

A detailed illustration of a bunch of golden wheat stalks, positioned to the left of the main title.

FIVE DECADES

OF AGRICULTURAL PRODUCTIVITY GROWTH IN INDIA

MAJOR CROP-YIELD TRENDS ACROSS 311
DISTRICTS AND 21 CROPS, 1966 TO 2017

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INDIA'S

LONG-TERM PRODUCTIVITY RISE-

A 52-Year Agricultural Transformation

Between 1966 and 2017, agricultural productivity increased steadily across India. The analysis covers 311 districts and 21 major crops, showing that farmers produced substantially more from the same area of land.

Of the 21 crops studied, 20 recorded significant long-term yield growth. Rice, wheat, maize, barley, sugarcane, and castor showed some of the strongest gains.



KEY NUMBERS

- *Period analysed* - 52 years
- *Districts covered* - 311 districts
- *Crops assessed* - 21 crops
- *Significant yield growth* - 20 crops improved

RICE AND WHEAT TRANSFORMED

Rice and wheat, India's two major food crops, recorded substantial improvements. Wheat grew faster, supported by reliable irrigation and greater input use in north-western India. Rice also improved strongly, but growth was slower because much of eastern and central India continues to rely heavily on rainfall.

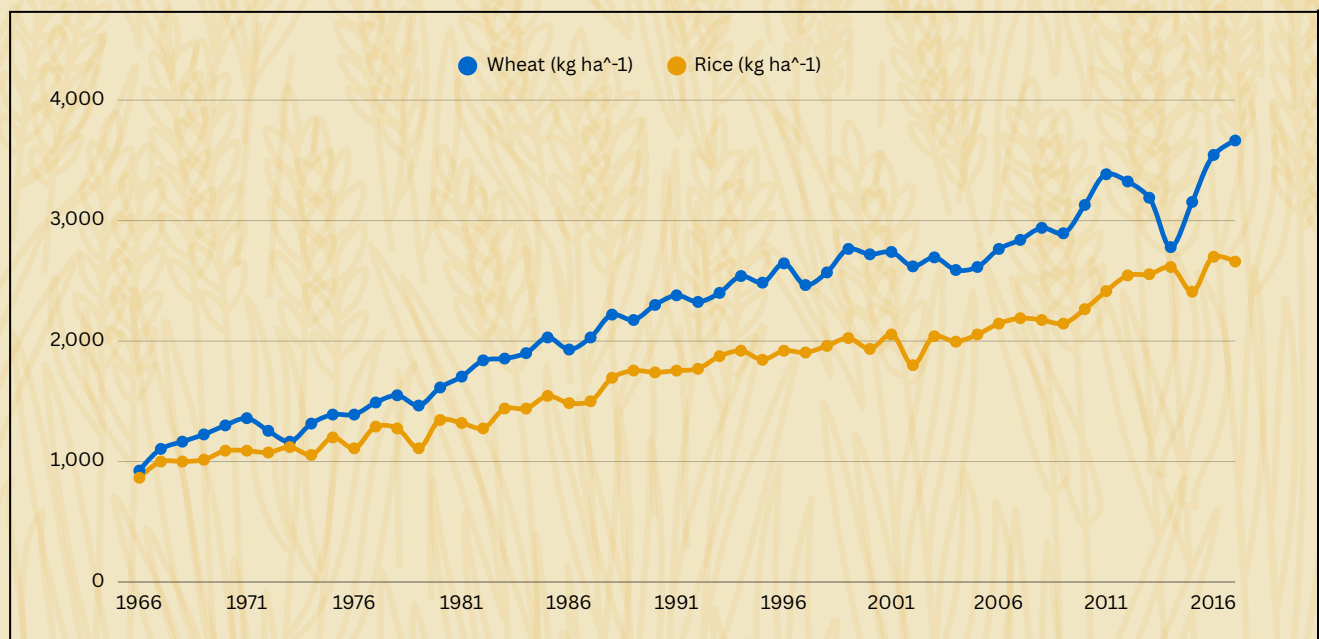


Figure 1: Average rice and wheat yields in India, 1966 to 2017-
Majumder, D. (2026)

GROWTH ACROSS CROPS, WITH ONE CLEAR EXCEPTION-

Twenty Crops Improved, One Was Left Behind

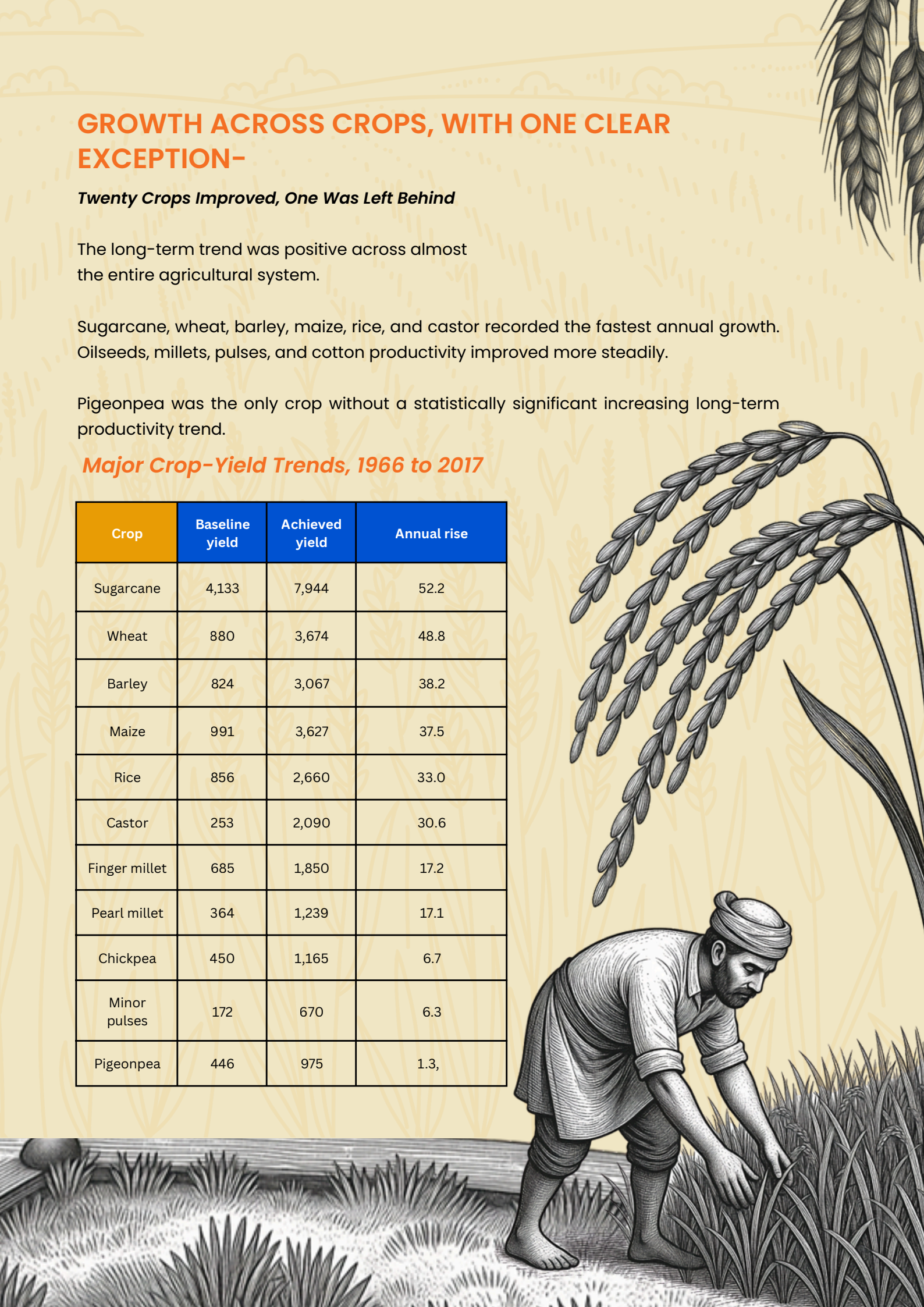
The long-term trend was positive across almost the entire agricultural system.

Sugarcane, wheat, barley, maize, rice, and castor recorded the fastest annual growth. Oilseeds, millets, pulses, and cotton productivity improved more steadily.

Pigeonpea was the only crop without a statistically significant increasing long-term productivity trend.

Major Crop-Yield Trends, 1966 to 2017

Crop	Baseline yield	Achieved yield	Annual rise
Sugarcane	4,133	7,944	52.2
Wheat	880	3,674	48.8
Barley	824	3,067	38.2
Maize	991	3,627	37.5
Rice	856	2,660	33.0
Castor	253	2,090	30.6
Finger millet	685	1,850	17.2
Pearl millet	364	1,239	17.1
Chickpea	450	1,165	6.7
Minor pulses	172	670	6.3
Pigeonpea	446	975	1.3,



YIELD FIGURES ARE IN KG PER HECTARE

ANNUAL RISE IS MEASURED IN KG
PER HECTARE PER YEAR.

Rate of yield gain by crop, 1966–2017 (Mann-Kendall / Sen's Slope)

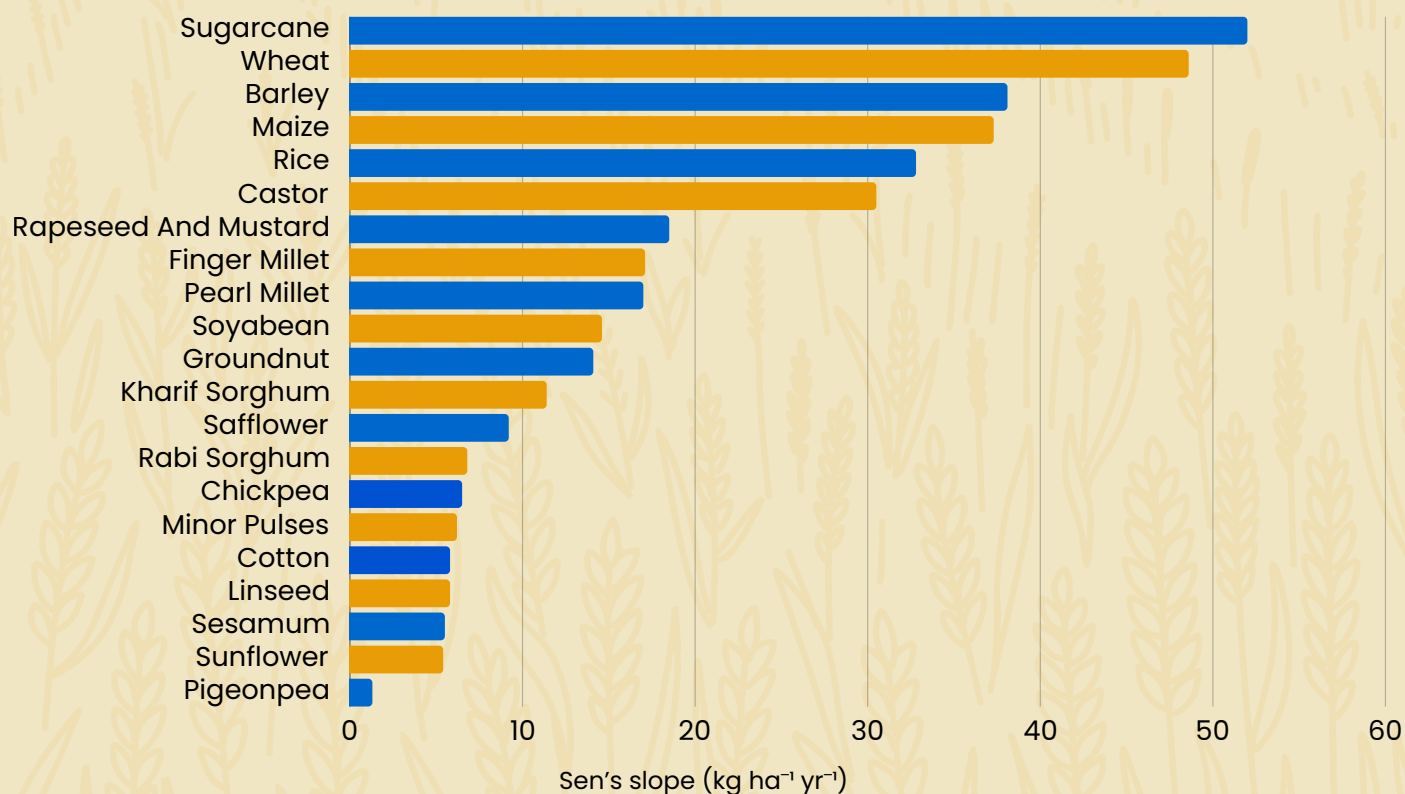


Figure 2: Annual yield-growth rate across all 21 crops





PRIORITY ACTION: REVIVE PULSES, INCLUDING PIGEONPEA PRODUCTIVITY

Pulses, including pigeonpea, are an important source of protein and contribute naturally to soil fertility. Its long-term stagnation signals the need for targeted investment.

What Needs to Be Done

- Prioritise rain-fed pulse-growing regions of central and southern India
- Invest in improved and locally suitable seed varieties
- Strengthen farmer-led seed production through FPOs
- Combine seed access with spacing, pest management, and soil treatment

Future Interventions

- More farmers adopting improved seed
- Measurable productivity increase in pulses, including pigeonpea yield
- Higher volumes of quality seed managed by FPOs
- Better access to crop advisory and field support

CLOSING MESSAGE

India's agricultural growth between 1966 and 2017 was substantial. The next priority is to ensure that lesser crop growth and rain-fed farming regions participate equally in future productivity gains.



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