

STATE AGRICULTURE UNIVERSITIES IN FAIZABAD & MEERUT



**AGRICULTURE EDUCATION
AND RESEARCH DEPARTMENT**

AGRICULTURE EDUCATION AND RESEARCH DEPARTMENT

2.3 State Agriculture Universities in Faizabad and Meerut

Executive summary

Performance audit of Narendra Deva University of Agriculture & Technology (NDUAT), Faizabad and Sardar Vallabhbhai Patel University of Agriculture & Technology (SVPUAT), Meerut revealed:

Financial Management

- Though ₹ 963.33 crore was spent during 2009-14 in NDUAT and SVPUAT, the Universities neither maintained the main cash book nor reconciled its balances with banks. The annual accounts of NDUAT (2011-14) and SVPUAT (2013-14) were also not prepared.

(Paragraph 2.3.7 & 2.3.14)

Academic activities

- Four courses, running in four constituent colleges of NDUAT, were not approved by the Chancellor of the University, as required.

(Paragraph 2.3.8.1)

- Teaching was affected due to shortage of academic staff in NDUAT and SVPUAT during 2009-14. The enrolment of students was low as compared to intake capacities and drop-out percentage was high in NDUAT. Also, 95 *per cent* students in NDUAT and 92 *per cent* in SVPUAT did not get placements during 2009-14.

(Paragraphs 2.3.8.2, 2.3.8.4, 2.3.8.5, 2.3.15.1 & 2.3.15.4)

- The course of Bachelor of Veterinary Science and Animal Husbandry was running in NDUAT and SVPUAT with 50 and 15 faculty members respectively, against the norm of 87, prescribed by Veterinary Council of India, New Delhi. The library in NDUAT was not digitised despite expenditure of ₹ 62.99 lakh having been incurred. The required class-rooms and auditoriums were not available in constituent colleges of NDUAT and SVPUAT.

(Paragraphs 2.3.8.3, 2.3.8.6, 2.3.8.7, 2.3.15.2 & 2.3.15.6)

Research activities

- Large number of projects were incomplete (March 2014) in both the Universities. No research activities were taken up at Crop Research Stations in NDUAT. The Cattle Research Project was also closed midway in SVPUAT.

(Paragraphs 2.3.9.1, 2.3.9.3, 2.3.16.1 & 2.3.16.2)

- Large number of breeder and foundation seeds of notified varieties were not under production. Further, large number of developed varieties of crop seeds were neither notified nor patented. Seeds were also sold as grains, resulting in loss of ₹ 2.57 crore.

(Paragraphs 2.3.9.4, 2.3.9.5, 2.3.16.3 & 2.3.16.4)

Extension Activities

- Community Radio Station was not functional in NDUAT. The Soil and Water Testing Laboratories, Mobile Diagnostic Cum-Exhibition Unit and Bio-control Units were non-functional in both the Universities.

(Paragraphs 2.3.10.3, 2.3.10.4, 2.3.10.5, 2.3.17.3 & 2.3.17.4)

2.3.1 Introduction

The Agriculture Universities were established to achieve the goal of educating people, carrying out research works and development/transfer of agriculture technology to reduce the gaps in crop yield through focused interventions. Chandra Shekhar Azad University of Agriculture and Technology, Kanpur; Manyavar Sri Kanshiramji University of Agriculture and Technology, Banda; Narendra Deva University of Agriculture & Technology, Faizabad; Sam Higginbottom Institute of Agriculture Technology and Sciences, Allahabad; and Sardar Vallabhbhai Patel University of Agriculture & Technology, Meerut are the five Agriculture Universities functioning in Uttar Pradesh.

The Government of Uttar Pradesh (GoUP) established Narendra Deva University of Agriculture & Technology, Faizabad (NDUAT) in January 1974 and Sardar Vallabhbhai Patel University of Agriculture & Technology, Meerut (SVPUAT) in October 2000 under the UP *Krishi Evam Prodyogik Vishwavidyalaya Adhiniyam*, 1958 (University Act).

NDUAT has five¹ Constituent Colleges in Faizabad, seven Regional Research Stations², 17 *Krishi Vigyan Kendras (KVKs)*³ and four *Krishi Gyan Kendras (KGKs)*⁴ under its jurisdiction. Besides, Mahamaya College of Agriculture Engineering and Technology in Ambedkar Nagar (established: 2002) is also under the jurisdiction of NDUAT.

SVPUAT has three Constituent Colleges⁵, three Crop Research Stations⁶, 13 *KVKs*⁷ and two *KGKs*⁸ under its jurisdiction.

¹ College of Agriculture, College of Home Science, College of Horticulture and Forestry, College of Fisheries and College of Veterinary Science and Animal Husbandry.

² Bahraich, Baribagh, Basuli, Faizabad, Ghagharaghat, Masodha and Tissuhi.

³ Ambedkar Nagar, Azamgarh, Bahraich, Balrampur, Ballia, Barabanki, Basti, Chandauli, Faizabad, Gorakhpur, Jaunpur, Maharajganj, Mau, Sant Kabir Nagar, Siddhartha Nagar, Sonbhadra and Varanasi.

⁴ Amethi, Deoria, Ghazipur and Gonda.

⁵ College of Agriculture, College of Biotechnology and College of Veterinary Science & Animal Husbandry in SVPUAT.

⁶ Bulandshahar, Nagina and Ujhani.

⁷ Baghpat, Bijnore, Budaun, Bulandshahar, Gautam Buddha Nagar, Ghaziabad, Meerut, Moradabad, Muzaffarnagar, Pilibhit, Rampur, Saharanpur and Shahjahanpur.

2.3.2 Organisational structure

The Hon'ble Governor of UP is the Chancellor of NDUAT and SVPUAT. The Vice-Chancellors (VC's) of the Universities are the Principal Executives. The Principal Secretary, Agriculture Education and Research Department is responsible for functioning of the Agriculture Universities. The organisational chart of the Universities is given in *Appendix-2.3.1*.

As per Section 7 (k) of the University Act, 1958, the Board of Management (BoM) and the Academic Councils are the supreme bodies for monitoring and governing the academic affairs of Agriculture Universities. BoM comprises VC as ex-officio Chairman and sixteen members. The Registrar is the Chief Administrative Officer. The Comptroller is responsible for supervision over funds and preparation of budget and annual accounts.

2.3.3 Audit objectives

The audit objectives of the performance audit were to examine whether:

- Financial management was effective and efficient;
- There was adequate institutional capacity for academic functions to ensure effective and quality education;
- Research and extension activities were effective for achieving the envisaged aim of reducing yield gaps and increasing the productivity of foodgrains; and
- An effective monitoring mechanism was in place.

2.3.4 Audit criteria

The audit criteria have been derived from the following:

- The guidelines issued by GoI and GoUP, Indian Council of Agricultural Research (ICAR) and UP Council of Agricultural Research (UPCAR);
- Orders issued by the All India Council for Technical Education and GoUP's orders issued from time to time; and
- The Budget Manual, State Financial Rules *etc.*

2.3.5 Scope and audit methodology

Of the five Agriculture Universities functioning in the State, two Universities i.e. NDUAT and SVPUAT, one each from the eastern and western regions of the State were selected for Performance Audit. The records relating to academics, research, extension activities and financial management for 2009-

⁸ Bareilly and Jyotiba Phule Nagar.

14 of the Universities were examined during February 2014 to July 2014. The records of 12⁹ KVKs/KGKs were also examined in test-check.

The Entry Conference was held (May 2014) with the Principal Secretary, Agriculture Education and Research Department, GoUP wherein the audit objectives, criteria, scope and methodology were discussed. The Exit Conference was held with the Principal Secretary on 14 November 2014 wherein the facts & figures and recommendations were accepted. The replies (November 2014) of the Government have been suitably incorporated.

2.3.6 Limitations

Some information/records in NDUAT and SVPDAT were not furnished and replies to audit observations/queries remained largely un-responded as of November 2014, despite repeated requests (*Appendix-2.3.2*), thereby limiting the scope of audit to that extent.

Audit Findings

Narendra Deva University of Agriculture & Technology, Faizabad

2.3.7 Financial management

Annual budget of NDUAT is prepared on the basis of grants-in-aid received from the State Government, ICAR and other agencies for implementation/execution of schemes/projects of research and extension activities. Besides, the University generates its own income by way of realisation of fee from students, sale of forms, sale of seeds *etc.*

2.3.7.1 Delay in preparation of Annual accounts

As per Section 34 (1) of the University Act, 1958, Annual Accounts were to be prepared under the directions of VC and submitted every year by the Board to the State Government. We noticed that annual accounts for 2011-14 were under preparation. Consequently, the value of assets and liabilities and year-wise excess of income over expenditure or *vice-versa* could not be ascertained. Further, the reasons for the *minus* balances appearing in the accounts of NDUAT also remained unreconciled.

On this being pointed out the GoUP assured that the annual accounts shall be prepared.

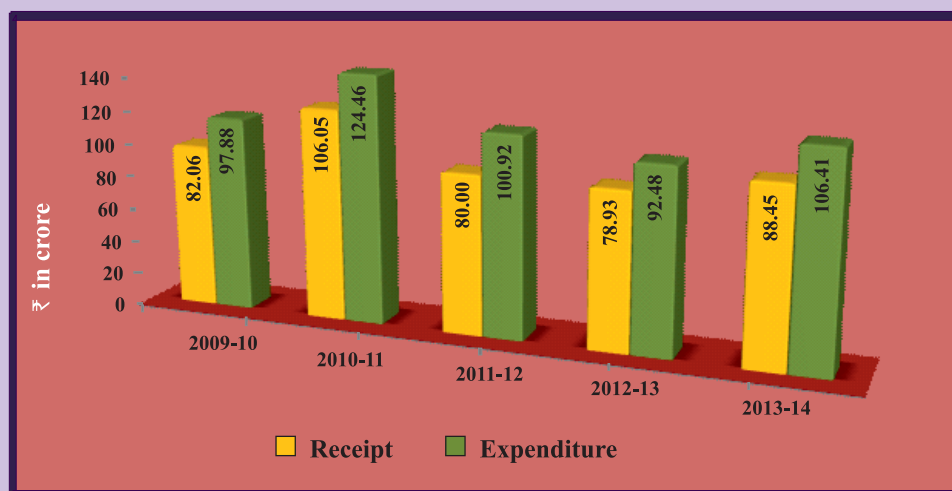
2.3.7.2 Financial position

During 2009-14, NDUAT received ₹ 435.49 crore and spent ₹ 522.15 crore. The year-wise position of receipts and expenditure is given in **Diagram 1**.

A sum of ₹ 522.15 crore was spent during 2009-14.

⁹ Six KVKs (Barabanki, Ballia, Faizabad, Gorakhpur, Jaunpur and Siddharthnagar) and one KGK (Ghazipur) in NDUAT and four KVKs (Badayun, Bijnore, Meerut and Shahjahanpur) and one KGK (Bareilly) in SVPDAT.

Diagram 1: Receipts and Expenditure in NDUAT during 2009-14



(Source: Records of the University)

It may be seen from **Diagram 1** that excesses of expenditure over income, ranging between ₹ 13.55 crore and ₹ 20.92 crore, were incurred by diverting the funds from other schemes *i.e.* research, seed production and other developmental activities during 2009-14 (*Appendix-2.3.3*).

2.3.7.3 Non-maintenance of general cash book

Financial Hand Book Volume V (Part I, rule 27 A) provides that all transactions occurring during the financial period in an entity should be recorded in one general cash book. We noticed that the general (main) cash book was not being maintained (2009-14) for recording all transactions of receipts and expenditures. Although 101 subsidiary cash books were maintained, their balances were never reconciled (2009-14) with bank balances. Test-check of records revealed that, *minus* balances of ₹ 1.77 crore pertaining to Scholarship account were shown in the cash book of the University as of March 2014.

On this being pointed out the GoUP stated that action will be taken for non-maintenance of main cash book.

2.3.7.4 Diversion of GPF subscriptions

As per the order of finance (Income-Expenditure) Section-I, dated 31.03.2002 of GoUP, the subscriptions of General Provident Fund (GPF) were to be deposited in the treasury under Major Head-8009 (Sub Head-14). But GPF subscriptions (₹ 21.48 crore), deducted (August 2011 to February 2014) from monthly pay and allowances of employees, were not deposited in treasury. The subscriptions were retained in a bank account and the entire amount of ₹ 21.48 crore was diverted for disbursement of pay and allowances of employees.

On this being pointed out the GoUP stated that action will be taken for non-deposit of GPF subscriptions in treasury.

2.3.7.5 Irregular reimbursement of fee

The State Government provided (July 2011) financial assistance to the students of Scheduled Castes/ Scheduled Tribes/Other backward classes/ minorities and the poor of General category by way of reimbursement of non-refundable compulsory fees for approved courses. Audit observed that:

- Against the admissible fee reimbursement (during 2010-13) of ₹ 2.14 crore in respect of Scheduled Castes and Scheduled Tribes (SC&ST) students, a claim of ₹ 2.43 crore was submitted to the District Social Welfare Officer, Faizabad which was sanctioned and released (April 2011 to January 2013), resulting in excess reimbursement of ₹ 0.29 crore.
- In disregard of the instructions of GoUP, ₹ 1.30 crore in respect of fee (₹ 0.54 crore to OBC, ₹ 0.31 crore to the poor amongst the General category and ₹ 0.45 crore to SC/ST) was also reimbursed to the students pursuing unapproved courses.

GoUP assured to enquire into the excess claims of reimbursement of fee.

2.3.7.6 Irregular payment of arrears of pay

As per ICAR's instructions, National Eligibility Test (NET) qualification was a pre-requisite for teachers, and arrears of pay on account of recommendations of Sixth Pay Commission was payable to only those teachers who were appointed before 1 January 2006 and were NET qualified. It was observed that out of ₹ 26.13 crore (ICAR: ₹ 20.91 crore and State: ₹ 5.22 crore) received from ICAR and GoUP for disbursement of arrears of pay, ₹ 16.59 crore was spent irregularly (₹ 14.44 crore was disbursed in 2011-12 to ineligible teachers and ₹ 2.15 crore during 2011-14 on pay and allowances of employees in NDUAT) and remaining ₹ 9.54 crore was still lying in bank.

GoUP stated that the required action will be taken.

GoUP should ensure timely preparation of accounts, put in place a proper system for periodical maintenance of prescribed records and ensure financial discipline.

2.3.8 Academic activities

2.3.8.1 Commencement of courses

As per Sections 16 (1) and 28 (f) of the University Act, the Academic Council of the University "shall be in charge of the academic affairs of the University" and a new course can be introduced only after the recommendation of the Academic Council and with the approval of BoM and the Chancellor.

Six under-graduate, four post-graduate courses (Agriculture, Veterinary Science and Animal Husbandry; Engineering and Technology; Fisheries; and Home Science and Horticulture) and one Doctor of Philosophy (Ph.D) in Agriculture are offered in NDUAT. Test-check of the records revealed that the Academic Council approved (2000-09) four new courses as detailed in **Table 1** below.

The courses were commenced though not approved by the Government.

Table 1: Courses approved by the Academic Council

Sl. No.	Period	Name of the course	Name of College	No. of students declared qualified
1	2006-07	B.Sc. Horticulture	College of Horticulture and Forestry	62
2	2006-07	B.Sc. Fisheries	College of Fisheries	55
3	2008-09	B. Tech. (Computer Science)	Mahamaya College of Agriculture Engineering and Technology, Ambedkar Nagar.	58
4	2000-01	Post Graduate Diploma in Computer Application (PGDCA)	College of Agriculture	211
Academic session commences from the month of July				

(Source: Records of the University)

After the approval of the courses by the Academic Council, the proposal was sent to the Chancellor for his approval only in January 2014 which were not approved (June 2014) due to delayed submission of the proposals. As a result, the courses were not included in Statutes of the University Act. Nevertheless, the unapproved courses, commenced from the aforesaid academic sessions, were continued thereafter.

GoUP stated (November 2014) that the approval to the courses have been accorded in June 2014. The reply was not acceptable as the courses were to be commenced only after obtaining the required approval of the Chancellor. Moreover, the course of PGDCA was yet to be approved by the Chancellor, although it was commenced in 2000-2001.

GoUP may ensure that courses should be commenced only after obtaining the requisite approval of the Chancellor.

2.3.8.2 Academic staff

The Professor-cum-Head of the Department, Professor, Associate Professors/Scientists and Assistant Professors/Assistant Scientists are the academic staff of the University.

Large number of posts of Professor-cum-Head of the Department, Associate Professors/Scientists, Assistant Professors/ Scientists remained vacant during 2009-14 (**Appendix-2.3.4**). Besides, Research Assistants were also declared (March 1992) as teachers/lecturers by the Academic Council of NDUAT though they did not possess the required eligible qualification. The shortfall in the academic staff affected the teaching and research works, as discussed in Paragraphs: 2.3.8.4 & 2.3.9.3.

GoUP stated that action will be taken at the earliest to fill the vacant posts of Professors, Assistant Professors and Scientists.

2.3.8.3 Norms for operation of courses

As per Regulation, 2008 of Veterinary Council of India (VCI), New Delhi, 87 teaching faculty members were required for commencement of five-year course of Bachelor of Veterinary Science & Animal Husbandry (B.V.Sc &

There were shortages of academic staff in NDUAT

AH). Section 15 (2) of the Indian Veterinary Council Act, 1984 specified that courses were not to be commenced without fulfilment of this norm.

We observed that:

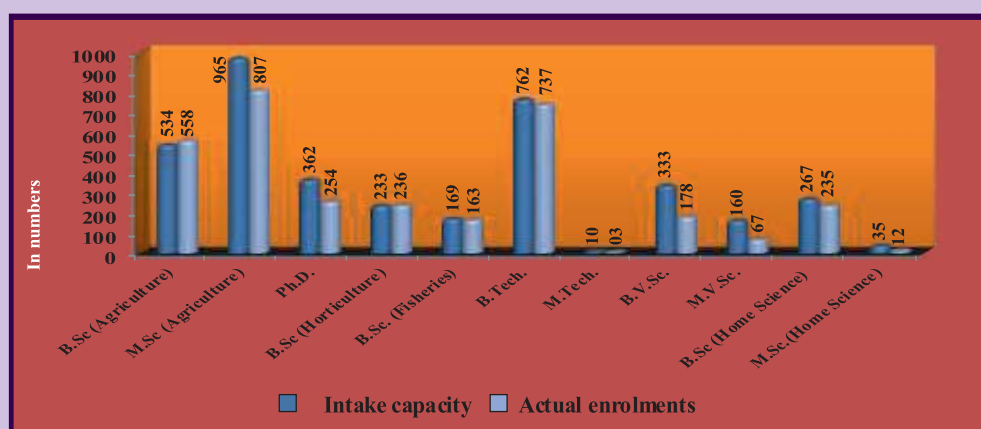
- Though the teaching faculty members (31 upto October 2012, 40 upto April 2013 and 50 upto March 2014) were less than those prescribed by VCI, GoUP created only 64 posts for B.V.Sc. & AH course. Against the intake capacity of 44 students, 69 students in 2009-10 batch (including 50 newly enrolled and 19 repeaters) pursued the course and only 37 (54 *per cent*) students have passed. Further, the number of failed students pursuing the first semesters of five years course, was 92 over four years during 2009-13.
- Given the shortage of faculty members and non-fulfilment of the other norms of Audio visual facility, Health unit, OPD units for animals and fish hatchery, VCI restricted (April 2012) the enrolment of students in B.V.Sc. & AH for the session of 2012-13. Hence, no students were enrolled by the University during 2012-14, against the intake capacity of 88 students in each of these years.

GoUP stated that the prescribed norms of VCI, New Delhi, including those for teaching and non-teaching staff, shall be followed.

2.3.8.4 Shortfall in enrolments and high dropout rates

The Academic Council of NDUAT fixed the intake capacity of students in their Constituent Colleges as per norms of ICAR and VCI Regulations. However, shortfall was observed during 2009-14 in the number of students enrolled in Constituent Colleges *vis-a-vis* intake capacity fixed by the Academic Council as given in **Diagram 2** and detailed in **Appendix-2.3.5**.

Diagram 2: Enrolment of students against intake capacity during 2009-14



(Source: Records of the University)

It would be seen from the **Diagram 2** that the shortfall in enrolments ranged between three and 70 *per cent* (**Appendix-2.3.5**). In addition to shortfall in enrolments, the drop-out rate amongst the students ranged between three to 47 *per cent* in B. Tech. (Computer Science), two to 18 *per cent* in B. Tech (Agriculture), zero to 26 *per cent* in B.Sc. (Fisheries), 10 to 16 *per cent* in

M.Sc. (Agriculture) and zero to 33 *per cent* in M.V.Sc. (*Appendix-2.3.6*) during 2009-13.

The shortfall in enrolments and high drop-out rates were largely due to inadequate teaching faculty, insufficient infrastructure facilities (class-rooms *etc.*) and inadequate facility for placements of the students after completion of the courses.

Inadequate evaluation and scrutiny of answer sheet

Further, out of 965 students applying (2009-14) for scrutiny of answer scripts, 192 were awarded higher and seven lower marks than originally awarded. Out of 237 students, 137 students were awarded higher than originally awarded marks after revaluation (2010-12) of their results. This indicates that level of evaluation of the answer scripts was inadequate.

GoUP assured that the students shall be enrolled as per the intake capacity. However, the fact remains that the envisaged objective of imparting education in agriculture and allied sciences to a specified number of students was defeated during 2009-14. Besides, due care was not taken in evaluation and scrutiny of answer sheets.

2.3.8.5 Placement of students

Section 15 (3) of the University Act required that the Dean, Student Welfare would assist in placements of graduates who successfully completed the courses. Though Placement Cell was established in 2006 it was not made functional due to non-posting of the Dean, Student Welfare. No feed-back of successful students was provided to the companies and only a few companies turned up for campus selection. In NDUAT, 69 students (five *per cent*) out of 1393 passed students were placed during 2009-13. The University did not have details of placement of all the passed students.

GoUP stated that the staff shall be appointed for proper functioning of the placement cell.

2.3.8.6 Functioning of Library

With a view to digitise the existing library, a project for establishing a Digital Library Automation and Networking was sanctioned in September 2011 for ₹ 69.99 lakh. The project comprised library management system software and Journals Storage & Maintenance System with installation of computers *etc.* Subsequently, GoUP released (2011-12) ₹ 69.99 lakh for the above. Test-check of the records revealed that NDUAT entered (November 2011) into Memorandum of Understanding with UP Consumer Co-operative Society Limited, Lucknow (UPCCS) for execution of the works to be completed by March 2012 and advanced (November 2011: ₹ 35 lakh and March 2012: ₹ 27.99 lakh) ₹ 62.99 lakh¹⁰ to it. UPCCS supplied the computers and other items (January 2012). However, the digitisation work remained incomplete (November 2014) even after lapse of two years of the scheduled date of

¹⁰ 50 *per cent* advance with supply order and 40 *per cent* after delivery.

completion and incurring expenditure of ₹ 62.99 lakh (90 *per cent*). The warranty period of one year of hardware, software, peripherals and networking system has also expired in January 2013. The balance amount of ₹ seven lakh was also lying in bank since September 2011 as of November 2014.

Further, it was also observed that:

No full time librarian was appointed since 2008 (November 2014). Moreover, the students and teachers were deprived of the benefits of e-books¹¹ purchased during 2011-13 at ₹ 53.16 lakh, due to non-availability of internet connection in the library and Wi-Fi facility in the campus.

As per UP Financial Rules, all stores should be physically verified at least once every year and a certificate to that effect is to be recorded. However, the assets of the library were never verified physically during 2009-14.

GoUP stated that Digital Library Automation and Networking shall be made functional at the earliest. It was also stated that action shall be taken for proper functioning of the library and physical verification of assets will be carried out as per norm.

GoUP may develop adequate mechanisms to ensure the requisite compliance of norms and optimum utilisation of infrastructure created.

2.3.8.7 Inadequate/absence of infrastructure facilities

As per norms, Standards and Academic Regulations of Fourth Dean Committee of ICAR on Agriculture Education, 2007, each faculty should have four under-graduate class-rooms and one examination hall; each department of faculty should have one post-graduate class-room, one laboratory and an auditorium; and each class-room should be equipped with slide/projector and multimedia.

Most of the classes of the faculty of Home Science were arranged in College of Agriculture due to availability of only one class-room in the faculty. Further, five departments of faculty of Animal Husbandry had no post-graduate class-rooms. There was no auditorium in College of Horticulture. Further, out of four post-graduate class-rooms in seven Departments of Fisheries no post-graduate class-room was operational and only three out of required eight laboratories were operational.

GoUP assured that the required infrastructure shall be developed and a proposal for construction of an auditorium shall be sent to ICAR.

GoUP may ensure adequate infrastructure facilities for quality education.

2.3.9 Research activities

Various agencies (ICAR, UPCAR *etc.*) provided funds to NDUAT for undertaking research in the field of agriculture and other allied sectors for

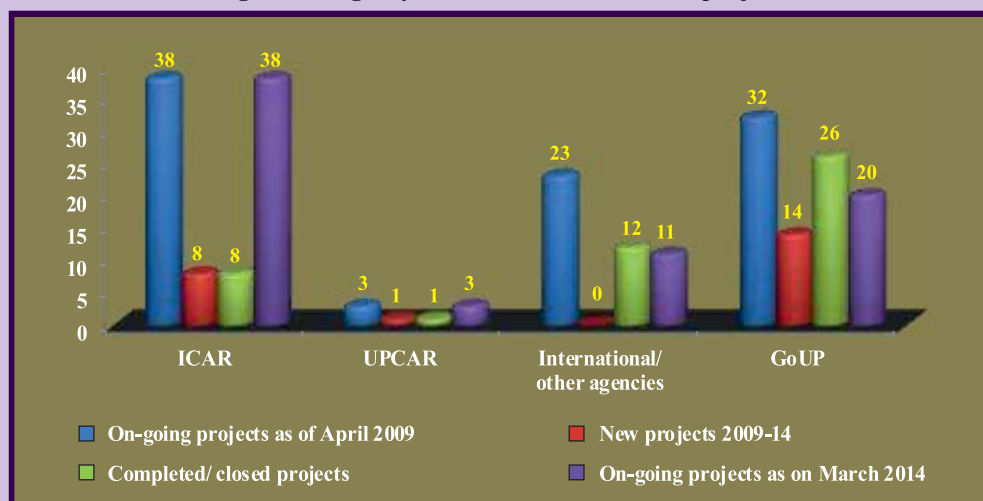
¹¹ An electronic book in digital form.

achieving the aim of reducing gaps on yield and increasing productivity of foodgrains.

2.3.9.1 Management of research activities

Research Director, in-charge of the Directorate of Research, is responsible for management of research activities. The Directorate of research did not maintain project-wise sanctions, duration of project, sanction of fund, releases and expenditure, current status and closure reports. Hence audit could not ascertain the extent of success/ achievement of the research projects with reference to expenditures and objectives of the projects undertaken. As per information furnished by the Directorate of Research, agency-wise number of research projects and status of completion of projects is given in **Diagram 3** and detailed in *Appendix-2.3.7*.

Diagram 3: Agency-wise number of research projects



(Source: Records of the University)

As is evident from the **Diagram 3**, there were 72 on-going projects at the end of March 2014 and 47 projects were closed/completed during 2009-14. Out of 72 on-going projects, 61 were taken up prior to 2009-10 and 11¹² during 2009-14. Audit noticed that out of 72 ongoing research projects, 28 projects under All India Coordinated Research Project, taken up between 1976 and 2009, remained incomplete as of March 2014, after incurring expenditure of ₹ 54.23 crore during 2009-14. Neither any mid-term review nor any evaluation of these projects for necessity of their continuance and progress made thereunder was undertaken. Further, no criteria were framed regarding selection of projects for carrying out research work.

GoUP assured that records of research activities would be maintained at the Research Directorate.

GoUP may ensure proper maintenance of all research related documents and also put in place a robust mechanism for monitoring, evaluation and reviewing including peer review for research projects.

¹² 2009-10: 3, 2010-11: 7, 2011-12:1, 2012-13: nil and 2013-14: nil.

2.3.9.2 Research Advisory Committee

Research Advisory Committee (RAC) of the University¹³ is responsible for extending advice to VC for allocation/release of funds, conditions for accepting grants *etc.* We noticed that the University management neither evolved any system for monitoring RAC nor prescribed the frequency of meetings of RAC.

Test-check revealed that only two meetings of RAC were held during 2009-14, resulting in non-release of available funds. A sum of ₹ 7.77 crore (2000-14) was available for meeting the contingent expenditure on research works *etc.* but the required amounts were not released (2001-14) to the Director, Research, resulting in stoppage of 16 out of 32 research projects¹⁴.

Further, ICAR released (2002-14) ₹ 66.74 crore against its share of ₹ 78.11 crore (75 *per cent*) for research projects. GoUP also released (2008-11 and 2012-13) ₹ 14.60 crore as matching share of ₹ 26.04 crore (25 *per cent*). The balances of ₹ 11.37 crore and ₹ 11.44 crore were not released (March 2014) by ICAR and GoUP respectively.

GoUP assured that regular meetings of RAC shall be held.

GoUP should address the monitoring issue and prescribe the frequency of meetings of RAC to be held.

2.3.9.3 Crop Research Stations

The research activities at CRS were negligible.

With the objective to update technical knowledge of improved variety of seeds and management practices for agricultural and allied activities, seven Crop Research Stations (CRSs) in three agro-climatic zones¹⁵ were established for research. The research activities included development of technology for different agro climatic zones, improve variety of seeds of crops, produce quality seeds *etc.* The position of research activities of three (test-checked) out of seven CRSs is given in **Table 2**.

Table 2: Activities of the Crop Research Stations

Sl. No.	Name of the Research Station	Area	Remarks
1	Crop Research Station, Baribagh and Ankushpur, Ghazipur	17.8 hectares	Neither research activities undertaken nor seeds were produced.
2	Crop Research Station, Tissuhi, Mirzapur	31 hectares	No research activities were undertaken. Only seeds were produced.
3	Crop Research Station, Basuli, Maharajganj	11 hectares	No research activities were undertaken. Only seeds were produced.

(Source: Records of the University)

¹³ As per UP *Krishi Evam Prodyogik Vishwavidyalaya Adhiniyam*, 1958.

¹⁴ *Sodh Scheme* rice, Oil Seed project, Pulses project, Research on vegetable crops, Crop physiology, ARP- Kumarganj, Agriculture Economics, NARP-Masodha, NARP-Basuli, NARP-Tissuhi, *Sodh scheme-Tissuhi*, Flood rice, NARP-Ghaghrahat, Jute establishment, Sodh scheme-Bahraich, NARP-Ghazipur.

¹⁵ North Eastern Plain zone, Eastern Plain zone and Vindhyan zone.

Audit noticed that research activities and seed production were not undertaken at CRS at Baribagh due to paucity of fund and non-availability of electricity, though an expenditure of ₹ 3.94 crore was incurred during 2009-14 on establishment. The trials for research activities at CRSs, Tissuhi and Basuli were not undertaken due to non-availability of scientists, defeating the purpose of setting up of such stations.

GoUP stated that trials for research were not undertaken due to non-availability of scientists.

2.3.9.4 Breeder and foundation seeds of notified varieties

To develop varieties of crop seeds for different ecosystems and to develop suitable agro-techniques for newly developed varieties, research on rice, maize, wheat and barley was taken up between 1976 and 1987. In NDUAT, 51 varieties of seeds of cereals were developed (1980-2014). However, only 36 were notified (*Appendices-2.3.8 & 2.3.9*). Audit observed:

- Against 22 notified (1982-2009) varieties of seeds of rice, only four were under production since 2008 and the breeder and foundation seeds of eight varieties were under occasional production (2008-13). Breeder and foundation seeds of 10 varieties were also not produced since 2008;
- Out of six notified varieties of seeds of wheat, only three¹⁶ were produced regularly, two¹⁷ occasionally and one¹⁸ never produced during 2008-13;
- Out of seven notified varieties of seeds of Barley, three were never produced during 2008-13; and
- Though only one variety of Maize seed (*Shaktiman-1*) was notified in 2001, it was never produced during 2008-13.

GoUP stated that efforts shall be made for production of notified seeds, however, no strategy for production of seeds was put in place as of December 2014.

GoUP should ensure the production of all notified variety of crop seeds.

2.3.9.5 Seed production

(a) Non-notification and non-patenting of seeds

As per the Seed and Plant Varieties Act, 2000, seeds should not be offered for sale to the farmers unless it is certified by issue of notification by GoI. Further, as per Patents Act, 1970, an application for patent for an invention was to be made by the true and first inventor. However, scrutiny of the records revealed that a large number of seeds developed were not notified and patented. Over

Developed varieties of seeds were not notified and patented.

¹⁶ NW-1012, NW-1014 & NW-2036

¹⁷ NW-1076 & NW-1067

¹⁸ NW-4018

the years (1980-2012), 51 varieties of seeds of cereals were developed. Of these, 15 (rice: 12 and barley: three) were not taken in seed production chain (1982-2014) as these were not notified (**Appendix-2.3.8**) by GoI, as required. Though *Narendra Mayank* variety of rice seed, developed (2008) for flood prone area of eastern UP, was notified in 2009, it was never produced.

NDUAT developed 159 varieties of seeds since 1974. However, no action was initiated for patenting of these seeds under the Patents Act, 1970. Patents were applied (2013-14) for six research inventions, other than different seed varieties of crops, by NDUAT but approvals for patenting these were still awaited (November 2014).

GoUP assured that necessary action shall be taken for notification and patenting of seeds.

(b) Loss due to sale of seeds as grains

With a view to provide quality seeds to the farmers and multiplication of recently developed varieties, the seeds produced were to be sold timely every year, given the fixed time of sowing of crops in each region.

Audit observed that 8018.83 quintals of seeds, valued at ₹ 2.31 crore, produced during 2009-13, were not sold in corresponding years due to lack of coordination in seed processing and marketing units, resulting in deterioration of the quality of seeds, as given in **Appendix-2.3.10**. The seeds were sold through auction in succeeding years as grain for only ₹ 0.72 crore. This resulted in loss of ₹ 1.59 crore, defeating the very purpose of providing quality seeds to the farmers.

In reply, GoUP assured timely sale of seeds to the farmers.

GoUP should make efforts for notification, patenting of developed varieties of seeds.

2.3.9.6 Medicinal, aromatic plants and betel vine research project

A research project was launched by ICAR (1980) to develop improved varieties of medicinal & aromatic plants and betel vine. NDUAT spent (2008-14) ₹ 1.89 crore and developed & released four varieties¹⁹ of medicinal plants (*Vallabh Medha* under *Mandookparni*, Lemongrass, *Babchi* and *Narendra Posta-1*) between 1990 and 2010. However, due to non-popularisation of these varieties, their commercial cultivation did not commence.

GoUP assured to popularise medicinal & aromatic plants and betel vine.

2.3.9.7 Post-harvest technology

ICAR launched (1990-91) All India Co-ordinated Research Project for post-harvest technology (PHT) to assess post-harvest losses of major crops of

¹⁹ *Mandookparni*: *Centella Asiatica*, Lemongrass: *Cymbopogon Citratus*, *Babchi*: *Psoralea Corylifolia* and *Posta*: *Papaver Somniferum*.

Various research activities did not produce any results.

eastern districts of UP. In 2001, the project became non-functional due to non-posting of the required technical staff (surveyor). In September 2005, the centre was transferred to Mahamaya College of Agriculture Engineering and Technology in Ambedkar Nagar where also it was non-functional due to non-appointment of the technical staff (surveyor). Of the available fund of ₹ 1.62 crore, ₹ 1.13 crore were spent during 2009-14 on assessment of post-harvest losses of major crops and the remaining ₹ 49 lakh was lying unutilised. Therefore, ICAR discontinued the project in December 2013.

Thus, post-harvest losses for major crops could not be assessed even after incurring expenditure of ₹ 1.13 crore and the project had to be discontinued.

GoUP accepted the fact of non-appointment of surveyor and stated that the centre was not functional due to shortage of staff.

GoUP should ensure making research effective so that the envisaged benefits accrue to the farmers.

2.3.10 Extension activities

Extension activities are meant to validate technically feasible, ecologically sustainable and economically viable information derived after examining and accepting the feedbacks through research systems. The new findings are to be passed on to the farmers for addressing the need based and area specific problems through Agriculture Technology Information Centres, KVKs/KGKs, Farmers' Fairs etc.

2.3.10.1 Extension Advisory Committee

In accordance with Section 28 (C) of the UP *Krishi Evam Prodyogik Vishwavidyalaya Adhiniyam*, 1958, NDUAT formed a Committee, headed by VC as chairman, to advise the Vice-Chancellor for co-ordination of extension programmes with the State and suggesting ways and means of increasing the effectiveness of the Extension Programmes. We noticed that the committee was formed only in November 2012 and only two meetings (5 December 2012 and 26 September 2013) were held as the frequency of the meetings was not prescribed.

GoUP assured that regular meetings of the Extension Advisory Committee shall be held.

2.3.10.2 Functioning of KVKs

ICAR guidelines made KVKs responsible for disseminating latest technologies and new research findings of agri-cultivation through extension activities and due documentation of innovation. We noticed:

Achievements by KVKs lacked documentation.

Wide publicity of the extension activities was not ensured in six test-checked KVKs as documentation of notification of date, time, place and subject of undertaken activities was not available and the system for selection of farmers

was also not recorded. Further, the dates of sowing, details of visits to the fields made by the scientists, organisation of field-days, crop cutting results *etc.*, were not on record of *KVKs*. Moreover, the stated activities were limited to nearby blocks. Against the target of 3274 training programmes 3294 were organised, against the target of 5299 front line demonstrations 5559 demonstrations were undertaken and against the target of 156 on-farm trials 160 trials were held during 2009-14. Thus, the targets were largely achieved. However, no documents/ evidence in support of these training programmes, demonstrations and trials having been actually held were made available to audit, though called for.

GoUP assured that the documentation of extension activities shall be made and the extension activities shall be made effective in all the blocks.

2.3.10.3 Community Radio Station

With a view to create awareness about agriculture and allied sectors for better livelihood of rural masses, the World Development Foundation established (February 2008) a Community Radio Station (CRS) in the premises of NDUAT, which comprised various types of assets²⁰ which were handed over to them in February 2008. The CRS was not commissioned as the required license from Commonwealth Educational Media Centre for Asia, New Delhi was not obtained despite submission of a survey report and bank guarantee of ₹ 25,000 by NDUAT, defeating the objective of creating awareness of agriculture and allied sectors for better livelihood of rural masses.

GoUP assured that CRS shall be made functional at the earliest.

2.3.10.4 Soil and Water Testing Laboratory and Mobile Diagnostic-cum-Exhibition Unit

Soil Testing entails the estimation and evaluation of the available nutrients, acidic reaction of a sample of soil and determination of nutritional value of an area. ICAR released (2004-12) ₹ 1.48 crore for establishment of Soil and Water Testing Laboratory to 12 *KVKs* (one in each *KVK*). NDUAT purchased (2004-12) chemical balance and water distillation still *etc.* at ₹ 1.20 crore for 10 laboratories and the remaining ₹ 28 lakh was surrendered due to non-submission of proposal by two *KVKs*. However, the laboratories remained non-functional, as of March 2014, due to insufficient power supply, non-deployment of specialists and trained staff.

Further, a Mobile Diagnostic-cum-Exhibition Unit was to be established at the University level for providing livestock diagnostic and plant analysis facilities at the fields of the farmers. ICAR released (2010-11) ₹ 32.50 lakh for the unit. NDUAT spent ₹ 24.81 lakh on purchase of mini-bus and other equipment but the Mobile unit remained non-functional till July 2014 due to non-

²⁰ Phone in commulticom 3, ampli speaker, transmitter, cable RF, Dipole Antenna System, Sony IC Recorder, and Sony DJ Mike.

establishment of equipment in the mini-bus. The mini-bus was being utilised²¹ for conveyance of the employees of the University.

Thus, ₹ 1.20 crore, spent on Soil and Water Testing Laboratories, and ₹ 32.50 lakh, spent on establishment of Mobile Diagnostic-cum-Exhibition Unit, were not utilised fruitfully which defeated the objective of providing livestock diagnostics and plant analysis facilities at the fields of the farmers.

GoUP assured that Soil and Water Testing Laboratory and Mobile Diagnostic-cum-Exhibition Unit shall be made functional at the earliest.

2.3.10.5 Bio-control Unit

GoUP sanctioned (January 2009) the establishment of Bio-control laboratory for mass production of bio-agents at ₹ 67 lakh to promote the use of bio-agents for controlling insects and restricting diseases of the crops. The establishment of the unit comprised renovation (₹ 27.60 lakh), non-recurring charges (₹ 21.70 lakh), registration for production of bio-agents (₹ six lakh), vehicle (₹ five lakh) and operational cost (₹ 6.70 lakh). NDUAT established in August 2009 the bio-control laboratory at ₹ 41.98 lakh (renovation: ₹ 21.17 lakh; non-recurring charges: ₹ 13.44 lakh; vehicle: ₹ five lakh and operational cost: ₹ 2.37 lakh) but did not get the laboratory registered with the competent authority for production of the bio-agents till November 2014. The laboratory was not made functional (November 2014), even after lapse of five years, rendering the expenditure of ₹ 41.98 lakh unfruitful. Besides, the objective of providing quality bio-agents to the farmers was not achieved.

GoUP stated that efforts were being made for sale of bio-agents. Reply was not acceptable as the required licence for production of bio-agents was yet to be obtained.

2.3.10.6 Plant Health Clinic

Plant Health Clinics (PHCs) were approved under National Horticulture Mission for KVK at Barabanki (2009-10) and under ICAR at Basti (2011-12). A sum of ₹ 20 lakh (₹ 10 lakh for each clinic) was released during 2009-12 for establishing PHCs in KVKs of Barabanki and Basti. Though a sum of ₹ 19.33 lakh was utilised up to 2011-12 for purchase of equipment, chemicals and glassware yet the PHCs were not functional due to non-deployment of technical staff. The expenditure of ₹ 19.33 lakh was thus rendered unfruitful.

GoUP assured that PHCs shall be made functional at the earliest.

2.3.10.7 Model Nursery

GoUP sanctioned (2009-11) ₹ 93 lakh (₹ 18 lakh per model nursery for five big nurseries and ₹ three lakh for one small nursery) as per project proposal of NDUAT for establishing six model nurseries for fast multiplication of elite

²¹ Used as conveyance by staff for visiting bus stand and railway station, utilised by Deans of different Colleges etc.

clones and new varieties²² of *Aonla*, *Guava*, *Bael*, *Ber* and *Karonda* under State Horticulture Mission. The setting up of the nurseries entailed purchase of equipment, machinery and setting up of infrastructure facilities for ₹ 16.50 lakh and one time operational cost of ₹ 1.50 lakh per nursery. Test-check of the records revealed that GoUP released ₹ 73.50 lakh (2009-11) and assigned (December 2010) the work to the Construction and Design Services (C&DS), UP *Jal Nigam*. Since, the estimated cost (₹ 21.98 lakh per model nursery for big nurseries) quoted by the agency of the model nursery was above the sanctioned cost, it was not established and the funds remained unutilised (November 2014).

GoUP stated that necessary action shall be taken.

GoUP should streamline and strengthen the working of Extension Advisory Committee; and ensure proper functioning of KVKs, Bio control unit, Soil and water testing laboratory, Mobile diagnostic-cum-exhibition unit, Community radio station and Model nurseries.

2.3.11 Civil works and Estate

2.3.11.1 Civil works

In NDUAT, 19 construction works, costing ₹ 226.45 crore, were sanctioned during 2005-14 and awarded to various executing agencies without inviting tenders and even advance payments of ₹ 183.25 crore was made to Construction & Design Services, UP *Jal Nigam* (₹ 69.99 crore), UP *Aawas Evam Vikas Parishad* (₹ 82.38 crore) and UP *Rajkiya Nirman Nigam* (₹ 30.88 crore). The costs of works were revised several times by the Expenditure Finance Committee. Though expenditure of ₹ 151.77 crore was incurred (December 2005 to March 2014) by the executing agencies, the works remained incomplete (July 2014) (*Appendix-2.3.11*).

During 2005-06, the construction work of Fisheries College, Dr. Ram Manohar Lohiya College of Engineering and Bio-technology and the College of Horticulture and Forestry were awarded to C&DS, at ₹ 55.02 crore with scheduled date of completion as October 2008. An amount of ₹ 55.02 crore was paid to UP *Jal Nigam* in advance (2005-11). The executing agency incurred (March 2014) expenditure of ₹ 41.92 crore but the aforesaid works remained incomplete (March 2014) even after eight years.

GoUP assured that incomplete works shall be completed at the earliest and the buildings constructed shall be utilised.

2.3.11.2 Encroachment of the University land

Thirty-four hectares of land belonging to NDUAT, at different places, was encroached by the local people. It was seen in audit that not only substantial funds were blocked in construction activities, the management of the estate of

²² *Aonla: Emblicaofficinalis*, *Guava: Psidiumguajava* (Myrtaceae), *Bael: Agelemarmelos*, *Ber: Ziziphus Mauritiana* and *Karonda: Carissacongesta*.

the Universities was also deficient. The records relating to the details of the encroachments were not made available, though called for in audit.

GoUP assured that necessary action shall be taken against the encroachers.

GoUP should protect its land against encroachments.

2.3.12 Monitoring and Evaluation

2.3.12.1 Board of Management

One regular meeting of BoM was to be held every two months to frame policies and approve programmes relating to academics, research, extension and financial & administrative activities. However, Audit observed that 20 BoM meetings were held in NDUAT against the prescribed 30 meetings during 2009-14.

GoUP assured that the meetings of BoM shall be held as prescribed.

2.3.12.2 Performance Evaluation

On completion of the schemes, the Principal Investigators (PIs) were to submit final reports in the prescribed proforma to Uttar Pradesh Council of Agricultural Research (UPCAR) for performance evaluation of research projects.

Audit observed that in NDUAT the PIs of the projects were stated to have submitted the progress reports to UPCAR but the performance evaluation reports were not made available to audit, though called for.

GoUP assured that the performance evaluation of research projects shall be undertaken.

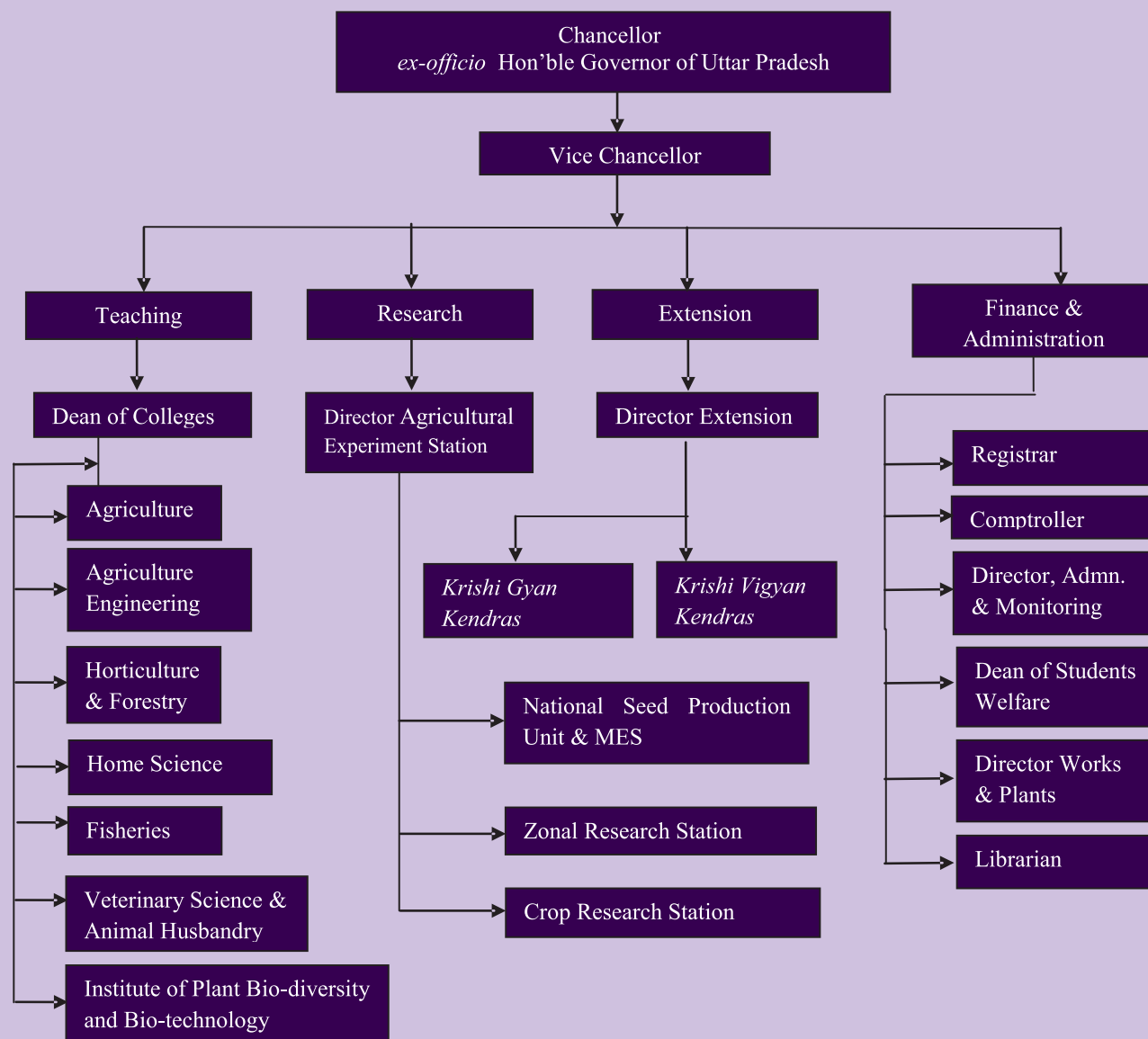
2.3.13 Conclusion

- There were cases of financial irregularities in deposit of GPF contributions, utilisation of grants-in-aid and irregular disbursement of pay and allowances to the employees/ teachers;
- There was substantial shortage of academic staff in the University. The actual enrolment of students was far less than the intake capacity of the colleges. The educational facilities like adequacy of class-rooms, library and placement cells were also lacking.
- The Research Advisory Committee did not discharge its responsibilities and the research activities were either not undertaken or were not properly monitored. Besides, there was no strategy for production/ notification/ patenting of seeds. The extension activities of transferring technology from laboratory to farms also did not materialise fully due to ineffectiveness of KVKs, non-functioning of CRSs, non-functioning of extension specific laboratories, bio control units etc.

Appendix 2.3.1

Organisational setup

(Reference: Paragraph no.2.3.2; Page 61)



Appendix 2.3.2

Records not furnished by NDUAT

(Reference: Paragraph no.2.3.6; Page 62)

Sl. No.	Name of the Department	Name of records
1	Finance Department	Records of Distance Education, Information Technology.
2	Research	Records of 27 Research projects.
3	Academics and Administration	Appointment files of Administration for 2009 to 2014, expenditure vouchers of CATAT, rate contract files and tender files.
4	Works and Plant	- Record of works executed during 2009-11 by Director, DWP, maintenance works during 2009-14, approved detailed project reports, tender notice files, comparative Statements, sanction of time extension & deviation, bill & vouchers, consumption statements, testing & monitoring records, measurement books (MBs), agreements, handing & taking over certificates, VAT, labour cess & IT deduction, work orders, supply orders, records of recovery of house rent, house tax, water & electricity bills & maintenance of houses, records pertaining to ICAR maintenance grants and security deposit & releases. - Records of executed works by the executing agencies (C&DS, UPRNN, UPAVP, and PACFED), works for the period 2009-14 and records of store & stock, tools & plants, MBs and MBs of maintenance works, quotation file, temporary & permanent advance adjustment vouchers and consumption statements.

Detailed replies to Audit Memos not furnished by the Universities

Name of University	Audit Memo issued (pages)	Reply Received (pages)	Reply furnished (per cent)	Reply not furnished (pages)
NDUAT	1,364	1,026	75	338
SVPDAT	842	818	97	24

Appendix 2.3.3

Receipts and Expenditure in NDUAT

(Reference: Paragraph 2.3.7.2; Page 63)

(₹ in crore)

Sl. No.	Year	Opening balance	Receipts					Expenditure	Closing Balance
			Grants-in aid		University income	Other receipts	Total		
			Plan	Non-Plan					
1	2009-10	(-) 14.95	48.65	17.22	5.07	26.07	82.06	97.88	(-)15.82
2	2010-11	(-) 15.82	49.44	29.47	6.07	36.89	106.05	124.46	(-)18.41
3	2011-12	(-) 18.41	24.60	27.93	11.64	34.24	80.00	100.92	(-)20.92
4	2012-13	(-) 20.92	18.91	39.20	11.10	30.64	78.93	92.48	(-)13.55
5	2013-14	(-) 13.55	21.85	39.30	11.89	28.96	88.45	106.41	(-)17.96
Total			163.45	153.12	45.77	156.80	435.49	522.15	

(Source: Records of the University)

Appendix 2.3.4

Position of academic staff in NDUAT

(Reference: Paragraph no. 2.3.8.2; Page 65)

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Sl. No.	Name of the Post	Sanctioned strength	Person-in-position					Shortfalls in <i>per cent</i> (range in percentage)
			2009-10	2010-11	2011-12	2012-13	2013-14	
		(In numbers)						
1	Professor-cum-Head of the Department	40	09	09	07	11	11	73 to 83
2	Associate Professor/Scientist	56 +1	34	31	27	25	30	39 to 55
3	Assistant Professor/ Assistant Scientist	167+3	121	116	111	95	103	28 to 43
Total		267	164	156	145	131	144	-

(Source: Records of Universities)

Appendix 2.3.5

Enrolment of students (in NDUAT) against intake capacity during 2009-14

(Reference: Paragraph no. 2.3.8.4; Page 66)

					(in numbers)
Sl. No.	Name of College	Name of courses	Intake capacity	Actual enrolments	Shortfall/ Excess (per cent)
1	College of Agriculture	B.Sc (Agriculture)	534	558	(+) 24 (4)
		M.Sc (Agriculture)	965	807	(-) 158 (16)
		Ph.D.	362	254	(-) 108(30)
2	College of Horticulture and Forestry	B.Sc (Horticulture)	233	236	(+) 03 (1)
3	College of Fisheries	B.Sc. (Fisheries)	169	163	(-) 06(3.5)
4	Mahamaya College of Agriculture Engineering and Technology	B.Tech.	762	737	(-) 25 (03)
		M.Tech. (2012-13)	10	03	(-) 07 (70)
5	College of Veterinary Science and Animal Husbandry	B.V.Sc.	333	178	(-) 155 (47)
		M.V.Sc.	160	67	(-) 93 (58)
6	College of Home Science	B.Sc (Home Science)	267	235	(-) 32 (12)
		M.Sc.(Home Science)	35	12	(-) 23 (66)
Total			3,830	3,250	607(16)

(Source: Records of the University)

Appendix 2.3.6

Details of dropout of students in NDUAT

(Reference: Paragraph no. 2.3.8.4; Page 67)

Sl. No.	Name of Course	Year 2009-10		Year 2010-11		Year 2011-12		Year 2012-13	
		No. of Final Year Student	Dropout (per cent)	No. of Final Year Student	Dropout (per cent)	No. of Final Year Student	Dropout (per cent)	No. of Final Year Student	Dropout (per cent)
NDUAT									
1	B.Sc. (Agriculture)	71	01(1)	94	02(2)	129	06(5)	134	06(4)
2	B.Sc. (Horticulture)	19	03(16)	27	03(11)	67	05(7)	62	10(16)
3	B.Sc. (Fisheries)	19	05(26)	27	0(0)	41	08(20)	41	04(10)
4	B.Tech (Agriculture)	65	12(18)	68	01(2)	61	03(5)	98	02(2)
5	M.Tech (Mechanical)	40	06(15)	40	06(15)	39	02(5)	39	0(0)
6	B.Tech (Computer Science)	38	18(47)	40	04(10)	35	01(3)	-	-
7	B.Sc. (Home Science)	30	01(3)	45	02(4)	58	0(0)	51	0(0)
8	M.Sc. (Agriculture)	87	09(10)	132	18(14)	174	21(12)	166	26(16)
9	M.V.Sc.	03	01(33)	08	01(13)	04	0(0)	27	0(0)

(Source: Records of University)

Appendix 2.3.7

Agency-wise number of research projects in NDUAT (Reference: Paragraph no. 2.3.9.1; Page 69)

Sl. No.	Name of the agencies	On-going projects as of April 2009	New projects 2009-14	Total	Completed/ closed projects	On-going projects as on March 2014
1	ICAR	38	8	46	8	38
2	UPCAR	3	1	4	1	3
3	International agencies/ Other agencies	23	Nil	23	12	11
4	GoUP	32	14	46	26	20
Total		96	23	119	47	72

(Source: Records of the University)

Appendix 2.3.8

List of variety of seeds released and notified

(Reference: Paragraph no. 2.3.9.4; page 71 and Paragraph no. 2.3.9.5; Page 72)

Sl. No.	Name of crops	Name of variety of seeds	Year of release	Year of notification
NDUAT				
1	Rice	<i>Sarjoo-52</i>	1980	1982
2		<i>Narendra Dhan-1</i>	1980	1988
3		<i>Narendra Dhan-2</i>	1982	1987
4		<i>Narendra – 80</i>	1986	1987
5		<i>Narendra -118</i>	1987	1988
6		<i>Narendra -97</i>	1992	1992
7		<i>Narendra -359</i>	1992	1994
8		<i>JalLahari</i>	1993	1994
9		<i>Jan Priya</i>	1993	1995
10		<i>Jalnidhi</i>	1992	1994
11		<i>BarhAvrodhi</i>	1995	1997
12		<i>NarendraUsar Dhan-2</i>	1996	1998
13	Hybrid rice	<i>Narendra Shankar Dhan-2</i>	1998	1998
14	Hybrid rice	<i>NarendraUsarDhan Shankar-3</i>	2005	Not notified
15	Rice	<i>NarendraUsarDhan-3</i>	1999	1999
16		<i>Barani Deep</i>	2001	2006
17		NDR-8002	2005	2005
18		NDR-2026	2004	Not notified
19		<i>ShuskSamrat</i>	2006	2007
20		NDR 2064	2007	Not notified
21		<i>NarendraNarayani</i>	2008	Not notified
22		<i>NarendraMayank</i>	2008	2009
23		<i>NarendraJalpushp</i>	2008	Not notified
24		NDR-8013	2008	Not notified
25		<i>NarendraDhaneshwari</i>	2008	Not notified
26		<i>NarendraShishir</i>	2008	Not notified
27		<i>Swarna sub-1</i>	2009	2009
28		<i>NarendraDhan 3112-1</i>	2009	2009
29		<i>NarendraUsarDhan 2008</i>	2009	2009
30		<i>NarendraLalmati</i>	2009	2009
31		<i>NarendraUsarDhan 2009</i>	2010	Not notified
32		<i>NarendraSugandhaDhan</i>	2010	Not notified
33		<i>NarendraDhan 2065</i>	2010	Not notified
34		NDGR-201	2012	Not notified

35	Maize	<i>Shaktiman-1</i>	2001	2001
36	Wheat	<i>NarendraWheat-1012</i>	1998	1998
37		<i>NarendraWheat-1014</i>	1998	1998
38		<i>NarendraWheat-1076</i>	2002	2003
39		<i>NarendraWheat-2036</i>	2002	2002
40		<i>NarendraWheat-1067</i>	2005	2005
41		<i>NarendraWheat - 4018</i>	2012	2013
42	Barley	<i>Narendra jau-1</i>	1999	2001
43		<i>Narendra jau-2</i>	1999	2001
44		<i>Narendra jau-3</i>	2001	2002
45		<i>Narendra jau-4</i>	2002	Not notified
46		<i>Narendra jau-5</i>	2007	Not notified
47		<i>Narendra jau-6</i>	2003	2005
48		<i>Narendra jau-7</i>	2011	Not notified
49		NDB-1173	Released	Notified
50		NDB-943	2007	2009
51		NDB-1445	2012	2013
SVPuat				
1	Chickpea	WCG-3(<i>VallabhKallarChana 1</i>)	2004 SVRC	Not notified
		<i>Vallabh Kabuli Chana-1</i>	Identified, 2005 CVRC	Not notified
2	Basmati Rice	<i>Vallabh Basmati-22</i>	2009, CVRC	2009
		<i>Vallabh Basmati-21</i>	2013, SVRC	2013
		<i>Vallabh Basmati-23</i>	2013, SVRC	Not notified
		<i>Vallabh Basmati-24</i>	Identified, 2012, CVRC	Not notified
3	Urd	<i>Vallabh Urd-1</i>	Identified, 2008, CVRC	Not notified
4	Taramira	<i>Vallabh Taramira-1</i>	2009, SVRC	2009
		<i>Vallabh Taramira-2</i>	2009, SVRC	2009
5	Haldi	<i>VallabhPriya</i>	2004, SVRC	Not notified
6	Arvi	<i>Vallabh Nikki</i>	2007, SVRC	Not notified
7	Callongy	<i>VallabhBhavi</i>	2010, SVRC	Not notified
8	Petha	<i>VallabhPetha-1</i>	2010, SVRC	Not notified
9	Dhania	<i>Sarvahari</i>	2010, SVRC	Not notified
10	Methi	<i>Vallabhchinki</i>	2006, SVRC	Not notified

(Source: Records of University)

(SVRC: State Variety Release Committee, CVRC: Central Variety Release Committee)

- Note:**
- 1. Release:** The crop variety is released by SVRC/CVRC after identification.
 - 2. Notification:** The seeds should be offered for sale to the farmers only after the seeds were certified by the issue of notification by the Government.

Appendix 2.3.9

Details of seed production in NDUAT (Reference: Paragraph no. 2.3.9.4; Page 71)

Sl. No.	Name of variety of seed	Area (hectare)	Production(Rice) (Quintals)											
			2008-09		2009-10		2010-11		2011-12		2012-13		Total	
			BS	FS	BS	FS	BS	FS	BS	FS	BS	FS	BS	FS
1	<i>Sarjoo-52 (N)</i>	206.09	225.00	2,507.57	169.20	262.60	89.10	460.85	113.40	819.00	278.55	1,785.36	875.25	5,835.38
2	<i>NDR-97 (N)</i>	94.32	58.20	554.28	52.15	825.35	14.00	263.69	18.00	201.15	22.25	326.40	164.60	2,170.87
3	<i>JalNidhi (N)</i>	4.80	13.35	NIL	2.30	22.95	8.10	NIL	1.20	NIL	NIL	NIL	24.95	22.95
4	<i>NDR-359 (N)</i>	121.03	120.15	798.65	237.15	402.00	80.10	1,148.42	99.60	636.80	204.30	618.09	741.30	3,603.96
5	<i>NDR-118 (N)</i>	3.40	11.00	NIL	NIL	46.80	NIL	NIL	NIL	NIL	NIL	NIL	11.00	46.80
6	<i>NDR-8002 (N)</i>	37.85	29.60	139.80	36.00	224.56	46.60	NIL	263.74	76.30	60.35	306.20	436.29	746.86
7	<i>JalLahri (N)</i>	4.90	13.50	NIL	5.85	91.20	11.60	NIL	15.12	NIL	8.00	NIL	54.07	91.20
8	<i>Usar-3</i>	36.57	6.80	NIL	32.40	70.40	27.20	536.45	14.00	107.80	31.50	NIL	111.90	714.65
9	<i>JalPriya (N)</i>	1.94	NIL	NIL	NIL	18.40	2.40	NIL	4.00	NIL	NIL	NIL	6.40	18.40
10	<i>Swarna sub-1 (N)</i>	94.54	NIL	NIL	424.80	NIL	381.15	810.16	529.06	780.75	230.30	491.00	1,565.31	2,081.91
11	<i>BarhAvarodhi (N)</i>	0.60	NIL	NIL	2.25	NIL	1.00	NIL	2.80	NIL	NIL	NIL	6.05	NIL
12	<i>Barani Deep (N)</i>	1.80	NIL	NIL	NIL	NIL	3.20	NIL	14.40	NIL	16.00	NIL	33.60	NIL
13	<i>ShuskSamrat (N)</i>	2.40	NIL	NIL	NIL	NIL	4.00	NIL	12.00	NIL	54.45	NIL	70.45	NIL
14	<i>Narendra Dhan-1 (N)</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
15	<i>Narendra Dhan-2 (N)</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
16	<i>Narendra-80 (N)</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
17	<i>Usar Dhan-2 (N)</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
18	<i>Narendra Shankar Dhan-2 (N)</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
19	<i>Narendra Usar Dhan-2 (N)</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
20	<i>NDR-2026</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
21	<i>NDR-2064</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
22	<i>Narendra Narayani</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
23	<i>Narendra Mayank (N)</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
24	<i>Narendra Jalpushp</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
25	<i>NDR-8013</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
26	<i>Narendra Dhaneshwari</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
27	<i>Narendra Shishir</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
28	<i>Narendra Dhan 3113-1 (N)</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
29	<i>Narendra Usar Dhan-2008 (N)</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
30	<i>Narendra Lalmati (N)</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
31	<i>Narendra Usar Dhan-2009</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
32	<i>Narendra Sugandha Dhan</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
33	<i>Narendra Dhan 2065</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
34	<i>NDGR-201</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Total		610.24	477.60	4,000.30	962.10	1,964.26	668.45	3,219.57	1,087.32	2,621.80	905.70	3,527.05	4,101.17	1,5332.98
Wheat														
1	<i>NW-1012 (N)</i>	32.36	60.00	36.00	190.90	NIL	247.00	NIL	100.00	NIL	8.80	NIL	606.70	36.00
2	<i>NW-1014 (N)</i>	35.87	27.00	123.70	172.60	NIL	78.40	125.45	15.60	NIL	4.20	NIL	297.80	249.15
3	<i>NW-1076 (N)</i>	6.10	21.35	5.00	4.80	NIL	5.30	NIL	NIL	NIL	6.60	NIL	38.05	5.00

4	NW-2036 (N)	46.69	95.50	15.25	295.30	35.00	147.10	52.50	43.20	NIL	66.60	NIL	647.70	102.75
5	NW-1067 (N)	4.00	50.00	NIL	2.40	NIL	17.10	NIL	NIL	NIL	NIL	NIL	69.50	NIL
6	NW-4018 (N)	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Total		125.02	253.85	179.95	666.00	35.00	494.90	177.95	158.80	NIL	86.20	NIL	1,659.75	392.90
Barley														
1	<i>Nar.Jau.-1 (N)</i>	16.61	1.10	6.75	5.65	NIL	73.00	NIL	77.40	NIL	2.00	19.75	159.15	26.50
2	<i>Nar.Jau.- 2 (N)</i>	28.10	28.25	NIL	49.85	12.15	84.30	NIL	84.00	NIL	20.15	NIL	266.55	12.15
3	<i>Nar.Jau.-3 (N)</i>	7.60	2.12	NIL	7.72	NIL	65.26	NIL	5.60	NIL	21.60	14.85	102.30	14.85
4	<i>Nar.Jau.-4</i>	0.45	0.44	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	0.44	NIL
5	<i>Nar.Jau.-5</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
6	<i>Nar.Jau.-6 (N)</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
7	<i>Nar.Jau.-7</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
8	<i>NDB-1173 (N)</i>	9.91	NIL	NIL	NIL	NIL	13.00	NIL	59.70	NIL	31.10	NIL	103.80	NIL
9	<i>NDB-943 (N)</i>	0.85	0.90	NIL	0.94	NIL	NIL	NIL	NIL	NIL	NIL	NIL	1.84	NIL
10	<i>NDB-1445 (N)</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Total		63.52	32.81	6.75	64.16	12.15	235.56	NIL	226.70	NIL	74.85	34.60	634.08	53.50
Maize														
1	<i>Shaktiman-1 (N)</i>	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

(Source: Records of University) (BS refers to Breeder Seed; FS refers to Foundation Seed; and (N) refers to notified).

Appendix 2.3.10

Details of seeds sold as grain

(Reference: Paragraph no. 2.3.9.5(b); Page 72 & Paragraph no. 2.3.16.4(b); Page 83)

NDUAT						
Year	Paddy seed	Quantity of unsold seeds (Qtls.)	Rate of seeds (₹/Qtls.)	Value of unsold seeds	Seeds sold as grain	
				(₹ in lakh)	Quantity (Qtls.)	Amount (₹ in lakh)
2009-10	Breeder Seed	122.41	3,400	4.16	1,307.81	11.73
	Foundation Seed	2,439.45	2,170	52.94		
2010-11	Breeder Seed	318.24	3,570	11.36	1,063.34	10.00
	Foundation Seed	550.84	2,200	12.12		
2011-12	Breeder Seed	123.78	3,700	4.58	443.31	4.96
	Foundation Seed	758.27	2,380	18.05		
2012-13	Breeder Seed	423.34	3,800	16.09	638.70	7.37
	Foundation Seed	237.43	2,650	6.29		
Total		4,973.76		125.59	3,453.16	34.06

Year	Wheat seed	Quantity of unsold seeds (Qtls)	Rate of seeds (₹/Qtl.)	Value of unsold seeds	Seeds sold as grain	
				(₹ in lakh)	Quantity (Qtls)	Amount (₹ in lakh)
2009-10	Breeder Seed	147.73	3,800	5.61	614	7.25
	Foundation Seed	145.00	2,350	3.41		
2010-11	Breeder Seed	331.18	4,000	13.25	1077	10.24
	Foundation Seed	40.54	2,430	0.99		
2011-12	Breeder Seed	487.59	4,100	19.99	877.36	11.25
	Foundation Seed	1,072.17	2,620	28.09		
2012-13	Breeder Seed	202.66	4,200	8.51	620	7.60
	Foundation Seed	499.93	2,880	14.40		
Total		2,926.80		94.25	3,188.36	36.34

Year	Gram seed	Quantity of unsold seeds (Qtls)	Rate of seeds (₹/Qtl.)	Value of unsold seeds	Seeds sold as grain	
				(₹ in lakh)	Quantity (Qtls)	Amount (₹ in lakh)
2010-11	Breeder Seed	80.42	9,000	7.24	38.38	1.07
	Foundation Seed	0.29	5,145	0.01		
2011-12	Breeder Seed	33.03	11,000	3.63	5.25	0.12
	Foundation Seed	4.00	8,480	0.34		
2012-13	Breeder Seed	0.53	11,000	0.06	0.69	0.02
Total		118.27		11.28	44.32	1.21
Grand Total		8,018.83		231.12	6,685.84	71.61

(Source: Records of University)

SVPUAT						
Year	Paddy seed	Quantity of unsold seeds (Qtls.)	Rate of seeds (₹/Qtl.)	Value of unsold seeds	Seeds sold as grain	
				(₹ in lakh)	Quantity (Qtls.)	Amount (₹ in lakh)
2009-10	Foundation Seed	53.02	4,700	2.49		
2010-11	Breeder Seed	2.88	6,300	0.18	129.86	1.75
	Foundation Seed	780.89	5,100	39.83		
2011-12	Breeder Seed	69.84	6,300	4.40	277.90	5.21
	Foundation Seed	391.56	5,200	20.36		
2012-13	Breeder Seed	36.10	6,500	2.35	390.19	12.22
	Foundation Seed (PB-1121)	159.52	5,800	9.25		
	Foundation Seed (PR-113)	77.10	2,900	2.24		
	Certified Seed	115.63	5,300	6.13		
Total		1,686.54		87.23	797.95	19.18

Year	Wheat seed	Quantity of unsold seeds (Qtls.)	Rate of seeds (₹/Qtl.)	Value of unsold seeds	Seeds sold as grain	
				(₹ in lakh)	Quantity (Qtls.)	Amount (₹ in lakh)
2009-10	Foundation Seed	72.40	2,750	1.99		
2010-11	Breeder Seed	85.6	4,000	3.42	400	4.40
	Foundation Seed	473.35	2,900	13.73		
2011-12	Breeder Seed	78.8	4,100	3.23	180	2.00
	Foundation Seed	70.44	3,000	2.11		
2012-13	Breeder Seed	58.00	4,200	2.44	-	-
	Foundation Seed	50.95	3,300	1.68		
Total		889.54		28.60	580	6.40

Year	Mustard seed	Quantity of unsold seeds (Qtls.)	Rate of seeds (₹/Qtl.)	Value of unsold seeds	Seeds sold as grain	
				(₹ in lakh)	Quantity (Qtls.)	Amount (₹ in lakh)
2009-10	Foundation Seed	4.10	5,500	0.23	4.11	0.08
2010-11	Foundation Seed	19.21	7,000	1.34	19.21	0.48
2011-12	Foundation Seed	13.40	7,500	1.01	13.40	0.40
2012-13	Foundation Seed	69.52	7,500	5.21		-
Total		106.23		7.79	36.72	0.96
Grand Total		2,682.31		123.62	1,414.67	26.54

(Source: Records of University)

Appendix 2.3.11

Details of incomplete works in NDUAT

(Reference: Paragraph no. 2.3.11.1.; Page 76)

(₹ in lakh)

Sl. No.	Name of the Project	Sanction Date	Original Cost	Revised Sanction	Revised Cost	Name of Executing Agency	Releases to Executing Agency	Expenditure	Date of Start	Original Date of completion	Status of the Project (till 31 March 2014)
1	College of Fisheries	27.12.05	918.90	Aug-08/ 03.05.10	1,476.37/ 1,532.66	C&DS, Jal Nigam	1,525.77	1,204.00	01.03.06	24.10.08	Incomplete
2	Dr. R.M.L College of Biotechnology	08.12.05	670.74	01.08.07 15.06.09 13.07.10	988.94 1,520.68 1,609.35	C&DS, Jal Nigam	1,609.35	1,283.00	01.04.06	24.10.08	Incomplete
3	College of Horticulture & Forestry	22.12.05	1,661.05	15.06.09 04.05.10	2,141.13 2,366.90	C&DS, Jal Nigam	2,366.90	1,705.00	01.04.06	24.10.08	Incomplete
4	Furnishing of College of Horticulture & Forestry	07.02.11	313.41	NA	NA	C&DS, Jal Nigam	313.41	285.00	28.02.11	31.03.12	Incomplete
5	Strengthening of Akma Agriculture Farm	30.01.09	263.52	17.05.10	783.59	UPAVBP	783.59	528.00	02.02.09	01.02.11	Incomplete
6	Strengthening of College of Home Science	30.01.09	401.94	17.05.10	684.82	UPAVBP	684.82	563.62	02.02.09	01.02.11	Incomplete
7	Strengthening of Ag. Lab. Centre Directorate	30.01.09	310.22	12.08.11	556.26	UPAVBP	528.45	405.66	02.02.09	01.08.10	Incomplete
8	Strengthening of College of Agriculture	30.01.09	141.95	17.05.10	393.44	UPAVBP	393.44	338.81	02.02.09	01.02.10	Incomplete
9	Strengthening of Guest House	30.01.09	227.51	17.05.10	293.09	UPAVBP	293.09	279.63	02.02.09	01.02.11	Incomplete
10	Strengthening of College of Veterinary Science	30.01.09	234.08	18.08.10	460.74	UPAVBP	460.74	325.65	02.02.09	01.02.11	Incomplete
11	Strengthening of Awaasiya Bhawan	30.01.09	377.26	28.02.11	747.32	UPAVBP	710.32	679.00	02.02.09	01.08.10	Incomplete
12	College of Agri Business Management	23.12.08	2,006.31	23.03.12	2,798.69	UPAVBP	2,658.69	2,200.00	29.11.08	28.11.10	Incomplete
13	Construction of Internal Road, High Maast Electric Tower & Boundary Wall.	30.03.08	588.20	23.03.12	1,702.70	UPAVBP	1,488.20	1,488.20	16.04.08	15.08.09	Incomplete
14	Construction of remaining part of College of Agriculture	17.10.11	236.10	NA	NA	UPAVBP	236.10	157.40	08.11.11	07.11.12	Incomplete

15	Construction of Sports Stadium	10.12.08	693.42	12.10.11	923.29	UPRNN	877.29	870.29	15.12.08	14.06.10	Incomplete
16	Construction of Fisheries skill development Centre, Gonda	01.11.06	310.36	04.05.10	1,014.56	C&DS, <i>Jal Nigam</i>	1,010.36	867.74	01.12.06	01.12.07	Incomplete
17	Furnishing of Fisheries skill development Centre, Gonda	23.03.12	173.65	NA	NA	C&DS, <i>Jal Nigam</i>	173.65	154.42	23.03.12	30.11.12	Incomplete
18	Construction of International-cum-VIP-Hostel	28.11.08	572.70	22.11.12	711.10	UPRNN	711.10	711.10	29.11.08	28.05.10	Completed but furnishing yet to be completed.
19	Construction of Agriculture College in Azamgarh district	19.09.13	5,343.06	NA	NA	UPRNN	1,500.00	1,130.00	14.10.13	13.10.15	Work in progress

(Source: Records of University)

NA: Not Applicable