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Progress Through Science

TAAS Awards

A Compendium

Trust for Advancement of Agricultural Sciences (TAAS)

BOARD OF TRUSTEES

TAAS Awards

A Compendium

Trust for Advancement of Agricultural Sciences (TAAS)

New Delhi

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About TAAS

The Trust for Advancement of Agricultural Sciences (TAAS) is an outcome of the 88th Session of the Indian Science Congress held under the General Presidentship of Dr RS Paroda, the then Secretary, DARE and Director General, Indian Council of Agricultural Research (ICAR) at the ICAR-Indian Agricultural Research Institute (IARI), New Delhi on 3-6 January, 2001. The theme of the Congress was "Food, Nutrition and Environmental Security". Hon'ble Prime Minister Shri Atal Bihari Vajpayee, who inaugurated the Congress, exhorted the scientists to interact with people to create required scientific temper in the society so as to stimulate a positive change in the minds of stakeholders to accelerate agricultural growth. In response to this call, the Organizing Committee of the Congress decided to establish a neutral platform to ensure regular interface among agricultural scientists, stakeholders, and policy makers to debate on issues of national importance and bring out specific recommendations that need to be implemented for faster growth of agriculture in the national interest. TAAS was established on 17 October, 2002 with Dr RS Paroda as the Founding Chairman and the headquarters at the campus of ICAR-IARI, New Delhi. In the Vision Statement by the Hon'ble Prime Minister, it was emphasized that India will soon be free of poverty, hunger and malnutrition and become

an environmentally safe country. This will be possible through accelerated social and economic development by harnessing the potential of new science and innovations, indigenous knowledge and unique sociocultural ethos. The Vision Statement concluded by saying "Hunger free India is an idea whose time has come. Let us launch a science based crusade for eliminating both hunger and malnutrition".

Vision, Goal and Mission

Vision: India becomes a prosperous nation through harnessing agricultural sciences while addressing concerns of poverty, hunger and malnutrition

Goal: Harnessing the potential of agricultural sciences for the welfare of people of India

Mission: Promoting growth and advancement of agriculture through science based policy advocacy, public awareness and effective research and development partnerships

Strategic Thrusts and Activities

TAAS acts as a neutral Think Tank for strengthening agricultural research and innovation for development (ARI4D). Its major strategic thrusts are: policy advocacy, technology transfer, information dissemination/ knowledge sharing, human resource development/ capacity building, and strengthening partnerships It executes its programs and activities through collaboration and innovative partnerships with other national, regional and international organizations and networks. The key activities include:

- Organizing conferences, symposia, workshops, stakeholder dialogues and brainstorming sessions on important thematic and new emerging issues.
- Publishing proceedings, policy briefs, strategy papers, success stories, and status reports.

- Conferring national awards on scientists and farmers for their outstanding life time contributions.

Membership

TAAS has corporate membership, institutional membership, life membership, and reciprocal membership of scientists, research institutions, universities and private sector organizations/ institutions engaged in agricultural activities. Currently, TAAS has 219 members including 20 corporate members. 27 institutional members, 5 reciprocal members and 167 life members.

Major Accomplishments

In view of its mandate, TAAS is working for more than 24 years on policy advocacy, public awareness, research networking and incentives such as conferring awards for outstanding achievements in agriculture. Since inception, TAAS has organized >70 national/ international symposia, workshops, stakeholder dialogues, expert consultations, brainstorming sessions and seminars and published their proceedings. TAAS also organized structured discussions on topics of thematic importance culminating in important policy briefs. It also brought out >25 strategy papers and >10 success stories on thematic issues of national importance. In addition, TAAS also organized foundation day lectures and the lectures of eminent research leaders. The recommendations emerging from various events organized by TAAS have sensitized the policy makers to lay greater emphasis on diversification in agriculture, enhancement in both production and productivity, and ensuring sustainability. It has also created needed awareness among stakeholders for use judiciously the natural resources, especially the land, water and biodiversity. While TAAS has made outstanding contributions for the welfare of the society, it continues to strive for diversified activities, with greater emphasis on scaling innovations for impact on smallholder farmers to improve their production and profitability, while motivating, attracting and empowering youth (including women) in agriculture.

Some of the specific achievements having great impact on policy advocacy, technology transfer, information dissemination/ knowledge sharing, human resource development/ capacity building, and strengthening partnerships are enumerated below:

Policy and Crop Missions: TAAS had been instrumental in getting maize included in the National Food Security Mission (NFSM), ensuring accelerated maize production from 20 million tonnes in 2010 to now 45 million tonnes. TAAS has also created greater awareness of soybean as a food crop and promoted the use of soya milk and tofu to address protein malnourishment. Based on TAAS recommendations, the government initiated the National Mission on Seeds (emphasizing on hybrid seeds).

Genetic Resources Management: The National Advisory Board has been constituted for the coordination and convergence of all genetic resources Bureaux. Furthermore, the TAAS-recommended "Ranchi Declaration" led to a national plan for the conservation of indigenous breeds and the establishment of the "National Mission on Livestock".

Biotechnology and Genome Editing: TAAS was the first to recommend the establishment of Biotechnology Regulatory Authority of India (BRAI) for single-window clearance of GM crops. Based on TAAS initiatives, the Government also approved the use of genome editing in crop improvement and designation of SDN1 and SDN2 genome edited crops out of stringent regulatory process of testing applicable to conventional GM crops.

Natural Resource Management: Through expert dialogues, stakeholders were sensitized to diversification in a "farming systems" mode, soil-test-based fertilizer use, micro-irrigation systems, and the promotion of integrating pest management (IPM) including the use of biopesticides.

Youth and Innovation: To address the challenge of Motivating and Attracting Youth in Agriculture (MAYA), TAAS has catalyzed the National Agricultural Research System (NARS) to initiate a program on Attracting and Retaining Youth in Agriculture (ARYA).

Women Empowerment: TAAS has been instrumental in establishing an inclusive platform “Global Alliance on Women in Agri-Food Systems (GAWAS}” to institutionalize gender equity and positioning women as central architect of agri-food transformation.

Sustainability and PPP Models: TAAS has promoted regenerative agriculture (RA) and climate-smart agriculture. In response to its efforts to strengthen public-private partnerships (PPP), an Agriculture Innovation Fund has been created by the ICAR to validate new technologies and link farmers directly to markets.

Dr MS Swaminathan Award for Leadership in Agriculture

In honour of Dr MS Swaminathan, a doyen of Indian agriculture, the Trust for Advancement of Agricultural Sciences (TAAS) instituted "Dr MS Swaminathan Award for Leadership in Agriculture" in 2004. This prestigious award was instituted with the aim to recognize the life time contributions of eminent persons who have made global impact in the field of agriculture, especially towards food, nutrition and environmental sustainability.

The outstanding contributions of Dr MS Swaminathan towards agricultural renaissance of India are indeed very well known world-wide. A great visionary and crusader, he has been the main architect of "Green Revolution". Dr Swaminathan is a staunch advocate of sustainable agriculture which would lead to "Evergreen Revolution", necessary for ensuring future household food and nutritional security. In recognition of his outstanding contributions, he was awarded the first 'World Food Prize', the 'Ramon Magsaysay Award' and many other national and international awards and honours. He has been acclaimed by the Time Magazine as one of the twenty most influential Asians of the 20th Century, one of the three from India – the other two being Mahatma Gandhi and Rabindranath Tagore.

TAAS has so far conferred this Award for Leadership in Agriculture on 16 global leaders in recognition of their outstanding lifetime contributions in the field of agriculture, with greater impact on Indian agriculture. This prestigious award carries a trophy, citation and a cash prize of INR 5.00 lakhs. The details of all previous awardees, along with their citations are given in this compilation.

First Award

Dr Norman E Borlaug

Recipient	:	**Dr Norman E Borlaug** Noble Laureate for Peace, CIMMYT, Mexico
Award Presented by	:	**Dr APJ Abdul Kalam** Hon'ble President of India, New Delhi
Venue & Date	:	Vigyan Bhawan, New Delhi; 15 March 2005

Citation

Dr Norman E Borlaug, an epitome of agricultural research and development, dedicated to the alleviation of world hunger and poverty, was born in Cresco, Iowa, USA on March 25, 1914. He received B.S. Degree in Forestry and the M.S. and Ph.D. in Plant Pathology from the University of Minnesota, USA. In 1944, he was appointed as Geneticist and Plant Pathologist and assigned to organize and direct a Cooperative Wheat Research and Production Program in Mexico. Due to his dedicated efforts, the program became an outstanding success. It eventually made Mexico self-sufficient in wheat production by 1956 and laid the foundation for wheat improvement and increased production in other parts of the world. In 1963, Dr Borlaug became the leader of the Wheat Program of newly established International Maize and Wheat Improvement Centre (CIMMYT). In this position, he directed his efforts to wheat research and production problems in Asia. The high yielding, fertilizer-responsive, disease resistant and widely adapted dwarf wheat varieties developed by him laid the foundation for the 'Green Revolution' in various parts of the world, especially in India. He has been visiting India regularly since 1963 and has been a source of great inspiration to all Indian agricultural scientists and scholars. Dr Borlaug, Fellow of Science Academies of 15 countries, including the Indian National Science Academy and National Academy of Agricultural Sciences, India, has been conferred honorary doctorate degree by 51 Universities from all over the world. He is a recipient of numerous academic, scientific and civic awards. He is the only agricultural scientist in the world who received Nobel Peace Prize in 1970. Dr Borlaug currently denotes his time as a Senior Consultant to CIMMYT, as a Distinguished Professor of International Agriculture, Department of Soil and Crop Science, at Texas A&M University and as President of Sasakawa Africa Association. He also serves as ex-officio consultant on wheat research and production problems to many governments in Latin America, Africa, and Asia. Since 1980, he has been working hard

to bring about a Green Revolution in Africa. In appreciation of his monumental contributions to Indian agriculture and for being a great motivating force to propel agricultural research for world food security, the Trust for Advancement of Agricultural Sciences, New Delhi, India has great pleasure in honoring Dr Norman E Borlaug with the 'First Dr MS Swaminathan Award for Leadership in Agriculture' on this Fifteenth day of March, 2005.

Second Award

Dr GS Khush

Recipient	:	**Dr GS Khush** Senior Rice Breeder and Head, Plant Breeding Department, International Rice Research Institute (IRRI), Manila
Award Presented by	:	**Dr Manmohan Singh** Hon'ble Prime Minister of India, New Delhi
Venue & Date	:	Vigyan Bhawan, New Delhi; 9 October 2006

Citation

Dr Gurdev Singh Khush, a world renowned plant breeder, has made enormous contributions to the development of more than 300 high yielding rice varieties that played significant role towards achieving 'Green Revolution'. A worthy son of a farmer, Dr Khush graduated from the Government Agriculture College (now Punjab Agricultural University), Ludhiana in 1962. He joined the International Rice Research Institute (IRRI), Manila in 1967. In 1986, he was promoted as Principal Plant Breeder and Head, Division of Plant Breeding, Genetics and Biochemistry. He provided excellent leadership for the global rice improvement program benefiting millions of resource poor rice growers in the world. A semi-dwarf rice variety IR36, developed by him was one of the most widely grown rice varieties in the world during 1980s. IR64 developed during 1980s is the most widely planted rice variety in the world. Dr Khush is one of the most decorated agricultural scientists in the world. He received honorary Doctorate degrees from nine universities, including University of Cambridge, England. He is one of the five Indian scientists who have been elected to the membership of the Royal Society as well as US National Academy of Sciences. For his monumental contributions to rice improvement, he received Japan Prize (1987), the World Food Prize (1996), the Wolf Prize from Israel (2000) and the China International Scientific and Technological Cooperation Award (2001). He was honored by the Government of India with the prestigious "Padma Shri" Award in 2000. In India, Dr Khush has been actively involved in the development of plant breeding and agricultural biotechnology. He has been a member of the Scientific Advisory Committee (Overseas), of the Department of Biotechnology, Government of India, for over a decade. He worked closely with the Indian Council of Agricultural Research (ICAR) for enhancing human resource development for improving rice productivity in India. He retired from IRRI in 2002 and joined the University of California, Davis, as Adjunct Professor. The Trust for Advancement of Agricultural Sciences salutes this great son of India and takes pride in honoring Dr Khush with the prestigious Dr MS Swaminathan Award for Leadership in Agriculture' on this Ninth day of October, 2006.

Third Award

Dr Surinder K Vasal

Recipient	:	**Dr Surinder K Vasal** Senior Maize Breeder and World Food Prize Laureate, International Maize and Wheat Improvement Center, Mexico
Award Presented by	:	**Prof. MGK Menon** Former Member, Planning Commission (now NITI Aayog), New Delhi
Venue & Date	:	AP Shinde Auditorium, NASC Complex, New Delhi; 3 May 2008

Citation

Dr Surinder K Vasal is an accomplished plant breeder and geneticist whose work on maize led to the development of high quality protein maize (QPM). He, along with his colleague, Dr Evangelina Villegas shared the 2000 World Food Prize for their valuable contributions. Dr Vasal was born in 1938 in Amritsar, India. He did Ph.D. in Genetics and Plant Breeding from the Indian Agricultural Research Institute, New Delhi. Dr Vasal began his career as a researcher in the Department of Agriculture, Himachal Pradesh and later worked as Maize Breeder at the Himachal Agriculture College. In 1967, Dr Vasal took up an assignment with the Rockefeller Foundation in Thailand to conduct research on maize in close collaboration with the National Corn and Sorghum Research Center of Kasetsart University. From there, he moved to the International Maize and Wheat Improvement Center (CIMMYT), Mexico in 1970 and supervised the high lysine maize program. He also held positions of Germplasm Coordinator, Head of Maize Research and Coordinator of Asian Regional Maize Program. Dr Vasal was honored to be the first distinguished scientist at CIMMYT. With the development of quality protein maize, the amino acid content in the diets of several millions has improved since 1990s. Quality protein maize germplasm, developed by Dr Vasal is now being used worldwide for developing QPM cultivars. Dr Vasal has developed important concepts and methodologies and released a large number of promising inbred lines for use by the maize researchers worldwide. In 1997, Dr Vasal took up a new role, leading CIMMYT's Asian Regional Maize Program in Thailand. He strengthened regional hybrid research activities and coordinated the Tropical Asian Maize Network (TAMNET). He specifically played an important role in human resource development by training hundreds of young scientists from the developing countries. Dr Vasal is a member of the American Society of Agronomy, the Crop Science Society of America (whose Presidential Award he won in 2000), and India's National Academy of Agricultural Sciences. He has received the 1996 International Service in Crop Science

Award and the 1999 International Agronomy Award, in addition to accolades from the Governments/Institutions in Honduras, Peru, Panama, India, Vietnam, Bangladesh and a few other countries. He is also the recipient of Chinese Friendship Award of 2001. The Trust for Advancement of Agricultural Sciences takes pride in honoring Dr Vasal with the Third Dr MS Swaminathan Award for Leadership in Agriculture on this day, the 3rd May, 2008.

Fourth Award

Prof. Rattan Lal

Recipient	:	**Prof. Rattan Lal** Soil Scientist, Ohio State University, USA
Award Presented by	:	**Dr Montek Singh Ahluwalia** Deputy Chairman, Planning Commission (now NITI Aayog), New Delhi
Venue & Date	:	Dr BP Pal Auditorium, New Delhi; 11 August 2009

Citation

Prof. Rattan Lal is an eminent soil scientist. His scientific contributions have made profound impact on sustainable management of natural resources and world food production among resource-poor farmers in the developing countries. He has conducted classical studies on watershed management and linked them to C-sequestration and climate change. He has liberally shared his research findings with other scientists, thus promoting effective soil management practices globally. His work has been recognized worldwide. Professor Rattan Lal has received numerous prestigious Awards including the 2007 Nobel Peace Prize Certificate and 2005 Norman Borlaug Award. He has held several important positions in a number of professional societies. He was elected President of the prestigious Soil Science Society of America in 2006-2007. Professor Rattan Lal has authored 1375 research papers, including 13 books, which have received great admiration of the scientific community and comprise principal reference materials in soil science. Born on 5th September 1944 in Karyal, Punjab and educated at PAU and IARI. Professor Rattan Lal earned his Ph.D. from the Ohio State University in 1968. After working at IITA, Ibadan, Nigeria for 18 years, he joined OSU in 1987 as Professor of Soil Science. Since 2000, he holds the position of Director, Carbon Management and Sequestration Center, The Ohio State University, USA. Professor Rattan Lal continues to do excellent work in Soil Science. His main areas of interest are: Soils and Climate Change, Carbon Sequestration in Soils, Sustainable

Management of Soils in the Tropics, Global Food Security, Soil Degradation and Management, and making agriculture as a component of solutions to environmental issues. The Trust for Advancement of Agricultural Sciences takes pride in honoring Professor Rattan Lal with the fourth Dr MS Swaminathan Award for Leadership in Agriculture on this day, the 11th August, 2009.

Fifth Award

Dr Sanjay Rajaram

Recipient	:	**Dr Sanjay Rajaram** Wheat Breeder, CIMMYT, Mexico
Award Presented by	:	**Dr APJ Abdul Kalam** Former Hon'ble President of India, New Delhi
Venue & Date	:	AP Shinde Auditorium, NASC Complex, New Delhi; 10 December 2010

Citation

Dr Sanjay Rajaram is one of the most distinguished wheat breeders known for his valuable contributions globally. He led CIMMYT's wheat breeding program for over two decades. Under his leadership, the CIMMYT program made tremendous impact on global wheat production. As wheat breeder, Dr Rajaram contributed towards the development of as many as 480 wheat varieties that have been released in 51 countries, and are grown on an estimated 58 million hectares worldwide. Twenty-five of his varieties have so far been released in India. For this contribution, he has been honored with a number of national and international honors and awards. Using a novel approach of exploiting winter and spring wheat gene pools, together with shuttle breeding and mega environment testing, Dr Rajaram and his team developed outstanding cultivars with very high yield potential. Applying the concept of slow rusting, he developed wheat varieties with durable resistance to leaf rust, which invariably remained effective for more than 20 years. Dr Rajaram and his team also successfully incorporated blight resistance into modern wheat varieties. Dr Rajaram graduated with a B.Sc. degree in Agriculture from the University of Gorakhpur. He obtained his Masters in Genetics and Plant Breeding from IARI, and proceeded to do his Ph.D. in Plant Breeding from the University of Sydney, Australia. Dr Rajaram has authored/co-authored more than 400 research publications, including 110 papers in refereed journals, and mentored 700 young scientists from the developing world. He also guided 22 Masters and Ph.D. students. During his long career, he has served as Director of Wheat Research at CIMMYT, Director of ICARDA's Biodiversity and Integrated Gene Management Program,

and consultant to a number of governments and international organizations. In 2009, he led a study in Egypt, the report of which is being used by the Egyptian Ministry of Agriculture to plan a major expansion of wheat production program. The Trust for Advancement of Agricultural Sciences takes pride in honoring Dr Sanjay Rajaram with the Fifth Dr MS Swaminathan Award for Leadership in Agriculture on this day, Saturday, the 18th December, 2010.

Sixth Award

Dr Mohan C Saxena

Recipient	:	**Dr Mohan C Saxena** Agronomist and Crop Physiologist, ICARDA, Aleppo, Syria
Award Presented by	:	**Dr Balram Jakhar** Former Union Minister of Agriculture and H.E. the Governor of Madhya Pradesh
Venue & Date	:	Dr BP Pal Auditorium, IARI, New Delhi; 25 January 2012

Citation

Dr Mohan C Saxena is an eminent agronomist and crop physiologist, whose work at the International Center for Agricultural Research in the Dry Areas (ICARDA) on food legumes has enormously benefited the resource poor farmers in West Asia, North Africa, Central Asia (CWANA) and South Asia, particularly Bangladesh, India, Nepal and Pakistan. His work on managing drought, common in this region, resulted in the "Winter Sowing" technology for chickpea and lentils in the lowland Mediterranean areas of the West Asia and North Africa region, resulting in 50-60 per cent increase in crop productivity and water-use efficiency. This research was recognized through King Baudoin Award of the CGIAR for ICARDA and ICRISAT. He had served as leader of Legume Program, then as Director of Germplasm Improvement Program and also as Assistant Director General (ADG) at ICARDA for almost two decades. His support to Indian legume program, especially kabuli chickpea and lentil led to much greater benefits to resource poor farmers of India. Dr Saxena did Ph.D. in Agronomy at the Indian Agricultural Research Institute (IARI), New Delhi (1962), and Doctor of Science in Plant Nutrition from the University of Hohenheim, Germany (1965). After serving briefly at IARI and the Bhaba Atomic Research Center, he joined the GB Pant University of Agriculture and Technology, Pantnagar and undertook research on agronomy of warm and cool season pulses, particularly soybean. His work on soybean greatly helped in popularizing Soybean Production Technology in India. Dr Saxena's research contributions and leadership have been widely recognized. A major laboratory at ICARDA is named after him for his accomplishments. He has been awarded Gold Medals by Indian Society of Agronomy and the Indian Society of Pulses Research and Development and Honorary Doctorates from three Universities. After his retirement from ICARDA, he has been appointed as a Visiting Professor at the Arid Land Research Center of the Tottori University, Japan. The Crop Science Society

of America has recently given him a Lifetime Achievement Award by conferring an Honorary Membership of the Society. In recognition of his important contributions, Trust for Advancement of Agricultural Sciences (TAAS) has great pleasure in awarding Dr MC Saxena the Dr MS Swaminathan Award for Leadership in Agriculture on this day, Wednesday, the 25th January, 2012.

Seventh Award

Dr William D Dar

Recipient	:	**Dr William D Dar** Director General, ICRISAT, Patancheru, Hyderabad
Award Presented by	:	**Dr K Kasturirangan** Member, Planning Commission (now NITI Aayog), New Delhi
Venue & Date	:	Dr BP Pal Auditorium, IARI, New Delhi; 24 June 2013

Citation

Dr William D Dar, Director General, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru, Hyderabad (Telangana) has made outstanding contributions towards food security and agricultural sustainability in Asia and Sub-Saharan Africa. His work has created great impact on the lives of resource poor farmers. Dr Dar has also actively promoted Public-Private-Farmer partnership linking strongly the end users with the National Agricultural Research System (NARS) as well as International Agricultural Research Centers (IARCs). Under his leadership, effective research collaboration has been established in areas like germplasm exchange, biotechnology, crop improvement, water conservation, capacity building, and policy reorientation. Dr Dar has had a distinguished career as an educator, agricultural scientist and able research administrator. Being a great promoter of regional cooperation, Dr Dar also served as Chairman of the Asia-Pacific Association of Agricultural Research Institutions (APAARI). Prior to joining ICRISAT, Dr Dar had served as Advisor to the President of the Philippines; Secretary, Department of Agriculture of the Philippines; Executive Director of the Philippine Council of Agriculture, Forestry and Natural Resources Research and Development (PCARRD); Director, Bureau of Agricultural Research (BAR), Department of Agriculture; and the Vice President (R&D) of Benguet State University, Philippines. In recognition of his significant contributions, Dr Dar has been honoured with a number of awards and degrees of Doctorate of Science. He also received the Life-time Achievement Award for his outstanding contributions in the field of pulses research from the Indian Society of Pulses Research and Development (ISPRD). Dr Dar is a champion of the poor. He successfully led ICRISAT into renaissance and excellence with a motto of “Science with a Human Face”. His transformational leadership has turned ICRISAT into a forward looking institute, financially strong and producing scientific breakthroughs as public goods

for greater developmental impact. His passion is to help alleviate the socioeconomic conditions of the poor living in the semi-arid tropics of Asia and Sub-Saharan Africa. In view of his outstanding contributions, the Trust for Advancement of Agricultural Sciences (TAAS) has great pleasure in awarding him the prestigious Dr MS Swaminathan Award for Leadership in Agriculture.

Eighth Award

Dr Thomas Lumpkin

Recipient	:	**Dr Thomas Lumpkin** Former Director General, CIMMYT, Mexico
Award Presented by	:	**Dr MS Swaminathan** Chairman, MS Swaminathan Research Foundation (MSSRF), Chennai
Venue & Date	:	Dr BP Pal Auditorium, IARI, New Delhi; 28 September 2015

Citation

Dr Thomas A Lumpkin has been at the forefront of guiding wheat and maize research for development (R4D) in the developing world, particularly in India and across South Asia. His passion is for improving the livelihoods of smallholders in developing countries through science-driven technologies, enabling them to produce more food while using fewer resources and in a sustainable way to ensure a new Green Revolution. He has written numerous books and research articles on azolla, azuki bean, edamame, wasabi, global horticulture and approaches to alleviate malnutrition and poverty in the developing world. He is widely known among the CGIAR, international agricultural donor agencies and national agriculture systems in the developed and developing world for his leadership in agriculture, and for the reinvigoration of the International Maize and Wheat Improvement Center (CIMMYT) and the World Vegetable Center (AVRDC). As a leader in the oversight of the WHEAT and MAIZE CGIAR Research Programs (CRPs) since 2011 and 2012, respectively, Dr Lumpkin has made intensive contributions in deploying improved wheat and maize varieties in India through innovative public private partnerships. He has made an impact in the region through his strong emphasis and focus on input-use efficiency, precision agriculture for smallholders, adaptation to the changing climates in South Asia through effective integration of climate-resilient varieties, resource-conserving technologies and institutional innovations for sustainable intensification of wheat- and maize-based systems. His vision for a new Green Revolution and research combined with an in-depth knowledge of constraints faced by the smallholder farmers of South Asia prompted him to launch the Borlaug Institute for South Asia (BISA) in India, in close partnership with the Indian Council of Agricultural Research (ICAR). He had also been the founder Director General of BISA, concurrent with his duties as Director General, CIMMYT. Dr Lumpkin has been associated with a number of well known professional bodies. The Trust for Advancement of Agricultural Sciences (TAAS) has great pleasure in awarding Dr Thomas Lumpkin the prestigious “Dr MS Swaminathan Award for Leadership in Agriculture”.

Ninth Award

Dr Uma Lele

Recipient	:	**Dr Uma Lele** Agricultural Economist, World Bank, Washington, DC, USA
Award Presented by	:	**Dr YK Alagh** Former Minister of State for Planning Science & Technology, Government of India, New Delhi
Venue & Date	:	Dr BP Pal Auditorium, IARI, New Delhi; 30 October 2017

Citation

Dr Uma Lele is a highly accomplished agricultural economist known for her work on Food and Agricultural Development. She has over four decades of rich experience in research, operations, policy analysis and evaluation of development assistance. She has served in many capacities for different international organizations such as the World Bank, FAO, CGIAR, IFAD, UNICEF, UNDP, Rockefeller Foundation and Bill & Melinda Gates Foundation. Her critical evaluation of the World Bank's Forestry Policy had led the Bank to revise its strategy to lay greater focus on poverty reduction besides conservation and use. Her famous Meta evaluation of the CGIAR led to the rethinking by the World Bank and other donors of CGIAR's role in meeting emerging new challenges wherein two of the original pillars of the CGIAR had been weakened over time: the rise of genomics and of intellectual property rights, mainly due to the increasing role of the private sector in agricultural research. Her other work which has received considerable recognition has focused on the substantial geo-climactic and institutional diversity, requiring development interventions suited to particular circumstances, and the need for capacity building with a focus on 'learning by doing' approach. A consistent underlying theme of her international work has been the divergence in the assumptions determining public interventions and the reality on the ground. Since her retirement from the World Bank, she has been contributing extensively towards issues related to food, agriculture and nutritional security. For India, her early work on foodgrains marketing in India had revealed that failures in commodity markets were the results of poor infrastructure and public policy restricting cross border trade. Through comparative analysis of structural transformation, she has shown how Indian agriculture has been falling behind neighboring Asian and other large Latin American countries who started with similar or worse initial conditions. She conducted an independent external review of work of the MS Swaminathan Research Foundation (MSSRF)

which formed part of the foundation's future strategy. The GCARD Road Map in 2010 was also an outcome of a technical report prepared by a team under her leadership. Dr Uma Lele is an ardent champion of capacity development, especially in developing countries. She had always been a strong supporter of women's empowerment and was actively involved in organizing the First Global Conference for Women in Agriculture (GCWA) held in New Delhi during 2012. To promote the cause of human resource development, she has set up a 'Mentorship Award' with the American Applied Economic Association and another 'Best Research Award on Gender in Development' with International Association of Agricultural Economists. Her work has been widely recognized through numerous awards and recognitions, especially for her innovative and analytical thinking. The Trust for Advancement of Agricultural Sciences has great pleasure in presenting the 9th Dr MS Swaminathan Award for Leadership in Agriculture to Dr Uma Lele.

Tenth Award

Dr John Dixon

Recipient	:	**Dr John Dixon** Former Principal Adviser, Australian Centre for International Agricultural Research (ACIAR), Australia
Award Presented by	:	**Dr Ismail Serageldin** Former Chairman, CGIAR and Vice President, World Bank
Venue & Date	:	Central Arid Zone Research Institute (CAZRI), Jodhpur; 13 February 2019

Citation

Dr John Dixon was till recently the Principal Adviser, ACIAR, Australia. Prior to this, he held senior positions in ACIAR, FAO, CIMMYT and other international organizations. He had a rich and long work experience in different regions in partnership with national systems while working in collaboration with several international organizations. During his outstanding career of more than four decades, his greatest impacts have been in farming systems' research aiming at conservation agriculture based sustainable intensification (CASI) in a wide range of irrigated, dryland and mountain farming systems. Dr Dixon provided leadership in developing a model regional FARM program of FAO/UNDP on the implementation of Agenda 21 (from Rio Conference) in marginal areas of eight Asian countries. He also headed CGIAR System-wide Program on Participatory Research and Gender Analysis and fostered active international knowledge sharing on role of women in agricultural research for development. Dr Dixon obtained his Ph.D. and Master of Economics as well as Master of Natural Resources from the University of New England, Armidale, Australia. He has authored a dozen books and manuals and about 100 journal and conference papers on diverse topics. He was selected as a Distinguished Alumni by the University of New England in 2017 and was elected as a Fellow of the Australian Academy of Technology Science and Engineering in 2018. He is recipient of FAO AG Department Prize for Best Publication/ Website (FAO/World Bank Study of Global Farming Systems Trends and Emerging Priorities), 2001; Zayed Prize for Millennium Ecosystem Assessment, 2005; and Wheat Warrior Award, Crawford Foundation, for Contributions

to Wheat Research, 2009. Dr John Dixon has made significant contributions in Asia and Africa by promoting the concept of Conservation Agriculture based Sustainable Intensification (CASI), for improving soil health and ensuring natural resource management (NRM) in the Indo-Gangetic Plains (IGP) involving India, Bangladesh and Nepal is outstanding. He has spearheaded the ACIAR project on Sustainable and Resilient Farming Systems Intensification (SRFSI), being implemented by CIMMYT, which has revived the hope for scaling conservation agriculture through regional collaboration, as was achieved under Rice Wheat Consortium (RWC) in late 1990s. He launched CASI projects in 12 countries in Africa, South Asia and Southeast Asia. His untiring efforts have helped in building a Regional CASI Platform involving Bangladesh, India, Nepal and Pakistan. Overall, as a result of his sincere efforts and leadership, millions of smallholder farmers in many Asian and African countries are better off and the national systems are better prepared to work for conservation agriculture for sustainable intensification and contribute towards attaining SDGs by 2030. The Trust for Advancement of Agricultural Sciences has great pleasure in presenting the 10th Dr MS Swaminathan Award for Leadership in Agriculture to Dr John Dixon. February 13, 2019.

Eleventh Award

Dr Shenggen Fan

Recipient	:	**Dr Shenggen Fan** Former Director General of the International Food Policy Research Institute (IFPRI), Washington DC, USA
Award Presented by	:	**Dr K Vijay Raghavan** Principal Scientific Adviser, Govt. of India, New Delhi
Venue & Date	:	Krishi Bhavan II, Pusa Campus, New Delhi; 30 November 2021

Citation

Dr Shenggen Fan is an accomplished agricultural economist renowned not only as an author of widely cited journal articles and books but also as a global leader in agricultural and food policies. Through decades of research, he has been playing a crucial role in improving food and nutrition security in several countries and regions.

Dr Fan is currently the Chair Professor at the College of Economics and Management at China Agricultural University (CAU), leading a national innovation team on food economics and policy. Prior to joining CAU, Dr Fan served as Director General of the International Food Policy Research Institute (IFPRI) from 2009 to 2019. He joined IFPRI in 1995 as a research fellow, and conducted extensive research on pro-poor development strategies in Africa, Asia, and the Middle East, especially in China and India. He led IFPRI's program on public investment before becoming the Director of the Institute's Development Strategy and Governance Division in 2005.

Dr Fan's research covers a wide range of issues such as public investment, agricultural and rural development, transition economies, poverty reduction, food security and nutrition, and sustainable food systems. He has been engaged in the agricultural development strategy for developing countries throughout his career. The econometric model he developed to measure public investment and priorities in his early years has been set as a paradigm by international agencies such as United Nations and the World Bank and adopted by many developing countries in making policies to optimize public spending and eliminate poverty. As the Director General of IFPRI, he led a strong team of researchers to provide cutting-edge evidence-based research to develop policies towards transforming the food systems for human and planetary health. Dr Fan was awarded an honorary life membership of the International Association of Agricultural Economists (IAAE) in 2018 and became a Fellow of American Applied Economics Association (AAEA) in 2020.

In addition to academic achievements, Dr Fan champions food security and nutrition and innovative food systems through his leadership role on multiple global committees. He has been a member of the Lead Group for the Scaling Up Nutrition (SUN) Movement appointed by the former UN Secretary General Ban Ki Moon, and he served as the Chair, the Vice Chair, and member of the Food and Nutrition Council of the World Economic Forum from 2012 to 2018. He also serves as an adviser to many national governments on agriculture, food security, and nutrition related matters.

Dr Fan has made tremendous contributions to eradicate hunger and to ensure food security all over the world. He received the Hunger Hero Award from the World Food Program in recognition of his commitment to and leadership in fighting hunger worldwide in 2014. In 2017, Dr Fan received a highly prestigious Fudan Management Excellence Award in 2017 - a highly prestigious award, recognizing individuals who have made outstanding contributions in the field of management, is regarded as a “Nobel Prize for Management” in China.

As Director General, IFPRI, Dr Fan tried to build a very strong and ambitious program on good policy and nutritional security research in India as well as South Asia. The Trust for Advancement of Agricultural Sciences (TAAS) is pleased to bestow prestigious Dr MS Swaminathan Award for Leadership in Agriculture for the year 2020 on Dr Shenggen Fan for his life time outstanding contributions on 30th November, 2021. The function was organised ‘on-line’.

Twelfth Award

Dr Adel El-Beltagy

Recipient	:	**Dr Adel El-Beltagy** Former Director General of International Center for Agriculture in the Dry Areas (ICARDA), Aleppo, Syria
Award Presented by	:	**Dr K Vijay Raghavan** Principal Scientific Advisor, Government of India, New Delhi
Venue & Date	:	Krishi Bhavan II, Pusa Campus, New Delhi; 30 November 2021

Citation

Prof. Adel El-Beltagy had a long and an effective career in the national, regional and international agricultural research that changed the lives of many resource poor farmers in the dry areas of West Asia, North Africa (CWANA) and Central Asia and Caucasus (CAC) countries. He immensely contributed towards strengthening agricultural research in Egypt as Co-Chair of the Committee on Development of Egypt Agricultural Strategy for the 1990s with support of World Bank (WB). He also chaired the Committee on Sustainable Agriculture Development Strategy towards 2030 in Egypt. This led to the most productive cereal (rice and wheat) production systems coupled with improvement in the irrigation system and human resource development. These initiatives ensured food security for many Egyptians having small farm holdings.

As Director General of International Center for Agriculture in the Dry Areas (ICARDA) from 1995-2006, Dr Beltagy worked diligently to fulfil global research mandate for dry areas. He also headed the CGIAR Program for the newly formed Central Asia and Caucasus Republics and played key leadership role in transforming their agricultural research systems. He also established a consortium to rebuild agriculture in Afghanistan involving national and international partners (2002-2006).

He did help in establishing a most modern genebank at ICARDA, Aleppo conserving the world's most valuable germplasm of arid land crops, including their wild relatives. He has been a Member of the high level task force of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), 2013-2016. As a Member of the CGIAR Genetic Resources Policy Committee chaired by Dr Swaminathan (1994-1999), and Vice Chair/ Member of Board of the Global Crop Diversity Trust (GCDT) (2007-2011), he continued to support conservation of agrobiodiversity.

As Chairman of Global Forum on Agricultural Research (GFAR) from 2006-2010, he worked with the regional fora to promote both food and nutritional security in the developing world.

Dr El-Beltagy has also been a Fellow and Board Member of Third World Academy of Sciences (TWAS) and has promoted South-South cooperation in bringing excellence in science. He also served as President of the Governing Board of the Centre for Advanced Mediterranean Agronomic Studies (CIHEAM) from 2011 to 2015. His overall efforts have left lasting impact on research and development of agriculture and food security in the CWANA & CAC region, and also the dry areas in South Asia, including India. These efforts for enhancing food and nutritional security and poverty alleviation in the developing world, in general, and in the dry areas, in particular, have been well recognized by a series of international and national awards.

The Trust for Advancement of Agricultural Sciences (TAAS) has great pleasure in presenting the prestigious Dr MS Swaminathan Award for Leadership in Agriculture for the year 2021 to Dr Adel El-Beltagy for his lifetime outstanding contributions on 30th November, 2021. The function was organised 'on-line'.

Thirteenth Award

Dr Surinder (Suri) M Sehgal

Recipient	:	**Dr Surinder (Suri) M Sehgal** Founder, SM Sehgal Foundation (India) & Sehgal Foundation (USA)
Award Presented by	:	**Dr SK Vasal** Former Distinguished Scientist & Maize Breeder, CIMMYT, Mexico and World Food Prize Laureate
Venue & Date	:	NAAS Conference Hall, NASC Complex, Pusa Campus, New Delhi; 19 August 2023

Citation

Dr Surinder (Suri) M Sehgal is a visionary, institution builder, agricultural entrepreneur, humanitarian, and a founder and trustee of SM Sehgal Foundation (India) and Sehgal Foundation (USA). Throughout his life, Dr Suri has made outstanding contributions to help alleviate poverty in rural India and increase agricultural productivity in a sustainable way for millions of small farmers living on arid, rain-dependent land, who were largely bypassed by the Green Revolution. A crop scientist par excellence and a leader in hybrid seed industry development, he is a principal elder among the distinguished lineage of experts in world agriculture. His vision to empower the rural poor in India is not based on a charitable giving, but is rather focused on partnering with or working alongside those who take an active part in their own development.

With a PhD in Plant Genetics from Harvard University and a Business Management Diploma from Harvard Business School, he embarked on his career first as a scientist, and then as a global leader in the development and spread of the hybrid seed industry worldwide. With the divestment of Proagro group of companies in

1998, headquartered in New Delhi, and MisrHytech in Egypt later, he and his wife Edda established Sehgal Foundation, a nonprofit foundation based in Iowa, USA, and SM Sehgal Foundation, a public charitable trust based in Gurugram (Haryana), India. With the Gandhian ideal that one's wealth is not one's own but to be shared, they decided to work in a holistic way with an integrated sustainable model of village development, believing that every person in the 640,000+ rural communities across India deserves a secure, prosperous, and dignified life.

When SM Sehgal Foundation began interventions in Mewat (now Nuh) district of Haryana, a community with some of the lowest socioeconomic indices in the country and listed as “aspirational” by NITI Aayog in 1999, Dr Suri felt that if development interventions succeeded in Mewat (which they did), they could be replicated elsewhere (and they have been). The work launched two and- half decades back under his mentorship in four villages now reaches over 4.2 million people in 1,900+ villages in 12 states.

With support from donors and partners, SM Sehgal Foundation works together with rural communities to create sustainable programs to manage water resources, increase agricultural productivity, strengthen local participation in village governance, transform lives one school at a time, empower women and girls, and continue outreach for further development. The interventions have improved availability, access, and quality of water; improved farms practices and farmer income; promoted local participation in government programs with increased women’s participation; empowered village youth, especially adolescent girls, on digital and life skills awareness; transformed school environments; and continues to expand their reach to empower rural India.

The Trust for Advancement of Agricultural Sciences (TAAS) has great pleasure in presenting the prestigious Dr MS Swaminathan Award for Leadership in Agriculture for 2022 to Dr Surinder (Suri) M Sehgal for his lifetime outstanding contributions. The function was organised ‘on-line’.

Fourteenth Award

Dr Kamal Bawa

Recipient	:	**Dr Kamal Bawa** Distinguished Professor Emeritus of Biology, University of Massachusetts and Founder President of the Ashoka Trust for Research in Ecology and the Environment (ATREE)
Award Presented by	:	**Hon'ble Suresh Prabhu** Chancellor, Rishihood University, and Former Union Minister of Railways, Govt. of India, New Delhi
Venue & Date	:	NAAS Conference Hall, NASC Complex, Pusa Campus, New Delhi; 20 December 2024

Citation

Dr Kamal Bawa is a distinguished Professor Emeritus of Biology at the University of Massachusetts USA. He is Founder President of the Ashoka Trust for Research in Ecology and the Environment (ATREE), a prominent environmental research center in Bengaluru. He is recognized for: i) making fundamental discoveries in ecology and conservation biology; ii) developing science-based conservation plans globally, and specifically for biodiversity hotspots in India; and iii) establishing a world class biodiversity center and several other conservation initiatives in India including a biodiversity science portal, a 13-volume checklist of India's plants, two leading international journals in conservation science, and a national mission on biodiversity and human wellbeing.

Dr Bawa's early basic research on the conservation biology of tropical forest trees in Central America revolutionised the notion about ecology and evolution of forest trees. His field work brought to light a series of unusual sexual systems, novel pollination mechanisms, and a diversity of flowering patterns in tropical forest trees, and he showed how forest fragmentation affects genetic diversity and genetic structure of tropical trees. He was also among the first to consider the role of resource allocation and sexual selection in the evolution of plant breeding systems. His applied work in conservation includes conceptual advances in land use change, deforestation and forest fragmentation, ecology and extraction of non-timber forest products, and institutions and leadership for sustainability science. As a member of several national and international panels, he has contributed to the formulation of environmental policies.

In agriculture, Dr Bawa has worked with indigenous communities to integrate poverty alleviation and sustainable agricultural production so as to reduce environmental impacts of intensive agriculture and raise farmers' income. He has been a key member of a panel of DIVERISTAS, until recently a program of the

International Union of Biological Sciences on Agrobiodiversity. More recently, he has championed a landscape approach to sustainability of India's agriculture, integrating agrobiodiversity, wild biodiversity and ecosystem services.

He has promoted environmental literacy by publishing two coffee table books on India's biodiversity hotspots, namely, Sahyadris: India's Western Ghats, and Himalaya: Mountains Life, a conservation biology text book, "Conservation Biology: A Primer for South Asia". He frequently writes for the popular press, including op-ed pages for newspapers.

Dr Bawa has received international recognition from the world's four oldest leading academies, being a Fellow of the American Academy of Arts and Sciences (2012), the Royal Society (2015), the American Philosophical Society (2019), and the US National Academy of Sciences (2022). He has received many prestigious awards: Gunnerus Award in Sustainability, International MIDORI prize for Biodiversity and the Linnean Medal. He is a Guggenheim Fellow, and a Pew Scholar in Conservation and the Environment. The two leading professional societies in conservation, Society for Conservation Biology and the Association for Tropical Biology and Conservation (ATBC), have bestowed their highest awards on Dr Bawa. The University of Alberta and Concordia University in Montreal honored him by conferring honorary Doctor of Science degrees. For several years in a row, the UPenn survey of environmental NGOs and research think-tanks has ranked ATREE #20 globally and #1 or #2 in Asia. In 2019, ATREE and Dr Kamal Bawa shared the UNESCO's Sultan Qaboos Prize in Environmental Conservation.

In honour of his outstanding lifetime achievements and for establishing an institute, the Trust for Advancement of Agricultural Sciences (TAAS) has great pleasure in presenting to Dr Kamal Bawa the prestigious 14th Dr MS Swaminathan Award for Leadership in Agriculture for 2023.

Fifteenth Award

Dr BM Prasanna

Recipient	:	**Dr BM Prasanna** Maize Geneticist and Breeder, CIMMYT, Mexico
Award Presented by	:	**Hon'ble Suresh Prabhu** Chancellor, Rishihood University, and Former Union Minister of Railways, Govt. of India, New Delhi
Venue & Date	:	NAAS Conference Hall, NASC Complex, Pusa Campus, New Delhi; 20 December 2024

Citation

Dr BM Prasanna, an internationally renowned maize geneticist and breeder, has made enormous contributions to the breeding and deployment of hundreds of high-yielding, climate-resilient and nutritionally enriched maize varieties for the rainfed, stress-prone tropical environments, benefiting millions of smallholder farmers in sub-Saharan Africa, South Asia, and Latin America.

After obtaining BSc (Agriculture) degree from Andhra Pradesh Agricultural University in 1985, Dr Prasanna pursued MSc and PhD in Genetics from the Indian Agricultural Research Institute (IARI), New Delhi. He began his career in 1991 as a scientist and faculty member at the Division of Genetics, IARI, and served ICAR in various capacities for the next two decades. He was recognized as the Best Teacher of IARI in 2004. He served as Team Leader for India under the Asian Maize Biotechnology Network (AMBIONET) during 1998-2005. He analyzed for the first time the molecular genetic diversity in Indian maize inbred lines, and discovered genomic regions conferring resistance to major maize diseases. As an ICAR National Fellow (2005-2010), he collected maize landraces from the North-Eastern Himalayan region of India and undertook detailed characterization at both phenotypic and molecular levels. He also contributed to the analysis of molecular diversity of maize landraces globally, tracing the patterns of maize diffusion throughout the world from Mexico, the center of origin.

Leading the CIMMYT Global Maize Program since 2010, Dr Prasanna made monumental contributions to the breeding and delivery of over 200 climate-resilient and high-yielding maize hybrids in the Global South. Through innovative public-private partnership models, adoption of CIMMYT-related maize varieties with drought tolerance and disease resistance increased by over ten-fold – from approximately 0.5 M ha in 2010 to over 7 M ha in 2024 – in nine countries across Eastern and Southern Africa, benefiting an estimated 7.5 million smallholder farmers and over 45 million people. He successfully led the CGIAR Research Program on

Maize Agrifood Systems, a global alliance of over 300 research and development partners, during 2015-2021. He established state-of-the-art maize doubled haploid facilities in Mexico, Kenya, and India, which are instrumental in accelerating maize breeding efforts of CIMMYT as well as those of the national partners and SME seed companies. He has also been at the forefront in plant health management, leading the One CGIAR Plant Health Initiative since 2022. He has also played a critical role in effectively managing major plant health threats, such as maize lethal necrosis (MLN) disease in eastern Africa, and the Fall Armyworm in Africa and Asia.

Dr Prasanna is a Fellow of National Academy of Agricultural Sciences (NAAS), and received FAO Fellowship as a Visiting Scientist at the University of California, Berkeley, USA. He has published over 230 research articles in international journals of repute and received several awards for his outstanding contributions to maize genetics and breeding, sustainable and resilient seed systems, post-graduate teaching, and popularization of science. These include the prestigious Magnolia Memorial Award of the Shanghai Government in China (2024); CIMMYT Distinguished Scientist (2024); Dr BP Pal Award of IARI, India (2007); Dr Joginder Singh Memorial Award by the Indian Society of Genetics and Plant Breeding (2005); Best Teacher Award of IARI, India (2004); Dr BC Deb Memorial Award for Popularization of Science during the Indian Science Congress at New Delhi (2001), etc.

In honour of his outstanding lifetime achievements, the Trust for Advancement of Agricultural Sciences has great pleasure in presenting to Dr BM Prasanna the prestigious 15th Dr MS Swaminathan Award for Leadership in Agriculture for 2024.

Sixteenth Award

Prof. Prabhu Pingali

Recipient	:	**Prof. Prabhu Pingali** Professor of International Development Economics, Cornell University and the Founding Director of the Tata-Cornell Institute for Agriculture and Nutrition (TCI), USA
Award Presented by	:	**Prof. Ramesh Chand** Member (Agriculture), NITI Aayog, New Delhi
Venue & Date	:	Bharat Ratna C. Subramaniam Hall, ICAR Convention Centre, NASC Complex, Pusa Campus, New Delhi; 13 March 2026

Citation

Prof. Prabhu Pingali, an internationally renowned Agricultural Economist, is a Professor of International Development Economics at Cornell University, USA, and the Founding Director of the Tata-Cornell Institute for Agriculture and Nutrition (TCI). He is also the past Chair of the Governing Board of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), and Honorary Distinguished Professor (Adjunct) at The Birla Institute of Technology and Science (BITS), Pilani.

Prof. Pingali has held several leadership positions at the premier international organizations, including the Food and Agricultural Organization (FAO) as the Director of the Agricultural and Development Economics Division, and at the Gates Foundation, as the Deputy Director of Agricultural Development. He also led agriculture economics divisions at the International Rice Research Institute (IRRI), the Philippines and the International Maize and Wheat Improvement Center (CIMMYT), Mexico.

Prof. Pingali is a Fellow of the Indian National Science Academy (INSA), the US National Academy of Sciences, and Fellow of the American Association for the Advancement of Sciences (AAAS),

the American Agricultural Economics Association (AAEA), India's National Academy of Agricultural Sciences (NAAS), and the African Association of Agricultural Economists (AAAE). He also served as President of the International Association of Agricultural Economists (2006- 09).

Prof. Pingali's research contributions to agricultural development economics have influenced food and agricultural policy at the global and national levels. He also pioneered research on the environmental and human health impacts of the Green Revolution in Asia.

As Founding Director of the Tata-Cornell Institute (TCI) at Cornell University, Prof. Pingali has enhanced the understanding of the linkages between agriculture, nutrition and health.

Prof. Pingali has a prolific and high impact publication record with 15 books and over 250 journal articles. He has mentored over a hundred graduate students and young scholars across the world.

The Trust for Advancement of Agricultural Sciences (TAAS) has a great pleasure to confer the prestigious Dr MS Swaminathan Award for Leadership in Agriculture for 2025 on Prof. Prabhu Pingali in recognition of his lifetime outstanding contributions.

Dr Norman E Borlaug Innovative Farmer Award

The Trust for Advancement of Agricultural Sciences (TAAS) instituted in 2024 'Dr Norman E Borlaug Innovative Farmer Award' in the honour of Dr Norman E Borlaug for his enormous contributions to the global agricultural development and farmers' welfare. Dr Borlaug was a true friend of farmers of South Asia. The dedicated efforts of farmers together with mentoring of Dr Borlaug, Dr MS Swaminathan and many others ushered in the Green Revolution in India. This award has been instituted through an endowment established at TAAS by voluntary contributions made by its members.

Dr Norman E Borlaug, globally known as the "Father of Green Revolution", is the only agricultural scientist who received the Noble Peace Prize for his invaluable contributions in the field of agriculture. He developed high-yielding, fertilizer responsive, disease-resistant and widely adapted dwarf wheat varieties, which helped increase food production and laid the foundation for the 'Green Revolution' in many developing countries, especially India. He has been visiting and meeting Indian farmers regularly. He had been a source of inspiration to agricultural scientists and farmers alike.

His policy advocacy efforts had also promoted the use of agricultural biotechnology for increased crop yields and improved food security around the world. Dr Borlaug, was a Fellow of Science Academies of 15 countries, including the Indian National

Science Academy and National Academy of Agricultural Sciences, India. He was conferred honorary doctorate degree by 51 Universities around the world. For his outstanding contributions towards ensuring food security in India, Dr Borlaug was conferred with second highest civilian award, Padma Vibhushan by the Government of India in 2006. He was also the recipient of First Dr MS Swaminathan Award for Leadership in Agriculture instituted by TAAS.

The objective of 'Dr Norman E Borlaug Innovative Farmer Award' is to recognize the contribution of farmers who have developed and successfully disseminated innovative technologies/practices leading to significant increase in production/quality of the produce, improved income of innovation adopters along with reduction in environmental foot print. This award aims to motivate the innovative farmers for dissemination of sustainable agricultural practices (SAP) to achieve the 'Evergreen Revolution' ensuring long-term sustainable food and nutritional security in the wake of worsening climate crisis.

The award carries a plaque, citation and a cash prize of INR 1.00 lakh. This Award has so far been conferred on two farmers for their lifetime contributions and the details of awardees alongwith their citations are given on the ensuing pages.

First Award

Dr Chandrasekhar Bhadsavle

Recipient	:	**Dr Chandrasekhar Bhadsavle** President, Saguna Rural Foundation; Managing Director, Saguna Sustainability Solutions Pvt. Ltd., Maharashtra
Award Presented by	:	**Hon'ble Suresh Prabhu** Chancellor, Rishihood University, and Former Union Minister of Railways, Govt. of India, New Delhi
Venue & Date	:	NAAS Conference Hall, NASC Complex, Pusa Campus, New Delhi; 20 December 2024

Citation

Shri Chandrashekhar Bhadsavle, born on 29 January 1950 is a visionary in sustainable agriculture, deeply inspired by his father, freedom fighter Shri Harikaka Bhadsavle. This background instilled in him a lifelong commitment to rural development and environmental stewardship. He earned a Bachelor's in Agriculture from Konkan Krishi Vidyapeeth, Dapoli, and a Master's in Food Technology from the University of California, Davis, USA. Observing the grueling demands of conventional rice farming, Shri Bhadsavle was motivated to devise a system that would restore dignity to farming while enhancing sustainability. This drive led to the development of the Saguna Regenerative Technique (SRT), a zero-till conservation agriculture method that improves soil health, reduces labour, and boosts productivity in crops like rice, wheat, pulses, maize, oilseeds and fruit crops. With SRT now implemented across thousands of farms transforming traditional agricultural practices in India, the farmers have gained happiness and confidence. This approach has empowered farmers by providing a dignified, resilient livelihood while promoting environmental sustainability. In addition to SRT, Shri Bhadsavle has created the Saguna Vansanvardhan Technique (SVT) to combat soil erosion and deforestation. By utilizing vetiver grass, SVT stabilizes soil on slopes and restores degraded landscapes, effectively reducing the risk of forest fires and erosion. He further developed the Saguna Jalsanvardhan Technique (SJT) to rehabilitate water bodies, promoting sustainable water resource management by removing invasive weeds, introducing beneficial flora and fauna including microbes, fish, and lotus, and supporting aquatic biodiversity. Shri Bhadsavle is also celebrated as the "Father of Agro-Tourism in India". In the 1980s, he pioneered Krishi Paryatan, or agro-tourism, offering urban residents an immersive rural experience while providing farmers with additional income. His initiatives in agro-tourism have bridged urban and rural communities, fostering a deeper respect for agriculture and enabling a sustainable revenue stream for farmers. His success in establishing Saguna Baug as

an ideal model of agro-tourism, along with his extensive writings on the subject, has generated national interest and inspired many farmers to embrace this practice. His contributions have been widely recognized. He is recipient of several awards including the Farmer Leadership Award from Agriculture Today (2024), Krishi Ratna by the Government of Maharashtra (2019), the Jagjivan Ram Kisan Puraskar by ICAR, the Earth Care Award by JSW and Times of India, and the WatSave Farmer Award by ICID, Thailand, among others. Additionally, his influence extends globally through TEDx talks, international lectures, and collaborations with organizations like the Food and Agriculture Organization of the United Nations (FAO), and the Global Farmer Network (GFN) promoting regenerative agriculture worldwide. Through his groundbreaking methods–SRT, SVT, SJT, and Agro-tourism–Shri Bhadsavle has revolutionized Indian agriculture. His work exemplifies the integration of innovation, environmental care, and respect for the farming profession, establishing a legacy of sustainable practices that safeguard both rural livelihoods and the natural world.

In recognition of his lifetime outstanding contributions to agriculture, the Trust for Advancement of Agricultural Sciences is pleased to bestow on Shri Chandrashekhar Bhadsavle, the first Dr Norman E Borlaug Innovative Farmer Award for 2024.

Second Award

Ms Neelam Tyagi

Recipient	:	**Ms Neelam Tyagi** Secretary, Laxmi Jan Kalyan Seva Sansthan (LJKSS), Muradnagar, Ghaziabad (UP)
Award Presented by	:	**Ms Julie Borlaug** President Borlaug Foundation and Advisor, World Food Prize Foundation, US
Venue & Date	:	Bharat Ratna C. Subramaniam Hall, ICAR Convention Centre, NASC Complex, New Delhi; 9 September 2025

Citation

Ms Neelam Tyagi, born on 8 February 1975 at Suhana village in Ghaziabad district (Uttar Pradesh) has made outstanding contributions to agricultural innovation and with her unwavering commitment to the society empowered more than 30,000 farmers, including distressed women and young farmers, in 10 districts of Uttar Pradesh. From a young age, Ms Tyagi had the passion to do something different, become self-reliant as well as empower other women.

Ms Tyagi's work stands out for its holistic approach which seamlessly blends sustainable practices, scientific knowledge, and community empowerment. She has pioneered mixed-crop farming, successfully integrating sugarcane and turmeric farming to boost farmer income by 80 per cent while also reducing pesticide use and soil erosion. Her agro-processing unit undertakes value addition and sells diversevalue added food products under the registered 'Nitara Brand' through direct market linkages for over 4,000 farmers, eliminating middlemen and increasing their profits by 20-25 per cent.

Ms Tyagi's women-centric models, including the formation of 300 self-help groups and the establishment of a registered KOPUS

AGRO Farmer Producers Organization, have directly benefited more than 4,500 women and 5,000 men farmers by aggregating produce and securing profitable retail sales. Her Agri-Clinic and Agri-Business Center has trained over 12,000 youth in integrated pest management (IPM), fostering self- employment and creating a new generation of agricultural leaders. She also established a Mahila Kisan Vikas Federation involving 1,500 women farmers which supplies 10 tonnes of vegetables daily to Bharti Walmart.

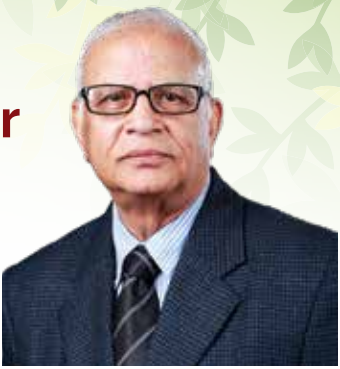
Ms Neelam Tyagi has received several awards, including Best Community Mobilizer by MS Tyagi Foundation, Haryana (2011); National Award for Innovation in Agriculture by Society for Community Mobilization for Sustainable Development, New Delhi with Assam Agricultural University, Jorhat & ICAR -ATARI (2017); Krishi Prerana Samman by Mahindra Samridhi (2019); Women Farmer Innovative Award by Hi-tech Horticultural Society Rajasthan (2019); AMIT Udyan Ratan Award by Lt. Amit Singh Memorial Foundation, New Delhi (2022); Queen of Success Award by Femmetimes Media (2023); Bharat Gourav Samman by KTK Outstanding Achievers and Education Foundation, New Delhi (2023); NCR Ratan Award by All India Conference of Intellectuals (2023); Top 100 Inspiring Women Visionary Award by Treta Yug Foundation, Ayodhya (2025)

and Pusa Farmer Innovative Award by ICAR, New Delhi (2025). Her recognitions and honors include: Member of Protection of Plant Varieties and Farmers Rights Authority (PPV&FRA), Ministry of Agriculture and Farmers Welfare, Govt. of India (2012 – 2015); recipient of Honorary Doctorate degree by Magic Book of Record (2022); and Honorary Professor of Practice Bio Sciences by Career Point University, Himachal Pradesh (2024).

By combining intercropping, value-addition, and direct marketing, Ms Tyagi's innovations have proven significantly more profitable than traditional methods, more than doubling per acre profits. Her work embodies Dr Borlaug's spirit of innovation and dedication to ensuring food security and farmers' welfare.

The Trust for Advancement of Agricultural Sciences is pleased to bestow the second Dr Norman E Borlaug Innovative Farmer Award for 2025 on Ms Neelam Tyagi for her lifetime outstanding contributions.

Dr SK Vasal Award for Excellence in Crop Hybrid Research



Dr SK Vasal Award for Excellence in Crop Hybrid Research was instituted by TAAS in the honour of Dr Surinder K Vasal, a world renowned maize breeder and a recipient of World Food Prize for his outstanding contributions, especially the development of quality protein maize (QPM) hybrids. The award is instituted through an endowment established at TAAS (www.taas.in) based on a generous contribution by Dr SK Vasal.

Dr SK Vasal worked with the Rockefeller Foundation in Thailand in close collaboration with the National Corn and Sorghum Research Center of Kasetsart University. He headed CIMMYT's Asian Regional Maize Program in Thailand and coordinated the Tropical Asian Maize Network (TAMNET). Dr Vasal held the positions of Germplasm Coordinator, and Head of Maize Research and Coordinator of Asian Regional Maize Program at the International Maize and Wheat Improvement Center (CIMMYT), Mexico. In recognition of his outstanding performance, CIMMYT elevated him as Distinguished Scientist, the first to hold such a position. The QPM germplasm developed by Dr Vasal is now being used worldwide to develop varieties/hybrids which are grown commercially in several developing countries of Asia, Central and South America, and Africa.

Dr Vasal is a member of the American Society of Agronomy, the Crop Science Society of America and India's National Academy of Agricultural Sciences. He is the recipient of Word Food Prize (2000), Chinese Friendship Award (2001), Dr MS Swaminathan

Award for Leadership in Agriculture (2008) of TAAS and BP Pal Memorial Award of the National Academy of Agricultural Sciences (NAAS), the apex award of the Academy.

The objective of the Dr SK Vasal Award for Excellence in Crop Hybrid Research is to recognize the contributions of eminent scientists (both men and women) who have made outstanding contributions in developing promising hybrids and designing new innovative strategies for hybrid development in crops. This award carries a plaque, citation and a cash prize of INR 1.00 lakh. This Award has so far been conferred on 3 eminent scientists for their lifetime contributions for excellence in crop hybrid research and the details of awardees alongwith their citations are given on the ensuing pages.

First Award (Joint)

Dr Sujay Rakshit

Recipient	:	**Dr Sujay Rakshit** Former Director, Indian Institute of Maize Research (IIMR), Ludhiana (Punjab)
Award Presented by	:	**Hon'ble Suresh Prabhu** Chancellor, Rishihood University, and Former Union Minister of Railways, Govt. of India, New Delhi
Venue & Date	:	NAAS Conference Hall, NASC Complex, Pusa Campus, New Delhi; 20 December 2024

Citation

Dr Sujay Rakshit, born on 3 January 1970 is an accomplished maize breeder and has made significant contributions in combining conventional and molecular breeding towards improvement of maize and other crops including sorghum, minor millets, rice and pulses. Dr Rakshit did his PhD in Genetics from ICAR-Indian Agricultural Research Institute, New Delhi, and Post-Doctoral Research from Iwate Biotechnology Research Centre, Japan. He played crucial role in establishment of ICAR-Indian Institute of Maize Research as its Director, which position he held for nearly 6 years. Dr Rakshit has released 23 maize hybrids out of which 6 hybrids have been licensed to private seed companies for commercial seed production and marketing. He played key role in release of the first MAS-derived low phytate maize hybrid in India and has registered 24 maize donors for various traits with ICAR- National Bureau of Plant Genetic Resources (NBPGR). His leadership in starting heterotic grouping of the active breeding lines in national program, and systematic characterization of the maize germplasm in the national genebank of NBPGR, have given new direction to the maize hybrid program in India. He also played a key role in establishing and strengthening hybrid maize seed production hub in West Bengal. He deployed DNA markers to understand the diversity, population structure of the germplasm, and to identify genomic regions/QTLs for various traits. His concerted efforts on quality improvement of maize have led to release of 23 biofortified maize hybrids as well as understanding the underlying biochemical phenomenon behind these traits, paving the way for better deployment. His role in understanding the mechanism and genetics of resistance against various biotic and abiotic stresses had great impact on developing better varieties of maize. Dr Rakshit contributed to development of efficient regeneration and transformation protocols in tropical maize, which has paved the path for transgenic and genome editing research in maize in India. He developed the DUS Testing Guidelines for Maize in India, which

is in use by PPV&FRA since 2007. His leadership role in managing the challenge of invasive pest, fall armyworm deserves special mention. Under his leadership, the nation crossed the 3.0 t/ha mark in productivity of maize. Dr Rakshit is fellow of National Academy of Agricultural Sciences (NAAS) and National Academy of Science India (NASI), and is the recipient of many prestigious awards and recognitions such as NAAS Recognition Award, Dr BR Barwale Award, NEEDEF Agriculture Leadership Award, Dr AB Joshi Award, and Kalaya Krishnamurty National Award among others.

In recognition of his outstanding contributions in hybrid crop research, the Trust for Advancement of Agricultural Sciences is pleased to bestow on Dr Sujay Rakshit jointly with Dr Firoz Hossain, the first Dr SK Vasal Award for Excellence in Hybrid Crop Research for 2024.

First Award (Joint)

Dr Firoz Hossain

Recipient	:	**Dr Firoz Hossain** Principal Scientist, Division of Genetics, Indian Agricultural Research Institute (IARI), New Delhi
Award Presented by	:	**Hon'ble Suresh Prabhu** Chancellor, Rishihood University, and Former Union Minister of Railways, Govt. of India, New Delhi
Venue & Date	:	NAAS Conference Hall, NASC Complex, Pusa Campus, New Delhi; 20 December 2024

Citation

Dr Firoz Hossain has pursued his research in hybrid maize breeding for more than 20 years, and has made significant contributions towards development of novel biofortified and specialty hybrids. He earned his doctoral degree in Genetics from ICAR-Indian Agricultural Research Institute (IARI), New Delhi in 2004 and began his professional career as a Scientist in 2005 at the same institute. He pursued his research in genetic improvement of nutritional quality and specialty traits in maize through integrated approach of conventional and molecular breeding. Intensive research efforts of Dr Firoz Hossain have led to the development of 17 biofortified and 10 specialty maize hybrids. His research led to the release of one provitamin-A rich maize hybrid and three quality protein maize (QPM) hybrids for various agro-ecologies of India. His research effort has also led to the development and release of eight double-biofortified maize hybrids rich in protein quality (higher lysine and tryptophan) and provitamin-A in grains. In addition, Dr Hossain has developed and released one triple-biofortified (protein quality + provitamin-A + vitamin-E) maize hybrid. World's first double- (protein quality + provitamin-A) and

triple- (protein quality + provitamin-A + vitamin-E) biofortified maize hybrids have been developed and commercialize from the program led by Dr Hossain. All these hybrids were released by Central Variety Release Committee (CVRC). Further, three double- (protein quality + provitamin-A and protein quality + low phytate) and one triple- (protein quality + provitamin-A + vitamin-E) biofortifed hybrids have been identified for release under the All India Coordinated Research Programme (AICRP). These newly developed biofortified maize hybrids has shown great promise with enhanced bioavailability and growth and development of poultry birds. In addition, two each of sweet-corn, two pop-corn, and male-sterile baby-corn hybrids, and one green-forage maize hybrids have been released through CVRC. Further, one each of sweet corn, waxy corn and male-sterile baby corn hybrid has been identified for release by AICRP. Dr Hossain's team also earned the distinction of being first in developing biofortified sweet-corn, waxy maize and male-sterile baby-corn hybrids in the country. A total of 45 Memorandum of Understanding (MoUs) have been signed with 19 private seed companies for undertaking the seed production and marketing of these biofortified and specialty maize hybrids, thereby generating more than one crore revenue. Dr Hossain has published 160 research articles in journals of repute. He has been awarded with Fellowship by National Academy of Agricultural Sciences (NAAS), New Delhi. He has also received Dr BP Pal Medal of IARI for his outstanding contribution in maize research.

In recognition of his outstanding contributions in hybrid crop research, the Trust for Advancement of Agricultural Sciences is pleased to bestow on Dr Firoz Hossain jointly with Dr Sujay Rakshit, the first Dr SK Vasal Award for Excellence in Hybrid Crop Research for 2024.

Second Award

Dr Bhupender Kumar

Recipient	:	**Dr Bhupender Kumar** ICAR-Indian Institute of Maize Research (ICAR-IIMR), Ludhiana (Punjab)
Award Presented by	:	**Prof. Ramesh Chand** Member (Agriculture), NITI Aayog, New Delhi
Venue & Date	:	Bharat Ratna C. Subramaniam Hall, ICAR Convention Centre, NASC Complex, Pusa Campus, New Delhi; 13 March 2026

Citation

Dr Bhupender Kumar is a Senior Maize Breeder at the ICAR-Indian Institute of Maize Research (ICAR-IIMR), Ludhiana. He obtained his M.Sc. and Ph.D. in Genetics from ICAR-Indian Agricultural Research Institute (IARI), New Delhi.

Dr Kumar has developed and released 39 single-cross maize hybrids, of which 12 have been licensed to 32 private seed companies. For the past five consecutive years, hybrids developed by him as the lead breeder have consistently topped the breeder seed demand received by the Department of Agriculture and Cooperation (DAC), Government of India.

Two flagship hybrids, DMRH 1301 and DMRH 1308, have been taken-up for commercialization by over 25 seed companies with cumulative benefits of ₹1,240 crores and ₹1,797 crores, respectively.

Dr Kumar has extensively deployed DNA marker-based tools to assess genetic diversity, unravel population structure, and identify genes/QTLs conferring resistance to maydis and turcicum leaf blight, waterlogging and drought, and improvement of starch content, popping characteristics and nutritional quality. He has standardized rapid and reliable drought screening methods, developed robust selection indices for abiotic stress tolerance, and created association mapping panels and recombinant inbred lines (RILs) mapping populations which are now widely used in stress genetics and molecular breeding programs in maize.

Dr Kumar has published over 70 research and review papers, 14 book chapters, 9 technical bulletins/newsletters, and edited/ authored two books. His honors include the NAAS Associateship, DST Early Career Research Award, Dr NN Singh Young Scientist Award of Maize Technologists Association of India (MTAI), ICAR-IIMR Best Scientist Awards, and prestigious Dr Joginder Singh and Dr RN Sawhney Memorial Awards of Indian Society of Genetics and Plant Breeding (ISGPB) and Prof. Mahatim Singh Memorial Award of Society for Advancement of Wheat and Barley Research (SAWBAR).

The Trust for Advancement of Agricultural Sciences (TAAS) has great pleasure to confer Dr SK Vasal Award for Excellence in Crop Hybrid Research for 2025 on Dr Bhupender Kumar for his outstanding contribution to crop hybrid research.

Recent TAAS Publications

- Abstract Book and Practical Manual of Advanced Training on CRISPR/Cas-based Genome Editing for Crop Improvement, 17-26 March, 2026 at New Delhi.
- Souvenir of Global Conference on Women in Agri-Food Systems, 12-14 March, 2026 at New Delhi.
- National Consultation on Scaling Agroforestry — Proceeding and Recommendations, 18-19 September, 2025.
- National Consultation on Scaling Agroforestry — Policy Brief, 18-19 September, 2025.
- National Symposium on Hybrid Technology for Enhancing Crop Productivity (NSHT) — Proceeding and Recommendations, 8-10 January 2025.
- Strategy for Harnessing Hybrid Technology for Enhanced Crop Productivity – Policy Brief, 8 March 2025.
- A Woman Entrepreneur's Journey from Adversity to Prosperity - A Success Story by Saneha Sharma, August 2024.
- Strategy for India to Become a Global Wheat Player – Policy Brief, May 2024.
- Consultative Meeting for Agricultural Extension Plateform for South Asia (AEPSA) - Proceeding and Recommendations, April 2024.
- Saguna Regenerative Technique and Agro-tourism - A Success Story by Chandrashekhar Hari Bhadsavle, March 2024.
- Stakeholders Dialogue on Enhancing Fertilizer Use Efficiency for Sustainable Soil Health - Proceeding and Recommendations, February 2024.
- Rationalizing Fertilizer Use for Managing Ecological Sustainability and Subsidy – Strategy Paper by Dr JC Katyal, December, 2023.
- Enhancing Fertilizer Use Efficiency for Sustainable Soil Health - Policy Brief, November, 2023.

- Strengthening National Agricultural Education System - A Road Map, 30 October, 2023.
- Navara Rice - A Success Story by P Narayanan Unny, July 2023.
- Policy and R&D Interventions to Increase Cotton Production and Industrial Growth – Policy Brief, March 2023.
- National Workshop on Enabling Technological and Policy Interventions to Increase Cotton Productivity and Stimulate Industrial Growth – Proceedings and Recommendations. May 2023.
- National Dialogue on Harnessing the Potential of Floriculture in India - Proceedings & Recommendations, 16-17 February, 2023.
- Policy and R&D Interventions to Increase Cotton Production and Industrial Growth - Policy Brief. March 2023.
- Policy and R&D Interventions to Increase Cotton Production and Industrial Growth – Policy Brief, March 2023.
- National Dialogue on Sustainable Growth and Development of Indian Dairy Sector – Proceedings and Recommendations, 16-17 December, 2022.
- National Symposium on Food, Nutrition, and Environmental Security: Towards Achieving SDGs – Proceedings and Recommendations, 29-30 August, 2022 (December 2022).
- Reminiscences and Reflections, November, 2022.
- Resilience in Dairy Farming – A Success Story by Nikki Pilania Chaudhary, November 2022.
- National Dialogue on Innovations in Agricultural Extension: A Way Forward, 8-9 April, 2022 (September 2022).
- Towards Secure and Sustainable Agriculture - Strategy Paper by Dr RS Paroda, August, 2022.
- Expert Consultation on Promoting Efficient Irrigation Technologies for Water Saving Across Scales and Sectors, 25 February, 2022 (May 2022).

Trust for Advancement of Agricultural Sciences (TAAS)

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