

Online Thursday, 27<sup>th</sup> August, 2020





Striving for a greener tomorrow...

Professor Jayashankar Telangana State Agricultural University

Rajendranagar, Hyderabad - 500 030, Telangana State www.pjtsau.edu.in



Dr. S. Ayyappan, Former Secretary (DARE) and Director General, ICAR, New Delhi Addressing the Third Convocation





Professor Jayashankar Telangana State Agricultural University Rajendranagar, Hyderabad - 500 030 Telangana State

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# **FOURTH CONVOCATION**

Thursday, 27<sup>th</sup> August, 2020

# Welcome Address and Progress Report Dr.V. Praveen Rao

Vice Chancellor



Hon'ble Governor of Telangana and the Chancellor of Professor Jayashankar Telangana State Agricultural University (PJTSAU) Dr. Tamilisai Soundararajan *Garu*, Chief Guest, Shri Govinda Rajulu Chintala, Chairman of National Bank for Agriculture and Rural Development (NABARD), Hon'ble Members of the Board of Management, Members of Academic Council, Graduates of the Year and their Parents, Invited Guests, Faculty members, Staff, Representatives of the Press and Electronic Media, Ladies and Gentlemen.

It gives me immense pleasure to extend a warm welcome to all of you to the Fourth Convocation of the University that is unique, in that it is being organized online and is the first time for PJTSAU in view of the strict implementation of the COVID guidelines. I understand that this is an event that is much awaited by the graduating students of 2018 -19 and many of you are disappointed for not being physically present at the ceremony. Looking at the brighter side you will be the first batch to receive your degrees in

virtual reality which by itself would be a milestone. It is an occasion for celebration after many hours of industry, both for the graduating students and their parents.

It is a great privilege and honour for me to welcome the Hon'ble Governor of Telangana and Chancellor of the University, Dr. Tamilisai Soundararajan *Garu* who is known for her strong advocacy towards uplifting living standards of people through better health and preventive care. A staunch believer in the social & cultural strengths of our country she encourages academics with inclusion of values and humility right from primary education and upwards. In recognition of her services to the society especially in the field of Politics, Public and Medical Services. She was awarded the "International Rising Star of the Year – 2018" by multi Ethnic Advisory Task Force, USA headed by US Congressman Danny. K. Davis.

Dr. Tamilisai Soundararajan is a source of inspiration for her energy and righteousness, in performing her administrative responsibilities in the Telangana State particularly during the COVID pandemic. PJTSAU is proud to have Dr. Tamilisai Soundararajan garu as Chancellor and is indebted for the constant support and encouragement extended to the University to promote excellence in Education, Research and Extension in Agriculture, Agricultural Engineering & Technology and Community (Home) Science.

I take pride and pleasure in welcoming the Chief Guest, Shri Govinda Rajulu Chintala, Chairman, NABARD, the Apex Development Financial Institution of the country, one of our own, who incidentally happens to be the alumnus of our parent institution Agricultural College, Bapatla, APAU. He is also the Chairman of NABARD Consultancy Services (NABCONS) Ltd., NABVENTURE Ltd. and NABFOUNDATION. He is also on the Board of prestigious institutions like Institute for Rural Management (IRMA), DICGC and also on the Advisory Board of IIM Ahmedabad. An Agricultural graduate, Shri Chintala did his Post Graduation in Seed Science and Technology from the reputed Indian Agricultural Research Institute, New Delhi. He joined NABARD as an officer and over the last three and a half decades, has worked in various capacities at NABARD, Head Office in Mumbai and its Regional Offices including Hyderabad, Chandigarh, Lucknow, Andaman & Nicobar Islands, New Delhi and Bengaluru.

He has served as Director of NABARD Financial Services (NABFINS) Ltd., Bankers Institute of Rural Development (BIRD), Lucknow, Board of Agriculture Insurance Company (AIC) and boards of several RRBs/State Cooperative Banks across the country and National level NBFCs of GOI.

He has worked very closely with various State Governments and banks at the highest level on credit planning and monitoring, funding for Rural Infrastructure and in implementing innovative and pioneering projects. Some of the successful projects are promoting Farmer Producers Organizations (FPOs), Livelihood Enterprise Development Programs, Area Development Schemes and Alternative energy models in Karnataka, encouraging the import of quality equipment leading to a three-fold increase in price of Copra in Port Blair leading to overall agricultural growth in the Andaman and Nicobar Islands. As Head of Micro Credit Innovation Department (mCID) in NABARD, he is credited with the digitization of the world's largest microfinance program under project 'e-Shakti' and also playing a vital role in driving the world's largest poverty alleviation cum women empowerment program, the SHG movement comprising 10 million groups, covering 100 million members.

It is my bounden duty to welcome the former Vice Chancellors, former and present Members of Board of Management, former and present University Officers, Members of the Academic Council, Distinguished Guests from the Industry, Officers of the Government of Telangana, ICAR, ICRISAT and other distinguished organizations of Government of India, Scientific, Administrative & Supporting Staff and Students of the University who have joined us online. A special note of welcome to the Graduates of the Year and their Parents, and Representatives of Press & Media.

With the permission of the Hon'ble Governor of Telangana, Chancellor and the President of the Convocation, I take this opportunity to present a brief report of the University activities, for the period from 1<sup>st</sup> August, 2018 to 31<sup>st</sup> July, 2019.

The Board of Management, the apex body governing the PJTSAU held the statutory bimonthly meetings six times on 25th August, 3rd November, 19th December 2018 and 26th February, 6<sup>th</sup> May and 12<sup>th</sup> July 2019 to discuss and approve matters of academic and administrative concern during the period under report. The faculty strengthened by the addition of 179 young faculty members along with the supporting and administrative staff, hard working contingent labour force, sustained the multifarious activities of the University. The administration facilitated the ease of the process through reforms that would improve the visibility, accountability and performance of all the teaching, research and extension units of the University with the unstinted support extended by the State administration. The University, the colleges (except the ones newly established after 2014) and courses have been accredited by ICAR with a validity upto March 2021 and recognized by UGC. The PJTSAU continued its membership in reputed and recognized scientific bodies, as 63<sup>rd</sup> regular member of Indian Agricultural University Association (IAUA), New Delhi, Institutional Member of National Academy of Agricultural Sciences (NAAS), ICAR, New Delhi, TAAS Institution Member and Member of Asia-Pacific Association of Agricultural Research Institutions (APAARI), Bangkok, Thailand, Confederation of Horticulture Associations of India (CHAI), New Delhi and Confederation of Indian Industry (CII), Telangana.

With the commencement of Undergraduate admission to the Agricultural College, Sircilla, Rajanna Sircilla District, in 2018-19, the educational institutes under PJTSAU rose to Nine constituent Colleges (six in Agriculture, two in Agricultural Engineering & Technology and one in Home Science). The University offers four Bachelor degree (UG) Programmes, Master's degree programmes in 22 disciplines and Doctoral degree programmes in 17 disciplines across the faculties. Revision of UG and PG course curricula and practical manuals to reflect the recommendations of the ICAR V Deans Committee were taken up in right earnest, while facilities for AELP through customized modules of Vermicomposting, bio-fertilizer production, mushroom production, seed production, value added millet product making, meat, poultry and fish products, value addition of unconventional fruit (wood apple), development of process technology for

nutritional multigrain bar and aloevera based refreshing beverages and eco-colour production were put in place. Central Instrumentation Cell was strengthened by procuring sophisticated equipment for soil, water and microbial analysis to enable PG and faculty research with the expert advice of specialists from University of Florida, USA. The creative fervor of the students of Agriculture, Agricultural Engineering and Home Science came to the fore through the innovative Student Radio Programme *Chenu Kaburlu*, broadcast as *Gruha Vignana Tarangini*—*Vyavasaya Vignana Tarangini*. In all fifty two (52) programmes were aired from 1.30 to 2.30 pm on every Wednesday on All India Radio (Hyderabad-A).

Academic transparency was ensured through initiatives such as Students Academic Performance Repository at the University level and National Academic Depository maintained by the Government of India wherein, the academic record of students is available on-line for easy access to the students, staff and parents. Digital mode of paper setting and evaluation was also introduced from the second semester 2018-19 onwards for various courses offered by the University for unbiased evaluation and efficient functioning. Ranking through AIAEE conducted by ICAR was made mandatory for admission to PG programmes to encourage competition and diversity of student community. During the period under report, two Academic Council meetings were conducted to monitor academic progress across the faculties. The 9<sup>th</sup> and 10<sup>th</sup>Academic Council meetings were held on 31<sup>st</sup> October 2018 and 3<sup>rd</sup> May, 2019 respectively at University Auditorium, Rajendranagar, Hyderabad.

The research and extension efforts of TEAM PJTSAU were recognized at the national level and the awards received for the year 2018-19 are ample testimony as given hereunder,

- a) "Best AICRP Centre Award" for the On farm centre of AICRP on Integrated Farming Systems, Rajendranagar
- b) Certificate of Appreciation, for PJTSAU Electronic Wing, Rajendranagar in recognition of the technical support extended to the IFFCO Kisan Call Centre

MFPI-Quality Control Laboratory was awarded the Certificate of Accreditation as per the International Standard ISO/IEC 17025:2017 valid up to October 2021 which enables the lab to adopt the new Quality Management System under QCI/NABL accreditation.

With a sense of pride, I am happy to announce that PJTSAU retained the 6<sup>th</sup> position in ICAR ranking of State Agricultural Universities (SAUs), Deemed Universities and Central Agricultural Universities for the year 2018-19. In addition, PJTSAU moved from 82<sup>nd</sup> to 79<sup>th</sup> position in National Institute Ranking Framework for the year 2019 as adjudged by the Ministry of Human Resource Development, Govt. of India, New Delhi.

I now present a brief overview of the Students Admission and Out-turn during the period under report:

#### **ADMISSIONS: (2018-19)**

#### **Undergraduate Programmes**

During the academic year 2018-19, the University admitted 727 students into various Undergraduate Programmes (563 in B.Sc.(Hons) Agriculture, 65 in B.Tech. (Ag. Engg.), 40 in B.Tech. (Food Technology), 59 in B.Sc.(Hons.) Home Science.

# Post Graduate Programmes

Two hundred and eight (208) students were admitted into various Postgraduate Programmes (118 in M.Sc.(Ag.), 25 in M.Sc. (Home Science), 22 in MBA (ABM) and 07 in M.Tech. (Ag. Engg.), 36 students into Doctoral Programmes (27 Agriculture and 09 Home Science).

## **OUT-TURN (2018-19)**

## **Undergraduate Programmes**

A total of 603 students passed out in various UG Programmes, comprising 348 in B.Sc.(Ag.), 55 in B.Sc.(CA&BM), 52 in B.Tech. (Ag.Engg.), 33 in B.Tech (Food Technology), 74 in B.Sc.(Hons) H.Sc., 33 in B.Sc.(Hons) Food Science, 08 in B.Sc.(Hons) Fashion Technology.

#### **Post Graduate Programmes**

A total of 104 students passed out in various PG and Ph.D. Programmes, comprising 54 in M.Sc.(Ag.), 07 in MBA (ABM), 12 in M.Sc.(Home Science), 01 in M.Tech.(Ag. Engg.), 23 in Ph.D.(Ag.) and 07 in Ph.D.(Home Science).

#### **Academic Excellence**

Twenty three (23) students from Agriculture and Home Science colleges of the University secured ICAR-Junior Research Fellowships (JRF) during the year 2018. While, eight students from Agriculture and Home Science Colleges were awarded ICAR-Senior Research Fellowships (SRF).

Fifty seven (57) students of the constituent colleges of the University qualified for ARS - NET examination in the disciplines of Agriculture and allied sciences during 2018.

Seven students from College of Agricultural Engineering, Kandi, Sangareddy have secured ranks in GATE 2018 examination for admission into PG courses.

PJTSAU believes in holistic development and has provided the necessary infrastructure for extra-curricular and co-curricular activities, especially games and sports on all its campuses. The students have productively used these facilities and brought laurels to the University.

- Inter College Sports, Games, Cultural and Literary Meet 2018-19 was conducted at University Sports Complex, Rajendranagar, Hyderabad from 1<sup>st</sup> to 6<sup>th</sup> November 2018. A total of 512 students representing nine constituent colleges participated in different events in sports, games, cultural and literary activities. Overall Championship was won by the students of College of Agriculture, Rajendranagar.
- Ms. V. Manasa Reddy, Mr. K. R. Jithin and Mr. K. Vivek students of Agricultural College, Jagtial bagged 3 Gold, 1 Silver, 1 Bronze medals in the Wako India Senior National Kick Boxing Championship - 2018 Competitions held from 2<sup>nd</sup> to 5<sup>th</sup> December, 2018 at Khudiram Anushilan Kendra Indore Stadium, Kolkata, West Bengal State.

- Gold, Silver and Bronze medals won by Ms. K. Laxmi Prasanna, Ms. A. Sruthi and Mr. Jitin, Mr. Sowrabia Sujan and Mr. A. Pranay Raj in Wako Indian National Kick boxing Championship 2018 in Hard style and Soft style weapon competitions, held at Pune from 24th to 28th March 2019.
- Twenty two students from the University participated in AGRIUNIFEST 2018-19 held at Sardar Krushinagar Dantiwada Agricultural University, Sardar Krushinagar, Gujarat from 3<sup>rd</sup> to 7<sup>th</sup> February 2019 and Abdul Aleem Basha P. and Abhiram. A.S bagged second prize (Silver Medal) in Quiz competition.
- Seven students from Agricultural College, Jagtial participated in the 1<sup>st</sup> Telangana State Level Inter School and Inter College Kick Boxing Championship- 2019 held at Jagtial from 2<sup>nd</sup> to 3<sup>nd</sup> March 2019. Mr. K.R. Jithin, Ms. Sourabhya, Mr. Pranayraj, Ms. Laxmi Prasanna won gold medals, While Mr. Vivek, Ms. Sruthi, Ms. Sonali Pandey won Silver and Bronze medals respectively in Senior musical forms soft style and hard style weapon demonstrations.
- Ms. Manasa Reddy along with the Coach Mr. C. Ramanjaneyulu were sent to Turkey for participation in the 4<sup>th</sup> International Turkish Open Kick Boxing Tournament conducted from 4<sup>th</sup> to 7<sup>th</sup> April, 2019 at Atalya, Turkey. In this Tournament, Ms. V. Manasa Reddy, 3<sup>rd</sup> year student of Agricultural College, Jagtial won one Silver and one Bronze medal in the category of senior musical forms and soft style.

#### **NSS/NCC Activities**

Civic engagement is an important aspect of our education and PJTSAU through it's 22 NSS units in 9 Constituent Colleges fulfilled this responsibility by enrolling 2200 students as NSS volunteers. Apart from the regular activities, nine (9) NSS Special Camps were organized in identified villages with special emphasis on agriculture, sanitation, health and nutrition by College of Agricultural Engineering, Sangareddy, College of Food Science & Technology, Rudrur, Agricultural Colleges, Rajendranagar, Aswaraopet, Jagtial, Palem and College of Home Science, Saifabad, Hyderabad during the period under report.

Nine (9) NSS volunteers from constituent colleges of the University participated in 9<sup>th</sup> Indian Student Parliament (*Bharatiya Chatra Sansad*) held at MIT World Peace University (MIT-WPU), Pune from 18<sup>th</sup> to 20<sup>th</sup> January, 2019.

Nineteen (19) NSS volunteers and one NSS Programme Officer from the University participated in the 5<sup>th</sup> State Level NSS Youth Festival of Telangana State for the year 2018-19 held at Kaloji Narayana Rao University of Health Sciences, Warangal from 7<sup>th</sup> to 8<sup>th</sup> March 2019. The NSS volunteers bagged four 1<sup>st</sup> and five 2<sup>nd</sup> prizes in competitions *viz.*, group dance, *rangoli*, debate, elocution and overall third position amongst the Universities of Telangana State.

Ms. B. Harika, B.Sc. (Hons.) Agriculture, a third year NSS volunteer from College of Agriculture, Rajendranagar has participated in the N.S.S. West Zone Pre Republic Day parade camp at RTM Nagpur University, Nagpur, Maharashtra from 25<sup>th</sup> November to 4<sup>th</sup> December, 2018.

NSS volunteers of the University participated in three National Integration Camps and won several prizes at

- Two NSS volunteers of Agricultural College, Jagtial secured third prize in cultural activities held at Bangalore University Campus, Kengeri, Bangalore (15<sup>th</sup> to 21<sup>st</sup> March, 2018).
- University of Agricultural Sciences, GKVK Campus, Bangalore, Karnataka (3<sup>rd</sup> to 9<sup>th</sup> August, 2018), NSS volunteers won first prize (Pick and speak), second prize (solo dance), first prize (solo song), first prize (group dance) and consolation prize for state wise cultural dance presentation and performance.
- Osmania University as a part of Osmania University Centenary Celebrations (28<sup>th</sup> May to 3<sup>rd</sup> June, 2018), PJTSAU bagged 1<sup>st</sup> prize in group and solo dance and 1<sup>st</sup> prize in oral presentation by NSS volunteers.

Sixty four (64) NCC cadets from College of Agriculture, Rajendranagar attended five NCC Annual Training camps conducted by NCC Directorate, Secunderabad. In addition, the NCC cadets of College of Agriculture, Rajendranagar actively participated in NCC Day celebrations, *Haritha Haram* and other activities. Thirty five (35) and eleven (11) students passed NCC 'B' and 'C' Certificate examinations respectively. Twenty five (25) NCC cadets from College of Agriculture, Rajendranagar participated in Social Awareness Rally on "World Water Day" and "Importance of Voting" on 22<sup>nd</sup> and 23<sup>rd</sup> March, 2019 organized by 1(T) R& V Regt NCC Unit. The NCC cadets also participated in International yoga day that was conducted on 21<sup>st</sup> June 2019 and also in candle march in memory of Pulwama Martyrs.

The Agricultural Education Day was celebrated in all the nine constituent colleges of PJTSAU on 3<sup>rd</sup> December, 2018 in memory of the first Indian Union Agriculture Minister and the first President of Independent India, Bharat Ratna, Dr. Rajendra Prasad by all the National Service Scheme (NSS) Units. UG, PG, Ph.D. scholars and teachers were also actively involved in the organization of Agricultural Education Day. More than 5000 students from various schools visited the stalls arranged by the colleges of PJTSAU.

#### Student Placements

The Student's Counseling and Placement Cells are functioning in all the Colleges and Polytechnics of our University. These cells are acting as liaison between the University Colleges and the public & private sector organizations / institutes, which are in need of the graduates/diploma holders. A total of 225 students got placed in different public and private organizations during the period under report.

## **Knowledge Management Centre**

The Knowledge Management Centre (University Library) recorded a footfall of 59579 from both students and faculty while supporting teaching, learning, research activities by providing rich collection of print and non-print documents consisting of 1,42,645 books, 297 foreign and Indian

periodicals, 2942 e-books, 4600 e-journals, 10 databases (CABI, Elsevier, CRC Netbase), e-journals, databases such as J-Gate, Agriculture and Biological Sciences (CeRA), *Krishi Prabha, Krishikosh*, DELNET, CMIE-Commodities, Indiastat.com and many more, made available both offline/online. It continues to be a partner in NAHEP projects and is 2<sup>nd</sup> in NARS Library system to implement EzProxy server after ICAR, New Delhi to provide e-Resource with User ID and Password without IP.

The Knowledge Management Centre (KMC), PJTSAU tagged about 30,000 books with RFID chip and also procured an RFID self-check system for hassle free circulation of books which became operational from 26<sup>th</sup> July 2019. E-cards were issued to students and faculty to utilize the facility. The University Computer Centre at Rajendranagar, equipped with latest computers and software catered to the statistical analysis, data mining needs of the students / faculty and also hosts the University Website.

Education apart, PJTSAU is committed to its mandate of delivering research outcomes in tune with the emerging challenges of climate change, productivity stagnation and rising demand for sustainable practices, market driven agriculture and nutritional security. The research priorities, hence have been reoriented to address problems related to natural resource management and market intelligence based farming systems ensuring socio economic and nutritional security of farm household. Some initiatives in this direction were the Soil and Land Use Mapping Project with NBSS & LUP, Delineation of crop colonies. Much emphasis was given to water saving technologies including demonstration and popularization of mechanized paddy transplanting, AWD in rice, farm pond technology along with location specific IFS models through its 15 Agricultural Research Stations including 3 RARS.

## New Research Schemes / Projects initiated

AICRP on Groundnut was transferred from Regional Agricultural Research Station,
 Jagtial to Regional Agricultural Research Station, Palem.

• Remote Sensing & Geographic Information System (RS & GIS) laboratory established in collaboration with National Remote Sensing Center (NRSC), Hyderabad at Water Technology Centre, Rajendranagar for geospatial technology utilization for agriculture and to support student research projects of the University on 26<sup>th</sup> November, 2018.

### Some of the highlights of the research efforts are:

- The cultivation of early duration rice varieties released by the University during 2015-16 viz., *Telangana sona* and *Kunaram sannalu* in large area in Telangana resulted in all-time record production of 61 lakh metric tons of paddy during 2018-19 *kharif* season.
- Seven elite cultures of six crops possessing desirable attributes developed at different Research Stations of the University viz., Rice (WGL 739), Sorghum (SPV 2437), Redgram (WRGE 93), Fodder maize (TSFM 15-5), Hedge Lucerne (TSHL 1), and fodder bajra (TSFB 15-4 and TSFB 15-8) were evaluated under AICRP system at national level for three years and Varietal Identification Committee (VIC) identified these cultures for release and notification at national level during 2018-19.
- Research efforts of PJTSAU culminated in development of 8 new cultures with desirable attributes viz., three in rice (Jagtiala Rice-1, Kunaram Rice-1 and Warangal Rice-1) and one each in sorghum (Palem Pachha Jonna-1), pigeonpea (Warangal Kandi-1), groundnut (Jagtiala Palli-1), sesame (Jagtiala Til-1) and cotton (Adilabad Kapas-1) were accepted for release by State Varietal Release Committee (SVRC) for commercial cultivation.
- Eighteen (18) elite breeding strains developed at various research stations of the University with desirable characters in six crops viz., Rice - RNR 11718, RNR

19416, KNM 733, KNM 1638, JGL 24423, JGLH 1, RDR 1140, RDR 1188, KPS 2874, WGL 915 and WGL 962; *Ragi* - PRSW 43; Redgram - WRGE 96, WRG 252 and WRG 255; Greengram - MGG 359; Safflower TSF 2 and Cotton ADB 542 were evaluated on farm in different districts of the State under minikits and were found promising.

- University has approved seven Projects for improvement of Sesame during 2018-19 at RARS, Jagtial where JCS 1020, a high Oleic acid sesame culture completed 3 years of minikit testing and the release proposal was submitted to SVRC. It is a white seeded variety of 85-90 days duration showing yield superiority to the extent of 12% over the check swetha in summer season. Yield potentiality is 1050-1125 kg/ha during summer under irrigated and 700-800 kg/ha during late kharif (95-100 days) with life saving irrigations. It is suitable for export free fatty acids palmitic acid (10.37%), stearic (6.52%), oleic (41.99%), linoleic (40.39%), eicosanoic (0.68%) and an oil content of 46-49%. It is also moderately resistant to shattering. Its multicapsular nature provides maximum returns under favorable crop management.
- Under High density planting system (HDPS) in cotton in rain fed conditions, the highest *kapas* yield was recorded at a spacing of 75 x 10 cm (2401 kg/ha) followed by 45 x 10 cm (2022 kg/ha). Application of N @ 80 kg/ha recorded the highest *kapas* yield (2187 kg/ha) followed by 120 kg/ha (2174 kg/ha).
- Breeder seed of major crops to the extent of 1876.78 quintals was produced and supplied to seed producing agencies for multiplication and distribution. In addition, 5168.67 quintals foundation and 1901.14 quintals truthfully labeled seed of various crops was also produced.
- Four hundred and eighty seven (487) quintals of quality seed of eight crops viz.,
   paddy, maize, sorghum, redgram, greengram, blackgram, groundnut and castor

were distributed to the 2940 farmers from the different districts of the State. In addition, seed of vegetable crops, mango and guava saplings, fodder slips, medicinal and aromatic plants were also sold during the *Seed Mela* 2019 organized by the University on 24<sup>th</sup> May, 2019 at Rajendranagar.

- Seventeen booklets on Soil Fertility Status and Fertilizer Use Guidelines were prepared district and mandal wise which would enable the State Government in factoring and distributing the quantum of fertilizers to the farmers.
- Thirty one hand books on Food Consumption Pattern in Telangana State were prepared wherein, the consumption of all food items have been estimated for each district separately along with the expenditure for percentage of the population consuming a particular food item.
- Twenty two tonnes (12 tonnes of white and 10 tonnes of colours in fourteen shades) of natural dye produced and supplied to paint 2 lakh Ganesh idols of various sizes ranging from 8 inches to 6 feet through Telangana State Pollution Control Board (TSPCB) by Natural Dye Processing and Incubation Centre, Rajendranagar. The Centre also produced and supplied Eco Holi powders 50 kg each of five shades of Pink, Yellow, Orange, Blue and Green to reduce environmental pollution.
- The Millet Processing and Incubation Centre located at Rajendranagar developed technologies for value addition of millets and supplied 39.87 tonnes of nutritious millet products to the social welfare hostels in the State through an entrepreneur M/s. Millet Bowl Food Products Limited, Hyderabad.
- Eighty three (83) Agro Advisory bulletins and 80 Short Message Service (SMS) were issued. A total of 504371 farmers have received SMS alert messages on key issues and key advisories pertaining to crop production and protection.

 An application was submitted for the invention entitled "Indigenous Manual and Fully Automated Agri Cannon for Deterring Monkeys and Birds from Agricultural Crop Fields" by Dr. V. Vasudeva Rao, Principal Scientist & Head, AINP on Vertebrate Pest Management, Rajendranagar for the grant of Patent to the patent office, Govt. of India, Chennai.

TEAM Extension of PJTSAU lead by DAATTCs and KVKs have assessed and refined the PJTSAU technologies through 117 on-farm trials, 141 front-line demonstrations related to field crops, horticulture crops, animal husbandry/ fisheries and home science and 141 minikit trials. Real time agro-advisories were provided through 1263 diagnostic field visits by the University personnel along with 862 visits in association with Department of Agriculture. The University also organized 6 *Kisan Melas*, 11 *Rythusadassus*, 213 method demonstrations, 170 group discussions, 551 training programmes including 30 skill trainings and 109 field days to create awareness and educate the farming community about the latest agriculture technologies. ICT tools were effectively used for dissemination of weather, pest and market intelligence alerts through mobile text.

KVKs of the University continued as partners for implementing certain farmer friendly projects in 2018-19.

- Interactive Information Dissemination Systems (IIDS) Annapurna Krishi Prasara Seva in 6 KVKs (Malyal, Wyra, Kampasagar, Adilabad, Rudrur and Palem) and 3 DAATTCs (Sangareddy, Rangareddy and Karimnagar).
- ICAR National Initiative on Climate Resilient Agriculture (NICRA) Demonstration of Climate Resilient technologies - KVK, Wyra, Khammam Dist.
- ICAR, Gol ARYA project to develop entrepreneurial skills in rural youth KVK, Kampasagar.

Electronic Wing with its modern in-house production studio brought out a Video on the University profile (English) apart from facilitating information transfer through the electronic media by way of phone-in-live programmes, recorded programmes (132) in various TV channels and 773 radio scripts for All India Radio. During the period under report, 16 DVDs were produced with new information suited to the farming needs of the State on crop production, crop protection and success stories. Thirty two video modules were uploaded in PJTSAU You Tube Channel and in addition, five publications on *Vyavasaya suchanalu* (2018 and 2019) were brought out by the Electronic wing for the benefit of the farmers.

The Agricultural Information and Communication Centre (AICC) disseminated technology information and agro-advisories to around 773 farmers and stakeholders from different districts of Telangana through the updated *Telangana Vyavasayam - Diksuchi* (A compendium of Agriculture for Farmers) released by Honourable Minister for Agriculture, Sri S. Niranjan Reddy and technical bulletins (Diagnostic bulletins, *Vyavasayam* Magazine etc.,) published by the University Press.

Extension Education Institute (EEI) conducted 36 on-campus, 22 off-campus training programmes benefitting 584 and 638 trainees (Officers of Agriculture and allied departments of southern region) respectively. Skill training programme for Agriculture Extension Service Providers (Govt. of India sponsored programme) was conducted by EEI, Rajendranagar from 25<sup>th</sup> February to 21<sup>st</sup> March, 2019.

Great emphasis was given to carry out quality research which resulted in the publication of 590 articles (Teaching 270, Research 270 and Extension 50) in various peer reviewed National and International journals during the period of report.

Planning without appropriate funding would be a futile effort. We are happy to inform that the major financial grants to the University came from the Government of Telangana by way of block grants under Establishment and Scheme Expenditure under Revenue. The block grant approved in

the budget for the year 2018-19 was Rs.28103.88 lakh, including salaries grant of Rs.22828.88 lakh and other grants-in-aid of Rs.5275.00 lakh. The ICAR assistance was Rs.4339.99 lakh and the Government of India assistance was Rs.1437.64 lakh. During the year, an amount of Rs.523.86 lakh was received from other agencies. Thus, the total budget of the University during the year 2018-19 was Rs. 34405.37 lakh.

The year 2018-19 was witness to some milestone events such as the inauguration of new buildings and conduct of training programmes / seminars / memorial lectures as given here under

- The new PJTSAU Health Centre at the University campus, Rajendranagar was inaugurated on 20<sup>th</sup> February, 2019.
- A permanent centre for Agricultural Market Intelligence was established in the Department of Agricultural Economics, College of Agriculture, Rajendranagar under the project "Establishing and Networking of Agricultural Market Intelligence Centres in Telangana" on 20<sup>th</sup> February, 2019.
- A new Agricultural College, Sircilla, Rajanna Sircilla dist. was inaugurated on 13<sup>th</sup> June, 2018 by Sri K. T. Rama Rao *garu*, Hon'ble Minister for Information Technology, Panchayath Raj, Municipal Administration & Urban Development and Sri Pocharam Srinivasa Reddy *garu*, Hon'ble Minister for Agriculture, Horticulture, Sericulture, Animal Husbandry, Fisheries, Dairy Development Corporation, Seed Corporation, Govt. of Telangana.
- A new Agricultural Research Station building was inaugurated by Sri Pocharam Srinivasa Reddy *garu*, Hon'ble Minister for Agriculture, Horticulture, Sericulture, Govt. of Telangana on 15<sup>th</sup> June, 2018 at ARS, Tornala.
- A new Agricultural Polytechnic building at Jammikunta was inaugurated on 29<sup>th</sup> July, 2018 by Sri Etela Rajendar *garu*, Hon'ble Minister for Finance, Government of Telangana.

#### **Conferences, Training Programmes and Special Lectures:**

- The 4<sup>th</sup> Professor Jayashankar commemorative address on "Remandating agriculture for India and its farmers" was delivered by Dr. Ashok Dalwai, CEO, National Rainfed Areas Authority (NRAA), Ministry of Agriculture and Farmers Welfare, Govt. of India, New Delhi at the 4<sup>th</sup> University Foundation Day on 3<sup>rd</sup> September, 2018.
- PJTSAU was the Platinum Sponsor for the Global Water Security Conference for Agriculture and Natural Resources organized in collaboration with the Indian Society of Agricultural Engineers (ISAE) and American Society of Agricultural & Biological Engineers (ASABE) at Taj Krishna, Hyderabad from 3<sup>rd</sup> to 6<sup>th</sup> October, 2018. Dr. V. Praveen Rao, Hon'ble Vice Chancellor, PJTSAU delivered a lecture on "Telangana State Micro-Irrigation Project: A special purpose vehicle for natural resource management and enhancing small holders income" at the conference. Ten faculty members from PJTSAU belonging to Agricultural Engineering, Agronomy and Soil Science were deputed for the conference.
- Special guest lecture on "Importance of Millets in our Diet" was delivered by Dr. Khadar Valli, a renowned nutritionist & millet proponent, Bengaluru on 29<sup>th</sup> October, 2018 at PJTSAU Auditorium, Rajendranagar, Hyderabad for benefit of students and faculty.
- The 6<sup>th</sup> Dr. M.V. Shantaram Memorial Lecture was delivered by Dr. K. Sammi Reddy, Head, Division of Natural Resource Management, ICAR-CRIDA on the topic "Emerging Strategies for Enhancing Nutrient Use Efficiency under Changing Climate Scenario" on 3<sup>rd</sup> April, 2019 under the aegis of the Hyderabad Chapter, Indian Society of Soil Science at College of Agriculture, Rajendranagar, Hyderabad.
- Professor Jayashankar Telangana State Agricultural University (PJTSAU),
   Confederation of Indian Industry (CII) and Cornell University, USA jointly organized

a Conference on "Envisioning Agro Solutions for Smart and Sustainable Agriculture" (AGRIVISION 2019) on 17<sup>th</sup> and 18<sup>th</sup> January, 2019 at Hotel ITC Kohenur, Hyderabad. The Conference was inaugurated by the Hon'ble Vice President of India, Shri M. Venkaiah Naidu where several distinguished speakers from industry and academia shared their insights and experiences during eight technical sessions that covered varied topics attended by 200 participants including industry representatives, Cornell faculty and students and PJTSAU faculty, students and progressive farmers.

- The second and third convocations of PJTSAU were conducted on 9<sup>th</sup> December 2018 and 9<sup>th</sup> March, 2019 at University Auditorium, Rajendrangar, Hyderabad. Sri ESL Narasimhan *garu*, Hon'ble Governor of Telangana & Andhra Pradesh and Chancellor of PJTSAU presided over the second convocation. Dr. Rajendra Singh Paroda, Chairman (TAAS) and Former Secretary, Department of Agricultural Research and Education and Director General, ICAR, New Delhi and Dr. S. Ayyappan, Former Secretary (DARE) and Director General, ICAR, New Delhi delivered the convocation address. A total of 306 M.Sc. & Ph.D. and 1176 Undergraduate students were awarded degrees. A total of 53 gold medals were awarded to the UG and PG students during the convocations.
- CAFT training programme on "Emerging food processing and packaging technologies: A drive for economic opportunities" was conducted from 11<sup>th</sup> to 31<sup>st</sup> July, 2018 at PGRC (Home Science), Rajendranagar, Hyderabad. A total of 20 members from thirteen Universities of the country representing Home Science, Agricultural Extension, Agricultural Engineering, Veterinary Sciences and Entomology disciplines participated in the training programme.

Seven overseas scientific delegations from Science Department, Embassy of France, University of Lincoln, United Kingdom and German Federal Ministry Food & Agriculture (BMEL),

University of New England, Australia, Longping University, China, International Rice Research Institute (IRRI), Philippines and University of Hohenheim, Germany visited the University and evinced keen interest to collaborate on mutually beneficial areas of research and teaching.

During the period under report, cooperative agreements were signed between PJTSAU and Society for Elimination of Rural Poverty (SERP), Hyderabad, a-IDEA, NAARM, Rajendranagar, Hyderabad, University of Hohenheim (UoH), Germany, Patanjali Bio-research Institute Private Limited, Haridwar, Gramodaya Chamber of Commerce and Technology (G-Cot), Hyderabad, International Rice Research Institute (IRRI), Philippines, Coromandel International Limited, Secunderabad, AEGIS Drone Manufacturers, Bangalore, Cornell Sathguru Foundation for Development (CSFD), Hyderabad, Participatory Rural Development Initiative Society (PRDIS), Hyderabad and ITC Limited (Paperboards and speciality papers division), Secunderabad.

Eighteen (18) faculty members of the PJTSAU were deputed to participate in various international training programmes / conferences / workshops held at Japan, Thailand, Srilanka and Vietnam to encourage global research exposure.

#### **Awards and Honours**

Industrious faculty were rewarded with awards and honours during 2018-19. A few noteworthy awards are given here under:

Six teaching staff members of the University Dr. G. Samuel, Professor, Dept. of Agril. Extension, College of Agriculture, Rajendranagar; Dr. V. Ramulu, Principal Scientist (Agronomy), WTC, R'nagar; Dr. V. Anitha, Principal Scientist & Head, AINP Pesticide Residues, R'nagar, Hyderabad; Dr. T. V. Hymavathi, Professor & Head, Millet Incubation Centre, R'nagar; Dr. V. Gouri Shankar, Associate Professor (Genetics and Plant Breeding), CA, R'nagar and Dr. I. V. Srinivasa Reddy, Associate Professor (Horticulture), Agril. College, Aswaraopet have received the State Best Teacher Awards from the Govt. of Telangana on 5<sup>th</sup> September, 2018 at Ravindra Bharathi, Hyderabad.

- Dr. V. Praveen Rao, Hon'ble Vice Chancellor received the Dr. I.V. Subba Rao *Rythunestham* Life Time Achievement Award for the year 2018 on the occasion of 14<sup>th</sup> Annual Celebrations of *Rythunestam* farm magazine on 7<sup>th</sup> October, 2018 at Swarna Bharath Trust, Muchintal, Shamshabad.
- Dr. S. Triveni, Assoc. Professor, Dept. of Agril. Microbiology & Bio-energy, College of Agriculture, Rajendranagar, Hyderabad received Best Scientist Award on the occasion of 14<sup>th</sup> Annual Celebrations of *Rythunestam* farm magazine on 7<sup>th</sup> October, 2018 at Swarna Bharath Trust, Muchintal, Shamshabad.
- Dr. V. Praveen Rao, Hon'ble Vice Chancellor was conferred the SEE Fellow Award by Society of Extension Education during 9<sup>th</sup> National Extension Education Congress held at College of Agricultural Engineering and Post-harvest Technology (CAEPHT), Ranipool, Sikkim from 15<sup>th</sup> to 17<sup>th</sup> November, 2018 for his outstanding contribution in Teaching, Research and Extension Management in the field of Agricultural Sciences.
- Dr. V. Praveen Rao, Hon'ble Vice Chancellor conferred the Education Leadership Award by 26<sup>th</sup> Business School Affaire & Dewang Mehta National Education Awards on 16<sup>th</sup> November, 2018 at Taj Banjara, Hyderabad.
- Dr. C.V. Sameer Kumar, Principal Scientist, RARS, Palem was honoured with the Outstanding Partnership Award Asia by ICRISAT, Hyderabad, India in recognition of outstanding performance in "IFAD Grant and promoting legumes in crop based production systems for raising Agricultural productivity in rainfed Asia" on 14<sup>th</sup> December, 2018.

Honorary Fellow Award for 2018 was conferred on Dr. V. Praveen Rao, Hon'ble Vice Chancellor, PJTSAU at 53<sup>rd</sup> Annual Convention of Indian Society of Agricultural Engineering (ISAE) and International Symposium on Engineering Technologies for Precision and Climate Smart Agriculture on 28<sup>th</sup> January, 2019 at Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh.

Dr. P. Neelima, Assistant Professor (Horticulture), Agricultural College, Aswaraopet was conferred with ICAR- ISOH (Indian Society of Ornamental Horticulture) "Best Dissertation Award for Ph.D. thesis" at the conference on "Upliftment of Rural Economy through Floriculture" held at Udaipur, Rajasthan from 11<sup>th</sup> to 13<sup>th</sup> January, 2019.

Life Time Achievement Award 2018 was conferred on Dr. V. Praveen Rao, Hon'ble Vice Chancellor at 25<sup>th</sup> National Conference on "Farmers' Friendly Soil and Water Conservation Technologies for Mitigating Climate Change Impact" by Soil Conservation Society of India on 2<sup>nd</sup> February 2019 at Hotel Gem Park, Udhagamandalam, Tamil Nadu.

Best Vice Chancellor Award for 2018 was conferred on Dr. V. Praveen Rao, Hon'ble Vice Chancellor by All India Agricultural Students Association and Indian Agricultural Universities Association, New Delhi on 16<sup>th</sup> February, 2019 at Jawaharlal Nehru Krishi Vishwavidyala, Jabalpur, Madhya Pradesh.

S. Pradhum Kashyap, Student of College of Agricultural Engineering, Kandi, Sangareddy received the Best Poster Presentation Award for the paper entitled "Wind energy as an alternative resource: GIS assessment and analysis" in the Research Conclave 2019 held at IIT, Guwahati from 14<sup>th</sup> to 17<sup>th</sup> March, 2019.

Agribusiness Summit & Agri Awards 2019 bestowed "Leader with Strategic Vision Award" on Dr. V. Praveen Rao, Hon'ble Vice Chancellor, PJTSAU on 27<sup>th</sup> April, 2019 at Hotel Park Hyatt, Hyderabad.

The Vice Chancellor of the University participated in several important meetings concerning the administrative, academic and research priorities of the University and offered technical support in implementation of State Department of Agriculture priorities and schemes. Notable among these are

- Interactive Meeting of all the Vice Chancellors of the Universities of Telangana State with the Hon'ble Governor of Telangana and Chancellor at STML Seminar Hall, Dr. B. R. Ambedkar Open University, Hyderabad on 8<sup>th</sup> August, 2018.
- Participated in the 7<sup>th</sup> Meeting of CII Telangana State Council 2018-19 and conference on "Telangana 2.0: The Growth Story Continues" with the theme "Accelerating growth through innovation, entrepreneurship and inclusiveness" at Taj Krishna, Hyderabad during 19<sup>th</sup> March, 2019.
- Acted as Chairman to the Selection Committee for promotion / placement of Scientists for the disciplines Soil Science and Agricultural Economics under the revised CAS at ICAR-CRIDA, Santoshnagar, Hyderabad on 25<sup>th</sup> March, 2019.
- Chief Guest at the inaugural session of two-day training programme on "Action learning on Farm Mechanization for Small Farm Holding Farmers" for farmers at ICAR-CRIDA, Santoshanagar, Hyderabad held on 29<sup>th</sup> March, 2019.
- Participated in the State Agriculture review meeting conducted by Hon'ble Chief Minister held at Pragathi Bhavan, Hyderabad on 16<sup>th</sup> April, 2019.
- Participated as Guest of Honour at the Fifth Convocation of Tata Institute of Social Sciences, Hyderabad Off-campus on 30<sup>th</sup> April, 2019 held at University Auditorium, PJTSAU, Rajendranagar.
- Delivered Inaugural address at BSMA of livestock products and production management at College of Veterinary Science, PVNRTVU, Hyderabad on 21<sup>st</sup> May, 2019.
- Chief Guest in Inaugural session of 35<sup>th</sup> Feed the Future India Triangular (FTF ITT) programme on "Agribusiness Management" on 18<sup>th</sup> June, 2019 at MANAGE, Rajendranagar, Hyderabad.

- Participated in the deliberations of NAAS Brainstorming session on "Enhancing Science Culture in Agricultural Research Institutions" held on 25<sup>th</sup>June, 2019 in NASC complex, New Delhi and made a presentation in Session-I: "Perspectives on Science Culture in Agricultural Research Institutions in NARS and related institutions an SAU perspective".
- Inaugural session of 32<sup>nd</sup> ISTA Congress held at HICC, Hitex City, Hyderabad on 26<sup>th</sup> June, 2019.
- Participated in the 10<sup>th</sup> Brainstorming session of IAUA held at CSK-Himachal Pradesh Agricultural University, Palampur, H.P. from 28<sup>th</sup> to 29<sup>th</sup> June, 2019 on the topic "ICAR Model Act Revision"
- Member of Peer Review Team (PRT) for Accreditation of School of Agriculture, ITM University, Gwalior, M.P from 21<sup>st</sup> to 22<sup>nd</sup> July, 2019.
- Technical Review workshop of NICRA partner Institutes under Natural Resource Management at NASC, New Delhi on 25<sup>th</sup> July 2019.

As a teacher it is very fulfilling to see your wards excel and secure commendations and awards. I take pleasure in announcing the Under graduate and Postgraduate Gold medals for the graduating students of 2018-19.

#### UNIVERSITY GOLD MEDALS AWARDED TO PG AND UG STUDENTS

# A) GOLD MEDALS FOR POSTGRADUATES

- Dr. Chintalapani Ravinder Reddy Gold Medal is awarded to Mr. Brijbhooshan for Highest Overall Grade Point Average in Ph.D. (Ag.) in the major field of Agronomy in the faculty of Agriculture.
- Neelamraju Gangaprasada Rao and N Kamala Gold Medal is awarded to Mr. K.
   Sudarshan Patil for Highest Overall Grade Point Average in Ph.D. (Ag.) in the major field of Genetics and Plant Breeding in the faculty of Agriculture.

- Professor Mohammed Taskeen Ali Niazee Gold Medal is awarded to Ms. Meena
   M R for Highest Overall Grade Point Average among all the disciplines of M.Sc. (Ag.) in the faculty of Agriculture.
- PJTSAU Gold Medal is awarded to Ms. Botha Prashanthi for Highest Overall
  Grade Point Average in M.Sc.(Ag.) in the major field of Agronomy in the faculty of
  Agriculture.
- PJTSAU Gold Medal is awarded to Ms. Macha Madhavi for Highest Overall Grade
  Point Average in M.Sc.(Ag.) in the major field of Entomology in the faculty of
  Agriculture.
- Sri Mandava Venkataramaiah Gold Medal is awarded to Mr. Shaik Sameer for Highest Overall Grade Point Average in M.Sc. (Ag.) in the major field of Genetics and Plant Breeding in the faculty of Agriculture.
- Prof. V. V. Kumara Sastry Memorial Gold Medal is awarded to Mr. Jagadesh M for Highest Overall Grade Point Average in M.Sc. (Ag.) in the major field of Soil Science in the faculty of Agriculture.
- Dr. Alapati Appa Rao Memorial Gold Medal is awarded to Ms. Chindam Swathi for Highest Overall Grade Point Average in M.Sc. (Ag.) in the major field of Plant Pathology in the faculty of Agriculture.
- Dr. T. Goverdhan Reddy Memorial Gold Medal is awarded to Ms. Mahira Mounika Reddy for Highest Overall Grade Point Average in (M.Sc.) in MBA (Agribusiness Management) in the faculty of Agriculture.
- Bambino Agro Industries Limited Gold Medal is awarded to Ms. K. Srilekha for Highest Overall Grade Point Average in M.Sc. (Home Science) in the major field of Foods & Nutrition in the faculty of Community Science.

#### B) GOLD MEDALS FOR UNDERGRADUATES

- The PJTSAU Outstanding Student Gold Medal for meritorious performance in academic and extra-curricular activities across all the faculties of the University and Sankalp Group Gold Medal for having secured the Highest Overall Grade Point Average in B.Sc.(Hons.) Home Science is awarded to Ms. Medishetty Anuhya.
- The Agri–Horti-1983 Batch Rajendranagar Gold Medal for having secured the Highest Overall Grade Point Average; AGRICOS1980 Batch Rajendranagar Gold Medal for having secured the Highest Grade Point in the subject of Agronomy; The 79<sup>th</sup> Annual Convention of Indian Society of Soil Science Commemorative Gold Medal for having secured the Highest Grade Point in the subject of Soil Science and Agricultural Chemistry in B.Sc. (Agriculture) amongst all the Agricultural Colleges of the University is awarded to Ms. Komatireddy Bhargavi.
- Dr. B. H. Krishna Murthy Rao Memorial Gold Medal is awarded to Ms.Guvva Ganga Bhavani for having secured the Highest Grade Point in the subject of Entomology in B.Sc. (Agriculture) amongst all the Agricultural Colleges of the University.
- Sri Rajaram Vengaldas Memorial Gold Medal for having secured the Highest Grade Point in the subject of Plant Pathology and Pabbathi Subba Rao Memorial Gold Medal for having secured the Highest Grade Point in the subject of Crop Physiology in B.Sc. (Agriculture) amongst all the Agricultural Colleges of the University is awarded to Ms.Kesoju Ravali.
- Dr. B. R. Ambedkar Gold Medal for having secured the Highest Overall Grade Point
  Average amongst the SC/ST students and The RA/1982 AGRICOS
  Rajendranagar Gold Medal for having secured the Highest Grade Point in the
  subject of Genetics and Plant Breeding in B.Sc. (Agriculture) of all Agricultural
  Colleges of the University is awarded to Ms. Dheeravath Reethu.

 24 Mantra Gold Medal and Yog Rishi Swami Ramdev Gold Medal for having secured the Highest Overall Grade Point Average in B.Tech.(Food Technology) of the University is awarded to Ms.Kosana Pravallika.

#### Acknowledgement

Before I conclude, I wish to express my sincere gratitude and thanks to Dr. Tamilisai Soundararajan *Garu* and the Chief Guest, Shri G R Chintala *Garu* and all the invitees for their gracious presence at this Online Convocation.

The University hopes to receive wise counsel and guidance from the Hon'ble Governor of Telangana and Chancellor of the University in its journey to achieve academic excellence, to be truthful to its mission of serving the farmers of the State. I am indebted to the Chancellor for sparing her valuable time for organizing this Convocation online in view of the COVID pandemic and presiding over the ceremony.

I acknowledge the magnanimous support and direction received by the University from the Hon'ble Chief Minister Sri K. Chandrasekhar Rao *Garu*, the Hon'ble Minister for Agriculture Sri Singireddy Niranjan Reddy *Garu*, Chief Secretary Sri S. K. Joshi, Principal Secretaries, Secretaries, Commissioners and Directors of all the line Departments.

I express my heartfelt thanks to the Members of the Board of Management and Members of Academic Council for the cooperation and support extended to me in holding up the academic standards and management of the University. It is with their guidance, cooperation and encouragement that the University is emerging as one of the foremost centres of learning and research in farm sector in the country.

I express my sincere thanks to the Director General and other officials of ICAR for their whole hearted cooperation and support for the progress of the University.

I extend my thanks to all the Members from the Press and Media for their kind online presence and coverage of the Convocation proceedings.

I heartily congratulate the Graduates of the Year, their Parents and Winners of different medals at this Convocation. Each one of you is unique and will have to find your own path to success in life with fortitude and optimism. I wish every one of you a very bright and prosperous future.

With immense pleasure, I now invite, Shri Govinda Rajulu Chintala *Garu* to address the Convocation.



# **FOURTH CONVOCATION**

Thursday, 27th August, 2020

## **Convocation Address**

# Shri G R Chintala

Chairman
National Bank for Agriculture and
Rural Development (NABARD)
Mumbai, India



"India's place in the Sun would come from the partnership between wisdom of its rural people and the skill of its Professionals"

- Dr. Verghese Kurien

Honourable Governor of Telangana and Chancellor of Professor Jayashankar Telangana State Agricultural University, Hyderabad, Smt. Tamilisai Soundararajan; Esteemed Vice Chancellor of the University, Dr. V. Praveen Rao; Registrar; Members of the Board of Management and Academic Council; Teachers; Degree Recipients; Students; Staff members; Representatives of electronic and print media; Ladies and Gentlemen,

It is a great honour for me to address the 4<sup>th</sup> Convocation of the Professor Jayashankar Telangana State Agricultural University. I am very happy and proud to see that the University has distinguished itself as a premier institution in the field of Science and Technology in Agriculture.

I take this opportunity to congratulate the Management, all the teachers and staff for their hard work, zealousness, dedication & commitment that has contributed to this significant achievement.

On this momentous occasion of convocation, I deem it a privilege to share with you my journey which commenced from the very corridors of this great University, the then Andhra Pradesh Agricultural University. I place on record, my deep sense of gratitude to my *alma mater* which equipped me with knowledge and requisite tools to serve my country in the best possible way. It is a wonderful feeling to come back and share my experiences back home with the next generation of students.

I still vividly remember my graduation days when we were brimming with dreams and a burning desire to transform this world. Today, I can see the same in the eyes of many students who are sitting right here. Though times have changed, the problems of agriculture have persisted, albeit with varied magnitudes and complexities. What has however, favourably changed is technology and access to technology. Just to put it into perspective, a scientific calculator then was equivalent to a supercomputer of today!!!

Not to be dragged into the past, the present day offers myriad opportunities to work on. We have a more globalised world today, where exchange of ideas and data happens in a jiffy. One can broadcast an idea across the world in a nanosecond through social media. Information and Communication Technology is at our command. The economic status of most students here are much better than compared to the parents of our times. With all these positive things around, the world outside has higher expectations from all of you and I am sure, just like me, you too can work on them and meet their expectations.

Today, we are living in unusual times. The Covid 19 pandemic has disrupted the world economy in unimaginable ways. The International Monetary Fund has projected contraction of global output by 4.9 per cent and India's GDP by as much as 4.5 per cent in 2020-21. To regain the growth momentum, we need reimagining and fundamental reforms. One of the prescriptions for lifting the economy out of a slowdown is to put in place a strategy that leverages its latent strength and agriculture sector is the silver lining for 2020-21.

This pandemic has brought the indispensability of agriculture back to focus. I would add that the comfortable food stock built over last several decades through the toil of the entire

agricultural community with farmers at the forefront, is something that has made us more resilient in the context of this pandemic.

In this context, I would like to reiterate our PM's words on this 74<sup>th</sup> Independence Day, "the idea of self-reliant India cannot be achieved without the contribution that farmers and agriculture sector makes". Self-reliant India means not only reducing imports, but also increasing our skills, our creativity.

#### **Enabling Government Policies amidst COVID 19**

In the wake of COVID 19, the Government of India has unveiled a slew of measures aimed at reforming the agricultural sector and hand-holding the farming community. These reforms would help in the deregulation and liberalization of the agriculture sector and empower farmers to become a bigger and more stable participant in the journey of India's growth and development. Let me briefly highlight these reforms and their implications.

- Indian farmers thus far were under compulsion to sell their produce to traders registered by State governments, at notified Agriculture Produce Market Committee (APMC) markets. The Farmers' Produce Trade and Commerce (Promotion & Facilitation) Ordinance, 2020 will now create an ecosystem where farmers and traders will enjoy the freedom of choice of sale and purchase of their agri. produce outside the markets notified under various state agricultural produce market jurisdictions. It will promote barrier-free inter-state and intrastate trade and commerce outside the physical premises of markets notified under State Agricultural Produce Marketing legislations.
- The Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Ordinance, 2020 will secure the interests of farmers to engage in business with agri-business firms, processors, wholesalers, exporters or large retailers for farm services and sale of future farming produce. It is aimed at eliminating intermediaries resulting in full realization of price for the farmer.
- And finally, the Essential Commodities Act (ECA), 1955 Amendment Ordinance will make agricultural markets more responsive to forces of demand and supply. Agricultural markets were long characterised by poor competitiveness, fragmentation, inefficiency, presence of excessive middlemen, and frequent price manipulations.

With these reforms in place, the farmers would now be able to sell their products anywhere and on their own terms.

#### Reinventing Telangana: The Way Forward with specific reference to Agriculture

Telangana is the country's youngest but one of the fastest growing states. Over the last 6 years, the average annual GSDP growth of Telangana at 7.98 per cent (at constant price) is higher than the corresponding national GDP growth rate of 6.71 per cent (constant price). Agriculture has been contributing 18% to GVA of the state but absorbing 55% of its workforce.

Consecutive drought, structural rigidities, yield plateauing, imbalance use of fertilizer and nutrients, lack of advisory services, lack of technological interventions like ICT and IoT are some of the pressing issues faced by the agriculture sector in the state. To overcome the structural rigidities in the sector and to make farming more remunerative, the Government of Telangana launched schemes like (i) *Rythu Bandhu* Scheme (investment support), (ii) *Rythu Bima* Scheme (farmer life insurance), (iii) provisions of high quality inputs such as seeds, etc. (iv) construction of irrigation projects, and (v) revival of all tanks under Mission *Kakatiya*.

Horticulture and Animal Husbandry has been identified as thrust areas by the Telangana Government to make the sector vibrant. As a result, today Telangana stands in the 3<sup>rd</sup> position in All India in terms of Egg production, 5<sup>th</sup> in Meat production, 10<sup>th</sup> in Livestock population and 13<sup>th</sup> in Milk production. The trend emerging is GVA share of crops has been declining (9.6% in 2010-11 to 6.9% in 2019-20, whereas GVA share of livestock has been on the rise (5.6% in 2010-11 to 7.6% in 2019-20).

The agro-climatic condition of Telangana offers enormous potential for horticultural crops. The Government of Telangana has set up two Centres of Excellence for promoting high-quality vegetables and flowers at Jeedimetla and Mulugu in Medchal and Siddipet districts respectively through High-Tech Agricultural practices.

More recently, Telangana Government launched the Artificial Intelligence for Agricultural programme in collaboration with the Centre for the Fourth Industrial Revolution, India (C4IR), which is working in close association with this esteemed University to identify high impact use cases of AI which would benefit the farmers.

## High Tech Agriculture & High Value Crops

In the face of stagnating agricultural production, fragmented land holding and increasing population pressure, high-tech agricultural practices like Soil less Agriculture, Protected cultivation under greenhouse and poly house, hydroponics, aeroponics, Vertical farming, etc. are necessiated to increase agricultural productivity. Given the changing consumption pattern, there is tremendous scope for High Value Crop Cultivation in the state. High Value Crop cultivation that can be encouraged in the state are:

- i. Fruit and vegetable cultivation especially catering to urban and metro markets
- ii. Cultivation of off-season and exotic vegetables under greenhouse for exports asparagus, celery, bell pepper, sweet corn, green and lima beans
- iii. Floriculture- open and greenhouse production for domestic and export markets
- iv. Exclusive production of crops for processing or specific to user industry needs under contract farming arrangements-gherkins, potato, fruits and select vegetables for processing, flowers for extracts, medicinal and aromatic plants
- v. Hi-tech nursery units for fruit crops, vegetables, flowers, etc.

Cultivation of horticultural crops of high yielding varieties, coupled with micro irrigation, and popularising high density and ultra-high-density planting concepts, mulching and post harvest practices have excellent potential to enhance farmers' income and can act as one of the means of doubling of farmers' income.

I urge you to embrace technology and think out of the box in order to take advantage of the changing dynamics in the consumption behaviour. I appeal to you all to adopt the 'Vocal for Local' mantra.

## Irrigation and Water Efficiency

Unexpected events – from social disruptions like the COVID-19 pandemic to extreme weather events like droughts and floods due to climate change – highlight the need to bolster the resilience of our irrigation systems to provide water in critical times.

Telangana being in semi-arid zone, has historically been prone to drought conditions which would impact not only water resources but also have a cascading effect on other dependent sectors. Increased drought conditions can also severely affect agricultural and pastoral livelihoods and increase vulnerability and risks for farmers, and people depending on such livelihoods. This calls for adoption of water efficient agricultural practices. It is therefore heartening to note that micro irrigation has been a flagship programme of the Government of Telengana for improving the water use efficiency in command areas of wells. Effective utilization of every drop of water through such a system is imperative for improving crop productivity and production and to achieve an improvement in living standards of small and marginal farmers of the state in a sustained manner. The launching of Mission *Kakatiya* for renovation of tanks in the state to regain the area under tank irrigation and increase the amount of water available for irrigation has been another laudable effort. It is with pride that I would like to mention NABARD's support of this Mission of the Govt. of Telengana. The Kaleshwaram lift Irrigation Project, which has changed the face of the Godavari basin in the state and the drinking water supply programme Mission *Bhagirath* are some of the other major projects funded by NABARD.

## Area Based Programmes - Watershed and Wadi

A key concern for most policy makers has been the sustainability of tribal livelihoods. How do we engage with vulnerable communities to ensure that they are brought within the development fold in a sustainable manner? Through the Tribal Development Programme (popularly known as WADI), we at NABARD have been engaged in implementing participatory watershed development programmes for about three decades with an aim to reduce risk associated with dry land farming systems and livelihood in tribal inhabited areas through holistic development involving soil and moisture conservation, productivity enhancement measures, alternative livelihood interventions, etc. Such programmes are always a collaborative effort where the involvement of various development agencies play a key role in their effective implementation. The uniqueness of these programmes is people's participation in planning, implementation of the projects, and monitoring as well as financial management through community-based organisations. Organically, all these are small-farmer oriented. Can we think of embracing such development approaches for a more inclusive and expansive reach?

### **People's Institutions**

For a stronger society we need vibrant grassroots institutions of people. Be they formal cooperative societies or informal self-help groups of women, social capital at the bottom of the pyramid is quintessential for rural solidarity and prosperity. For various reasons, the village level social fabric disintegrated overtime, which is being revived of late through promotion of various local people's organisations. Self-Help Groups of women, pioneered and nurtured by NABARD over last  $2\frac{1}{2}$  decades, transformed social status of women in rural societies across the country and improved their living standards substantially. Several empirical studies amply proved this.

Similar institutions are needed for rural producers too. For, over 85% of farmers in the country being small and marginal, face issues relating to scale of cultivation, high cultivation cost, access to affordable credit and market, thus leading to poor returns. Farmer Producer Organisations (FPOs) have emerged as the panacea to the crisis, being new-age organisations with potential to address the challenges of small landholders related to scale and market access through collectivisation and aggregation, thus ensuring better returns to farmers. Countries like China, Vietnam and Indonesia, to name a few, have adopted the FPO approach successfully.

NABARD has embraced FPO promotion as one of the priority areas in alignment with Government of India's vision. We need an ecosystem for sustainable growth of FPOs by nurturing the producers' organisations through capacity building and hand holding, designing of a dedicated web portal for FPOs with digitised data of all members, performance matrix for the FPOs, credit facilitation, market linkages, etc.

To enlighten your young minds about these farmers' organisations gaining traction lately, let me give you a brief of what has been done so far. There are at present about 8,000 FPOs that have been promoted nationwide by various agencies including NABARD. Under Producers' Organization Development and Upliftment Corpus (PRODUCE) Fund set up in 2014-15 by Government of India, NABARD has promoted 2154 FPOs across the length and breadth of the country. As on 31<sup>st</sup> March 2020, shareholding members stood at ₹8.29 lakh, with cumulative share capital to the tune of ₹93.75 crore under the programme. To strengthen the FPO movement, NABARD, from its own operating surplus, created Producers Organisation Development Fund (PODF) and promoted additional 2,330 FPOs. NABARD is also one of the implementing agencies

for promoting of 10,000 FPOs under the Central Sector Scheme of FPOs announced in the Union Budget 2019-20. Under this scheme, Government of India along with NABARD, has envisaged setting up of a Credit Guarantee Fund (CGF) with a corpus of ₹1,000 crore.

The FPO movement has made inroads in Telangana also, with 300 FPOs supported by NABARD having around 36,000 members engaged in various activities, right from input supply business, aggregation and marketing of produce to processing and value addition.

To continue this FPO revolution, it is important to have a trained pool of local talent to manage these FPOs on professional lines. Young bright minds like you can contribute to nation building by helping build thriving FPOs. The scope is limitless, with entrepreneurism, technology driven solutions and creativity being the hallmarks of development and agtech being the cornerstone of progress through linking of these FPOs to the fast developing agri start-up ecosystem.

### Climate Smart Agriculture – The future of farming

Rainfed farming systems, representing 54% of the net sown area in Telangana, have become increasingly affected by recurring drought and high climatic variability, adversely affecting the livelihoods of small and marginal farmers in the state. To reorient agriculture under the realities of climate change, Climate Smart Agriculture (CSA) is the only alternative.

I am happy that Telangana State Action Plan for Climate Change (SAPCC) has prioritised agriculture as one of the seriously impacted sectors due to high climate variability and has adopted water use efficiency as a key adaptation intervention.

Government of Telangana, with the support of NABARD under National Adaptation Fund for Climate Change, has implemented the following Climate Smart Agriculture projects, *viz.*,

- Resilient Agricultural Households through Adaptation to Climate Change in Mahbubnagar district
- ii. Restoration of Degraded Landscape to Natural state of Ecosystem for Climate Resilience and Livelihood Improvement of Vulnerable Communities covering 7 districts of the state

The need of the hour is to develop scientific framework for upscaling Climate Smart Agriculture (CSA) practices in Telangana on the following lines:

- i. Setting up of Climate Information Centres and propagate programmes for climate literacy
- ii. Analyse *mandal* level climate exposure (present and future scenarios) and map it with soil, nutrients, crop and socio-economic conditions of farmers
- iii. A multi-stakeholder participatory approach to prioritise CSA practices right from creating awareness, developing indigenous models for mitigation and adaptation, reducing dependence on commercial non-food crops and to ensure natural resource management, etc.
- iv. An ex-ante impact assessment to determine the investments needed

### Agripreneurs and Agri Start-ups – Harvest of hope

While entrepreneurship has been talked about since many years, agripreneurship is something which we started discussing only recently. Agripreneurship combines agriculture and entrepreneurship to tackle a number of challenges faced across the agricultural value chain by disrupting the agriculture system with innovative ideas and affordable solutions. These agri start-ups have become the missing link between the farmers, input dealers, wholesalers, retailers and consumers, connecting each of them to each other and providing strong marketing linkages and quality produce on time. However, agripreneurs often face a disadvantage, because of the lack of resources and land they have access to. Can young agri graduates find a profitable future in agripreneurship? Can small-holder farmers become entrepreneurs? And, will there be enough investment to transform agriculture into a viable enterprise? These are some of the questions I want you all to think over and act.

Central as well as State Governments have implemented multiple enabling policies to support agri start-ups, their early take off and successful operations. One such scheme is the Agriclinics and Agribusiness Centres Scheme (AC&ABC) implemented by MANAGE in association with NABARD. The scheme aims to supplement the efforts of public extension by providing professional extension and other services to the farmers, while simultaneously supporting agriculture development and creating gainful self-employment opportunities for unemployed agricultural graduates and diploma holders.

To promote and nurture agripreneurs and start-ups, NABARD has set up and supported upscaling of 5 Agri Business Incubation Centres (ABICs) at various Agriculture Universities across the country, with one of them present here in Hyderabad itself – a-IDEA at National Academy of Agricultural Research Management (NAARM). These ABICs will facilitate the start-ups with necessary resources and business support services, marketing arrangements as well as finance to transform them into viable commercial entities.

After the initial funding has dried up, start-ups enter a stage called Death Valley, where there is high probability that a start-up will wind up due to lack of steady revenue and scarce additional funding, leaving the start-up vulnerable to cash flow requirements. To support the Agri Start-ups entering the Death Valley phase, NABARD has set up Catalytic Capital Fund of ₹100 crore for supporting such rural and agri start-ups.

NABARD has also set up NABVENTURES, a wholly owned subsidiary, which through venture growth equity funds invests in early to mid-stage start-ups in agriculture, food-based businesses and rural financial services to boost the investment ecosystem in the core areas of agriculture, food and rural livelihoods.

I would like to conclude my address with an appeal to all the bright young minds assembled here today.

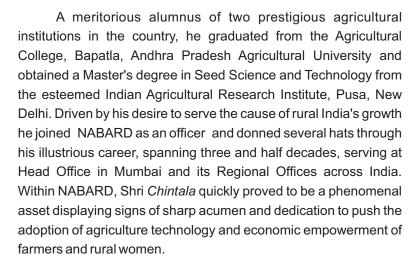
President Kalam had a dream to see India as a developed nation. We too should have a dream of a nation where every farmer's family goes to sleep at night happy, satisfied and contented. This pandemic has made us once again sit up and take notice of the Gods amongst us, the farmers. A happy farmer is the root to a healthy civilisation. Healthy citizens are the pillars of a prosperous nation. And with prosperity, India can earn developed nation status. This is my dream. This is NABARD's dream, as well. And today I want each one of you to make it your dream as well. If all of us work in tandem to achieve it, India will become a superpower built upon the foundation of agriculture and rural prosperity.

Jai Hind! Jai Kisan! Jai Jawan! Jai Vigyan!



# **About the Orator**

Shri Govinda Rajulu *Chintala* was born on July 15, 1962 to Shri Butchaiah and Krishna Kumari *Chintala*, at Brahmanakoduru, Guntur district of Andhra Pradesh, who through sheer industry and financial acumen made his parents and mentors proud by attaining the coveted Chairmanship at the NABARD, the apex financial institution of India. He is also the Chairman of NABARD Consultancy Services (NABCONS) Ltd., NABVENTURE Ltd. and NABFOUNDATION and is on the Board of prestigious institutions like Institute for Rural Management (IRMA), DICGC and IIM, Ahmedabad.



Shri *Chintala*, had honed his leadership skills, having served as the Managing Director of NABARD Financial Services



(NABFINS) Ltd., and the Director of Bankers Institute of Rural Development (BIRD), Lucknow, one of the premier institutes of the developing world which offers Training, Research and Consultancy services in agriculture and rural development banking. A live wire speaker, he has, in his capacity as a Faculty Member of BIRD, trained several hundreds of professionals from banking and NGO sectors. He also served as a Director on the Board of Agriculture Insurance Company (AIC) as also on the board of several RRBs/State Cooperative Banks across the country and National level NBFCs of GOI.

Working closely with various State Governments and banks at the highest level he has contributed immensely to the credit planning and monitoring, funding for rural infrastructure and implementation of innovative and pioneering projects. Shri *Chintala* has been the driving force in promoting and nurturing Farmer Producers Organizations (FPOs), Livelihood Enterprise Development Programs, Area Development Schemes and Alternative energy models in Karnataka, while in Port Blair, his foresight to support the import of quality equipment led to a three-fold increase in price of Copra and thereby agricultural growth on the islands of Andaman and Nicobar. These were, needless to say the first time ever initiatives in the history of these remote islands. His fundamental faith in agriculture research was instrumental in establishing an Agriculture Research Centre in collaboration with CARI in the northern islands of Andaman and initiated many development & plantation projects in Campbell of Great Nicobar.

Understanding the importance of last mile delivery of Institutional Credit he pushed hard for the incorporation and growth of Financial Inclusion in the country. As Head of the Micro Credit Innovation Department (mCID) in NABARD, Shri *Chintala* conceptualized, designed and rolled out the digitization of the world's largest microfinance program under project 'e-Shakti' and also played a vital role in driving the world's largest poverty alleviation cum women empowerment program, the SHG movement comprising 10 million groups, covering 100 million members.

Shri Chintala has remained in touch with grassroots and has been an academic at heart constantly learning from the field to reshape the policies and programmes that made the

difference. He has several papers and reports to his credit which were presented at national and international fora. He made his presence felt both at home and abroad through his official engagements that took him to more than 20 countries. He has handled several prestigious consultancy assignments, including a significant one on "Roadmap for Amalgamation of Regional Rural Banks" in 2006 that led to the consolidation of 196 RRBs, while another on "Efficacy of SGSY in meeting the aspirations of SCs/STs" commissioned by the Ministry of Rural Development, Gol, helped in launching National Rural Livelihood Mission (NRLM) throughout the country, phasing out the SGSY.

Shri *Chintala* stands as an inspiration to the agricultural fraternity, for what can be achieved through shrewd foresight, purposeful planning, hard work and a congenial personality to rise above the ordinary and scale the peaks of stewardship. His achievements in the space of rural finance and credit not only speak volumes of his commitment to driving the national economy but also to uplifting the livelihoods of the farming community and rural artisans in India.





## **FOURTH CONVOCATION**

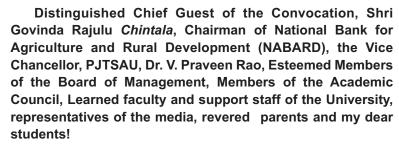
Thursday, 27<sup>th</sup> August, 2020

## **Chancellor's Address**

# Dr. Tamilisai Soundararajan

Hon'ble Governor of Telangana and

Chancellor of Professor Jayashankar Telangana State Agricultural University



It gives me great pleasure to be with you today, for the Fourth Convocation of Professor Jayashankar Telangana State Agricultural University, especially as it is being conducted Online for the first time in view of the COVID pandemic that prevents us from gathering physically at one place. In fact I should commend the University for making efforts to conduct the Convocation online so that the passing out students are awarded the degrees in time and the toppers receive medals as in normal times. This ceremony affords you the right to step into the real world in search of a career that offers umpteen opportunities and challenges as well. I appreciate all the students who have chosen to study agriculture



and its allied subjects because it reflects your respect for the food that sustains all and for the farm families who toil to feed the millions who are unknown to them. The COVID situation has once again proved the value of immunity building foods and the producer of those foods in our fight against the devastating virus. Everyone and everything stopped for a while but not those involved in agriculture.

I quote from the Thirukural

சுழன்றும்ஏர்ப் பின்னது உலகம் அதனால்

உழந்தும் உழவே தலல.

"Suzhandrumerp Pinnadhu Ulakam Adhanaal

Uzhandhum Uzhave Thalai."

Explanation

Agriculture, though laborious, is the most excellent (form of labour); for people, though they go about (in search of various employments), have at last to resort to the farmer.

The food production scenario in India has undergone a sea change since the advent of green revolution. From a meagre 50 million tonnes the food grain production today stands at 285.4 million tonnes, horticultural produce at 314.5 million tonnes, milk at 187.7 million tonnes and fish at 13.7 million tonnes. As the emphasis was on increasing the food grain production to feed the hungry millions in the country, we have successfully achieved the target with surplus production to our credit. In the process, we have neglected two important aspects – nutrition of both humans and the soil. The race to produce more of staple food grains has resulted in a narrow nutritional food basket available to the masses contributing to the massive malnutrition – under and over nutrition in the country. Indiscriminate use of fertilizers, no doubt resulted in higher production but has also depleted the soil health making farming unsustainable. Diminishing water resources and unpredictable climate regimes have further added to the precarious condition of the agro ecosystem.

The emphasis is now on nutri sensitive food security as never before as the COVID pandemic has raged across nations particularly affecting those with compromised immunity and

comorbidities. While FAO defined food security as a "condition that exists when all people at all times have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life", Dr. M.S. Swaminathan defined Nutrition security as "physical, economic and social access to balanced diet, clean drinking water, environmental hygiene, primary health care and nutritional literacy" emphasizing on availability, access and absorption of food. 2025 has been designated as the target year for achieving Zero Hunger challenge through 100 percent access to food all around the year through sustainable food systems and zero food loss or waste of food. Overcoming hunger involves concurrent attention to calorie deprivation, protein hunger and hidden hunger caused by the deficiency of micronutrients like Iron, Zinc etc., in the diet.

It is now time for us to revisit the traditional wisdom of sustainable natural resource management that our forefathers had practiced in their backyards while keeping pace with the digitally enabled fast track technologies that are bringing about revolutionary changes in our lifestyle, food habits, health or lack of it! The need of the hour is focus on family farming which tends to be based on crop, livestock, fish, agro-forestry, and mixed farming systems managed by the family. It plays a very important socio economic, environmental and cultural role in keeping alive the traditional food systems while preserving the agro bio diversity and sustaining natural resources.

Many family farmers have proven to be innovative and resilient under the right socio-political framework and conditions – especially when supported by public and institutional policies. Many low-tech "agroecological approaches" used by smallholder farms have shown the way to combat climate change and create resilience to food price shocks, natural disasters, and conflict. Agroforestry, which integrates trees and shrubs into crop and livestock fields; solar-powered drip irrigation, which delivers water directly to plant roots; intercropping, and the use of green manures, that help prevent erosion and replace nutrients in the soil are a few such approaches. Community supported agriculture / Climate smart agriculture has also brought into limelight time tested drought tolerant hardy crops like millets for sustainability and nutritional diversity.

The Governments at both the Centre and State along with learning institutions are designing and implementing policies giving access to natural resources, providing practical training in

marketing and entrepreneurial skills as a form of social protection to the farmers. Cash transfers, crop insurance, welfare pensions to the farm families are some of the tools that afford social protection. Some of the rural and farmer welfare initiatives that are close to the heart of the Hon'ble Prime Minister, Narendra Modi ji are

### Rural development initiatives

- Sansad Adarsh Gram Yojana adoption of village by MPs
- MGNREGA Mahatma Gandhi National Rural Employment Guarantee Act
- Pradhan Mantri Jan Dhan Yojana to integrate with Micro finance and micro insurance schemes
- Integrated Child Development Services (ICDS)
- Rashtriya Swasthya Bima Yojana National Rural Health Mission (NRHM)
- Scheme for empowerment of adolescent girls (SABLA)
- Public Distribution System
- Skill India Programme Pandit Deen Dayal Upadhyaya Grameen Kaushal Yojana
- Make in India Programme
- Swatch Bharat Abhiyan Campaign
- Namami Gange initiative for River Ganga conservation

## Farmer friendly initiatives

- Pradhan Mantri Krishi Sinchai Yojana Improving Irrigation facilities
- Paramparagat Krishi Vikas Yojana Organic farming in North Eastern region
- Grameen Bhandaran Yojana- Increased storage capacity
- Soil Health cards 14 crore holdings in country
- National Mission on Sustainable Agriculture (NMSA)
- A new urea policy to enhance domestic production and energy efficiency

- Input subsidy enhanced by 50% of existing rate and eligibility slab reduced from 50% to 33% of crop loss due to weather vagaries.
- Price Stabilization Fund with a corpus of Rs. 500 crores has been established, to support market interventions for price control of perishable agri-horticultural commodities
- National Agricultural Market (e NAM)
- Microirrigation Fund
- Gram Jyoti Yojana will provide uninterrupted electricity supply by separation of feeders. This
  will not only boost production, but will also have a huge impact on the overall lives of the
  farmers, including cottage industries, education, etc.

### Social security initiatives

- Pradhan Mantri Suraksha Bima Yojana provides accident insurance worth Rs. 2 Lakh at just Rs. 12 per year.
- Pradhan Mantri Jeevan Jyoti Bima Yojana, and Atal Pension Yojana
- Poshan Abhiyan for nutritional security of children 0-6 age group, adolescent girls, pregnant women and lactating mothers

These act as incentives for market driven quality food production and create a safety cushion for climate, market and financial risks. The State of Telangana is seeing the implementation of several progressive far reaching measures in the domain of irrigation projects (Kaleswaram), water conservation through rejuvenation of tanks (Mission *Kakatiya*) and microirrigation for increased water productivity. Crop diversification through delineation of crop colonies and promotion of balanced use of fertilizers are some of the other measures to enhance sustainability of the land. The schemes promoting sheep rearing and aquaculture ensured assured livelihood and income to the farmers of the State.

The agricultural scientists and functionaries have to focus their attention on nutritional status of the locally grown crops and relate it to the nutritional needs of the population and chart out a plan for introducing a balanced farming pattern with the right mix of cereals, millets, oilseeds and

pulses apart from mineral and vitamin rich vegetables and fruits. The animal component not only helps in meeting the protein requirement but also enhances the income levels of the farm household.

Value addition to the primary produce is an important aspect of increasing nutrition and farm household income particularly through training the farm women. Foods and Nutrition Scientists have shown that malt based small scale food industry, value added fish and prawn products, amylase rich supplementary foods, mushroom production, backyard nutrition gardens have all resulted in developing entrepreneurial skills and enhanced socio economic status of women along with food and nutrition security of their families.

Nutrition literacy at all levels has to be encouraged to leverage agriculture for nutrition security. Local food systems should be strengthened while higher value and certified products can be sent to larger markets. Opportunity lies for young graduates like you to venture into cross sectoral research and extension to develop nutrient and protein enriched cereals. Worldwide there is a push to explore alternatives to animal protein, which obviously demands way too much water and energy. Several insect, algae and plant derivatives are finding acceptance as animal protein substitutes for human consumption, while microbial biotechnology is making inroads into sustainable plant nutrition for delivering safe food.

I see that more than 50 percent of the students graduating are girls. This is indeed heartening as the future of agriculture is in the hands of women and youth particularly in countries like India. However their intellectual role and managerial skills remain unrecognized in rural communities.

I quote the Hon'ble Prime Minister.

"Women have an important role in Agriculture. We need to introduce technology, which will help us harness the potential of women in agriculture. We need to divide agriculture sector into three parts-regular farming, farming of trees and animal husbandry. If we are able to do this, the contribution of our women will increase even more"

- Narendra Modi

They are the custodians of the seed, and are part of all operations from sowing to weeding to harvesting. However, they have no rights over the land or access to inputs or credit which considerably reduces their negotiating power. Therefore, land rights for women are crucial in reducing household poverty and vulnerability. If they are adequately trained in adopting sustainable farming techniques they would gain greater control over assets. Increased income in the hands of the women of the household will result in greater spending on balanced diets and reducing malnutrition. Hence, gender empowerment is the key to nurturing a hunger free green earth.

Another area that needs to be encouraged is the farmer led innovation and co-creation of knowledge between farmers and scientists. Often innovation hubs and startups are confined to Tier I cities limiting the opportunities for rural youth. This situation will change only when rural youth are attracted back to farming by increasing entrepreneurial opportunities in rural areas. This would be possible only, when efforts are made to improve rural roads and infrastructure, achieving e–connectivity, better access to energy, communications, services and financing that should be a co responsibility of industries apart from public and development sector that thrive on agriculture. Agri incubation centres should also be set up in Tier 2 and 3 towns to foster rural innovations and the students of this University should take advantage of these facilities to first experiment and then turn mentors to others of their kind. I was impressed with the INSPIRE workshop on "Youth as Torchbearers for Business Oriented Agriculture" organized by PJTSAU in October 2019 which brought together a diverse group of stakeholders on a single platform to network for just this purpose.

Agricultural Universities now have the challenging task of producing knowledgeable and trained human resource with problem solving skills to meet the Hon'ble Prime Minister's vision of *Atma Nirbhar Bharat* catering to changing climate and consumer driven demands. I am happy to note that PJTSAU has charted a well defined plan in this direction. By aligning its research plans integrating the food and nutritional needs of the rural and urban communities of the State and building physical and teaching infrastructure that enables cross disciplinary learning and social entrepreneurship in its students, the University is on the right course in tune with National Educational Policy 2020. Education is a continuous and lifelong process and does not necessarily

confine to the four walls of a classroom, particularly in your field. The COVID lockdown and aftermath has drastically changed the way we teach, learn and interact. The available digital tools have made available knowledge in plenty and at our fingertips on a global scale. The teacher has to become a facilitator and a mentor, helping the student to focus on the evolving disruptive technologies that enhance farm and individual productivity. This requires a change in mindset of the teachers towards perpetual learning and staying updated. Particularly with regard to PG research programs, they should be modelled to contribute effective solutions to emerging local problems harnessing benefits of IoT technologies, nano and biotechnology. This should be part of a long term plan of integrating research and teaching.

Heterogeneity brings in fresh ideas and the power to view things from different perspectives which is very essential for innovative research. Hence the University should attract global faculty and students by raising its standards to that of world class universities, not only in terms of physical infrastructure but also in research and learning. I am sure PJTSAU is moving in that direction under the dynamic leadership of the Vice Chancellor Dr. V. Praveen Rao and his team of Officers.

As the saying goes

# "Bricks are used to build Walls and Bridges – between Places and People. Make the Right Choice"

As I see it, all of you are the bricks that PJTSAU has proudly produced to build bridges for the prosperity of the farming community, the "Biohappiness" including the health of the environment and people of the country. We shall overcome the travails created by COVID with patience and self discipline.

Finally, I congratulate all the young graduates, the medal winners and their proud parents and pray that you will rise to the expectations in whatever capacity you are placed and contribute your mite to building a strong and vibrant Telangana and India!

As you pass out of the portals of this University, I quote the great Tamil poet Subramaniya Bharathiyar

```
மனதில் உறுதி வேண்டும்,
வாக்கினிலே இனிமை வேண்டும்;
நினைவு நல்லது வேண்டும்,
நெருங்கின பொருள் கைப்படவேண்டும்;
கனவு மெய்ப்படவேண்டும்,
கைவசமாவது விரைவில் வேண்டும்;
தனமும் இன்பமும் வேண்டும்,
தரணியிலே பெருமை வேண்டும்;
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## Translation of the quote in English

The mind should be firm

There should be sweetness in speech

Let there be good thoughts

Cherished desires should come to hand

Dreams should come true

Let the goal be attained with ease

Wish for wealth and love

Wish for respect in this world!

I wish the very best in all your future endeavours.

JAI HIND!



## **People**





















### **Students**













### **Schools**





04 Under Graduate 22 Post Graduate 17 Doctoral

13 🏤 Polytechnics



3 Diplomas

### Research





12 Research Stations



590 **Publications** 



### **Extension**









### **International Collaborations**



12 Collaborations



Countries













### **National Collaborations**



**22** Collaborations

## Rankings











## Recognition, Accreditation & Membership











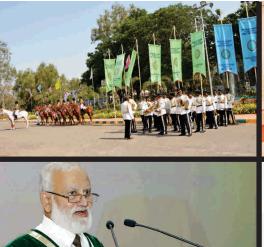
























Glimpses of Third Convocation 9<sup>th</sup> March, 2019

















Proud Graduates of 2014 Batch
- Torchbearers for Futuristic Farming

