

Project REAP

Exploratory Data Analysis

Rice Efficacy Across Philippines: A Data-Driven
Comparative Analysis with India

Sustainable Development Goal

The project we are undertaking is firmly aligned with the Sustainable Development Goals (SDGs) set forth by the United Nations. Our aim is to contribute to the attainment of one specific SDG that resonates closely with our research and objectives. By addressing the challenges faced by the rice industry in the Philippines and India, our project aligns with Sustainable Development Goal #2: Zero Hunger.

2 ZERO HUNGER



End hunger, achieve food security and improved nutrition and promote sustainable agriculture

TARGET 2·3



X2

DOUBLE THE PRODUCTIVITY AND INCOMES OF SMALL-SCALE FOOD PRODUCERS

TARGET 2·4



SUSTAINABLE FOOD PRODUCTION AND RESILIENT AGRICULTURAL PRACTICES

TARGET 2·C



ENSURE STABLE FOOD COMMODITY MARKETS AND TIMELY ACCESS TO INFORMATION

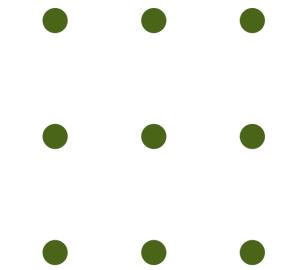
INDICATOR

2.4.1

PROPORTION OF AGRICULTURAL AREA UNDER PRODUCTIVE AND SUSTAINABLE AGRICULTURE.

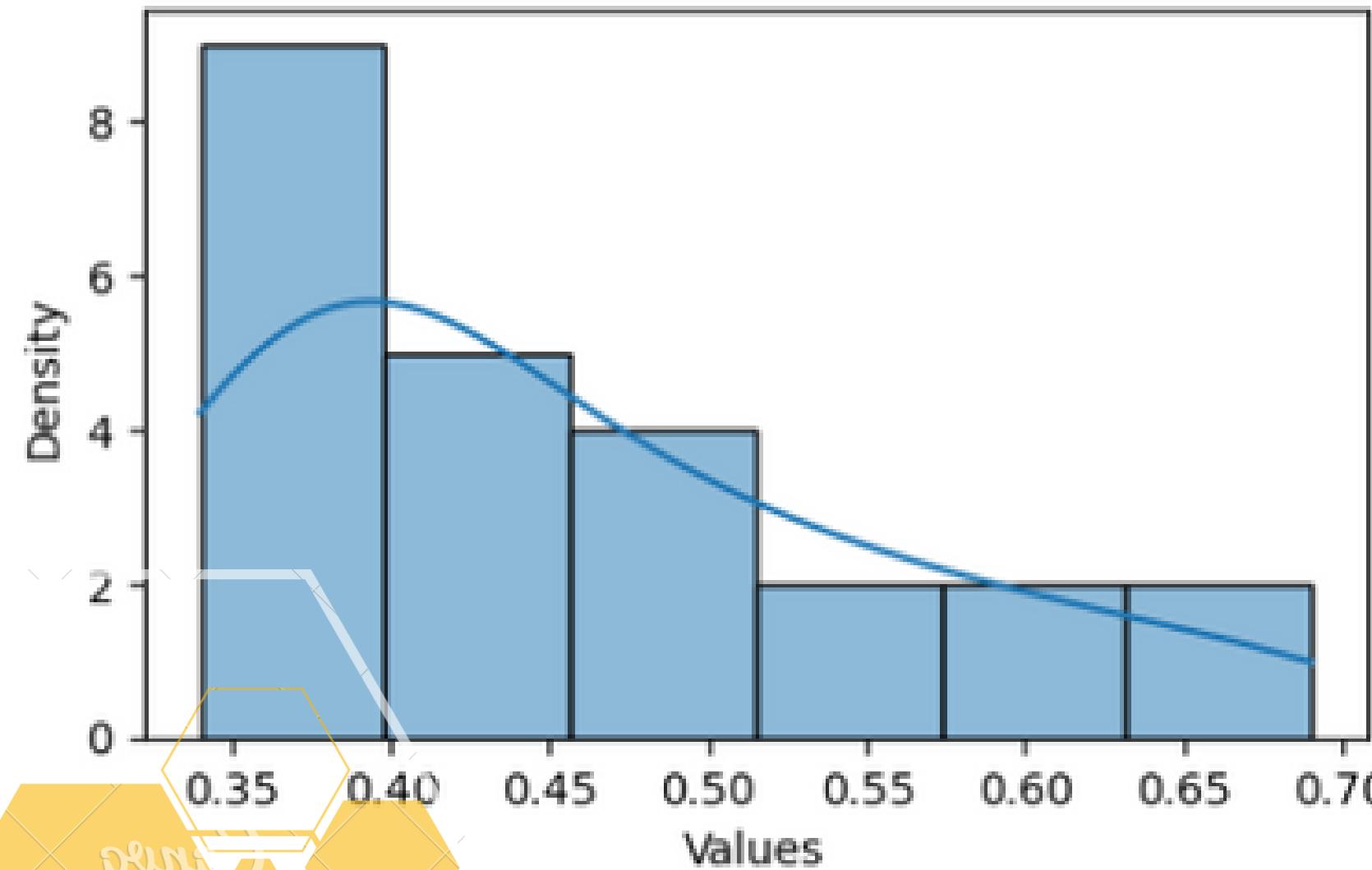
Problem Statement

How can we ensure a brighter future for farmers and their families in the Philippines?

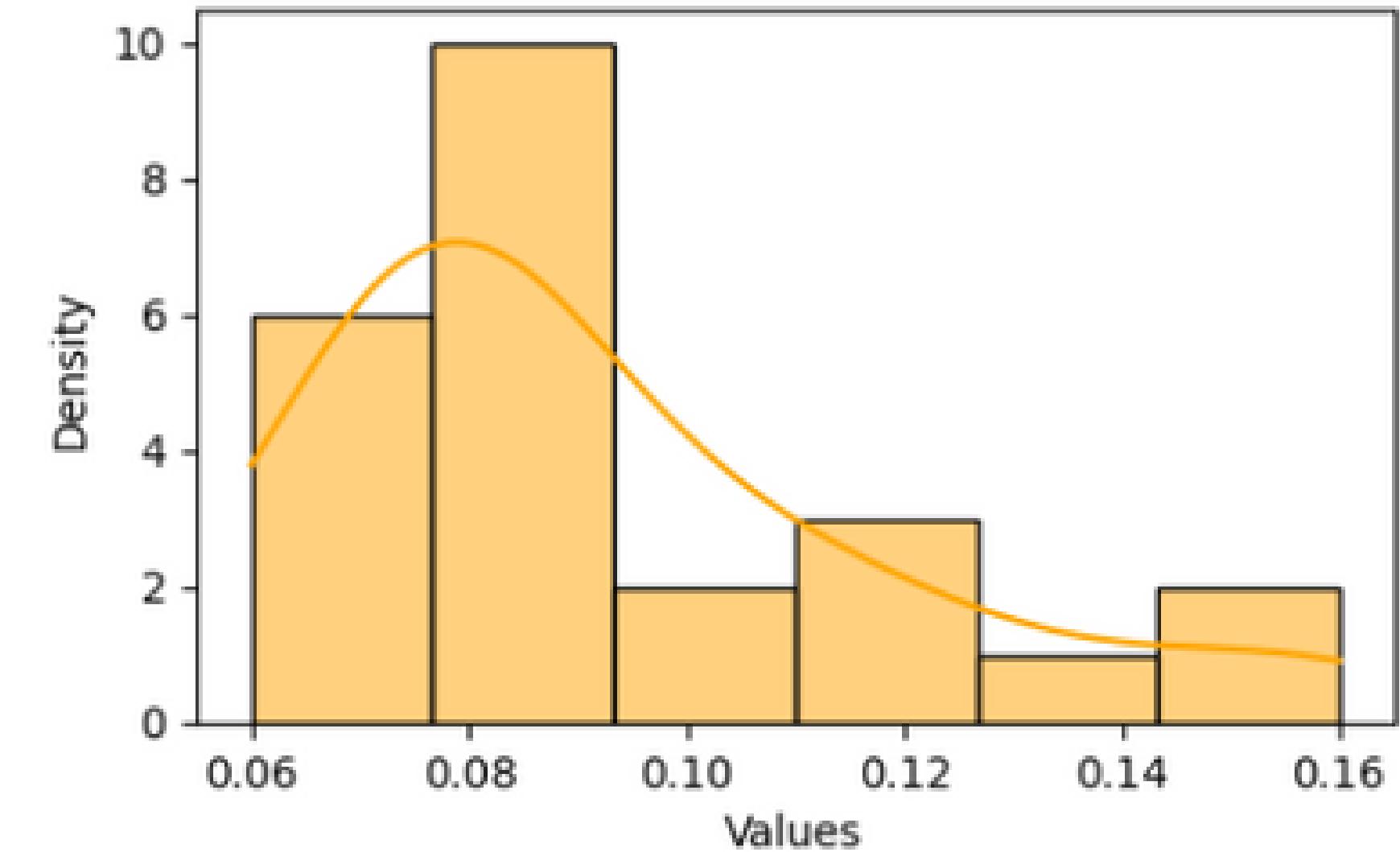


A Positive Skewness of Rice Production of both India and Philippines.

Agricultural Skewness:
Rice Production in Philippines

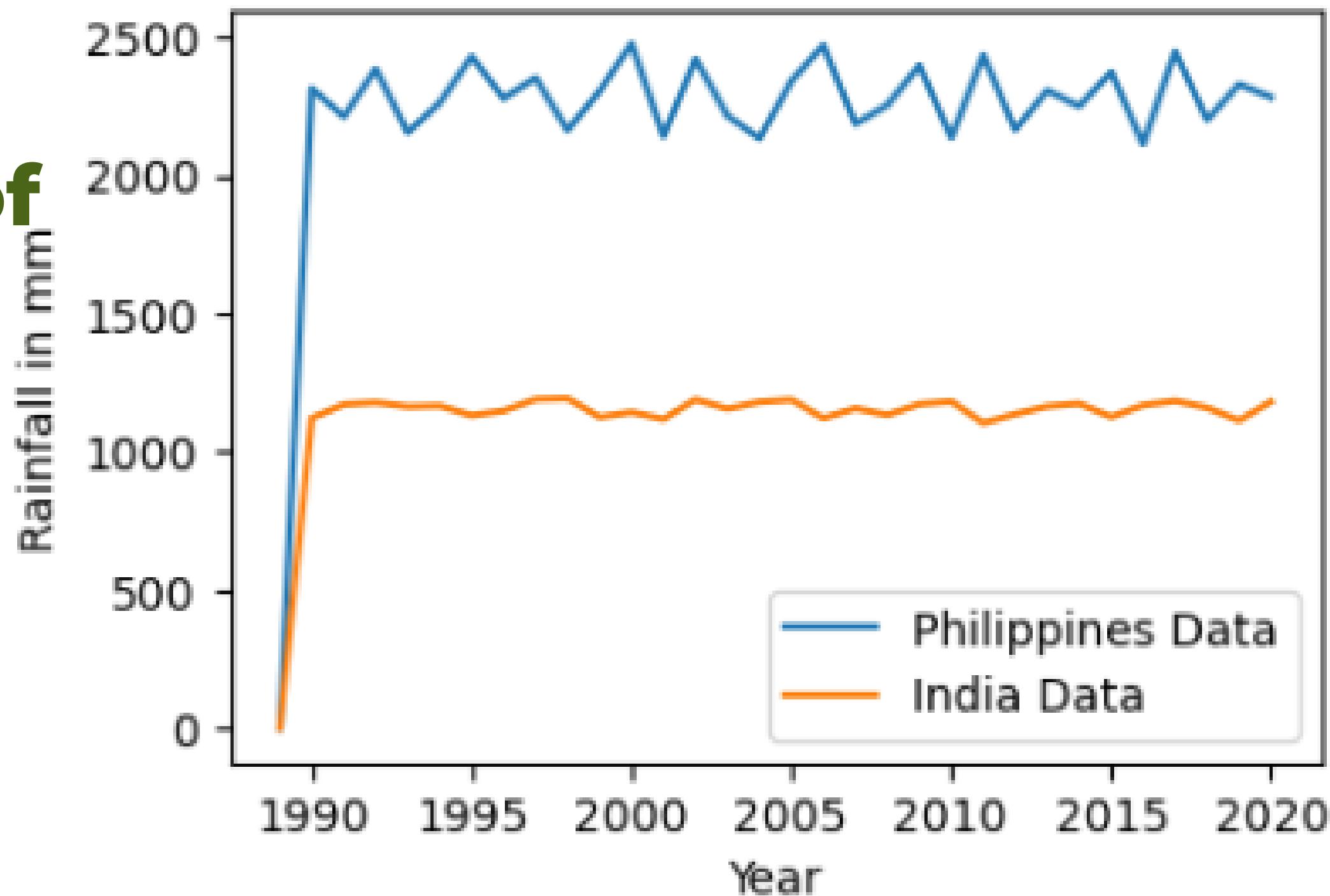


Agricultural Skewness:
Rice Production in India

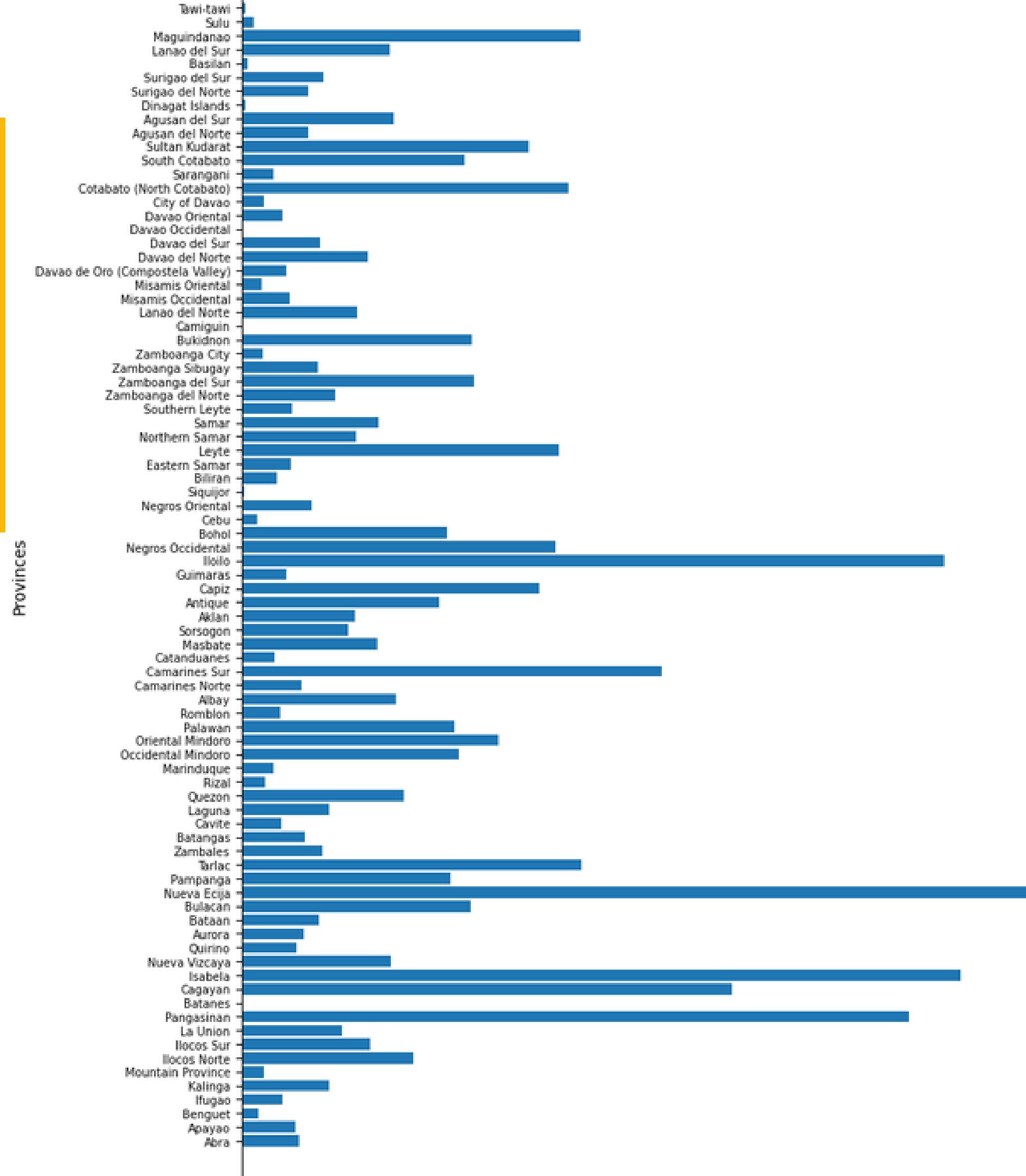


Rainfall Pattern of both India and Philippines.

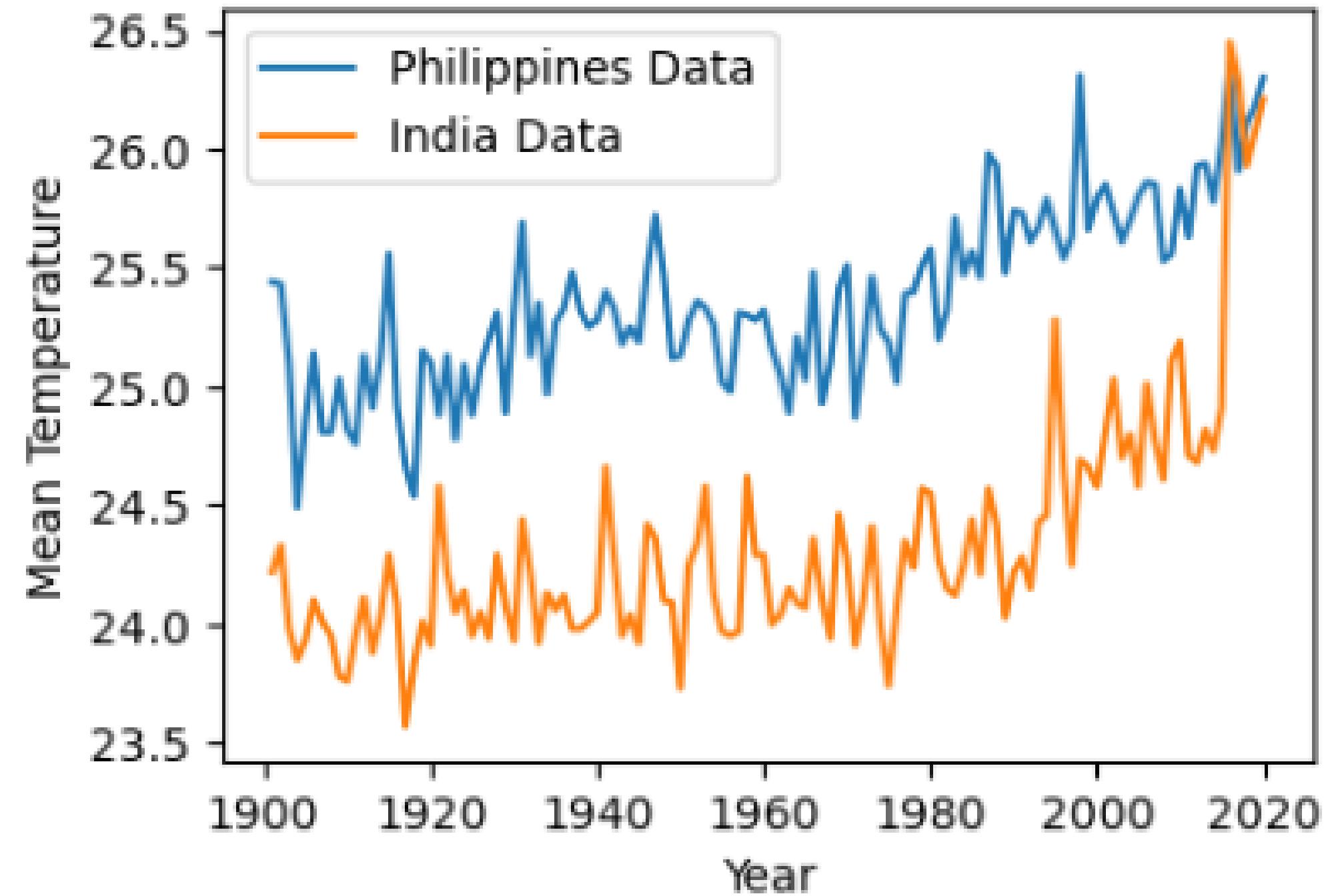
Rainfall Patterns Revealed:
Contrasting India and the Philippines



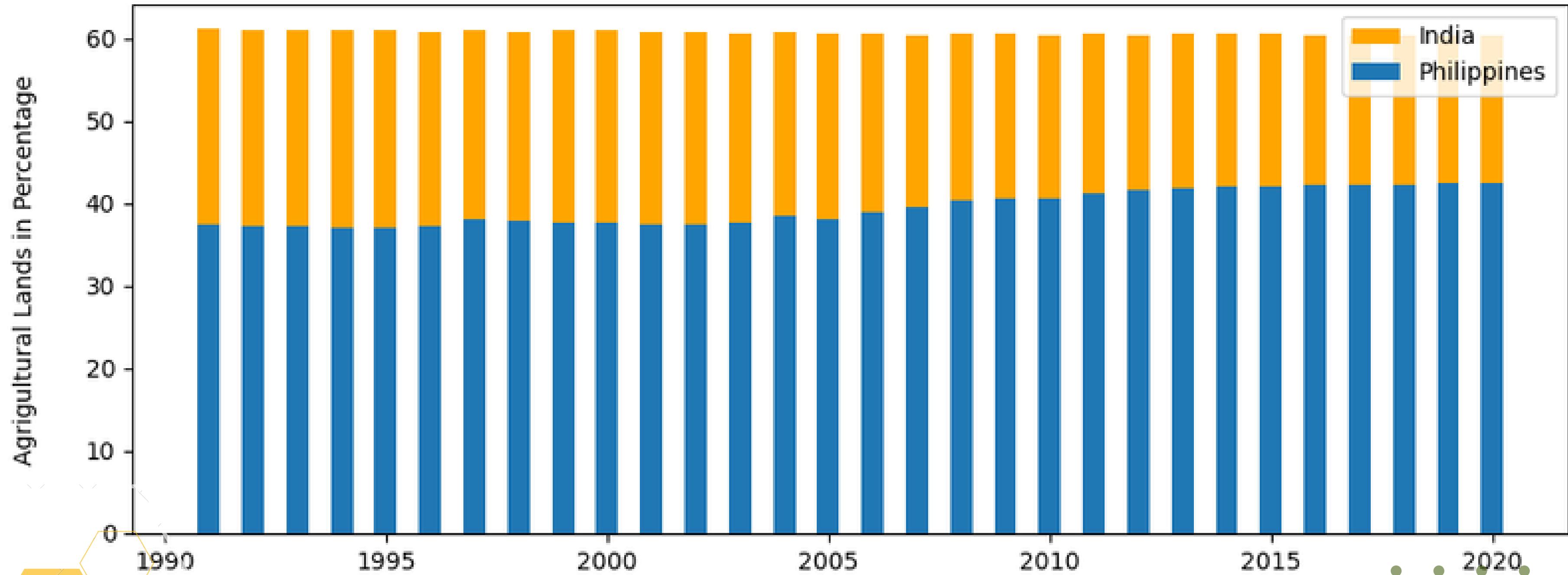
Philippines Provinces Rice Production



**Mean
Temperature of
both countries
compared.**

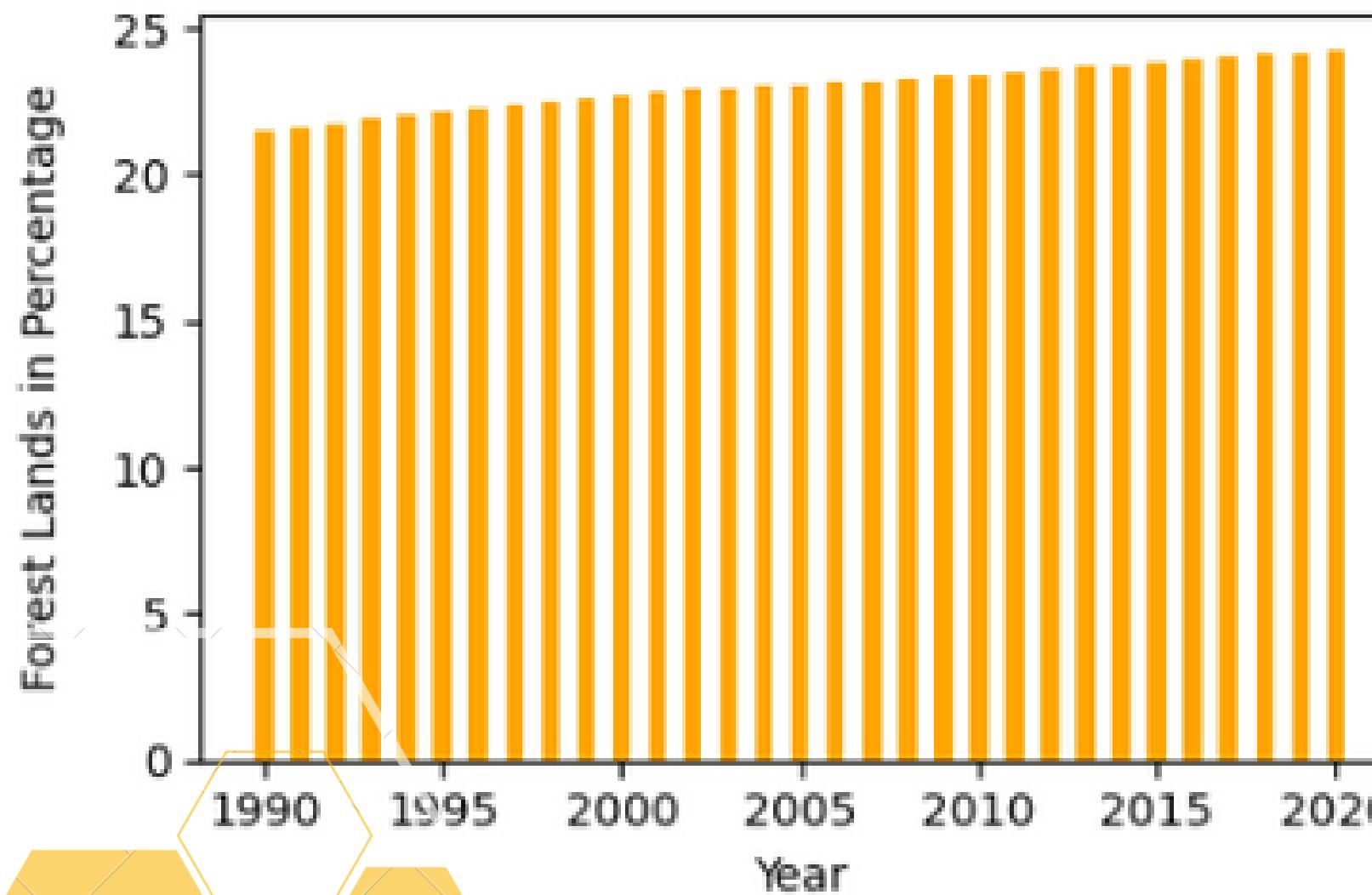


Comparative Analysis of Agricultural Land Distribution: India vs. Philippines in Percentage

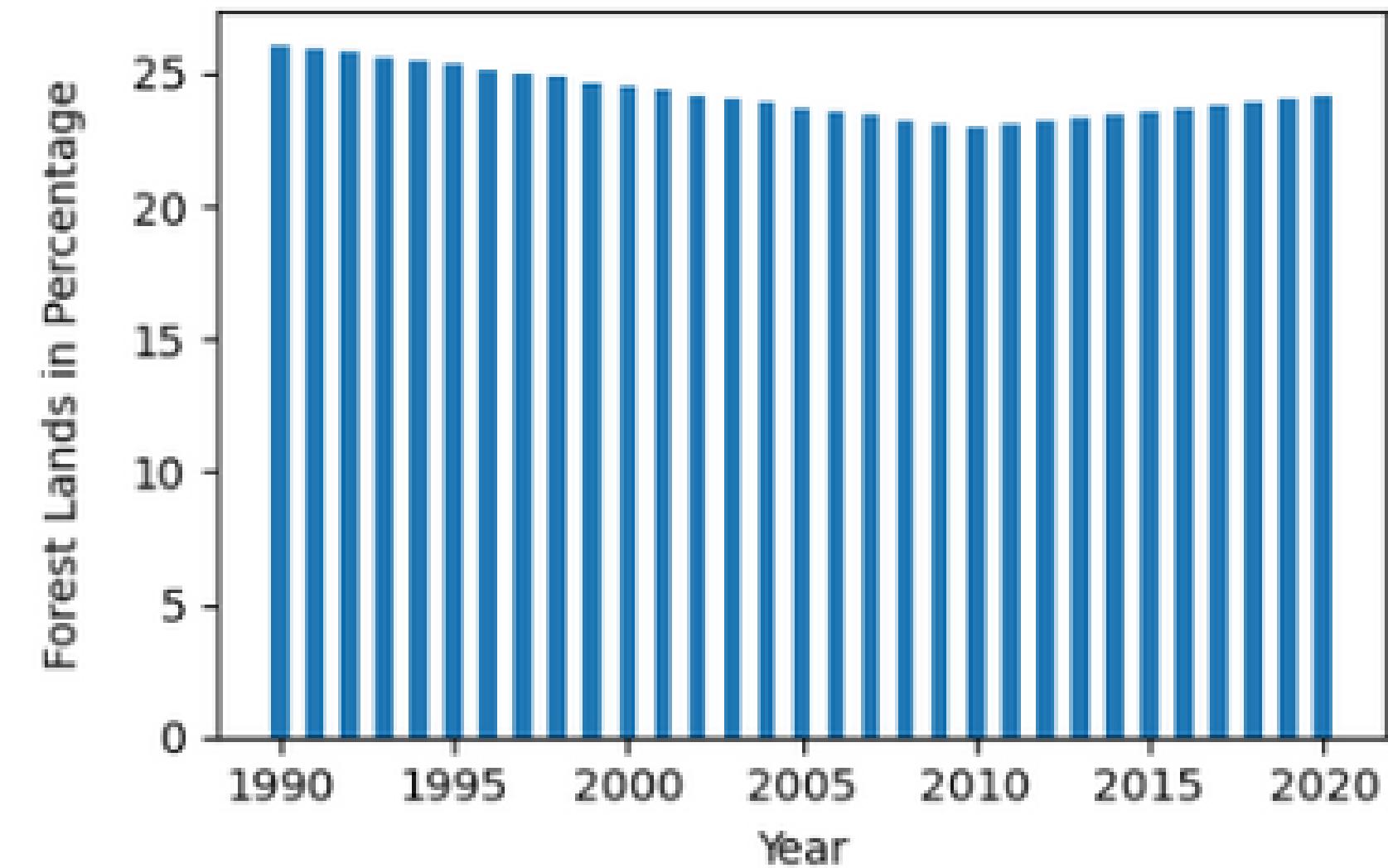


Available Forest Lands of both countries.

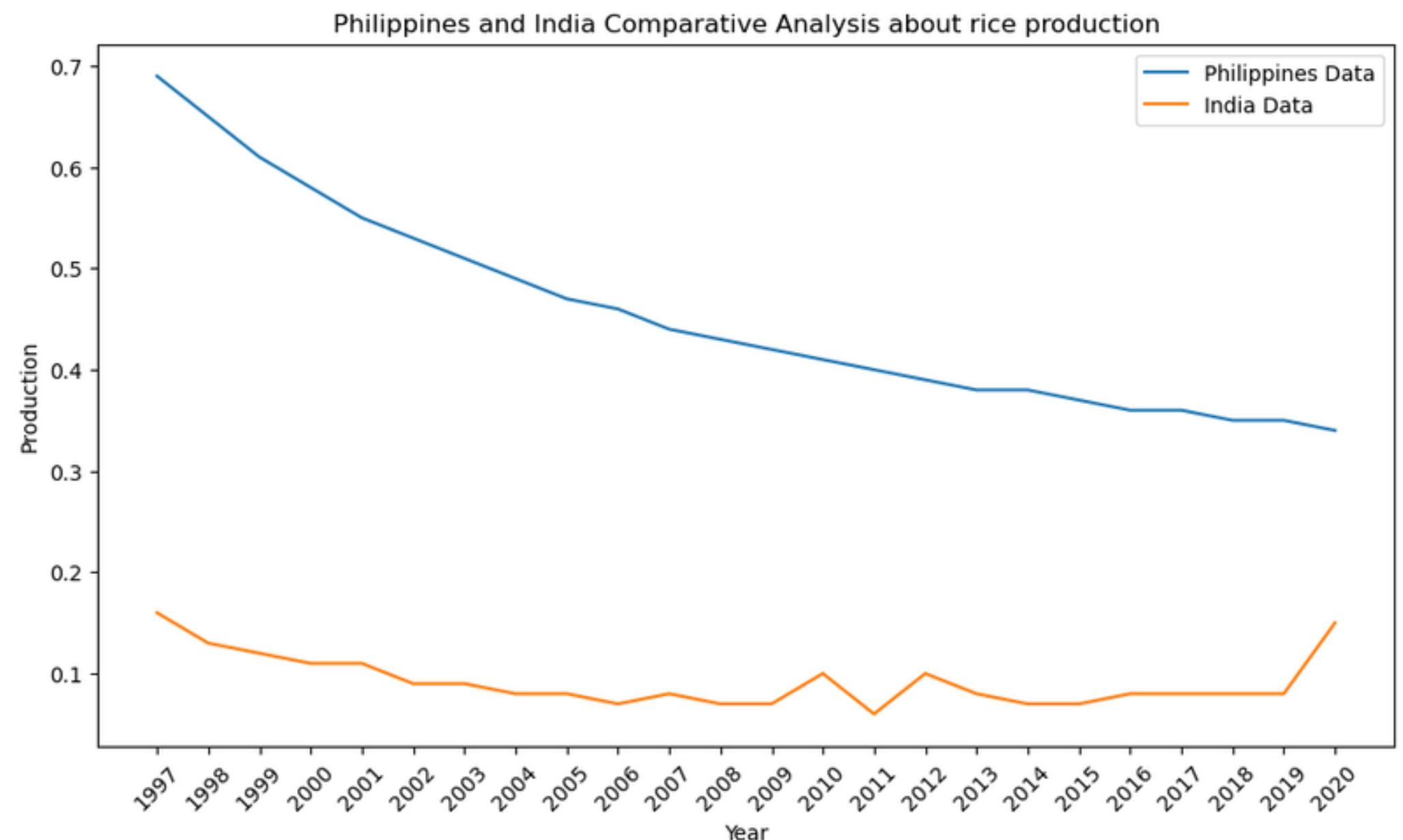
India Available Forest Lands in percentage



Philippines Available Forest Lands in percentage



Philippines and India Comparative Analysis about rice production.



Findings

- Philippines Rice Production is positively skewed.
- As time passes by, the normalized value of rice production is decreasing.
- The average annual rainfall in mm of Philippines is higher compared to India's 1000 - 1500 mm.
- The Philippines has a higher mean temperature compared to India, not until 2020.
- Philippines agricultural land is slightly increasing.
- Philippines available forest land is decreasing as time passes by, not until 2010 where changes occur in a positive manner.

• • • •

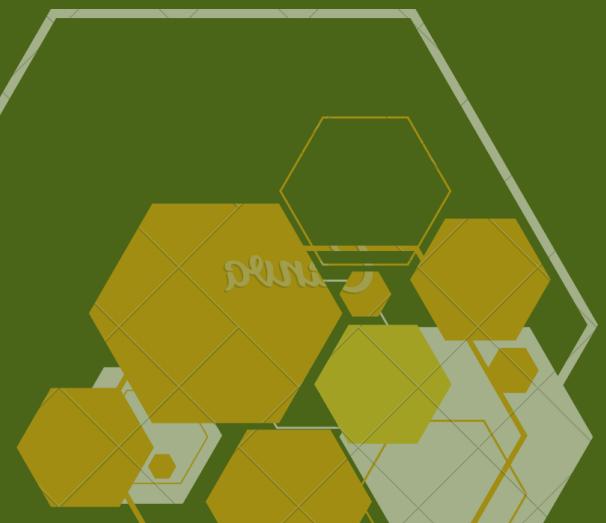
• • • •

• • • •

Conclusions

1

Positive Skewness in Philippines Rice Production:



• • •
• • •

Decreasing
Normalized Rice
Production:

2

• • •
• • •

• • •
• • •

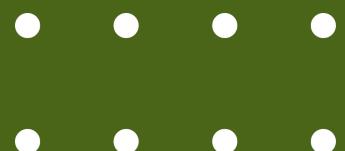
3

**Higher Average
Rainfall in the
Philippines
compared to India:**



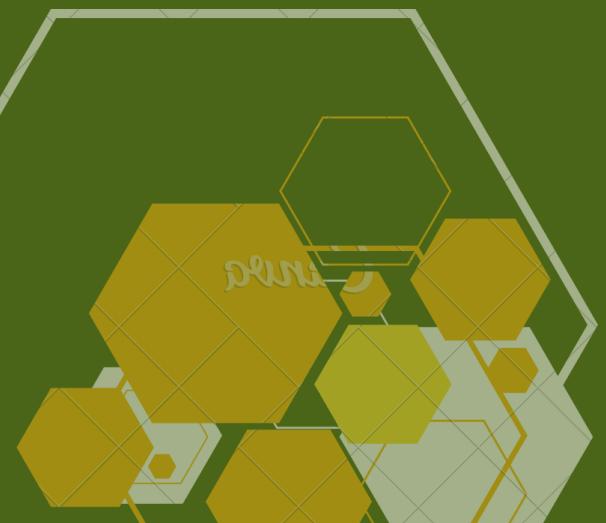
**Higher Mean
Temperature in the
Philippines
compared to India
(until 2020):**

4



5

Slight Increase in Agricultural Land in the Philippines:



• • •
• • •

Decrease in Available Forest Land in the Philippines (until 2010):

6

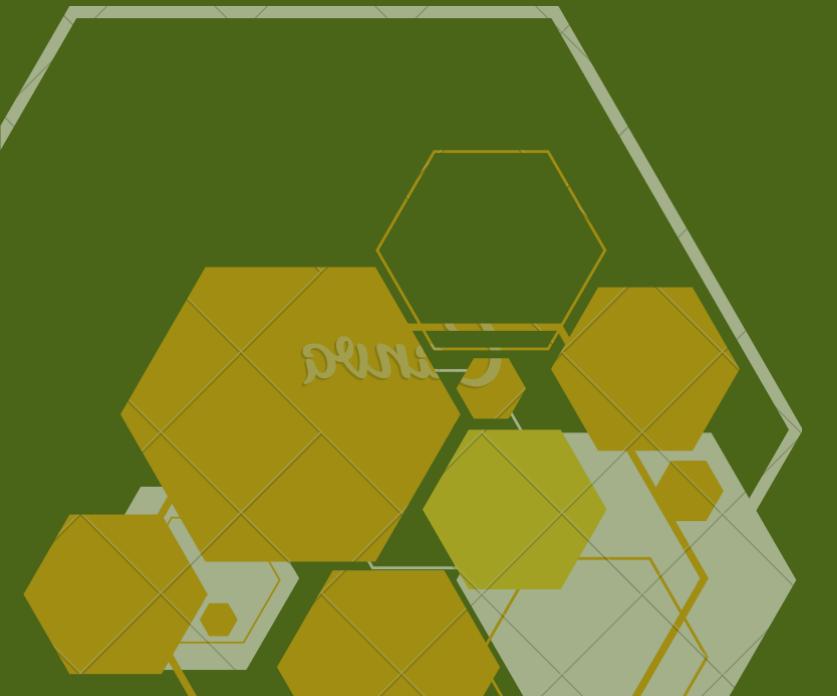
• • •
• • •

• • •

Recommendations

1

Enhance Rice Production Efficiency



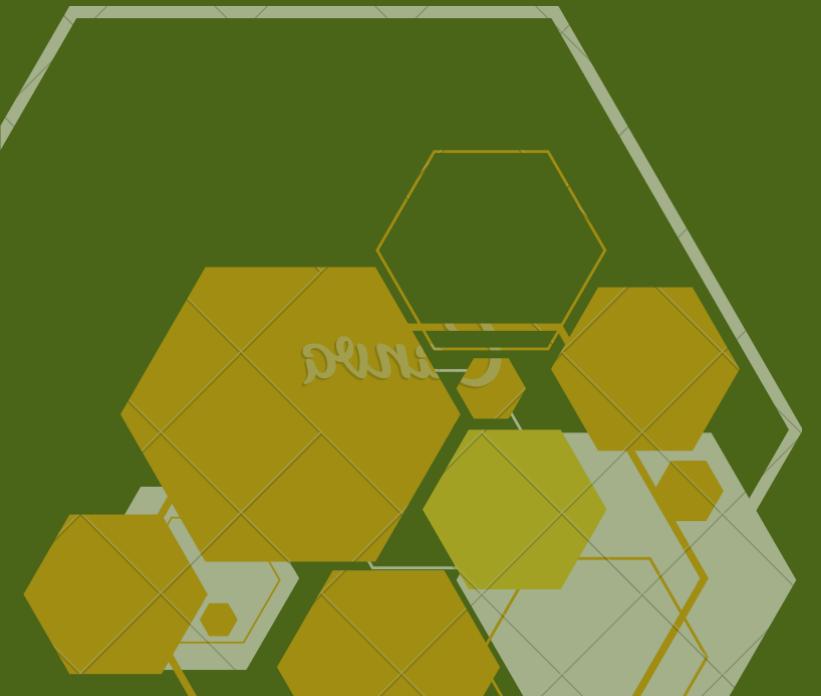
2

Invest in Climate- Resilient Farming Practices



3

Optimize Water Resource Management



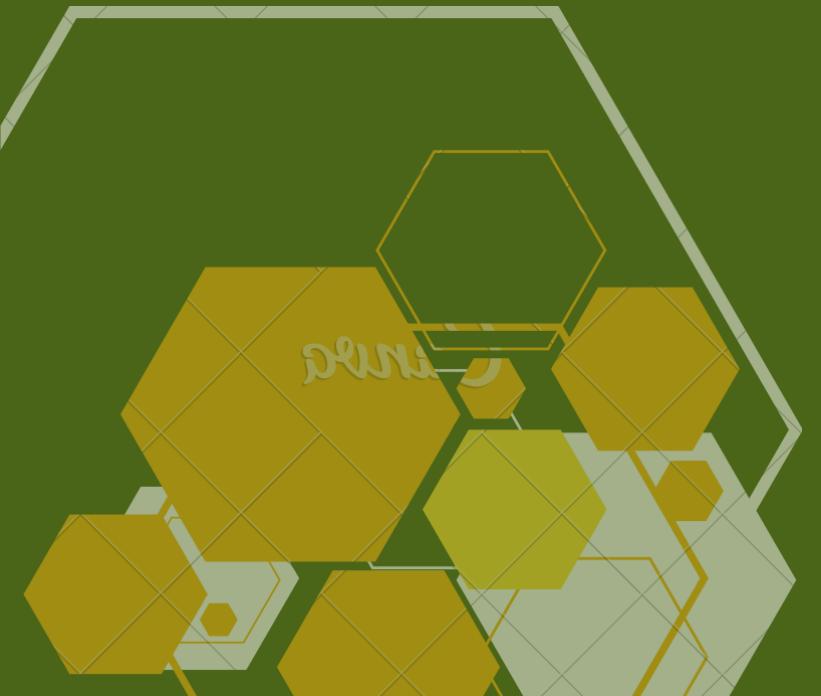
4

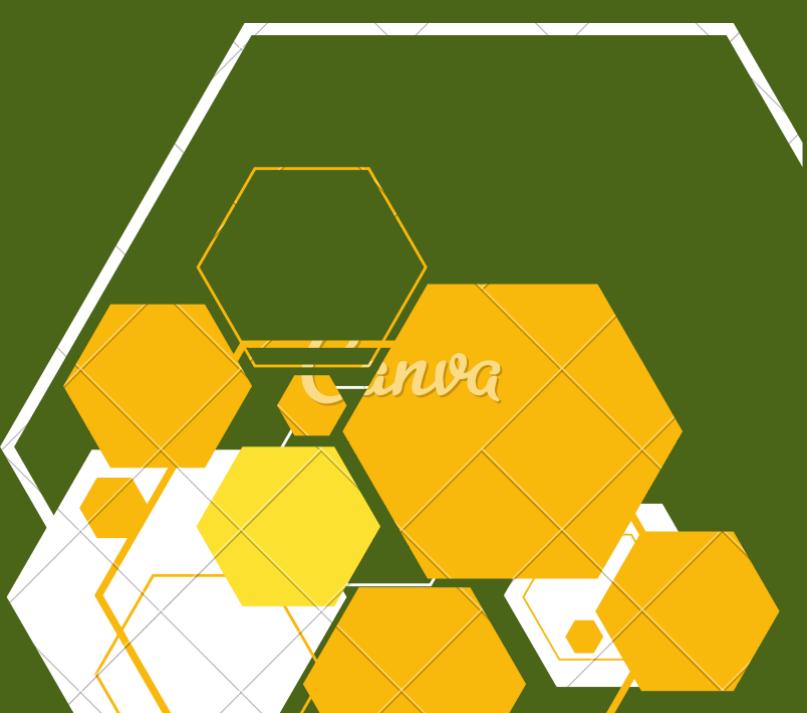
Promote Sustainable Land Use



5

Invest in Agricultural Research and Development





THANK YOU

