



THE SUSTAINABLE CASTOR INITIATIVE

PRAGATI

Updated Results
September 2023



**DID YOU KNOW?
MORE THAN
80%**

Of the world's supply of castor seed
is produced annually in
India representing approximately
1.6 million tons

INTRODUCTION

The Pragati Initiative

WHAT?

Enabling Sustainable castor crop production by:

- Using good agricultural practices to increase yield and farmer income
- Efficiently using water resources and Maintaining soil fertility
- Driving adoption of good waste management practices
- Enabling better health and safety practices, and respecting human rights

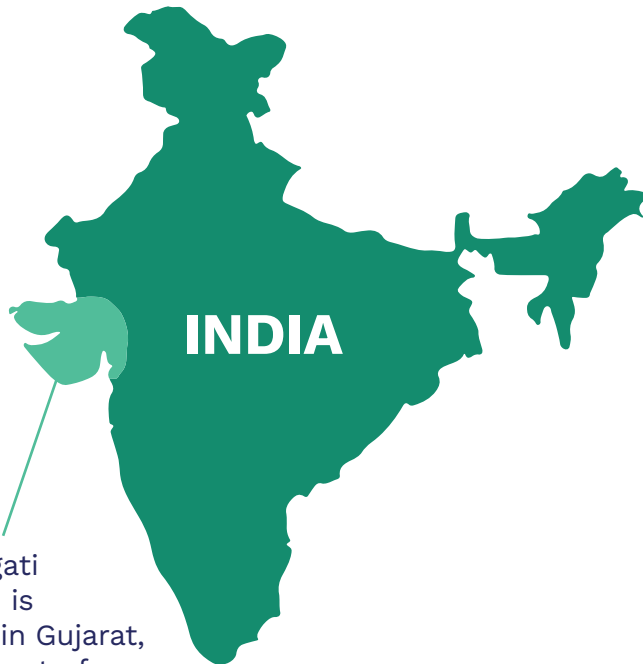


WHO?

4 Members of the Pragati Initiative

- **Arkema**, a global leader in specialty chemicals and advanced materials
- **BASF**, the world's leading chemical company
- **Jayant Agro-Organics Ltd.**, a pioneer in castor oil based chemicals in India
- **Solidaridad**, an international civil society organization

WHERE?



The Pragati initiative is focused in Gujarat, where most of the castor crop is grown.

WHEN?

The Pragati Initiative was launched in 2016



CASTOR OIL

Facts & figures



TOP 4 → Uses for Castor oil



POLYMERS



LUBRICANTS



COATINGS



PHARMACEUTICALS

700,000



The number of castor bean farmers in India

800,000



The number of hectares of land dedicated to castor farming in India

47%

Of the weight of castor bean is captured as castor oil. The remainder is generally repurposed as a fertilizer

5

Farmers typically harvest castor pods **at least 5 times** per year 120 to 210 days after planting

TOP 2

Perceived sustainability advantages of castor beans

- Naturally drought resistant
- Does not compete with food chain for humans or animals

Products derived from castor oil are often celebrated for their bio-based origin and their low carbon footprint

CASTOR OIL & DERIVATIVES END-USE MARKETS

COSMETICS & PERSONAL CARE



- Perfume
- Lipstick
- Shampoos
- Emulsifiers
- Deodorants

PLASTICS & RUBBER



- Plastic films
- Adhesives
- Plasticizers
- Surfactants
- Coupling agents

PHARMACEUTICALS



- Antifungals
- Bactericides
- Emollients
- Emulsifiers
- Encapsulants
- Laxatives

INKS, PAINTS & ADHESIVES



- Inks
- Plasticizers for coatings
- Varnishes
- Adhesive removers
- Lacquers
- Solvents

BIO-POLYMERS



- Polyamide 11
- Polyamide 610, 1010, 1012
- Polyols for urethanes
- Automotive ; Electronics
Apparel markets

GREASES & LUBRICANTS



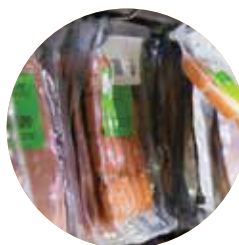
- High performance lubricants
(aircraft & racing cars lubricants)
- Hydraulic fluids
- Fuel additives
- Corrosion inhibitors

TEXTILE & PAPER



- Textile finishing materials
- Dyeing aids
- Synthetic fibers
- Synthetic detergents
- Flypapers
- Defoamer

OTHER



- Food packaging
- Flavorings
- Surfactants (food)
- Organic fertilizers
- Bio-fuels



❖ MOST CASTOR OIL IS EXPORTED
❖ THE MARKET IS TRULY GLOBAL

A CODE WITH 76 AUDITABLE CRITERIA BASED UPON 11 PRINCIPLES



→ www.castorsuccess.org



- 1 Governance & Management System
- 2 Seed & Planting Materials
- 3 Soil & Water Management
- 4 Nutrition Management
- 5 Ecological Balance & Integrated Pest Management (IPM)
- 6 Safe Use of Crop Protection Products
- 7 Workers Welfare & Safety
- 8 Waste & Pollution Management
- 9 Bio-Diversity Management
- 10 Energy Management
- 11 Post Harvest Management Practices



**TO DRIVE
& ENABLE**

- Improved Living Standards
- Increased Farmer Income
- No Child Labor or Forced Labor
- Respect for the Environment and Natural Resources
- Gender Equality
- Improved Safety

PRAGATI

Sustainable Castor Initiative

Arkema, BASF, and Jayant Agro Organics are now SuCCESS™ certified in their industrial castor supply chains.

More than **74,500 tons** of certified castor beans cultivated from 2017 to 2023

Over 7,000 Farmers

have been trained, audited, and certified

More than **7,000 hectares** are now being regularly farmed in accordance with the SuCCESS sustainable castor code (see www.castorsuccess.org) – more than 27,000 hectares cumulatively; Pragati farmers are increasing their land dedicated to castor farming as it is seen as a profitable crop.

100
villages

Farmers **from more than 100 villages** in North Gujarat now participate in the program

36%

Year 7 yield is 36% higher than that published by the local government for this region.

380

More than 380 capacity-building training sessions were held this year with farmers.

475

lead farmers have been identified and trained to guide certified farmer groups

Approx.

7,000

safety kits and crop protection product boxes have been distributed free of charge



100



medical camps organized in all project villages this year successfully monitoring of 8,500+ farmers, workers, and their family members, of which 65% were farmers enrolled in the Pragati program

H₂O

As compared to the previous year, water consumption has been **lowered by approx. 21%** in the demo plots where accurate measurement and control are in place



PRAGATI

For more information on the sustainable castor initiative
please contact info@castorsuccess.org

→ www.castorsuccess.org

ARKEMA

BASF
We create chemistry



JAYANT AGRO-ORGANICS LTD.
Leadership through Innovation

Solidaridad