



# Workshop on “Seed Production, Quality Control and Marketing”

June 24- 25, 2019,  
Hyderabad, Telangana State, India

## PROCEEDINGS



*Organised by*

**Department of Agriculture and Cooperation**

Ministry of Agriculture and Cooperation, Government of Telangana  
Hyderabad, Telangana State, India

*in collaboration with*

**Food and Agriculture Organisation of the United Nations (FAO)**

Rome, Italy





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# Proceedings of Workshop on “Seed Production, Quality Control and Marketing”

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## ***Published by***

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## Proceedings of Workshop on “Seed Production, Quality Control and Marketing”

Success of farming in terms of productivity and income is highly dependent on access to good quality seeds, which is fundamental and most vital in crop production systems. The quality seed being a carrier of technology is inevitable to meet the challenges of food security and nutrition for the ever-growing population. Majority of the countries across the world have made significant investments in the development of improved crop varieties and for the strengthening of seed production along with distribution systems to ensure farmers' access to quality seeds.

Yet many farmers in certain parts of the world are still facing snags in accessing the quality seeds of improved varieties, this is mainly attributed to non-uniform regulatory frameworks, lack of efficient seed production and quality assurance systems and supply systems, lack of qualified and trained seed professionals, lack of storage facilities or combination of all these factors. As a result, most of the farmers especially in developing countries are left without access to quality seeds of new and improved varieties.

In this context, an efficient seed system to produce quality seed of appropriate varieties, and to make available them at the right time in accessible locations at affordable prices to the farming community is need of the hour. This may require changes in the seed systems, policies and regulations or introduction/ harmonisations of legislations with these nations. To achieve this, technical, economic and managerial issues also be considered and addressed in a comprehensive way.

We are delighted to inform that the Department of Agriculture and Cooperation, Ministry of Agriculture and Cooperation, Government of Telangana in collaboration with Food and Agriculture Organisation of the United Nations (FAO), Rome, Italy has successfully organised the Workshop on “Seed Production, Quality Control and Marketing” under South–South Cooperation from June 24 – 25, 2019 as a pre-congress event of the 32nd ISTA Congress-2019 at Hyderabad, Telangana State, India.

The aim of workshop was to improve the capabilities of seed professionals from African and Southeast Asian countries in terms of seed production, quality control and marketing and also to foster collaborations that may ultimately enhance seed trade between Southeast Asia, especially India, and African countries by addressing the various seed production, quality and trade related issues.

Forty seven (47) participants from twenty six (26) countries of Africa and Southeast Asia and 68 participants from India including seed policy makers, government officials, scientists, seed analysts, technologists, small and medium seed enterprises (SMEs) and seed industry personnel attended the workshop.

The workshop covered a wide range of topics in five technical sessions viz., seed industry, seed production, seed quality assurance, phytosanitary / plant quarantine regulations, seed trade and marketing strategies and also an interaction session on South-South Seed Sector Partnership: Way Forward.



## INAUGURAL CEREMONY



The workshop was opened by **Mr. Pocharam Srinivasa Reddy**, Hon'ble Speaker of Telangana State Legislative Assembly in the presence of Dr.ChikeluMba, Team Leader, Seeds and Plant Resource division of FAO, Mr. C ParthaSarathi,

Agricultural Production Commissioner and Principal Secretary, Department of Agriculture and Co-operation, Government of Telangana, Mr. Rahul Bojja, Commissioner and Director of Agriculture, Government of Telangana, Dr.Criag Mc Gill, Immediate past president of ISTA, Dr. K. Keshavulu, Vice-President of ISTA and other dignitaries from

Government of India, Government of Telangana and Seed Industry.

At the outset, **Dr. Keshavulu Kunusoth**, Vice-President of ISTA, Director and Managing Director of Telangana State Seed Certification and Seeds Development Corporation, welcomed all the delegates and participants. In his welcome address, he briefed on the genesis and aim of the workshop and also thanked FAO for facilitating this workshop in Telangana State by acknowledging the seed potential of the State and also for supporting the efforts made to improve the capabilities of the seed professionals for nurturing the international seed trade under South - South Cooperation.



He also mentioned that in certain developing countries, resource poor farmers are still facing difficulties in accessing the quality seeds of improved varieties, due to various reasons or combination of all these factors. He informed that this workshop is designed to improve the potential of small and medium seed enterprises and sharing of knowledge in African and Asian regions by involving public & private enterprises, seed certification officials, policy makers, scientists, etc. on seed production, quality control and marketing.

Further, Dr. Keshavulu emphasised that world is facing food crisis, Africa and Asian region have potential natural resources to be food supplier in the world market. To make Asia-Africa region as the food supplier there is a need to strengthen seed sector cooperation in Agriculture. Especially harmonisation of seed policies and seed systems, certification and international seed trade besides capacity building between the two regions.

He also highlighted that the Government of Telangana which is the seed hub of India is looking forward to export seeds to other countries especially Southern countries of the Globe due to similar climatic conditions in both the regions with similar type of genetics. Therefore, there should be continuous dialogue to utilise every possible opportunity for promoting the mutual interests on seed sector development in South-South nations.





**Mr. Chitla Partha Sarathi**, IAS, APC & Principal Secretary to Govt. (A&C), Government of Telangana in his introductory remarks, he thanked the higher officials of the FAO for supporting in organizing this capacity building programme at Hyderabad to strengthen the seed sector in the Southern countries.

Partha Sarathi emphasised that agriculture globally is under tremendous pressure of feeding ever growing population with limited resources in the regime of climate change. As a result, the global demand for food grains is likely to increase by 70%, due to rapid population growth, urbanization, and changing diets.

He stressed that quality seeds are fundamental to the production and improvement of agricultural crops and assumes paramount importance, which act as catalyst in boosting the agriculture productivity. In this connection, the global seed industry will have to take collective responsibility of making available quality seed to the farmers across the globe especially for developing countries.

He also stated that Telangana State of India possess enormous potential for quality seed production, skills along with pro-active role in strengthening seed sector and took several initiatives in seed policies and putting forward to the Government of India to bring changes at federal level. He also stated that Government of Telangana is willing to some kind of collaborations/partnership with FAO that can help to fully utilise Telangana State potential and for the mutual benefits of farmers of the South-South nations in general and seed sector in particular.

Further, Mr. Partha Sarathi underscored that Telangana State is at advantageous stage for quality seed production owing to geographical advantages and logistics facilities, hence a future collaboration in the form of partnership, dialogues, policy advice and capacity building activities under the ambit of FAO may pave the way for the mutual development of seed sectors in South-South nations.

**Dr. Chikelu Mba**, Team Leader, Seeds and Plant Genetics Resources, Plant Production and Protection Division, FAO in his remarks thanked the Government of Telangana for taking the initiative for organising this landmark workshop. He conveyed the wishes of Dr. Bukar Tijani, Assistant Director-General (Agriculture and Consumer Protection) for successful and fruitful workshop.



Dr. Mba also emphasized that FAO is committed to leading the efforts to end hunger by 2030 even though about 820 million people across the globe go to bed hungry and it has been on increasing trend rather than decreasing. In this regard, FAO striving to achieve the Sustainable Development Goals / Agenda 2030.

He mentioned that the strategies to end hunger must include making available high-quality seeds/planting materials of well adapted crop varieties suitable to production systems in developing countries. He stated



that this workshop is a result of unique partnership between Government of Telangana / India, FAO and ISTA that brought together countries with similar climates and production systems to explore how to address one of the most important root cause problem of persisting hunger i.e. inconsistent supply of quality seeds to farmers across the globe.

Dr. Chikelu Mba, also appreciated the Government of Telangana for taking several innovative schemes for the welfare of farmers and seed sector development in the State and stressed that the successes achieved by the Government and people of Telangana could be replicated in other countries, especially through mutually beneficial collaborations and support. He also stated that this workshop would certainly benefit the seed sectors of both regions and FAO looking forward to have more and more workshops/partnership of this kind in the spirit of achieving SDGs by addressing identified constraints.



**Dr. Craig McGill**, President of ISTA thanked the Government of Telangana and FAO for organising this important workshop in connection with the 32nd ISTA Congress-2019 and also for providing opportunity for the participants from the African countries to participate in the ISTA Congress. He opined that this would help to spread the knowledge of ISTA in the African countries.

Dr. Craig McGill stated that this kind of workshops with international collaboration would certainly help in ensuring the availability of quality seed to farmers and support the food security for the ever-raising population.

**Mr. Rahul Bojja**, Commissioner and Director of Agriculture, Government of Telangana accentuated on the importance of quality seed in agriculture and its role in increasing agriculture productivity to feed the ever-growing population. He stated that both public and private seed companies have to take collective responsibility to address the issue of seed security as well as food security across the world.





**Dr. S. K. Pattanayak**, Former Secretary (Agriculture), Government of India thanked the Telangana State for taking this initiative in convening this workshop as well as 32nd ISTA Congress-2019 for the first time in Asia. He also thanked FAO and ISTA for supporting and providing this great opportunity for the India.

Dr. S. K. Pattanayak opined that, to meet the global objectives of achieving SDGs and to end global hunger are possible through the coordinated efforts and collaborations between the countries and he stated that India has to play a major role as many of the people go to bed hungry despite being a food

surplus country.

In his remarks, he emphasised on Indian agriculture, green revolution, pulse revolution and seed hub concept. He stated that ensuring the seed security is the key for ensuring food security and in this direction, Government of India has brought several policy initiatives to promote seed sector growth in the country.

Dr. S. K. Pattanayak appreciated the Government of Telangana for playing pro-active role in strengthening seed sector and for taking several initiatives in seed policies and putting forward to the Government of India to bring changes at National level like implementation of OECDseed schemes, complete online seed certification system, strengthening of infrastructure, technical staff development, several workshops/conference etc. He stated that, to feed the ever-growing population there is a need to rely on sustainable and climate smart agriculture and smart food crops like millets and pulses. He pronounced that the workshop as triangular cooperation between FAO, Government of Telangana and Participants from African countries and informed that there are different hurdles for seed trade across the borders that are need to be addressed to ease the movement of seeds across borders in line with the concept of seeds without the borders.

**Mr. Gutta Sukender Reddy**, Chairman, Farmers Coordination Committee Corporation, Government of Telangana, he highlighted on Telangana State seed industry and Government initiatives for overall development of farming sector in the State. He also mentioned that Telangana State has enormous potential for quality seed production and is ready to supply seeds to the needy countries.





**Mr. Kondabala Koteswar Rao**, Chairman, Telangana State Seeds Development Corporation, stated that there is a need to promote agriculture in the world using quality seed as vital input in boosting farm productivity and farmers income levels.

**Mr. Pocharam Srinivasa Reddy**, Hon'ble Speaker, Telangana State Legislative Assembly and Former Agriculture Minister of Telangana State of India graced the occasion as Chief Guest and addressed the gathering.



He stated that, it was indeed a great honour for Telangana state to host this Workshop in collaboration with FAO, Rome, Italy and thanked FAO for extending support to organise the workshop in Hyderabad.

Mr. Pocharam Srinivasa Reddy gave complete scenario of Indian Seed industry and stated that public sector has a strong representation in the India's seed market with a main focus on food and vegetable crops. He also briefed about the Telangana State Seed Sector that, it is recognised as Seed bowl of India and is privileged with congenial agro-climate conditions, skilled human resource, infrastructure and better logistic facilities for quality seed production and storage, thereby catering to more than 60% to the Country's seed requirement. He also stated that there is ample scope for producing any required quantities of seeds in India especially in Telangana State due to congenial climate prevailing around the year.

While concluding his remarks, Mr. Pocharam Srinivasa Reddy requested Mr. Chikelu Mba, the representative of FAO, to have continued dialogues in the form collaborations/partnership/policy advise in future for mutual benefit of seed sectors of South-South countries between the regions instead of restricting to within the region, so as to promote the seed trade across the borders for providing best quality seeds to the farming community across the globe.

Soon after the Opening Ceremony, the workshop began with presentations by Dr. Andrew Wais, Secretary General of ISTA and Dr Chikelu Mba, Team leader, Seeds and Plant Genetics Resources, Plant Production and Protection Division, FAO





**Dr. Andreas Wais**, Secretary General of ISTA made a presentation on “ISTA - Relevance to Governments, Farmers, and the seed Industry. In his presentation he covered the role of ISTA in domestic and international seed trade.

**Dr. Chikelu Mba**, Team Leader, Seeds and Plant Genetics Resources, Plant Production and Protection Division, FAO made a presentation on “Crops and varieties for Development.” He highlighted aspects like the 17 Sustainable Development Goals of the UN, the scope of the problem of hunger and malnutrition, FAO’s work towards the alleviation of hunger and poverty, emerging climate change issues and the need for climate-smart crop production, need for transition to sustainable crop production, FAO Seeds Toolkit and the role played by the seed component in crop production.



## TECHNICAL SESSIONS

### Session I : Seed Industry

Chair : Dr S K Pattanayak, Former Secretary (Agriculture), GOI  
Co-chair : Dr. M. Prabhakar Rao, President of NSAI, New Delhi

Dr. S. K. Pattanayak, the Chair for the session gave his introductory remarks and welcomed the speakers of the session and requested them to make their presentations.



**Dr. M. Prabhakar Rao**, President, National Seeds Association of India presented on “Global Seed Industry: Growth Trends, Prospects and Emerging Challenges.” He dwelled on the topics such as global seed industry ecosystem, key growth trends, emerging challenges, prospects for the future. He also mentioned that Pink-boll worm problem in India and Fall Army Worm menace in Africa as major challenges.

He proposed the following aspects to be considered for further analysis:

- IPR Protection for plant varieties
- Improved agronomic practices
- New tools for plant breeding and crop improvement





**Dr. K. V. Sripathi**, Principal Scientist, IISR, Mau, UP, India, made presentation on “Indian seed industry – Status, Trends & Opportunities. He highlighted the aspects of seed business in India, trends, market advancements & forecasts for 2024. He also presented the share of India in seed exports and imports, seed supply system in India, share of public and private sector towards seed business in India, status of ISTA accreditation in India, ICAR, AICRP National Seed Project, Varietal Replacement Rates, Seed Technology Research in India.

He suggested the following things as a way forward;

- ISTA accreditation of seed testing laboratories & capturing righteous share in global seed trade
- Emphasis on Implementation of OECD seed schemes
- Effective regional networking & boosting seed trade among SAARC nations
- Development of climate resilient seed production technologies
- Identification of suitable off-season planting windows for seed production especially in oilseed & pulse crops.

**Dr. P. O. Ojo**, Director General, National Agricultural Seeds Council, Nigeria. He presented on “Seed Industry in Western & Northern Africa: Trends & Opportunities.” He mentioned about African agricultural scenario and highlighted on the topics such as, seed industry in Sub Saharan Africa (SSA), Seed Production System in SSA, Performance of Formal Seed Sector.



He suggested the following as limiting factors for the seed business in SSA:

- Unpredictable and often-changing Government Policies creates uncertainty and weaken demand for Quality Seeds.
- Low technical capacities and inadequate infrastructure of Breeder and Foundation Seed producers.
- Lack of credit and working capital for private seed producers.
- Poor infrastructure in the value chain, such as poor retail networks or sales points, making farmer access to seeds difficult.
- Poor seed quality and adulteration leading to farmers lack of trust in traded seeds
- Low demand for seeds.
- High cost of hybrid seeds, and lack of yield benefits when companion inputs are under-utilised.



Ojo also mentioned the following as trends and emerging opportunities in SSA

- Shift from public sector dominated breeding to private-sector plant breeding
- Increased investment in technology
- Liberalisation of seed trade
- Emergence of private seed companies
- Entry of multinational seed companies
- Call for effective regulatory regime and introduction of Plant Variety Protection (PVP)
- Commercialisation of agriculture
- Product and trade competitiveness

**Mr. Ram Kaundinya**, Director General, Federation of Seed Industries of India, deliberated on “Seed Systems in India & Africa: Opportunities & Challenges.” In his presentation he covered the topics like comparison of agriculture in Africa and India, comparison of seed systems in Africa and India and historical development of Indian seed market.



He listed the following challenges for operating in Africa;

- Slow Progress with regulatory uniformity within economic blocks
  - Seed registration – time & cost
  - Seed movement between countries
- Availability and affordability of quality inputs & credit
- Lack of political and economic stability in some countries
- Forex issues – stability and availability
- Government interference
- Delayed payments by Governments
- Lack of robust banking systems for payment collection
- Long term investment required – not easy for many players



## Session II : Seed Production

Chair : Dr. R. R. Hanchinal, India

Co-chair : Dr. A. Vishnuvardhan Reddy, India

The session began with the opening remarks by the Chair of the session Dr. R. R. Hanchinal. He introduced and invited the speakers to make their presentations.



**Dr. B. M. Prasanna**, CIMMYT, Kenya made a presentation on “Global Maize Varietal Testing, Evaluation & Seed Generation Systems”. In his presentation he stated that maize provides food, feed and income to millions of people. Tropical maize yields in sub-Saharan Africa and Asia are low, compared to the temperate maize. Large scale climatic variability in Sub-Saharan Africa. CIMMYT's Varietal Identification Number (VIN). How CIMMYT tackled the MLN Challenge in Africa. He suggested the following points for further strengthen the maize breeding and seed systems:

- Release of New Climate-Resilient Varieties
- New Technologies to speed up Maize Breeding (Doubled Haploid (DH) Technology)
- Targeted Varietal Replacement
- Multi-institutional approach for addressing bottlenecks in Seed Value Chain in Africa.

**Dr. Rajendra Prasad**, Vice-Chancellor, UAS, Bangalore gave the presentation on “Principles & Practices of Quality seed Production.” His presentation focused on Seed supply system in India, Seed Production zones in India, Generation systems of seed multiplication, Agronomic principles of seed production and basic requirements of hybrid seed production.





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**Session III : Seed Quality assurance**

Chair : Dr S. Rajendra Prasad

Co-chair : Dr. Malavika Dadlani

The Chair of the session Dr. Rajendra Prasad welcomed the participants and invited the first speaker of the session Dr. K. Keshavulu to make his presentation.

**Dr. Keshavulu Kunusoth**, Vice-President of ISTA, Director and Managing Director of Telangana State Seed Certification and Seeds Development Corporation made presentation on “Overview of Global Seed Certification Systems.” He covered the overview of Global Seed Production Systems, Genesis of Seed Certification, International Seed Certification Systems, Regional Seed Certification Systems, Indian Seed Certification System and he emphasised that there is a need to harmonise the Seed Certification standards and procedures between the regions to enable the cross-border seed trade.



Dr Keshavulu stated that seed certification frameworks have been developed in various countries as per their national requirements. Few countries have adopted International Seed Certification standards (OECD / AOSCA). Certification is optional in few countries (North America) and mandatory in few countries (In various European countries). Procedures, standards and seed classes differs from nation to nation. In few cases certification includes sampling & testing and, in few cases, only field inspection & control plots. He informed that there is no uniformity / harmonisation in seed regulations except few cases.

Dr. Keshavulu mentioned that the world is facing food crisis, south-south region has potential natural resources to be food supplier in the world market. To make south – south region as the food supplier there is a need to strengthen seed sector cooperation. He suggested the harmonisation of seed policies, certification and capacity building programmes between the regions and also requested the FAO to create a common platform for strengthening the seed industry in both the regions.

Dr. Craig McGill, President of ISTA, presented on the topic “Concept of Seed Quality and its Evaluation” in detail. During his presentation, he discussed in detail on seed quality, factors affecting seed quality, key tests for assessing seed quality and also covered in detail on seed health.



## Session IV: Seed Trade & Marketing

Chair : Dr. S. K. Pattanayak, Former Secretary (Agriculture), GOI

Co-chair : Dr. J. Ashwani Kumar, Joint Secretary (Seeds), GOI

The Chair of the session Dr. S. K. Pattanayak introduced speakers of the session and invited them to make presentations.



**Mr. Venkatram**, CEO, Seed Works International Ltd., made a presentation on “Global Seed Marketing: Strategies & Approaches”. He talked about the developments in global seed marketing. His presentation covered the aspects of seed marketing like seed demographics, seed life cycle, and seed marketing strategic approaches, futuristic strategic approach, alternate channel partners and seeds marketing challenges.

**Mr. Gerry Hall**, seed expert from UK made presentation on the topic, “The Role of International Organizations (ISTA, OECD, IPPC, UPOV, ISF, etc.) in the Trade of Seed. He highlighted on the role of International Organizations like ISF, IPPC, UPOV, ISTA and OECD in international seed trade.



**Dr. Alice R. P. Sujeetha**, Director (PBD), NIPHM, Hyderabad. She made presentation on “Plant quarantine, Phytosanitary Measures and Regulations of exports & imports of seeds.” Her presentation covered the aspects like need for Plant Biosecurity, international regulatory framework and its linkage with IPPC, Plant Quarantine regulations in India, role of National Plant Protection Organization. She also mentioned about the export and import regulations for seeds and Post Entry Quarantine requirements in India.



**Session V : Interactive Session on  
“Seed Sector Partnership: Way Forward.”**

- Chair : Dr. R. S. Paroda, TAAS, New Delhi  
Co-chair : Dr. Chikelu Mba, FAO  
Shri Ashwini Kumar, Joint Secretary (Seeds), GOI  
Panellists : Dr. Craig McGill, President, ISTA  
Mr. M. Prabhakar Rao, President, NSAI, India  
Dr. M. Ramasamy, President, FSII, India  
Dr. Anisetty Murthy, Retd. FAO Expert, India  
Dr. Kanokwan Chodchoey, APSA, Thailand  
Dr. N. K. Dadlani, Seed Business & Floriculture, India  
Mr. Fakhru Islam, Bangladesh Seed Association  
Dr. B. M. Prasanna, CIMMYT, Kenya

The Chair of the session Dr. R. S. Paroda invited and introduced all the panellists and gave his introductory remarks on the interaction session. He stated that most of the Asian and African countries are agrarian countries and struggling with consistent low yields and food security problems. In order to feed the growing population, they have to produce double the amount of food produced today with same land and resources. Further, he suggested that increased use of improved seed of high yielding varieties/hybrids (HYV) is the fundamental change which can revolutionize the agriculture in these countries. Hence, the movement of seeds across the borders is very crucial for growth and development of agriculture and fulfil the need of growing population in terms of food, feed and fuel.

Dr. R. S. Paroda opined that, the seed industry in the South- South nations has not been fully exploited owing to a number of political, policy, trade and seed quality related constraints. These issues need to be addressed to harness the enormous potential of international seed trade between the South-South countries. He requested the panellists to give their opinion / suggestions on South-South Seed Sector Partnership: Way Forward.



The panellists from diverse fields including seed policy makers, seed experts and representative of Government of India, FAO, CIMMYT, ISTA, OECD, APSA and representatives of Indian and Bangladesh seed associations were shed light on how to move forward for strengthening seed sector partnership in South-South nations. The following recommendations emerged during the interaction session;



## 01 Facilitator role of FAO

FAO can play a facilitator role in replicating the progress of Telangana seed sector in other FAO member countries, especially in the southern hemisphere, to ensure access to quality seeds of well adapted varieties

Government of Telangana need to have continued conversation with FAO to have greater collaborations in the forms of partnership, policy advise, capacity building programmes in the future for seed sector development which may result in enhanced mutually beneficial opportunities for seed exports

## Future Collaborations 02

## 03 Harmonisation of Seed Regulations

Need to have harmonised seed regulatory frameworks / protocols at inter-regional level rather than within the region or block level. FAO has experience in harmonising protocols and hence it would readily take the lead role in regional harmonisation of seed regulations at the request of its member countries.

Harmonisation and mutual recognition of seed certification, quality standards and varietal testing procedures in line with the concept of Seeds without Borders especially between the countries with similar agro-climatic conditions and crop production systems.

## Promotion of concept of Seeds without Borders 04

## 05 Seed Infrastructure Development

Development of seed infrastructure, research and production expertise in African countries through the possible collaborations / partnership with local seed companies



Harmonisation of plant quarantine and phytosanitary regulations in the countries with similar agro-climatic conditions

## Phyto-sanitary regulations 06

## 07 Role of ISTA

ISTA should coordinate and strengthen its activities in South-South nations to build capacity and to spread awareness on uniform seed sampling and testing methodologies

Seed technology education and research in the South-South nations need to be promoted and focus should be on need based seed research or industry driven research and on application of new technologies for the benefit of the seed industry in both the regions.

## Promotion of Seed Technology Education and eResearch 08

## 09 Regional / national seed associations

Promotion of regional / national seed associations' participation in seed policy formulations and collaborations to foster public and private partnership in seed sector growth

Formation of Indo-African platform for seed sector development by involving high level policy makers from India and Africa under South – South cooperation of FAO for exchange of knowledge, ideas and technologies.

## Indo-African Platform on Seeds 10





## *Acknowledgement*

Our sincere thanks to Food and Agriculture Organisation of the United Nations (FAO), Rome, Italy and Department of Agriculture and Cooperation, Ministry of Agriculture and Cooperation, Government of Telangana for the kind support in organising this workshop at Hyderabad, India.

We extend our deep sense of gratitude to all the experts/speakers for their excellent presentations and sparing their valuable time in the workshop. We are also grateful to all the participants who have come all the way from different countries and made this workshop a grand success.

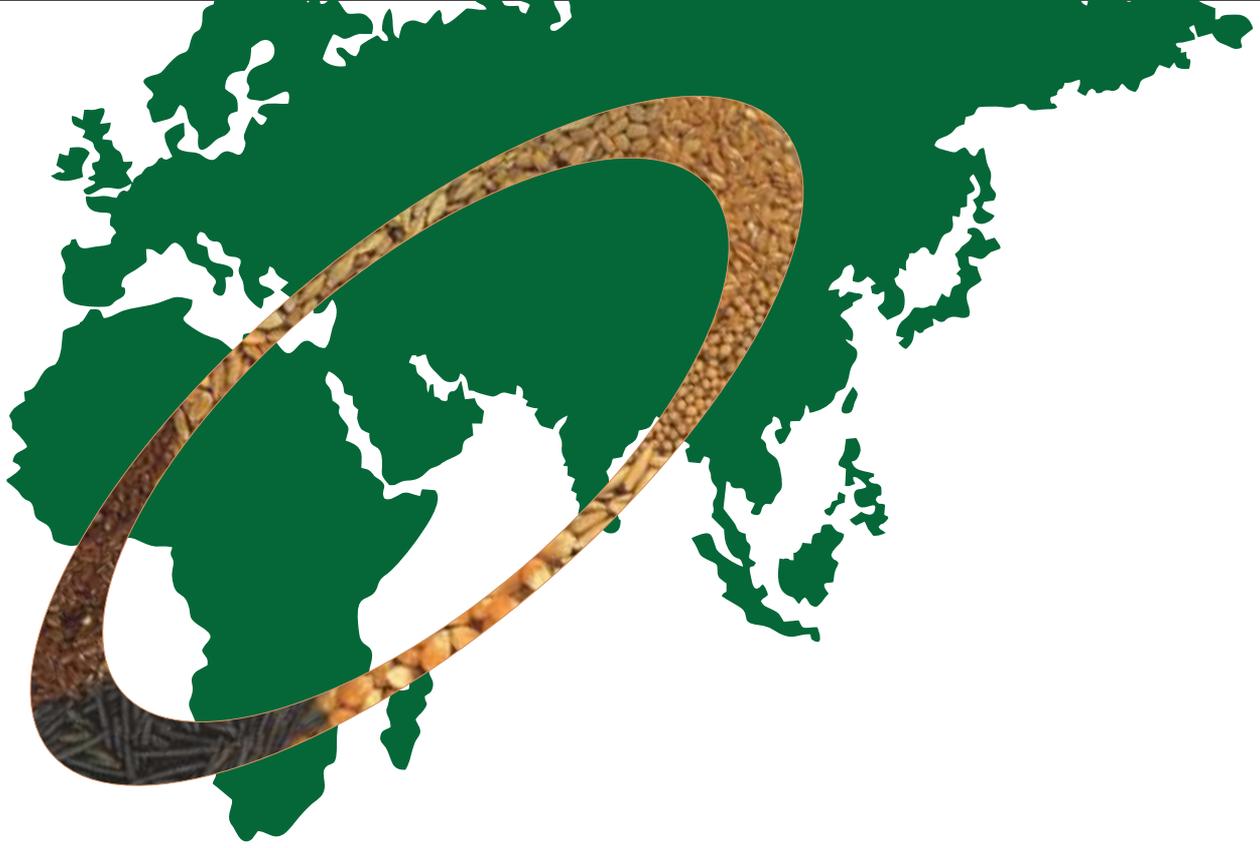


# GLIMPSES









**Department of Agriculture and Cooperation**

Ministry of Agriculture and Cooperation,  
Government of Telangana  
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