

Development and Growth of Seed Industry in Bangladesh

Bangladesh Seed Congress 2023, 11-13 February 2023,

BICC, Agargaon, Dhaka



Bangladesh Seed Industry



BADC, Private Companies, NGO's and Seed Dealer are Major Stakeholders

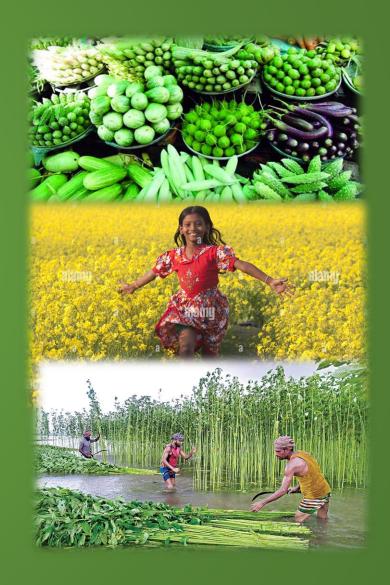
Annual Turnover **USD 0.85 Billion in 2021**

Expected Turnover **USD**1.1 billion in 2025

Expected Turnover USD 1.5 billion by 2031

CAGR:6% , 1.4% of Global Seed Industry





Development of Seed Industry in Bangladesh



Bangladesh Agriculture Transformation through Favorable Policy Support

1994-1997 1973-1992 2020 2011 Farmers Own seed Seed Potato De-Plant Quarantine Transition Notifications for 3yrs-Dominated Public Act Dealer Industrial, High Seed yield Sector Bt brinjal release export quality **Activitation** Private Sector Trading Seed Rules 2020 in 2013

National Seed Policy Promoted Private Sector in Seed Business

1993

- 1st time hybrid rice Registered
- Seed Rules 1998

1998

Seed ACT 2018 allow private sector to release notified crop variety

2018

Seed Industry Policy Brief



Bangladesh Agriculture Transformation through Favorable Policy Support

The National Seed Policy 1993

• Private Sector efforts recognized by the Policy

The Seeds Ordinance 1977, 1997 & 2005

• Urgent /Priority can be made



The Seed (Ammendment) Act, 2018

 Private Sector allowed to doing research on notified kind of Crops

The Seed Seed Rules 2020

- One variety cannot transfer to others
- New company can released variety after 5 yrs

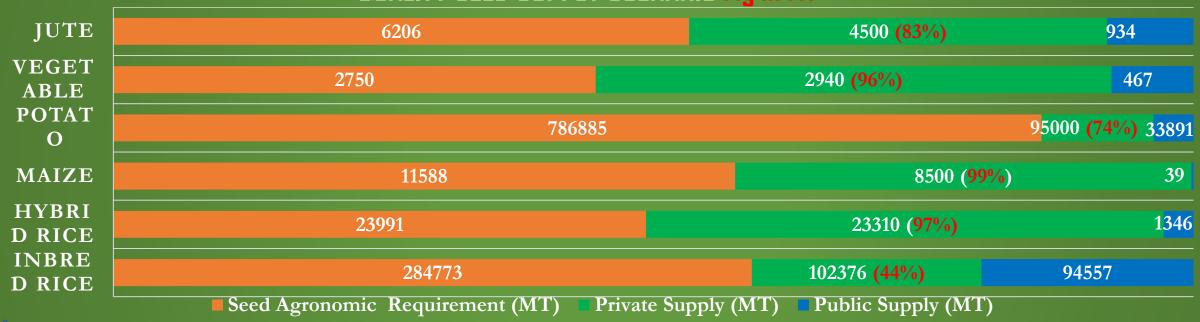
Quality Seed Supply Scenario in Bangladesh



Total Agronomic Requirement of Seed: 1254836MT

Total Seed Supply: 405986MT (32%)





- Private sector dominating in supply of hybrid rice, maize, potato, jute and vegetable
- 52% quality seed supplied by the private Sector out of total seed supply
- Public sector is leading in inbred rice, minor cereals, pulses, oil and horticultural crops etc

Source: MoA, 2021-22

Miracle Changes in Agriculture Produtivity



Comparing financial year 2008-09 with 2020-21

1

Rice Yield (23%)

31.32MN MT in 2008-09
38.61MN MT in 2021-21

4

2

Wheat Yield (45%)

0.85MN MT in 2008-09 1.23MN MT in 2021-21 3

Maize Yield (775%)

0.73MN MT in 2008-09 5.7MN MT in 2021-21

Potato Yield (101%)

5.3MN MT in 2008-09 10.6MN MT in 2021-21



Oil Crops (81%)

0.66N MT in 2008-09

1.2MN MT in 2021-21





Vegetable (578%)

2.9MN MT in 2008-09 19.7MN MT in 2021-21



6



Source: Krishi Diary, AIS, DAE, 2022

Remarkable Progress made in Research & Innovations



NARS Institutes, Private Companies and NGO's

Hybrid Rice

- Registered 237 Hybrid variety
- Public Hybrid : 16 (7%)
 BRRI, BADC, Universities
- Private Hybrid:221 (93%)
 Private Companies, NGO's

Inbred Rice

- Released:135 variety for Aus, Aman & Boro
- Public Hybrid : Mostly BRRI, BINA, Universities
- Private Sector started to release (ACI & BRAC)

Potato

- Released 171 varieties
- Public : 96 (56%)
- Private Companies: 75(44%)
- High Yielding, Short Duration, Industrial, LB Resistant, Saline Toleetc



Other Crops:

- Public Sector contributed in Pulse, Oil, other minor and horticulture crops
- Private Sector: Flowers, Sunflower, popcorn, sweet corn, exotic fruit crops, flowers and other minor crops

Wheat

- Released 39 variety
- Mostly public: 37 (BWMRI, BARI,)
- Private 02 Only ACI
- (High Yielding, BLAST, Saline tolerant, high Gluten content)

Hybrid Maize

- Mostly Private: either from MNC's or own developed
- BWMRI also developed 19 Varieties
- High Yield, Higher Shelling %, Kernal Color, Insect Tolerant, Standing ability etc

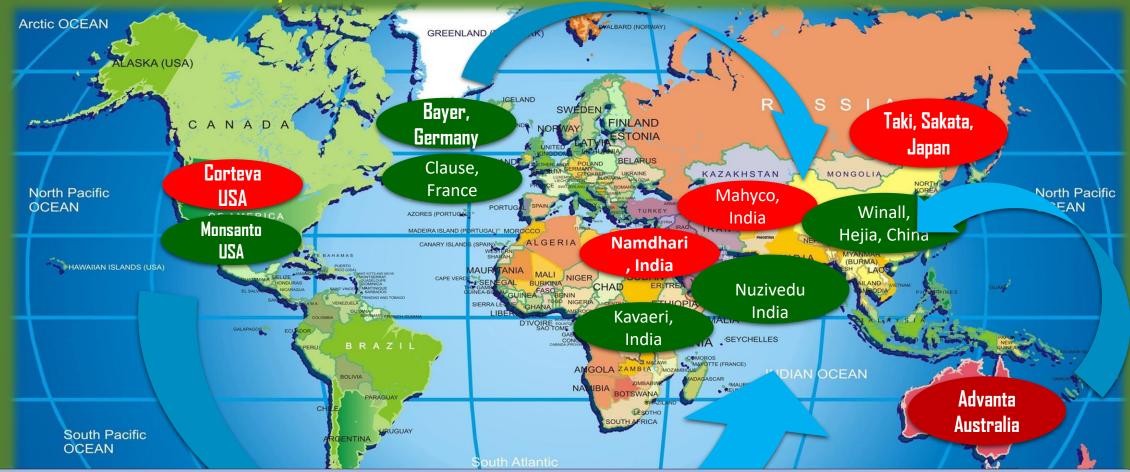
Vegetable

- Over 600 hybrid of different crops developed by Private Sector
- Public Institutes also contributing
- High Yielding, Short Duration, Consumer preference, climate smart, Marketable Quality etc

Seed Industry Association with Top MNC's and Research Partners



IRRI, CIMMYT, CIP, AVRDC Connectivity with Both Public & Private Sectors



Private sector closely work with MNCs for supplying superior quality seed of improved crops varieties

Global top 08 Seed Companies are operated seed business in Bangladesh

Public & Private sector also connected with Top Global Research institutes

Seed Infrastructure Development in Bangladesh



Public Dominating, Private Sector also Contributing

Research & Development

- **Public Delight**
- Private companies also developed Moleculer facilities & experienced breeder, Own PDS Facilities



Seed Multiplication

- Public dominating infrastructure
- Private Sector having 50000 contract growers network
- 3000 skilled production HR



Conditional & ambients storage , seed grading and processing facilitigae



- Accredited Under Progress
- Skilled manpower and testing facilities available

















Packing & Branding

- Modern automated packing facilities for vegtable seed
- Private sector has proven experienced

Marketing

- **Mostly in Private Sector**
- However, public sector also involved with

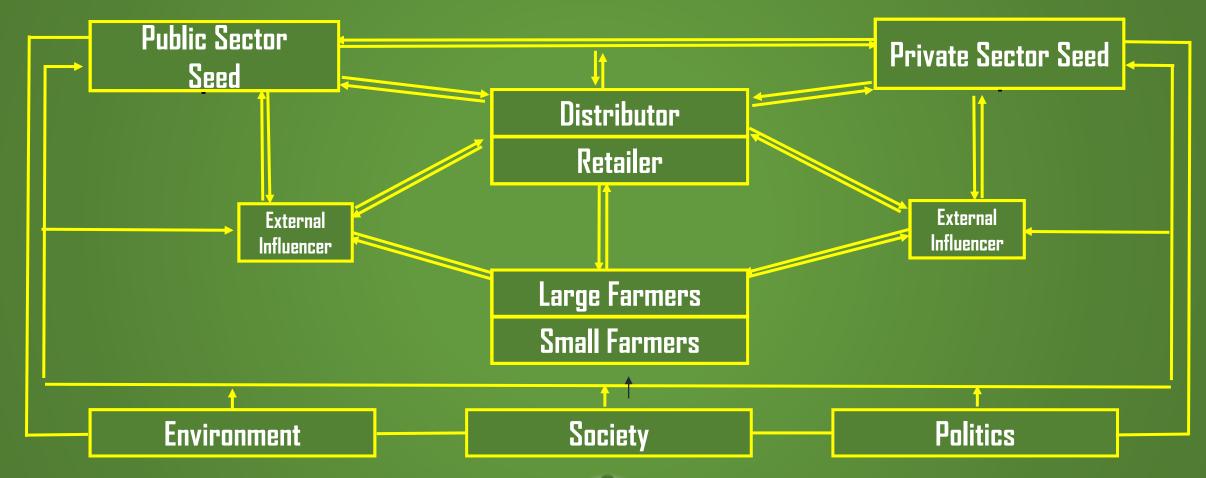
Distributions

- Rented, Own or Courrier
- 35000 Over dealer. 180,000 retailer
- Public with subsidies Offering
- Competitive Private Sector
- Over

Input Marketing System



Public Dominating, Private Sector also Contributing









Investment Incentive in Seed Industry

Bangladesh Potential Seed Market Size 1.5 BN USD by 2031, CAGR: 6%

Cash Incentive

- 20% cash incentives on crop and vegetable seeds export
- 10% cash incentives on potato exports

Others

- Young energetic 70% is aged below 40
- 2.3 million young professionals enter workforce every year
- 100% FDI is allowed



Tax Holiday

- Tax Holiday
- Reduced Tax for 5 or 10 years
- Facilitate Bangladesh Economic Zone authority

Policy Support

- Investment friendly policy support to attract foreign investment.
- 100% foreign ownership is allowed
- Simplified import of raw and machineries

Investment Opportunities in Seed Industry



Current Scenario:

Current Market:0.85 BN USD

Import & Domestics: Ratio:4:6

> Last Five Years Growth:5.8%

Potential Scenario:

Market: 1.1 BN USD by 2025

Import & Domestics: Ratio:3:7

Growth Rate in next Five years:6%

New Opportunities:

Investment in Marketing & Distribution

Export & Toll Production

Investment in Seed Grading and Processing

Joint Venture & Technical Collaboration

FDI,JV & Market Presence

100% FDI allowed

TOP MNC's presence in Bangladesh, Bayer, Syngenta,, EWS, Advanta, Corteva etc

Rice, Maize, Jute, Potato, Wheat Vegetable, Fruits, Flower, pulse & Oil, Spices, Ornamental Plants, Processing, Preservation, Value addition, forward linkage

Investment Opportunities in Research & Development



Current Scenario:

Mostly Public & Marginally Private

Research focused on Crop Breeding

Limited Research for Practices, Post harvest & Processing

Potential Scenario:

Opportunity for Private Research

> Research on Plant Genetics

Research on Practices,
Post Harvest &
Processing

New Opportunities:

Investment in Plant Research and Capacity Development

Consultancy, Technical Collaboration, Joint Venture

FDI, JV & Dev Fund:

Foreign Development Funds
USAID, SIDA, Bill & Millinda
Gates Foundations, CARE,
Jaica , SNV etc

Genetic transformation by using molecular techniques

Cutting edge , genome editing techniques for speed Breeding

Nutritional breeding

Precision Agriculture& Variety Breeding

Challenges in Seed Industry Development



Major Challenges



Lack of Data



High Cost Finance



Access to Land



Access to Germplasm



HR Development



Seed Infrastructure



Continuous Policy Support



Promotion and Communication

Recommendations

Soft loan support for establishing state of the art processing and QC facilities

Appropriate interpretation & realistic application of regulations

Strengthening private sector for investment in breeding through incentive

Encouraging PPP for Promoting germplasm, scientists, and modern variety development

Certifications coarse for the dealer and extension worker

Promoting Seed export through appropriate Policy Support Extension should Support both public and private technologies

Access to Public Seed processing and storage facilities for private sector in Low Cost

Budget Provision for strengthening R&D Activities De-regulations on notified kind of crops of production, import and export.



Thank You

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