

CHAPTER-I

AGRICULTURE DEPARTMENT

1 Assam Agricultural University

The University started functioning from 1 April 1969 to develop academically qualified human resources through graduate, post graduate, Ph. D and other academic programmes in the field of Agriculture and allied sciences; to conduct need based area-specific research in the development of Agriculture and other allied sectors and to develop and promote the application of modern agricultural technology for improving the condition of agriculture based population of the state, through various extension programmes. On the academic front, quality education and research activities was affected due to overall shortage of faculty members. The University failed to attract and retain full quota of its intake capacity of students. In the area of research activities, projects remained incomplete for more than five to 30 years. In absence of monitoring and evaluation reports, the fate of the completed projects were also not ascertainable. Deficient infrastructure, inadequate manpower and shortfall in training affected extension activities. Internal control mechanism in administrative and financial management was deficient. Some of the significant audit findings are as under:

Highlights

In absence of any system of internal control and maintenance of mandatory records of accounts, budgetary and expenditure control of AAU was ineffective which led to several financial irregularities.

(Paragraphs 1.9.1, 1.9.3 and 1.9.4)

AAU sent inflated utilization certificates to the funding authorities without incurring expenditure.

(Paragraph 1.9.2)

The accounts of AAU did not reflect true and fair view of the affairs of the University for non-preparation of balance sheet.

(Paragraph 1.10.7)

There was overall shortage of 39 *per cent* of faculty members which adversely affected quality education and research activities.

(Paragraph 1.11.1)

AAU failed to enroll students up to its intake capacity. Shortfall in enrolment ranged between two to 10 *per cent* in UG, 57 to 89 *per cent* in PG and 88 to 94 *per cent* in Ph. D courses during 2004-10 against intake capacity.

(Paragraph 1.11.2)

Performance of the placement cell was very poor as only 190 out of 1170 successful students got placement through placement cell of the university during 2005-10.

(Paragraph 1.11.8)

Eighty three out of 130 projects taken up as of March 2010 remained incomplete and six projects were terminated. Twenty four out of the 83 incomplete projects remained incomplete for more than five to 30 years. Achievements of 41 projects although completed were not ascertainable in the absence of evaluation and monitoring report.

(Paragraph 1.12.1)

Shortfall in training of extension functionaries and farmers ranged between eight to 96 per cent with reference to targets fixed.

(Paragraph 1.13.1)

1.1 Introduction

The Assam Agricultural University (AAU) was established at Jorhat by the Government of Assam on 1st April 1969 under Assam Agriculture University Act 1968. The major objectives/mandate of the University are to impart education in the field of agriculture and allied sciences; undertake research projects for development of agriculture and other allied sectors and to develop and promote modern technology amongst the agriculture based population of the State through extension programmes and need based training.



1.2 Management of Assam Agricultural University

According to AAU Act, the Board of Management and the Councils are the governing bodies of AAU. Their functions are discussed below:

The Board of Management (BOM) includes Vice Chancellor as ex-officio chairman and sixteen members. The BOM is normally required to meet at an interval of 2 months to frame policies and approve programmes relating to academic, research, extension, financial & administrative activities. Against required 30 meetings 19 could be held during the period covered by audit. The Secretary/Commissioner to the Government of Assam, Finance Department, Agriculture Department and Community Development Department, who are the members of the Board of

Management, did not attend a single meeting. Thus, BOM meetings were conducted without any representation from the State Government.

1.3 Significance of Assam Agricultural University in Assam

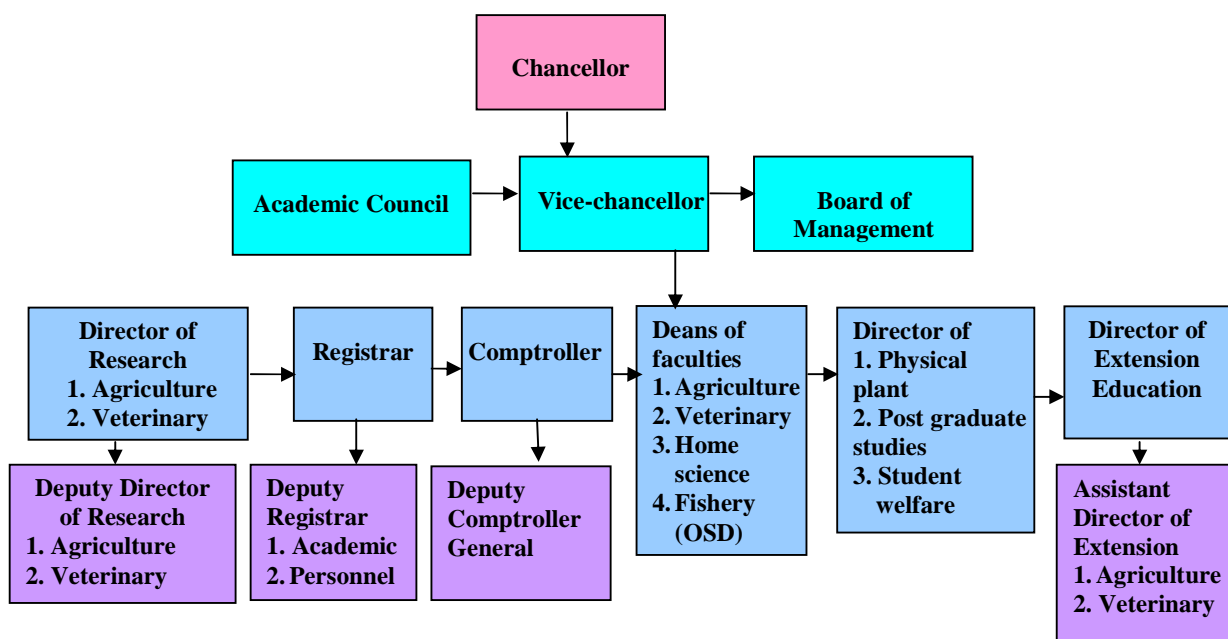
Assam is primarily an agrarian State with more than 70 *per cent* of its population (2.66 crore as per 2001 census) engaged in agriculture and other allied activities. The gross cultivated area occupies about 38.43 lakh hectares of the total 78.44 lakh hectares in the State. Rice, which at present is grown mainly during Kharif season, dominates the agriculture scenario in Assam. Shortfall in production of rice (29 *per cent*), wheat (95 *per cent*) and sugarcane (77 *per cent*) (10th Plan period) and requirements as projected in 11th Plan period indicates that agricultural production is highly deficit in the State. Besides, production of meat, fish, vegetables, fruits etc. was also insufficient in the State.

Thus, the role of AAU is very significant to the people of the State for development of modern methods of agriculture, animal husbandry, fisheries etc. for improving the economic status of the people in the State.

1.4 Organizational set up

The Governor of the State is the Chancellor of the University. According to the University statutes, the Vice-Chancellor is overall in charge of AAU. The Registrar and Comptroller are whole time office bearers of the University. The Registrar is the custodian of the University records and manages the administration with due approval of the Vice-Chancellor while the Comptroller is responsible for Finance and Accounts. The University has 18 units under its control including Lakhimpur College of Veterinary Science which was derecognized in 2005 by the veterinary council of India. The organizational chart is indicated below.

Organizational chart of AAU, Jorhat



1.5 Audit Objectives

The performance audit of the university was undertaken to assess:

- adherence to academic norm prescribed by the Statute of the University;
- efficiency in holding examination, declaration of results, granting degrees etc. and imparting quality agricultural education;
- research activities were carried out efficiently;
- efficiency and economy in expenditure;
- adherence to Statute in granting recognition and affiliation to colleges/ institution maintained by the university; and
- existence and effectiveness of internal control.

1.6 Audit Criteria

Performance audit was conducted using the following audit criteria:

- provisions of the Act and the Statutes of AAU;
- norms fixed for academic activities;

- terms and conditions of sanctions/approval of research projects;
- targets/norms for extension/training activities;
- plan, budget documents, Governments orders/sanctions; and
- established accounting principles, guidelines issued by the Finance Committee, AAU.

1.7 Scope and Methodology of Audit

The performance audit of working of AAU during 2005-10 was conducted (February to August 2010) by a test-check of the records of Department of Agriculture, AAU, four¹ out of six colleges, four² out of 12 research stations, five³ out of 19 Krishi Vigyan Kendras selected through random sampling method. Interviews and photographic evidence were also taken.

The audit objectives, criteria, scope and methodology were discussed with the Vice-Chancellor in an entry conference in March 2010. Audit findings, conclusions and recommendations were discussed with Vice-Chancellor of AAU, Commissioner and Secretary to the Government of Assam, Finance and Agriculture Department in the exit conference on 12 October 2010 and views of the University, wherever offered, have been incorporated at appropriate places in the report.

Audit findings

1.8 Planning

For smooth functioning of the University in a planned manner, AAU was required to prepare:

- perspective plan with long term objectives in view;
- annual plan with specific physical and financial targets; and
- annual work plan for research stations and Krishi Vigyan Kendras (KVKs).

As a part of long term planning, the University contemplated to establish Colleges of Agricultural Engineering and Sericulture in the State. Besides strengthening of research and extension activities in the field of fishery and veterinary sciences including development of entrepreneurial skills among the graduates were also included in its long term planning. But tangible efforts to achieve these long term objectives were absent. Annual plan with specific physical and financial targets was also not prepared. The University stated (February 2010) that as adequate funds were

¹ College of agriculture, college of home science, Jorhat, college of fisheries, Raha and college of V. Sc & AH, Khanapara

² RARS Titabor, LRS Manira, HRS Kahikuchi, GRS Burnihat

³ Bongaigaon, Kokrajhar, Dhubri, Dibrugarh, Cachar.

not provided by the State Government, Annual Action Plans were prepared only after receipt of fund from Government. Thus, the planning was done only on adhoc basis.

1.9 Financial Management

1.9.1 Budgetary Control

The University receives grants-in-aid from Government of Assam, Indian Council of Agriculture Research (ICAR), North Eastern Council (NEC). Other organizations also provide funds for undertaking various activities especially research work. The University also has its own receipts. The budgetary control is exercised by the Comptroller.

The fund position and expenditure as per annual accounts 2005-09 is given below:

Table – 1

(₹ in crore)

Year	Opening balance	Fund received	Income	Total	Expenditure	Refund	Closing balance
2005-06	(-) 6.33	80.31	1.21	75.19	78.55	2.77	(-) 6.13
2006-07	(-) 3.52	101.23	0.04	97.75	105.68	6.81	(-) 14.74
2007-08	(-)14.74	118.18	0.04	103.48	111.89	0.11	(-) 8.52
2008-09	(-) 3.41	146.62	9.72	152.93	151.31	1.00	0.62
2009-10 (Provisional)*	NA	137.51	NA	137.51	129.11	NA	NA

(Further details are in *Appendix-I.1*)

*Accounts not finalized.

Source: University records

The differences between the closing balances and opening balances were due to adjustment of income/refund/salaries carried out after closing of accounts.

It is evident from the above table that during 2005-06, 2006-07 and 2007-08 the University incurred an excess expenditure of ₹ 6.13, ₹ 14.74 and ₹ 8.52 crore respectively. However, in 2008-09 there was no excess expenditure. The University stated (June 2010) that the excess expenditure was incurred since the grants provided by the State Government were not sufficient to meet the required expenditure. The extra expenditure was met by diverting plan grants given by GOI.

1.9.2 Utilisation Certificates

AAU issued utilization certificates (UCs) to the Government and ICAR against the receipt of grants-in-aid of ₹ 447.78 crore during 2005-09 showing utilization of entire grants by 31 March of respective years, although AAU did not spend the entire grants and sometimes even a part of it in the respective years. A few instances are given below.

- ICAR released ₹ 2.05 crore during 2005-06 for repair/renovation of hostels, laboratory and academic blocks of the University under the scheme “Strengthening and Development of Agricultural Education” for execution of 19 works for the year. Vice-Chancellor accorded his approval in August 2006, whereas in the audited UCs

issued by a Chartered Accountant along with annual accounts of the University, the entire amount of ₹ 2.05 crore was shown as utilized during 2005-06.

- The annual accounts (2006-07) and UCs along with statement of expenditure furnished to the funding agencies disclosed that the University during 2006-07 incurred an expenditure of ₹ 5.86 crore towards construction/repair of buildings through the Director of Physical Plant (DPP), AAU, Jorhat. The DPP's records, however, disclosed (June 2010) that only ₹ 13.37 lakh was spent for the purpose during the year. Thus, there was excess reporting of expenditure to the extent of ₹ 5.73 crore.
- Similarly, AAU issued UCs for ₹ 14.94 crore received during 2008-09 under Rastriya Krishi Vikash Yojana (RKVY) (₹ 10 crore) and development grant of ICAR (₹ 4.94 crore). The actual expenditure out of ₹ 14.94 crore during the year was only ₹ 3.50 crore (RKVY: ₹ 1.82 crore; development grant of ICAR: ₹ 1.68 crore) resulting in excess issue of UCs for ₹11.44 crore.
- During 2006-10, 68 cheques for ₹ 3.43 crore issued on 31 March could not be disbursed due to non-receipt and non-installation of machineries and equipment. Of this, 31 cheques became time barred, which were revalidated subsequently, but entire amount was exhibited in annual accounts as expenditure and utilization certificates were issued to avoid lapse of budget grants.

Thus, inflated UCs were sent to the fund sanctioning authority to secure release of subsequent grants without adjusting unspent balances of grants for previous years. Besides, actual closing balance under each scheme was not ascertainable from the unsystematic records and, therefore, diversion or misutilisation from the closing balance can not be ruled out. In reply AAU stated (October 2010) that fund was received in the later half or at the fag end of the financial years and therefore the University had no choice but to resort to furnish inflated UCs to serve the better interest of the people of the state. The reply is not tenable as this practice is against prudent financial discipline.

1.9.3 Misappropriation of funds

- During 2008-10 there was misappropriation of funds amounting to ₹ 39.42 lakh of salary expenditure through fraudulent drawal by inflating the total figure in the pay bill through willful wrong calculation. Thus, due to lack of internal control and non-executing prescribed checks such as checking numerical calculation of the pay bills by supervising officers and DDO at various stages, the fraudulent drawal could be done by the accountant.
- During 2000-04, ₹ 33.63 lakh was misappropriated by the then Dean, Faculty of Agriculture. It had not been recovered in full. An amount of ₹ 3.83 lakh is yet to be recovered (October 2010).

The recurrences of misappropriations indicate serious lapses in the internal control mechanism of AAU.

In reply AAU stated (October 2010) that steps were being taken to recover ₹3.83 lakh from the Ex. Dean. Faculty of Agriculture and ₹ 30.42 lakh from the Jr. Accountant. AAU also stated that internal control mechanism was being revamped.

1.9.4 Non-utilization of fund

Audit observed that during 2005-10, Director Extension Education failed to utilize the funds as per allocation. As such, the funding agency (ICAR) released funds after adjustment of previous years' unspent balance resulting in non-receipt of fund of ₹ 7.18 crore and denial of training facilities and other extension activities to the farmers to that extent. The details are given in table below:

Table – 2

(₹ in crore)

Year	Allocation	Opening balance	Grant received	Total	Expenditure	Balance
2005-06	4.46	4.08	4.25	8.33	4.16	4.17
2006-07	8.76	4.17	4.60	8.77	8.54	0.23
2007-08	10.12	0.23	9.91	10.14	8.49	1.65
2008-09	8.92	1.65	7.27	8.92	8.05	0.87
2009-10	11.17	0.87	10.22	11.09	9.94	1.15
Total	43.43		36.25		39.18	

(Allocation ₹ 43.43 – grant received ₹ 36.25 = ₹ 7.18 crore)

(Source: University records)

In reply AAU stated that this loss could have been avoided if UCs for the entire grant received was furnished in due time. The reply is not tenable as furnishing UCs without incurring the expenditure is against all financial norms.

1.10 Poor financial control system

1.10.1 Reconciliation between cash book balance and bank balances

According to the Act, AAU is to follow Assam Financial Rules, 1939 (AFR). As per Rule-95, of AFR the head of office/drawing and disbursement officer shall maintain only one main cash book for recording all day to day transactions. However, subsidiary cash book may be opened where volume of transaction is heavy. The Drawing and Disbursing Officer, making transaction through bank account, is required to reconcile at the end of each month, the difference between cash book balance and bank balance.

Verification of university headquarters cash book and bank passbooks revealed that discrepancies of balances ranged between ₹ 1.60 lakh and ₹ 67.84 lakh during 2005-10 as shown in table-3.

Table-3

Year	Balance as per cash book (₹)	Balance as per bank account (₹)	Difference (₹)
2005-06	18,44,05,393	18,41,45,601	2,59,792
2006-07	25,44,53,657	25,36,38,798	8,14,859
2007-08	2,62,03,401	1,94,19,371	67,84,030
2008-09	5,24,53,401	5,16,26,532	8,26,869
2009-10	14,39,99,765	14,38,39,747	1,60,018

(Source: University records)

The authority, however, did not conduct mandatory periodical reconciliation to ascertain the cause of such discrepancies. In absence of periodical bank reconciliation, fraudulent drawals remaining undetected can not be ruled out.

In reply AAU stated (October 2010) that they had reconciled the closing balance in cash book with that of Bank pass book in March 2010. The reply is not tenable as the reconciliation statement could not be shown at the time of audit nor it was attached with the reply furnished. Besides, Rule provides that reconciliation was required to be done at monthly intervals, which was also not done.

1.10.2 Non-exhibition of reinvestment in annual accounts

A sum of ₹ 1.21 crore invested during 2002-03 to 2006-07 in term deposits matured during 2006-07. This was reinvested in term deposit in subsequent years. But the fact of reinvestment was, however, not accounted for in the respective year's account. Thus, the transaction remained outside the accounts. Due to non-exhibition of funds reinvested and interest earned thereon in the annual accounts, it did not reflect the true and fair view of the affairs of AAU. While admitting the facts, AAU stated (October 2010) that it would exhibit the reinvestment (principal and accumulated interest) in each subsequent annual accounts.

1.10.3 Adjustment of advances

Between March 2003 and March 2010, the Comptroller sanctioned ₹ 96 lakh to the officials/firms towards TA, contingency expenses etc. The amounts remained unadjusted as of October 2010. Apart from violation of the internal control system, non-adjustment/non-recovery of advances for long period tantamounts to temporary misappropriation. The university authority did not take any effective step except issue of reminder. However, in reply, AAU stated (October 2010) that the authority would recover the outstanding advances from the monthly salary of the concerned employees.

1.10.4 Diversion of fund

- Prior to 2004-05, the University authority received ₹ four crore towards arrear payment of UGC scale, setting up of sericulture college and for sericulture research. The said amount was shown as opening balance in the receipt and payment account for each year during 2005-10. AAU, however, stated that the amount had already been

transferred to general fund account and spent for meeting the expenditure under salary prior to 2004-05. Thus, the fund was not spent for the purpose for which it was released and was diverted for other purposes without any approval from the fund releasing authority.

- During 2007-08 ICAR released grants of ₹ 17 crore for Strengthening and Development of Agricultural Education of which ₹ five crore was specifically released for the College of Fisheries, Raha, Nagaon. But AAU provided only ₹2.09 crore to the college and the balance of ₹ 2.91 crore was diverted to other units⁴.
- In 2006-07 AAU released grants of ₹ 28.14 lakh under ICAR Development grants to the College of Veterinary Science, Khanapara for repair and renovation of hostels and academic blocks and construction of retaining/boundary wall at girls' hostel. But instead of utilizing the entire funds for the purpose, ₹ 19.57 lakh was diverted to works of other schemes without any approval of the funding agency.

As a result of such diversion, the works or tasks planned, proposed and sanctioned, keeping in view a definite objective had not materialized and the objective remained unachieved. In reply, AAU also admitted the fact of diversion of fund and stated (October 2010) that ₹ 2.91 crore in respect of development of College of Fisheries, Raha was not yet diverted but retained in hand. The reply is not acceptable as the allocation for relevant amount had already been made to other college/unit.

1.10.5 Non-refund of unspent balance

During 2007-09 an unspent balance of ₹ 86.82 lakh, against 105 construction works, was not returned by the Director Physical Plant (DPP) to the Comptroller although the works had already been completed in 2006-07. The details are shown in *Appendix-1.2*.

Savings against the works indicate that the original estimates were inflated. Retention of excess unutilized funds in hand without returning it to the Comptroller of Accounts, as required, indicate lack of financial discipline and was susceptible to misuse and misutilisation. In reply (October 2010), the authority also admitted the fact.

1.10.6 Incurring expenditure beyond approved cost

DPP incurred an expenditure of ₹ 18.19 lakh towards repair and renovation work of DPGs building and medical unit during 2005-06 as against approved cost of ₹ 7.92 lakh. Thus, DPP incurred excess expenditure of ₹ 10.27 lakh by diversion from other works, which was not regularized by obtaining approval of the controlling authority. In reply (October 2010), AAU admitted the fact and stated that the process of obtaining ex-post-facto approval was being taken.

⁴ Agriculture College, Jorhat and Biswanath Chariali and Veterinary College, Khanapara etc.

1.10.7 Preparation of balance sheet

Under Section 40 of the Assam Agricultural University Act 1968, AAU was required to prepare Annual Accounts and Balance sheet. But it prepared only Receipts and Payments Accounts on cash basis. No balance sheet along with income and expenditure statement was prepared. As a result, the accounts did not reflect the true and fair view of the affairs of AAU due to non-disclosure of the assets and liabilities in quantifiable terms in accounts. While admitting (October 2010) the fact, AAU authority stated that the recommendation was noted for necessary action.

Performance of the University

The activities of the university can be categorized into Academic, Research, Extension and Administration. The performance of the university with reference to each of these activities is discussed in the succeeding paragraphs.

1.11 Academic activities

AAU offered four Under Graduate (UG), three Post Graduate (PG) and three Doctorate Degree (Ph D) courses in Agriculture, Veterinary Science and Animal Husbandry (VS & AH), Fishery Science (FS) and Home Science.

1.11.1 Faculty members

The sanctioned strength and men in position of faculty members engaged in academic and research activities as on 31 March 2010 are given in Table 4. Audit observed that whereas there was excess of 194 *per cent* in the highest cadre (Professors), there was shortage of 42 and 91 *per cent* in the two feeder cadres of Associate Professor and Assistant Professor respectively. The overall shortage of faculty members stood at 39 *per cent* (333 out of 863) which affected quality of education imparted and research undertaken. The Academic Council of the University did not fix any norms for teacher-student ratio. While admitting the fact University authority stated (October 2010) that since there was ban on recruitment, imbalance in faculty position could not be addressed. Efforts were being taken to fill up the vacant posts.

Table-4

Name of post	No. of sanctioned post	Men on roll	Excess (+)/Less (-)	Percentage
Professor	112	329	217	194
Associate Professor	275	160	(-) 115	42
Assistant Professor	476	41	(-) 435	91
Total	863	530	(-) 333	39

(Source: University records)

1.11.2 Enrolment and dropouts

It was observed that against intake capacities, there were shortfalls in enrolment ranging between two and 10 *per cent* in UG, 57 and 89 *per cent* in PG and 88 and 94 *per cent* in Ph D courses during 2004-10. The said shortfalls occurred despite minimum cut off marks of 50 and 45 *per cent* fixed at entry level for general and

SC/ST students respectively. Reasons for shortfall are not on record. Numbers of students enrolled in the courses and mid-term dropouts are given in *Appendices-1.3 and 1.4*.

- AAU made provision for admission of candidates from outside Assam on payment of higher fees. During the academic years 2005-09, the university admitted 233 students (UG & PG) after taking higher fees. In spite of these admissions full quota of intake capacities were never filled in during 2005-10.
- The drop outs during the period ranged between four to 23, six to 26 and 13 to 30 *per cent* under UG, PG and Ph. D courses respectively. Thus, the infrastructure of AAU was underutilized and did not reflect a very encouraging picture of the academic quality of AAU as it failed to attract and retain the requisite number of students in the institution. University authority while admitting the fact stated (October 2010) that efforts are being made to remove the shortfall.

1.11.3 Declaration of results

The declaration of results of under graduate courses for the academic years 2005-09 was delayed by six to seventeen months in the College of Veterinary Science at Khanapara. The results were declared in three to six phases for the same stream of Veterinary Science. AAU stated (June 2010) that the results were delayed due to non-completion of internship programme of concerned students. But, declaration of results is a time bound and one time affair which was not followed. The practice of declaration of results in different phases affected the prospect of the students in getting admission to PG courses of other reputed universities and also reflects on the inefficiency in the functioning of the university.

1.11.4 Awarding degrees

Generally degree certificates are required to be awarded to the students within one year. However, in the academic council meeting held in November 2009, members of the University Council opined that the convocation should be held at least once in every two years for awarding degrees to the eligible students. It was noticed that convocation for the 2,594 students who passed out during 2001-09, was held in June 2010 after a lapse of one to nine years of passing the final examination of UG courses. Thus, delay in awarding degrees violated the directives of the Academic Council of AAU. AAU stated (October 2010) that due to financial crisis the convocation was held after a gap of nine year instead of every year. The decision of the Academic Council for holding convocation at least once in two years was also due to financial problems.

1.11.5 Revaluation of answer scripts

Revaluation of answer scripts is done on the request of students who are not satisfied with the valuation of their answer scripts. Scrutiny disclosed that during 2004-09, 134 students of UG courses applied for revaluation of answer scripts, of which, marks

of 43 students (32 per cent) were increased by 0.5 to 25 per cent. This indicates that due care was not taken in valuation of answer scripts of the students, leading to extra burden of revaluation fees on the students @ ₹ 300 per answer script. The AAU admitted the fact (October 2010) and stated that the names of internal and external examiners were identified and remedial measures were taken.

1.11.6 Printing of information bulletin and admission forms

During 2006-09, AAU, without assessing the requirement, printed 9,500 information bulletins and 5,000 admission forms for admission of students. However, only 4,376 bulletins and 3,211 forms could be sold to the candidates seeking admission. Remaining 5,124 unsold bulletins and 1,789 forms lost their utility due to change in the format resulting in loss of ₹ 0.69 lakh.

1.11.7 Hostel facilities

As per ICAR norms adequate basic amenities such as water supply, sanitation, electricity etc are to be provided in the hostels. Although the Director Physical Plant is supposed to maintain and look after the hostels, the maintenance was not done properly as this was disclosed by an interview with the boarders (both girls and boys) of four⁵ out of nine hostels. During interview with 20 students it was revealed that basic facilities like regular water supply, electricity, sanitation, maintenance of hostels etc., were not adequate.



Boys' hostel No. 7 & 8 at Jorhat campus



Girls' hostel No. 11 & 12 at Jorhat campus



Toilets at boys' hostel No.7 & 8

⁵ Name of four hostels: Boys' hostel No. 7 and 8, Girls' hostel No. 11 and 12.

They also stated that they urgently required internet access with desktop computers in the hostels and generator for uninterrupted electric supply. In reply, AAU stated (October 2010) that AAU hostels are better than many similarly placed institutions. However, basic amenities like electricity, water supply, sanitation etc., were not adequate as stated by hostel inmates.

1.11.8 Functioning of placement cell

The university has a training and placement cell for student counseling and placement. The cell is to organize training programme for the students appearing in different examination and campus interviews for recruitment in private sector/corporate sector companies.

Audit scrutiny revealed that the University restricted the facilities of placement cell to Agriculture and Veterinary Science streams only. This facility was, however, not extended for two other streams viz., Fishery and Home Science. During 2005-10, 190 (16 per cent) out of 1170 passed out students got placement through the placement cell, of which 54 (28 per cent) got placement under public/private/Government units in the State. This indicates that the initiative of AAU for employment of the graduates through campus selection was not very encouraging. Thus, academically qualified human resources in the field of agriculture and allied science could not be utilized for agriculture related development activities in the State even after spending ₹ 1.83 lakh to ₹ 2.02 lakh per student per year. Thus, the expectation and aspiration of the students to obtain better employment opportunities after completion of education was not fulfilled to the desired extent. AAU stated (October 2010) that desired improvement of the Placement Cell was being done to cater to the needs of the students.

1.11.9 Functioning of Library

In Central Library, Jorhat, 1.17 to 1.27 lakh books were in stock in the beginning of each year during 2005-10. In addition 1,050 to 4,339 books costing ₹ 1.12 crore were purchased during the period. Issue of books to students and teachers ranged between 0.47 to 3.45 per cent of the available stock during 2005-10. Only 1,225 out of 6,869 books issued during 2005-10 were returned within the prescribed period. The rest 5,644 books were not returned. The details are in table below:

Table-5

Year	Purchased	Issue of books			Return of books			(In numbers)
		Students	Teachers	Total	Students	Teachers	Total	Total unreturned books
OB	1,17,112							
2005-06	1,050	1,670	2,405	4,075	150	300	450	3,625
2006-07	2,205	310	450	760	110	100	210	550
2007-08	2,546	370	400	770	105	--	105	665
2008-09	4,709	288	310	598	130	88	218	380
2009-10	4,339	316	350	666	140	102	242	424
Total	1,31,961	2,954	3,915	6,869	635	590	1,225	5,644

Source: University records.

From the table above it was evident that 3,325 (3,915-590) books with the faculty member and 2,319 (2,954-635) books with the students were not returned.



Central Library, Jorhat

Similarly, in Veterinary College, Khanapara, 761 books (2.86 *per cent*) of the available 26,650 books were issued, of which 458 (60 *per cent*) books were not returned by the faculty and students till March 2010. Only a small percentage of books were in circulation and out of those in circulation, 80 *per cent* books were not returned in time. Although provisions for imposing penalty @ ₹ one per day was made for non return of books by the students, no fines or penalty was collected as it is not incorporated in the internal receipt column of annual accounts. This indicates laxity in library administration of the University. No physical verification of books was ever conducted at AAU.

AAU stated (October 2010) that though a separate Asset register for library books had not been prepared, physical verification of books were carried out periodically through a duly constituted committee. Record showing physical verification of books or certificate to that effect, however, could not be shown to audit.

1.12 Research activities

The research projects were undertaken mainly for development of high yielding variety and hybrid seeds, horticulture, plant protection, improved cross breed animals and introduction of new technologies for improved practices in the field of agriculture and allied sciences.



Photograph of paddy and mustard projects

AAU, Jorhat took up research projects sponsored by ICAR, the State Government, the Government of India and other agencies.

1.12.1 Research Projects

The main aim and objectives of the research projects undertaken through funding from GOI/GOA were:

- to formulate research programmes on situation and crop specific areas;
- to generate technologies suitable for different locations;
- to develop suitable crop varieties with higher yield potential;
- to create database on technologies at national level and
- to find out effective control measures against certain diseases/pests.

During 2005-10, AAU was conducting 130 research projects, of which 56 projects were taken up between 1971 and 2005 and 74 new projects were taken up during 2005-10 as shown in the table below:

Table-6

Authority	Ongoing as on 1.4.2005	Taken up during 2005-10	Total	Completed during 2005-10	Terminated projects	Incomplete as on 31-03-10
ICAR (AICRP)	43	6	49	-	3	46
ICAR (Adhoc)	8	12	20	19	-	1
GOI	2	10	12	3	-	9
DST	Nil	7	7	2	-	5
DBT	1	17	18	9	-	9
State Govt.	Nil	5	5	1	3	1
Others	2	14	16	7	-	9
International	-	3	3	-	-	3
Total	56	74	130	41	6	83

Source: University records.

Forty one projects were completed but documentary evidence i.e. evaluation reports in respect of completed projects were not made available to audit though called for. AAU spent ₹ 5.94 crore on these 41 projects during 2005-10. Director, Research stated (June 2010) that the reports were submitted to the funding authorities, which were evaluated by them, but failed to submit any evaluation report, certificate or review report of funding agencies except for one research project taken up under Indo-Swiss collaboration in Biotechnology (ISCB) programme. The researchers developed the genetically modified chickpea lines in 2nd phase of ISCB programme started in 2004. Accordingly, an agreement on material transfer was signed in 2010 between AAU and Maharashtra Hybrid Seed Company (MAHYCO) for transferring chickpea lines having resistance against the most devastating pest pod borers. Subsequent development is awaited (October 2010). In respect of rest 40 completed projects, the ultimate outcome of transferring the technology from laboratory to land, whether achieved, could not be stated by AAU. Even the copy of the completed project reports

stated to be submitted to GOI could not be made available to audit. In reply AAU stated (October 2010) that the results of ICAR Adhoc completed projects (19 Nos.) were submitted to the funding agencies who had a system of either accepting or returning the reports for further study. In case of acceptance of the report by ICAR, a letter indicating the acceptance was generally sent to AAU. One such acceptance letter was enclosed but it was subject to some condition including furnishing of achievement report which were not enclosed with the letter. Similarly AAU furnished a book containing the package of practices of horticultural crops as proof of outcome of completed research projects is also not acceptable as it relates to earlier period. During 2005-06 no adhoc research project was completed.

- Of the six⁶ terminated projects (3 AICRP+3 State sponsored), AAU had shown three state projects as completed and the three AICRP projects were shown under ongoing projects. Audit scrutiny, however, revealed that all the six projects were terminated before completion, due to retirement of scientists and shortage of funds. Expenditure incurred before termination of the three AICRP projects amounted to ₹ 1.06 crore. Expenditure on the remaining three state projects was neither stated nor could be ascertained from records due to absence of systematic documentation. Thus, the objectives of the projects were not achieved and the expenditure incurred stands unfruitful. AAU stated in reply (October 2010) that no project was terminated without completion which was actually not correct because the documentary evidence furnished at the time of audit showed that the research work had stopped.
- Out of 83 ongoing projects, 43 projects taken up prior to 2005-06 remained incomplete as of March 2010 against which an expenditure of ₹ 50.49 crore was incurred (during 2005-10). Out of 43 incomplete projects, 24 projects were on for more than five to 30 years as of March 2010. AAU failed to furnish the date of commencement for remaining 19 incomplete projects. In none of the incomplete research projects, periodical interim reports of progress of the projects could be made available to audit. It is thus inferred from the above fact that not only there was absence of documentation but the University neither fixed any time schedule for completion of each project nor took any step for their timely completion so as to derive the desired result. The university authority further stated that the AICRP projects were long term project without having any target date of completion and allocation of fund was done annually to continue the projects. The reply of the university is not tenable as the projects could not be continued for indefinite period without evaluating mid term outcome. While admitting the fact AAU stated (October 2010) that the programmes are continued with the approval of GOI with modification and reframing from time to time. In the absence of any evaluation/modification papers, the authenticity of the reply was not ascertainable.

⁶ Management of sugarcane top borer, AICRP on pesticide residue, Survey and surveillance of major insect pests of sugarcane at SRS Buralikson and surrounding areas, Field efficiency of some insecticides against border and wooly aphid infestation in sugarcane crop, Population dynamics of wooly aphid infestation sugarcane netting, Influence of sett treatment with chemicals on tillering ability and cane yield.

1.12.2 Development and production of hybrid seeds/high yielding variety seeds

All India Coordinated Research Projects (AICRP) were taken up for 12 crops to develop Hybrid/High Yielding Variety(HYV) seeds of suitable crop varieties with higher yield potential and resistant/tolerant to biotic and abiotic stresses during 1971-2008. AAU spent ₹ 11.79 crore against the projects during 2005-09. Researchers, however, failed to develop any hybrid seeds on these crops as of March 2010. AAU stated (May 2010) that the hybrid seeds could not be developed due to financial problems, which was factually incorrect as AAU spent substantial amount during 2005-09 as mentioned above. Subsequently, AAU stated (October 2010) that development of hybrid seed was not assigned to AAU through any AICRP.

The University, however, did develop High Yielding Varieties (HYV) seeds of four crops (Rice, Jute, Rapeseed/Mustard and Sugarcane) during last 39 years. No HYV seed for remaining eight⁷ crops could be developed so far.

- Breeder HYV seeds were to be used in AAU farm to propagate foundation/certified seeds to farmers. Production of breeder seeds during 2005-10 is given in **Appendix-1.5**. AAU failed to produce breeder seeds of major crops like rice and wheat although three high yielding varieties (Swarnabh, Dinanath, NBR 1) of rice were stated to have been developed during 2008-10. Out of 15 high yielding varieties of pulses and oil seeds developed, five varieties were not produced during 2005-10. Out of the remaining 10 varieties three varieties were produced for four years, one for three years, four for two years, and two varieties were produced for one year. Annual quantity of breeder seeds of pulses produced during 2005-10 ranged between 0.76 and 3.01 quintals and that of oil seeds ranged between 0.45 and 7.45 quintals. Thus, adequate breeder seeds were not produced for onward production of foundation seeds. In reply, AAU stated (October 2010) that breeder seeds are produced as per indent received from Government. The fact, however, remained that the production of breeder seeds was very low.

- AAU fixed the area of seed cultivation of different varieties according to the demand but did not fix any target for production of foundation/certified seed of HYV from breeder seeds by AAU farms. Average annual production of foundation seed of rice was 7,658 Kg, which could cover only 170 hectare cultivable land (0.006 *per cent*) of rice against 24.84 lakh hectare in the State. Like-wise total production of HYV oil seeds (rapeseed and mustard) were only 0.25 *per cent* (625.5 hectare out of 2.47 lakh hectare) in the State after incurring an expenditure of ₹ 5.19 crore⁸ during 2005-09 on seed production under mega seed projects. The farmers were compelled to procure seeds from other source. Thus, the meager quantity of production of breeder and

⁷ Wheat, chickpea, citrus, potato, linseed, maize, vegetables and tuber crops.

⁸ ₹ 4.36 crore in 2006-07, ₹ 0.11 crore in 2007-08, ₹ 0.72 crore in 2008-09.

foundation seeds had negligible impact on the production of relevant crops in the State as revealed from per hectare productivity of two crops detailed below:

Table – 7

(In kg per hectare)

Name of crop	2004-05	2005-06	2006-07	2007-08	2008-09
Rice	1,475	1,487	1,349	1,428	1,638
Oil seeds	536	472	497	524	574

Source: Statistical hand book of 2009 (2009-10 figures not available)

It could be seen from above that the efforts of AAU had not resulted in enhanced productivity.

Thus, AAU could not provide adequate technological support to the farmers of the State for increasing productivity of crops.

1.12.3 Research project on Dry Land Agriculture

All India Coordinated Research Project (AICRP) on Dry Land Agriculture was taken up during 2004-05 to develop suitable crop varieties with higher yield potential in crop specific areas to cater to the needs of farming community by generating technologies suitable for dry land farming. AAU received ₹ 1.32 crore from ICAR towards its 75 per cent share till March 2010. The State Government did not release its share of 25 per cent. The project continued till January 2010 in AAU headquarters but it was transferred (February 2010) to B N College of Agriculture, Biswanath Chariali, another constituent of AAU because of some performance oriented problems. The concerned scientist who continued the research activities for a long period was, however, not transferred (June 2010). The evaluation/assessment report, physical verification report were not made available to audit. Thus, the outcome of the research project remained un-assessed in audit. The University authority stated (June 2010) that the project was at initial stage. The reply is not tenable as the project was started in 2004-05 and during these five years there should have been some periodical interim progress reports.

1.12.4 Research on Maize

In 2002-03, AAU undertook a research project on maize under AICRP to generate technologies suitable for different locations for enhancing crop production. Till March 2010, an amount of ₹ 1.14 crore had been spent. But AAU had not developed/tested any new seed/technology through this research activity for increasing the crop yield. Besides, area of cultivation and maize production during 2002-09 in the State was on a decreasing trend.

In reply, AAU stated (October 2010) that maize is not an important crop for the state and AAU implemented the programme as per the technical guidelines of ICAR. But without any tangible results, the achievements remained unassessable in audit.

1.12.5 Research on Soybean

All India Coordinated Research Project on Soybean was undertaken since 2001-02 to develop suitable crop varieties with higher yield potential. AAU spent ₹ 1.13 crore till March 2010 out of total allocation of ₹ 1.22 crore. No improved variety or technology or impact assessment of research was on record. Test-check of the records of selected KVKs and interview with the farmers revealed that extension activities such as training, demonstration and distribution of seeds etc., on soybean cultivation were not done. Farmers are not even practicing soybean cultivation. Thus, the objectives of formulating research programme on situation and crop specific areas to cater to the needs of farming community under AICRP were not need based and led to fruitless expenditure of ₹ 1.13 crore on research activity.

While admitting (October 2010) non cultivation of soybean by the farmers in Assam AAU stated that this was mainly due to absence of processing facility of soybean in the State.

1.12.6 Research on livestock and poultry

The main objectives of the project were production of improved variety of livestock and poultry, marketing of animals and animal products, diagnosis surveillance and monitoring of diseases of livestock. AAU has been conducting 10 research projects, and eight adhoc research projects on livestock funded by ICAR since 1973 for development of livestock in the State. AAU spent ₹ 15.87crore⁹ on these projects. Against 18 projects, seven adhoc projects were completed and 11 projects were ongoing as of March 2010. Completion reports of seven projects, though submitted to funding agency, were not followed up by any action. As a result, the research projects failed to achieve their objectives. Thus, AAU failed to devise any improved methodology and development support for improvement of livestock sector. The per capita per day availability of milk in the State was 77 ml (69 grams) against requirement of 232 ml (208 grams) recommended by Indian Council of Medical Research (ICMR). Egg production decreased to 466 million in 2008-09 against 522 million in 2004-05. Meat production increased marginally to 30.70 tonne in 2008-09 against 24.07 tonne in 2004-05. Thus, the State Government was deprived of institutional support for livestock and poultry development. The breeding percentage of cattle and pig were 10 and five respectively. Further, deficiency in fodder production in the State was 35.29 *per cent* of the requirement (2009). Admitting the audit observation AAU stated (October 2010) that the University was not solely responsible for the low productivity.

1.12.7 Research on Fishery

Prior to 2005-06, AAU undertook 37 research projects funded by the State Government, ICAR and World Bank all of which were completed before 2005-06.

⁹ ₹ 13.94 crore in 10 AICRP and ₹ 1.93 crore in eight ICAR ad-hoc projects.

During 2005-09, only one research project was taken up for the purpose which was not completed as of March 2010 after incurring expenditure of ₹ 38.30 lakh. By conducting research, cross breed variety of fish seeds were to be developed and improved technologies and practices were to be evolved for scientific fish cultivation. Only five *per cent* of the water bodies were brought under scientific fish cultivation making little impact in enhancing fish production and consequently the State had to meet around 60 *per cent* of requirement from out side the State as per statistical reports. In reply, AAU stated (October 2010) that instead of one taken up project there were five on-going projects during 2005-09 but the comprehensive report on research on live stock (2001-09) published by the Director of Research, Khanapara, shows only one ongoing project.

1.12.8 National Agricultural Technology Project (NATP)

AAU undertook 75 sub-projects under NATP to revitalize agricultural generation, improve the quality and type of technology disseminated through location specific technology developed and increase financial sustainability of the system. All the sub-projects were stated to be completed during 1999-2005 after spending ₹ 12.06 crore out of ₹ 13.36 crore received from the GOI/ICAR. Out of the unspent balance of ₹ 1.30 crore, AAU refunded ₹ 1.09 crore to the funding authorities leaving net unspent balance of ₹ 21 lakh. AAU however, stated (October 2010) that the unspent balance of ₹ 21 lakh would be refunded to the funding agency shortly.

Although all sub-projects were stated to be completed during 1999-2005 but completion reports were not on record. Further, no documentary evidence was furnished either to substantiate dissemination of the outcomes in the form of technology or agricultural practices amongst the farmers or any assessment of accrual of intended benefits to the farmers.

Test-check of the records of selected Krishi Vigyan Kendras (KVK) also revealed that the farmers did not receive any benefits of developed technologies and practices as mentioned above. Thus, the objectives of the projects could not be achieved.

1.12.9 Utilization of research resources

During 2005-09, 43 machines and equipment worth ₹ 78.73 lakh were procured under different research projects. Out of this, 29 machines worth ₹ 65.87 lakh were issued to the respective branches but could not be made operational due to non-handing over of food processing buildings and not providing power connections. The remaining 14 machines and equipment procured at ₹ 12.86 lakh under mega seed project and user centre schemes were, however, not issued to the concerned laboratories and kept in central store without any valid reason (June 2010). Meanwhile the warranty period of the equipments expired.



Un-installed machines

Similarly, during 2006-07, 24 machines and equipment worth ₹ 34.64 lakh procured for agricultural engineering branch, although installed, remained idle due to absence of power connection to the units and non-commencement of regular courses. Thus, machines valued at ₹ 1.13 crore were procured much earlier than actual requirement or without requirement. Hence, research resources could not be put to intended use leading to locking up of funds of ₹ 1.13 crore (June 2010). Besides, deterioration of the equipments for prolonged non-use also cannot be ruled out. Although in reply, AAU stated (October 2010) that the machineries are now being used for the intended purposes on completion of creation of infrastructure, the matter remained to be verified in the absence of completion certificate of infrastructure and installation reports.

1.12.10 Regional Agricultural Research Station (RARS)

AAU works with 12 RARS for monitoring and developing research activities in agriculture, veterinary and fishery sectors and also to undertake extension activities in the field. Audit scrutiny of four selected RARS revealed the following:

1.12.10.1 Livestock Research Station (LRS), Mandira

The Livestock Research Station, Mandira was established in 1981. AAU spent ₹ 2.74 crore towards salaries of 56 employees including six scientists and contingencies during 2005-2009. However, no research activity was going on or taken up during the period.



Dilapidated condition of live stock shed and building

Infrastructure in the station such as live stock sheds and other utility sheds created prior to 2005-10 were in dilapidated condition due to non-use and improper maintenance. 4,644 (69 *per cent*) out of 6,770 bighas of land available with the LRS were put to use for agriculture, horticulture and vegetable farming wherefrom revenue of ₹ 32.94 lakh was realized. Only a few cattle, buffalos and pigs remained in the LRS.



Land encroached by the outsiders

Out of the remaining lands, 2,000 bighas of land was encroached by outsiders leading to loss of additional revenue of at least ₹ 14.19 lakh¹⁰ through farming. The encroachers had not been removed (August 2010) despite the matter being taken up with district administration. The Chief Scientist in his annual report for 2008-09 remarked that the high lands were not contiguous and low lying areas remained under deep water affecting the animals and vegetation. Almost all the available lands are regularly inundated from May to October every year. Thus, in the absence of any research activity, the research station did not serve the intended purpose and ₹ 2.74 crore spent towards salaries of staff during 2005-09 proved to be idle investment.

1.12.10.2 Horticultural Research Station, Kahikuchi

The State Government established the research station in 1950 to conduct research on coconut and it was transferred to the University during 1973.

¹⁰ ₹ 32.94 lakh/4644X2000= ₹ 14.19 lakh.



Horticulture Research Station, Kahikuchi.

The main function of the Research Station is to identify various problems of horticultural crops, fruits, vegetables, spices and flowers and their solutions through technology development and commercialization of horticulture. Three ICAR projects viz., All India Coordinated Research Projects (AICRP) on Palm, Floriculture and Agro forestry were being conducted during 2005-10.

Under AICRP on palm, the objective was to develop coconut cultivation. The unit spent ₹ 58.83 lakh and succeeded in developing a new variety “Kahikuchi Coconut hybrid 1” but failed to develop the remedial measures against prevailing diseases of coconut plants, coconut based integrated farming system, development of full fledged seed garden for hybrid varieties of coconut etc.

Under Agro forestry, AAU took up 11 AICR projects¹¹ (10 projects in 2000-2004, one project in 2007-08). During 2005-10 the expenditure incurred on these projects amounted to ₹ 1.51 crore. None of the projects were completed. Periodical review reports, progress reports etc., were not furnished though called for. The status report as on March 2010 disclosed generation of small quantities of HYV seeds of turmeric, paddy, mustard, sesamum, neem and tectona. Except tectona seed, none of the generated seeds had any connection with the research projects undertaken under Agro forestry casting doubt about the outcome of the projects.

During 2005-10, the HRS Kahikuchi spent ₹ 97.48 lakh on AICRP (floriculture) to develop seed, sapling, seedlings, plant protection and production of flowers and orchids to meet the increasing demand in the region. But the station failed to develop any high yielding variety seeds/saplings and also could not be extended to the farmers negating the objectives. Besides, 50 *per cent* of the posts (26) of scientists remained vacant in the station.

Thus, except development of a hybrid variety of coconut plant, the research station had contributed very little. In reply, AAU stated that disease management is done constantly on palm. The reply is not acceptable as these were not duly supported by any document/report etc.

¹¹ 1. Acacia mangium based agro forestry Phase-I, 2. Acacia mangium based agro forestry Phase-II, 3. Bamboo based agro forestry system (adhoc), 4. Block plantation of tectona grandis, 5. Coconut based horti-agri pastoral system, 6. Development of bari, 7. Different species of bamboo plantation, 8. Gmelina arborca based agro forestry system, 9. Jack fruit based agro forestry system, 10. Nursery and 11. Studies in mulibamboo.

1.12.10.3 Regional Agricultural Research Station (RARS), Titabor

The research station established by the State Government was transferred to the University during 1969-70. The main functions are to generate package of practices of rice cultivation through interdisciplinary research and disseminate them; to increase rice productivity and sustainability by undertaking applied, basic, location specific need based research of rice ecosystem; to collect, conserve, evaluate and utilize the genetic resources for rice improvement and to produce quality seeds of promising rice varieties. During 2005-10, 26 High Yielding Variety (HYV) seeds developed by the RARS were nominated for different all India level trials and 64 varieties were nominated for evaluation in Eastern India under rain fed low land shuttle breeding programme. The acceptance and recommendations of these varieties by the farmers out side the State are not on record. However, 10 varieties were recommended/notified for commercial seed production in the State. The station produced 3,93,713 Kg seeds valued at ₹ 56.43 lakh during 2005-10. Of this, 3,69,019 Kg could be sold to farmers at ₹ 52.73 lakh retaining balance 24,694 Kg in hand. Non-acceptance of seeds to the full extent by the farmers reflects less demand of the variety of seeds produced at the University after incurring an expenditure of ₹ 6.99 crore during 2005-10. Audit scrutiny revealed that there were no significant increases in productivity after use of this variety seeds. In reply, AAU stated (October 2010) that the remaining quantity of rice seed was not lifted by the indenter. The reply is not tenable as the same could have been sold to other farmers if there was sufficient demand of the seeds.

1.12.10.4 Goat Research Station (GRS), Burnihat

The GRS was established at Burnihat in 1971 as AAU centre for the AICRP on goat. The primary mandate of the station is to conduct research for improvement and management of goat. The centre took up 34 projects during 1971-2004 of which 28 projects were completed prior to 2005-06 and six projects were not completed till the date of audit (August 2010). During 2009-10, one project funded by ICAR was taken up.



Goat Research Station, Burnihat

The unit claimed to have developed a new species of cross breed goat from Assam local and Beetal/Barbari (Punjabi variety). But, no new name of the species has been allotted by National Bureau of Animal Genetic Resources as required. Hence, development of new species had no recognition of the concerned authority.



Photograph of local and beetal variety goat



The unit produced 291 goat-kids during 2005-10 from their developed cross breed species. But overall mortality rate during the period was 35 per cent. Only 164 goats could be sold at ₹ 2.50 lakh. The details are given below:



Photograph of cross breed goat

Table – 8

Year	Name of variety	Opening balance	New born	Total	Mortality (percentage)	Culled (percentage)	Sale	Closing balance
2005-06	Cross breed	37	28	65	07 (11)	06 (9)	8	44
2006-07		44	112	156	40 (26)	01 (1)	70	45
2007-08		45	75	120	21 (17)	04 (3)	21	74
2008-09		74	42	116	32 (27)	02 (2)	64	18
2009-10		18	34	52	15 (29)	17 (33)	01	19
Total		--	291	--	115 (35)	30 (9)	164	--

Source: University records.

In accordance with the AICRP norm for goat improvement, each GRS should maintain a balance of 600 goats at all time and there should be facilities for preservation and distribution of frozen semen. The GRS failed on both counts.

AAU failed to establish well equipped laboratory at the centre for processing and preservation of frozen semen. The centre had not adopted any approved technology for boosting production of goats in the State and hence Centre's support to the farmers was insignificant due to poor performance and GRS failed to achieve its mandate despite incurring an expenditure of ₹ 1.79 crore during 2005-10.



Unequipped laboratory at Goat Research Station

1.13 Extension activities

Extension activities are meant to transfer modern technologies and HYV seeds from laboratory to land for their adoption by farmers to improve productivity and profits in agriculture and allied sectors. Need based training programmes for officials, extension functionaries of the Government and other organizations and farmers were to be organized by the Director of Extension Education (DEE) with the help of Krishi Vigyan Kendras (KVK). There are 19 KVKs under the administrative control of AAU. KVKs were to conduct Indian Council for Agriculture Research (ICAR) sponsored extension programmes on farm testing, training to the extension personnel regarding advances in agriculture research, vocational training courses for farmers and Front Line Demonstrations (FLDs).

1.13.1 Target and achievement

- Targets for programmes approved by ICAR and achievement thereagainst in 11 out of 19 KVKs are given in **Appendix-1.6**. The shortfall in achievements of target ranged between eight and 96 *per cent* in training of extension functionaries and farmers. Ten out of 11 KVKs failed to set any target for training of NGOs. KVK Karimganj set the target for training of only six NGOs and the target was achieved.
- Extension Service in Fishery was negligible. During 2005-07 no training programme was conducted by the KVKs. Despite spending an amount of ₹ 31.96 lakh during 2007-10, there was 14 *per cent* short fall in achievement of training programmes (**Appendix-1.7**).
- The Extension Education Institute (EEI) under the administrative control of AAU was set up for catering to the training needs of the middle level extension personnel of Agriculture and line departments of the State government, ICAR training centers and NGOs of North Eastern states. The institute failed to impart on-campus trainings as per set target. The shortfall ranged between 29 to 40 *per cent* as detailed in table -9.

Table – 9

Year	No. of programmes/ training courses	Beneficiaries targeted to be trained	Beneficiaries trained	Shortfall	Shortfall in percentage
2005-06	9	315	190	125	39.68
2006-07	11	330	235	95	28.79
2007-08	12	270	193	77	28.52
2008-09	13	390	273	117	30.00
Total	45	1,305	891	414	

(Information for 2009-10 was not furnished)

Source: University records.

Thus, the KVKs and the EEI failed to achieve their targets of imparting training to the farmers, extension functionaries, NGOs and middle level functionaries resulting denial of intended training facilities and guidance to the farmers by the trained up officials to the targeted extent. While admitting the fact AAU stated (October 2010) that the target could not be achieved due to lack of man power, non-turning up of farmers/trainees, sudden bandh call and inaccessibility of Jorhat town. The reply is not acceptable as alternate arrangement and mobilization of farmers could have been made by the KVKs. Moreover, Jorhat is linked through road, rail and air services.

1.13.2 Training of farmers

Training to ineligible groups

During 2005-10, 82,343 farmers were trained by the 19 KVKs under 3,171 training programmes/courses. The details are enclosed in **Appendix-1.8**. Test-check of the records of KVKs Bongaigaon, Dhubri and Gossaigaon revealed that there was no formal system of organizing training programmes. There were no records to show as to how the venue, timings, the dates, the topics of the programmes, selection of farmers and number of persons to attend the trainings were intimated. Thus, the data was unreliable as evident from two instances indicated below:

- KVK, Barpeta organized training programme for imparting training to 25 farmers on “Inclusion of pulses in the existing cropping system” but the trainees who attended the programme were all Government officials.
- Similarly on another occasion training programme in KVK, Barpeta meant for 25 Government officials on “Revitalization and strengthening of existing Self Help Groups” were attended by 25 farmers.

Further, KVKs did not adopt any feed back mechanism to assess the impact of training imparted at an expense of ₹ 59.68 lakh during 2005-10 without any reason on record. Although in the reply furnished (October 2010) AAU stated that there was an organized system of conducting training in KVKs and the proposals prepared contained details like venue, month, topic resource persons and list of participating

farmers, no such formal system could be found during test-check of the selected KVKs.

1.13.3 Procurement and disposal of machinery and equipments of KVK

DEE placed (March 2009) 23 supply orders to six firms for supply of 91 equipment and machinery at ₹ 60.73 lakh required for extension activities. The items were to be supplied within 10 days from the date of issue of supply orders and payments were to be released on submission of bills. But in none of the cases, the suppliers supplied the items as of March 2010. KVKs did not take any measure for procuring the items. Thus, in spite of having funds adequate infrastructural facilities were not provided for want of pursuance on the part of the authorities which adversely affected the maintenance, production etc of the KVK firms.

Equipment and machineries worth ₹ 35.73 lakh were declared unserviceable by the Director Extension Education (DEE) without conducting physical verification. No step was taken for disposal of the machineries through auction (September 2010). The details are shown in *Appendix-1.9*. Although AAU stated (October 2010) that most of the equipments were received, information furnished by KVKs showed that those were not received.

1.13.4 Soil testing laboratories

Soil testing is mandatory for management decisions about fertilizer requirements. It involves the estimation and evaluation of the available nutrient status and acidic reaction of a sample of soil and determination of nutritional requirement of an area. Three¹² out of five¹³ test-checked KVKs had no soil testing laboratories. As such fertilizer requirement in the KVKs was not assessed although an amount of ₹ 5.96 lakh was spent in one KVK for farming and demonstration on improved production technology of varieties of crops using fertilizers/pesticides during 2005-10. While admitting the fact, AAU stated (October 2010) that efforts were being taken to establish the Soil Testing Laboratory.

1.13.5 Disposal of paddy seeds

During 2005-10, 627.91 out of 772.05 quintals of certified paddy seeds produced could not be sold in time by KVK, Arunachal (Cachar) due to less demand. As a result, the paddy seeds had to be sold as consumption paddy resulting in loss to the tune of ₹ 5.38 lakh being the differential amount between selling price of seed and consumption paddy. The details are shown in table-10.

¹² KVK Bongaigaon, Dhubri, Dibrugarh

¹³ KVK, Bongaigaon, Cachar, Dhubri, Dibrugarh, Kokrajhar.

Table – 10

Year	Seed produced (in qtl)	Seed sold (in qtl)	Rate (₹ per qtl)	Quantity sold as consumption paddy (in qtl)	Rate (₹ per qtl)	Loss per qtl (in ₹)	Total loss (5x7) (₹ in lakh)
1	2	3	4	5	6	7	8
2005-06	166.40	31.71	1,365	134.69	576	789	1.06
2006-07	174.855	12.645	1,363	162.21	574	789	1.28
2007-08	185.21	61.78	1,286	123.43	646	640	0.79
2008-09	76.105	22.545	1,832	53.56	856	976	0.52
2009-10	169.48	15.46	2,022	154.02	900	1,122	1.73
Total	772.05	144.14		627.91			5.38

Source: University records.

The above position indicates that there was less demand of the certified seeds produced in the KVKs. In reply, AAU stated that the loss was due to non-lifting of seed by the State Government which is not tenable as the seeds could have been sold to farmers if there was demand for seeds.

1.13.6 Interview with the farmers

Interviewing 50 farmers (10 from each KVK) under five selected KVKs disclosed that 20 to 100 *per cent* of interviewed farmers did not purchase HYV paddy seeds from KVK. In the case of Cachar, although all the interviewed farmers purchased HYV seeds, it was restricted only for two years (2008 and 2009). Further, farmers stated that they required more quality seeds, tools and implements, modern technology etc., which were, however, not provided. Rice being the most vital and major crop of the State, KVKs should have given adequate emphasis on extension activities of rice cultivation. In the absence of any centralized policy decision and directives on planning (both perspective and annual) for extension activities to be undertaken by the KVKs, the required emphasis on this vital crop was lacking. On the contrary, annual plans are being prepared by each KVK without collecting feed back from farmers after conducting survey. While admitting (October 2010) the fact, AAU stated that emphasis had been given on HYV paddy seed production.

The objective of transfer of modern technologies and HYV seeds from laboratory to land through different extension activities remained unachieved due to non-imparting requisite training to the extension personnel and farmers, inadequate infrastructure and lack of initiative for improvement of extension activities. KVKs did not prepare annual plans after collecting feedback from farmers and extension officials. Therefore the expectation and aspirations of the farmers remained unattended through extension activities and training programmes.

In reply AAU stated (October 2010) that as the vehicles were not registered at the time of audit these were not used and hence log book were not maintained. The reply is not acceptable as the pictures above taken at the time of audit show that two of the vehicles had already been registered.

Administration

1.14 Management of civil construction works

- Construction of a 'Scientist Home' for housing visiting scientists and faculties sanctioned at ₹ 70.43 lakh under state plan was started in 1989 but the work was suspended in 1991 after spending ₹ 21.22 lakh due to fund crunch. For completion of the balance work, the nomenclature of the work was changed and ICAR approved (January 1995) construction of two hostels (Teachers' and Farmers' hostel) at ₹ 62.83 lakh (ICAR share: ₹ 24.58 lakh and State share: ₹ 38.25 lakh), of which expenditure incurred (August 2010) was ₹ 58.67 lakh. Neither the completion report of the building nor handing over report was available on record. Though the building was inaugurated in December 1997, the building could not be put to use for reasons not on record. Joint physical verification by the audit team and Executive Engineer, DPP, Jorhat in June 2010 revealed that the building was in a dilapidated condition having no electricity, water supply and sanitation facilities. For renovation of the building, the Vice Chancellor sanctioned (May 2010) ₹ 71.36 lakh. Thus, due to lack of initiative and administrative purposefulness, the buildings could not be completed and put to use even after more than 20 years of starting the construction and after spending ₹ 58.67 lakh.



Photographs of Scientist Home

- DPP took up 10 repair works¹⁴ estimated at ₹ 80.88 lakh during 2005-06. Work orders were issued during October to December 2006 for completion within two to three months from the issue of work order. The works remained incomplete after spending ₹ 70.30 lakh (80 per cent) without any reason on record (March 2010).

¹⁴ 1. Auditorium building Hostel No.6, 2. Dean FA, 3. Home Sc. Bldg, 4. Horticulture Plant Breeding, 5. Hostel No. 11 & 12, 6. Hostel No.7 & 8, 7. Hostel No. 11 & 12, 8. IDA Hall, 9 Medical unit and 10. Statistic and Metrology.

- Another 5 works¹⁵ estimated to cost ₹ 27.54 lakh were taken up by DPP during 2005-06 for execution. But, work orders, technical sanction, date of completion and completion reports were not made available to audit even though expenditure of ₹ 20.45 lakh was incurred till March 2010.
- Construction of boundary wall of Khanapara Campus of the University administratively approved by the Vice Chancellor, AAU in March 2009 for ₹ one crore was awarded in July 2009 to four contractors for construction of stone masonry wall for completion during the year. DPP, Khanapara spent ₹ 30.80 lakh till March 2010 but the work remained incomplete after a lapse of one year. Audit scrutiny revealed defective execution of works by three contractors. One contractor constructed 24 running meter wall above the ground level without executing base work, another contractor executed underground rubble masonry work without doing CC work. Again, another contractor executed stone masonry work of 143.80 metre without executing plain cement concrete work. These indicate lack of administrative supervision of works leading not only to delay in completion of work but substandard work also.
- For setting up of an Institute of Biotechnology in AAU, the Government of Assam provided funds of ₹ five crore during 2006-08. AAU took up civil works of the institute and completed only 78 *per cent* works as of June 2010. AAU, however, procured laboratory equipments and furniture worth ₹ 3.48 crore during 2007-08 before completion of civil work of the institute,. As a result, the equipment and furniture could not be installed and put to use leading to idle investment of ₹ 3.48 crore. This indicates absence of proper administrative policy for prudent utilization of funds and execution of work.

The above instances indicate a pattern in AAU in respect of civil works. A lot of works were undertaken during 2005-10. After spending 70 to 80 *per cent* of the funds, the works were stopped by the contractors and the works remained incomplete. In the absence of systematic records, it could not be ascertained whether physical progress was commensurate with the financial progress. Lack of supervision led to substandard work. Rescinding the works and awarding the works to other contractors at the risk and cost of the first contractor was not done.

Thus, administrative lapses led to accumulation of a number of incomplete works in the form of non-performing assets. The AAU authority had also admitted (October 2010) the facts.

1.15 Internal audit wing

In the University, there exists an internal audit wing with six sanctioned staff (Assistant Comptroller of Audit – 1, Audit Officer – 1, Deputy Audit Officer – 4) as

¹⁵ 1. AAU guest house, 2. Manhole cover, 3. Procurement of pump, 4. Repairing/renovation of Auditorium building, 5. Repairing of pump.

on 31 March 2010. But the wing neither prepared any audit plan nor submitted any report of internal audit to the authorities concerned. As seen in the selected KVKs, no internal audit was ever conducted though the University spent ₹ 69.16 lakh during 2005-10 towards payment of salary for the staff maintained in the wing. Thus, the desired objective of strengthening the internal control system through periodical audit had not been achieved. Admitting the weakness of the internal audit system, AAU stated that this was mainly due to inadequate manpower and efforts were being taken to strengthen the wing.

1.16 Asset register

AAU neither prepared an asset register nor conducted physical verification of the assets created under various schemes. As such, AAU was unaware of its assets and possibility of loss of assets might have gone unnoticed. Besides, in the absence of asset register or inventory of assets, periodical maintenance/repair/upkeep of the assets were also not done in an organized and methodical way. Thus, deterioration of assets due to non-maintenance can not be ruled out. Physical verification of stores and stock was not conducted by AAU. In reply AAU stated (October 2010) that a Chartered Accountant was engaged to prepare balance sheet as well as Asset register.

1.17 Information technology system

The State Government sanctioned (March 2006) grants in aid of ₹ one crore to AAU for strengthening of facilities for computer and laboratories (Automation system). Audit scrutiny of the records disclosed that AAU placed a supply order (March 2007) to M/s HCL for supply and installation of Hardware and Software at ₹ 85.60 lakh without any agreement. Despite incurring an expenditure of ₹ one crore, the hardware and software were not installed (June 2010) and the automation system could not be made functional. The purpose of interlinking of different units of the university through network could not be achieved.

1.18 Man power management

1.18.1 Maintenance of staff

- Sanctioned strength of staff of various units under the University and men in position as on September 2008 are given in *Appendix-1.10*. The position as on March 2010 was neither on record nor stated. It was seen that there were 22 to 52 *per cent* shortage of staff against teachers, scientists and other categories of administrative staff. The shortage of scientists and supporting staff affected the achievement of the mandate of the University.
- There is no internal training cell for imparting training to upgrade the skills of officials.

- Staff requirements are not reviewed from time to time keeping in view the changes in entity's functions and other relevant factors as there is no standing review committee. Although the Government constituted a functional study committee, follow up action on the report of the committee was not taken till date (October 2010).
- AAU failed to prepare any office manual describing the duties and responsibilities of various posts. Only a job chart for establishment and accounts branch is on record.

1.18.2 Idle manpower

- The State Government established a second veterinary college named as "Lakhimpur College of Veterinary Science" in April 1987 for teaching, research and extension in education in the field of veterinary sciences with an intake capacity of 20 students. The college functioned till 2004-05. The staff strength as on 31 March 2005 was 169 including both faculty and administrative staff. In April 2005, Veterinary Council of India derecognized the institute for not having adequate infrastructure and requisite facilities in the institute. Accordingly, the University stopped the admission of students from 2005-06 onwards. The existing students were shifted to the college of Veterinary Science, Khanapara and 79 out of 169 staff members were transferred to other institutes retaining 90 staff in the closed institute without any work. For payment of salary and other contingencies, the University spent ₹ 6.26 crore during 2005-10 which proved to be wasteful.
- Under the Kahikuchi Research Station, there is a sub station namely Coconut Research Station, Kharua which remained defunct since October 2001 to date (May 2010) due to insurgency problem as stated. No research activities were undertaken during 2005-10. The University spent ₹ 75.22 lakh on payment of salaries of 14 staff members during the period. AAU also spent ₹ 70 lakh towards contingencies and civil works during 2009-10 under Rastriya Krishi Vikash Yojana. But the farm could not be made functional till March 2010. Thus, the University incurred fruitless/wasteful expenditure of ₹ 1.45 crore on defunct research station.

1.19 Utilisation of internal receipts

AAU Act 1968 does not provide any clause for dealing with internal receipts/income of the University. During 2005-09, AAU spent internal receipt of ₹ 7.61 crore out of its collection of ₹ 10.26 crore towards repair works, purchase of vehicle and recoupment of deficit grant of the State without having any policy/rule regarding utilization of internal receipts.

1.20 Maintenance of vehicles

AAU purchases vehicles out of grants received from the State Government and ICAR under different projects/schemes. All the vehicles were allotted to officers/teachers/scientists. AAU, however, did not maintain centralized stock book of

vehicles. History sheet, Log books etc., showing the details of expenditure, kilometer run by each vehicle were not produced to audit.

AAU purchased an Ambassador car at a cost of ₹ 4.74 lakh during 2006-07 for the VC without approval of the Government as required. Further, there were 21 off road vehicles lying with the AAU. The university did not initiate any action for disposal of these vehicles.

Thus, in the absence of stock book and proper monitoring of the vehicles, their misuse and even non-accountal could not be ruled out.

1.21 Miscellaneous irregularities

- There is no EPABX system, water treatment plant, centralized generator service and strong security arrangement in the AAU campus to carry out the uninterrupted research works, academic activities, security of AAU campus and girls' hostels.
- Forest Royalty was not deducted from the contractors' bills in absence of valid permit from the Forest department.
- Grants of ₹ 17.46 crore received under pension benefits from the State Government during 2005-10 were deposited to general fund account as the AAU failed to operate separate pension fund account despite approval of the Board of Management for creation of a separate fund for streamlining payment to the pensioners.

There were inherent weaknesses in manpower management, lack of control in execution of civil works, absence of inventory of assets created and an absence of any policy for utilisation of internal receipts. Besides, the internal audit wing of the University was not functioning according to any systematic work plan and thus the university authority had no means of knowing the areas of malfunctioning of systems and therefore, could not take remedial measures at appropriate time.

1.22 Conclusion

In the academic front, the overall shortage in faculty members affected research activities and quality education. The University failed to attract and retain full quota of its intake capacity of students. Consequently, infrastructure capacity created in the University was underutilized. The expectation and aspiration of the degree holders were further dented due to inability of the placement cell of the University to arrange employment.

In the research arena, projects remained incomplete after more than five to 30 years of continuance of research. Even periodical interim reports of progress were not available. In the absence of monitoring and evaluation reports, the fates of the completed projects were also not ascertainable. Extension activities of transferring technology from laboratory to land was affected due to deficient infrastructure and

training, inadequate manpower and lack of initiatives. Financial and administrative controls were weak. There were cases of diversion of funds, incorrect reporting through UCs and misappropriation of funds. There were problems in execution of civil works. The University, thus, failed to live up to its mandated requirements to the full extent.

Recommendations

- *Internal control mechanism should be strengthened to avoid financial irregularities;*
- *Balance sheet should be prepared to exhibit true and fare picture of the affairs of the University;*
- *Shortfall in faculty members should be addressed to improve quality of education;*
- *Research activities should be monitored to ensure timely completion and also transfer of technology to the farmers to boost up production;*
- *Functioning of the Krishi Vigyan Kendras and Regional Agricultural Research Stations should be strengthened for their meaningful support in development of agricultural crops and other allied services; and*
- *Effective administrative management needs to be put in place to preclude administrative irregularities.*