



# THE SUSTAINABLE CASTOR INITIATIVE

**PRAGATI**

Update April 2019



**DID YOU KNOW?  
MORE THAN**

**80%**

Of the world's supply of castor seed produced annually in India representing approximately 1.2 million tons

# INTRODUCTION

The Pragati Initiative

## WHAT?

**Enabling Sustainable castor crop production by:**

-  Using best 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

45%

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



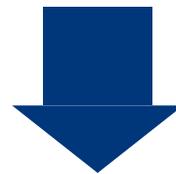
**SUCCESS™**

Sustainable Castor Caring for  
Environmental & Social Standards

[www.castorsuccess.org](http://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



**5,000 tons of certified castor beans have now been successfully cultivated**

*\* Statistics as of April 2019*

Agricultural experts have facilitated distribution of sampling for soil conservation in more than 5 villages

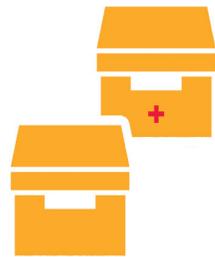
**5**

**41** Soil and water quality testing has been performed in 41 villages

**5** Demonstration plots set up in the program to showcase the benefits of implementing good agricultural practices

**More than 3,000 Safety kits & Over 3,000**

Pesticide storage boxes have been distributed to help farmers with improved waste management



Yield increase by the farmers certified in the first year compared to the 2016 baseline study

**3** Certification bodies have been empanelled as external certification agencies

**Over 2,700 Farmers**  
 **Certified by the program so far**

- ✦ More than 2,000 hectares of castor farming are now in accordance with the project framework
- ✦ More than 1,000 hours of classroom training
- ✦ All certified farmers have adopted improved farm waste management practices

**H<sub>2</sub>O** Water consumption has been lowered by approximately 25% in the demo plots where water utilization is monitored



# PRAGATI

For more information on the sustainable castor initiative  
please contact [info@castorsuccess.org](mailto:info@castorsuccess.org)

 [www.castorsuccess.org](http://www.castorsuccess.org)

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