

INTRODUCTION



Chapter – I



The Junagadh Agricultural University was established on 1st May 2004 under Gujarat Agricultural Universities (GAUs) Act-2004. On completion of its eighteenth year, Annual Report is published with detailed information about its various achievements and activities carried out during the year 2021-2022.

1.1 Background

The Junagadh Agricultural University came into existence with the division of Gujarat Agricultural University into four Universities as a part of process of development of Agricultural Universities in Gujarat *w.e.f.* May 2004. The jurisdiction of the University includes ten districts of Saurashtra region, *i.e.*, Junagadh, Gir-Somnath, Rajkot, Morbi, Jamnagar, Devbhumi Dwarka, Surendranagar, Bhavnagar, Amreli and Porbandar. The head quarter of the University is located at Junagadh. The University has 31 subcentres in which various plan schemes, non-plan schemes, AICRPs and external funded project functioning.

1.2 Aim

The aim of Junagadh Agricultural University is to promote agricultural in general and to improve the economic condition of rural community in particular through integration of teaching, research and extension education.

1.3 University Management and Administration

As per the GAUs Act-2004, the Chancellor, Vice Chancellor, Director of Research & Dean PG Studies, Dean Faculty of Agriculture, Dean Faculty of Horticulture, Dean Faculty of Agricultural Engineering & Technology, Dean Faculty of Agri-Business Management, Director of Extension Education, Registrar, Comptroller, Librarian, Director (Information Technology) and Director of Students' Welfare are officers of the University.

Hon'ble Governor of Gujarat acts as the Chancellor of the University. Shri Acharya Devvratji, Hon'ble Governorshri of Gujarat was the Chancellor whereas Dr. V. P. Chovatia and Dr. Narendra Kumar Gontia were the Vice Chancellor, Dr. V. P. Chovatia, Dr. P. M. Chauhan and Dr. D. R. Mehta were the

Director of Research and Dean PG Studies; Dr. H. M. Gajipara, Director of Extension Education and Dr. P. M. Chauhan and Dr. R. K. Mathukia were the Registrar during the period under report.

The details of various activities carried out by University are as follows:

1.4 Education

The educational programme in Junagadh Agricultural University is based on two-tier system. The first one covers higher education in Agriculture, Horticulture, Agricultural Engineering & Technology and ABM, in which UG and PG residential instruction programmes are covered where in Agri Business Management only PG programme is running. While the second consists of other education, *i.e.*, Diploma and Certificate programmes like Agro-based I.T.I., Polytechnic Diploma, Bakery Training, *Mali* Training and Extension Education Training.

During the period under report, 426 students at UG level, 42 students Diploma to Degree level, 145 students at PG level and 205 students at polytechnic diploma level were admitted in various colleges/ polytechnics situated at on/off campus of the University, *i.e.*, Polytechnic in Agriculture, Horticulture, Agro-Processing, Agricultural Engineering, College of Agriculture, College of Horticulture, College of Agricultural Engineering & Technology and PG Institute of Agri-Business Management at Junagadh, College of Agriculture at Motabhandariya (Amreli) and College of Agriculture, Khapat (Porbandar). A total 199 students at diploma level, 388 students at UG level, 146 at Master level and 41 at Doctoral level have successfully completed their respective courses during the period under report.

The Seventeenth Annual Convocation was held at JAU, Junagadh on January 08, 2022. **Professor Virendra Kumar Tewari, Director, IIT, Kharagpur** was the chief guest. Hon'ble Governorshri of Gujarat and Chancellor of this university, Shree Acharya Devvrat, awarded as many as 498 Under Graduate and Post Graduate degrees (Table 3.7). For the academic year



2021-22, 08 Gold Medals, 52 Gold Plated Silver Medals and 1 Cash Prizes were awarded to students for their outstanding performance at examination, achieving high percentage of marks and stood first on merit in various examinations.

The university has implemented online exam management system through JEMS (Junagadh Exam Management System). The software has been purchased to strengthen the examination and evaluation system as well as timely and precisely declaration of results, issuing of notifications, marksheets, transcript and other examination relevant certificates.

1.5 Research

The Directorate of Research and Dean PG Studies is responsible for monitoring and supervision of various research projects, planning and implementation of research activities at different research stations as well as the PG research programmes and their evaluation.

Junagadh Agricultural University has 31 research stations including multidisciplinary main research stations, sub centres on various crops and testing centres spread over in North Saurashtra Agro-climatic Zone and South Saurashtra Agro-climatic Zone. The research at these stations are carried out in the field of Agriculture, Horticulture, Agricultural Engineering, Animal Sciences and Fisheries for catering the needs of farmers, artisans, livestock owners, fishermen and rural masses for their upliftment. The research activities have been carried out in Crop Improvement, Crop Production, Plant Protection, Soil Science, Cropping System, Water Management, Weed Management, Nutrient Management, Organic/ Natural Farming, Horticulture, Agricultural Meteorology, Plant Physiology, Biochemistry, Biotechnology, Seed Science and Technology, Social Sciences, Agricultural Engineering, Animal Science, Fisheries Science, etc.

The efforts made by scientists of the University emerged with four new varieties, 37 farmers' recommendations and 35 scientific recommendations as well as 65 new technical programmes were

finalised during the year. Besides this, seed production programmes were also taken up for different varieties of different crops. About 9614.90 qt nucleus/breeder seeds, 4112 quintal truthful seeds, 514 quintal Foundation seeds, 3563 quintal Certified stage seeds were produced. Besides, University also produced 2.34 tonns of *Trichoderma*, 3.407 tonns of *Beauveria*, 2219 liter of liquid biofertilizer, 23606 Pheromone trap/lure, 38216 fruit fly trap/ lure and other biopesticides for farmers. During the year, about 17 new research projects were sanctioned by RKVY and other agencies.

1.6 Extension Education

Under the Directorate of Extension Education, JAU, Junagadh different certificate courses viz. Bakery Training, *Mali* Training and Agro Based *I.T.I.* running for rural youth. Wherein total 44 students participated in the different courses. Total 2,937 Agro Input Dealers and 238 Fertilizer Dealers had completed their courses successfully. The T & V System training programmes were held and about 224 Extension Officers of State Department of Agriculture and Horticulture were participated in different 05 training programme. 124 Khedut Shibir were also organized in which 3,726 farmers / beneficiaries were participated. Through the transfer of technology (TOT) centres, 202 on-campus and 238 off-campus training programmes were organized, wherein 15,255 participants were participated. Beside this, the TOT centres regularly organized extension education activities like workshops, farmers' days, agricultural exhibitions, field visits, cattle camps, Farmers scientists meetings etc. which benefitted 73,256 farmers. KVKs conducted 968 FLDs on various crops in 323 ha. KVKs guided farmers to solve their field level problem through personal visits by SMS. The feedback on farmers' problems were collected and sent to concerned scientists for formulation of research programme.

Through 06 programme arranged by Farm Advisory Scheme 38,320 participants were benefited. Under Centre of Communication Scheme, 15 Gram Kissan Samitis (GKSs) were formulated and



04 Khedut Shibirs were organised in which 237 farmers participated. The Extension Education Centres benefited 73,069 farmers by organising 115 extension programmes.

The Farmer FIRST programme was implemented in four selected villages of Amreli district comprising of five interventions like IFS, NRM, Enterprise, Crop based and Livestock for dairy farmers. Thus, Farmer FIRST programme covered 454 farm families and also for updating their knowledge by different extension activities.

The efforts were made to create awareness among the farmers/ rural people about technological advancement through different media viz., TV, radio and publication of different literature related to agriculture and allied fields. During the report period, 23 TV programme and 26 radio talks were given by scientists of the University. University News Bulletin “JAU News Letter” is being published quarterly by the Directorate of Extension Education. AGRISNET studio is established with objective to produce and disseminate agricultural technologies to farmers through electronic media/ format. Under LIFE (Live Interaction with Farmers' through Electronic media) two innovative programs started.

Two, live YOUTUBE STREAMING, in which live programme broadcasted through YouTube. Reliance Foundation and ATMA project, Junagadh popularized these programs through their farmer related WhatsApp contacts.

The CRS is transmitting four hours program daily. It covers about 12 km area having 45 villages and Junagadh city. To bring larger area under reach of broadcasting radio content, Android Based Mobile Application was launched in June 2021. Through audio streaming by this App, the content of Junagadh Janvani 91.2 MHz can be listened by the whole world. There is big response to this App. AGRISNET studio established with an objective to produce and disseminate agricultural technologies to farmers through electronic media/format.

The Agri Gujarat Expo-2021 was jointly organized by Junagadh Agricultural University,

Junagadh and Spark Media Inc., Ahmedabad from November 19 to 21, 2021 at JAU, Junagadh. The agricultural exhibition organized under Agri Gujarat Expo-2021 spread across 2500 sq.m. The technologies were exhibited in 70 stalls of different agriculture and allied companies, 13 stalls of different departments of JAU, Junagadh and four stalls of natural farming. Under Agri Gujarat Expo-2021, a poster presentation on the theme of agriculture and related subjects was made by the college students of JAU on November 19, 2021. The Seminar on the use of modern technology in agriculture was organized on November 20, 2021. The JAU scientists delivered lectures on new dimensions of modern technology in agriculture, mango export oriented farming method, scientific animal husbandry business to earn more income, skill development, startup, FPO, agro tourism and use of artificial intelligence in pest control. Apart from this, a seminar for sharing the success stories of farmers was also organized on November 21, 2021. Nine progressive farmers delivered the talk on innovative approaches adopted by them successfully.

During the Agri Gujarat Expo-2021, about 12000 farmers and farm women from more than 325 villages of Saurashtra enthusiastically participated and got up-to-date information on agriculture, agricultural engineering and allied subjects. Approximately 2000 students of schools and colleges, scientists and local resident from the city participated in the event.

Subhash Palekar Prakrutik Krushi Talim Karyshala was Jointly organized by Junagadh Agricultural University, Junagadh and ATMA Project, Gandhinagar & Prakrutik Kheti Sanyojak Samiti, Gujarat on 11th to 13th March, 2022 at Shri Swaminarayan Mukhya Mandir, Jawahar Road, Junagadh during the programme around 2000 participants including farmers adopting natural farming and ATMA staffs belong to ten districts of Saurashtra region were participated in the programme.



1.7 Students' Welfare

Director, Students' Welfare is responsible for making arrangements for lodging, boarding and welfare of the students and coordinates various co-curricular activities such as arrangement of Inter-Collegiate, Inter-University and National level sports tournaments, cultural and literary competitions and also implements various activities of National Service Scheme as Programme Coordinator (NSS) other than the academic work.

The University is always looking forward for the welfare of the students through different activities like sports, cultural, spiritual programme, NSS, health, adventure, with a view of developmet of personality, moral character and human values in Polytechnic, UG and PG students of University.

The campus interview were arranged for placement of students at different colleges. 188 students were selected by campus interview for various jobs. Twelve inter collegiate sports tournament and four cultural competiton were organized by the University. Students of JAU also participated in Gujarat state inter-agricultural university sports tournament and cultural competiton, All India inter-agricultural university sports meet and All India inter-agricultural university youth festival. 100 Students of various colleges of JAU participated in Basic Rock Climbing Camp. 1350 vollunteres participated in University level NSS Camp, awareness programme and celebration. Educaional tour were arranged for the students of College of Agriculture, Horticulture, Agricultural Engineering & Technology and various Polytechnic in various institutes, organizations, companies for practical exposure. Students of JAU recived various scholarships like UG & PG fellowship, National Talent Scholarship, Merit Cum Means, Prime Mininster Fellowship, SHODH Fellowship, *etc.* University canteen and all hostels are felicitated and monitored with CCTV camera.

1.8 University Library & Information Technology

The University Library acquaints services to the faculty scholars, scientists and extension activists

under eight constituent colleges as well as research stations and extension education centres of Junagadh Agricultural University.

The University Library possesses around 57,000 books, 150 Indian journals as well as six foreign journals, 3400 theses, ten newspaper, 800 e-books and 16000 back volumes. CD-ROM database like CAB, AGRICOLA, AGRIS and e-Books are available for users. Online access of journals through Consortium for e-Resources in Agriculture (CeRA) and KRISHIKOSH are available. Full time internet, scanning and CD writing facilities are available for the students in which there are 40 work stations with internet access. These facilities are being extensively utilized by both faculty and students on an average of daily 50 to 300 users for about 12 hours per day. The book bank facility also exists for students; 37 more books were purchased of agricultural faculty for the book bank. The Library runs through RFID with the software KOHA and LIBSYS. University has created AC reading room with capacity of 100 users which remains open from 8.00 to 23.00 h daily, used by the students extensively.

Junagadh Agricultural University (JAU) has established dedicated Information Technology Cell with an aim to provide Information Technology (IT) resources and services to its students, faculties, research scientists, extension officers and staff. IT resources and services provided by the University through IT Cell includes uninterrupted high-speed internet access within campus as well as in sub centres located outside the university area, email, video conferencing, JAU Exam Management System (JEMS), Online JAU Circulars, Mera Gaon Mera Gaurav, Online HRD/Tour programme, Online PF, Student Fees Receipt, KVK Bill Management, CCTV surveillance, Wi-Fi access, Google apps, Online Recruitment, *etc.*

Through the portal "Online JAU," the internally generated and other online materials are grouped under a single umbrella. The IT Cell also manages a centre that offers support to students applying for financial aid under the "Mukhyamantri Yuva



Swavalamban Yojana (MYSY) and Scheme of Developing High Quality Research (SHODH)," a scholarship initiative started by Government of Gujarat. IT Cell has created an online system for registration and user management for the Government eMarketplace (GeM) in order to facilitate university purchases made through GeM.

JAU has total 305 mbps dedicated 1:1 Internet Lease Line (ILL) connectivity through different internet service providers. This includes 100 Mbps 1:1 Internet Leased Line (ILL) through Railtel under National Knowledge Network (NKN) that encourages the usage of specialized applications, which allows sharing high performing computing facilities, e-libraries, virtual classrooms and large databases, 25 mbps 1:1 ILL from BSNL.

University has installed highly secured network architecture with Firewall, IDS (Intrusion Detection System), Analyzer, Content filtering *etc.* The coverage of the University Campus Network is extensive with more than 1100 network points and over 75 wireless access points. Network Management Software is being used for continuous network monitoring and fault detection and its solutions. Moreover, more than 6500 mt. fibre cable is laid down to provide high speed network connectivity. Moreover, the University is also connected to Asia's biggest network "Gujarat State wide Area Network (GSWAN), Gandhinagar" through optical fibre connectivity for accessing online Government's programmes.

Virtual meetings are now almost as effective as in-person meetings due to video conferencing technology. Face-to-face communication is possible almost anywhere in the world due to the university video conferencing infrastructure created by the IT Cell. A dedicated conference room is completely furnished with a video conferencing solution that is both software-based and hardware-based, including HD Cameras, a full duplex voice communication system, flat panel monitors, and an acoustic space.

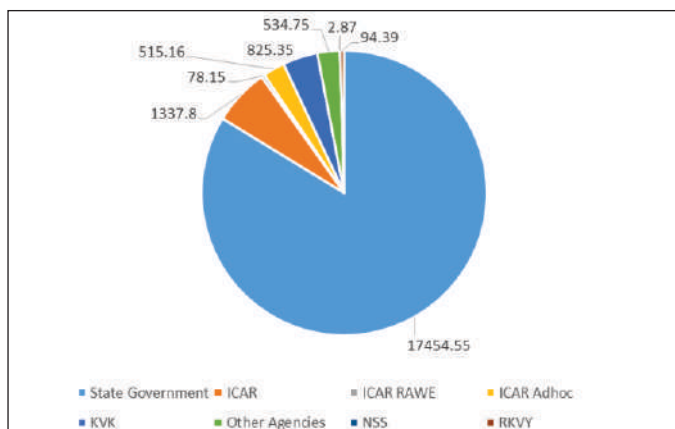
Online exam management is chosen as the best method of evaluation to ensure the students' safety and wellbeing. During and after the COVID-19 epidemic, many colleges of Junagadh Agricultural University held more than 700 exams for undergraduate, post graduate, and polytechnic degrees with a total enrolment of 32,000+ peer students under virtual supervision. IT Cell is in charge of this online exam system portal. The students from all over India from their home places, actively participated in the online exam from their homes. University has well established surveillance setup, which includes more than 750 CCTV cameras and central monitoring system.

1.9 Finance and Accounts

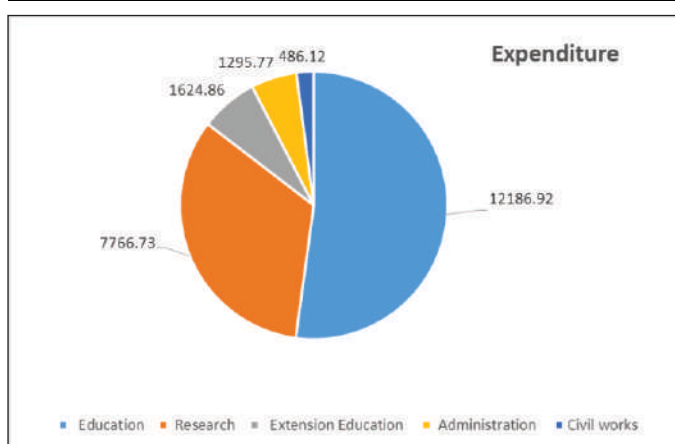
Major sources of finance were Government of Gujarat, Government of India, ICAR and other agencies, which sanctioned grant through different schemes. During the period under report, State Government sanctioned 6149.14 lakh under plan and 11305.41 lakh under non-plan.

The financial sources, fund and budger (₹ in Lakh) Income:

Opening Balance as on 01.04.2021	8075.13
Grant Received during 2021-22	
State Government	17454.55
ICAR All India Coordinated Research Projects	1337.80
ICAR (RAWI)	78.15
ICAR Adhoc	515.16
KVK	825.35
Other Agencies	534.75
N.S.S.	2.87
RKVY	94.39
University Receipts	1836.98
Total	22680.00



Expenditure	(₹ in Lakh)
Education	12186.92
Research	7766.73
Extension Education	1624.86
Administration	1295.77
Civil works :	486.12
Construction / Maintenance	
Total	23360.42



The University is entrusted with the work of internal audit, local fund audit and AG audit. The necessary Fakara / Half Margin were submitted duly to comply with the queries of the party and pursued as far as possible. First compliance of the Audit Report for the year 2016-17 were submitted to the Local Fund Office, Junagdh. Considering compliance by said office, ten Audit para were settled down during the report period.

Two Account General audit para were settled and seven still remains to be settle during the report

period. Moreover, an action taken audit report for the year 2017-18 submitted in the Gujarat Legislative Assembly on 27th September, 2021

1.10 Estate Management

The civil works like construction and related works, repairs and maintenance of buildings and roads, water supply, maintenance of drainage system, street light, electrification, repairing of electrical faults, *etc.* were looked after by the Executive Engineer. During the year under report, Construction Committee and Board of Management accorded approval for various works meant for creating new facilities at main campus as well as at centres of the University. About 4 civil works were completed with an outlay of 666.32 Lakhs, where as 6 civil works are in progress with an outlay of Rs. 630.75 lakhs.



