



## Banana (*Musa paradisiaca* Linn.)



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## Banana Global Trade – India’s Role

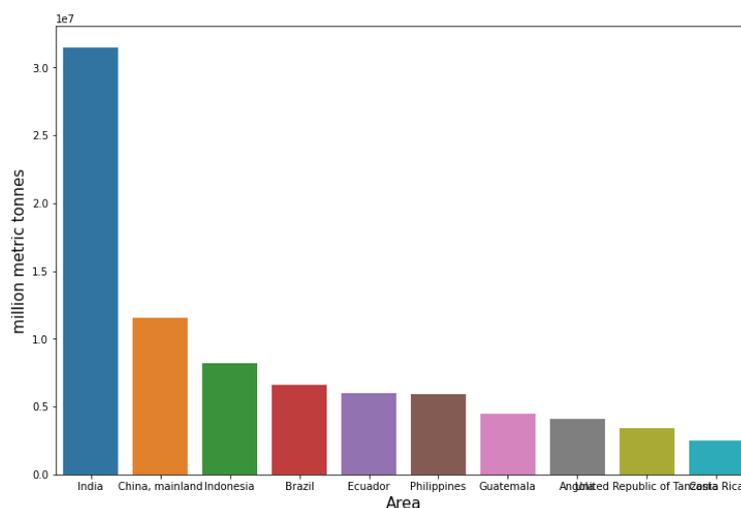


Figure 1. Top ten countries of banana production in 2020<sup>i</sup> (FAOSTAT 2021)

- In 2020, India was the largest producer of bananas contributing more than 26.08% to the total world production, followed by China (9.98%), Indonesia (6.25%), Brazil (5.83%), Ecuador (5.64%) and others (Tridge 2021).
- Global banana consumption in 2020 reached 124 million tonnes, 6% more than 2019. The production growth rate increased by 2% in 2020. The total output volume increased at an average annual rate of +1.2% from 2012 to 2020. In value terms, banana production rose remarkably to \$78.3 billion in 2020, estimated based on the export price.
- The increase in demand for bananas in the context of a growing world population will stimulate a market expansion of up to 143 million metric tonnes by 2030 (Globaltradeamag<sup>ii</sup>).

Table 1. Top five banana exporters in 2020 (Tridge 2020<sup>iii</sup>)

Country	Export Share 2020 (%)	Export Value in 2020 (US\$ billion)	Export Growth Value from 2017-20 (%)
Ecuador	20.94	2.73	-11.37
Costa Rica	13.76	1.80	+50.50
Philippines	12.34	1.61	+53.54
Guatemala	7.69	1.00	+1.20
Colombia	7.64	0.99	+5.73

Table 2. Top five banana importers in 2020 (Tridge 2020)

Country	Import Share 2020 (%)	Import Value in 2020 (US\$ billion)	Import Growth Value from 2017-20 (%)
USA	19.80	2.55	+0.82
Germany	7.93	1.02	-3.14
Japan	7.66	0.98	+16.34
China	7.25	0.93	+60.96
Netherlands	6.76	0.87	+44.57

- India has a dominant position in terms of both acreage and production of bananas, it even has a high productivity compared to other important banana producing countries. However, it has a meagre presence in the world trade of bananas. Global demand of bananas at 19 million metric tonnes worth USD 13.4 billion, India supplies only 0.4% and ranks 21 among all banana-exporting countries.
- In 2020, Indian banana production was 31 million tonnes, Iran being the largest importer with a value of US\$ 39 million. From 2015 to 2020, banana export growth value has increased +97.52%.

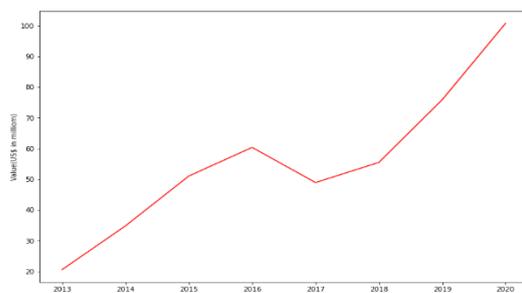


Figure 2. Indian Banana export trends from 2013 to 2020 (Tridge 2021)

Table 3. Top five importing countries from India in 2020 (Tridge 2021)

Trade flow	Export Share in 2020 (%)	Import Value In 2020 (US\$ million)	Export Growth value 2019-20 (%)
India to Iran	39.09	39.04	+32.79
India to UAE	20.92	21.08	+108.68
India to Oman	10.27	10.35	+23485
India to Iraq	7.36	7.42	-13.73
India to Saudi Arabia	6.39	6.4	+41

## Banana Demand in European Union

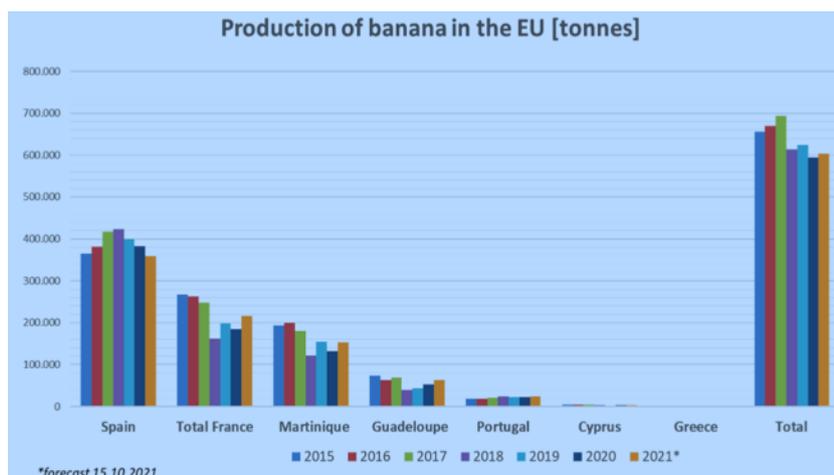


Figure 3. EU banana production<sup>iv</sup>

- OECD-FAO outlook (2021-2030) estimates indicate that global exports of bananas, excluding plantain, reached a new record high of 22.2 million tonnes in 2020, an increase of 1.7% compared to 2019<sup>v</sup>.
- Net imports by the European Union (EU-27) grew by a reported 4.8% in 2020, to 5.2 million tonnes, marking a new peak in EU banana procurements<sup>vi</sup>.
- Strong supply growth in Ecuador, Costa Rica, and Colombia, three of the five leading exporters, was chiefly accountable for this rise.

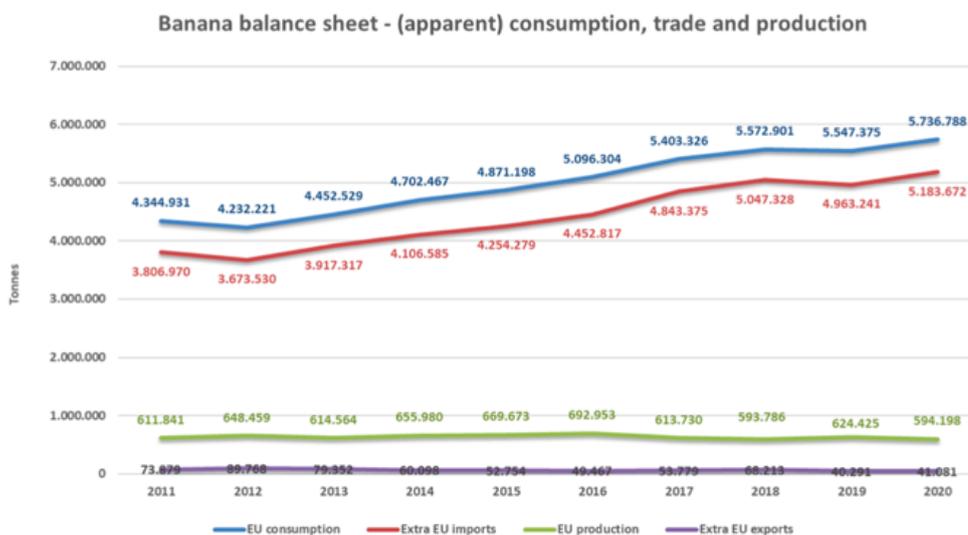


Figure 4. Banana demand trend from 2011 to 2020

- Bananas imported from Central America (except for Belize), Colombia and Peru paid a reduced rate of EUR 75/tonne in 2020 under the Central America Agreement and the European Union Andean agreements.
- The African, Caribbean and Pacific (ACP) banana suppliers, meanwhile, benefit from duty- and quota-free access to the European Union market under the Economic Partnership Agreement (EPA), which came into effect on 1 January 2008.
- The most significant development in trade policy in recent years was the accession of Ecuador to the European Union Andean agreements, with effect from 1 January 2017. Under this provision, the tariff on banana imports from Ecuador, previously the only major supplier paying the most-favored-nation (MFN) tariff, stood at a rate of EUR 76/tonne in 2020, i.e. one euro above the rate paid by its main competitors Costa Rica and Colombia.

## Banana Import Trends in Germany

- In 2020, the total import value of bananas was US\$ 1.02 billion (Tridge 2021).

- The Dominican Republic, a key supplier of organic bananas, increased its export growth value by +22% in Germany.

Partner	Import Share in 2020 (%)	Import Value In 2020 (US\$ million)	Export Growth value 2017-20 (%)
Costa Rica	29.4	300.89	+35.67
Ecuador	22.8	232.86	-9.34
Columbia	22.38	228.59	-34.72
Dominican Republic	10.11	103.28	+22.24
Panama	3.79	38.69	+166.98

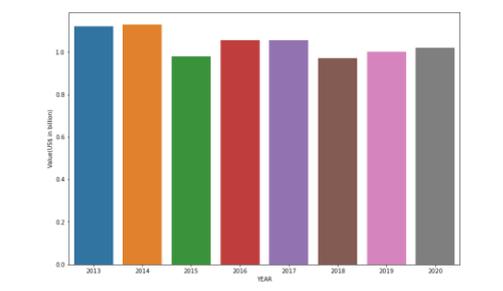


Figure 5. Banana import trends in Germany from 2014 to 2020

### Banana Market Segmentation

- The banana market has been segmented on the basis of type and application. On the basis of type, the banana concentrate market is segmented into fresh, frozen and dried concentrate.
- The banana flakes market in Europe is expected to grow from US\$ 207.73 million in 2019 to US\$ 284.52 million by 2027; it is estimated to grow at a compound annual growth rate of (CAGR) of 4.2% from 2020 to 2027. The trend of consumption of organic food products is attaining attraction across Europe attributed to health benefits<sup>vii</sup>.
- On the basis of application, the banana concentrate market is segmented into food & beverage, confectionery, bakery, dairy, and others. The food & beverage market can be further sub-segmented into juices, squash, soft drinks, frozen products and baby food.
- Figure 7 provides an overview on the consumer prices of various banana centric products in the German retail sector.

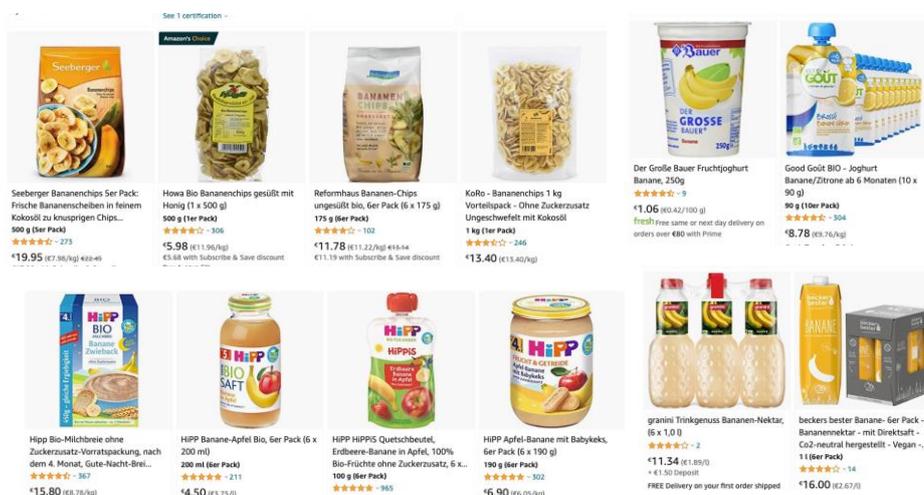


Figure 6. Various banana products available in the German retail sector

### Banana Production in India

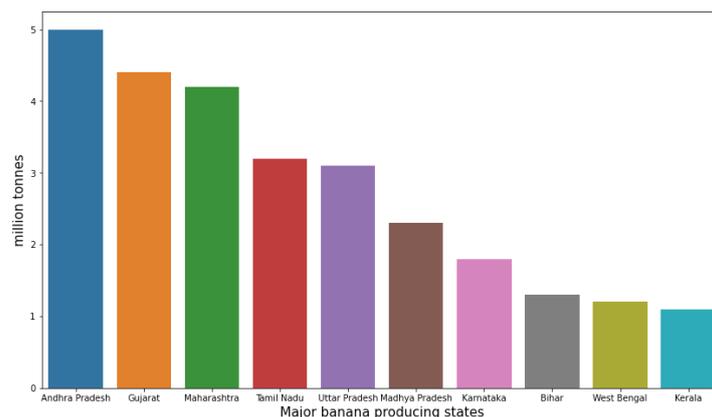


Figure 7. State-wise banana production in 2020

- In India, bananas account for 20% of the total area under crop cultivation<sup>viii</sup>. In 2020, domestic production in India was dominated by Andhra Pradesh (16%), Gujarat (15%), Maharashtra (12%) and Tamil Nadu (11%).
- There are numerous varieties of bananas cultivated in India. The commercial Indian banana varieties are *Dwarf cavendish*, *Robusta*, *Poovan*, *Nendran*, *Red Banana*, *Ardharpuri*, *Ney poovan*, *Basrai*, *Karpuravalli*, and *Rasthali*.
- The *Grand Naine* variety is imported from Israel. It is becoming popular due to its resilience to abiotic stresses and superior quality branches. This variety of bananas develops a uniform yellow colour and has a longer shelf life and better quality than other varieties<sup>ix</sup>.
- Banana season in states like Andhra Pradesh, Tamil Nadu, Karnataka and Maharashtra, Manipur, Assam, and Tripura is throughout the year.
- In states like Gujarat, Bihar, Uttar Pradesh and Jharkhand, the harvesting season begins in September and ends in November.
- The largest producing state, Andhra Pradesh, along with Gujarat and Madhya Pradesh witnessed large increases in yield levels. Madhya Pradesh (70 ton/ha) had the highest productivity for bananas, followed by Gujarat, Punjab and Andhra Pradesh in 2018-19. Maharashtra and Tamil Nadu recorded a fall in their respective banana yields during 2018-19 compared to 2008-09.
- Average productivity is 30-35 tonnes per hectare.

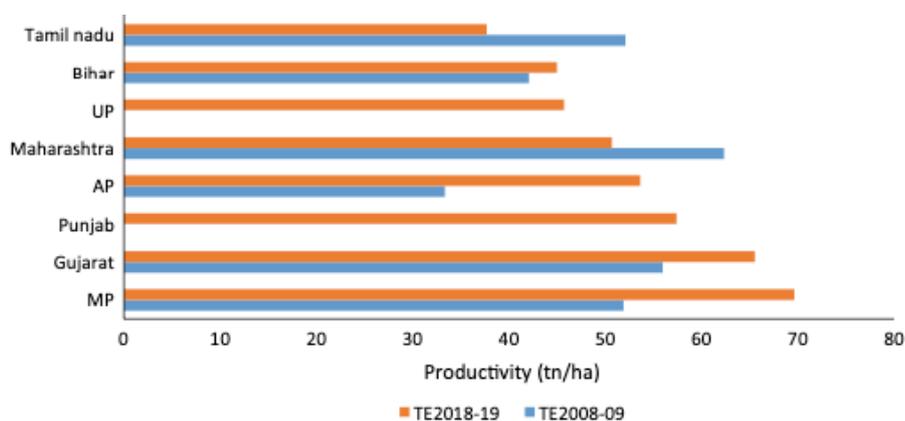


Figure 8. Figure 9. Productivity of major banana producing states<sup>x</sup>

- A recent study on the banana value chain of producers from Jalgaon in Maharashtra estimated banana farmers' share in consumer rupee at 35.5%. The value chain mark-ups for other intermediaries are 29.6% for traders, 16.3% for wholesalers and 18.6% for retailers (Gulati 2021).
- Figure 11 summarizes the average banana APMC market price (wholesalers) and retail price for the period 2011 to 2019.

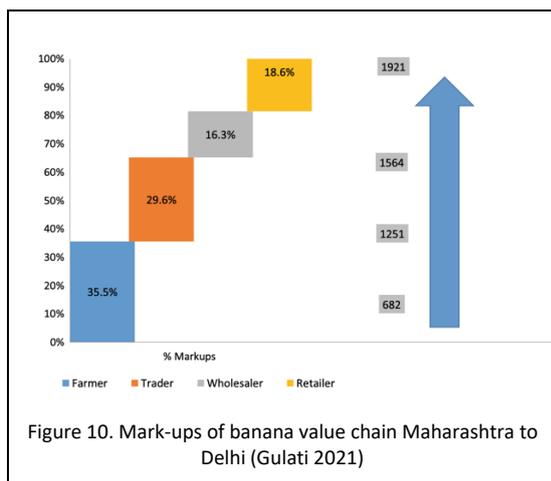


Figure 10. Mark-ups of banana value chain Maharashtra to Delhi (Gulati 2021)

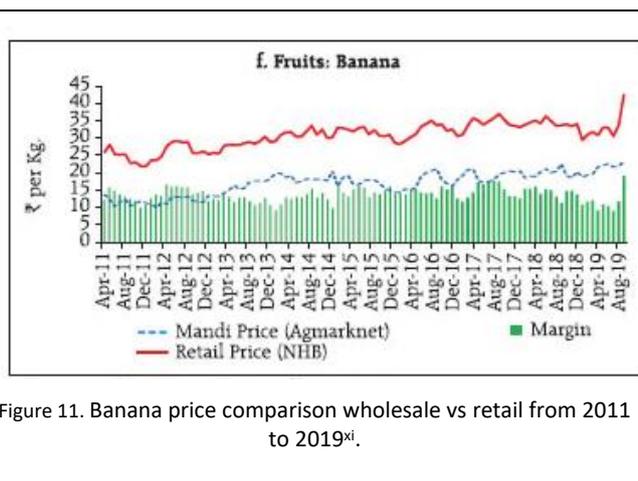


Figure 11. Banana price comparison wholesale vs retail from 2011 to 2019<sup>xi</sup>.

### Significant challenges in the banana supply chain

- A recent study “A constraint analysis on production and marketing of banana in Andhra Pradesh” highlights the major constraints in domestic banana cultivation (Radhakrishnan 2021<sup>xii</sup>):

#### Production constraints:

Sl. No.	Particulars	Mean Score	Rank
1	Inadequacy of labours	65.86	II
2	Access to market information	53.41	IV
3	Inadequate credit and subsidy facilities	54.31	III
4	Plant damage from any pest/ disease	51.22	V
5	Problem of electricity	68.60	I
6	Lack of infrastructural facilities such as transportation, godown, storage	43.38	VI
7	High cost of production	34.63	VII

#### Marketing constraints:

Sl. No.	Particulars	Mean Score	Rank
1	High Transporting charge	61.04	VII
2	Non-existing of regulated and co-operative market	93.38	II
3	Inadequate infra structural facilities such as cold storage, godown	85.57	IV
4	Fluctuations in price	98.29	I
5	Lack of labours for loading	70.57	VI
6	Lack of availability of market information regarding prices/arrivals	89.12	III
7	Absence of banana processing industries	61.04	VIII
8	Uneven payment for sale after sale	53.46	IX
9	High commission charges	78.09	V

- A similar study summarizes the major constraints for banana farmers in Jalgaon (Maharashtra):
  - High fluctuations in prices
  - High winds during monsoon causing damage to the plants
  - Absence of institutional credit
  - Absence of crop insurance
  - Small production and uneconomic quantities available for marketing
  - Long association with contractors
  - Price discrimination in the markets
  - High marketing costs

#### Export contains:

- Fresh Plaza<sup>1</sup> report states that major constrains are logistics - "Indian bananas are tastier and sweeter than those currently exported to Europe, meaning they ripen earlier and can only withstand short transfers with constant monitoring between harvesting and loading. The cold chain must not be interrupted, and humidity levels must be optimal. This sophisticated process discourages local exporters from sending produce to Europe."

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<sup>i</sup> <https://www.fao.org/faostat/en/#data>

<sup>ii</sup> <https://www.globaltrademag.com/despite-record-exports-from-ecuador-banana-prices-continue-to-rise-on-robust-demand/>

<sup>iii</sup> <https://www.tridge.com/intelligences/cavendish-banana>

<sup>iv</sup> [https://ec.europa.eu/info/food-farming-fisheries/farming/facts-and-figures/markets/overviews/market-observatories/fruit-and-vegetables/bananas-statistics\\_en#statistics](https://ec.europa.eu/info/food-farming-fisheries/farming/facts-and-figures/markets/overviews/market-observatories/fruit-and-vegetables/bananas-statistics_en#statistics)

<sup>v</sup> <https://www.oecd-ilibrary.org/sites/e1ed44a3-en/index.html?itemId=/content/component/e1ed44a3-en>

<sup>vi</sup> [https://agfstorage.blob.core.windows.net/misc/FP\\_com/2021/10/11/Ban.pdf](https://agfstorage.blob.core.windows.net/misc/FP_com/2021/10/11/Ban.pdf)

<sup>vii</sup> <https://www.businessmarketinsights.com/reports/europe-banana-flakes-market>

<sup>viii</sup> In India, Bananas account for 20% of the total area under crop cultivation

<sup>ix</sup> <https://www.abcfruits.net/banana-varieties-production-and-season-in-india/>

<sup>x</sup> <https://link.springer.com/content/pdf/10.1007%2F978-981-33-4268-2.pdf>

<sup>xi</sup> [https://www.rbi.org.in/scripts/BS\\_ViewBulletin.aspx?Id=18527](https://www.rbi.org.in/scripts/BS_ViewBulletin.aspx?Id=18527)

<sup>xii</sup> [http://plantarchives.org/SPECIAL%20ISSUE%202021-1/365%20\(2215-2216\).pdf](http://plantarchives.org/SPECIAL%20ISSUE%202021-1/365%20(2215-2216).pdf)