

# CROP PRODUCTION DATA VISUALIZATION

## Group-8

Arya Pinaki

Bhavya Garg

S Pradeep

Gauri Menon

Kaushik Raj

# OBJECTIVES

**Objective 1:** Analyze crop production stats across the nation

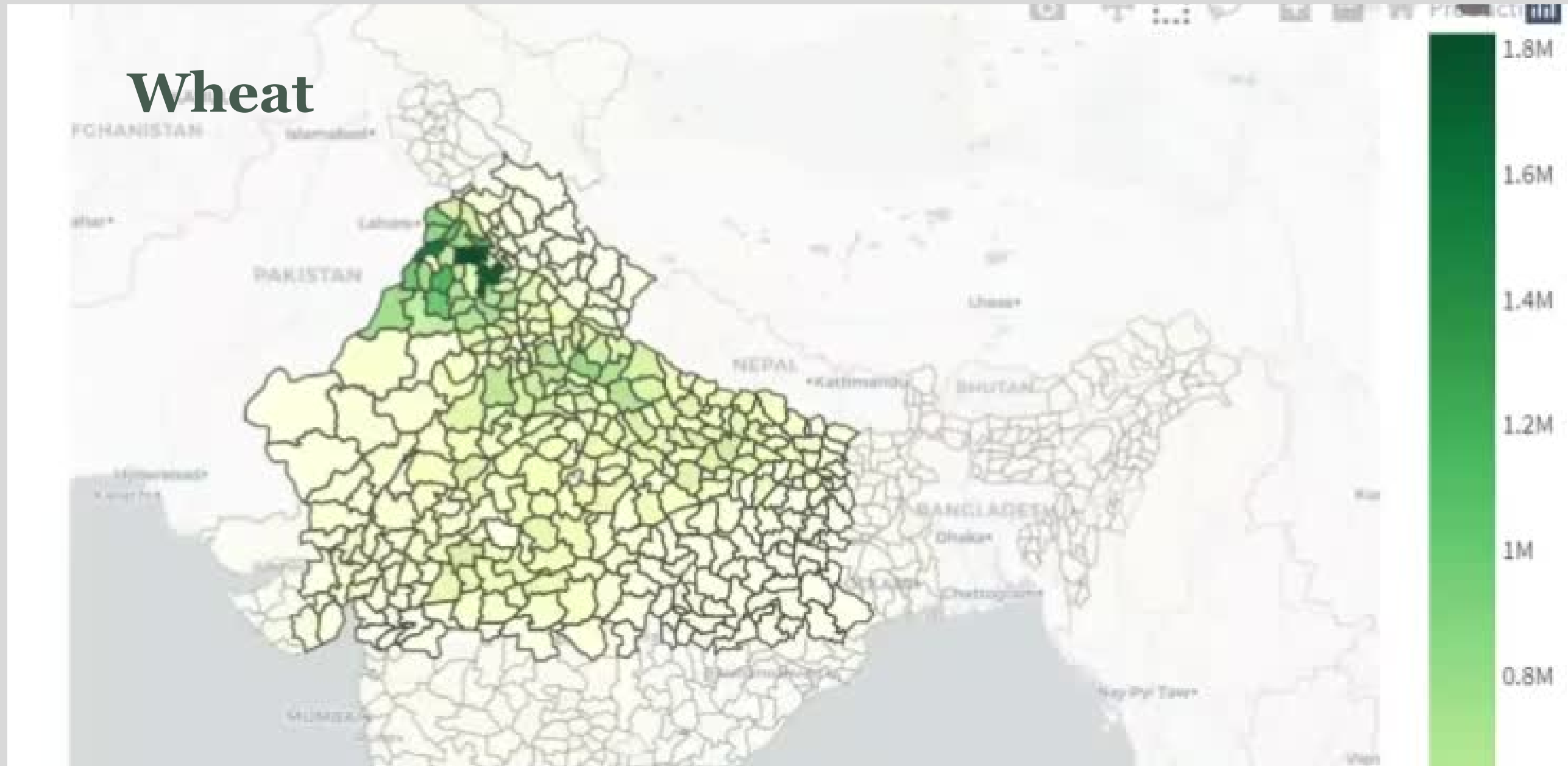
**Objective 2:** Analyze trend in crop production over the years

**Objective 3:** Correlate rainfall pattern with crop production

# DATA USED

- 1) **Crop production statistics** (1998-2017) district wise, showing annual production of more than fifty crops.
- 2) **Rainfall statistics of India** (1998-2017), categorized by district, state, and sub-division.
- 3) **India district-wise geojson** (epsg:4326) created from India shape file using QGIS software.

# TASK 1

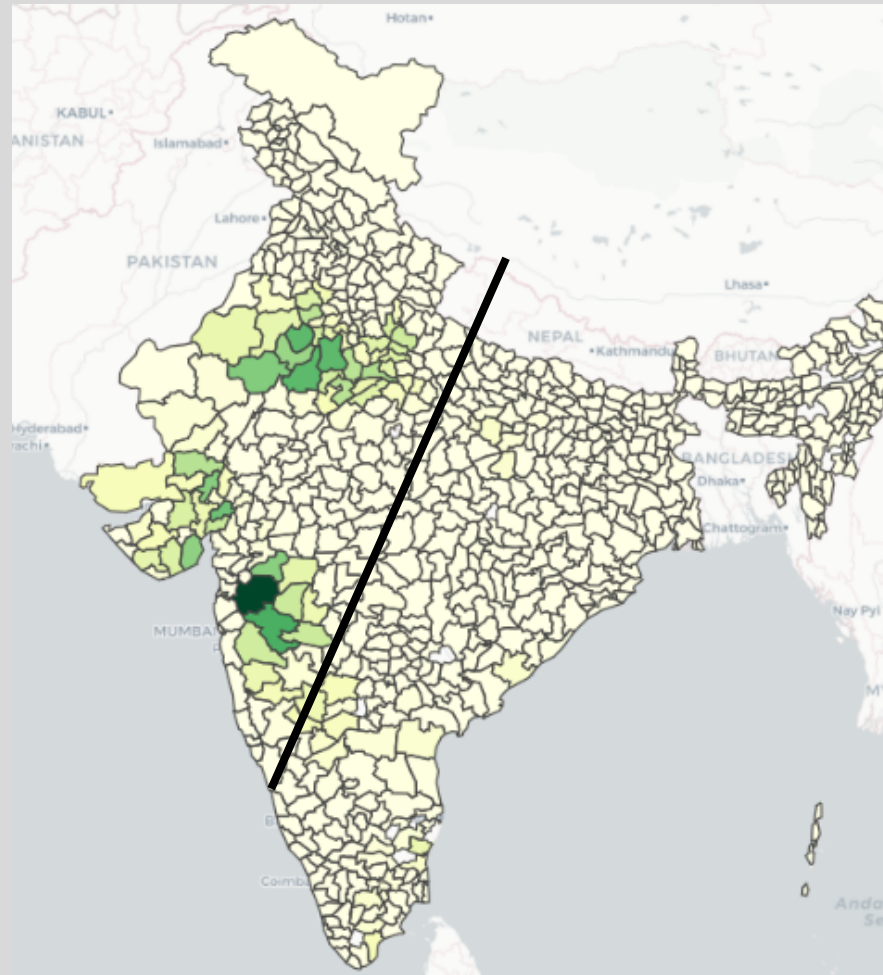


## Analysis

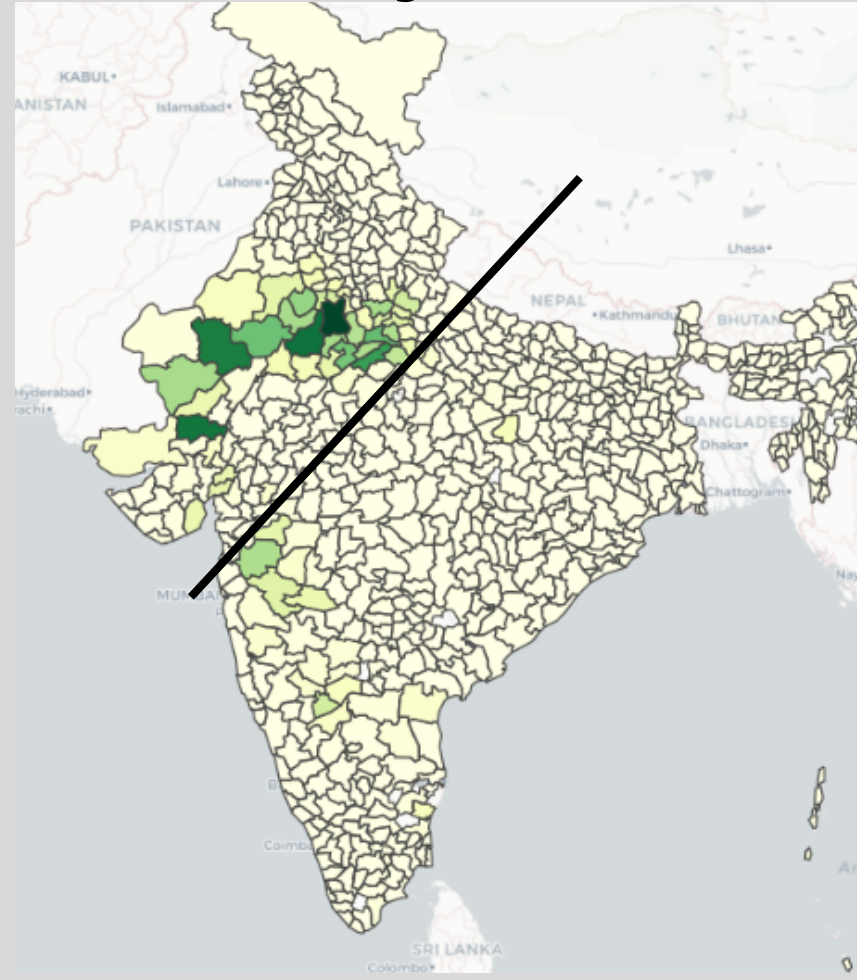
- Punjab, Haryana, and Uttar Pradesh were the first Indian states to cultivate wheat.
- Today, Madhya Pradesh and Rajasthan have joined the list of the largest Wheat-producing states.
- Govt. policies and missions like NFSM, RKVY, PMFBY, subsidies, and farmer knowledge caused the change.

# TASK 1

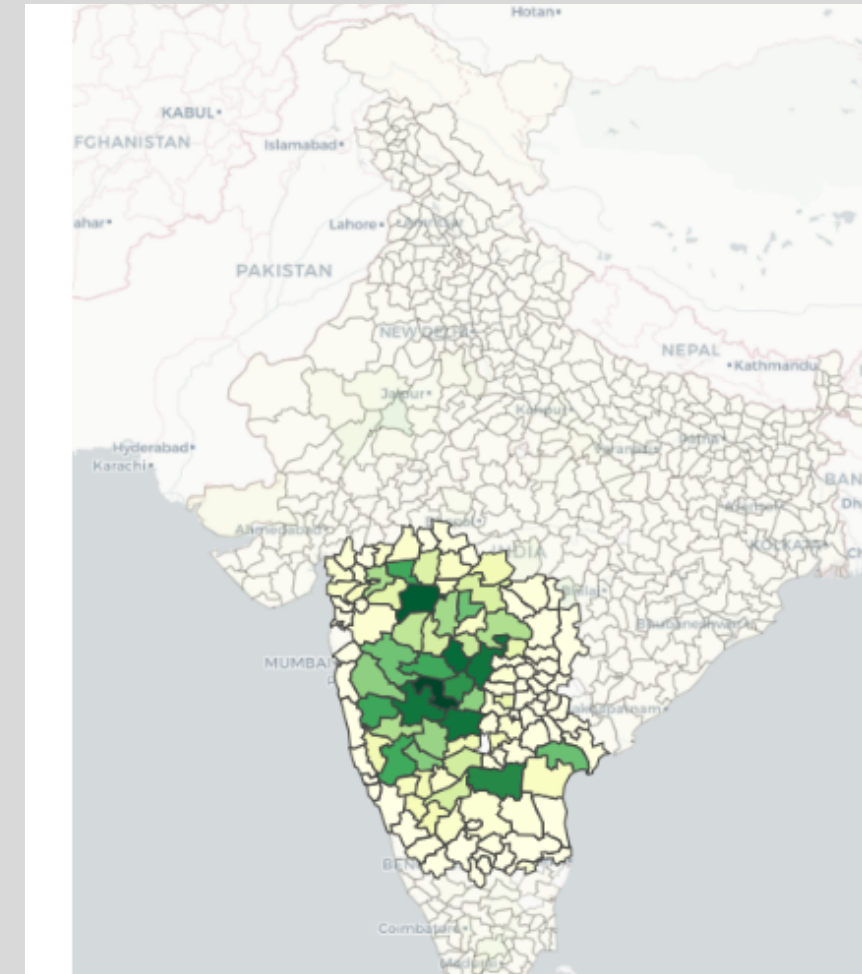
## Bajra 1998



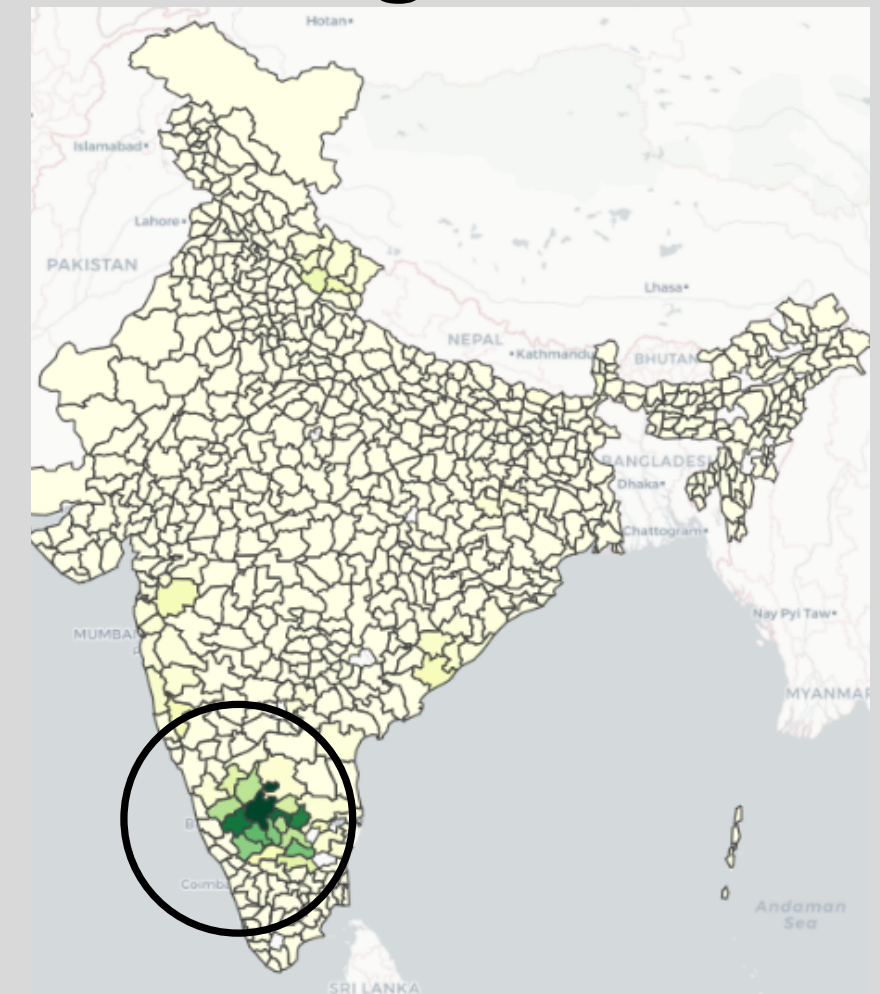
## Bajra 2017



## Jowar



## Ragi



## Analysis

- Bajra was produced the most in Maharashtra during the early years.
- In recent years, production has dropped significantly.
- Ragi's cultural significance makes Karnataka its center of production.
- Maharashtra's Black Regur soil produces Jowar.



# TASK 2

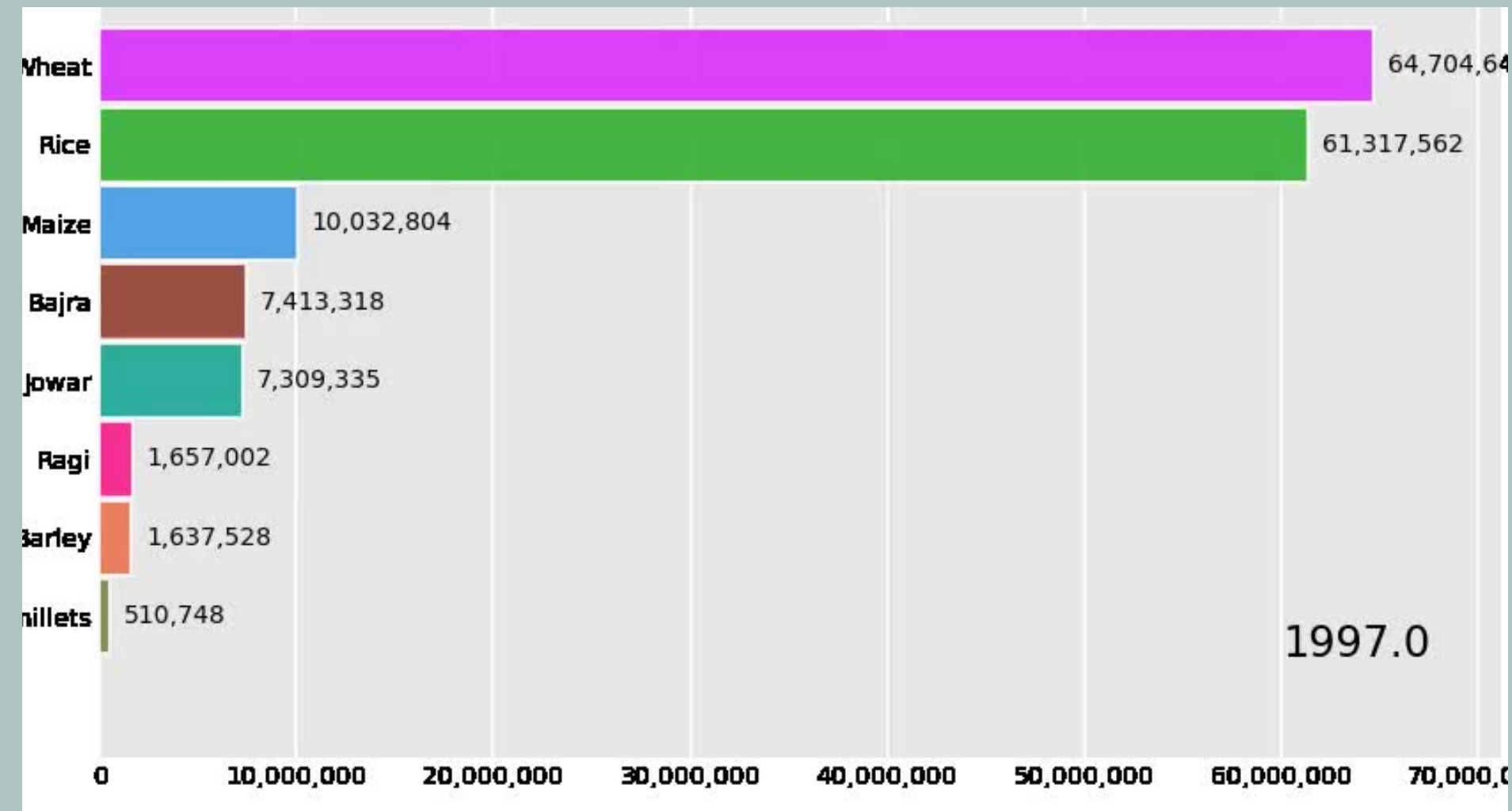
## Analysis

### Cereals:

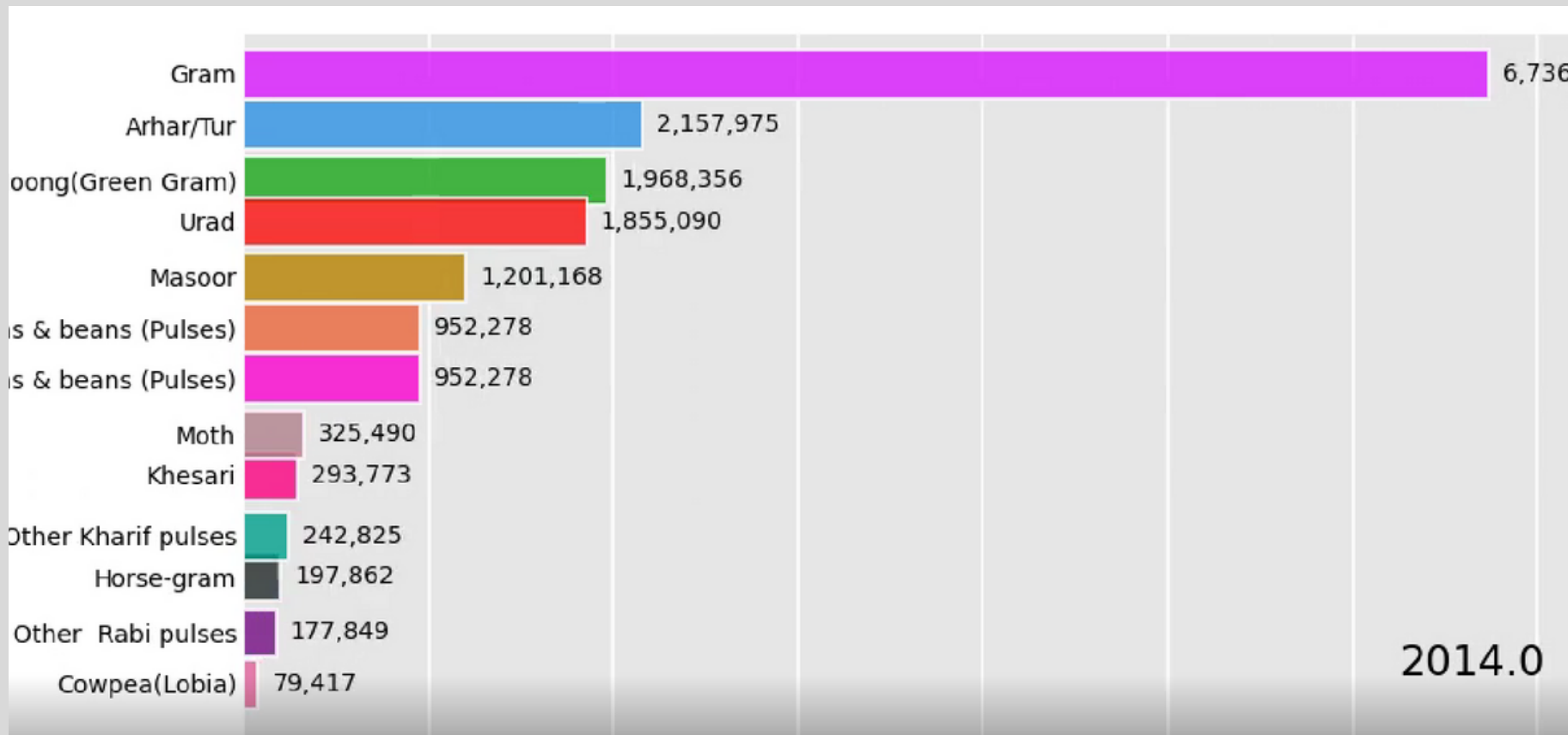
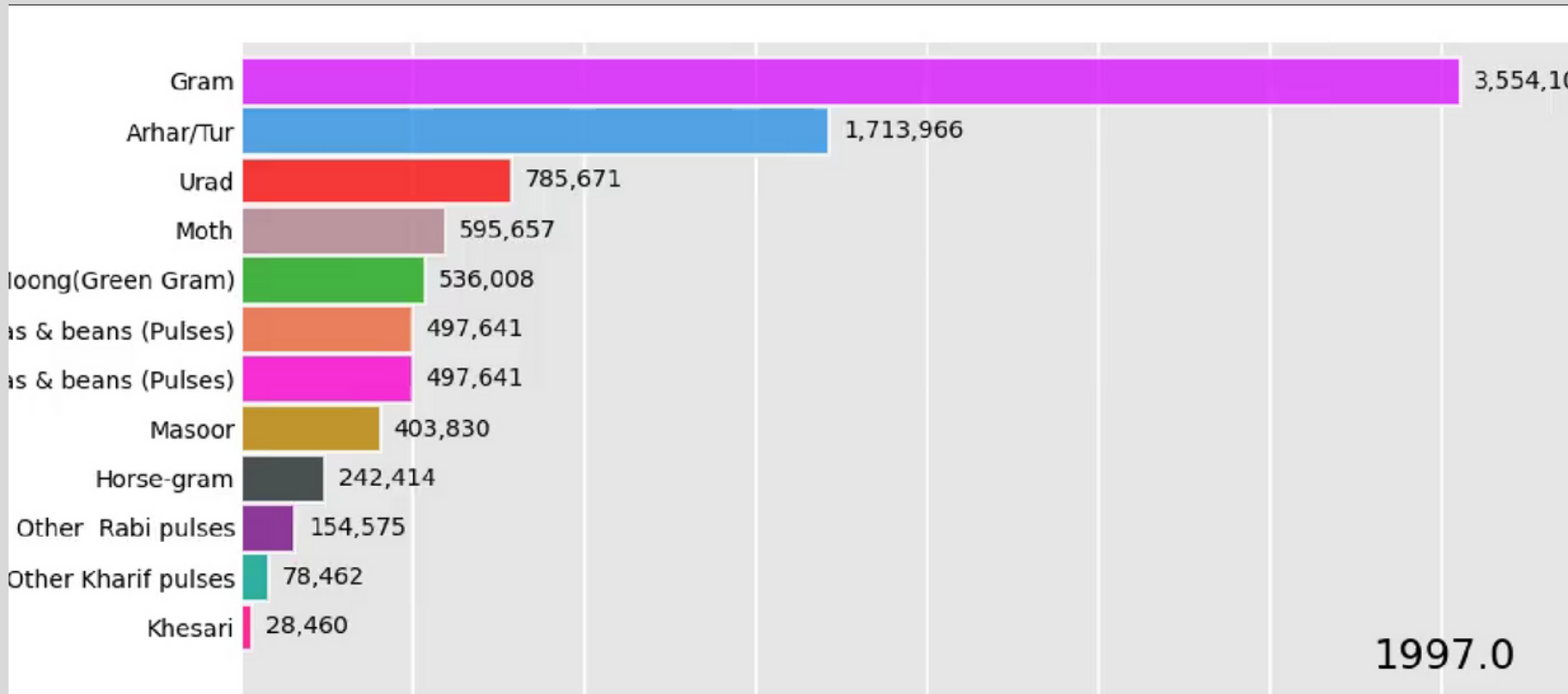
- 1) Rice and Wheat were cultivated most, over all the years.
- 2) Bajra production peaked in 2012 and decreased henceforth.
- 3) Jowar production decreased overall, and consistently after 2008
- 4) Ragi production has remained stable, decreasing slightly since 2013

### Conclusion:

- 1) Millet production has decreased over the years, especially since 2010. The proportion of other crops(crop diversity) has decreased.



# TASK 2



## Analysis

### Pulses:

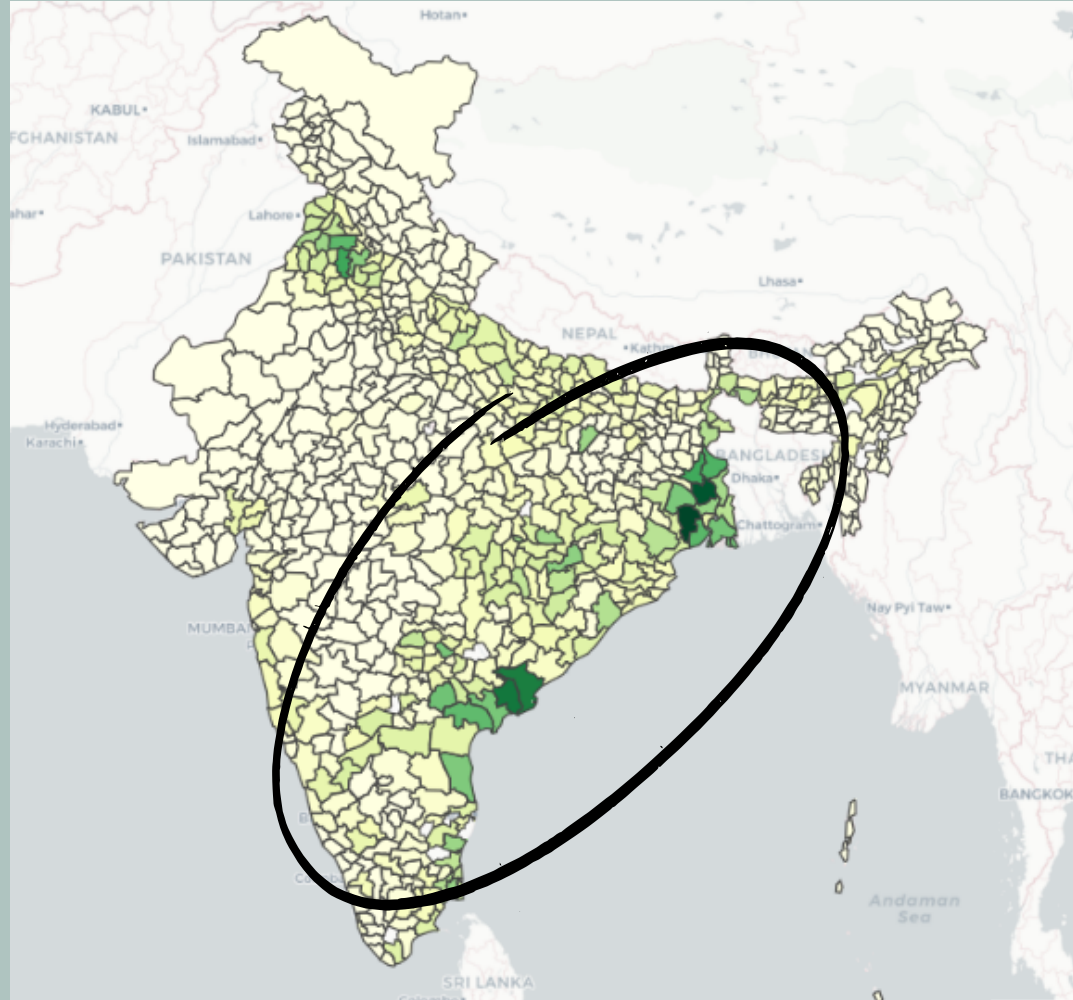
- 1) Proportions of Gram, Arhar and Urad have remained mostly consistent, and the production has increased.
- 2) Proportion of moong has decreased in comparison.
- 3) Moth and Horse-gram production has decreased.

### Conclusion:

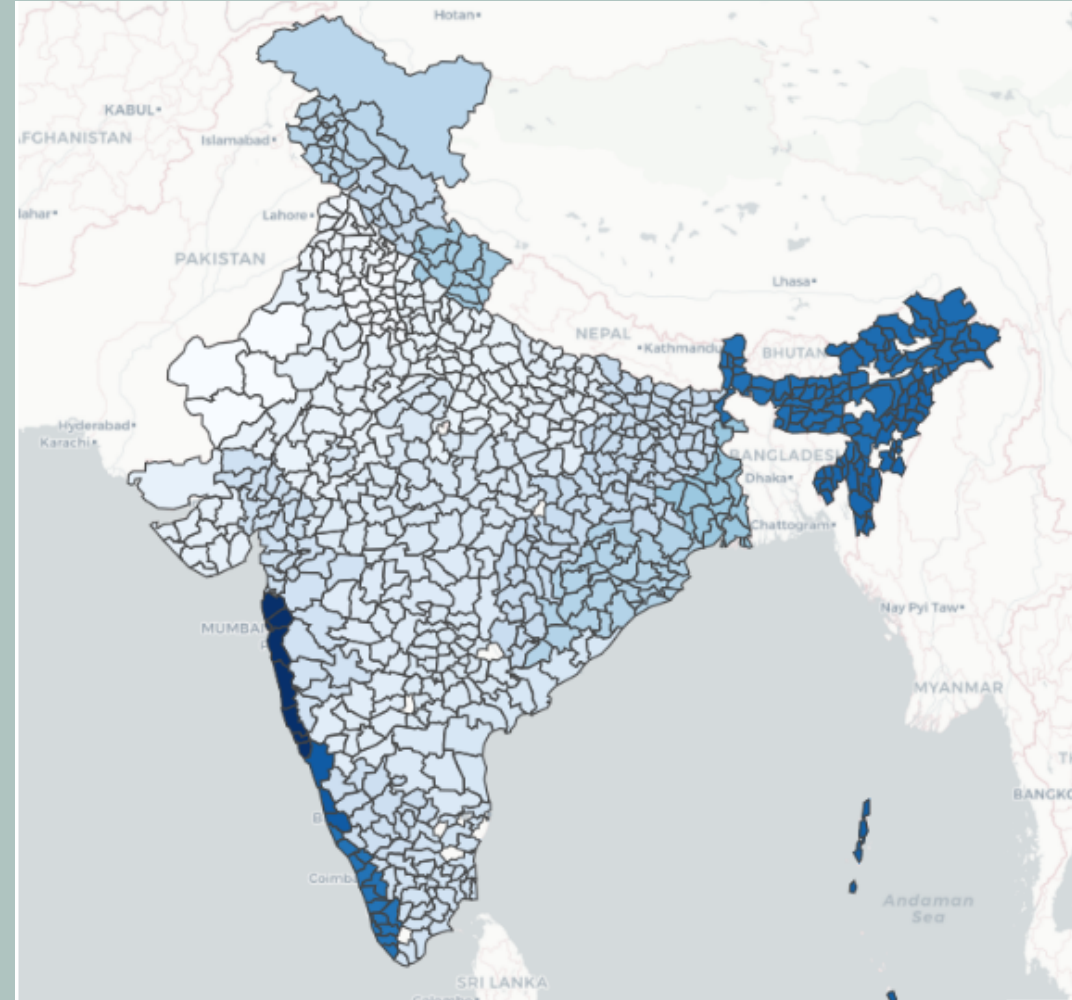
- 1) Crop diversity has largely been maintained.

# TASK 3

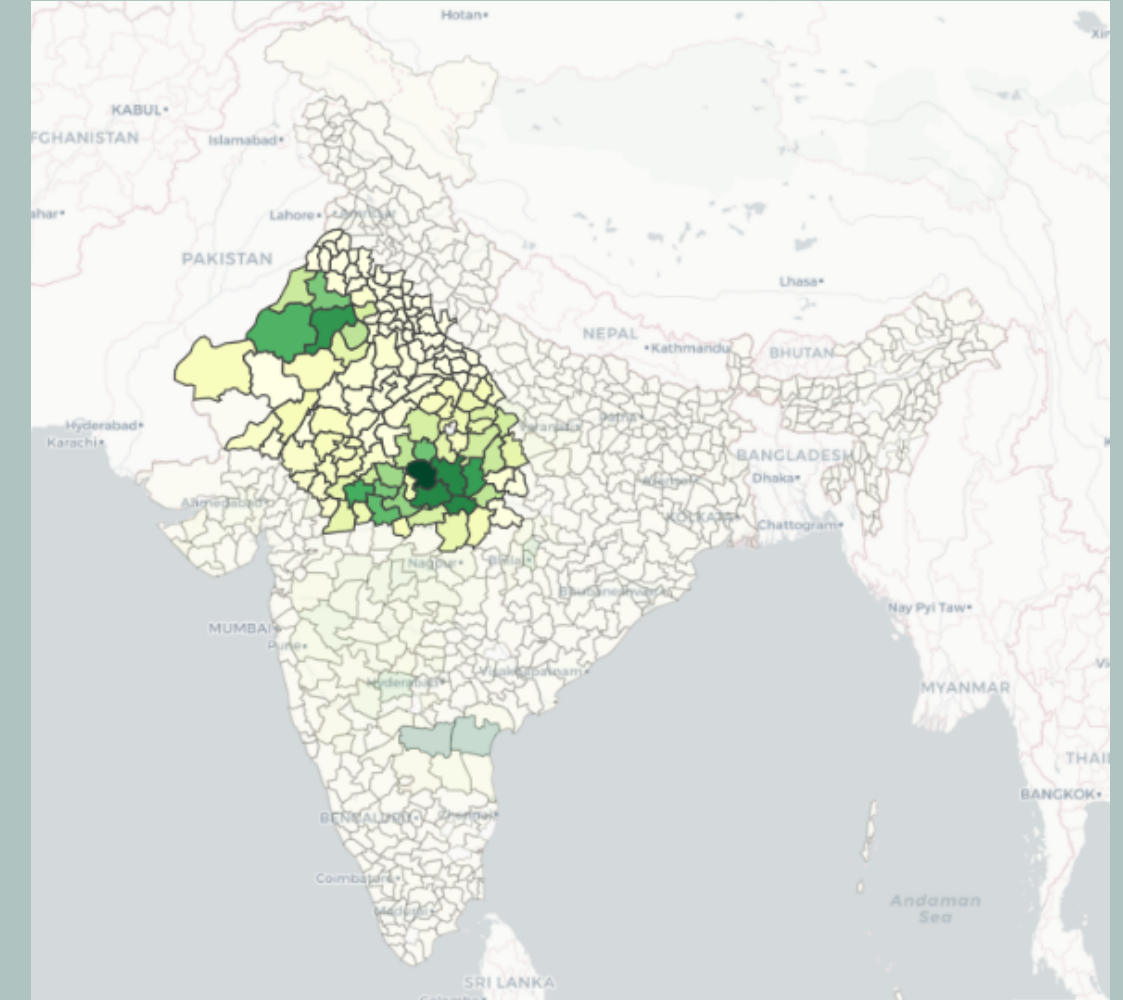
Rice



Rainfall data



Gram



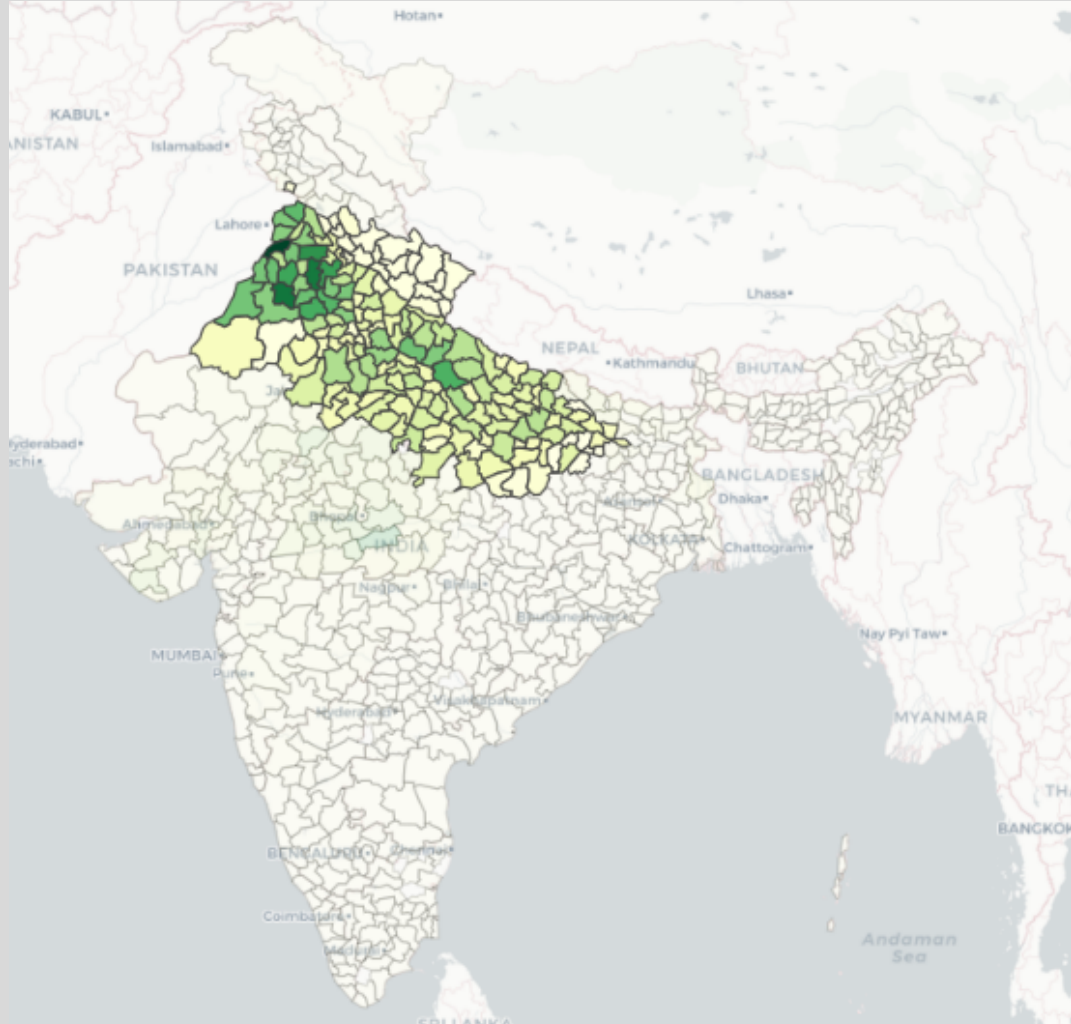
## Analysis

- Bajra, and Gram are dry land crops and are hence, most grown in Rajasthan and Madhya Pradesh(low rainfall).
- Eastern regions of India receive rainfall in Nov-Dec(due to retreating monsoons), which explains the rice cultivation(Rice is a Rabi crop in South/West India).

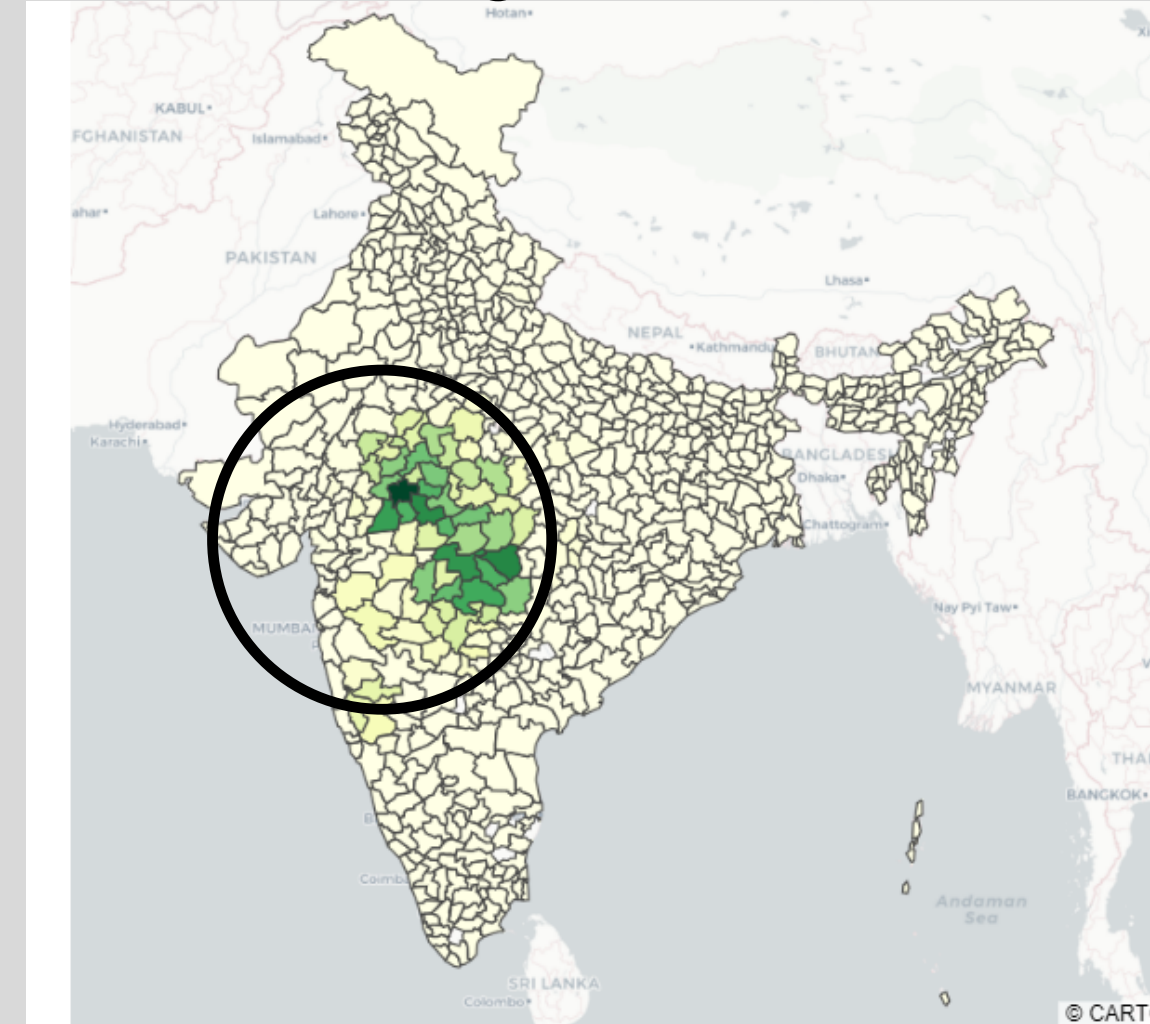


# TASK 3

## Wheat



## Soyabean



## Analysis

- Wheat is river-fed and hence cultivated in the Indo-Gangetic plains.
- Soyabean can withstand waterlogging caused by monsoon patterns and soil type(black soil) in MP, Maharashtra. The same is shown in the figure above.

THANK YOU!