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Transformative Pathways to Sustainability and Circularity: corporate strategies and actions

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A Brief History

1976 First manufacturing plant in Indonesia for textiles

1989 Start production of disposable gloves

1991 First polyester fiber plant

1995 First PET plant

1998 First overseas plant in Turkey for spun yarns

2004 First upstream petchem plant for PTA production

2006 Acquisition of the leading olefin company in Nigeria

2010 Creation of Indorama Ventures (Thailand)

2011 First yarn production unit in Uzbekistan

2012 Acquisition of YTY

2012 Start of spandex yarn production in India

2014 Acquisition of ICS

2016 Startup of ammonia and urea production in Nigeria

2018 Acquisition of fertilizer company in India

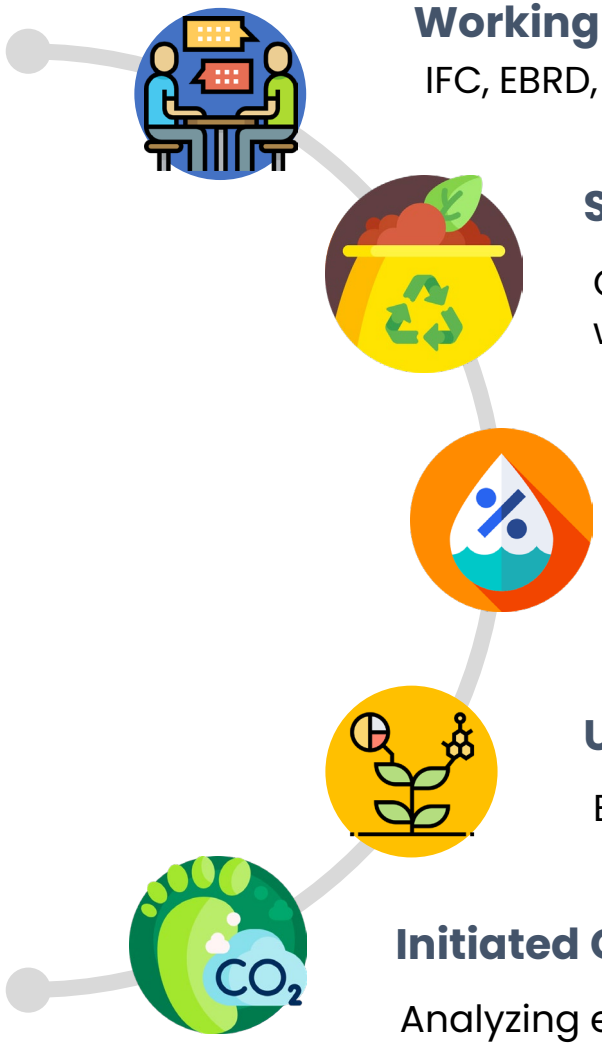
2019 First cotton harvest in Uzbekistan

2020 Start of fertilizer production in Uzbekistan

2021 Acquisition of Adufértil 2nd ammonia & urea line in Nigeria

2022 Acquisition of Indo-Gulf fertilizer

Strategies & Actions



Working with International Advisors for best practices

IFC, EBRD, BCI & Unique

Sustainable Farming Practices

Crop Rotation, Low Tillage, Crop Residue Mulching, , Utilization of waste products for soil enhancement through composting

Efficient chemical & water usage

IPM through Bio Chemicals and Insects Application, Water Stewardship through Laser Land Levelling and reduced transmission losses with improved irrigation infrastructure

Use of Biotechnology

Biocontrol agents & Seed Research and Multiplication

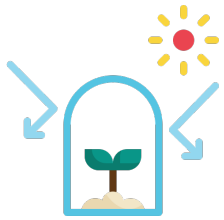
Initiated Carbon Farming

Analyzing energy & material footprint for Baseline establishment

#1: Replacing Chemical Pesticides with Biopesticide in value chain

- Established 3 Biolabs to produce the beneficial insects (predatory)
- Breeding capacity to service 40,000 ha of cotton farms
- Release in the agricultural fields reduce the use of toxic chemical pesticides
- To manage the harmful insect pest without disturbing natural ecology
- Produce 3 well known, widely accepted biological agents for cotton pest control.
    - Trichogramma
    - Chrysoperla
    - Brcaon

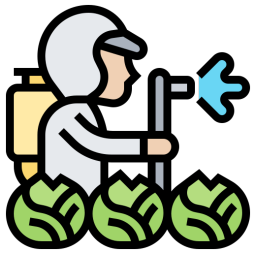
Pest Control



Crop Protection

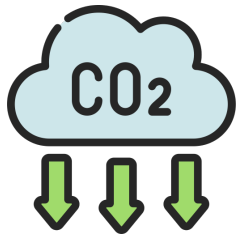
Non-Toxic

Environment Friendly



~40% Reduction of Chemicals

Cost Saving



Reduction

Sustainable Agriculture

#2: Production & Application of Bio Mineral

Started in 2022, covering 2250 ha as on date with application rate of 10 tons/ha. Target to produce 100KTA and cover 10,000 ha each year

Rich source of organic carbon, neutral pH, secondary elements, and micro-nutrients

Excellent source of nutrients for sustainable crop production & soil management

Compost mixture ratio:

- ✓ 50% Cotton gin waste
- ✓ 25 % Cattle Manure
- ✓ 25% Phosphors Gypsum mineral & SSP
- ✓ Microbial culture + water

Reduction of Scope 3 CO_2 emissions for synthetic fertilizer and pesticides

Business opportunity of local community for cow dung supply and enhanced income.

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#3: Enhancing water use efficiency - Drip Irrigation

Commissioned pilot drip irrigation system on 98 ha area.

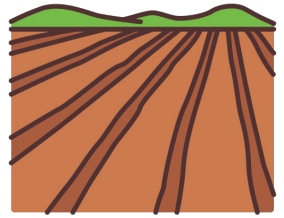
~40-70% Water Savings

Control Weed Growth

~30% Fertilizer savings

~10% Labour cost reduction

Use of saline water



Works in uneven land

In our case:

- 1 ha for cotton (complete life cycle till harvesting = 11500 m^3)
- Drip irrigation cotton (complete life cycle till harvesting = ~7000 m^3).

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#4: Water Saving Technologies – Land Levelling

- From 2019 – till date, ~10,000 ha of land redeveloped with target to level 45,000 ha
- Aligned with Better Cotton Initiative for water stewardship and soil health

Water Savings

Prevents water logging

Soil Preservation

Electricity Savings

Weed Management

Reduces crop chemicals

In our case:

- Reduces water, electricity consumption by ~40% and weed reduction by ~40%
- Increases productivity by 20-30% on average
- Improved Irrigation Infrastructure.

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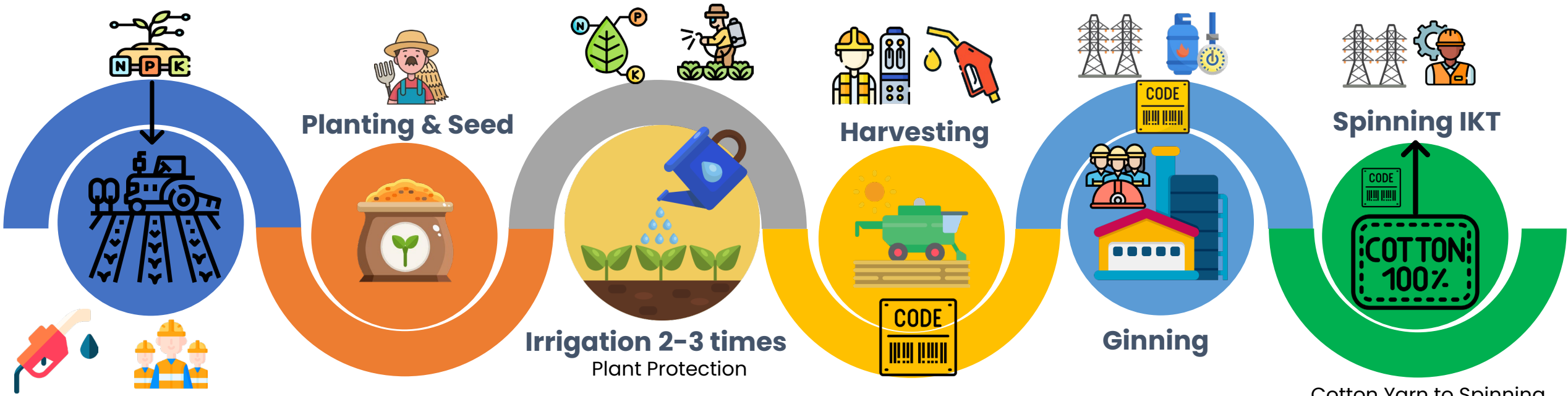
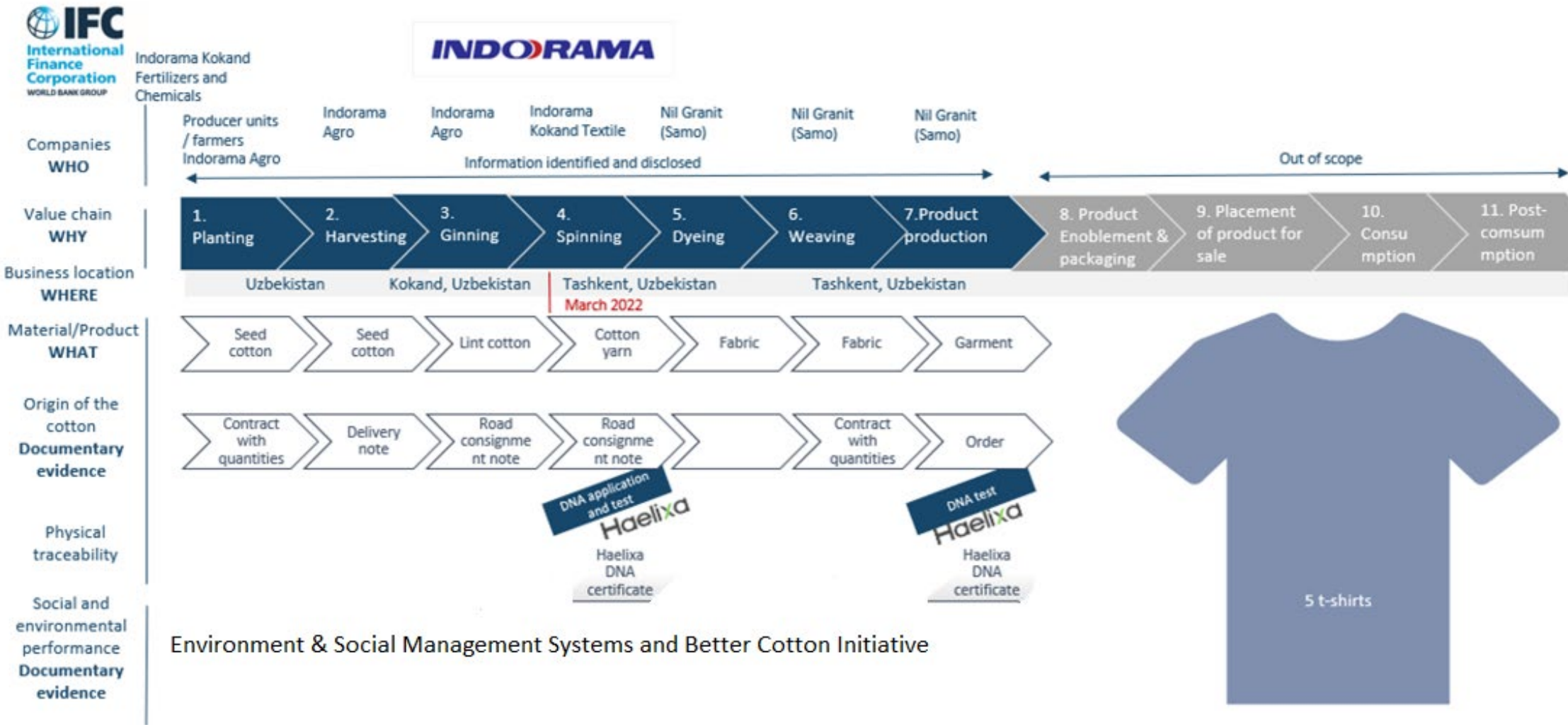
ESG Indicators for Circular Economy in Environmental Aspects

Material Topics	Environment	Social	Governance
	Energy & Climate Change: • CO_2 baseline for Scope 1, Scope 2 & Scope 3 Emissions • Carbon Farming Project initiated	Occupational Health & Safety	Ethics & Integrity
	Green Manufacturing: • Quantity of Bio compost generated • Area in hectares cultivated with Bio compost • Quantity of chemical pesticide consumed • Quantity of chemical pesticide reduced compared to previous year due to (Biopesticide)	Human Capital, Diversity & Gender Inclusion	Product Stewardship
	Biodiversity & Land-use: • Quantity of chemical pesticide consumed	Human Rights, Decent Work & Grievance Redressal	Risk Management
	Water Resources: • Quantity of water consumed for irrigation • Quantity of water consumed from groundwater • Quantity of water reduced through drip irrigation and land levelling	Community Engagement & Development	Digitalization & Cybersecurity

Production Footprint to Produce Traceability Chain



UNECE ongoing pilot use case with IFC



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Thank you!