 PHCs (67 per cent).
- In eight District Hospitals, 17 CHCs and 21 PHCs no report on patients' feed back and complaints on presence and conduct of healthcare personnel was submitted to DMHO/Collector. Thus, the monitoring mechanism for redressal of complaints was rendered ineffective.
- The source of funds for RKSs was to be in the ratio of 1:1:3 (Internal: through own resources, donations, levy of user charges; State and Central). However, neither the grants were received from the State Government nor the RKSs have generated the internal resources during 2007-08. This would adversely affect the viability of the long term goal of community ownership of the health centres through RKSs.

Government did not offer specific remarks on the above audit observations.

1.1.9.3 Family planning

The RCH II has launched a number of initiatives under the family planning component to achieve the goal of population stability through reduction of total fertility rate by 2012. The family planning includes terminal method to control total fertility rate and spacing methods to improve couple protection ratio.

The target and achievements in various terminal methods in the State is indicated in [Appendix-1.4](#). The following observations are made:

Item/subject	Audit findings
Vasectomy	The proportion of vasectomy to the total sterilization was very low ranging from 3.53 <i>per cent</i> to 4.25 <i>per cent</i> of the targets during 2005-09.
Tubectomy	The proportion of tubectomy to the total sterilization ranged from 79.51 <i>per cent</i> to 84.63 <i>per cent</i> and this is a manifestation of the gender imbalance that plagues the programme. The proportion of vasectomy has not increased even after the launch of the non-scalpel vasectomy. In Krishna, Kurnool and Nellore Districts, vasectomy operations constituted a meagre 0.03 to 2.86 percentage of total sterilizations.
Laparoscopic tubectomy	While female sterilization is the most adopted method, the programme emphasises laparoscopic tubectomy as preferable to conventional tubectomy. The performance of laparoscopic tubectomy was low at 11.79 <i>per cent</i> of total female sterilizations.

No specific remarks were offered by the Government on the above points.

1.1.9.4 Immunization

Huge shortfalls (up to 39 *per cent*) were noticed in respect of second immunization (age group 10-16 years)

Vaccines like BCG, OPD, TT, DPT, DT and measles under universal immunization programme were envisaged under RCH programme. Immunization strengthening project was aimed at achieving complete vaccination of 80 *per cent* infants by strengthening routine immunization to realise the desired reduction in infant morbidity and mortality rate.

Audit scrutiny revealed that immunization of children between 0 and 1 age group ranged from 93 *per cent* to 101 *per cent* during the period 2005-09. However, shortfall was noticed up to 39 *per cent* in respect of second immunization (age group 10-16 years) as shown in Table-4.

Table-4

(Number in lakh)

Year	DT			TT (10)			TT (16)		
	Target	Achievement	Percentage	Target	Achievement	Percentage	Target	Achievement	Percentage
2005-06	14.63	13.49	92.20	19.20	12.83	66.82	18.40	11.15	60.59
2006-07	17.80	12.76	71.68	20.23	12.32	60.89	17.00	10.34	60.82
2007-08	18.17	14.09	77.54	20.65	13.17	63.77	17.35	11.37	65.53
2008-09	18.23	12.06	66.15	20.72	12.57	60.66	17.40	10.87	62.47

Government attributed (June 2009) the shortfall in second immunization of children (above 5 years) to the children not being available in their homes due to admission in schools and migration in some cases. The reply is not acceptable as both the targets and achievements were inclusive of the number of children covered under School Immunization Programme.

1.1.9.5 National Programme for Control of Blindness (NPCB)

The achievement of Catops in Government hospitals was far below the prescribed target of 50 per cent

The NPCB aimed to reduce prevalence of blindness cases to 0.8 per cent (the prevalent rate of blind is 1.84 per cent) by arranging cataract surgeries (46 lakh by 2012), and collection of donated eye balls and by arranging school eye screening and free distribution of eye spectacles and creation of donation centres and eye-banks and strengthening of infrastructure by way of supply of equipment and training of eye surgeons and nurses.

Fifty per cent of the total Cataract Operations (catops) were to be performed by the Government Hospitals as envisaged in the guidelines. However, the achievement in Government hospitals ranged from 15 to 18 per cent of total catops as shown in Table-5.

Table-5

Year	Number of catops conducted		Break-up of catops					
			Government sector		NGOs		Private practitioners and others	
	Target	Achievement	Number	Percentage	Number	Percentage	Number	Percentage
2005-06	460000	513508	92431	18	205403	40	215674	42
2006-07	460000	510705	83615	16	239055	47	188035	37
2007-08	500000	547899	98622	18	219160	40	230117	42
2008-09	550000	582318	89773	15	276622	48	215923	37
Total	1970000	2154430	364441		940240		849749	

The programme contemplated that cataract operations performed in eye camps should be in the range of 20 per cent as it was felt that greater reliance on the camp methodology could be counter productive. It was however, observed that catops performed through camp approach far exceeded the prescribed percentages as shown in Table-6. Government attributed (June 2009) the poor achievement of catops in Government institutions to non-availability of the posts of eye surgeons and operation theatres in area hospitals/district hospitals/CHCs and also non-availability of Para-Medical Ophthalmic Assistants (PMOA) posts in 350 PHCs (out of 1570). It was stated that Director of Health was instructed in February 2009 to outsource the services of 100 PMOAs. Government did not however, indicate the steps taken/proposed to be taken with regard to recruitment of eye surgeons.

Table-6

Year	No. of catops performed			Percentage of catops in Camps
	Total	In camps	No. of Camps	
2005-06	513508	143558	2266	27.95
2006-07	510705	159279	2728	31.18
2007-08	547899	203621	3401	37.16
2008-09	582318	213941	3713	36.70

1.1.9.6 National Iodine Deficiency Disorder Control Programme (NIDDCP)

No survey was conducted after launching NRHM to identify areas of iodine deficiency disorder

The NIDDCP aims to control iodine deficiency disorder (IDD) through production and distribution of iodised salt, analysis of salt samples and analysis of urinary iodine excretion etc.

The NIDDCP was launched in the State during 1962. During 1986 to 2003, 14 out of 23 districts were surveyed for locating areas of IDD and all these districts were identified as areas endemic to IDD. No survey was however, conducted during the period 2005-09.

The number of iodine salt samples analysed during 2005-06, 2006-07, 2007-08 and 2008-09 is given in Table-7.

Table-7

Year	No. of samples tested	Less than 15 PPM*	More than 15 PPM*
2005-06	810656	394567	409124
2006-07	612413	218292	324126
2007-08	735617	256818	325692
2008-09	658364	223564	309247

* Parts Per Million (PPM)

No action was however, taken on the analysis of Urinary iodine excretion (May 2009). Government while accepting the audit point attributed this to non-availability of qualified lab technicians and necessary equipment with Director of Health. The information with regard to patients with Iodine Deficiency Disorders was not available with the SHS or with the Additional Director, NIDDCP.

1.1.9.7 Poor implementation of schemes by NGOs

Implementation of schemes by the NGOs was poor. The entire amount of Rs 7.01 crore released to municipal corporations for establishing First Referral Units remained unspent

There were in all 87 NGOs¹² (including the Municipal Corporations) in the State which received assistance under the programme. The table below shows the position of funds released to the NGOs by the SHS during the period 2005-09 and utilisation of the grants by them. It was observed that none of the NGOs have implemented the programme during the years 2005-06 and 2006-07. Although the NGOs stated to have spent Rs 5.96 crore (out of Rs 20.69 crore released) during 2007-08, UCs were submitted only to the extent of Rs 1.14 crore as detailed in Table-8.

Table-8

(Rupees in crore)

Year	Grant-in-aid released to NGO during the year	Expenditure incurred by NGO	Amount for which UC furnished by the NGOs
2005-06	2.25	Nil	Nil
2006-07	11.10	Nil	Nil
2007-08	7.33	5.96	1.14
2008-09	NIL	NIL	---
Total	20.69	5.96	1.14

¹²Releases to municipal corporations are categorised as releases to NGOs

Further Rs 7.01 crore was released (2005-09) to Municipal Corporations viz., Kakinada (Rs 82.71 lakh), Guntur (Rs 91.01 lakh), Nellore (Rs 73.90 lakh), Tirupati (Rs 81.86 lakh), Kadapa (Rs 113.03 lakh), Kurnool (Rs 152.95 lakh), Warangal (Rs 87.61 lakh), Ranga Reddy District (Rs 18.11 lakh) for establishment of First Referral Units (FRUs), to meet medical requirements of urban slum people especially for women and children. However, the municipal corporations failed to utilise these amounts. The Commissioner had asked (December 2008) the municipal corporations to refund the money to SHS account. Government in its reply stated (June 2009) that out of Rs 7.01 crore pointed out by Audit, a sum of Rs 2.30 crore was refunded by the Municipal Corporations and the balance Rs 4.71 crore was outstanding.

Cases of avoidable extra expenditure/ineligible payments/wasteful expenditure and diversion of NRHM funds amounting to Rs 23.36 crore were noticed

1.1.10 Deficiencies in utilisation of funds

Scrutiny revealed avoidable extra expenditure in procurement of vaccine (Rs 7.91 crore), procurement of bed nets (Rs 2.51 crore), ineligible payment of incentives to pregnant women (Rs 5.22 crore), wasteful expenditure in provision of free bus passes (Rs 0.52 crore) and diversion of NRHM funds of Rs 7.20 crore for other purposes, totalling to Rs 23.36 crore as per the following details.

Nature of deficiency/irregularity	Audit findings
<p>Avoidable extra expenditure in procurement of JE Vaccine</p>	<p>The CFW procured (April 2007) 17.50 lakh doses of Mouse Brain JE Vaccine from M/s Vabio Tech, Vietnam at Rs 38 per dose and another batch of 3.50 lakh doses from Central Research Institute, Kasauli at Rs 55.42 per dose. Scrutiny of records revealed that a similar vaccine viz., SA-14-14-2A, of China make was available at Rs 12 per dose from M/s Hindusthan Latex Ltd. Further, it was observed from the technical committee recommendations that it was a single dose giving protection for 10 years, whereas Mouse Brain JE Vaccine was costlier and has to be administered three times (1st phase – 1st and 2nd dose in a fortnight and Booster dose – after six months in 2nd phase). Thus, due to procuring Mouse Brain JE Vaccine instead of a similar and cheaper vaccine ignoring the recommendations of the technical committee, the department had to incur an extra expenditure of Rs 7.91 crore in procurement of 21 lakh doses of the vaccine.</p>
<p>Avoidable extra expenditure in procurement of Mosquito Bed Nets</p>	<p>As a preventive measure it was decided to procure mosquito bed nets. APHMHIDC was entrusted with the procurement task which did not invite tenders and procured (November 2007) two lakh bed nets at a cost of Rs 240 per bed net. When tenders were called for the subsequent procurement in May 2008 the price per net was Rs 69 which was far lower. Thus, due to non-adopting competitive bidding procedure an avoidable extra expenditure of Rs 2.51 crore was incurred.</p> <p>Audit also observed that the expenditure on procurement of bed nets had no approval of the Ministry (Point below also refers).</p>

Incurring of expenditure without approval of NPCC	The State Government decided (May 2007) to procure 5 lakh mosquito bed nets for tribal population and the CFW requested the NPCC, MOHFW, GOI for allotment of Rs 10.15 crore in PIP for 2007-08 for meeting the expenditure. However, even prior to receipt of funds, the CFW released (May 2007) Rs 4.90 crore in favour of MD, APMHIDC to procure 5 lakh mosquito bed nets from M/s APCO. Accordingly the MD, APMHIDC procured 2 lakh bed nets @ Rs 240 per bed net (deficiencies in procurement enlisted above) and rendered a bill for Rs 4.90 crore. The expenditure of Rs 4.90 crore incurred in procurement of bed nets had no approval of the Ministry of Health and Family Welfare, GOI.
Ineligible payment of incentives	To promote institutional deliveries among Rural BPL women, Government fixed (November 2005) cash incentive of Rs 700. Though this facility was not applicable to urban areas prior to April 2006, incentive was paid to 38,065 women in urban areas for this period resulting in ineligible payment of Rs 2.66 crore. Further, due to payment of incentive of Rs 700 instead of Rs 600 to 1,15,068 and 1,40,942 beneficiaries during the years 2006-07 and 2007-08, there was an excess payment of Rs 2.56 crore to the beneficiaries in urban areas.
Wasteful expenditure in provision of bus passes	For providing free travel passes for 3 round trips to 8 lakh BPL pregnant women at nearest health centres for health check-up/referral services, the department paid Rs 3.10 crore (Rs 1.55 crore each in the year 2006-07 and 2007-08). The cost of each bus pass was Rs 19.36. The passes were to be distributed through PHCs/Sub-centres to the beneficiaries. During 2007-08, out of 8.00 lakh passes given to 23 DHSs, distribution details for only 5,29,670 passes have been received by SHS. The balance of 2,70,330 passes valued Rs 52.33 lakh remained undistributed with DHSs. Thus, the expenditure was rendered wasteful. Besides, the benefit of bus passes was denied to the intended beneficiaries. Distribution details for 8.00 lakh passes issued during the year 2006-07 were not made available to Audit. Government did not give specific reply with regard to non-distribution of 2.70 lakh bus passes valuing Rs 52.33 lakh.
Diversion of NRHM funds	For preparation of Perspective Plan for the districts for the entire Mission period 2005-12, the CFW released (2006-07) Rs 2.30 crore to 23 DM&HOs at Rs 10 lakh per district. Audit observed that the DM&HOs, without the approval of the Government, diverted the entire amount towards control of epidemic of Dengue and Chickungunia, the expenditure on which should have been met from out of the State funds. The diversion has resulted in non-preparation of the perspective plan for the districts with adverse implications on the assessment of year-wise data on the needs of the districts and the resources as well. (Para 1.1.7 also refers). Government in its reply sought to justify the diversion of NRHM funds stating that it was done in public interest to overcome health emergencies. The contention is not acceptable as the expenditure on this account should have been met from the regular budget of the Health Department. The diversion has resulted in critical component of preparation of Perspective Plan of NRHM getting badly affected.

1.1.11 Monitoring

The programme suffered from inadequate monitoring mechanism

NRHM guidelines prescribe formation of Monitoring and Planning Committees at State, District, Block and PHC level so as to ensure regular community base monitoring of activities and facilitate relevant inputs for planning. Audit observed the following deficiencies in monitoring of the activities under the programme at various levels:

Item/subject and requirement	Audit findings
<p>Computerisation and Management Information System</p> <p>NRHM guidelines envisaged development of computer based Management Information System (MIS) at DHS up to Block level and use of network for Integrated Disease Surveillance Project for furnishing the MIS report to Union Ministry on monthly basis through DHS/SHS.</p>	<p>The Department provided (April 2003) from State funds computers to 23 DHSs and 1387 PHCs and these were connected through MIS network under Family Welfare and Health Information Management System (FHIMS) with an outlay of Rs 21.87 crore.</p> <p>Scrutiny revealed that the MIS remained defunct since June 2005. Out of 1,387 computers procured, Computers were installed in 1,359 PHCs (January 2009). These were not used effectively for the intended purpose as the usage was restricted to data entry in 447 PHCs and generation of reports without networking in 273 PHCs. Further, 183 PHCs which were set up during the year 2004-05 i.e., before launch of the NRHM were not provided with computers (March 2009). Government did not offer specific remarks on the audit observation.</p>
<p>Adequacy and Efficacy of Community Participation</p> <p>“Communitisation” of planning, implementation and monitoring through participation of representatives of PRIs, NGOs and community based organisations at each level is envisaged in NRHM.</p>	<p>Health Monitoring and Planning Committee was not constituted at State level and no action was initiated to establish community based monitoring through the people’s representatives, local body representatives, NGOs and Community Based Organisations.</p> <p>It was observed that in none of the 24 CHCs, 48 PHCs, and 96 Sub-centres were the planning and monitoring committees formed.</p>
<p>Non-establishment of State Health System Resource Centre</p>	<p>As per the NRHM guidelines a State Health System Resource Centre (SHSRC) was to be established in each State to provide technical support to the Mission with an annual corpus fund of Rupees one crore in a large State and Rs 50 lakh in a small State.</p> <p>Though an amount of Rs 1 crore was released by GOI during 2007-08, the SHSRC had not been established as of March 2009.</p>
<p>Public Report on Health</p> <p>As per NRHM guidelines each district is required to publish a Public Report on Health annually.</p>	<p>Out of 23 districts, one district (Vizianagaram) published reports annually.</p> <p>In the absence of public reports on health by the DHSs the information and direction of development taking place in the districts was not readily available.</p>

While accepting the above audit points, Government stated that efforts are being made for establishment of SHSRC, and DM & HOs are being instructed to ensure compliance on the audit observations. In the absence of adequate monitoring mechanism, the planning process did not receive regular inputs on the nature and direction of required future interventions.

1.1.12 Constraints and achievements

The basic constraint in underutilisation of funds during the period 2005-09 and under-achievement of the targets as explained by the Health, Medical and Family Welfare Department was that the programme was new. Despite this constraint the following were the achievements:

- 70,700 Accredited Social Health Activists (ASHAs) have been selected and positioned in all the habitations across the State through the Gram Panchayat Health Committees to act as health resource person of first resort. Their presence ensures wide coverage of all Mother and Child Health (MCH) Services.
- Out of 1,570 PHCs, 800 PHCs have been converted as 24 Hours MCH centres to provide round the clock services to promote institutional deliveries with basic emergency obstetric care.
- Out of 151 CEMONC centers proposed to be established to provide life saving emergency care, 77 have been established and functioning.
- There was increase in the institutional deliveries as a percentage of total deliveries from 83 *per cent* to 91 *per cent* during 2005-09 i.e., after introduction of NRHM.
- Rogi Kalyan Samithis (RKS) have been established in 166 CHCs, 1,516 PHCs and 19 district Hospitals (out of 167 CHCs, 1,570 PHCs and 19 district Hospitals) which led to improvement in up-gradation of Health Services.
- Village Health and Sanitation Committees (VHSC) have been established in all 21,916 villages with Panchayat Sarpanchas as Chairman and Ward members, Angan Wadi Workers and ASHAs to ensure optimal use of Health Services in the village.
- Rural Emergency Health Transportation Scheme (108) was introduced to provide emergency health transportation of the public in the Rural areas of the State especially for emergencies relating to pregnant women, infant/ children. 802 Ambulances are in operation covering 1.3 to 1.5 lakh population.
- Significant achievements have been made in administering Iron Folic Acid tablets to the pregnant women.
- Hundred *per cent* achievements were made in first immunization of Tetanus Toxoid and Pulse Polio.
- During the four year period 2005-09 achievement of Cataract Operations was 100 *per cent*.

1.1.13 Conclusions

The implementation of the NRHM in the State suffered mainly due to lack of comprehensive planning and absence of adequate monitoring mechanism. The programme was implemented in the State without conducting facility surveys and there was no Perspective Plan for the whole Mission period 2005-12. Twenty one to twenty nine *per cent* of the available funds remained unspent during 2005-09. No new Community Health Centers (CHCs) and Primary Health Centers (PHCs) were set up in the State after launch of the NRHM and the State Government did not pay adequate attention for creation/strengthening of infrastructure. The physical infrastructure available in the health centres was far below the desired level prescribed in Indian Public Health Standards and majority of the test checked CHCs and PHCs lacked basic infrastructure facilities. The Mobile Medical Units were functioning without essential equipment/Medical Officers in all the eight test checked districts. The implementation of healthcare services like institutional delivery care, antenatal care, 24x7 delivery services and the Medical Termination of Pregnancy etc. under RCH Programme was far from satisfactory. Functioning of Rogi Kalyan Samithis was deficient. There were shortfalls (up to 39 *per cent*) in the immunization programme (second stage/10-16 years). The objective of converging all the National Disease Control Programmes remained unachieved. Implementation of the Programme by the NGOs was not adequately monitored. Due to lack of adequate monitoring mechanism the planning process did not receive regular inputs on the nature and direction of required future interventions.

1.1.14 Recommendations

- Facility surveys should be conducted to identify the gaps in infrastructure and human resources.
- The number of Health Centres should be increased as per NRHM norms in all the districts so as to improve the accessibility of healthcare to rural and tribal population.
- Government should take immediate steps to provide adequate infrastructure at all health centres as per IPHS norms.
- Required number of doctors and other paramedical staff should be positioned in all the Health Centres for providing quality services to rural population.
- Essential equipment and Medical Officers should be provided to all the Mobile Medical Units to make them fully functional for treatment and diagnosis.
- Emphasis may be given to increased number of institutional deliveries to reduce maternal and infant mortality. All the eligible children should be covered under Immunization programme.
- Rogi Kalyan Samithis need to be strengthened by constituting monitoring committees at the different levels of Health Centres.

- The Commissioner should take immediate steps to reconcile the figures of releases by GOI and those credited by banks to SHS account and resolve the issue of short receipts in SHS account. Similar exercise needs to be undertaken in respect of releases to the DHSs by SHS.
- Government need to evaluate the prevalent rate of IMR, MMR and TFR to measure the impact of the programme.
- Adequate monitoring mechanism may be evolved by ensuring community participation and generation of public reports on health.

The above audit observations were discussed in the exit conference held in January 2009 with the Additional Director, NRHM and all the Programme Officers. The recommendations of audit were accepted.

HIGHER EDUCATION DEPARTMENT

1.2 Functioning of Osmania University

Highlights

Osmania University, established in the year 1918, manages 11 faculties encompassing 52 departments, eight campus colleges, and 988 affiliated colleges besides Centre for Distance Education. Performance Audit of the University revealed that Financial Rules were not complied with. Annual Reports were perfunctory. Certain courses offered by the University did not attract enough candidates leading to low enrolment. Little progress was seen in Research projects. Quality Control checks were not ensured in the execution of works. Estate management was poor. Hostels were overcrowded. Audit noticed deficiencies/shortcomings in maintenance of cash books, handling of demand drafts, besides non/short collection of tuition fee, inadmissible/excess payments to teaching staff, etc. Physical verification of library books in the Central Library as well as Seminar libraries (for each department) was not done. Internal Audit was absent in the University.

The University failed to adhere to the codal provisions while appointing staff to various posts including Finance Officer.

[Paragraph 1.2.7]

Financial management was deficient. Cash books were either not maintained or were not properly maintained as per the codal provisions. Audit noticed deficiencies/shortcomings in handling of demand drafts besides non/short collection of various advances/dues (Rs 5.18 crore), inadmissible/excess payments (Rs 2.36 crore), etc. Advances amounting to Rs 66.86 lakh given to Principals and various departments/offices remained unadjusted in the books of the University.

[Paragraphs 1.2.6.3 to 1.2.6.6]

Annual Reports were perfunctory and did not include essential information which could be of use to the Academic Senate. It was observed that certain courses being offered were having low or nil enrolment.

[Paragraphs 1.2.8.1 and 1.2.8.2]

Courses offered by the Centre for Distance Education elicited poor response from the students indicating that they did not meet the needs of the industry/sectors having employment potential. The very objective of increasing the access to higher education was not achieved.

[Paragraph 1.2.8.2]

During the five-year period 2004-09 seven patents were obtained from 130 research projects completed at an outlay of Rs 12.07 crore. No research activities were conducted in 17 departments. No control mechanism also existed for monitoring of the participation of the teaching staff in the international seminars.

[Paragraphs 1.2.8.6, 1.2.8.8 and 1.2.12]

Estate management was deficient. The University neither maintained proper database of lands/estates nor had an effective survey mechanism to protect the lands from encroachments. The University also failed to evict the encroachers for several years. There were also cases of pilferage of electricity by the unauthorised dwellers and the University is saddled with the problem of avoidable payment of electricity consumption charges of about Rs 14 lakh per annum. A number of quarters continued to have defective/malfunctioning meters without immediate replacement.

[Paragraphs 1.2.9.1 and 1.2.9.2]

There was no assurance that works valued Rs 44.17 crore were properly executed as the quality control checks have not been exercised. Audit noticed several procedural irregularities in respect of works executed by the University Buildings Division.

[Paragraph 1.2.10]

There was overcrowding in hostels. The number of occupants was far in excess (up to 167 per cent) of the original capacity.

[Paragraph 1.2.9.3]

Internal Audit was absent in the University and as such there was no assurance to the University management that the Rules and procedures were complied with. Physical verification of stores and stock was not done in most of the departments. Physical verification in the Central as well as Seminar Libraries (for each department) was not done during the five-year period 2004-09.

[Paragraphs 1.2.11.1, 1.2.11.3 and 1.2.11.4]

1.2.1 Introduction

Osmania University (University) was established in the year 1918 and was governed up to 1958 by a Farman issued by H.E.H Nizam VII. Consequent on formation of State of Andhra Pradesh, the University was governed by Osmania University Act 1958. Subsequently, Act IX of 1959 was passed. Now the University is governed by the Andhra Pradesh Universities Act, 1991 (Act No. 4 of 1991) which came into force in January 1991.

The jurisdiction of the University is spread over six districts¹³ of the State. The University has 11 major faculties¹⁴ encompassing 52 academic departments offering 88 Post-Graduate courses, nine engineering undergraduate courses and several diploma and certificate courses being pursued by 2.98 lakh students and 1,242 research scholars (April 2009). It has eight campus colleges including Colleges of Engineering and Technology (with autonomous status), five constituent colleges, six District Post-Graduate colleges and 988 affiliated colleges under its management. The Centre for Distance Education (CDE) provides distance education in various courses.

¹³ Hyderabad, Ranga Reddy, Nizamabad, Medak, Nalgonda and Mahboobnagar

¹⁴ Arts, Social Sciences, Commerce, Business Management, Engineering, Law, Education, Science, Technology, Informatics and Oriental Languages

The goals of the University are (a) to provide for instruction and training in such branches of learning as it may think fit, (b) to make provisions for research extension programme and for the advancement and dissemination of knowledge, (c) to institute, take over and maintain colleges and hostels, (d) to establish, maintain and manage or to affiliate Autonomous colleges and PG Centres in any part of the University area outside University campus, (e) to affiliate or recognise colleges and institutions and to withdraw such affiliation or recognition, (f) to fix fees and to demand and receive such fees and other charges as may be prescribed, (g) to supervise and control the conduct and discipline of the students of the University. As of March 2009, the University had 762 faculty and 3,272 administrative and other staff.

1.2.2 Organisational set-up

The University affairs are guided and conducted by a Vice Chancellor (VC), Executive Council (EC), Academic Senate and a Board of Studies. Joint Registrar (Finance) is the head of Finance wing. The Director of State Audit is the Statutory Auditor for the University.

1.2.3 Audit objectives

The objectives of the performance audit were to assess whether:

- financial management resulted in economic, efficient and effective utilisation of resources;
- administration of the University was effective;
- academic programmes, distance education, research activities undertaken, etc. were effective in achieving the intended objectives of the University;
- management of estates/assets and supporting services was adequate and fulfilled the needs of the University;
- Building works were executed economically and buildings were put to proper and effective use; and
- proper monitoring systems were in place and were effective.

1.2.4 Audit criteria

The following criteria were adopted for the performance audit:

- Andhra Pradesh Universities Act, 1991, Orders of the University Grants Commission (UGC), Ministry of Human Resource Development, Minutes of Executive Council meetings and Financial Committee meetings;
- Orders of the College Development Council (CDC), instructions contained in GOs issued from time to time, Budget Estimates, AP Financial Code, General Financial Rules and Treasury Rules;
- Resolutions made in the Academic Senate/Executive Council and Board of Studies;
- Lease agreements relating to estate and assets;
- AP Public Works Departmental Code; and
- Monitoring systems prescribed by the University/Government.

1.2.5 Scope and methodology of audit

Audit of the University is conducted under the provisions of Section 14 of C & AG's DPC Act, 1971. The performance audit of the University was conducted (February – May 2009) covering the period 2004-05 to 2008-09. Records of all the institutions such as Administrative Office, all the eight campus colleges including College of Engineering, all the five constituent colleges and 100 (out of 988) affiliated colleges, CDE and various departments of the University viz., University Press, Central Library, Hostels, Health Centre, University Buildings Division and two¹⁵ (out of eight) District PG colleges (Bhiknoor in Nizamabad District and Mahboobnagar) were test checked.

An entry conference was conducted (February 2009) with the Additional Secretary, Higher Education, Officer on Special Duty, Registrar and Joint Registrar (Finance) of the University. Audit objectives and the methodology of audit were explained to them. An exit conference was also held (August 2009) with the officers of the University, AP State Council of Higher Education and the Government in which most of the audit observations were discussed and accepted by the officers of the University, AP State Council of Higher Education and the Government. The recommendations were also accepted. The replies of the University have been taken into account while arriving at the audit conclusions. The results of the Performance Audit review are discussed in the succeeding paragraphs.

Audit findings

1.2.6 Financial Management

The University is mainly financed through block grants (Plan and Non-plan) (65 *per cent*) from State Government, grants received from UGC and other Central Government organisations like All India Council for Technical Education (AICTE), Council for Scientific and Industrial Research (CSIR), Defence Research and Development Organisation (DRDO), Indian Council for Agricultural Research (ICAR), Indian Space Research Organisation (ISRO), etc. The University also generates its own income by way of fees from students, sale of publications, sale of study material, processing fee, lease rents, etc.

1.2.6.1 Budget and Expenditure

The average¹⁶ annual outlay of the University was Rs 130.67 crore. During the five year period 2004-05 to 2008-09, the University received Rs 654.36 crore towards block grant and other incomes, against which an amount of Rs 663.35crore¹⁷ was spent. About 23 *per cent* of the budget is being spent for meeting salaries of teaching faculty followed by non-teaching staff salaries (24.59 *per cent*), pensions (19.39 *per cent*), contingencies (7.65 *per cent*) and maintenance (2.33 *per cent*). The year-wise and source-wise details of income and expenditure are given in [Appendix-1.5](#).

¹⁵ being the oldest and the biggest among the District PG Colleges respectively

¹⁶ For five-year period 2004-09

¹⁷ The excess was met from internal sources i.e. from tuition fee, affiliation fee, examination fee, etc.

Audit noticed certain shortcomings in preparation of Annual Accounts, in maintenance of cash books, system lapses in handling of demand drafts, and non/short collection of tuition fee and examination fee, inadmissible/excess payments, non-reconciliation with banks as discussed below:

1.2.6.2 Non-preparation of Income and Expenditure Account and Balance Sheet

The Annual Accounts of the University were prepared up to the year 2007-08 and the audit of annual accounts by the Director of State Audit was completed up to the year 2007-08. It was observed that the preparation of annual accounts relating to the University finances contained deficiencies as discussed below:

The University was preparing every year only a Receipts and Payments account, which was not covering all the receipts and payments in respect of university campus and constituent colleges, District PG centres and Directorates. In the absence of Income and Expenditure Account and Balance Sheet the details of pre-paid expenses and outstanding advances etc., could not be ascertained.

Due to non-preparation of consolidated accounts a true and fair picture of the University was not reflected in the annual accounts.

1.2.6.3 Maintenance of cash books

Cash books were either not maintained or were not properly maintained as per the codal provisions

The University was maintaining 121 bank accounts with various nationalised banks. The accounts were not computerised. Consequently the University was not in a position to readily know the balances at any point of time. Periodical reconciliation of cash book balances with banks was not being carried out. The maintenance of cash books in respect of these accounts as well as those relating to constituent colleges was deficient as detailed in Table-1.

Table-1

Subject	Audit Findings
<p>Postings on the Receipt side of the Cash book</p>	<p>As per codal provisions, the DDs/Cash should soon after their receipt be posted in the cash book and then sent to bank for credit. Scrutiny revealed that DDs/Cash received by the University were not being posted in the cash book immediately after their receipt; instead the receipts as reflected in the bank statements were taken as receipts and entered in the cash book, which indicated that the credits given by the banks to University accounts were accepted without verification and the University wholly relied on the credits shown in the bank statements by the banks. Further, the receipt entries made based on bank statements lacked details as to the DD numbers, leaving little scope for identifying the nature of receipt entered in the cash book.</p>
<p>Maintenance of multiple cash books</p>	<p>Scrutiny revealed that different cash books were maintained for receipts and expenditure separately in CDE. Similarly, Directorate of Admission wing was maintaining separate cash books for admission fee and establishment transactions.</p>

	However, where it was mandatory to maintain separate cash books, in Civil, Mechanical, Electronics and Communication Engineering, and Computer Science Engineering Departments of the University this stipulation was not being adhered to and as a result the transactions pertaining to UGC and non-UGC grants could not be segregated.
Revalidation/cancellation of time barred cheques	The University Fund Account was showing (as of December 2008) 197 time barred cheques (cheques issued but not presented for payment) amounting to Rs 13.91 lakh which need to be revalidated/cancelled. The earliest time barred cheque was pertaining to the period May 2003. Since the amounts of time barred cheques were not written back in the books for a long period, the expenditure of the University got inflated to that extent. This indicates absence of proper mechanism for accountal of valuables.
Closing of cash books	As per the codal provisions, cash books should be closed regularly and at the end of each financial year. The cash books maintained by the Department of Bio-chemistry, CDE, Model High School and Directorate of Infrastructure were not closed periodically. As a result, the balances available under the respective accounts were not ascertainable besides leaving no scope for reconciliation.
Reconciliation	As per codal provisions, the cash book figures should be reconciled with bank statements monthly and at the end of each year. Audit observed that reconciliation of cash book figures with bank statements was not being done in the Model High School, University Press and University Library. In the absence of reconciliation, the correctness or otherwise of the amounts credited to banks was not ensured. It was observed that University Account was showing a minus balance of Rs 2.22 crore under the nomenclature 'differences in the opening balance between the cash book and bank pass book' for years together. The University however, failed to get the discrepancy reconciled and to make necessary adjustments to that extent. Also, in the absence of reconciliation, the grant-wise receipts and expenditure particulars viz., block grant, UGC, etc were not ascertainable and as such detection of frauds, defalcation, if any was also not possible.

1.2.6.4 Delay in remittance of DDs/Cash into banks

Belated remittance of DDs/Cash into banks resulted in loss of interest

As per codal provisions, the DDs/Cash should soon after their receipt be remitted into bank for credit. Test-check of the records of the various University colleges¹⁸ and University Guest house revealed that DDs/Cash worth Rs 96.66 lakh received (2005-07) by them were remitted into banks with a delay ranging from 10 to 195 days. There were instances of returning of DDs by the various banks on the ground that those were time barred. Delay in sending the DDs/Cash to bank resulted in loss of interest to the University.

¹⁸ PG College, Secunderabad, Women's College and Nizam College, Hyderabad and Academic Audit Cell

It was also observed that three DDs (of Rs 17,350 each) amounting to Rs 0.52 lakh remitted by the Director, District PG Colleges during December 2000 were not yet credited (Reasons not known to the University) by the bank¹⁹ as of May 2009. The University failed to take action to realise the amounts for credit to the University Account.

1.2.6.5 Excess/Inadmissible payments

Excess/inadmissible payments of Rs 2.36 crore were made to University staff Scrutiny of establishment claims and payments made to various firms disclosed excess/inadmissible payments amounting to Rs 2.36 crore as detailed in Table-2.

Table-2

Subject	Audit Findings
Implementation of APUGC Scales, 1996	While implementing APUGC Scales 1996, 126 members of teaching staff who were already given the benefit of advance increments in APUGC Scales, 1986, for acquiring Ph. D qualification were again allowed advance increments for the second time. The UGC and APSCHE ²⁰ also expressed concern at such lapses. There was excess payment of Rs 1.10 crore towards advance increments (excluding all allowances thereon) to the teaching staff up to March 2009 with a recurring similar excess payment of Rs 1.06 lakh per month. The excess payment needs to be recovered.
Encashment of Earned Leave while in service	All the vacation teaching staff were irregularly allowed encashment of earned leave (surrender leave) while in service although they were not eligible for such facility. This resulted in inadmissible payment to the extent of Rs 1.26 crore. The University authorities admitted (May 2009) the lapse and stated that the encashment of earned leave to teachers while in service would be stopped.
Non-deduction of TDS from advertisement firms	Tax should be deducted at source (TDS) at the prescribed rates before making payments to the contractors/firms. However, the University in violation of these codal provisions made payments to the advertisement agencies during 2001-07 without however, deducting the TDS amounting to Rs 6.53 lakh.

1.2.6.6 Non/short collection of University revenues/dues

There was non/short collection of various revenues/dues amounting to Rs 5.18 crore by the University Scrutiny revealed that there was non/short realisation of University dues viz., tuition fee, mess charges, electricity and water consumption charges from students, reimbursement of tuition fee by the Government, outstanding advances from the University staff and recoupment of excess expenditure on research projects to the extent of Rs 5.18 crore as detailed in Table-3.

¹⁹ State Bank of Hyderabad, Osmania University branch

²⁰ Andhra Pradesh State Council of Higher Education

Table-3

Subject	Audit findings
Collection of tuition fee from students	Candidates seeking admission into various courses offered by the University were required to pay tuition fee as prescribed by it on the due dates mentioned in the prospectus, along with late fee in case of delayed payments. It was observed that no effective mechanism existed in the University to collect the amount of tuition fee due from the students within the prescribed due dates and at least before they left the University. As of March 2009, the University was yet to collect Rs 99.41 lakh ²¹ from the students towards tuition fee pertaining to the period 2003-09.
Reimbursement of tuition fee by the Government	Tuition fee in respect of Scheduled Caste (SC) and Scheduled Tribe (ST) students is to be reimbursed by the Social Welfare and Tribal Welfare Departments. However, there was no effective pursuance on the part of the University to get the tuition fee pertaining to SC/ST students reimbursed from the Government. As of March 2009 an amount of Rs 1.50 crore ²² was yet to be received by the University for the period 2003-09.
Mess charges	The University maintains hostels for its students and the Chief Warden is responsible for recovery of hostel dues from the University hostels' inmates. All boarders are required to clear their monthly mess charges/bills regularly at the end of each academic course, and to clear all hostel dues. In respect of boarders getting scholarships, the dues are to be settled on receipt of scholarships and from others, the dues are to be collected from individuals. Scrutiny revealed that, as of March 2009, an amount of Rs 3.19 crore being the mess charges for the years 2003-09 remained to be collected from the boarders.
Remittance of electricity and water charges collected from boarders by the hostel authorities	As per the existing orders of the University, the Hostel authorities are responsible for collection of electricity and water charges from the boarders and remit the same to the University account. It was observed that although the electricity and water charges were being collected from the boarders, the amounts had not been remitted to the University account periodically by the wardens. The University also did not have any mechanism to ensure periodical collection of charges by the wardens in full and their correct remittance into University account even though the charges were periodically being borne by the University itself. As of March 2009, as against Rs 65.67 lakh an amount of Rs 32.99 lakh being the electricity and water charges collected from the boarders during the period 2003-09 was not yet remitted by the wardens/principals.

²¹ 2003-04 (Rs 1.83 lakh), 2004-05 (Rs 3.35 lakh), 2005-06 (Rs 3.64 lakh), 2006-07 (Rs 4.92 lakh), 2007-08 (Rs 40.63 lakh) and 2008-09 (Rs 45.04 lakh)

²² 2003-04 (Rs 12.93 lakh), 2004-05 (Rs 11.98 lakh), 2005-06 (Rs 10.95 lakh), 2006-07 (Rs 12.58 lakh), 2007-08 (Rs 18.26 lakh) and 2008-09 (Rs 83.55 lakh)

<p>Advances given to the University staff</p>	<p>AP Financial Code prescribes that the advances given for specific purposes should be adjusted by detailed bills and vouchers as soon as possible and second advance could only be drawn when the first advance is adjusted. Scrutiny revealed that advances of Rs 66.86 lakh given to the University staff for specific purposes remained unadjusted in the books of five departments (CDE, Examination wing, UGC grants wing, University Press and University Guest House) of the University as of March 2009. The consolidated year-wise details are given below:</p> <table border="1" data-bbox="602 514 1446 630"> <thead> <tr> <th>Year</th> <th>2003-04</th> <th>2004-05</th> <th>2005-06</th> <th>2006-07</th> <th>2007-08</th> <th>2008-09</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Outstanding advances (Rs in lakh)</td> <td>25.78</td> <td>11.86</td> <td>13.80</td> <td>10.47</td> <td>0.89</td> <td>4.06</td> <td>66.86</td> </tr> </tbody> </table> <p>It was observed that periodic review of advances was not conducted to ensure the receipt of goods/pending services. There was no evidence of any punitive action being taken by the University for non-submission of the adjustment bills by the staff. The absence of a system to monitor the settlement of outstanding advances is also indicative of poor internal controls.</p>	Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	Total	Outstanding advances (Rs in lakh)	25.78	11.86	13.80	10.47	0.89	4.06	66.86
Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	Total										
Outstanding advances (Rs in lakh)	25.78	11.86	13.80	10.47	0.89	4.06	66.86										
<p>Recoupment of excess expenditure on projects</p>	<p>The research projects conducted by the University are funded either by the UGC or by other organisations. The excess expenditure incurred by the University on these projects over and above the released grants were to be recouped by obtaining reimbursement from the funding agencies.</p> <p>It was observed that an excess expenditure (up to March 2009) of Rs 1.67 crore incurred over and above the released grants for the UGC sponsored research projects was yet to be got regularised/recouped by the University as of April 2009.</p> <p>Further, the University failed to regularise/recoup the expenditure amounting to Rs 22.89 lakh incurred on various research projects (commenced prior to 2003-04) over and above the grant released by 16 funding agencies.</p> <p>The University authorities accepted the audit point and assured to take necessary steps to get the amounts reimbursed from the funding agencies.</p>																

1.2.6.7 Diversion of funds

The following case of diversion of funds was noticed:

Table-4

Stipulation of the grant	Diversion of funds
<p>The State Government sanctioned an amount of Rs 3 crore being foundation grant to the University in 1962 with a stipulation that the University should utilise the interest accrued on the investment of the said grant for starting new PG courses in Science, Engineering & Technology and Social Sciences and for carrying out research activities, etc.</p>	<p>The University diverted an amount of Rs 74.10 lakh being the accrued interest on investment for various purposes such as construction works, loans and advances to University staff, unforeseen expenditure, etc. which was contrary to the stipulation of the grant which was meant for unique purpose.</p>

1.2.6.8 National Service Scheme – Non-observance of guidelines

NSS guidelines about utilisation of scheme funds and submission of UCs were not being adhered to

National Service Scheme (NSS) was started to establish a meaningful linkage between the campus and the community, to understand the community in which they work, identify the needs and problems of the community and involve them in problem solving process, and to develop among them a sense of social and civic responsibility. NSS receives funds from Central and State Governments in the ratio 7:5 and also from HIV/AIDS/Special Camp programme advances, etc. GOI guidelines on NSS stipulate that the unspent balances at the end of each financial year would lapse. The colleges/research institutes which obtained NSS funds are required to submit accounts of funds received and UCs within a period of one month after closing of that financial year. Scrutiny revealed that there were unspent balances of Rs 73.59 lakh (March 2009) which accumulated over the five year period 2004-09.

It was also noticed that (i) as of March 2009 UCs for Rs 12.64 lakh were still pending from 34 colleges being recipients of NSS funds for their activities during 2003-08 and (ii) NSS funds of Rs 12.68 lakh were diverted (September 2004) towards purchase of a vehicle contrary to the instructions of NSS guidelines which prohibit purchase of vehicles from NSS grants.

The University failed to adhere to the codal provisions while appointing staff to various posts including Finance Officer

1.2.7 Establishment matters

The deficiencies/shortcomings noticed in the administration of the University are discussed in the following Table-5.

Table-5

Nature of irregularity/ deficiency	Audit findings
<p>Appointment of Finance Officer without obtaining panel from the Government in contravention of provisions of the Act</p>	<p>Notwithstanding the stipulation in the AP Universities Act that Finance Officer of the University should be from out of a panel of three officers obtained from Education Department of the State Government the University appointed one of the Joint Registrars as Finance Officer without obtaining the panel from the Government.</p> <p>PAC recommended (September 1991) in its sixth report of IX Legislative Assembly that a Finance Officer of the rank of Accountant General drawn from Indian Audit and Accounts Services should be appointed by the University as was being done by the University of Hyderabad. However, this recommendation has not been implemented (March 2009) and the University Officer who was not drawn from Treasury and Accounts Department was continuing to hold the post of Finance Officer. The University replied (June 2009) that Government would be approached in the matter.</p>

<p>Unauthorised deployment of employees on temporary basis</p>	<p>According to the provisions of Section 3(2) no temporary appointments shall be made whether full time or part time without prior permission of Government. Scrutiny revealed that the University was making appointments of full time or part time employees on temporary basis without obtaining prior approval from the Government. During the period 2004-09 an expenditure of Rs 9.93 crore (i.e. around Rs 2 crore on an average per year) was met towards wages/salaries of temporary staff from the block grant without any approval from the Government.</p>																		
<p>Non-filling up of various posts of the University on regular basis</p>	<p>Government (July 2004) ordered to dispense with the services of all retired officers/officials with immediate effect. Scrutiny revealed that the University has been appointing retired officers/officials in the University (colleges, Registrar's Office, University Library, Health Centre, Estate Wing, etc.) on temporary/adhoc basis in contravention of the Government's instructions.</p>																		
<p>Excess deployment of non-teaching staff</p>	<p>The Rangachari Committee appointed by the Government prescribed a ratio of 1:1.2 for teaching and non-teaching staff for the Universities. However, the University did not maintain the prescribed staff strength thereby violating the norms of the committee. It was observed that the existing ratio between teaching and non-teaching staff²³ was far in excess of the established norms as detailed below:</p> <table border="1" data-bbox="626 999 1390 1136"> <thead> <tr> <th>Year</th> <th>2003-04</th> <th>2004-05</th> <th>2005-06</th> <th>2006-07</th> <th>2007-08</th> </tr> </thead> <tbody> <tr> <td>Teaching</td> <td>1106</td> <td>1060</td> <td>1008</td> <td>981</td> <td>762</td> </tr> <tr> <td>Non- teaching</td> <td>3089</td> <td>2988</td> <td>3003</td> <td>2918</td> <td>2510</td> </tr> </tbody> </table> <p>Despite this, the University was continuing to recruit non-teaching staff on contract/part-time basis.</p>	Year	2003-04	2004-05	2005-06	2006-07	2007-08	Teaching	1106	1060	1008	981	762	Non- teaching	3089	2988	3003	2918	2510
Year	2003-04	2004-05	2005-06	2006-07	2007-08														
Teaching	1106	1060	1008	981	762														
Non- teaching	3089	2988	3003	2918	2510														

1.2.8 Academic activities

The main objectives of the University are to impart instructions in various branches of learning, undertake research, disseminate knowledge, conduct examinations and grant and confer degrees, diplomas and other academic distinctions. The University offers graduate and post-graduate courses in campus colleges, Centre for Distance Education and affiliated colleges in different disciplines. The average cost of education per student per annum was Rs 0.75 lakh (2008-09)²⁴. The cost of imparting education for each discipline was not being computed. Deficiencies/shortcomings noticed in conduct of academic activities are discussed in Paras 1.2.8.1 to 1.2.8.9.

²³ excluding the staff working on contract basis, part-time and as consultants

²⁴ Expenditure in 2008-09 (Rs 138.07 crore)/number of students (18,305) in campus, constituent colleges and district PG colleges

1.2.8.1 Annual Report

Annual Reports were perfunctory and did not include essential information

Section 22 of AP Universities Act, 1991, requires the University to prepare an Annual Report of the University and send it to the Academic Senate for its consideration and further transmission to the State Government for information along with a copy of their resolution thereon, if any.

The Annual Report of the University is expected to provide essential information on important activities relating to academic and establishment matters. But the Annual Reports of the University for the years covered by the review (2004-09) did not contain vital information on the number of students appeared, passed and the success rate of students in respect of many faculties both in degree and Post graduate courses offered by the University. The number of students who passed in the final year exams was also not shown for 22 (out of 52) departments in the campus/constituent and affiliated colleges and Centre for Distance Education. The reports also do not depict a uniform pattern in the data in all the years. This was mainly attributable to lack of effective coordination between various departments and poor monitoring of various programmes/projects and other activities taken up by the University. The University while admitting the deficiencies assured that these would be taken care of while preparing the reports in future.

Thus, the Annual Reports did not give comprehensive and complete information which could be of use to the Academic Senate to review the performance of the University. It was observed that certain courses being offered were having low or nil enrolment as discussed further in Para 1.2.8.2.

The enrolment showed a declining trend in certain Engineering and non-technical courses offered by colleges/CDE

1.2.8.2 Low enrolment of students against intake capacity

University Campus Colleges

The enrolment showed a decreasing trend in certain courses offered by the University in College of Engineering and the other Campus colleges as detailed in Table-6.

Table-6

Name of the course(s)	No. of seats	Number of students enrolled				
		2004-05	2005-06	2006-07	2007-08	2008-09
M.E. Civil (Structure Engineering)	25	20	20	21	11	9
M.E. Civil (HMWM)	25	-	-	-	1	3
M.E. EEE (Drives & Control)	25	25	11	18	24	24
M.E. Mech. (Automation & Robotics)	18	14	11	15	13	14
M.E. Mech. (Turbo Machinery)	25	25	20	13	20	22

The enrolment in the above Engineering courses and in particular M.E. Civil (Structure Engineering) and in M.E. Civil (HMWM) was very poor in 2008-09. No remedial action was taken. The University attributed the low enrolment to the circumstances beyond their control. There is a need to increase the attractiveness of the courses offered so that more students would enroll.

Centre for Distance Education

Courses offered by CDE did not reflect the need of industry/sectors having employment potential

The courses offered by the CDE elicited poor response and enrolment in certain courses was also gradually decreasing from year to year as detailed in Table-7.

Table-7

Name of the course	2004-05	2005-06	2006-07	2007-08	2008-09
B.A Maths & Statistics	Nil	114	90	68	69
B.A Language	79	54	55	31	32
Bioinformatics	8	13	Nil	Nil	NA
M.A Philosophy	67	76	65	54	53
M.A Sanskrit	88	66	53	53	47
M.A Urdu	123	84	83	83	73
M.A PPM	341	272	258	208	183
M.A Psychology	241	113	86	86	85
M.Com	3268	3270	2368	1992	1528
M.Sc Maths	3278	2627	1500	1025	782
PDC	77	57	18	18	NA

The low enrolment of students in courses offered by CDE could be attributed to (i) the inadequate measures to revitalise the courses so as to attract better response for the courses offered; (ii) non-revision of syllabus of the courses offered by the University (while introducing the new PG courses also) so as to reflect the need of industry/sectors having huge employment potential; and (iii) absence of proper system to obtain feed back from the students to assess the utility of the courses in learning education through distance mode.

Distance education basically caters to those sections of society who are not able to attend regular University courses. The University failed to attract the students over the years and the very objective of increasing the access to higher education was not being achieved. The infrastructure by way of buildings and faculty costs money. Low intake of students also indicates inadequate capacity utilisation and poor quality of teaching. The University needs to take suitable action to improve the intake of students. The University attributed the low enrolment to offering of the same courses through distance education by other universities of the State. There is a need to increase the attractiveness of the students.

1.2.8.3 Training programmes by Academic Staff College

ASC failed to ensure optimum participation level per programme so as to achieve optimum utilisation of expenditure thereon

The Academic Staff College (ASC) was established to help teaching faculty in the University/affiliated colleges to update their knowledge in their chosen field of expertise. It was observed that there was decreasing trend in the number of participants (up to 16 *per cent*) to the training programmes though there was increasing trend (up to 40 *per cent*) in the expenditure incurred on each participant during 2005-08 as detailed in Table-8.

Table-8

Year	Number of courses conducted	Required number of participants	Actual number of participants (decrease %)	Expenditure incurred on training programmes (Rs)	
				Total	Per trainee (increase %)
2005-06	17	680	636	8,412	13
2006-07	15	600	572 (10)	8,759	15 (15)
2007-08	13	520	481 (16)	10,308	21 (40)
2008-09	18	720	575 (20)	7,550	---

The ASC failed to ensure optimum participation level per programme so as to achieve optimum utilisation of expenditure being incurred on each training programme.

1.2.8.4 Declaration of PG results by CDE

There were delays in releasing examination results by CDE

The University was to conduct examinations and announce results within a period of 15-60 days from the scheduled date of last paper of the examinations. It was however, observed that during 2003-08 the CDE released the results of different PG courses with delays ranging from 44 days to as high as 96 days as detailed in Table-9.

Table-9

Year	2003-04	2004-05	2005-06	2006-07	2007-08
M.A., M.Com and M.Sc.					
Delay (days)	60	93	62	92	96
M.B.A*					
Delay (days)	-	44	64	75	90

*Course offered from 2004-05

Long delays were noticed in release of examination results by the CDE every year. The University attributed the delay to existence of double valuation system for answer scripts and assured that necessary steps would be taken to reduce the delays in declaring results by engaging more number of examiners.

1.2.8.5 Furnishing of incorrect information for performance evaluation

Incorrect information was furnished to APSCHE with a view to seeking good ranking in performance evaluation

The AP State Council for Higher Education (APSCHE) prescribed unified system of performance parameters for Universities to assess their functioning and evaluate performance of the Universities. It was observed that the University officials did not furnish (2007) correct information pertaining to hostel accommodation, participation of teaching staff in international seminars, number of teaching staff, Ph.Ds awarded, number of research papers published, number of seminars/conferences organised by the departments to APSCHE, obviously with a view to seeking to get good ranking in performance evaluation. The Committee which was constituted for prior verification of genuineness of information being submitted to APSCHE also failed to properly verify such information before submission to APSCHE.

1.2.8.6 Research Projects

During the five year period 130 research projects were completed at an outlay of Rs 12.07 crore. No research activities were conducted in as many as 17 departments

The University has 'Development Centre' and 'UGC Affairs Centre' which facilitate and monitor research programmes of various departments. The University receives research funding from various national agencies for its research activities. The University had 82 *per cent* of the faculty with Ph.D. as the highest qualification and four *per cent* of the faculty with M.Phil. During the period 2004-09, 130 research projects (57-UGC funded and 73 non-UGC funded) were completed after incurring a total expenditure of Rs 12.07 crore (UGC grant: Rs 2.78 crore and non-UGC grants: Rs 9.29 crore). Further, 89 research projects were in progress with a total outlay of Rs 14.89 crore. The following are the audit observations:

- No research activities were conducted in 17 departments including Computer Science Engineering, ECE, etc.
- While submitting UCs in respect of the completed projects the unutilised balances were to be refunded to the funding agencies. It was however, noticed that an amount of Rs 52.89 lakh was not yet refunded to the funding agencies; of which Rs 25.14 lakh in respect of 69 projects pertained to the years prior to 2003-04. The details of balances were also not available in the accounts.

1.2.8.7 Delay in submission of Dissertations/theses

Delayed submission of dissertations/theses has adverse implications due to continued usage of infrastructural facilities by the same set of students

As per the University norms the normal duration of M.Phil course is 36 months for all candidates. For Ph.D. the duration is five years for all full time scholars and six years for part time scholars including extended period. Audit noticed that large number of scholars have not submitted their dissertation/theses reports within even the extended time frame. The percentage of persons completing the M.Phil and Ph.D. programmes was low (17 *per cent*) when compared to enrolment. Delayed submission of dissertations/theses resulted in delayed submission of reports and the continued usage of the existing infrastructure facilities by the same set of students. There is a need to ensure that the students complete the M.Phil within the period of 36 months. Two advantages would accrue from such a measure. Firstly the existing infrastructure gets released for utilisation by new students. Secondly more students would undertake M.Phil courses once a trend is set that one does not have to spend more than three years for getting an M.Phil qualification. The University did not furnish specific reasons for the delay in submission of dissertations/theses. However, the University stated that time frame has since been fixed from the current year.

1.2.8.8 Participation of teaching staff in the international seminars

No control mechanism existed for monitoring participation of the teaching staff in the international seminars

The University was to nominate the teaching staff for various international seminars with the assistance of UGC and various funding agencies. It was observed that the University had no pre-defined policy to depute personnel to international seminars especially with regard to the eligibility criteria for the purpose such as relevance to the field of study, minimum leftover service after attending the seminar. The University had no proper mechanism to monitor the foreign travel of personnel attending the international seminars. The

University did not maintain any database in this regard. In the absence of proper mechanism the number of international seminars a person is entitled to and has actually attended in his official tenure could not be verified. The University could not ensure that the same official would not visit the same country repeatedly.

The University while furnishing the information to Audit stated that 14 teaching officials attended (2006-07) international seminars whereas while furnishing the details in this regard to APSCHE for purpose of assessing the performance of the University it was stated as 111. This also indicates lack of data consistency due to improper monitoring mechanism of the University in this regard.

1.2.8.9 Equipment not returned by Researchers

Equipment worth Rs 35.38 lakh was not returned by researchers even after completion of the projects

One of the conditions of the grants (including UGC grant) was that the equipment used on research projects should be returned to the laboratories after completion of the projects for their utilisation on the new research projects. Scrutiny revealed that there was no centralised database containing the details of equipment being procured under different projects, the status of the equipment, its life time and its utility. No entries were made in the stock registers of the respective departments in respect of equipment procured by the researchers.

A test-check of three departments (Botany, Microbiology and Physics) revealed that equipment worth Rs 35.38 lakh procured by the researchers was not yet returned to the laboratories as of April 2009 even after completion of the research projects. This indicates ineffective monitoring of research equipment by the University.

1.2.9 Estate management and support services

Estate wing is headed by Estate Officer who is *inter alia* responsible for the upkeep/control of the University properties. For effective estate management the estate wing is required to maintain database regarding ownership details of lands/assets of the University, leases of lands, collection of rentals, etc. The University was allotted 1,627 acres of land by the then Nizam Government; of which the University sold 28.21 acres of land and leased out an extent of 181.72 acres of land to 23 organisations/agencies for various educational activities. Besides, three acres of land was allotted to Municipal Corporation of Hyderabad for road widening.

1.2.9.1 Poor Estate management

There was no proper database/documentation regarding University lands/estate. Estate management was poor

Audit observed the following deficiencies/shortcomings with regard to the Estate management:

- The University was not maintaining any proper database relating to its lands/Estates. In respect of the lands leased out to 17 agencies (out of 23 agencies) the University did not execute lease agreements.

- The University is in a prime location and the value of land is high. There was no system of regular inspection of the lands belonging to the University to prevent encroachments from coming up. Consequently, there were huge encroachments of the University lands and about 1,200 semi-permanent dwelling units have sprouted in the University area.
- Due to failure of the University to safeguard its lands, certain lands encroached upon had to be regularised by the Government. While doing so Government promised to the University that alternative land to the extent of 35.8 acres at another place (Gachibowli) would be allotted to the University but possession was yet to be given as of May 2009.
- The nominal rent fixed for lands leased out were not being revised for several decades resulting in undue benefit to these parties and the University was deprived of the much needed additional revenue. Most of the lease periods ranged from 25 years to 99 years with nominal lease rent of Rs 1 per annum. The University replied that action would be taken to revise the lease agreements by taking legal opinion.

1.2.9.2 Power consumption of the University

The following observations are made:

There was avoidable expenditure of Rs 67.91 lakh during 2004-09 (with similar recurring expenditure of about Rs 14 lakh every year) on power consumption charges

- The University was provided with 5 High Tension (HT) power connections with a contracted minimum demand (CMD) ranging from 250 to 750 KVA @ Rs 195 per KVA from AP Central Power Distribution Company Limited (APCPDCL) with a contractual agreement that consumption charges would be the maximum demand recorded during a particular month or 80 *per cent* of CMD which ever is high.

It was observed that even though the consumption of power by the University was far less²⁵ than the CMD, it did not get the CMD reduced. Failure to do so resulted in the University incurring avoidable payment of Rs 67.91 lakh towards electricity consumption charges during 2004-09 with a recurring liability of about Rs 13.58 lakh every year.

The University failed to prevent electricity pilferage thereby incurring a recurring monthly liability of Rs 1.50 lakh

- As discussed in Para 1.2.9.1 *supra* encroachers constructed about 1200 semi-permanent dwelling units which spread over the University area. The encroachers were illegally drawing electricity for their household purposes from the University HT lines. As per the Consultant who was engaged by the University as an advisor on electricity consumption, the electricity charges approximately amounting to Rs 1.50 lakh per month were being paid by the University towards electricity consumption of the encroachers.



²⁵ ranging from 90 KVA to 387 KVA

164 out of 398 quarters were with defective/malfunctioning meters without immediate replacement

- The University had 398 staff quarters in its campus and each quarter has a separate electric connection. Of these, 164 quarters were with defective/malfunctioning meters. The University failed to immediately replace them. These quarters are being charged on *ad hoc* basis resulting in the extra consumption being borne by the University.


The above deficiencies contributed to considerable loss of revenue to the University.

1.2.9.3 Inadequate hostel accommodation

Students were accommodated in the hostels far beyond their original capacities exceeding up to 167 per cent

Hostel accommodation was provided to the campus students of the University. The maintenance of hostel buildings is done by the University Buildings Division. Scrutiny showed that there was overcrowding in hostels (as of May 2009) as the number of occupants was far in excess (up to 167 per cent) of the original capacity as detailed in Table-10.

Table-10

Name of the Hostel	Original Capacity	Occupancy	Excess (Percentage)	Overcrowding in University Women's Hostel
Hostel-A	297	466	169 (57)	
Hostel-B	320	595	275 (86)	
Hostel-C	254	465	211 (83)	
Hostel-D	274	566	292 (107)	
Hostel-E-II	345	521	176 (51)	
Hostel-E-I	268	398	130 (49)	
B.Ed Hostel	119	179	60 (50)	
New PG Hostel	108	198	90 (83)	
NRSH	168	216	48 (29)	
Old PG Hostel	90	226	136 (151)	
Manjira	102	212	110 (108)	
CHW-I	449	787	338 (75)	
CHW-II	378	747	369 (98)	
CHW-III	320	717	397 (124)	
Koti College	116	310	194 (167)	
Nizam College	208	507	299 (144)	
PGC, Secunderabad	180	225	45 (25)	

Overcrowding of hostels is neither conducive for study nor for hygienic living and the existing infrastructure had to be shared by more number of students.

Further, there were also press reports stating that there were many cases of unauthorised persons staying in both men and women's hostels since a long time adding to the woes of the students. There was no mechanism to prevent unauthorised persons staying in hostels. The University accepted the audit point and attributed the overcrowding to increase in number of boarders every year. The University also stated that steps were being taken to extend the existing hostels and to construct new hostels.

1.2.9.4 University Printing Press

The University failed to undertake modernisation of its Printing Press while the printing works were outsourced. This resulted in the printing establishment (at an annual outlay of Rs 1 crore) being kept almost idle

The University had its own Printing Press with the strength of 88 working staff including 48 technical staff. The University was however, outsourcing its printing works on the plea that the University Press was not being well equipped with modern state of the art technology. It was observed that the various printing works including printing of answer sheets were got executed (2003-08) through private printing units incurring an expenditure of Rs 7.48 crore²⁶.

The Committee constituted by the University to evaluate the printing cost of answer sheets opined (September 2006) that the University could save at least Rs 15 lakh per annum if the printing process was entrusted to University Printing Press itself by modernising it with one-time expenditure of about Rs 60 lakh which would be off-set within four years. Although it was decided (September 2008) to purchase new machinery, it had not been procured as of August 2009 and the University did not implement the suggestions of the Committee. Instead, the University was continuing the outsourcing of its printing works while restricting the engagement of the establishment of the Press (with annual expenditure of Rs one crore on salaries and contingencies) to the minor works only. The University authorities accepted the audit point and assured modernisation of the Press.

There was no assurance that works valued Rs 44.17 crore were properly executed as quality control checks were not ensured by the University

1.2.10 University Buildings Division

The University has a Buildings Division for executing construction works and maintenance works of existing colleges and administrative buildings, hostels, residential quarters and internal roads, etc. Audit noticed the following deficiencies in the construction activities of the University Buildings Division as detailed in Table-11.

Table-11

Item/Subject	Audit Findings
Quality control	In order to ensure good quality of works, Government directed (November 2006) all the authorities of the Universities to provide all the information relating to estimates, tender agreements and other relevant information/data available with them or available with other persons in this regard to the Quality Control Wing of the respective area of Roads & Buildings (R&B) Department as well as to Advisor to Government, R&B Department, by transferring the amount at 0.5 per cent of the University estimates to the Quality Control Circle of R&B Department. It was however, noticed that, during the five-year period 2004-09, the University authorities had not referred any work to quality control wing of R&B Department. Thus, there was no assurance that the works valued Rs 44.17 crore were properly executed as Quality control checks were not ensured by the University.

²⁶2003-04 (Rs 0.67 crore), 2004-05 (Rs 1 crore), 2005-06 (Rs 1.10 crore), 2006-07 (Rs 1.63 crore) and 2007-08 (Rs 3.08 crore)

Incorrect preparation of estimates	It was noticed that the University Buildings Division adopted incorrect and rates higher than those mentioned in Standard Schedule of Rates (SSRs) while preparing estimates for the construction works of Central Facilities Complex building (Estimated cost: Rs 3.50 crore) and the construction works of Girls Hostel building for Engineering and Technology students (Estimated cost: Rs 3.28 crore) at University Campus and the payment to the contractors was also made accordingly. Thus, an excess expenditure of Rs 6.20 lakh was incurred towards construction works due to adoption of rates higher than SSRs while preparing estimates as detailed in Appendix-1.6 .
Statutory violations	<p>VAT @ 4 per cent and TDS @ 2.24 per cent was not recovered before making of payment to the contractors resulting in loss to the Government and consequent undue benefit to the contractors. The amount involved was Rs 6.24 lakh.</p> <p>As per Sales Tax Act 19 of 2000, Sales Tax (12 per cent up to April 2005 and 12.5 per cent thereafter) should be collected on the cost of tender forms collected from the contractors. It was observed that Sales Tax at the prescribed rates was not collected from the contractors during the period 2003-08 to the extent of Rs 3.57 lakh which resulted in loss of revenue to the Government.</p>

1.2.11 Monitoring systems

1.2.11.1 Absence of Internal Audit

No internal audit was conducted in the departments of the University during 2004-09

Internal Audit examines and evaluates the level of compliance with the departmental rules and procedures and provides reasonable assurance to the management on the adequacy of the existing internal controls. The primary function of Internal Audit is to ensure accuracy of the accounts and correct statement of financial transactions of the University.

It was observed that though an Internal Audit Wing existed with a complement of three staff members headed by Deputy Registrar, internal audit of none of the departments of the University was conducted during the five-year period 2004-09. In the absence of Internal Audit, there was no assurance to the University management that the rules and procedures were being complied with by various departments of the University.

1.2.11.2 Absence of follow-up of NAAC recommendations

Necessary follow-up action on the NAAC recommendations was not taken by the University

The National Assessment and Accreditation Council (NAAC) in its peer report observed (February 2008) that there had been institutional weaknesses like absence of inter-disciplinary teaching and research programmes, lack of specific efforts to bring about national visibility of faculty and their research outputs, limited upkeep and maintenance of student laboratories and their amenities and lack of effective use of IT enabled teaching and learning services available in the University, etc. It also advised that (i) the Tutor-ward system that exists in the University needs to be strengthened, (ii) training to be

provided to the faculty to enable them to use diverse teaching methods, (iii) augment resources through consultancy, (iv) ICT based automation of Administration, Finance and Examination divisions need to be expedited as a total solution, etc. Audit observed that necessary follow-up action on the recommendation of the Committee was not yet taken as of May 2009.

1.2.11.3 Stores and Stock

Maintenance of stores and stock accounts was poor. Physical verification of stores and stock was not done in most of the departments of the University

Scrutiny of stock registers relating to stores revealed the following deficiencies:

- The maintenance of Stores and Stock accounts in the University was very poor. The stock Registers were not being regularly maintained and updated periodically. Many items were not even being entered in the stock registers. The University Guest House did not maintain any stock registers for stores during the five-year period 2004-09.
- Physical verification of stores, stock, furniture and equipment was not conducted in most of the departments in the University.
- Idle equipment (Computers and peripherals) pertaining to the University Library and damaged/old furniture were dumped in Chief Warden's Office and Guest House.

The University accepted the audit point and assured to carry out necessary measures for periodical physical verification of stock and stores and disposal of unserviceable articles.

1.2.11.4 Non-conducting of physical verification of library books

The University spent a meagre amount on providing library facilities to the students. Physical verification of library books was not done at periodical intervals

The University has a Centralised Library to cater to the needs of the students and faculty. During the period 2007-08 an expenditure of Rs 30.30 lakh was incurred towards purchase of books and publications for the Library. The following observations are made:

- The amount spent on purchase of library books when compared to the total expenditure of the University was very meagre. The University was incurring only 0.22 *per cent* (on an average) of its expenditure on maintenance of the Library. While the cost of education per student in the University was more than Rs 75,000 per annum, the cost of providing library facilities per student stood at Rs 165 per annum.
- The Library had no proper system of monitoring the issue of the library books to students and the faculty and their prompt return; thereby the faculty and the students were continuing to retain the books borrowed from the Library for years together.
- The physical verification of Seminar Libraries (for each department) of the University was not conducted periodically. Even though there were standing instructions from the Government that complete physical verification was to be done in the alternative years (where loss of books was more than five out of every 1,000 books) sample physical verification only was done in the alternative years in the Central Library.

Thus, there was no assurance that, in the absence of physical verification, there was no loss/theft of valuable books.

1.2.11.5 Huge pendency of post-audit objections

As per Annual Audit Report of the Director of State Audit for the year 2005-06, 5,515 audit objections were pending for period since 1995-96 and up to 2005-06. Besides, 194 Inspection Report (IR) paras²⁷ of the Accountant General were also outstanding as of March 2009. This indicated non-responsiveness of the University for taking remedial action on the objections raised and less of opportunity for improving financial discipline.

1.2.12 Constraints and achievements

The block grant released by the State Government is meant for meeting the expenditure on account of salaries, pension and contingencies. In the recent past the State Government has not released the budgeted/sanctioned block grant in full. The block grant released is not sufficient even to meet the expenditure on account of salaries resulting in the University having to tap internal sources to meet this expenditure. The following were the achievements of the University:

- The Osmania University was the first University in the State to go in for accreditation of NAAC in the year 2001 and achieve the highest rating of five stars. It went in for reaccreditation this year and was accorded the highest A grade by NAAC.
- The campus colleges of Engineering and Technology were conferred with Autonomous status. The constituent colleges viz., College for Women, Nizam college and PG College, Secunderabad were also conferred with autonomous status. The faculty of Management has been recognised by the Business Today as one of the best in terms of number of Ph.Ds awarded.
- Grant of Centre for Advanced Study (CAS) at national level was awarded to Department of Communication and Journalism, (C&J) the first ever Department of C&J in the country to have been conferred with CAS status. This is the fifth department in the University being conferred with CAS status. The other four being Political Science, Genetics, Astronomy and Linguistics.
- The College for Women and Nizam College were granted “College with potential for excellence status”. Centre of excellence in Microwave Engineering at University College of Engineering was launched. Value Added courses in Medical Transcription, Health Care and Banking were launched.
- The University could attract more than 800 foreign students from 65 countries to join different courses. On account of research activities conducted in various departments, out of 130 projects completed at an outlay of Rs 12.07 crore the University generated seven patents (during the review period).

²⁷up to 2003-04: 120, 2004-05: 10; 2005-06: 41 and 2006-07: 23

- More than 90 *per cent* students are from rural areas, 80 *per cent* belong to SC, ST, OBC and minorities who are given exemption and are in receipt of scholarships. The release of scholarships by Government is not regular leading to huge amounts of tuition fee and mess charges remaining to be received by the University.
- The NSS wing of the University has the largest number of NSS volunteers (60,505) from its colleges. The NSS unit of the University bagged the Indira Gandhi National NSS award for its outstanding performance and contribution to nation building.
- The University received INTACH Heritage awards for Arts College, Women's college Darbar Hall and other University buildings.

1.2.13 Conclusions

The University failed to adhere to the codal provisions while appointing various posts of staff including the Finance Officer. Financial management in the University was deficient. Cash books were either not maintained or were not properly maintained by the University as well as the campus/constituent colleges. There was no assurance that all demand drafts remitted into banks were credited to University account. Collection of prescribed tuition fees and examination fees was not ensured. Excess/inadmissible payments were made to University teaching staff in implementation of UGC scales. Advances given to Principals and various departmental officers of the University were outstanding due to non-adjustment. The Finance Branch failed to ensure correct remittances of amounts due to University account by Colleges and Hostels. Annual Reports were perfunctory and did not highlight areas of concern. Certain courses conducted by the University did not attract enough candidates leading to low enrolment. There was no assurance that works were properly executed as no Quality control checks were ensured by the University Buildings Division. Estate management was poor. The University failed to protect its lands from encroachers. There were cases of pilferage of electricity due to which the University is saddled with the problem of unnecessary payment of electricity charges. Physical verification of stores and stock was not carried out in most of the Departments. Physical verification of the library books in the Central Library/Seminar Libraries was also not done. Internal audit of the University departments was not conducted during the five-year period 2004-09 and as such there was no assurance to the University management that the rules and procedures were complied with by the departments.

1.2.14 Recommendations

- Appointment of Finance Officer as stipulated in AP Universities Act and also keeping in view the recommendations of Public Accounts Committee should be considered.
- The University should ensure proper maintenance of computerised cash books by all the departments/constituent colleges. The receipts and expenditure transactions should be invariably posted in the same cash book. Reconciliation with bank statements should be carried out invariably for all bank accounts. Delays in remittance of Demand Drafts should be avoided.
- The annual accounts should be computerised with income and expenditure account and balance sheet.
- Annual Reports prepared should contain comprehensive and complete information which could be of use to Academic Senate. The University should review and identify new courses that would appeal to prospective students.
- The Centre for Distance Education should assess the reasons for low enrolment and take suitable steps for improvement.
- Outstanding advances should be adjusted promptly before the close of the financial year.
- The University Buildings Division should ensure quality control checks in execution of works.
- The University lands should be safeguarded from encroachments by providing proper security personnel and executing pukka lease agreements in case of leased lands to avoid litigation. The land records and its usage should also be computerised.
- The University should take immediate steps for providing sufficient accommodation to all the boarders.
- The Buildings Division (Electrical wing) of the University should check theft of electricity to avoid payment of electricity charges.
- Physical verification of library books and stores and stock should be carried out periodically and action taken to dispose off old/obsolete books/stores items.

The above observations were reported to Government in June 2009; reply had not been received (August 2009).

IRRIGATION AND COMMAND AREA DEVELOPMENT DEPARTMENT (Projects Wing)

1.3 Third Party Quality Control/Assurance (TPQC) in execution of irrigation projects

1.3.1 Introduction

The I&CAD Department has a separate quality control wing. In November 2004, Government decided to engage outside agencies for checking the quality of irrigation projects as a part of Third Party Quality Control/Assurance (TPQC) arrangement. The department entrusted (October 2005 to March 2008) 41 TPQC packages worth Rs 167.97 crore²⁸ to 10 firms to cover 232 package works worth Rs 33,800.29 crore entrusted on Engineering, Procurement and Construction (EPC) turnkey basis. The TPQC works were entrusted by the Superintending Engineers of the respective circles after evaluation of the bids submitted by the empanelled firms for each package by a committee comprising (1) Commissioner, Commissionerate of tenders (2) Engineer in Chief (Irrigation) (3) Deputy Financial Advisor, Finance (W&P) and (4) Chief Engineer of concerned project.

Audit conducted a test-check of TPQC system covering 14 TPQC packages²⁹ involving an expenditure of Rs 46.35 crore by scrutinising records of Secretary, I&CAD Department (Reforms), four Superintending Engineers³⁰ covering four packages³¹ and Executive Engineer, Special Designs Division No.4, Hyderabad (identified as centralised division for making payments to all TPQC firms) (November 2008). Replies of the Government have been taken into account while finalising the report. The findings of audit are discussed in the succeeding paragraphs.

Audit findings

1.3.2 Empanelment

1.3.2.1 Award of marks

The whole process of empanelment was itself faulty

The empanelment of 18 firms, which were selected in two phases viz., expression of interest and tendering process, took place through the Government Orders of June 2005. In the first phase (November 2004) 16 out of 32 firms were selected and two firms were selected in the second phase (May 2005). Seven firms which got less than 60 marks in the first phase were included in the empanelled list and there was no cut off mark. A firm³², which

²⁸ Expenditure to end of November 2008 was Rs 113.33 crore

²⁹ Package No(s). 2, 3, 8, 10, 16, 23, 24, 27, 32, 36, 37, TPQC-1, AVRHNSS and GLIP selected on the basis of high agreement values and covering all the 10 TPQC agencies engaged by the Government

³⁰ AMRP Circle No. II, G.V. Gudem, Nalgonda; Pulichintala Project Circle, Jaggiahpet; Construction circle, Ongole; TGP Circle, Srikalahasthi

³¹ Package Nos. 3 (Rs 1.96 crore), 8 (Rs 3.58 crore), 10 (Rs 1.43 crore) and 24 (Rs 5.71 crore)

³² TUV Sudddeutschland India

got 'zero' marks for senior and junior level technical personnel, in-house testing and field testing facilities, got only 3 marks (for Non-destructive testing equipment facility) in the first phase. The firm however, got 76 marks in the second phase against the cut off marks of 70 due to change in parameters. The firm got 10 marks each for track record of proven experience in similar field, association with institutions of the standards of IIT, minimum 5 works of similar nature worth Rs 50 crore and annual turnover of Rs 5 crore. It also got 22.5 marks for manpower. It got 14 marks for some other parameters.

The Government replied (August 2009) that the firm³² did not furnish the relevant documents at the time of "expression of interest" but produced it in the second phase viz., tendering and accordingly got qualified. The reply is silent whether the non-submission of documents was due to non-possession of the required qualification prescribed for the first phase. The reply also overlooks the fact that the parameters were significantly changed which enabled the party to get such a high rating.

1.3.2.2 Parameters for selection of firms

The Government stipulated availability of technical personnel at senior and junior level, test facilities (in-house, field and non-destructive testing equipment), previous experience in similar quality contract works as basic parameters for selection of firms for empanelment in the first phase. It was, however, observed that no minimum marks were stipulated for each parameter separately leading to 16 out of the 18 firms being empanelled in the first phase. The following deficiencies were also noticed:

Parameter	Audit findings
<i>Availability of junior level technical personnel with QC experience</i>	Two firms ³³ , which did not possess junior level technical personnel with quality control experience, were included in the list of empanelled firms.
<i>Availability of field testing facilities</i>	Four firms ³⁴ , which did not have any field testing facilities, were also included in the list of empanelled firms. Out of these four firms, seven TPQC packages valuing Rs 26.12 crore dealing with quality control aspects pertaining to 36 EPC packages (value: Rs 5,229.29 crore) were entrusted to GHERZI Eastern limited.
<i>Availability of Non-Destructive Testing (NDT) Equipment</i>	Six firms ³⁵ , which did not have Non-Destructive Testing (NDT) equipment like Rebound hammers, Ultrasonic equipment, Nuclear gauges, Magnetic crack detectors, etc. were empanelled. Out of these six, GHERZI Eastern limited itself was entrusted with seven TPQC packages as mentioned above against item 2.

³³ Aarvee associates & architects and Wilbur Smith associates private limited

³⁴ GHERZI Eastern limited, MDP consultants, Tahal consulting engineers and Ernico (India) private limited

³⁵ Engineers India Limited, C.C. Patel and Associates private limited, Aarvee associates and architects, GHERZI Eastern limited, Ernico (India) private limited and NAG infrastructure consulting engineers private limited

Previous experience in similar quality control works	Three firms ³⁶ , which did not have any previous experience in similar quality contract works, were also empanelled. This was also in contravention of the clauses 1(a) and 1(c) of the notice inviting pre-qualification bids for empanelment. One firm (NAC) was entrusted with two TPQC packages valuing Rs 6.36 crore pertaining to seven EPC packages (Value: Rs 1,117.30 crore).
Association with professors of accredited institutions of the standard of IIT	No marks were stipulated for this parameter in the first phase. None of the firms entrusted with TPQC contracts were associated with a professor of any IIT institute.

The Government stipulated that only empanelled firms should be eligible for participating in the tenders. However, nine TPQC packages valuing Rs 25.05 crore ([Appendix-1.7](#)) covering 46 EPC packages (value: Rs 4,318 crore) were entrusted to four firms³⁷ which were not in the empanelled list. Of these, Engineering Staff College of India (ESCI), which failed to qualify for the empanelment, was entrusted with two TPQC packages valuing Rs 6.20 crore covering 8 EPC package works (value: Rs 1,089 crore).

Thus, the very objective of empanelment of firms for conducting TPQC works was defeated.

The Government replied that the firms were exempted from fulfilment of some of the clauses/conditions on the ground that they would acquire these qualifications subsequently. The reply does not say why this exemption was extended to only selected parties. Further, the entrustment of the sensitive item of checking the quality of projects worth several thousands of crores to parties which did not have the requisite experience is detrimental to Government's interest.

1.3.3 Tendering process

Inconsistencies were noticed in the tendering process

Audit observed inconsistencies in the tendering process as narrated below:

- In package No. AVR HNSS, partner of an empanelled Joint venture (JV) firm was considered for entrustment of TPQC Package-AVRHNSS based on the experience as a JV firm. However, both the partner firms were earlier disqualified on the same grounds in another TPQC package (Tunnel I and Tunnel II of Veligonda project).
- TPQC contracts of major irrigation projects like Aliminati Madhava Reddy Project, Pulichintala project, Komaram Bhim project, Palemvagu project, Kinnerasani project (packages 3, 37 and 10) were entrusted to an unempanelled firm which did not have experience in quality assurance of irrigation projects.

³⁶ National Academy of Construction (NAC), Becon Society Franchise, C.C.Patel and associates private limited

³⁷ Engineering Staff College of India, Hyderabad; M/s VAS consultants, Hyderabad; M/s National Consultancy for planning and engineering, Hyderabad; Indian Registrar of Shipping, Hyderabad

- In package 24, tenders were compared excluding service tax component while all tenders for all the other packages were compared with service tax component.
- In the same package 24, several bid conditions were amended after conclusion of agreements like deletion of retention money clause, change in payment methodology, number of establishment of mobile laboratories. Issuing amendments to tender conditions after entrustment indicating vitiation of tender process and undue favouritism to the party.
- In packages 16 and 17, firms' financial proposal (C1 form), summary of cost (C2) and the agreement value were different from one another for reasons not on record.
- In respect of packages 21 and 22, the Internal Bench Mark (IBM) values were higher than the sanctioned estimates. This was statedly due to higher number of mobile labs.

Thus, the tendering process was defective. The Government did not offer specific remarks on the audit observations.

1.3.4 Delay in/non-entrustment

There were delays of 12 to 36 months in engagement of TPQC firms after entrustment of original execution of works

The process of quality assurance begins well before commencement of actual execution and includes review of designs, plans and specifications for constructability and operability. In respect of 40 EPC projects costing Rs 10,962.79 crore, the TPQC works were entrusted to firms with delays ranging from 12 to 36 months after entrustment of the original execution of works.

Audit also observed that no TPQC firm was engaged for quality control in respect of tunnel work with tunnel boring machine (TBM) in Aliminati Madhava Reddy project (EPC package-value: Rs 1,925 crore).

The Government did not offer specific remarks on the audit observations.

Shortcomings with regard to quality assurance were noticed in the agreements

1.3.5 Deficiencies in agreements

Scrutiny of agreements revealed shortcomings with regard to quality assurance as described below:

Item	Audit findings
<i>Analysis of designs</i>	By the time the TPQC agreements were concluded many of the EPC packages were already under execution. However, the department provided for "Analysis of design" in the TPQC agreements, which proved to be redundant. If the scope of the work to TPQC agencies had accordingly been modified the savings to the department would have been Rs 2.75 crore (Appendix-1.8). The Government replied that though TPQC might not see a few designs, it would be able to contribute significantly towards the majority of the designs which would be

	finalised during the course of execution in the larger interest of the projects. The fact however, remains that there was no proportionate recovery for designs not seen by the TPQC.
Payment schedule	Several agreements did not prescribe a specific payment schedule for payment of bills. Even in cases, where specific payment schedule was prescribed, it was revised frequently for reasons not on record (Package No.2 covering Thotapalli, Peddagedda, Tarakarama Theertha Sagar and Janjhavathi projects).
Absence/ Inadequacy of security measures	<p>It was prescribed that the EMDs of TPQC firms would be returned on completion of 24 months after lapse of agreement period without linking it to the defects liability period of EPC packages.</p> <p>In several agreements there was no clause relating to deduction of retention money from the running bills. As a result, the department could not take penal action against the firms which withdrew from the TPQC activity midway or against the firms which were not willing to extend the contract period in case of extension of EPC package execution.</p>

1.3.6 Control and Coordination

The control by the Special Designs Division was ineffective

The Government decided (March 2006) that all the payments pertaining to TPQC firms be centralised with the Engineer in Chief (Irrigation) (ENC). Accordingly the ENC identified Special Designs Division No.4, Hyderabad for that purpose. The performance of the division suffered from the following shortcomings:

- The Executive Engineer, Special Designs Division No.4, Hyderabad (EE, SDD-4), did not monitor the quality checking of work done by the TPQC firms before releasing payments on the presumption that the quality checking works done by the TPQC firms were being monitored by the field engineers of the EPC packages concerned. The field engineers were not able to furnish records in support of such supervision.
- The EE, SDD-4 had no information about whether any of the field engineers of the EPC packages were accompanying TPQC firms while collecting samples or conducting tests.
- The EE, SDD-4 had also no information regarding the quality tests being conducted by the EPC firms and whether the TPQC firms were verifying ten *per cent* of those tests independently.
- The Engineers in charge of the EPC packages were not certifying the invoices/bills raised by the TPQC firms directly on the EE, SDD-4 on monthly basis.
- The monthly test reports furnished by the TPQC firms were also not being regularly certified by the Engineers in charge.

Thus, the Special Division which was entrusted with the task of payment control did not discharge its functions effectively.

The Government stated (August 2009) that it was decided to pay the TPQC agencies directly for ensuring their independence from the field engineers. It was also stated that three new posts of Chief Engineers for quality control had been created (October 2008) for coordination and better monitoring. The contention of the Government is not acceptable. The field engineers represent the department/Government and TPQC agencies are private parties. It is the field engineers by virtue of being on the work spot who will be in a position to make a proper assessment of the quality of work done by the TPQC agencies. Cutting out such an important wing of the engineering department was detrimental to Government interest.

Non-existence of agreement between EPC agency and TPQC firm: There was no proper coordination between EPC agencies and TPQC firms. There were several instances of non-cooperation by EPC firms with the TPQC firms viz., non-submission of Quality Management Plans (QMP), non-submission of drawings before commencement of works, non-furnishing of approved designs for analysis, non-intimation of concrete work schedules, non-furnishing of details and reports of tests conducted by EPC firms to TPQC firms for secondary tests, non-submission of corrective action reports (CARs) on the defects pointed out by the TPQC firms. The Government replied that the EPC agreements stipulate “checks by departmental engineers or any other organisation and the contractor shall extend test facilities to them also”. However, in practice the EPC agencies failed to fulfill their obligation stipulated in this clause. Government by its own admission confirmed that due to non-cooperation by the EPC agencies it had to reiterate the instructions.

Quality assurance suffered from several lacunae mainly on account of laxity of departmental engineers

1.3.7 Quality assurance aspects

Audit scrutiny revealed lacunae in the process of quality assurance by the TPQC agencies as narrated below:

Requirement	Audit findings
Quality Management Plan(QMP)	
Review of contractor's QMP	<p>(i) In package 16, the EPC firm did not furnish QMP to the TPQC as of August 2008.</p> <p>(ii) In package 23, the EPC firm did not furnish QMP as of December 2008.</p> <p>(iii) In Package 24, the TPQC firm did not review (i) designs and specifications in respect of 6 out of 8 EPC packages, (ii) QMP in respect of 7 packages and (iii) calibration for 7 packages.</p>
Quality testing equipment and material testing	
Quality Testing Equipment	<p>(i) The EE, SDD-4, during inspection observed non-availability of key equipment like Non-Destructive Testing (NDT) equipment, Concrete core cutter and U.T.M., Hydraulic pressure tester, Insitu permeability test apparatus, PH meter, Hydrometer, etc. (Package No.2, 10, 11).</p> <p>(ii) In package 23, the firm carried out required tests in other engineering colleges and universities which was to be done in the TPQC lab.</p>

<p>Material testing</p>	<p>(i) In packages 8 and 10 concreting plan was not being intimated to TPQC firms. The EPC agencies were executing concreting works at night hours without giving prior intimation to TPQC firms. This has serious implications given that the supervision of quality of concreting is an activity involving concurrent collection of samples.</p> <p>(ii) In package 10, the TPQC firm was testing cement concrete cubes manually which did not reflect true values, which was stated to be subsequently rectified.</p> <p>(iii) In package 10, the EPC firm was not maintaining sufficient stock of materials despite being repeatedly mentioned in the monthly reports. Thus, the arrangements for testing materials before they are put to use by the EPC contractor were inadequate.</p> <p>(iv) In package 23, the EPC firms did not involve the TPQC firm while conducting QC tests of material brought to site.</p>
<p>Calibration</p>	
<p>TPQC firms were to conduct calibration of EPC firm's equipment</p>	<p>In package 11, the TPQC firm did not conduct calibration of the equipment even after one and half years after entering into contract.</p>
<p>Presence of departmental engineers at the time of sampling and analysis</p>	
<p>Presence of departmental engineers</p>	<p>In package No.24 TPQC firm (LASA-VAS) complained (July 2006) that only work inspector was available at the work spot during the inspections and departmental engineers (AE/AEE/DEE) were not available even while executing major structures. The firm also represented that no technical representative or engineer on behalf of EPC firm was present.</p> <p>In package 27 also, work inspectors were signing the daily test reports on behalf of the department indicating that the departmental engineers were not being present while collection of samples or analysis of the samples collected.</p>

Superintending Engineer, SSLC & SB circle, Nellore, communicated (October 2006) to the agreement concluding authority i.e., Superintending Engineer, Telugu Ganga Project Circle, that, even after eleven months the TPQC firm did not have reliable machinery for checking the concrete structures. It was however, observed that the contract period was extended after completion of the agreement period apart from entrustment of additional works to the same firm.

Thus, the monitoring of quality of the projects suffered from several lacunae. The Government did not offer specific remarks on the audit observations.

1.3.8 Corrective action on TPQC reports

Departmental engineers failed to ensure corrective action on the deficiencies pointed out by TPQC firms

Scrutiny of the corrective action reports (CARs) revealed the following:

- In Packages 3 to 10, corrective action was not taken immediately on the observations made by the TPQC firms.
- In package 32, there were no reports of corrective action.
- In package 23, TPQC firm was not involved while taking corrective action.
- In packages 8 and 10, the suggestions of TPQC firm are repetitive in nature regarding honey combing, improper vibrations, insufficient metal stack, improper curing etc. This indicates that the EPC firm did not pay proper attention to the repeated remarks of the TPQC firm.

Thus, the departmental engineers failed to ensure corrective action on the deficiencies pointed out by TPQC firms. Audit further observed that there was no system to get the quality certified by the TPQC firm after corrective action as pointed out by the TPQC firms was taken by EPC firms. The Government did not offer specific remarks on the audit observations.

1.3.9 Checks of samples by outside laboratories

Departmental engineers were unable to furnish records relating to checking of samples by outside labs

The TPQC contracts envisage that 10 *per cent* of tests are to be got checked by an outside laboratory (NCCB and APERL) (cost to be borne by TPQC firm) once in three months to give an assurance that proper testing and analysis is being done by EPC/TPQC firms. It was however, observed that the Superintending Engineers concerned of AMRP Circle II, G.V. Gudem, Pulichintala Project Circle, Jaggiahpet and Telugu Ganga Project circle, Srikalahasthi, were unable to furnish records relating to conducting of such an exercise. The Government did not offer specific remarks on the audit observations.

1.3.10 Deployment of qualified staff

Deployment of experienced staff for quality control was not given due importance

Agreements with the TPQC firms stipulate that the firms have to engage on their rolls qualified and experienced staff for quality control. The following observations are made:

- The TPQC firm of package 3 (pertaining to Aliminati Madhava Reddy Project) engaged specialists in “Transport Planning”, “Transport engineering” which were not related to quality control in Irrigation Projects. Audit also observed that some of the staff engaged by TPQC firms did not have experience in quality control aspects.
- All the agreements stipulated that the firms should submit curriculum vitae (CV) of the field staff engaged by the TPQC firms. Audit observed that in majority of the cases either the CVs were not submitted (Package 32) or did not contain full particulars (Packages No.37 and AVR HNSS).

- The TPQC firms were replacing their key personnel, scaling down the manpower without prior approval of the agreement concluding authority in contravention to the stipulations of the agreement and without any instructions to that effect from the Engineers in charge (Packages No. 2, 10) which would have an adverse effect on the continuity of quality assurance.

The above deficiencies indicated that deployment of experienced staff was not given due importance. The Government did not offer specific remarks on the audit observations.

1.3.11 Inspections by professors of premier institutes

The agreements stipulated that TPQC firms would invite professors from the premier institutes of standards of IIT once in three months for quality assurance of the irrigation works. In packages 3, 11, 15, 18, 19, 39, 43, 49, TPQC-1 and AVRHNSS, audit observed that some of the firms had not furnished the reports of the inspections conducted by professors of such premier institutes. Instead of getting the tests conducted by the professors of institutions with standards of IIT, the firms got the tests done by professors of local universities. There were shortfalls in the number of visits of professors. In package 27, there was also an instance where such inspections were all carried out on a single day. The Government did not offer specific remarks on the audit observations.

1.3.12 Construction of central laboratory buildings

The clause relating to construction of central laboratory buildings by the TPQC firms was not enforced

All the agreements stipulated that the TPQC consultant should construct a central laboratory at a location suggested by the department. The land was to be handed over to the consultant by the department and the consultant was to hand over the laboratory with infrastructure to the department at the end of the contract period. The following deficiencies were noticed:

- No time frame was stipulated for construction of central laboratory in the agreements. In respect of 18 TPQC packages, the firms did not construct central laboratories as of December 2008 statedly due to non-handing over of land by the department. No deductions were, however, made towards non-construction/provision of central laboratories from the agreement value. The cost of construction/provision for central laboratories as per the agreements in these 18 packages was Rs 7.66 crore ([Appendix-1.8](#)).
- Firms were allowed to function from elsewhere without establishment of laboratories. While one firm operated laboratory in a rented building (package 3), another firm established central laboratory in government quarters (package No.24). In package 23, the firm operated its mobile laboratory from that of the EPC firm with adverse implications on the quality assurance of those projects.
- The plinth area of central laboratory, even in the cases where it was constructed with some delay was less than the stipulated 400 square meters (packages 2, 10 and 11).

- In package 36, the department did not take over (December 2008), though envisaged in the agreement, the central laboratory from the TPQC firm even after the original agreement period elapsed in May 2008.
- The agreement of the package 3 stipulated contradictory clauses for establishment of central laboratory along with infrastructure at firm's own cost on the land provided by the department as well as central laboratory building rent of Rs 12 lakh at a rate of Rs 40,000 per month. The EE, SDD-4 paid Rs10.90 lakh as of December 2008 towards rent. The building was constructed by the firm after the contract period, which was over by September 2008. Infrastructure and other amenities were yet to be provided by the firm and as such the building could not be put to use by the department as of February 2009.

Thus, the department failed to enforce the clause relating to construction of central laboratory buildings by TPQC firms. The Government did not offer specific remarks on the audit observations.

1.3.13 Vulnerability assessment of departmental reliance on TPQC firms for quality assurance

In case of detection of wrong certification by the TPQC firm, the damage cannot be rectified as the value of contracts awarded to TPQC firms is negligible part of the total value of the EPC works, the quality of which is to be monitored/ensured. Even detection of such wrong certification is difficult. In TPQC package 11, pertaining to EPC package No.23 of Handri Neeva Sujala Sravanthi project, the TPQC firm³⁸ had given (in 2006) a quality assurance certificate for work which was yet to be executed. It was only the public watchfulness and outcry that ensured detection of such lack of supervision on the part of the TPQC firm.

Audit observed that no penal action was taken against the firm for incorrect certification except recovery of the amount from the firm on prorata basis. Instead of blacklisting the firm, the firm was allowed to continue certification of quality in respect of other works/packages.

This clearly indicates that total reliance on an outside agency for the critical function of quality control is fraught with adverse implications as the system does not envisage presence of departmental engineers at the time of collection of samples and at the time of carrying out testing and analysis of the samples collected. Engagement of TPQC firms does not guarantee first rate assurance of quality work done by EPC firms.

The Government replied that hundred *per cent* departmental supervision would not be feasible. The reply overlooks the fact that non-critical functions can be outsourced but not critical functions such as quality of irrigation projects worth several thousands of crores. The engagement of TPQC agencies can only be used to augment the strength of each quality inspection team. The

³⁸ LASA-VAS

deployment of TPQC agency is justifiable to the limited extent that all the members of a quality inspection team need not be from Government but no quality inspection team should be without any departmental engineer. There has to be hundred *per cent* supervision of the inspection work by a departmental engineer at the time of collection of samples as well as analysis of samples.

1.3.14 Dilution of departmental quality control

Government stipulated (December 2005) that the TPQC firm should give quality control certificate for each work bill executed by the EPC firm. The payments were being made to the EPC agencies even without the certification by the departmental engineers entrusted with quality control. As a result the EPC agencies were not paying proper attention to the observations made by the departmental quality control staff. Audit observed in package 10 that in a large number of cases corrective action reports had not been received for nearly one year for the observations made by the departmental quality control staff. The Government did not offer specific remarks on the audit observations.

1.3.15 Action on deficiencies in quality detected by the TPQC firms

A few cases relating to serious deficiencies pointed out by the TPQC firms are illustrated below:

- In TPQC package 10 (Pulichintala project) the firm pointed out that for blocks 2 to 9 foundation stage load cells required for assessing load bearing capacity etc., were not installed for further studies.
- Hydraulic pressure tests for pipes were conducted only for five minutes instead of stipulated two hours (NIT, Warangal report for package 38).
- Flakiness and elongation index of coarse aggregate available at site for concreting was 58.3 *per cent* instead of stipulated maximum of 30 *per cent* despite being objected earlier by NIT, Warangal (package 38).
- Vertical reinforcements of Pump House III were terminated abruptly instead of bending the bars (NIT, Warangal report for package 38).
- The EPC firms were not assessing the safe bearing capacity of foundation soils (Package 23).
- The EPC firms were not executing the work as per approved drawing (Package 23). For instance, laying of pipeline (Pushkara and Venktanagaram Lift Irrigation Schemes) and thrust blocks (VNPS) is one of the examples.
- Adequate importance was not given to items like Water Cement Ratio, Back filling, Removal of form work and curing, etc. (package 23).
- Hydrostatic pressure test was not being done even at the time of final bill (package 23).

- The eligibility for qualifying for payment in respect of distributaries for discharges between 100 C/s and 10 C/s and in respect of minors and sub-minors was not being followed (package 23).

Details of remedial action taken on the above deficiencies were not readily available with the department. The Government did not offer specific remarks on the audit observations.

1.3.16 Payment during extended period

Payments made beyond the agreement periods of TPQC contracts led to extra expenditure amounting to Rs 21.79 crore

Activities like land acquisition, forest clearance, etc., are time consuming and the time required to complete these activities cannot be estimated with any degree of certainty. Award of work without executing components of uncertain duration is beset with the following problems:

- (i) The TPQC agency being paid the full amount regardless of the quantum of work done by the executing agency during the period of contract with the TPQC agency
- (ii) Additional costs for deployment during the extended period

These issues were ignored in award of projects scrutinised by Audit leading to delay in execution of projects.

As payment to TPQC parties are linked to the duration of the projects for which they were engaged, the above deficiencies led to extra expenditure of Rs 21.79 crore beyond the agreement periods of TPQC contracts. The details are given in [Appendix 1.9](#). The Government did not offer specific remarks on the audit observations.

1.3.17 Improper payment methodology

The department did not stipulate a definite payment schedule method or invoice/bill procedure for the TPQC packages. Many of the invoices raised contained details of the expenditure incurred by the firms like personnel on rolls/salaries, miscellaneous expenditure, equipment expenditure, reporting expenditure, software reimbursement expenditure, etc., instead of the quality checks being performed or services rendered by them. As a result, the linkage between the payments made to the firms and services rendered by them could not be established.

Audit also observed in package 36 that the costs of various items³⁹ in supplemental agreements were much higher than that in original due to increase in remunerative costs component. The Government did not offer specific remarks on the audit observations.

³⁹ Testing of Input materials and analysis, Insitu tests and analysis, and Tests on finished products and analysis

1.3.18 Force Majeure

Remunerative and miscellaneous components such as establishment of lab, etc. involving value of Rs 10.74 crore which were already included in the original agreements were also included in supplemental agreements

The agreements stipulate that during the period of extension as a result of force majeure, the consultant shall be entitled to reimbursement of additional costs reasonably and necessarily incurred by them during such period for the purposes of the services and in reactivating the service after the end of such period.

Audit found that the remunerative and miscellaneous components pertaining to analysis of design, establishment of laboratories, testing of input materials and analysis, insitu tests and analysis, and tests of finished product and analysis costing Rs 10.74 crore ([Appendix-1.8](#)) were also included in the supplemental agreements concluded for extensions of time, which were already included in the original agreements. The Government did not offer specific remarks on the audit observations.

1.3.19 Conclusions

The TPQC system suffers from an inherent deficiency as it does not envisage presence of departmental engineers at the time of collection of samples and at the time of carrying out testing and analysis of the samples collected. Audit also noticed deficiencies such as faulty empanelment for engaging TPQC firms, engagement of firms which did not have experience in quality control of irrigation projects, inadequacies in agreements, modification of tender conditions thereby passing undue benefit to firms, non-enforcement of the agreement conditions, etc. Also, the EPC firms did not take prompt action on the deficiencies pointed out by the TPQC firms.

Checking of quality of projects works is too critical a function to be outsourced completely to independent third party agencies without any quality inspection team having no representation of the Government. Monitoring during execution of the project assumes considerable significance. There is no substitute for hundred *per cent* departmental supervision of these agencies. The agencies can only assist the departmental engineers in discharging this important task.

1.3.20 Recommendations

- There is urgent need to strengthen the quality checking and monitoring wing in the department itself. The engagement of TPQC agencies can only be used to augment the strength of each quality inspection team. The deployment of TPQC agencies is justifiable to the limited extent that all the members of the quality inspection team need not be from Government but no quality inspection team should be without a departmental engineer. There has to be hundred *per cent* supervision of the inspection work by the departmental engineer at the time of sampling and analysis of samples.
- Engagement of TPQC firms should not be after award of the EPC work and needs to be properly synchronised. Entrustment of TPQC may be considered for each irrigation package at the time of entrustment of

package itself so as to avoid finalisation of designs, drawings, and execution of work without involvement of TPQC firms.

- The department needs to initiate action for empanelment of more number of TPQC firms for better competition as in majority of tenders finalised there were single tenders.
- The Department should ensure prompt corrective action on the observations of TPQC agencies before making payments to EPC agencies.

IRRIGATION AND COMMAND AREA DEVELOPMENT DEPARTMENT (Projects Wing)

1.4 Accelerated Irrigation Benefit Programme

1.4.1 Introduction

The Accelerated Irrigation Benefit Programme (AIBP) was launched by the Government of India (GOI), during 1996-97, to provide assistance to the States for accelerating the implementation of major⁴⁰ and medium⁴¹ irrigation projects, costing more than Rs 1,000 crore, which were beyond the resource capability of the States and to complete on-going major/medium irrigation projects which were in advanced stage of completion. The monetary limit of cost of the project was relaxed to Rs 500 crore in March 1997. Minor irrigation⁴² (MI) schemes were subsequently introduced from the year 1999-2000.

The main objectives of AIBP are:

- To accelerate the completion of on-going major and medium irrigation projects; and
- To realise bulk benefits from the completed projects.

In Andhra Pradesh, 30 Major/Medium Irrigation Projects and 67 MI schemes were identified under AIBP. GOI released an assistance of Rs 2,762.42 crore for the 30 identified major and medium projects ([Appendix-1.10](#)) up to the year 2008-09. For 67 MI schemes ([Appendix-1.11](#)) a sum of Rs 161.46 crore was released by GOI during the period from 2006-07 to 2008-09.

At State level, the Chief Engineers of the respective projects are the Project Implementing Authorities (PIAs). The PIAs carry out the activities under the overall supervision of the Principal Secretary, I&CAD.

1.4.2 Audit objectives

The performance audit had the following objectives:

- Whether planning for new project and prioritisation for funding the on-going projects were done as per prescribed procedures and guidelines;
- Whether individual projects were executed in an economic, efficient and effective manner;
- Whether the Rehabilitation and Resettlement (R&R) works were carried out as contemplated;
- Whether the potential created was utilised fully;
- Whether the programme achieved its objectives of speedy completion of projects;

⁴⁰ Projects that create irrigation potential greater than 10,000 hectares of cultivable command area (CCA)

⁴¹ Projects that create irrigation potential greater than 2,000 ha and less than 10,000 ha of CCA

⁴² Projects that create irrigation potential less than 2,000 ha of CCA

- Whether the monitoring mechanism was adequate and effective; and
- Whether there was adequate and effective mechanism for evaluation of projects including assessment of achievement of the desired Benefit Cost (BC) Ratio.

1.4.3 Scope and Methodology of Audit

Audit conducted (July 2008 to March 2009) a review of AIBP projects implemented in Andhra Pradesh covering 10 out of 30 Major/Medium Projects (five major⁴³, five medium⁴⁴ projects) which received Central Assistance of Rs 937.30 crore and 14 out of 67 MI schemes which received Central assistance of Rs 37.70 crore. The details are given in [Appendix-1.12](#). Selection of the Projects was done based on Simple Random Sampling Without Replacement Method (SRSWOR). For the MI schemes it was also ensured that at least two geographical regions of the State were covered. An entry conference was conducted (25 June, 2008) with the Chief Engineer (CE), Major & Medium Irrigation and CE, Central Water Commission (CWC) and the audit objectives were explained. The review covered the implementation of the programme during the period from 2004-05 to 2008-09. As the scheme was launched in 1996-97, transactions relating to the programme prior to April 2004 were also taken into consideration and included in the report for continuity, wherever necessary. Exit conference was also conducted (December 2008) with the Principal Secretary, I&CAD, CE, Major & Medium Irrigation, CE, Minor Irrigation and CE, CWC. Replies of the Government were considered and incorporated while finalising the Performance Audit review. The results of the review are discussed in the succeeding paragraphs.

Financial outlay

The Financial outlay in respect of eight (incomplete) out of ten* major and medium projects for the years 2004-05 to 2008-09 is as shown in Table-1.

Table-1

S.No.	Name of the Project	Central Assistance received	Budget provision (both Central and State share)	Expenditure incurred	Physical Target and Achievement	
					Target	Achievement
(Rs in crore)						
1	Gundlakamma Reservoir Project	99.35	597.50	380.85	100%	80%
2	Komaram Bhim Project	110.25	955.80	170.69	100%	23%
3	Pushkara Lift Irrigation Scheme	47.08	599.00	279.49	100%	63%
4	Ralivagu Project	6.71	65.60	36.90	100%	48%
5	Somasila Project	164.53	635.24	217.20	100%	35%
6	Thotapally Barrage Project	75.09	569.50	327.35	100%	54%
7	Veligallu Reservoir Project	62.34	194.37	59.08	100%	98%
8	Yerrakaluva Reservoir Project	28.46	55.78	54.68	100%	-NA-

*Alisagar Lift Irrigation Scheme and Sriram Sagar Project Stage-I were already completed

NA: Not available

⁴³ Alisagar Lift Irrigation Scheme, Nizamabad; Gundlakamma Reservoir Project, Prakasam; Pushkara Lift Irrigation, East Godavari; Somasila Project, Nellore and Sriram Sagar Project Stage-I, Karimnagar

⁴⁴ Komaram Bhim Project, Adilabad; Ralivagu Project, Adilabad; Thotapally Barrage Project, Vizianagaram; Veligallu Reservoir Project, Kadapa and Yerrakaluva Project, West Godavari

The year-wise details of the Budget provision vis-à-vis, the expenditure are furnished in [Appendix-1.13](#).

1.4.4 Planning

1.4.4.1 Preparation of PPR⁴⁵ and DPR⁴⁶

PPR and DPR were not prepared for any of the Minor Irrigation Schemes

The State Government is required to prepare a preliminary report of the proposed projects after carrying out necessary survey and investigation irrespective of whether the project is funded through State Plans or from AIBP. In respect of major projects, PPRs are to be submitted to CE, CWC, New Delhi. In respect of medium projects, the reports are to be submitted to respective regional offices of the CWC under intimation to CE (PAO), CWC.

For Minor schemes, DPRs approved by the State Technical Advisory Committee are to be forwarded to the Ministry of Water Resources (MoWR) for approval on the basis of Benefit Cost (BC) Ratio and development cost. The preliminary reports are to be submitted to CWC at State level and if found acceptable 'in principle' consent is given to State Government for preparation of DPR.

It was observed that no PPRs and DPRs were prepared by the respective project implementing authorities for any of the selected Minor Irrigation (MI) schemes. Further, as per the guidelines, BC ratio for all irrigation schemes to be funded under AIBP shall be more than one⁴⁷. In many of the MI schemes, such scheme - wise calculations were not done. Instead, a mere certificate was issued by the I & CAD Department stating that the BC ratio in respect of all MI Schemes was more than one. Scrutiny, however, disclosed that in the formation of new tank across Maddileru Vagu, Gani (V) (Kurnool District) the BC ratio was nearly 0.25.

The MoWR merely accepted the certificate with regard to BC ratio without checking the detailed calculations in support of the BC ratio as these were not furnished by the State Government.

1.4.4.2 Prioritisation of Projects

Prioritisation for funding the projects under AIBP was not done in a systematic manner by computing the cost of balance works to be executed in each project

The year-wise releases of funds by GOI were as shown in Table-2.

Table-2

Year	Amount released (Rupees in crore)	Year	Amount released (Rupees in crore)
1996-97 to 2001-02	630.62	2005-06	311.38
2002-03	33.19	2006-07	843.42
2003-04	205.53	2007-08	576.85
2004-05	87.55	2008-09	235.34
Grand Total			2923.88

Note: GOI changed the nature of AIBP assistance from loan to grant from 2005-06

⁴⁵ Preliminary Project Report

⁴⁶ Detailed Project Report

⁴⁷ If BC ratio of a project is less than one, it implies that the benefit derived from the project is less than the cost of the project

Audit scrutiny revealed the following:

Major and Medium Projects

One of the key objectives of AIBP was to correct the situation of huge public investments in irrigation projects lying dormant / incomplete for several years for one reason or the other. The funds provided may not be adequate to complete all on-going projects. Therefore the deployment of funds required prioritisation by (i) Computing the cost of balance works to be executed in each project; and (ii) funding those projects first which require minimal finance to bring them to completion. Such an exercise would have facilitated selection of projects in such a manner as to complete them at an accelerated pace with available funds. The selection of projects was not done in such a systematic manner. The State Government failed to properly estimate the cost of balance works for inclusion in AIBP.

Government stated (July 2009) that only those projects which are eligible as per AIBP guidelines were considered for AIBP assistance. The reply does not answer the specific audit observation with regard to the prioritisation based on criteria mentioned by Audit.

Out of 11 major/medium projects taken up prior to 2005-06 only six projects had been completed and five are still in execution stage

Consequently, out of the 30 projects taken up under AIBP from 1996-97 to 2006-07, so far eight projects were completed over a period of 14 years. Despite higher assistance from 2005-06 onwards, there was failure to get accelerated irrigation benefits due to the faulty prioritisation of projects to be executed. Out of 11 major/medium projects taken up prior to 2005-06 only six projects⁴⁸ had been completed and five are still in execution stage as of March 2009, as shown in Table-3.

Table-3

Name of the project	Year of sanction	Scheduled date of completion	Expenditure (Rs in crore)
Somasila	1997-98	June 2001	217.20
Kanpur Canal	2000-01	October 2003	0.44
Gundlavagu	2000-01	2003	6.68
Yerrakaluva	2000-01	2003	54.68
Maddigedda	2000-01	2003	4.50

Out of the 19 major/medium projects taken up after 2005-06, except two projects, no other project was completed. Thus, assistance under AIBP has not been effectively used to accomplish the objective of completion of irrigation projects

- Even in the case of completed projects, the projects were completed with delays which ranged up to five years as shown in [Appendix-1.14](#).
- From 2005-06 onwards, 19 more major/medium projects (details are in [Appendix-1.15](#)) were taken up. In addition, 67 Minor Irrigation schemes were also taken up. Except two major projects (Ali Sagar Lift Irrigation scheme (LIS) and Guthpa LIS which were included under AIBP in 2006-07), no other project/scheme was completed as of March 2009.

⁴⁸ Cheyyeru (Annamayya), Madduvalasa, Nagarjuna Sagar Project, Priya Darsini Jurala Project, Sri Ram Sagar Project (Stage-I) and Vamsadhara (Phase I of Stage-II)

Thus, the grant released during the years 2005-06 to 2008-09 amounting to Rs 1,966.99 crore (Rs 593.81 crore in the selected projects as discussed in para 1.4.4.3 below) largely remained blocked in incomplete projects.

The AIBP is not a scheme to bestow capital grants to States of capital investment, but to redeem past capital investments in irrigation, which were idling for want of completion. The programme however, was not confined to only to truly last mile projects by the State Government as the funds were used for other on-going projects also. This led to wasteful and wasted investment and in continued idleness of dormant irrigation assets. This also resulted in large part of investments made becoming ineffective or sub-optimal as brought out above.

Government stated (July 2009) that it does not consider the investment on irrigation projects as wasteful and wasted investment nor did it prolong idleness of dormant irrigation assets. But the fact remains that the targeted results have not been achieved in almost all the projects taken up under AIBP. The incomplete assets do not give benefits to the people for the expenditure incurred. Early completion of projects by proper planning would have resulted in early benefits to the people.

Minor Irrigation schemes

Out of 14 MI schemes test-checked, only two were physically completed. Water was however, not released to the fields due to non-construction of field channels

GOI sanctioned 61 MI schemes (GOI share: 90 per cent) in 2006-07 in Phase-I (of these 14 were selected for test check) and six MI schemes in 2008-09 in Phase-II under AIBP. Out of the 14 sampled MI schemes, only two schemes⁴⁹ were physically completed, but completion reports have not been submitted (March 2009). Though water was impounded in the tanks, no water was released to the fields due to non-construction of field channels by the Water Users Associations, even after lapse of one year of completion of the schemes. Thus, there was lack of coordination between the department and the Users to ensure that the field channels were ready by the time the works are completed.

In other two MI schemes (in Kurnool District), the tenders were not finalised as of March 2009 as detailed in Table-4.

Table-4

Name of the MI Scheme/ Contemplated ayacut	Date of administrative approval	Date of technical sanction	Status of tender process as of March 2009
Formation of new tank across Maddileru vagu, Ghani (V), Kurnool District - 260 acres	6-2-2007 (Revised administrative approval on 1-12-2008)	16-2-2009	The opening of tenders was postponed twice. Due to technical problems (non-visibility) with regard to e-procurement platform the tenders were not finalised.
Formation of new tank across Chandravanka near Chinnabodhanam (V), Kurnool District -350 acres	6-2-2007	13-2-2009	The opening of tenders was postponed twice. Due to technical problems (non-visibility) with regard to e-procurement platform the tenders were not finalised.

⁴⁹Formation of new tanks at Nambala, Thugeda Villages of Adibalad District (estimated cost: Rs 0.81 crore and Rs 1.11 crore)

The reasons advanced by the Executive Engineer are not convincing as there has been no total breakdown of the e-procurement platform since the same was being used for tenders in other projects.

In the case of formation of new tank across Chandravanka near Chinnabodhanam Village, audit also observed that there was overlapping of the Telugu Ganga Project distributory as per the original designs which caused the delay in tender process on account of change of designs so as to exclude the overlapping ayacut.

1.4.4.3 Award of work without prior completion of the activities of uncertain duration

Award of work along with components of uncertain duration led to eight out of ten sampled projects (AIBP assistance; Rs 593.81 crore) taken up getting adversely affected. The amount remained blocked resulting in the envisaged irrigation potential not being achieved

There are two approaches for execution of projects.

Approach (A): Award of work along with components of uncertain duration. The adverse effect is that the time gap between the investments and the accrual of benefits is very large leading to lower growth rate of economy. This is the common mistake committed.

Approach (B): Complete components of uncertain duration in advance and then only award the work. The time gap between investments and the accrual of benefits will be short leading to speedy growth rate of economy.

Land acquisition is a complex and tedious process where the time required for completing the work cannot be assessed with any degree of certainty. Starting of projects without acquiring land in advance is beset with the risk of adverse consequences of escalation in payments to contractors due to extended period of execution and blockage of funds in incomplete projects which were held up due to land acquisition problems.

Government stated (July 2009) that as the land acquisition work was entrusted to revenue authorities, PIAs cannot be held responsible for the delay. The reply is not acceptable, as the basic audit observation related to award of work without acquiring the land in advance which is inherently of uncertain duration resulting in enormous sums being blocked in incomplete assets without any benefit to the people. These funds could have been utilised elsewhere for early completion of works not taken up for want of funds.

In irrigation projects, it is not the commercial rate of return but the Economic Rate of Return (ERR) which is used as the criterion for measuring the benefits accruing from the projects.

As illustrated in the [Appendix-1.16](#), for faster growth rate of economy, the allocation of funds or investments should be only for projects where the activities of uncertain durations like land acquisition, obtaining of environmental clearances etc., are completed before incurring any expenditure.

There are basically two adverse effects from award of work without executing components of uncertain duration:

- The contractor gets benefit by way of retaining mobilisation advance for longer periods by having to pay only on simple interest basis and further benefit by waiver of even this interest in some cases.
- The time gap between investments and the accrual of benefits becomes very long leading to lower growth rate of economy.

The conceptual frame work used in audit analysis in this regard in project management and to achieve speedy growth rate of economy is detailed in [Appendix-1.16](#).

In the State, eight out of the ten sampled irrigation projects taken up have been adversely affected due to starting of projects without acquiring land in advance as detailed in Table-5.

Table-5

Sl. No.	Name of the Project	Year of Sanction	AIBP assistance (Rs in crore)	Scheduled date of completion	Physical status (Percentage) of work
1	Somasila Project	1997-98	164.53	June 2001	35
2	Yerrakaluva Reservoir Project	2000-01	28.46	March 2004	Not completed (physical status not furnished)
3	Pushkara Lift Irrigation Scheme	2006-07	47.08	September 2006	63
4	Ralivagu Project	2006-07	6.71	March 2007	48
5	Gundlakamma Reservoir Project	2005-06	99.35	May 2007	80
6	Veligallu Reservoir Project	2006-07	62.34	September 2007	98
7	Komaram Bhim Project	2006-07	110.25	March 2008	23
8	Thotapalli Barrage Project	2005-06	75.09	March 2008	54

For all the projects, the scheduled date of completion was over and especially the projects at Sl. No.1 to 4 have been badly delayed. With the present pace of progress, it is unlikely that the projects at Sl. No. (1), (2), (3), (4), (7) and (8) will be completed in the near future.

Consequently, AIBP assistance to the extent of Rs 593.81 crore in eight of the ten selected projects largely remained blocked in incomplete projects resulting in the objective of accelerated pace of completion of the projects not being achieved even after lapse of several years due to delay in acquisition of land.

1.4.4.4 Non-release of funds to the Project Implementing Authorities (PIAs)

As per the guidelines the Central assistance along with State's share has to be released to the Project implementing authorities. The payment control had been with the PAOs since 2002-03 in the State and due to issue of instructions by the Government not to make payments on account of freezing of funds there were delays in payment of work bills. For instance, during the period between December 2008 and March 2009, the AIBP work bills amounting to

Rs 7.05 crore⁵⁰ were not paid in three out of the 24 projects/schemes as of March 2009. This resulted in hampering the progress of works.

Government while admitting the deficiency stated (July 2009) that payments for work bills could not be made during the period from December 2008 to March 2009. As these funds were provided by the Government of India, the same should have been released promptly.

1.4.5 Award of works

Deficiencies in Agreement conditions

Audit scrutiny of the contract agreements revealed deficiencies resulting in undue benefits to the contractors

Scrutiny of the contract agreements relating to the 10 selected projects revealed the following system deficiencies:

- Although the contracts were awarded on a fixed price basis, scope of work was not precisely defined. In three⁵¹ out of the ten projects, the scope of work was altered subsequently during execution. Government in reply (July 2009) stated that keeping in view the various constraints in implementation of irrigation projects, EPC system was introduced wherein contractor was given freedom while executing the work without changing the scope of the work. It was further stated that the scope of the work was not altered in any medium irrigation projects. The reply is not acceptable. Change of designs after award of work results in change in quantities of work to be executed. There was no clause safeguarding the Government interest with regard to reduction in the payments, if less quantities of work were executed due to award of work on fixed price basis. As regards the medium irrigation projects, the reply is incorrect as the length of the canal was reduced in Thotapalli Barrage Project, a medium irrigation project.
- Instead of fixation of the milestones by the I&CAD Department, the contractors were allowed to propose their own milestones for completion of the projects. Further, the contractors were allowed to submit revised milestones in case of delay in completion/non-execution of work as per the original milestones submitted by them earlier. Government stated (July 2009) that the contractors were allowed to draw milestones/Revised milestones as the delays caused were beyond their control like land acquisition and R&R. The fact however, remains that the contractors were allowed to draw up their own milestones even at the initial stage of work.
- Liquidated damages (LD) clause is effective only when the work awarded consists of components of certain duration. Non-acquisition of land prior to award of work resulted in making the LD clause ineffective. Consequently, LD clause incorporated in the agreements could not be invoked due to non-acquisition of land in advance by the Department even though the projects were not completed as per schedule.

⁵⁰ Pushkara Lift Irrigation Project, East Godavari District: Rs 6.14 crore, Formation of new tank across local vanka near vayalpad, Chittoor District: Rs 0.65 crore and Formation of Reservoir across Isukagedda, Visakhapatnam District: Rs 0.26 crore

⁵¹ Thotapally Reservoir Project, Pushkara Lift Irrigation Scheme, Gundlakamma Reservoir Project

Government stated (July 2009) that delays occurred on account of land acquisition, R&R and forest clearance. The fact remains that mere incorporation of LD clause does not ensure timely completion of project unless components of uncertain duration are executed prior to award of work.

- As the contracts were awarded on a fixed price basis there was no clause in the agreement for payment of price escalation. The contractors were, however, paid price escalation on the basis of Government memos.

Government stated (July 2009) that due to contractors' requests, certain clauses relating to payment of bills were relaxed. The fact remains that the amounts towards price escalation were paid to the contractors which was violative of tender conditions. If price escalation clause was incorporated, Government would have got the benefit of reduction in prices.

The above deficiencies in the contract agreements led to the contractors reaping undue benefits on several counts (as discussed in Para 1.4.7.1) besides leading to delays in completion of the projects.

1.4.6 Implementation of Projects

Scrutiny revealed lapses in implementation of the Projects, mainly attributable to poor monitoring, as discussed below project-wise:

Nature of the audit observation	Audit findings
<i>Abnormal delay in submission of forest land proposal</i>	<p>Khomaram Bhim Project (Adilabad District)</p> <p>The original date for completion of the project was March 2007. But the proposals for acquiring the forest land of 12.54 Ha required for this Project, were submitted by the State Government for forest clearance, only in July 2008. Forest clearance is still awaited as of April 2009 resulting in consequential delays in execution of the project.</p> <p>Government stated (July 2009) that due to some legal problems, it was delayed. The fact remains that there was delay in submission of proposals.</p>
<i>Non-submission of utilisation certificate</i>	<p>Ralivagu project (Adilabad District)</p> <p>The State Government is required to submit utilisation certificate (UC) to CWC under the countersignature of Secretary level authority for assistance received in a year. The UC in respect of the project had not been submitted to CWC as of March 2009 for the Central assistance of Rs 6.71 crore received in the year 2006-07.</p> <p>Government confirming the audit observation stated (July 2009) that UC was received and under submission to GOI.</p>
<i>Incorrect completion report</i>	<p>Sriram Sagar Project Stage-I (Karimnagar District)</p> <p>The State Government wrongly submitted completion report to CWC in November 2004, though 26 works costing Rs 283.06 crore taken up under AIBP were not completed. The CWC authorities, however, accepted the completion report without any checking.</p>

	<p>Somasila Project (Nellore District)</p> <p>The Project implementing authorities were forced to submit completion report due to insistence by the State Government to include a new project in place of this project though contemplated ayacut was not created.</p> <p>Government stated (July 2009) that in respect of SRSP-I and Somasila Project, completion reports were submitted as the central funds were utilised. The fact remains that the projects were incomplete and CRs were incorrect as these are different from utilisation certificates.</p>
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Deficiencies in execution of works led to extra burden/unproductive outlay amounting to Rs 104.69 crore in the test-checked projects alone. Undue benefits amounting to Rs 8.86 crore were also passed on to the contractors

1.4.7 Execution of works

1.4.7.1 Deficiencies in execution of works

Scrutiny revealed deficiencies in execution of works, leading to extra burden/avoidable expenditure, unproductive outlay and improper quality control checks, etc. involving money value of Rs 104.69 crore. Further, due to system deficiencies like entrustment of work with variable scope on fixed price basis and non-adherence to agreement clauses, etc. undue benefits were passed on to the contractors amounting to Rs 8.86 crore. The details are as follows:

Nature of the audit observation	Audit findings
Overlapping of ayacut	<p>Pushkara Lift Irrigation Scheme</p> <p>The ayacut of 73,318 Hectares contemplated under ‘Pushkara’ project was already covered and contemplated under Polavaram project. Further, the canal works of both the projects were taken up in the year 2004-05 with a gap of six months. Hence, if the Polavaram project is completed, <i>the head works i.e., pump house, regulators etc. of Pushkara project costing Rs 101.49 crore will be redundant.</i></p> <p>Government stated (July 2009) that the headworks will be utilised in other proposed LI schemes.</p> <p>The fact remains that there is overlapping of ayacut and the pump house machinery will become redundant.</p>
Improper planning	<p>Gundlakamma Reservoir Project</p> <p>Some ‘Minors’ were completed (estimation of distributaries: Rs 50 crore) at the tail end without completing the work in the middle and beginning because of land acquisition problems.</p> <p>Any expenditure on the tail end of a minor does not serve the purpose unless the beginning and middle portion are completed first. In the instant case no expenditure should have been incurred on the tail end portion till the land acquisition problems had been sorted out for completion of the beginning and the middle portions.</p> <p>Government stated (July 2009) that for early completion of the projects, the contractor executed the works wherever land is acquired. This is another illustration of incurring expenditure without executing components of uncertain duration before award of work resulting in money being blocked in incomplete assets.</p>

<p>Unproductive outlay</p>	<p>Construction of multipurpose checkdam across Musi river near A.varam (V) (Prakasam District)</p> <p>An anicut with two lift irrigation schemes was taken up (2006-07) under a MI Scheme with AIBP grant for an agreement value of Rs 3.74 crore. The contractor stopped (October 2006) the work after completion of the anicut (expenditure Rs 1.97 crore) but without constructing the lifts because the payment of Rs 0.55 crore for extra cyclone damage works executed by him during March 2006 to October 2006 was not paid. There has been delay in completion of balance work as the tender process was still underway and the work remains unresumed as of March 2009.</p> <p>Thus, no irrigation potential was created and no water could be lifted to the contemplated ayacuts and the expenditure of Rs 1.97 crore incurred on anicut without the lifts remains blocked.</p> <p>No reply was received from Government with regard to this audit observation.</p>
<p>Third Party Quality Control (TPQC) agreement after completion of substantial portion of work</p>	<p>Gundlakamma Reservoir Project</p> <p>The Project works of Package II (agreement value: Rs 212.49 crore) were commenced in November 2004 and payments amounting to Rs 43.87 crore were made to the contractor from November 2004 to August 2006. It was, however, observed that an agreement was concluded with a TPQC firm in August 2006, i.e. after execution of works valuing Rs 43.87 crore, <i>inter alia</i>, to check the quality of all civil works of Package II. In the absence of collection of sample material concurrent with execution of work by contractor, the entrustment of quality checks of all the civil works to a TPQC firm after the execution of the same would serve no purpose.</p> <p>This casts doubts about the benefits derived from the engagement of TPQC firm (expenditure: Rs 1.23 crore) and also the quality of the project construction work as substantial portion of the work (Rs 43.87 crore) was already completed.</p> <p>Government stated (July 2009) that the TPQC agency satisfactorily performed quality control checks on completed works also. The reply is not acceptable as the quality checks have to be done concurrently during execution of the project which were not done for a period of two years.</p>
<p>Delay in execution of Rehabilitation & Resettlement works</p>	<p>Khomaram Bhim Project (Adilabad District)</p> <p>As per National Policy (2003) on Rehabilitation and Resettlement of project affected families, the rehabilitation and resettlement benefits viz., house sites, agriculture wages, etc. shall be extended to all the project affected families. Further, in such rehabilitation colonies basic amenities like roads, electricity, drinking water, etc. shall be provided. Though the possession of the lands for construction of the project was taken prior to March 2005, such Rehabilitation and Resettlement works have not been completed as of March 2009.</p> <p>Veligallu Reservoir Project (Kadapa District)</p> <p>Though the possession of the lands for construction of project was taken prior to July 2003, Rehabilitation and Resettlement works were not completed as of March 2009. Government confirmed that these works were not completed.</p>

<p>Undue benefit to the contractors</p>	<p>Thotapalli Barrage Project</p> <p>As per basic parameters of the agreement the length of the canal to be excavated is 52.45 Km. Though the length of the canal to be executed has reduced to 48.88 Km the award of work on fixed price basis without any clause for proportionate reduction in payment led to undue benefit to the contractor to the extent of Rs 8.16 crore, as this was a fixed price contract.</p> <p>Government stated (July 2009) that while there was reduction in the length of the canal, the quantities have increased due to increase in total number of CM & CD works and concrete quantities of CM & CD works (M3). The audit observation basically is a comment on the non-incorporation of a clause with regard to reduction in payment, if less quantities of works are executed. Financial figures were not furnished in support of its contention that no benefit has accrued to the contractor due to reduction in length of the canal i.e., the reduction in length of canal has been completely offset by the increase in items mentioned above.</p>
	<p>Sri Khomaram Bhim Project</p> <p>As per the agreement, the contractor is required to maintain the project for a period of two years after completion. A provision of two <i>per cent</i> was made in the IBM estimate. There should have been a specific clause in the agreement to retain two <i>per cent</i> of the payment made towards maintenance cost and release this amount after satisfactory completion of maintenance period. No such clause was incorporated in the agreement leading to advance payments for work not done. Government confirmed the absence of such a clause in the agreement.</p>
	<p>Pushkara Lift Irrigation Scheme</p> <p>An amount of Rs 0.70 crore was paid towards electrical charges by the department. As electrical charges are to be met by the contractor as per the agreement conditions, this resulted in undue benefit to the contractor.</p> <p>Government stated (July 2009) that there is no condition in the agreement that the agency has to pay the current consumption charges. The reply is factually incorrect as the agreement clause clearly stipulates that no separate payment towards O&M expenses will be made to the contractor by the employer and the bid price quoted by the bidder shall be inclusive of all these expenses. Further, the facilities e.g., accommodation, transport, electricity, water etc., are to be provided to the deployed manpower by the contractor only.</p>
<p>Diversion of funds</p>	<p>Yerrakaluwa Project</p> <p>As per guidelines, repair works are not to be met from AIBP assistance. Scrutiny revealed that an amount of Rs 1.21 crore was spent on repair works which was met from AIBP assistance.</p> <p>Government stated (July 2009) that re-sectioning of canals and other modernisation works were taken up. The reply confirms the audit observation as these items are in the nature of repair works.</p>

The targeted irrigation potential has not been achieved for eight (out of the ten) sampled projects (shortfall: up to 95 per cent)

1.4.7.2 Creation of Irrigation Potential (IP)

The main purpose of AIBP is to create irrigation potential. GOI fixed year-wise targets for creation of irrigation potential for each of the major/medium projects. It was noticed that, in the eight out of the ten sampled Projects, the shortfall in creation of IP was as high as 100 per cent in one project and it was ranging from 6 to as high as 95 per cent in the seven projects, due to non-completion of canal works to full extent, as shown in Table-6.

Table-6

Name of the project	Target fixed (in hectares) up to March 2009	Target achieved (in hectares) up to March 2009	Shortfall in achievement (in hectares)	Percentage of shortfall
Gundlakamma Reservoir Project (Prakasam District)	32,400	16,188	16,212	50
Khomaram Bhim Project (Adilabad District)	9,915	NIL	9,915	100
Pushkara Lift Irrigation Scheme (East Godavari District)	71,184	34,841	36,343	51
Ralivagu Project (Adilabad District)	2,428	1,012	1,416	58
Somasila Project (Nellore District)	38,475	34,660	3,815	10
SRSP (Stage-I) (Karimnagar District)	1,36,960	1,28,869	8,091	6
Thotapalli Barrage Project (Vizianagaram District)	74,463	4,047	70,416	95
Yerrakaluva Reservoir Project (West Godavari District)	6,961	5,060	1,901	27

In respect of the projects where the irrigation potential is stated to have been created, no supporting ayacut registers, water release schedules were maintained by the Water Users Associations

Thus, the objective of creating adequate and targeted irrigation potential was not achieved despite the projects being included under AIBP since 1996-97.

Further, even in respect of the projects where the irrigation potential is stated to have been created, no supporting ayacut registers, water release schedules, etc., were maintained by the Water Users Associations. Thus, the irrigation potential stated to have been created and utilised could not be verified.

1.4.8 Joint physical verification of works

During joint physical verification⁵² conducted by Audit with the Project Implementing Authorities, the following deficiencies were noticed:

- Any project which does not cater to the requirements of the fields enroute is vulnerable to unauthorised utilisation of water. Due to not addressing this issue it was observed that ayacutdars whose fields were not contemplated for use of water resorted to unauthorised utilisation with adverse implications for the tail end users.
- Due to non-clearance of tunga (bushes) in the canals, the flow of water was obstructed.

⁵² Gundlakamma Project (Prakasam District) and Somasila Project (Nellore District)

1.4.9 Monitoring

Monitoring of the Projects was not effective during the first ten year period (1996-97 to 2005-06)

AIBP was started during the year 1996-97. The monitoring of the projects was, however, entrusted to the Project Monitoring Unit (PMU) belatedly during the year 2006-07. Thus, there was no effective monitoring of the projects for a period of ten years i.e. from 1996-97 to 2005-06 wherein Central assistance of Rs 1,268.27 crore besides State's share was spent.

Further, GOI, through Central Water Commission entered into an agreement (February 2007) with the National Remote Sensing Agency, Hyderabad, for applying remote sensing technology to monitor the progress of project works/IP creation in respect of six projects⁵³ in the State along with projects of other States without the need for making field visits. But, no such monitoring was done in the State through Remote Sensing Technology as of June 2009.

1.4.10 Conclusions

Prioritisation for funding the Projects under AIBP was not done in a systematic manner by computing the cost of balance works to be executed in each Project. Although land acquisition is a time consuming process and of uncertain duration, the Projects were awarded without prior acquisition of land and this resulted in majority of the Projects on which substantial expenditure has been incurred getting stalled mid-way and non-creation of envisaged irrigation potential. These two lapses resulted in the basic objective of accelerated irrigation benefits not being derived due to blocking of funds on projects stalled due to non-completion of land acquisition and inadequate funding, due to resources being spread thinly on too many projects. Awarding of projects on a fixed price basis without firming up quantity of work to be executed and not having payments linked to quantity of work executed resulted in undue benefits to the contractors. Monitoring of the Projects was absent during the first ten year period i.e. from 1996-97 to 2005-06. No mechanism existed for evaluation of the projects assisted under AIBP to assess creation and utilisation of envisaged irrigation potential.

1.4.11 Recommendations

- Government should ensure that activities of uncertain duration like land acquisition, environmental clearance are taken up before incurring any expenditure on a project.
- The availing of AIBP assistance should be in conformity with the basic principles of meeting works expenditure of identified 'last mile' irrigation projects.
- Emphasis should be on deriving accelerated irrigation benefits and not taking up of too many projects by spreading the available funds thinly.

⁵³ Sri Ram Sagar Project (Stage-I), Priya Darshini Jurala Project, Somasila Project, Gundlakamma project, Sri Ram Sagar Project (Stage-II) and Nagarjuna Sagar Project

- When the quantities of work to be executed have not been firmed up it would be in the interest of the Government to link payments to quantities executed rather than awarding works on fixed price basis despite scope of work expressed in quantities not being precisely determined.

The above audit observations were discussed and accepted by the CE, Major and Medium and the CE, Minor Irrigation in the Exit conference held in December 2008.