

# 9<sup>TH</sup> AGRICULTURE LEADERSHIP CONCLAVE & LEADERSHIP AWARDS 2019

Policy Push for Agriculture Reforms



The 9th Agriculture Leadership Conclave and Awards function organized by Agriculture Today Group, was inaugurated on 11th July 2019 by Dr Panjab Singh, President, National Academy of Agricultural Sciences. The event held at The Taj Palace, New Delhi had the presence of several other dignitaries such as Dr Douglas Ry Wagner, Global CEO, AlgaEnergy, Spain, H E Mr. Daniel Chuburu, Ambassador of Argentina, Dr Ashok Dalwai, CEO, National Rainfed Area Authority, Dr Srikanta K. Panigrahi, DG, Indian Institute of Sustainable Development.

Dr M J Khan, President Agriculture Group welcomed all the esteemed dignitaries and expressed his deep gratitude to H.E. Justice P. Sathasivam, Hon'ble Governor of Kerala for his support as the chair of the organising committee. Dr Khan underlined the importance of reforms in agriculture and the relevance of technology in every aspect of supply chain especially at a time when the sector itself is facing unforeseen challenges such as climate change which affects mostly the small holders and the marginal farmers.



Precision farming, controlled environment agriculture production, artificial intelligence for the farm machines and national initiatives of crop insurance, market connectivity under eNAM, policy initiatives for exports, start-ups and advanced participation of banks, institutions and cooperatives have played a significant role in agriculture transformation. He concluded by pointing out that a positive change was felt in Honourable PM's vision of doubling the farmers' incomes by 2022 with focus on promoting agri-exports by special agri-export policy in 2018. "There is necessity for farmer's easy access to technology and market and also to shift from production centred incentives to market centred incentives which in

turn warrants political concerns over issues such as land reforms, market reforms. There is a need to bring together the key stakeholders to the same platform for the development for better rural practices and accentuate responses for competing with the global market," he said.

Prof. Panjab Singh, President, National Academy of Agricultural Sciences commented that agriculture in the present time is very different from the agriculture that was prevalent in the past and is going to change in the coming times. Innovation and transformation for agriculture will be central point for





all the discussions on agriculture and for the doubling of farmer's income. He points to the population growth as the major challenge to agriculture along with climate change. He laid emphasis on the part that in the past there was responsibility for production and productivity and now there is the added responsibility for conservation of the natural resources. "Further, attention is required on the crucial issue of water, where the popular slogan of 'conservation of water' needs to be critically understood in the case of agriculture. It is science that needs to address the issues relating to agriculture development and help in the futuristic agricultural practices," he reminded. Apart from the scientific innovations, he commented that, there is the need to create employment outside agriculture.

**Dr. Ashok Dalwai**, CEO, NRAA and Chairman, Task Force on Doubling Farm Incomes underlined the aspect of agriculture as an evergreen pride and first economic activity which has laid foundation for the modern civilization. He had pointed out that the new challenge in agriculture is not ensuring of food security, and commented that agriculture needs to get out from the focus on production. "The surplus production is opening up new opportunities. The two challenges and aspects that need to be given importance to are market and climate change to ensure that agriculture continues to sustain itself. The details regarding the aspect of market needs to be emphasised," suggested Dr. Dalwai. He proposed for the redefinition of market and urged to put in place a new situation where a farm producer, right from the farm gate, is able to reach out across the globe, where there is a demand.

He also emphasised on the need to take the burden of food security of the population off the farmers. He pressed for linkage of agriculture through industry, manufacturing and energy systems. Climate change also featured in his address where he stated the serious implications it has on agriculture.

**Dr. Srikanta K. Panigrahi**, DG, Indian Institute of Sustainable Development discussed on the need for the integration of climate change, energy, water and sustainable agriculture which are equally important. "In the tropical countries like India, climate change has resulted in constant rise in temperature, rise in sea level due to which coastline has been lost, villages and small islands being immersed in the sea. It has also contributed to the loss of several gracious agriculture species, particularly related to food produce such as rice. About 49 species of very sensitive rice has been lost due to climate change and many in the process of extinction," informed Dr Panigrahi. He also brought attention to the research works undertaken by the various research institutes and the research initiatives on the behalf of the government such as the National Mission for



Sustainable Agriculture which is absolutely committed for climate change. "It is also necessary for the practical research to be linked with the policies. The coordination of the central and state government programmes is essential for the attainment of a sustainable agricultural development. The approach that is required is to see from a common perspective with a right action plan and strong implementation of the policies," he said.

**Dr. Douglas Ry Wagner**, Global CEO, AlgaEnergy, Spain talked about the significance of innovations, especially biological innovations for safe and secure food. "Looking at the evolution of agriculture throughout the ages, certain dramatic changes are needed in the present time to find the solution and how we convince the farmers today to practice agriculture that could be beneficial in the long run. The solutions for the challenges in agriculture have to come from innovations and universalisation, biological based solutions for nutrition, crop protection and also for food production, provision of national means of resistance. Microalgae is one such innovation being promoted by MicroAlgae





Solutions in India," he said. He also suggested to find ways to make these products available to farmers and bear the charge of the farmer's needs.

**H E Mr. Daniel Chuburu**, Ambassador, Embassy of Argentina highlighted in brief the importance of collaboration of Argentina and India for food security. He informed that Argentina has vested interest in establishing a cooperation framework in India and the necessary MoUs has been signed to move diligently towards forming a good partnership with India. "Areas in which the cooperation has been proposed are in the field of productivity, technologies for productivity and in the field of cross-crop management. The country is in collaboration with the Indian authorities and in pursuance of that, Argentina is trying to establish a center of excellence in the field of cooperation in agricultural technology. The collaboration has been taking place with the Ministry



of Agriculture and Indian Council of Agricultural Research (ICAR) with an aim to work in diverse areas not only from Argentina but also from India to Argentina," he informed.

#### **SESSION 1: Fostering Farmer-Industry Partnerships for Agrarian Prosperity**

**Mr. Raju Kapoor**, Director, FMC India Private Limited commented that the partnership between the farmers and the industries has to be that of equals. However, Mr. Kapoor also addressed the issue that the relationship between the farmers and the industries is not very strong. He stressed on the fact that the role of the various stakeholders such as ICAR and that of the government is crucial in the establishment of the partnership between the farmers and the companies. The government has to move away from being the regulator to be a pacifier in establishing the link.



There is a serious need to create value chain based partnerships and every elements of the industry viz. fertilizer, crop protection, advisory, insurance, etc. all can integrate and work with farmers. He lastly suggested that the concept of consolidating the farmers in viable economic entities which are sustainable in the long term is very crucial and needs to be considered and adopted along with the complete removal of the intermediaries.

**Mr. Anil Kakkar**, Vice President, Excel Crop Care Limited commented that there needs to be a structured model to move away from the buyer-seller model. "The traditional wisdom of the farmers can be integrated with the scientific technology and knowledge for innovative ideas and better linkage between the farmers and industries. On the other hand, various tools are being used in bio-farming or the organic farming or zero budget farming and the integration of the various tools those are used, be it





the biological, technical, traditional, chemical, is required and can be achieved through partnership. Given the partnerships with the farmers, the industries can always advise the farmers on the proper use of chemicals and educate them on the use of legal seed varieties. These partnerships can definitely bring solutions and regulators for the facilitation of sustainable development," said Mr. Kakkar.

**Mr. RL Tamak**, ED-Sugars, DCM Shriram Limited commented that fostering farmer-industry partnership



is the key for development. He spoke about the association between sugar industry and the farmers which was an all year

round engagement, the resultant of which was the creation of multi stake holder partnership for a sustainable sugar plantation. "With the measures taken, there has been an increase in productivity of sugarcane and sugar by 20-30 percent in the last 3-4 years, saving 275 billion litres of water," he informed. Building of new successful infrastructure and the mechanisation are some of the other initiatives taken by the industry. He wrapped up the talk with the remark that this kind of partnership with inclusivity, multiple stakeholders on similar platform and with similar roles is required in every sector of agriculture.

**Jaipal Reddy**, Farmers leader, Telangana & South India Coordinator of All India Farmers Alliance remarked that it was high time that a partnership between the farmers and the industries was



established. "The farmers have been producing whatever the demand in market has been which has also led



to surplus production. Despite this, there has been import of several food products which can be easily produced in the country itself. The major challenge in the present time has been market. There needs to be integration of the central and state government to work for the support of the farmers to reach the market," he said. He also requested the industries to come forward to help the farmers by creating a market for the production in the field.

**Dr M J Khan**, President, Agriculture Today Group, who chaired the session, concluded by summarising the significant points of deliberation by the eminent speakers.

### SESSION 2: Role of States and Institutions in Transforming Agriculture

**Sudhir Kumar**, IAS, Principal Secretary, Department of Agriculture Bihar commenced his speech by stating the position of Bihar as basically an agriculture state with the



70 percent of the economy being directly and indirectly dependent on agriculture and allied sector. The first

agriculture roadmap beckoned the launch of several programmes like the seed extension scheme, seed gram scheme, and the thrust on bio-farming and use of agricultural equipment which laid stress on the availability of certified seeds for 23 crops. The second roadmap was to ensure the safety of foodgrains and nutrition, and to augment the income of farmers. The third and the most recent roadmap emphasised on organic farming by the creation of an organic corridor in the districts along the Ganga river, development of organic corridors off the national and state highways. He further stated challenges that were faced in the sector that included the farmers not receiving the benefits of the primary schemes. However, these challenges are addressed by interventions by the state such as digitalisation, direct benefit transfer, and e-wallets. For the benefit of the farmers an advanced subsidy of Rs. 6000 is provided. He further referred to several other schemes taken up by the government for the benefit of the farmers. In order to ensure the farmer's receipt of the benefits, the farmers have been registered in a portal through their respective aadhar cards and it is through the registration number that the farmers

availed the benefits.

**Mr. M K Mero**, IAS, Principal Secretary – Horticulture, Nagaland emphasised that the role of the state government is significant in the agriculture sector for the implementation of the schemes provided by the central government. “There is immense potential in horticulture in the north-eastern states of India and in the state of Nagaland, horticulture sector continues to remain the backbone of the State’s economy. This sector can be further developed in all the potential states with the support from the state government as well as the central government. The north eastern states should come up with new initiative to develop the concept of agriculture entrepreneurship. For this, agriculture graduates can be very crucial for innovations and marketing,” he opined.

**Dr. Elizabeth Saipari**, Director of Horticulture, Government of Mizoram Directorate of Horticulture stated the importance of horticulture in the state of Mizoram. “The state has worked towards encouragement for commercial cultivation of economically important horticulture crops, rehabilitation of the traditional jhumias on a sustained productive farming for the improvement of their socio-economic conditions and technological import for the practice of precisions farming. Several challengest are faced in the agriculture sector in the region of north-eastern states in India such as the unavailability of the latest technologies and mechanisation, economic deprivation of the farmers, the issue of insurgency, and so on. It is the institutions and



the governments who can provide the support for the applicability of the viable technologies and deal with the other issues for the development of the farmers and the agriculture sector,” he said.

**Dr. P. Chandrasekhara**, Director General, NIAM was of the opinion that agriculture training is one of the major activities that needs to be carried out with a shift in focus from agriculture production to agricultural marketing which is going to be one of the principal elements of the agriculture sector today. “Development of market-driven production is necessary, with initiatives taken by induction programme in training, national facilitators’ development program on how to mainstream marketing in the institution,” he said. Another measure suggested by the director is the shift from the product led extension to market led extension. “There is a need to focus on the action led research and it should include the areas of marketing and processing as well as the analysis of the income before and after the implementation of the schemes and experimentation to know the effectiveness of the scheme,” he stressed.



**Sh. Anand Bhaskar Rapolu**, Ex-MP and Chairman ICFA Working Group on Farm Distress, who chaired the session, summarised the important points raised in the session. He stressed on the issue of monsoon collapse and the promotion of zero investment farming where the state has important role to play.



### SESSION 3: Augmenting India’s Agriculture

### Competitiveness for Global Trade

**Dr. N K Dadlani**, Advisor, ICFA focused on seeds and the restrictions on GM technology in the Indian trade environment. He called for regulation of illegal trading of potential agriculture goods.



**Mr. Asitava Sen**, CEO, Croplife India drew attention to the identification of India’s competitive advantage in certain crops for exports. “Steps need to be taken to help accentuate the high productivity of such crops and one such element is crop protection. In terms of import, India needs to follow a standard codex like the EU. Stricter regulations for chemical registration should be present, and it is an issue for which both the government and the industries need to coordinate” he pointed out. He also emphasized on the importance of high quality seeds and innovative products for farming. “There are various regulatory practices that stand in the way of ease of doing business. The inaccuracy of the data production in the ease of doing business hampers the industry from approaching the farmers” he mentioned. Lastly, another factor that Mr Sen highlighted was the reuse of the chemical leftovers by the farmers which harms the crops and eventually the presence of harmful chemicals in food that has led to its rejection in the global market.



**Dr. Maharaj Muthoo**, President, Roman Forum, Rome also pointed out the quality assurance for the agriculture







products to strive in global marketing. "The quality control measures to ensure that food products meet certain safety and quality standards play a key role in development of agricultural exports. There needs to be regulations implemented in the management, production and inspection processes. Quality management practices in India will help in ensuring proper marketing of the surplus food production as it has become more important than food security in the present times. Also investment in the marketing of the agricultural products should be kept in priority after the assurance of quality food production to increase the exports in the global market," he said.



**Mr. N Ravishankar**, Chairman, ICFA Working Group on Agri Marketing emphasized on the long term approach

for building up the market for competitiveness in the global scenario. "There is a need to give

attention to certain areas or regions and specific crops for the purpose of quality production and marketing across the world," he advised. He also stated that in India the entire challenge of the market is left outside the farms and in agriculture the producer is the mute spectator. The competitive system that should be present for assurance of quality products is missing in the market. He suggested that there is the need to set up a fare-trade board, institutes like bargaining councils for proper regulation of the food quality to maintain the standards necessary to compete in the global market. The farmers need to take leadership in marketing as well and the action for global marketing needs to be taken to the mandis.

**Dr Dinesh Chauhan** Director and CEO, IACG deliberated on the necessity to give incentives to the farmers and to spread awareness among the farmers on the recent trends and opportunities in the national



and international market. "There are 99 countries in the world that ranks high in the ease of doing business index, with India rising to the rank of 77th. Such information along with the demands in the global market has to be provided to the farmers for establishing a national market and accentuating the competitiveness in the global market in agricultural goods. Steps need to be taken towards marketing, connecting, building infrastructures such as cold-chain market for making the agriculture sector globally established. The push for the industry and the products of agriculture is required to create global brands and for that the export policies also needs to be eased off," suggested Dr. Chauhan.

The session ended with the concluding remarks from the Chair, Ms Fariha Ahmed, Managing Editor, Agriculture Today Group. She agreed on the issues such as low farm productivity, poor infrastructure, global price instability, limited market access and lack of awareness in the agriculture sector. She emphasised on the need to promote



the agri-exports for which there must be building of global value-chains for certain important agri-commodities. To serve the purpose the government of India needs to adopt an open, stable and reliable export policy. Further, India should adopt farmer oriented strategies to attain the purpose of food security and emerge as an outstanding exporter of agricultural products in the world.

#### SESSION 4: Connecting Farmers to Markets and Technologies

**Mr. Yogesh Dwivedi**, CEO, Madhya Bharat Consortium of FPCs Limited brought up the factor of commodity trading in agriculture. He identified the challenges that are faced in the case of commodity trading such as the complexity involved for the industry or the company in connecting with the farmers in the rural areas. "The complexities arises with the change in the government



officials in the departments through which the connection is maintained, unwillingness of the young agriculture graduates and officials to work in the rural areas to establish the links, and so on. The ground level work is necessary to work with the farmers and the connection or linking with the latter for marketing and provision of adequate technologies is a workable model that needs to be developed," he said.

**Mr. Jatin Singh**, MD, Skymet Weather P. Limited stated in the initial stage itself that everyone has different perspectives regarding the



evolution and the issues concerning agriculture. He emphasised on two things – climate change and correct collection and analysis of data for the success in the agricultural linkages. While talking about data, he stressed on the use of the correct data to find solutions. "New mechanisms need to be developed so that the figures can be collected correctly and tampering with the data made impossible. Further, work needs to be done on the discrepancies

which have already occurred while collecting as well as analysing of the data," he reminded.

**Mr. RG Agarwal**, Chairman, Dhanuka Group said that the laws and regulations that are made by the government are not beneficial for the farmers and on the contrary, those laws have harmed them



instead. "There is an urgent need for the practical implication of the policies and agendas formed and discussed in the conferences and forums. To pave a way for the connection with the farmers, there should be freedom that needs to be given to them. A follow-on public offer (FPO), which is the release of shares to investors by a public company, should be implemented," said Mr. Agarwal. Talking about agri-inputs – he addresses the issue of the fake agri-inputs available in the market. He emphasized that there is a need to move beyond the theoretical discussions on the issues and take practical actions to solve the problems that have been prevalent in the agriculture sector.

Dr M J Khan who chaired the session had commented that, the





knowledge about the Indian farms and farmers needs to be researched before forming a model by the government or the industries. There is also a need to maintain the purity in the products, rather than using the GM seeds for better marketing. It is time that the products maintain the brand name it has earned. Moreover, the changes in the regulations by the government are creating harm for the farmers and the market. Dr Khan concluded the session by summarising the points raised by the distinguished speakers and urged the industries and the government to ponder over the issues that had been highlighted and work on the solutions that have been recommended with it. He particularly emphasised that there is no dearth in the technological innovations in the country for the development of agriculture. But the concern that has been prevalent is the inability of the new technologies to reach the grass root level.

#### SESSION 5:

#### Precision Technologies for Profitable Farming

**Mr. Debabrata Sarkar**, MD, MicroAlga Solutions Pvt. Limited discussed about data collection and

analysis and the use of the required input for agriculture production in precision technology. He raised the issue of the amount of wastage in the production of agriculture goods. He suggested that these are the first and the foremost questions that need to be understood



if there is an aim to develop a sustainable agriculture system in the country. His suggestion included the requirement of government intervention for the technologies that are developed to the farmers. "With the current climatic conditions and huge waste of resources as well as the need to spread the awareness of the demand for the quality food in the market, the farmers need to utilise the precision technologies to develop and compete in the global market," he said.

**Dr. Swamy Pentyla**, Managing Director, Baker Tilly, UK insisted that the help provided to the farmers is not for others but it is for helping ourselves. The significant concern now is food safety. Dr Swamy also cited the challenges that are faced in agriculture production viz.



climate and data collection. He said that there is the need to provide farmers with right and precise information to remove the complications which would avoid vast data input and confusion.

**Mr. Naresh Modi**, Project Director, NCPAH also underlined the use of data and analysis for precision farming as the significant requirement and element. Drawing the attention towards water



conservation he said, "There should be proper establishment of facilities for rain water harvesting which can be used for the purpose of irrigation. There is a great scope for rain water harvesting and steps need to be taken to make the people aware of the appropriate use of water and proper management. There can be popularisation of drip irrigation, which is the most efficient water and nutrient delivery system for growing crops without the excess use of water. With the increase in



the requirement of water, steps are taken by the government in certain regions to build water harvesting ponds and the schemes to promote it". He further talked about bio-field or biological field, a complex organising energy field engaged in the generation, maintenance, and regulation of biological dynamics. "In a country like India there is heavy use of chemicals such as insecticides, however the country should move towards the use of other technologies available and ideas implemented by the other countries in the world for producing a more safe and quality foods. The alternative ideas should be considered at the present times with the new technological innovation taking place all over the globe. Digitisation of land can also be helpful in providing the data required to use precision technology in agriculture production," he added. Lastly, he emphasised on the implementation of the policies to reduce imports of pulses and oil seeds and concentrate on the export of the excess water which can be saved through harvesting and proper management.

**Dr. M Moni**, Chairman, ICFA Working Group on ICT and former DG, NIC said, "The future of agriculture will be digitalisation and it will be the core for the implementation of the precision farming. There is requirement for



strong land based information in agriculture with the establishment of - farmer-based database and data-based farmer. In a country like India, bringing in digital based farming is a difficult proposition". He also pointed out that there needs to be - smart irrigation farming and smart tribal farming.

**Dr. K L Chadha**, who chaired the session, pointed to the fact



that there is increase in the cost of production in the agriculture sector. Moreover, there is also increase in the deterioration in the health of the population of the country due to agricultural products. And to find a solution for the problems, there is a requirement to aim at the deduction in the cost of production, reduction



in the harm to the nature through the use of the chemicals and excess use of natural resources and use precise and regulated amount of agrochemicals in the crops for ensuring the quality and safety of the food products. He suggested the use of physical, chemical and biological means for production and the use of technology with skill development that is essential for development and implementation of precision technology in agriculture. The gap in the use of technology is ever present in India.

#### SESSION 6: Political Vision for Empowering Farmers

**Sh. Kunvarjibhai Bavaliya**, Hon'ble Minister of AHD, Gujarat introduced steps taken by the state government to the development of Animal husbandry and dairying sector. He



pointed to the need of technology for further development in the sector. He further suggested that there is the need to replicate the animal husbandry schemes of Gujarat in other states.

**Dr. Prem Kumar**, Hon'ble Minister, Department of Agriculture, Government of Bihar highlighted the agriculture potential in the state of Bihar and stated that it is an important source of wealth in the State with about 79% of its population engaged in agricultural production. The effect of climate change has been a major



drawback for the agriculture production that has affected the farmers. He stated that the state government has taken up the scheme of Per Drop More Crop that which has enrolled 76 percent farmers through registered. Kisan Choupal also has been implemented in the state.

**Mr. O.P. Dhankar**, Minister, Haryana Agriculture, Development and Panchayats pointed out that in a long time agriculture has not been prioritised in the mainstream





discussion and news, and less work has been done in the sector. There has been deterioration of the economic status of the farmers. He further highlighted the issue of water in the state that is deficient for agricultural use and in order to tackle with the issue micro-irrigation has been promoted.

**Sh. GVL Narasimha Rao**, Hon'ble Member of Parliament stated that by the 2007 recommendation, Minimum Support Price (MSP), has been implemented by the present government which is a market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices. Some of the initiatives and recommendations of the present government in the sector



is Direct Benefit Transfer to farmers, doubling of farmer's income, long term irrigation fund and disaster relief. He also pointed to the fact that for the successful implementation, awareness about the scheme is crucial and farmer's opinion is required in policy making.

Dr M J Khan, who chaired the session, underlined the important points raised by the speakers. He commented that the political visions that have been stated can change the landscape of agriculture. He also noted that the consistently growing performance in agriculture in the state of Bihar is remarkable, however, the potential of Bihar is not recognised in the national level and there is need to promote its significance in the sector. Further commenting on the topic, he remarked that committed politicians with long term vision and dedication are needed for the development of the agriculture sector.

# 9<sup>TH</sup> AGRICULTURE LEADERSHIP AWARDS 2019



**H**.E. Justice P. Sathasivam Hon'ble Governor of Kerala, Chairman of the Organising Committee of the 9th Agriculture Leadership Conclave and Leadership Awards 2019 opened the speech by thanking and complementing the organising committee and the President of the Agriculture Today Group for organising the conclave. He congratulated the different awardees and he stated that behind every award there is an inspiring success story. He further stated that the inspiring stories of success are a huge motivation to the present population for inspiring development in agriculture. He noted that with a vast area of cultivable lands, India has vigorously contributed to the global food security. With the declaration of agri-export policy of 2018, there is certainty in the further expansion of Indian market in the world and gain considerable returns. Technology and mechanisation has contributed a lot in the evolution of agriculture. Use of less water and better production method is the key for development and schemes like Pradhan Mantri Krishi Sinchayee Yojana have encouraged the rapid adoption of new irrigation technologies. Agriculture is still in need from the pressure of reducing resources for agriculture production, emergence of new pests and diseases and falling prices. It is the innovators and the leaders who can take the responsibility to help the farmers and the agriculture sector to deal with the problems and develop the quality of the produce to meet the international standards.

Sh. Narendra Singh Tomar, Hon'ble Minister of Agriculture & Farmers Welfare and Minister of Rural Development in his address promised to introduce smart farming and create smart farmers. He stated that the government is open to improve the welfare schemes. With the new government's initiatives, there has been change in the mind-set of the people and more educated people are starting to engage in the field of agriculture and are using technology to develop the agriculture production. He asked the states to help farmers in the production process and make agriculture a more profitable business. He stated that the states can make efforts in increasing crop remuneration by helping farmers in reducing input cost and also helping in the increase of production and promotion of exports. He also highlighted the need for better water management and waste management of resources.

The innovators and leaders were felicitated in the award ceremony.





### FARMING LEADERSHIP

Sh. Om Prakash Dhankar, a veteran politician and a visionary leader has inspired innumerable sweeping changes in Haryana's agriculture. By keeping farm growth and profitability, as the guiding principle, he was behind many path breaking policy interventions. As the Cabinet Minister of Agriculture & Farmers Welfare, Development & Panchayats, Mines & Geology, Animal Husbandry & Dairying and Fisheries at Haryana, Shri Dhankar expertly identified ways to expand resources and implement several schemes for the development of agriculture in Haryana. Implementing several schemes and utilising government resources for the development of agriculture and related sector in Haryana, he made sure that the state was abreast with new technologies. Realizing the potential of fisheries in increasing farm incomes, he played an important part in increasing budget allocation of the Fisheries Department from Rs 5 crore to Rs 16 crore. Batting for implementing Swaminathan Committee Report, he constantly exhorted the farmers to invest in allied sectors to diversify their income sources. Shri Dhankar, in relentless pursuit of farmer's welfare and strong commitment for long term development has turned the agriculture fortunes of Haryana.



### YOUNG SCIENTIST

Dr. Shravan M Haldhar, Scientist at Central Institute for Arid Horticulture, Bikaner, have made outstanding contributions to the development of pest management techniques for the horticulture sector. The young scientist with a doctorate in Agril Entomology has collected and identified around ninety-five insect species of arid horticulture crops in arid and semi-arid regions, in which eleven species are new host recorded. Dr. Haldhar has five varieties of vegetables - Thar Karni (ridge gourd); Thar Seetal (long melon); Thar Tapish (sponge gourd); Thar Hariparna (palak) and Thar Sundari (ivy gourd) to his credit. He has also registered one muskmelon genotype (AHM/BR-8) in NBPGR, New Delhi. This dynamic scientist has developed 21 technologies related to insect-pests management

strategies for arid horticulture crops and has applied for one patent for the biopesticide "TharJaivik 41 EC". Dr. Haldhar has submitted seven new DNA Bar-coding sequence data of arid horticulture crops insects to Gen Bank NCBI, USA. With 34 research papers, 16 books and several technical bulletins in his name, Dr. Haldhar is a recipient of several honours and awards. In a short career span of 12 years, this young researcher has established himself in the horticultural scene of the country and holds a promising future.

### TECHNOLOGY LEADERSHIP

AlgaEnergy, a biotechnology-based company with the mission to develop and commercialize innovative high-quality products derived from microalgae has a lineage of ten years of research. AgriAlgae, launched after intensive years of research is a range of high quality biostimulants combining different microalgae species in the agricultural sector. With a global monopoly in the circular business model in using real CO<sub>2</sub> from other industries as the main nutrient to grow its microalgae, AlgaEnergy has been recognised by the exclusive Seal of Excellence issued by the European Commission. Awarded the prestigious European Business Awards for the Environment by the Biodiversity Foundation under the Ministry of Agriculture, Food and Environment, they have been able to generate high-quality innovative products targeting specific needs. As a new initiative in India, AlgaEnergy and Krishi Rasayan Group had recently announced a joint venture, AgMA Energy, to bring new agricultural solutions for key markets with MicroAlgae Technology. This joint venture between MicroAlgae Solutions India Pvt. Ltd, (a subsidiary of AlgaEnergy S.A.), and AgroLife Sciences Corporation, part of KrishiRasayan Export Pvt Ltd (KREPL), is set to rapidly bring new solutions at the interface between biology and chemistry to important agricultural markets.



**DR. MONI MADASWAMY**

Dr. Moni Madaswamy, Chairman, ICFA Working Group on ICT and former Director General, National Informatics Centre, commands 35 years of experience in the field of e-Governance and Informatics. A Distinguished Technocrat and Eminent Informatics Scientist in the area of "e-Governance, Informatics and Agricultural Informatics" in India, he has held prestigious assignments, including sharing important responsibilities as Principal Systems Analyst to the Former Finance Minister of India, Hon'ble Shri V. P. Singh. In his eventful career spanning several decades, Dr. Moni has deeply been involved with agriculture sector, associating with 13 research and development projects on survey and identification of insect-pests of arid horticulture; Insect Taxonomy; Host Plant Resistance (HPR) study, development of IPM modules for arid horticulture crops, grasshopper taxonomy and development of IPM/IRM modules in cotton. Currently serving as Professor Emeritus and Chairman, Centre for Agricultural Informatics and e-Governance Research Studies, he was instrumental in establishing Centre for AgriBusiness and Disaster Management Studies, and Centre for Industry 4.0 Technology Studies and Applications (CITSA), in Shobhit Deemed University Meerut (Uttar Pradesh). He continues to support technological advances in agricultural sector.

**RESEARCH LEADERSHIP**

Dr. Renu Swarup, the Secretary, Department of Biotechnology, Government of India, has served in Department of Biotechnology for nearly 29 years. A post doctorate from The John Innes Centre, Norwich UK, Dr. Swarup's principal area of research has been Genetics and Plant Breeding. She was also closely involved in programmes and activities related to Bioresource development and utilization, Energy Sciences and in Women & Science. Dr. Swarup was actively engaged in the formulation of the Biotechnology Vision in 2001, National Biotechnology Development Strategy in 2007 and Strategy II, 2015-20 as the Member Secretary of the Expert Committee. In addition to her current role, she holds the position of Chairperson, Biotechnology Industry Research Assistance Council

(BIRAC), a Public Sector Company incorporated by the Government to nurture and promote innovation research in the Biotech Enterprise with special focus on Startups and SMEs. Honoured with several awards, this researcher turned bureaucrat is also a fellow of the National Academy of Sciences (NASI) India. Dr. Swarup's vast contributions in the research and development of biotechnology in the country has provided a significant impetus for agricultural development.

**ACADEMIC LEADERSHIP**

Amity University, Noida has earned a reputable position as an institute of academic excellence in agriculture and allied sectors. The university has been persistent in facilitating research in frontier areas of agriculture. Amity offers an interdisciplinary environment to the faculties and PhD scholars to develop low-cost technologies for the benefit of the Indian farmers. This illustrious institute has been in the forefront in facilitating an environment to nurture valuable professional human resource in the area of plant and agricultural science to deal with crucial issues such as food security, environmental friendly and sustainable agriculture, nutritional security etc. With a gamut of courses ranging from graduate, post-graduate to diploma courses in Agriculture, Biotechnology, Horticulture, Plant Protection, Food Technology, Herbal Science, Microbial Technology, Foods & Nutrition, Agri-business, Environmental Management, Agronomy etc., Amity has ensured a steady flow of highly qualified and able professional work force to man the agriculture sector. The university's interdisciplinary research in the fundamental and applied aspect of plant science and agriculture with strong focus on innovation have left an indelible impact on the farming community and society.





**DEVELOPMENT LEADERSHIP**

A not-for-profit industry association, NASSCOM, is the apex body for the 154 billion dollar IT BPM industry in India, an industry that has made a phenomenal contribution to India's GDP, exports, employment, infrastructure and global visibility. Established in 1988, NASSCOM's relentless pursuit has been to constantly support the IT BPM industry in India, in the latter's continued journey towards seeking trust and respect from varied stakeholders, even as it reorients itself time and again to remain innovative, without ever losing its humane and friendly touch. With their initiative

of "working with diverse stakeholders to build focused initiatives that enable the growth of the sector through policy advocacy, skill building, research, startup programs, facilitate business and increase industry outreach", NASSCOM is dedicated to expanding India's role in the global IT order by creating a conducive business environment, simplifying policies and procedures, promoting intellectual capital and strengthening the talent pool. NASSCOM has built a symbiotic relationship with the Government of India on key issues relating to this sector.

**ENTREPRENEUR LEADERSHIP**

Mr. R Tamil Selvan, Chairman and founder of Salem RR Biryani, Chennai, is a food entrepreneur, philanthropist and a visionary. Developing his passion into successful entrepreneurship, Mr. Selvan is today a well known name throughout Chennai. Hailing from a small village, Edappadi in Tamil Nadu, he had the zeal to work even from a very young age. Enduring hardships, Mr. Selvan became an entrepreneur at the age of 23 aided by innate skills and ardour for cooking. His initial enterprise was built on a pushcart ten years ago and today he is the proud owner of Salem RR Biryani, a popular chain of biryani outlets in Chennai, with 21 branches selling

17000 – 20000 kgs of Biryani every day. A biryani master by experience, his culinary skills are on par with his humanitarian deeds. A humble person, connected to his roots, Mr. Tamil Selvan's guiding principle is, "One has to help those in need, instead of being blinded by greed". His positive outlook towards life and his dedication to improving the living standards of himself and those around him has helped him achieve admirable success in life.



**INDUSTRY LEADERSHIP**

An Industry giant, EID Parry Limited with a history of 230 years in agribusiness is a brand and market leader. Predominantly engaged in the business of manufacture of sugar and by-products, the company operates through six factories spread across the states of Tamil Nadu, Andhra Pradesh and Karnataka. Sugarcane, being the primary raw material for its operations, EID Parry, closely associates with farmers in the supply chain through sustainable initiatives and innovative technologies ensuring inclusive growth. Credited for its farmer centric agri services, EID Parry constantly promotes many novel products, schemes and programs in sugarcane cultivation. The company pioneered the establishment of a state of the art agriculture R&D facility and extension department for sustaining the challenging sugar business with the core purpose "to enrich life by creating value from agriculture" and is today a leader in the industry / country to have an integrated R&D and extension service program dedicated exclusively to serve its farmers. In the largest agro- industry of the country - "SUGAR", EID Parry is a shining beacon in leadership for innovation and promotion of best practices in agriculture on all fronts.

**AGRIBUSINESS LEADERSHIP**

Ascen HyVeg Limited "The Fastest Indian Growing Company in Vegetable Seed Sector" is ranked as number one regional company in India and number sixth in South and South East Asia. With a broad vegetable seed portfolio that includes open-pollinated varieties alongside hybrids in 21 vegetable crops, the company also focuses on developing disease resistant hybrids. With 4 million satisfied farmers from one lakh villages as its customers, Ascen HyVeg is on an incredible growth trajectory. Ascen HyVeg Limited with more than \$25 million turnover, has a dependable export



market in Thailand, Vietnam, Bangladesh, Sri Lanka, Pakistan, Nepal Myanmar and Indonesia. It was the first company to release Indian bred cabbage, carrot and cauliflower hybrids. Their hybrid varieties in Chilli, Tomato, Cucumber Bitter Gourd, Bottle gourd, Snake gourd, Pumpkin, Watermelons, Melons and Okra were heavily sought after by the farmers and in time have emerged as popular varieties. In 2017, Ascen HyVeg expanded portfolio to include row crops and started breeding in three field crops - Corn, Millet and Rapeseed Mustard. Armed with constantly evolving innovative and inventive products, Ascen HyVeg has emerged as a top seed company.



**INNOVATIONS LEADERSHIP**

Pioneers in innovations and technological up-gradation, Sonalika ITL has over the years swiftly outpaced both domestic as well as international brands. Sonalika's ease at customizing products has resulted in the development of 1000+ variants in the heavy duty tractor ranging from 20-120HP. Sonalika ITL is the only Indian company across categories which is present in 35 European National markets, and over 120 countries with No. 1 position in 4 countries. Sonalika ITL is known for introducing the 120 HP tractors to the global buyers and pioneering world class

technologies like CRDi complying with the stringent international norms. Sonalika Group believes in the concept of growing together and is striving to achieve commanding position in world economies of Asia, America and Europe, while going hand in hand with the Government's "Make in India" vision. This approach has led Sonalika to be chosen by the Govt. of India as a contributing partner with NITI Aayog which aims for doubling farmer's income by the year 2022. While touching million hearts, Sonalika has uncompromisingly catered towards the development of the society and inspired farmers to excel in their fields.

**CORPORATE LEADERSHIP**

FMC APG, leaders in the Agro Chemical Industry in India, has built a strong business base with quality products, broad international presence and effective market access. With a wide portfolio consisting all major classes of crop protection chemicals, FMC APG has been leading a winning battle against broad spectrum of insects, weeds and diseases.

With powerful brands, extensive distribution network, expertise in local markets, crop / non-crop segments, successful strategic alliances and state of the art R&D facility in Bangalore, FMC APG has emerged as leaders in this highly competitive segment. Their unique farm solutions have helped millions

of farmers to grow more food and to meet the burgeoning demand of the population. With the acquisition of Cheminova A/S, a multinational crop protection company based in Denmark and a wholly-owned subsidiary of Auriga Industries A/S, FMC APG will intensely focus on agriculture, health and nutrition end markets. With Cheminova's highly complementary product portfolio and geographic footprint, FMC will be able to broaden its Agricultural Solutions portfolio which will significantly strengthen their market access.



**CSR LEADERSHIP**

With the vision to 'Putting India First' with the credo of 'Sab Saath Badhein', ITC Limited Agri Business Division has integrated sustainability as the foundation of the corporate strategy. ITC ABD's association and engagement with Indian Agriculture is of over ten decades. One of India's largest integrated Agri-Business enterprises in the country, they have a significant presence across every node of the agri value chain – R&D, Crop Development, Procurement, Supply Chain, Processing and Marketing. Spanning operations across 200 districts that cover over 30 crops, the company

has also spurred rural transformation through ITC e-Choupal empowering over 4 million farmers through 6000 eChoupals across 35,000 villages and 23 Choupal Saagars. ITC ABD has been empowering farmers by fostering and strengthening the crop value chains in wheat, milk, fruits and vegetables, potato, spices and coffee segment with the help of successful brands of ITC. The company has been influential in reinforcing and enriching the rural ecosystem and thereby ensuring economic development of the country. ITC has maintained a close working association with grass root level institutions, community-based organizations and government partnership for promoting climate smart and sustainable agriculture practices.

**BEST AGRICULTURE STATE**

Bihar, a principally agrarian state, has made major strides in the agriculture segment. With technological intervention and visionary policy support, Bihar has emerged as number one in the eastern region of India in terms of agriculture growth. Bihar is among top 5 rice and wheat producers in the country and has topped in the yield rate of rice. Bihar is the 3rd largest producer of vegetables, which is dominated by potato, onion, eggplants and cauliflower.



In fruit cultivation, it is largest producer of Litchi and 3rd largest producer of pineapple in the country as well as major producer of Mango, Banana and Guava. Food processing, dairy, sugar, manufacturing and healthcare are some of the fast growing industries in the state. Organic agriculture has been accorded prime importance by the government. The state has attained self-sufficiency in food grains production. Agriculture is the single largest private sector occupation in Bihar and the agriculture policy in the state has been to increase productivity of major crops so as to bring it close to national average by the opening up of markets.



**BEST ANIMAL HUSBANDRY STATE**

Gujarat has displayed a stellar performance in the development of animal husbandry sector by strengthening animal health services and increasing livestock production. The Animal Husbandry Department undertakes numerous activities associated with scientific rearing of domestic animals, disease control and prevention of infectious diseases of poultry and animals, preservation of indigenous breeds etc. Rigorous efforts of Government of Gujarat has resulted in registration of new breeds viz., Kharai Camel, Kachchhi-Sindhi horse, Kahmi Goat, Panchali Sheep and Halari Donkey by NBAGR. Bestowed with large number of indigenous pure breeds, the state has 23 registered



breeds. The constant efforts of Gujarat government led to the notification of Standards of "Camel milk" as food item which impacted the procurement and the processing of the camel milk benefitting the camel owners of Kutch of Gujarat. Initiatives such as 'Chocolate from Camel Milk' initiated by AMUL in Gujarat was also impactful. 'Animal Health Camp' has remained a flagship programme of the Department which has witnessed a steep increase in the number of beneficiaries since its inception in 2002. The contribution of the state of Gujarat in the arena of animal husbandry has been incredible and was contributory in enhancing farmers' income.

**BEST HORTICULTURE STATE**

Mizoram nestled in the north-eastern part of India, is a biologically diverse region with excellent soil and climatic conditions suitable for the cultivation of a wide variety of horticulture crops. With progressive policies implemented by Department of Horticulture under various CSS schemes such as MIDH, PMKSY, RKVY and Mizoram State Flagship programme NILUP/NEDP, horticulture in the state is revving up slowly but steadily. Mizoram is one of the first states in India with large scale cultivation of Dragon fruits. Horticulture Centre equipped with state of the art scion bank was established to boost the production of quality disease free planting material of mandarin orange. Cold storage unit for flowers provided



by Horticulture Department has spurred the production and marketing prospects of Anthurium. Off-season Cabbage and Tomato introduced by the Department utilizing, Itozeki, Japanese heat tolerant variety has enabled the farmers to fetch prices higher than their normal produce. A large number of greenhouses constructed by the department have helped farmers in earning a steady income throughout the year. There are four Centres of Excellence and eight horticulture Centres in the state. With the continuous emphasis laid on horticulture, the state is steadily heading towards a revolution in the horticulture sector as more than 70% of the farmers of the state are engaged in horticulture.

**BEST FISHERIES STATE**

Bestowed with Inland, Brackish Water and Marine resources, Fisheries has emerged as a prominent economic activity for Odisha. Fifth in Inland and eighth in Marine Fish Production in India, Odisha along with various Centrally Sponsored Schemes and Plan Schemes, has initiated several activities for welfare of fishermen as well as for increasing the fish production of the State. Policy interventions such as Odisha Marine Fishing Regulation Act 1981 aims at marine fishing regulation, enforcement, adjudication, resource conservation and management etc.. Odisha Fisheries Policy, 2015 was first of its kind in India that envisaged to bring sustainable and holistic development in Fisheries Sector

through enhancement of production, productivity, optimal utilisation of available resources, export enhancement, welfare and life safety of fishermen. Odisha, pursuant to the policy interventions has observed a jump in fish production of fish from 521278 MT in 2015-16 to 758961 MT in 2018-19 with 45.6% growth over a period of three years with a subsequent increase in the seafood export value from Rs.1963.85 Crores in 2015-16 to Rs.3100.00 Crores in 2017-18. The state has thus transformed the fisheries and aquaculture of the state into a highly economic and remunerative enterprise.

**POLICY LEADERSHIP**

A policy maker par excellence, focusing on inclusive development, Dr. Ashok Dalwai, is a member of the Indian Administrative Service of the 1984 of the Odisha Cadre. The CEO of National Rainfed Area Authority, Dr. Dalwai also Chairs the Empowered Body on Doubling of Farmers Income. He has served in different capacities at both field and policy formulation stages in the States of Odisha and Karnataka. He was instrumental in developing the first Agriculture Policy of Odisha, the launch of Swachh Bengaluru, Participatory Irrigation Management, etc. He perfected

the Model Agriculture Produce and Live Stock Marketing (Promotion & Facilitation) Act, 2017; Model Contract Farming and Services Act, 2018; and Guidelines for Gramin Rural Agriculture Markets (GrAMs). Dr. Dalwai has also submitted a fourteen-volume strategy with specific recommendations for a paradigm shift in agriculture emphasizing on income security and welfare of the farmers. With a PhD in Economics and Masters in Agriculture, Dr. Dalwai has played a crucial part in envisaging policies that had imparted a profound impact on India's agricultural sector and lives of the farming community.





### LIFE TIME ACHIEVEMENTS

Agronomist, academician and leader best describes Dr. Panjab Singh currently the president of National Academy of Agricultural Sciences. Former Banaras Hindu University (BHU) Vice Chancellor and first Chancellor of Rani Lakshmi Bai Central Agricultural University, Jhansi (UP), Dr. Singh has also served as Secretary, Department of Agriculture Research and Education (DARE), Government of India; Director General of Indian Council of Agricultural Research and at the Food and Agricultural Organisation (FAO) of the United Nations in Bangkok, Thailand. With decades of experience in agriculture research, education planning and management across institutions and organizations, Dr. Singh is a trained agronomist and have always focused on the importance of quality education with social

relevance. Prof. Singh's academic and scientific excellence had him elected as Fellows of Four Scientific Societies, President of Six Scientific Academies/ Societies and the Chairman of various National and International Scientific Bodies. An alumnus of IIT, Kharagpur, Prof. Singh was also Founder Director, School of Agriculture in Indira Gandhi National Open University (IGNOU), one of the world's largest University in Open Distance Learning (ODL). His unparalleled leadership and stellar research prowess spanning over several decades have helped further the agricultural potential of the country.



### INTERNATIONAL LEADERSHIP

A Chartered accountant by profession and a politician by choice, Sh. Suresh Prabhu, former Union Commerce Minister and currently Prime Minister Modi's Sherpa for G20, has been playing a key role in positioning India globally towards advancing its economic interest. Closely coordinating with G20 nations, who together account for 90% of the World's GDP, Sh. Prabhu had significantly increased Indian exports and successfully reversed the declining trend in agro exports by signing number of trade agreements with important countries. He is also credited to have crafted India's first ever Agri Exports Policy, which was launched in December 2018. Mr. Prabhu has held several



government and semi government positions and he is a part of 16 global organizations and 9 strategic dialogues. A man of action with a penchant for undertaking reforms, scripting turnarounds and achieving superlative results by working in mission mode he is an advocate for decisive growth-driven change. Featured among the top three Indian leaders of the future by Asia Week magazine, Shri Prabhu has played a leadership role in propelling India into a new trajectory of growth and development through international collaboration.