



# **Overview of Indian Seed Industry and Cooperation for Development of Seed Sector between India and Bangladesh**

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# National Seed Association of India (NSAI)



❖ National Seed Association of India (NSAI) is the **apex body representing** the seed industry of the world's fifth largest seed economy

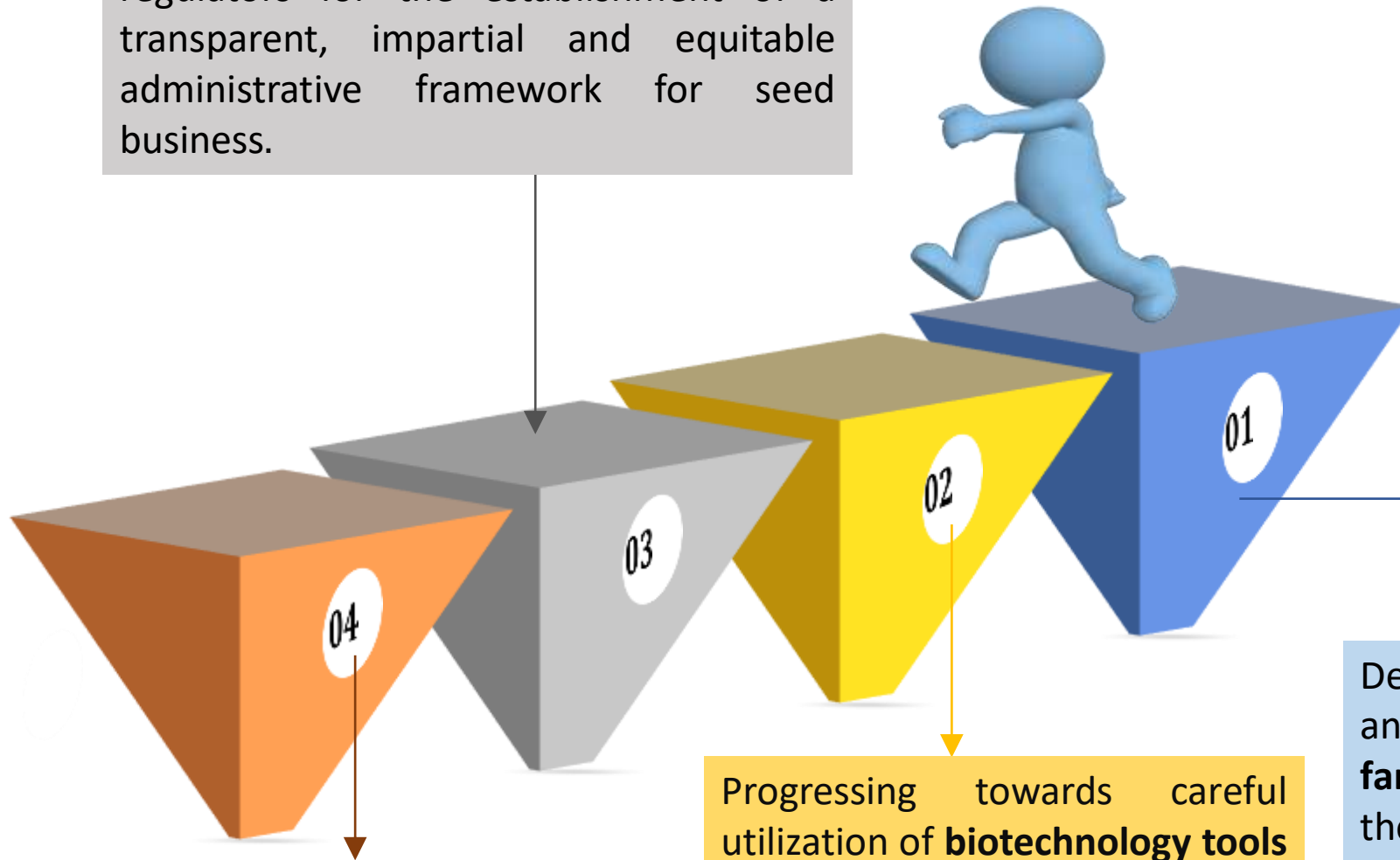
❖ NSAI recognized as key correspondent of the Seed Industry by the **Ministry of Agriculture and Farmer Welfare, Ministry of Environment and Forest** (having attached statutory body National Biodiversity Authority) and the **Dept. of Biotechnology, Ministry of Science & Technology**, Government of India and **SAARC Seed Forum**.

❖ Our mission is to create a **dynamic, innovative, internationally competitive, research** based industry producing high performance, high quality seeds and planting materials which benefit farmers and significantly contribute to the sustainable growth of Indian Agriculture.

❖ NSAI is also engaged with the seed industry and other stakeholders towards promoting the **Global Seed Trade** for meeting the food demand of ever expanding population.

For details, you may visit [www.nsai.co.in](http://www.nsai.co.in)

Engaging in a continuous dialogue with regulators for the establishment of a transparent, impartial and equitable administrative framework for seed business.



Increasing awareness about effective strategy for seed business among its members.

Progressing towards careful utilization of **biotechnology tools** for **modernizing** Indian agriculture and improving the **economy** of Indian farmers.

# VISION

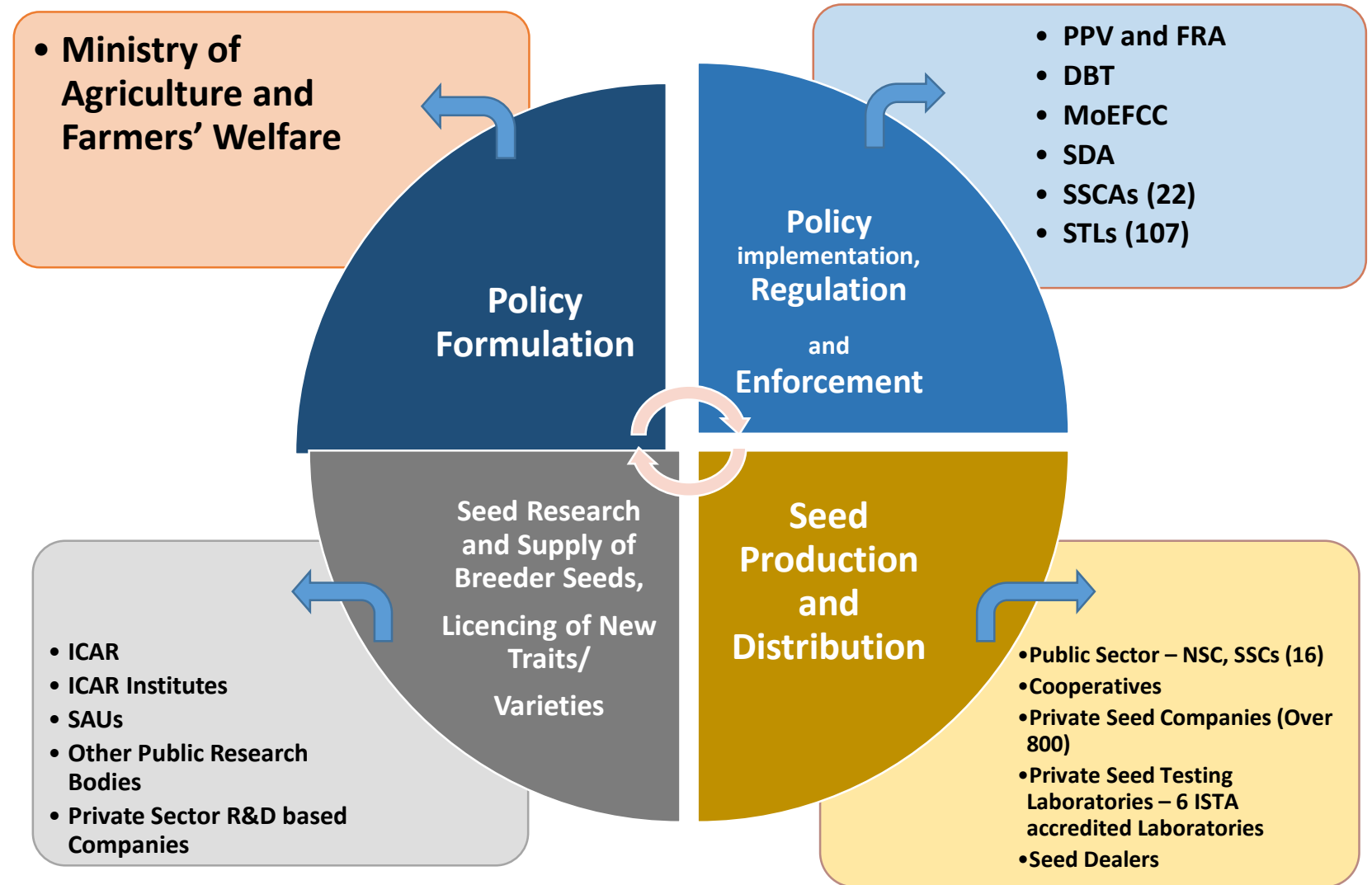
*Of*



Delivering **elite, high quality** seeds and planting materials which **benefit farmers** and fundamentally add to the **sustainable growth** of Indian agriculture.

# Seed Sector in India

- **Seed** - the primary input in Agriculture, encapsulates the genetics of Plant variety.
- Growth of Indian agriculture in sync with the expansion and growth of seed industry.
- Indian seed industry driven by the Seeds Act, 1966 and the Seed (Control) Order, 1983



# Overview of Indian Seed Sector

## I. Strength of Indian Seed Sector

- India has a rich **agro-climatic diversity** having **15 different agro-climatic zones**.
- India is one of the **17 mega** biodiversity countries in the world.
- Indian agriculture sector accounts for **18 % of India's Gross Domestic Product (GDP)**.
- India is the world's **largest producer of pulses, rice, wheat and spices**.
- Second largest producer of fruits and vegetables in the world.**
- India is one of the few countries where the seed sector is already reasonably advanced.



### RESEARCH

1. Rich biodiversity with over **49000 plant species** representing 11% of the world flora.
2. Robust public research system.
3. Over **5800 varieties** and hybrids have been released in different notified crop species. During past three years and current year total **946 varieties** of seeds including cereals (**379**), oilseeds (**146**), pulses (**168**), forage crops (**55**), fibre crops (**158**), sugarcane (**26**) and potential crops (**14**) have been developed of which more than 86% varieties have been developed by ICAR. In horticultural crops, also **317 varieties/ hybrids** have been released
4. Strong research base with and network of public and private stake holders many hybrids have been developed.
5. **Nearly 800 seed companies** in the private sector are working with strong production & research and development support.

### QUALITY ASSURANCE

1. India has well established regulatory and legislative frame work.
2. Fairly good networks of over **22 Seed Certification Agencies** are working for quality assurance.
3. Around **130 notified labs in the public sector** and **50 in the private sector** to support quality control system.

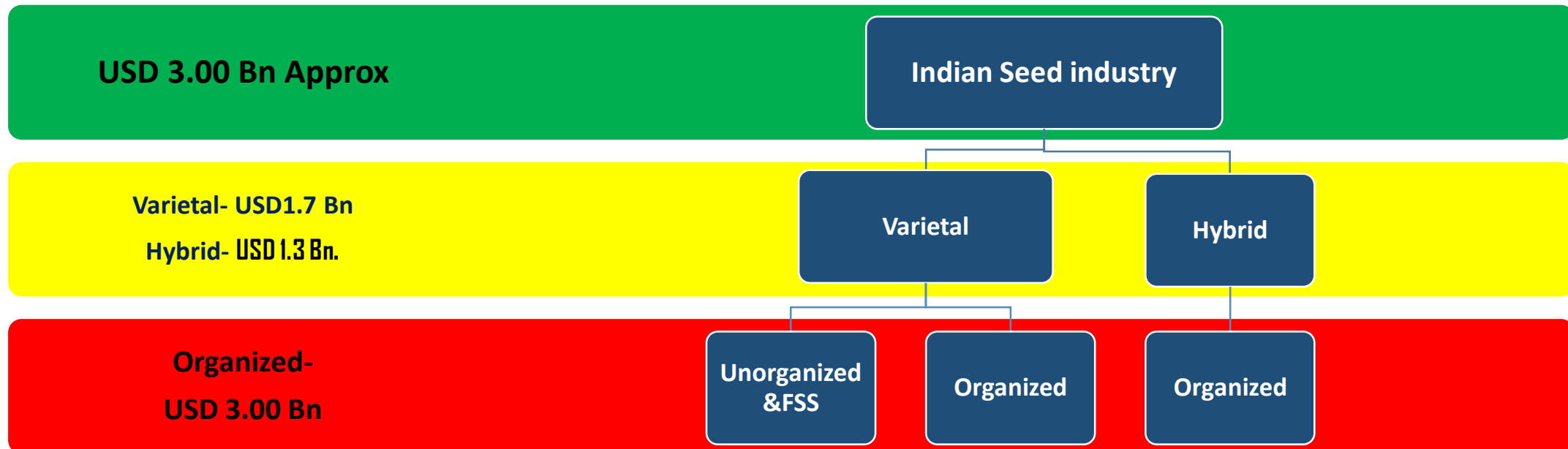
### PRODUCTION

1. There are 16 well established state seeds corporations in addition to the National Seeds Corporation.
2. India is also a member of OECD and included with five crop categories.
3. India has vast infrastructure and trained human resource to support the seed Industry.



## II. Current Status of Indian Seed Sector

- As per NSAI estimates - 2020, the organized Indian seed sector was valued at **USD 3.0 Bn.** The Indian hybrid seed industry is **estimated at USD 1.3 Bn.**
- **Indian seed sector is the 5th largest globally as per NSAI estimates.**
- With the prevailing growth rate of 11 per cent annually **the Indian Seed Sector is expected to have reached a value of nearly USD 5.0 Bn. currently**



# Scope of cooperation between India and Bangladesh

- Assam, West Bengal, Mizoram, Meghalaya and Tripura are the bordering state with Bangladesh & their agro-climatic conditions are similar to bordering areas in Bangladesh.
- The common crops cultivated in these area are mainly Rice, Jute, Cotton, Pulses, Oil Seeds and Vegetable.
- So there could be a good chance to promote and exchange of varieties or germplasm of these crops between India and Bangladesh for cultivation.

# Factors Affecting the Formal Trade between India and Bangladesh

- **Policy related Barriers:** Trade Policy, Non-Tariff Barriers, Domestic policies and regulations
- **Quality related issues:** Due to informal trade/Seeds from night fliers.
- **Lack of efforts** in developing sustainable solutions for the quality seeds development



# Challenges in Seed Trade between India and Bangladesh

- **Quarantine regulations and infrastructure:** Challenges in seeds trade still persist due to non harmonized Quarantine regulations and Limited number of entry ports.
- **Cross Border movement:** The cross-border trade between the two countries is severely hampered by insufficient port infrastructure facilities.
- **Grey Market:** The informal system is the unorganized channel of seeds exchange among the farmers and small seed producers.
- **Absence of established norms** and regulations, making it impossible for consumers to exercise their legal protections against poor quality and fraud.

## Opportunities for Seed Trade between India and Bangladesh

- The availability and affordability of high-quality seeds could be ensured through bilateral seed trade between India and Bangladesh. ***A common protocol has been signed between India-Bangladesh-Nepal for sharing of seeds of Rice without further testing and evaluation if officially tested and released in one country. Extending similar protocol between Bangladesh and India for other crops like jute, cotton, vegetable etc.***
- The mutual liberalisation of the seed trade between two countries will enrich the diversification of varieties in different crops.
- Due to the similarities of the agro-climatic conditions on both sides of the border, many indigenous and HYV seeds have the potential to be used in selected regions of both the countries.
- In addition to increasing market prospects for small seed businesses, trade liberalisation will go a long way toward satisfying the need for high-quality seeds on both sides of the border.
- By boosting both nations' access to the agricultural market, integration and collaboration in the area of seed sector at the public, private, and institutional levels will aid the two countries in expanding the platform for resource utilisation and mobilisation.

# Focussed areas for cooperation and sharing of breakthrough in crop productivity between India and Bangladesh

- **Joint evaluation of improved varieties** of common crops of both the countries for release in areas with similar agro-climatic conditions.
- **Adoption of research data** from both countries, including findings from farmer-participated varietal selection operations, to promote varietal release in the other country.
- **Streamlining evaluation** procedure to cut processing time from nearly three years to one year.
- **Collaboration to create** Internationally compatible seed protocols and guidelines.
- **To increase farmer awareness and guarantee** a sufficient supply of breeder seed to each other once a variety is released, breeder seed is encouraged to be multiplied.
- **To increase the seed supply**, private sector participation in seed systems should be encouraged.

# Cooperation between NSAI and BSA

- **Collaboration:** Seed associations of both the countries may subscribe to each other for membership so that this relationship can be further strengthened
- **Bilateral meet between seed associations** of both countries every year either in Dhaka or Delhi to deliberate on Seed Industry related issues to promoting Seed trade between two countries and developing cooperation of seed trade in the region.
- **Regular participation** in events related to seed like Indian Seed Congress and Bangladesh Seed Congress.
- **Regular exchange** of experts from India to Bangladesh and Vice-Versa for knowledge sharing.
- **Common understanding** on Global and regional seed trade issues.
- There should be a **common protocol** for trans-border area and plant quarantine for trade.
- **Assistance for Research and Development** and germplasm exchange between the countries.
- **Jointly Organizing Scientific Seminars/** Brain storming sessions/ Roundtables/ Conferences/ Workshops on various issues related to seed industry

# Welcome to Indian Seed Congress 2023

- NSAI is organizing seed industry's mega event i.e. 11<sup>th</sup> Indian Seed Congress 2023 (ISC2023) on 3<sup>rd</sup> -4<sup>th</sup> March 2023 at JW Marriott, Aerocity, New Delhi, India.
- The theme of ISC 2023 is ***"Seeds for Global Unity – Perspectives for Growth"***.
- The Indian Seed Congress is the annual event of NSAI and provides a multi-disciplinary and a vibrant platform for the Seed and Agri-input industry to interact closely with multiple stakeholders including, scientific and technology development professionals, commercial and business professionals, farmers, entrepreneurs and policy makers.
- For more detail please visit: <https://isc.nsai.co.in>



## INDIAN SEED CONGRESS 2023

2-4 March 2023, Hotel JW Marriott, Aerocity, New Delhi

Seeds for Global Unity





# Key feature of Indian Seed Congress

- i. **Technical Session:** The upcoming ISC technical session will cover the various important topics like advance molecular approaches for varietal breeding, seed quality value enhancement, quality enhancement, Seed quality regulation, Global trade opportunity and challenges, Carbon Offsets in Agriculture sector, IPR, Legal framework and Traceability of Seed.

## Some of the Key speakers in ISC2023



**Dr. K Keshavulu,**  
President-ISTA,



**Dr. Arvind Kumar**  
DDG ICRISAT, India



**Dr. Sudhanshu Singh**  
Director, IRRI SRC



**Dr. Janila Pasupuleti,,**  
ICRISAT



**Dr. B. M. Prasanna,**  
CIMMYT



**Mr. Kentaro Takahashi,**  
IGES, Tokyo Japan



**Mr. Bhupen Dubey,**  
Global CEO Advanta Seeds, UPL



**Dr. Keshav Raj Kranthi,**  
Chief Scientist, ICAC, USA



**Dr. K. V. Prabhu,**  
Chairperson PPVFRA



**Dr. Rajiv Varshney,**  
Murdoch University (Australia)



**Dr. Ramakrishnan M. Nair,**  
World Vegetable Centre



**ii. Business opportunity:** Exhibition stalls and Trading Tables are the main attractions points. The National Organizing Committee has arranged Exhibition Hall and Trading Tables for the delegates to promote B2B activities in the region (National as well as Global). The Exhibition Stall are most vibrant and 30 seeds companies will exhibit their products and explore the business opportunities. The trading table will be the focused area for the seed business and about 23 companies shown their interest for the trading Table for B2B activity.







## Indian Seed Congress 2020 (Delhi, India)

- The CEO Conclave was attended by **45 Business leaders**.
- **400+** important national and international delegates attended from **8 countries**.



Dear audience,



NSAI invites you.

Don't miss this opportunity for promoting your seed business by participating in ISC2023

**Looking Forward to see you in Delhi on  
3-4 March 2023.**

Registration Link: <https://isc.nsai.co.in/>

**THANK YOU**

