

Visualizing agricultural commodities in Karnataka

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Based on Karnataka Agriculture market data (data.gov.in, 2013), let us briefly explore the agricultural commodities across various districts in Karnataka through visualization.

Note that '**Arrival**' refers to the arrival of commodities at a place for sale, from various sources such as villages, storages, etc.

The purpose of this post is to explore :

- What are the top 10 commodities in Karnataka?
- What is the largest agricultural arrival commodity for each district?
- For each of the top commodities which districts produce them in large quantities?
- Considering each month from January to december, which district produce has highest commodities?

how to view the maps in this post?

- Click on the image to open interactive map
- hover over it for district name
- Click on the icon to get commodity name (last map)
- toggle between different crop options, to get the distribution

Top ten Agricultural commodities in Karnataka

Paddy and maize are top agricultural commodities, followed by onion, rice, potato, cotton, green ginger, tomato, areca nut, and tur.

The commonality between this result and the national share (see disclaimer below) is **areca nut**, proving its significance in Karnataka. It is predominantly found in Udupi, Shimoga, Dakshina, and Uttara Kannada.

Although due to its harmful effects on health (it is considered as a carcinogen), it is prohibited for sale in countries like Australia and Newzealand, and banned in UAE.

Largest agricultural commodity for each district.

- Exploring the largest commodity in each district, we find that paddy and maize dominate the list (see map below). With paddy being the highest commodity in **Raichur, Bellary, koppal, Uttara Kannada, Chikmagalur, Mysore and chamrajanagar**.
- Whereas Maize is a top crop in Bagalakot, Gadag, Haveri, Davanagere, Shimoga, Chitradurga, Chickballapur and Bangalore rural.
- The top commodities in Udupi and Dakshina Kannada are arecanut, in Hassan and Kodagu it is Green ginger, in Gulbarga and Bidar its tur. in Bijapur it is cotton.
- Mango is the top arrival commodity in Ramnagar, jaggery in Mandya, tomato in Kolar and copra in Tumkur.
- Onion is a top commodity in Belgaum, Dharwad and Bangalore Urban.

Click on the map image for an interactive map.

Major Districts where the top commodities arrive.

Here are some of the commodities market share by the district.

- **Paddy**

Click on the map image above to toggle various commodities.

As we can see the majority of paddy comes from Raichur, Koppal, and Davanagere. In fact, Raichur accounts for a 20.28% share of overall paddy in Karnataka.

- **Maize**

Shimoga, Davanagere, and Haveri account for 63.25% of maize in Karnataka.

- **Tomato**

Kolar accounts for 51.95 % of tomato in Karnataka.

- **Areca nut**

Udupi, Shimoga, Uttara Kannada and Dakshina Kannada account for 85.75% of Areca nut, With Udupi alone having 33.41% market share.

Highest Commodity arrival Month and district wise:

If we segregate different months and look into total arrival of commodities at different districts, we find these results:

- Arrival of Maize in Shimoga in the month of May is the highest, with 1763243 quintal.
- Onion in Bangalore Urban in the month of October is second highest.
- Paddy in Davanagere in the month of June is the third highest.
- Followed by onion in Bangalore Urban in November, and areca nut in Udupi in the month of January.

Heat map of Commodities from January to December

Interpretations from the heat map above:

- Bangalore has the highest

Disclaimer/limitations:

- Out of 156 Commodities in the data, we will only consider those which are in units of quintal, rest will be omitted for the sake of uniformity. The **omitted commodities** are - 'Ash Gourd', 'Bull', 'Calf', '**Coconut**', 'Cow', 'Goat', 'He Buffalo', 'Ox', 'Ram', 'She Buffalo', 'She Goat', 'Sheep', 'Tender Coconut'.
- The data was released in 2013 [here](#). Refer [Krishi Marata Vahini](#) for the latest market data.
- In this analysis, we will not consider the national share. **National share** gives us an idea about how important the commodity is in the context of national production. Top commodities according to national share are - Mulberry, Coffee, Safflower, Ragi, Areca nut, Sunflower, Tamarind, Sericulture and Apiculture, Tamarind (En.wikipedia.org, 2020).

- The criteria used to measure the data is the arrival values (in quintal).
- Since the map is old, some of the new districts have not been represented. Districts such as Ramnagar,Chickballapur.

References:

1. En.wikipedia.org. (2020). *Economy of Karnataka*. [online] Available at: https://en.wikipedia.org/wiki/Economy_of_Karnataka [Accessed 16 Jan. 2020].
2. data.gov.in. (2013). *Karnataka Agricultural Market Data for 2012*. [online] Available at: <https://data.gov.in/resources/karnataka-agricultural-market-data-2012> [Accessed 17 Jan. 2020].