

Key Note Paper

COTTON PRODUCTION IN BANGLADESH: CURRENT SCENARIO AND PROSPECTS

Keynote Speaker:

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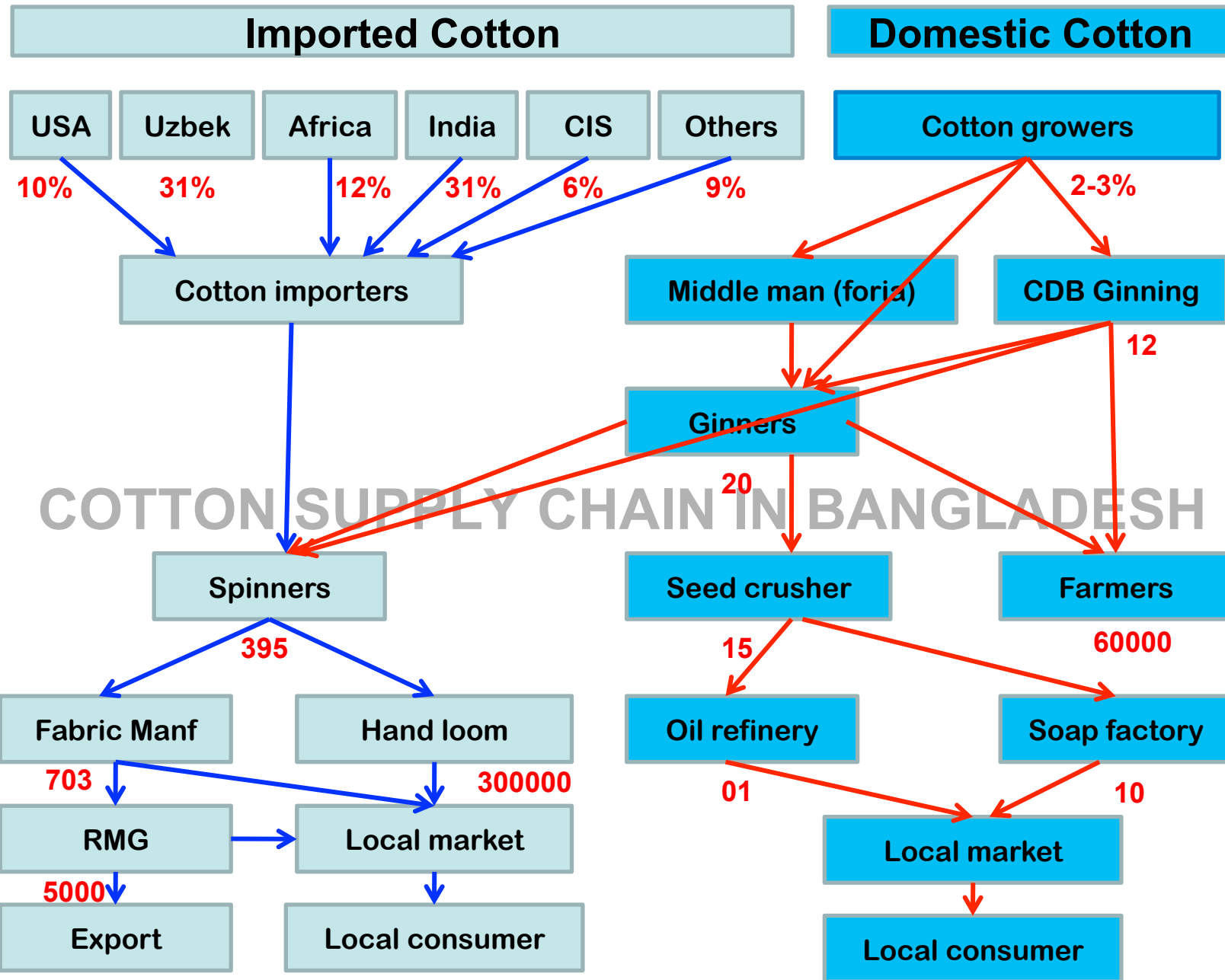
June 2014

BANGLADESH AGRICULTURE

1.	Cultivable land	: 8.5 million ha
2.	Area Suitable for Cotton Cultivation	: 250,000 ha
3.	Net Cropped Area	: 8030,000 ha
4.	Total Cropped Area	: 14200,000 ha
5.	Cropping Intensity	: 190
6.	Growth Rate	: 3.5-4.12%
7.	GDP contribution	: 18.70%
8.	Total Farm Family	: 15.18 million
9.	Major Crop	: Rice, Jute, Maize, Sugarcane, Pulses, Tea etc.
10.	Climatic variability	: Tidal surge, Cyclone, Flood, Salinity, Drought

COTTON SECTOR IN BANGLADESH

A. READYMADE GARMENTS	Garments unit	:	5000
	Total Work Force	:	5 million
B. TEXTILE	Knit industries	:	446
	Weaving mills	:	1343
	Hand loom	:	300000
C. SPINNING	Spinning mill	:	395
D. GINNING	Ginning Centres	:	Private-20, CDB-12
	Saw ginning	:	104
	Roller ginning	:	63
E. OIL EXTRACTION	Crude oil expeller	:	15
	Oil refinery	:	01
F. PRODUCTION OF COTTON FIBRE			
	- Current Annual demand	:	800,000 tons
	- Current Domestic production	:	27,000 tons
	- Projected Demand for 2020	:	25 00,000 tons



BANGLADESH COTTON: CURRENT SCENARIO

- **2nd** largest apparel producer in the world
- Bangladesh is a **5th** largest cotton fibre consumer in the world
- **2nd** largest cotton fibre importer in the world
- Fibre Import from- Uzbekistan, India, USA, other CIS and some African countries
- Quality of domestic cotton is equal to CIS cotton and India cotton
- Hybrid cotton has introduced and Bt cotton introduction are under process

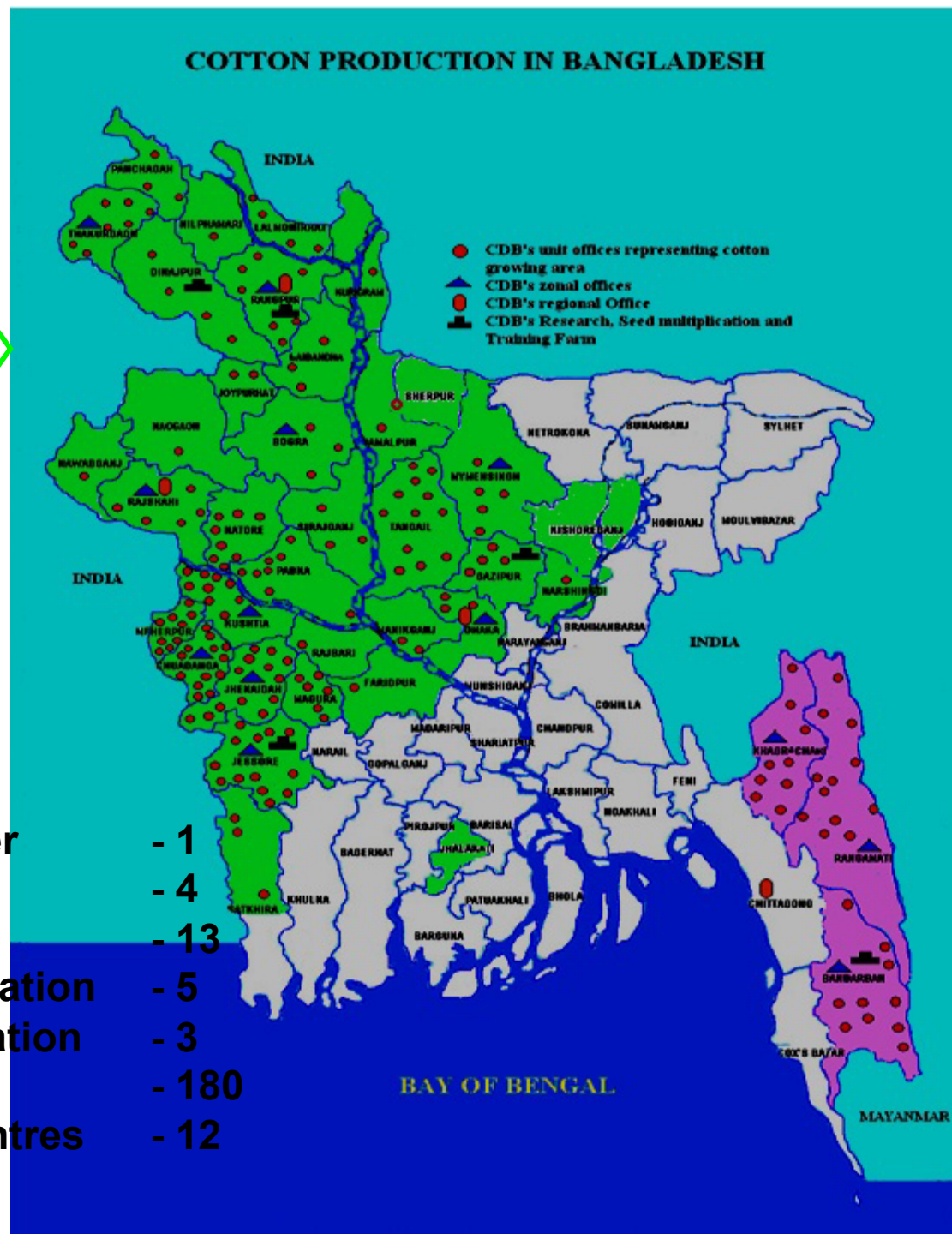
- Cotton is adaptive to climate change: **saline and drought tolerant**
- Cotton is expanding to **Charlands** and other less cropping intensity areas
- Upland cotton (*G. hirsutum*) cotton has introduced in **Hilly areas, Agroforestry system and Intercropping system**
- Current cotton cultivation area covering 36 districts including 149 upazilla

STATE OF COTTON PRODUCTION IN BANGLADESH

Establishment of CDB	:	December, 1971
Field Level Cultivation	:	1974-75
Cotton Research under CDB	:	1991
Current Production	:	27000 tons
Area under Cotton Production	:	40000 ha
Farmers involved in Cotton Prodⁿ	:	70000
Cultivated <i>G. hirsutum</i> Variety	:	HYV- CB-12, CB-13 and CB-14
	:	Hybrid- Rupali-1
Cultivated <i>G. arboreum</i> Variety	:	HC-1 and HC-2
Average Yield Potentiality of HYV	:	2.5-3.0 ton ha⁻¹ with 39-40 GOT
Average Yield Potentiality of Hybrid	:	3.5-4.0 ton ha⁻¹ with 40-42 GOT

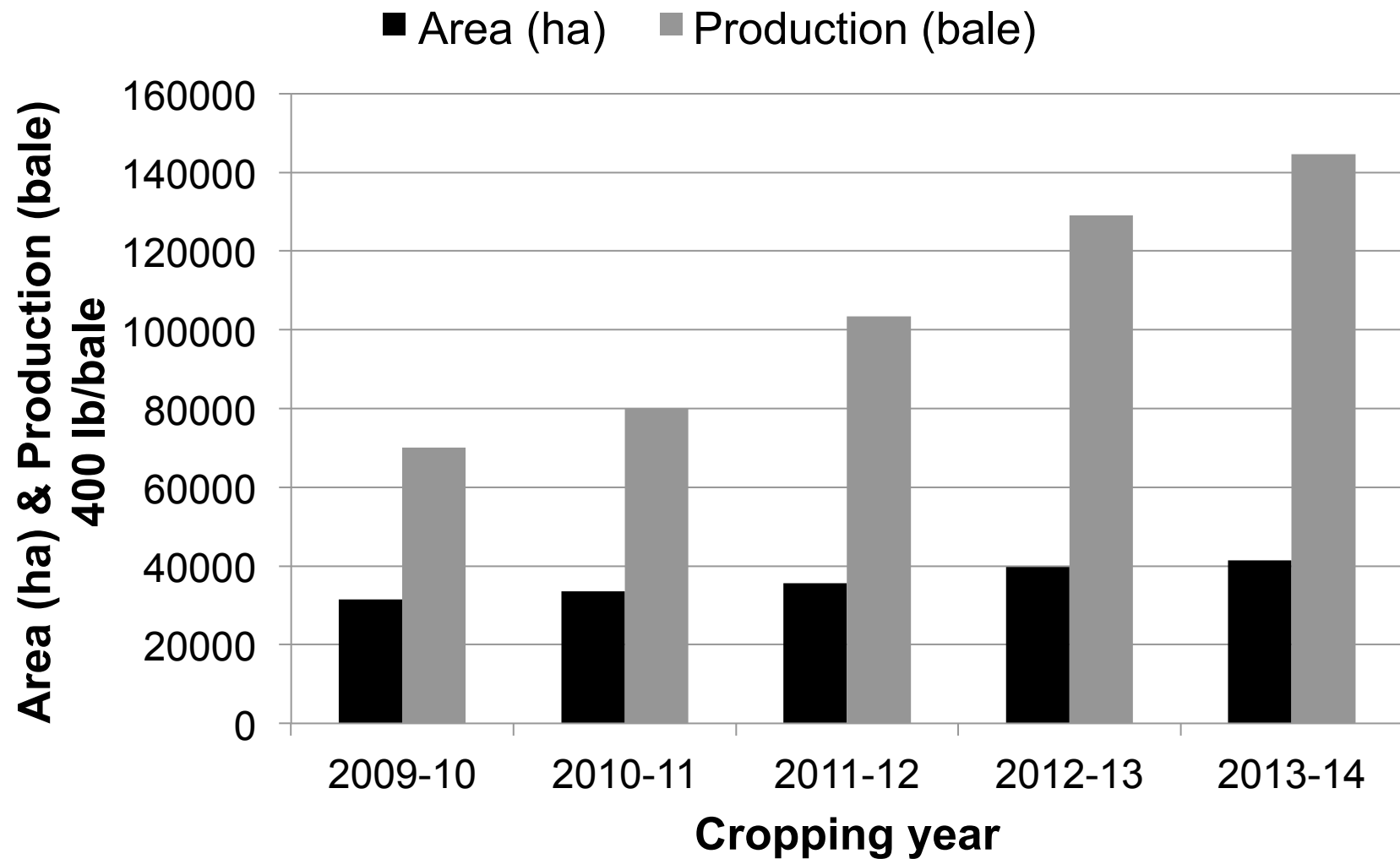
American upland
Cotton area

- Head quarter - 1
- Region - 4
- Zone - 13
- Research station - 5
- Res. sub station - 3
- Unit - 180
- Ginning Centres - 12

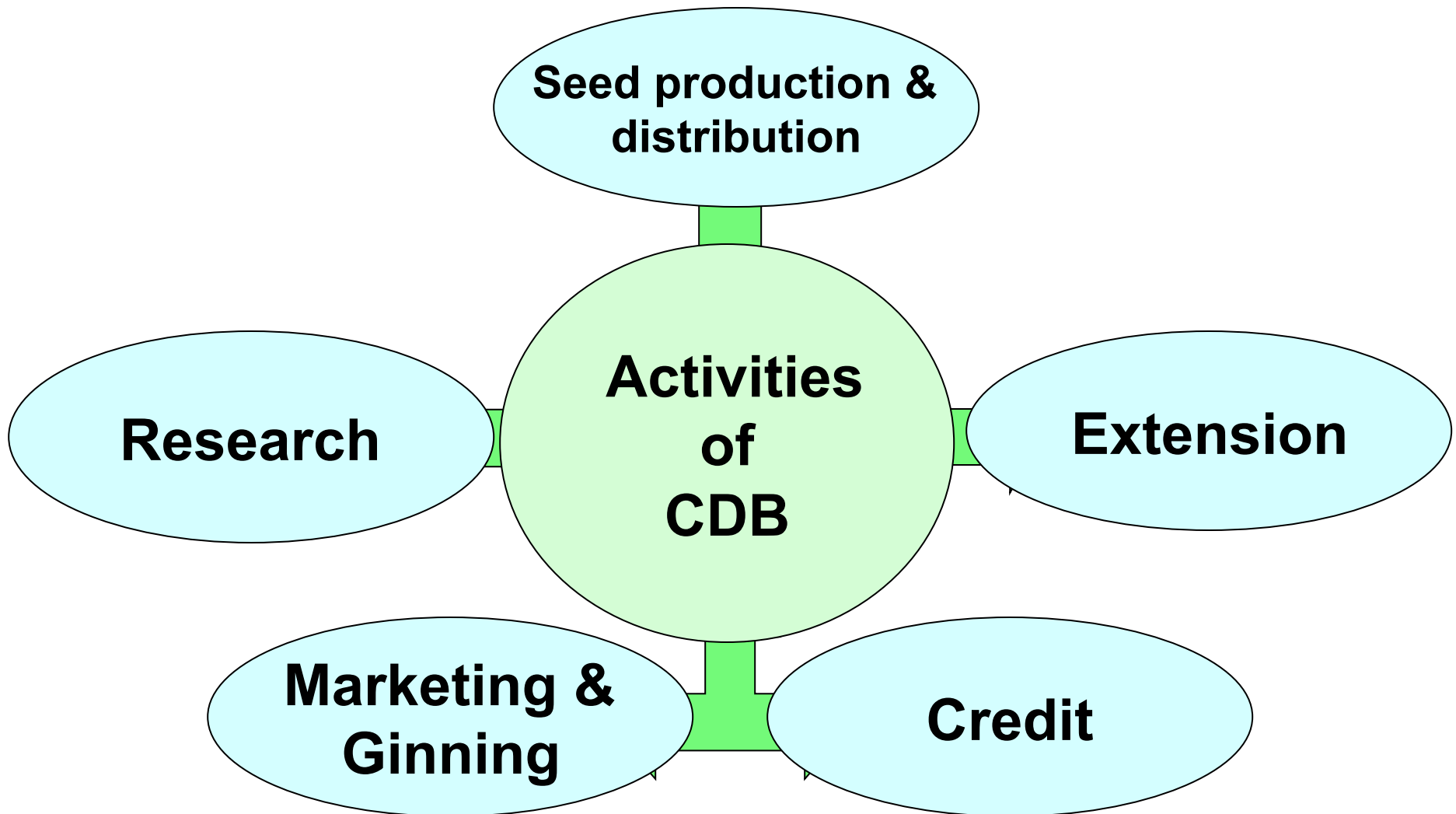


Hill Cotton
Growing area

COTTON PRODUCTION TREND IN BANGLADESH



COTTON DEVELOPMENT BOARD: ACTIVITIES



COTTON RESEARCH IN BANGLADESH

1.	Cotton Research under CDB	: 1991
2.	No. of Research Centres/farms	: 5
	For <i>G. hirsutum</i> cotton	: 4
	For <i>G. arboreum</i> cotton	: 1
3.	Research Discipline	: Breeding, Agronomy, Entomology, Pathology, Soil Science
4.	Inclusion in NARS system	: 2012
5.	Developed HYV varieties	: 16 HYV variety
	For <i>G. hirsutum</i> cotton	: CB-1 through CB-14
	For <i>G. arboreum</i> cotton	: HC-1 and HC-2
6.	No. of Cotton Scientists	: 33
7.	No. of PhD in CDB	: 09



গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

তুলা গবেষণা, প্রশিক্ষণ ও বীজ বর্ধন খামার
Cotton Research, Training and Seed Multiplication Farm

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শ্রীপুর, গাজীপুর



FIBRE QUALITY OF COTTON

Sl. No.	Fibre Characters	Bangladeshi Cotton	Indian Cotton	CIS Cotton
1.	Fibre length (mm)	28.79-30.40	27.5-29.5	27.64-28.68
2.	Micronair	3.87-4.20	3.20-4.90	4.81-5.15
3.	Fibre Strength (GPT)	29-30.53	28-34	27.1-30.60
4.	SCI	129-140	128-136	122-139

RECENT DEVELOPMENTS IN COTTON

- Member of **NARS**
- Creation of Research Wing in CDB with new post of Research & Extension
- Expansion of Cotton in new areas-Saline, Drought Hill and Agroforestry System
- Research Support from NATP and KGF
- Approval of GOB funded new projects and program
- Established **Oil refinery** by the private sector
- Introduction of Hybrid seed through Private Seed Company

PUBLIC-PRIVATE PARTNERSHIP

- **Introduction of Hybrid seed**
- **Established of 20 private Ginneries with Expeller**
- **Newly established Oil refinery by the private sector**
- **some time contribution in providing credit to the farmers**

INTERNATIONAL LINKAGES

- **Membership renewal of ICAC**
- **Bilateral programme with Hubei seed company of China for Bt seed through MTA**
- **Ministry of Agriculture decided to host the 6th meeting of the Asian Cotton R & D Network in Bangladesh**

PROSPECT OF COTTON CULTIVATION IN BANGLADESH

- **Huge domestic requirement**
- **Production per unit area is higher than the world average**
- **Good quality fibre could be produced**
- **Profitable than other crops**
- **Cash crop**
- **Contribute in food security**
- **Contribute in employment generation and income generation**
- **Profit can get at a time**
- **Improves soil fertility**
- **Adaptive to climate change: saline and drought tolerant**
- **Multipurpose use: edible oil, oil cake, particle board etc.**

MAJOR CHALLENGES

- Long duration
- Competitive with other high value crops
- High input cost
- Climate change specially erratic rainfall
- Price volatility
- Return after long time
- Marketing depends on limited private ginner
- Modern ginning facilities
- Cotton quality-lack of grading system
- Lack of farmers friendly marketing

STRATEGIES FOR INCREASING COTTON PRODUCTION IN BANGLADESH

- **Development of Modern Research for Technology generation**
- **Development of own hybrids under local condition**
- **Introduction of Bt cotton**
- **Providing Farmers led Extension Service**
- **Ensure Sustainable Marketing System**
- **Providing subsidy on seed and inputs to the farmers**
- **Increase Public-Private partnership**
- **Increase Linkages with International Organization**

NEW AREAS INTERVENTION FOR INCREASING COTTON

- Drought area
- Hill area
- Saline area
- Char area
- Cotton in Agro-forestry
- Cotton based cropping pattern

Tolerant to Drought

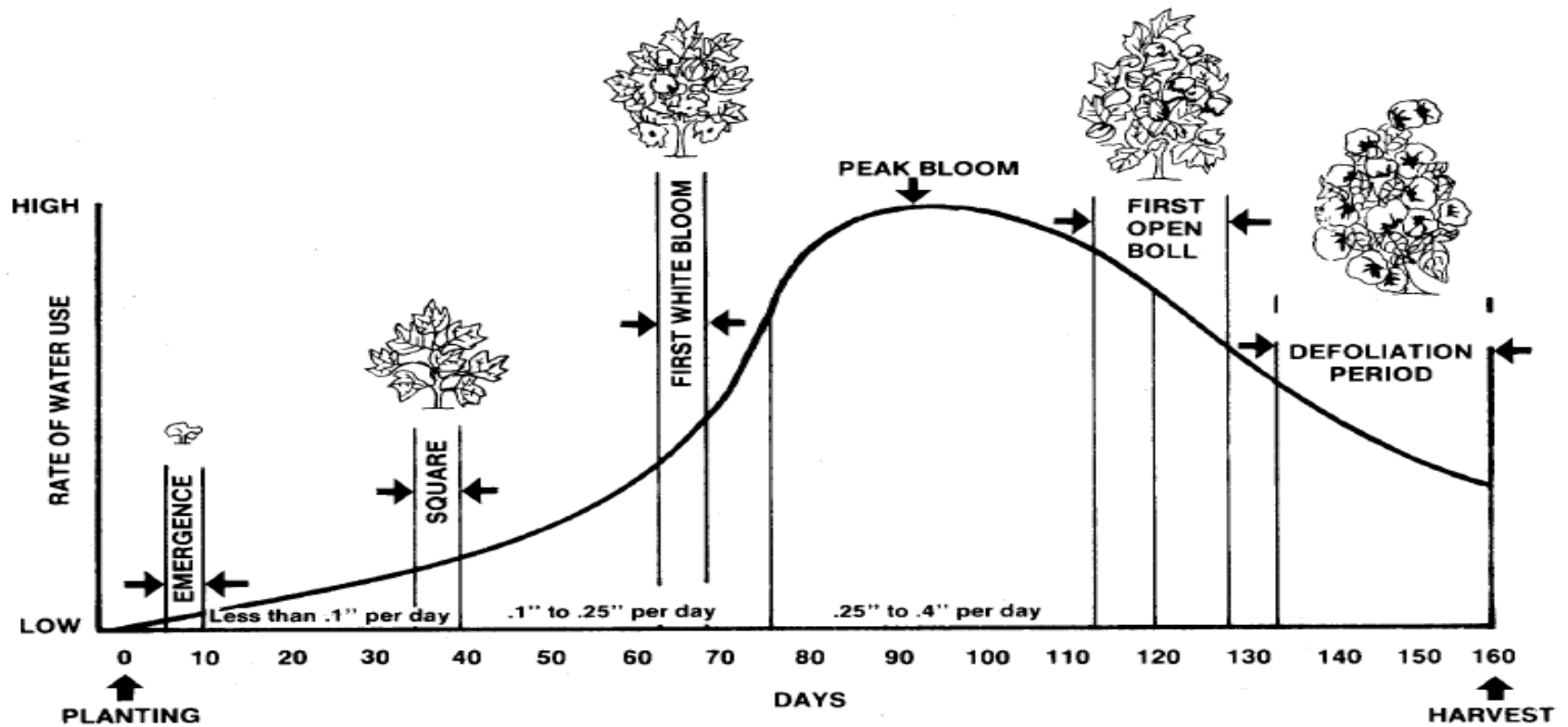
- **Vertical tap root** that provides resilience against **drought**
- **Compensatory growth'** Cotton responds to loss of fruiting parts (buds, flowers, bolls)



Suitable for Drought area (Barind Tract)

- Cotton is some extent drought tolerant.
- 500-700 mm of well-distributed rainfall is necessary for higher yields.
- ICAC reported that cotton is successfully grown at 28.2° C in China, 37.6° C in India, 36.8° C in Pakistan and 41.8° C in Sudan.
- Screening of drought tolerant variety
- Development of drought tolerant variety

RATE OF WATER USE



জাত প্রদর্শনী প্লট

তুলার জাত : JA/08/C, JA/08/D, CB- 12

বপন তাং : ২৩/০৬/১৩

চাষীর নাম : শ্রী কেশরনাথ মাহাথো

তুলা উন্নয়ন বোর্ড

শিবপুর হাট ইউনিট, রাজশাহী জোন।

অর্থায়নে : নিবিড় তুলাচাষ কর্মসূচী।

Cotton cultivation in Barind Tract

Cotton Cultivation in Saline area

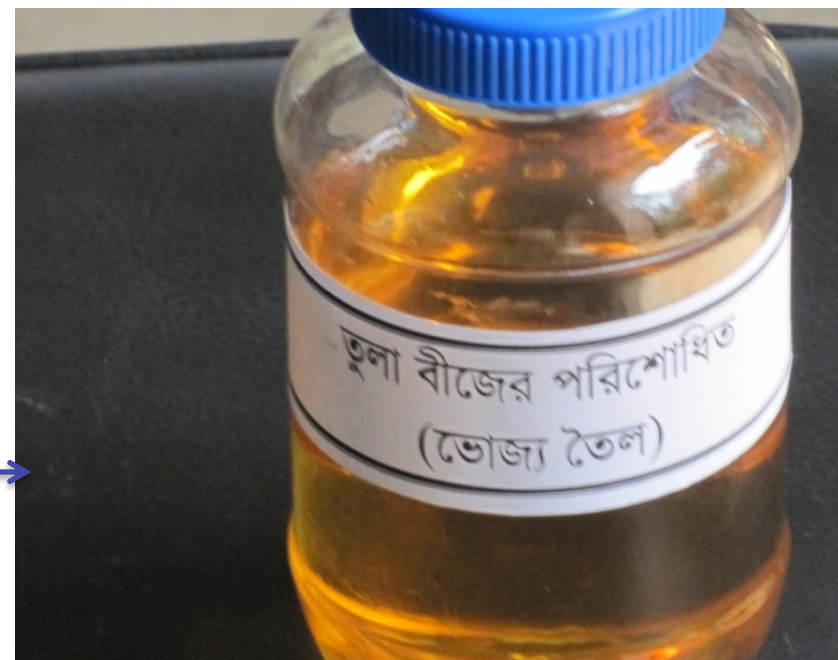
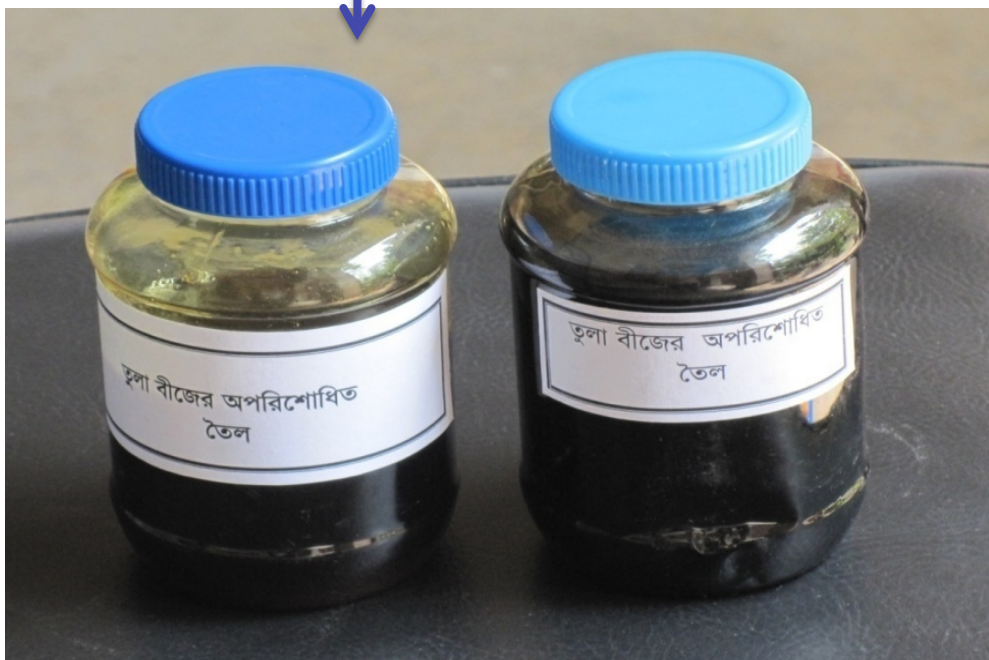
- **Cotton is a saline tolerant crop after Barley**
- **Cotton can tolerate salinity up a certain level**
- **Screening/Saline tolerant variety will be developed suitable for saline area**

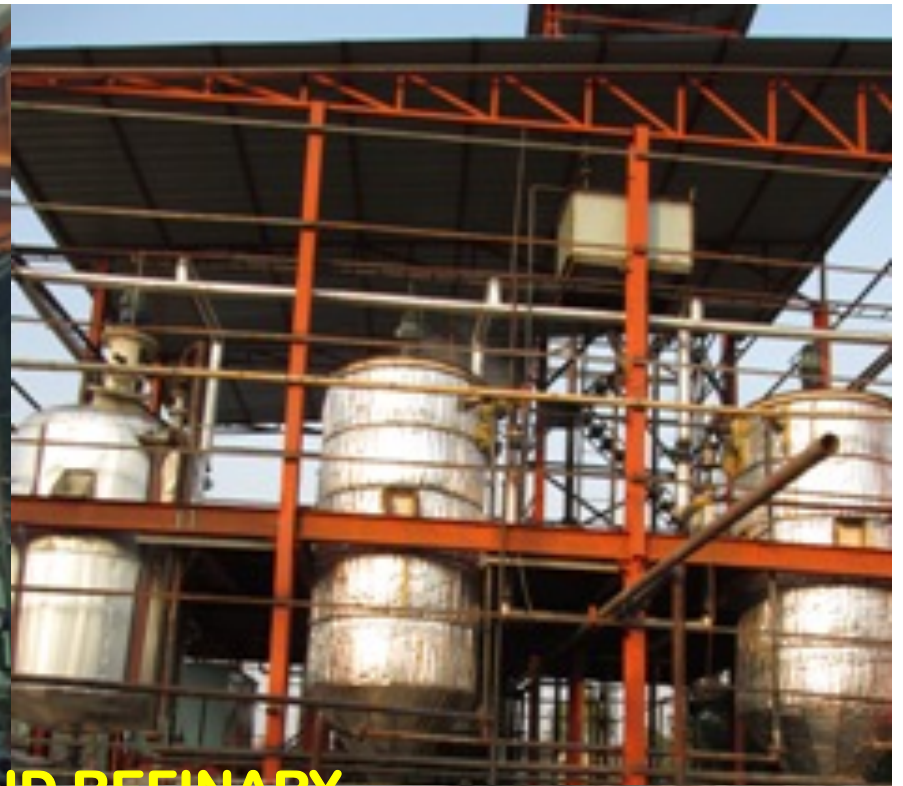


COTTON MARKETING AND GINNING



Edible oil from cotton seed





OIL EXTRACTION AND REFINARY



Cotton Seed Oil production

Country		Quantity (ton)
China	:	1447,000
India	:	116 ,000
Pakistan	:	594,000
USA	:	377,000
Uzbekistan	:	231,000

VISION- 2021 of CDB

1.	Cotton acreage	150,000 ha
2.	Seed cotton yield (3 t ha⁻¹)	450,000 ton
3.	Lint /Fibre yield	121,000 ton
4.	Cotton Seed Oil	63,500 ton
5.	Cotton Oil Cake	339,000 ton
6.	Cotton stalk	720,000 ton

CDB VISION- 2021

Valuation

1.	Product	Price (Tk. in crore)
2.	Lint /fibre	7303
3.	Cotton Oil (Edible oil)	953
4.	Cotton Oil Cake	1695
5.	Cotton stalk	900
6.	Total Income	10851

Both Horizontal and vertical Expansion of Cotton

1	Cotton in Drought area	50,000 ha
2	Cultivation in Char area	1,00000 ha- 40,000 ha
3	Cultivation in Hill Valley	12,000-5000 ha
4	Use of hill slope by Jhum cultivation	40,000 ha- 20,000 ha
5	Extension in saline area of southern part	5000-2000 ha
6	Cotton based cropping pattern	70,000 ha-35,000 ha
7	Cotton in Agroforestry system	5000 ha-2000 ha
8	Replacement of Tobacco area	70,000 ha- 20, 000 ha
Vertical expansion of Cotton 80% acreage covered by Hybrid and high yielding variety		

GOVERNMENT ATTITUDE ON COTTON PRODUCTION

Hono'ble Prime Minister, Sheikh Hasina, made an appeal to the textile mill owners **to discover means to produce cotton domestically.**

She further said that, **they will have to locate regions within the country wherein, they can cultivate cotton,** as the country still depends on imports for raw materials required to manufacture yarn.

April 2010, Inaugural function of 'TEXBANGLA 2010', a three-day trade fair, organized by Bangladesh Textile Mills Association (BTMA)