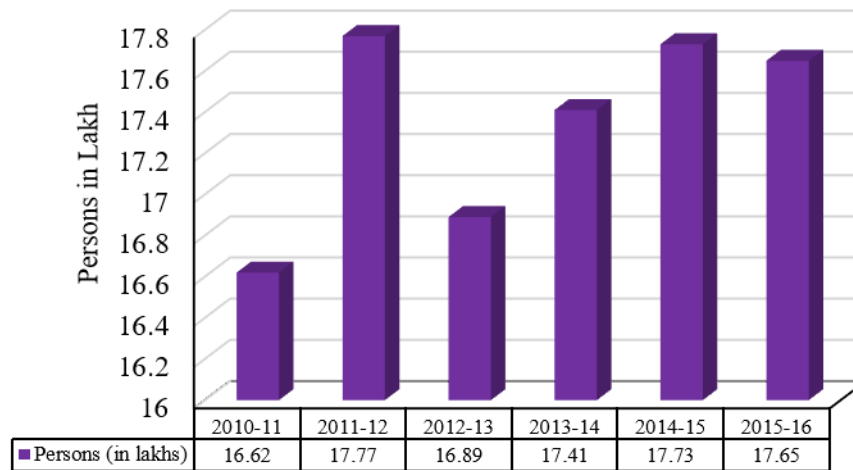


2. AGRO PROCESSING

A strong and dynamic Agro processing sector plays a vital role in reducing the wastage of perishable agricultural produce, enhancing shelf life of food products, ensuring value addition to agricultural produce, diversification & commercialization of agriculture, generation of employment, and enhancing income of farmers. This section contains 15 tables briefing the food processing sectors, its distribution and economic characteristics. Export, import, FDI, Gross value addition through food processing industry are covered. Post-harvest losses, storage capacities in various sectors are also listed. Different test codes for post-harvest equipment testing and various testing centres are covered in the appendix section.

Fig. 2.1: Persons Employed in Registered Food Processing Units



Source: Pp 177, State of Indian Agriculture, 2017.

https://eands.dacnet.nic.in/PDF/State_of_Indian_Agriculture,2017.pdf. Accessed on 24.02.2021.

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Table 2.1: Economic Characteristics of Food Processing Sectors in India

Sl. No.	States	Number of Enterprises	Percentage Share of Enterprises
1	Andhra Pradesh	1,54,330	6.27
2	Arunachal Pradesh	145	0.01
3	Assam	65,997	2.68
4	Bihar	1,45,300	5.91
5	Chhattisgarh	26,957	1.10
6	Delhi	14,350	0.58
7	Goa	2,929	0.12
8	Gujrat	94,066	3.82
9	Haryana	24,577	1.00
10	Himachal Pradesh	21,885	0.89
11	J&K	28,089	1.14
12	Jharkhand	1,16,536	4.74
13	Karnataka	1,27,458	5.18
14	Kerala	77,167	3.14
15	Madhya Pradesh	1,02,808	4.18
16	Maharashtra	2,29,372	9.32
17	Manipur	6,038	0.25
18	Meghalaya	3,268	0.13
19	Mizoram	1,538	0.06
20	Nagaland	3,642	0.15
21	Odisha	77,781	3.16
22	Punjab	63,626	2.59
23	Rajasthan	1,01,666	4.13
24	Sikkim	101	0.00
25	Tamil Nadu	1,78,527	7.26
26	Telangana	80,392	3.27
27	Tripura	13,998	0.57
28	Uttar Pradesh	3,50,883	14.26
29	Uttarakhand	18,116	0.74
30	West Bengal	3,22,590	13.11
31	A&N Islands	774	0.03
32	Chandigarh	656	0.03
33	Dadra & Nagar Haveli	622	0.03
34	Daman & Diu	136	0.01
35	Lakshadweep	127	0.01
36	Puducherry	3,482	0.14
Total			24,59,929

Source: NSS report No 582 (73/2.34/2) on Economic Characteristics of Unincorporated Non Agricultural Enterprises (Excluding Construction) in India; NSS 73rd Round (July 2015-June 216).

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Table 2.2: Registered Food Processing Industries- State wise (2017-18)

Sl. No.	State	Factories (No.)	Share of Factories, (%)	Employment (Total persons employed)	Share of Employment, (%)	GVA
1	A & N islands	6	0.0	68	0.0	145
2	Andhra Pradesh	5,789	14.4	1,68,404	8.7	9,79,381
3	Arunachal Pradesh	29	0.1	999	0.1	5,442
4	Assam	1,470	3.7	88,415	4.6	3,07,879
5	Bihar	880	2.2	24,258	1.3	1,63,019
6	Chandigarh	17	0.0	690	0.0	4,599
7	Chhattisgarh	1,468	3.7	26,837	1.4	1,30,486
8	Dadra & Nagar	9	0.0	336	0.0	1,991
9	Daman & Diu	30	0.1	1,773	0.1	20,900
10	Delhi	171	0.4	13,400	0.7	1,21,325
11	Goa	112	0.3	6,795	0.4	83,095
12	Gujarat	2,281	5.2	1,22,015	6.3	8,30,220
13	Haryana	952	2.4	68,637	3.6	4,83,581
14	Himachal Pradesh	171	0.4	12,949	0.7	1,44,272
15	Jammu & Kashmir	174	0.4	9,910	0.5	67,601
16	Jharkhand	235	0.6	7,670	0.4	50,126
17	Karnataka	2,313	5.8	1,37,854	7.1	1,133,371
18	Kerala	1,672	4.2	1,01,668	5.3	3,52,268
19	Madhya Pradesh	948	2.4	57,688	3.0	6,27,342
20	Maharashtra	2,762	6.9	2,38,477	12.3	24,00,096
21	Manipur	27	0.1	727	0.0	1,041
22	Meghalaya	27	0.1	1242	0.1	13,279
23	Nagaland	21	0.1	274	0.0	883
24	Odisha	1,157	2.9	34,073	1.8	1,16,735
25	Puducherry	61	0.2	3,510	0.2	46,979
26	Punjab	2,969	7.4	1,49,319	7.7	5,35,067
27	Rajasthan	888	2.2	42,838	2.2	3,56,554
28	Sikkim	20	0.0	2,008	0.1	23,729
29	Tamil Nadu	4,952	12.3	2,26,675	11.7	12,86,959
30	Telangana	3,949	9.8	68,669	3.6	4,87,851
31	Tripura	102	0.3	2,509	0.1	9,737
32	Uttar Pradesh	2,098	5.2	1,71,058	8.8	14,45,260
33	Uttarakhand	394	1.0	31,822	1.6	2,29,814
34	West Bengal	2,006	5.0	1,09,862	5.7	6,03,529
Total		40,160	99.8	19,33,429	100.0	1,30,64,556

Source: Annual survey of Industries (2017-18), Central Statistics office, New Delhi, India.
<https://www.mofpi.nic.in/documents/statistics>. Accessed on 24.02.2021.

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Table 2.3: Number of Registered Food Processing Units - Industry wise

Estimated Number of Registered Food Processing Units : Industry wise											
Sl. No	Description	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
1	Processing and preserving of meat	90	85	115	146	140	148	170	148	181	180
2	Processing and preserving of fish, crustaceans and molluscs and products thereof	352	359	436	390	462	466	427	534	535	538
3	Processing and preserving of fruits and vegetables	709	832	1,052	1,078	1,110	1,101	1,133	1,192	1,254	1,256
4	Manufacture of vegetable and animal oils and fats	2,429	2,421	3,307	3,394	3,312	3,300	3,240	3,147	3,112	3,044
5	Manufacture of dairy products	1,100	1,112	1,493	1,653	1,695	1,753	1,783	1,943	2,039	2,064
6	Manufacture of grain mill products	13,464	13,397	17,792	18,244	18,131	18,272	18,953	19,141	18,899	19,060

Source:Annual Survey of Industries (ASI), MoFPI.
https://mofpi.nic.in/sites/default/files/5_3.pdf. Accessed on 24.02.2021.

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Table 2.4: Value of Exports of Major Processed Food Items from India (2020-21)

Product	Qty In MT ; Value in Rs. (Crore)					
	2018-19		2019-20		2020-21 (April-January)	
	Qty	Value	Qty	Value	Qty	Value
Non-Basmati Rice	75,99,674.10	21,185.28	50,40,707.72	14,364.66	94,60,625.09	26,056.18
Basmati Rice	44,14,584.16	32,804.30	44,54,656.69	31,025.88	37,60,631.39	24,380.60
Buffalo Meat	12,36,638.40	25,168.31	11,52,547.31	22,668.47	8,95,020.39	19,450.55
Miscellaneous Preparations	5,17,179.51	4,072.99	3,27,513.08	4,147.89	4,87,279.71	4,702.42
Groundnuts	4,89,187.11	3,298.33	6,64,442.92	5,096.39	5,42,877.01	4,507.33
Cereal Preparations	3,47,752.08	3,859.57	3,41,736.11	3,871.81	3,25,789.01	3,866.34
Maize	10,51,855.92	1,872.51	3,70,066.09	1,019.30	22,03,497.18	3,467.16
Processed Vegetables	2,48,122.33	2,474.00	2,53,276.97	2,760.53	3,41,611.54	3,063.77
Processed Fruits, Juices & Nuts	3,39,606.57	2,804.97	3,60,488.14	3,086.44	2,51,450.01	2,607.77
Wheat	2,26,224.99	424.95	2,17,354.23	439.14	13,13,144.21	2,512.77
Fresh Onions	21,83,766.42	3,468.87	11,49,896.84	2320.70	13,72,210.53	2,319.57
Alcoholic Beverages	2,31,601.93	2,103.97	1,39,364.43	1,648.62	2,14,032.76	2,054.08
Jaggery and Confectionery	3,13,869.81	1,606.47	3,41,155.34	1,633.29	4,69,635.59	1,988.25
Other Fresh Vegetables	7,35,743.10	2,069.66	7,54,007.57	2,064.77	5,58,654.58	1,810.24
Pulses	2,89,617.95	1,822.58	2,35,699.03	1,533.74	2,49,379.86	1,784.40
Other Fresh Fruits	3,72,213.73	1,834.57	4,96,577.66	2,065.82	4,59,666.67	1,726.01
Guargum	5,13,211.87	4,707.05	3,81,880.14	3,261.60	1,90,803.74	1,575.16
Cucumber and Gherkins(Prepd. &Presvd)	2,12,819.85	1,437.13	1,89,342.90	1,241.21	1,78,671.36	1,320.60
Milled Products	3,07,367.50	1,060.15	2,83,380.99	1,064.62	3,13,328.09	1,239.00
Dairy Products	1,13,725.73	2,423.01	51,421.83	1,341.01	41,971.53	1,197.66
Cocoa Products	27,603.73	1,350.86	27,410.58	1,274.34	20,596.18	896.74
Fruits and Vegetables Seeds	16,151.15	849.23	14,796.09	723.44	9,037.16	678.09
Mango Pulp	1,05,873.22	657.67	85,725.57	584.32	84,462.55	614.72

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Fresh Grapes	2,46,133.77	2,335.25	1,93,690.51	2,176.87	59,455.35	583.83
Natural Honey	61,333.90	732.19	59,536.76	633.79	46,750.26	537.25
Floriculture	19,726.56	571.41	16,949.39	541.61	12,761.83	457.80
Animal Casings	14,882.83	480.66	12,816.18	398.50	12,015.22	359.24
Poultry Products	5,44,985.05	687.31	3,50,817.81	574.58	1,99,302.47	353.30
Other Cereals	2,25,152.54	554.24	1,31,416.50	438.14	1,15,756.15	349.96
Sheep/Goat Meat	18,424.97	790.65	14,128.84	646.69	5,885.69	271.55
Fresh Mangoes	46,510.22	406.50	49,658.68	400.21	17,775.29	210.25
Casein	5,638.75	220.53	164.40	7.55	2,169.17	113.02
Others (Betel Leaves & Nuts)	17,364.51	174.27	14,003.48	137.13	6,244.59	105.67
Albumin(Eggs & Milk)	2,196.83	103.06	2,483.48	82.35	1,925.87	79.60
Walnuts	1,874.86	66.77	1,648.22	52.78	741.79	21.23
Other Meat	852.36	13.73	1,030.41	16.32	572.34	11.27
Processed Meat	405.63	13.52	439.61	14.72	569.18	9.08
Total	2,30,99,873.94	1,30,506.52	1,81,82,232.50	1,15,359.23	2,42,26,301.34	1,17,282.46

Source: https://agriexchange.apeda.gov.in/index/genReport_combined.aspx#content. Accessed on 08.05.2021.

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Table 2.5: Three Year Export Statement of Principal Products (2018-21)

PRODUCT	2017-18		2018-19		2019-20		2020-21 (April- Feb)	
	Qty	Value	Qty	Value	Qty	Value	Qty	Value
FLORICULTURE								
Fruits / Vegetable Seeds	14,415.85	665.25	15,285.02	865.48	19,157.11	771.53	24,273.86	831.97
Floriculture	20,772.46	507.26	19,677.45	571.02	16,969.86	541.61	14,312.29	519.14
Total	35,188.31	1,172.51	34,962.47	1,436.5	36,126.97	1,313.14	38,586.15	1,351.11
FRESH FRUITS & VEGETABLES								
Fresh Vegetables	22,96,075	4,997.49	29,15,109	5,311.73	19,27,788	4,616.36	2,084,599	4,780.26
Fresh Fruits	6,57,175	4,746.31	7,36,946	5,304.05	8,19,177	5,449.75	770,407	4,285.71
Total	29,53,250	9,743.8	36,52,055	10,615.78	27,46,965	10,066.11	28,55,006	9,065.97
PROCESSED FRUITS AND VEGETABLES								
Pulses	1,79,113	1,467.51	2,85,783	1,795.12	2,29,637	1,491.14	25,5,415	1,827.83
Processed Vegetables	21,2175.4	1,823.25	2,28,891.17	2,054.9	2,23,145.16	2,210.51	3,35,228.90	2,845.86
Processed Fruits & Juices	571,117.62	4,164.78	5,90,009.68	4,476.5	5,68,865.85	4,590.61	4,85,180.70	4,665.85
Total	9,62,406.02	7,455.54	1,104,683.85	8,326.52	10,21,648.01	8,292.26	10,75,825	9,339.54
OTHER PROCESSED FOODS								
Guar gum	4,94,126	4,169.56	5,13,218	4,707.05	3,63,809	3,185.19	2,10,712	1,741.52
Groundnut	5,03,155	3,384.42	4,88,233	3,295.54	6,64,436	5,096.39	5,89,658	4,910.92
Cereal Preparations	3,52,478	3,558.36	3,45,050	3,845.71	3,42,996	3,871.59	3,66,595	4261
Milled Products	2,68,170.08	874.11	307,007.09	1,058.72	283,275.55	1,063.76	3,56,721.20	1,382.13
Alcoholic Beverages	2,41,231.46	2,106.96	2,31,509.84	2,103.52	1,39,601.86	1,648.62	2,30,737.80	2,265.29
Misc Processed Items	0	3,701.82	0	4,599.51	0	4,677.06	0	5,678.95
Cocoa Products	29,469.86	1,143.41	28,124.9	1,350.86	28,259.14	1,274.34	23,432.45	1,005.89
Total	18,88,630.4	18,938.64	19,13,142.83	20,960.91	18,22,377.55	20,816.95	17,77,856	2,1245.7
CEREALS								
Basmati Rice	40,51,896	26,841.19	44,15,085	32,805.53	44,54,713	31,025.88	41,52,581	26,850.95
Wheat	2,29,989	431.74	1,83,162	369.17	2,17,010	438.40	17,06,902	3,282.77
Other Cereals	8,19,750	1,596.39	12,21,285	2,354.99	5,00,837	1,449.01	27,26,706	4,541.78
Non-Basmati Rice	86,33,237	22,927.06	75,34,205	20,903.22	50,36,190	14,352.75	110,98,668	30,276.74
Total	137,34,872	51,796.38	133,53,737	56,432.91	102,08,750	47,266.04	196,84,857	64,952.24

Source:DGCIS Annual Data.

<https://agriexchange.apeda.gov.in/indexp/18headproduct.aspx?val=3&valuesgrowth=1>. Accessed on 24.02.2021.

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Table 2.6: Three Years Import Statement of Principal Products (2018-21)

PRODUCT	Value in Rs. (Crore); Qty In MT							
	2017-18		2018-19		2019-20		2020-21 (April- Feb)	
	Qty	Value	Qty	Value	Qty	Value	Qty	Value
FLORICULTURE								
Floriculture	6,241.10	136.46	6,374.47	174.09	7,313.92	229.64	3601.33	131.20
Fruits & Vegetables Seeds	16,051.46	768.26	19,609.09	805.57	17,776.85	851.79	24,352.93	967.64
Total	22,292.56	904.72	2,59,83.56	979.66	25,090.77	1,081.43	27,954.26	1,098.84
FRESH FRUITS & VEGETABLES								
Fresh Onions	6,592.59	11.88	7,080.71	8.42	1,41,189.87	567.41	65,769.43	209.46
Other Fresh Vegetables	9,014.51	13.77	7,659.07	15.35	11,139.46	30.64	13,828.3	43.97
Walnuts	19,573.76	359.43	13,640.47	267.87	21,305.23	494.95	28,410.10	558.52
Fresh Mangoes	12.14	0.18	30.54	0.51	138.60	2.21	17.29	0.42
Fresh Grapes	5,626.96	73.53	7,006.13	86.16	7,583.78	85.82	6,129.96	68.14
Other Fresh Fruits	7,53,595.63	4,497.02	8,85,224.87	5,500.84	7,16,428.98	4,824.07	6,09,615.9	4,347.04
Others (Betel Leaves & Nuts)	19,185.59	429.31	20,681.80	480.87	16,885.81	346.79	22,109.87	464.89
Total	8,13,601.18	5,385.12	941,323.59	6,360.02	914,671.73	6,351.89	7,45,880.80	5,692.44
PROCESSED FRUITS AND VEGETABLES								
Cucumber and Gherkins(Prepd.&Presvd)	434.33	2.71	338.61	2.91	192.08	2.21	149.45	0.97
Processed Vegetables	17,152.55	157.89	20,308.19	184.58	36,329.49	280.14	17,130.84	161.57
Mango Pulp	0	0	160.2	1.06	500.13	3.71	47.60	0.26
Processed Fruits, Juices & Nuts	73,470.72	1,372.03	81,424.7	1,625.66	79,145.38	1,540.03	56,354.93	1,113.61
Pulses	56,76,278.29	19,052.65	25,95,914.15	8,289.59	29,75,366.81	10,527.35	23,19,719	11,065.01
Total	57,67,335.89	20,585.28	26,98,145.85	10,103.8	30,91,533.89	12,353.44	23,93,402	12,341.42
OTHER PROCESSED FOODS								
Groundnuts	1,719.40	13.04	1,086.89	8.14	1,952.05	11.47	1,036.15	7.95
Guar gum	431.71	3.30	715.16	5.90	2,150.09	25.90	326.99	8.00
Jaggery & Confectionery	82,663.92	682.72	78,982.56	688.55	80,380.59	756.03	68,810.66	737.13

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Cocoa Products	7,12,57.55	1,473.10	87,593.24	1,845.85	85,276.20	1,833.97	71,183.99	1,594.88
Cereal Preparations	71,097.54	659.68	90,248.58	967.21	96,278.08	1,007.31	90,415.18	981.49
Milled Products	3,275.70	13.02	4,184.83	15.60	4,325.18	16.11	1942.54	7.97
Alcoholic Beverages	5,63,713.41	3,875.86	5,87,958.73	4,678.72	5,76,784.39	4,643.52	5,29,590.10	3,213.50
Miscellaneous Preparations	1,31,055.23	1,482.09	2,29,465.71	2,436.12	2,75,743.79	2,507.04	1,57,951.90	1,705.17
Total	9,25,214.46	8,202.81	10,80,235.70	10,646.09	11,22,890.37	10,801.35	9,21,257.50	8,256.09
CEREALS								
Non Basmati Rice	2,123.98	12.18	6,870.91	32.18	5,638.47	78.75	4,276.26	22.13
Wheat	16,49,724.88	2,357.84	2,746.56	5.44	1,884.51	4.63	2.66	0
Maize	30,696.54	102.06	86,024.79	183.38	4,58,510.71	843.2	22,162.73	70.92
Other Cereals	2,34,434.44	331.85	1,58,297.95	287.89	2,14,639.12	379.76	22,162.73	70.92
Total	19,16,979.84	2,803.93	2,53,940.21	508.89	6,80,672.81	1,306.34	48,604.38	163.97

Source: 1) DGCIS, Kolkata Annual Data.

2) <https://agriexchange.apeda.gov.in/importtoindia/exportstatement.aspx>. Accessed on 24.02.2021.

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Table 2.7: Central Licenses, State Licenses and Registration (Issued, expired and Active) by FSSAI as on 31st March 2021

Sl. No.	State	Active Central License	Active State License	Active Registration Certificates
1	A & N islands	6	1,184	5,128
2	Andhra Pradesh	1,297	29,368	39,525
3	Arunachal Pradesh	19	1,310	1,227
4	Assam	1,019	9,092	12,996
5	Bihar	293	19,816	36,672
6	Chandigarh	110	2,996	2,204
7	Chhattisgarh	342	16,338	76,299
8	Dadra & Nagar	19	1,084	2,181
9	Daman & Diu	29	493	3,062
10	Delhi	4,759	24,968	62,944
11	Goa	214	3,352	22,341
12	Gujarat	5,156	56,703	1,18,828
13	Haryana	2,052	13,644	42,458
14	Himachal Pradesh	282	6,247	733,19
15	Jammu & Kashmir	250	7,591	78,677
16	Jharkhand	151	5,235	39,266
17	Karnataka	2,479	5,768	1,73,864
18	Kerala	1,844	43,425	3,26,389
19	Ladakh	10	243	2,930
20	Lakshadweep	1	22	1,947
21	Madhya Pradesh	1,334	29,947	2,28,219
22	Maharashtra	8,533	1,67,502	7,60,970
23	Manipur	28	1,287	10,811
24	Meghalaya	34	1,417	2,956
25	Mizoram	22	460	1,774
26	Nagaland	19	276	1,765
27	Odisha	312	13,335	39,705
28	Puducherry	97	1,955	5,732
29	Punjab	1,254	19,957	51,630
30	Rajasthan	1,822	43,401	2,24,911
31	Sikkim	22	450	4,593
32	Tamil Nadu	5,153	10,67,968	4,47,893
33	Telangana	1,397	24,863	472,94
34	Tripura	73	1,227	2,111
35	Uttar Pradesh	457	6,972	37,527
36	Uttarakhand	2,840	69,706	5,32,080
37	West Bengal	2,437	32,460	1,11,161
Total		46,166	8,22,672	36,40,187

Source: https://fssai.gov.in/upload/uploadfiles/files/SNo_1_CL_SL_March_Registration_2018_19_20_Issued_Licenses_08_04_2021.pdf. Accessed on 08.05.2021.

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Table 2.8: Quantitative Harvest and Post-Harvest Losses of Major Crops and Commodities in India

Crop	Total losses in farm operations (%)	Total losses in storage operations (%)	Overall harvest and post-harvest loss (%)
Cereals			
Paddy	4.67	0.86	5.53
Wheat	4.07	0.86	4.93
Maize	3.90	0.75	4.65
Bajra	4.43	0.79	5.23
Sorghum	4.78	1.21	5.99
Pulses			
Pigeon pea	4.69	1.67	6.36
Chick pea	7.23	1.18	8.41
Black gram	5.89	1.18	7.07
Green gram	5.37	1.24	6.60
Oilseed			
Mustard	5.32	0.22	5.54
Cotton seed	2.54	0.54	3.08
Soybean	8.95	1.00	9.95
Safflower	2.80	0.44	3.24
Sunflower	3.65	1.61	5.26
Groundnut	5.09	0.95	6.03
Fruits			
Apples	9.08	1.31	10.39
Banana	6.04	1.72	7.76
Citrous	7.55	2.14	9.67
Grapes	6.52	2.11	8.63
Guava	11.90	3.98	15.88
Mango	6.92	2.24	9.16
Papaya	4.12	2.58	6.70
Sapota	7.41	2.31	9.73
Vegetables			
Cabbage	6.81	2.56	9.37
Cauliflower	7.55	2.00	9.56
Green pea	5.72	1.73	7.45
Mushroom	7.32	2.19	9.51
Onion	6.05	2.16	8.20
Potato	6.54	0.78	7.32
Tomato	9.41	3.03	12.44
Tapioca	3.22	1.36	4.58
Plantation crops and Spices			
Areca nut	3.94	0.97	4.91
Black pepper	0.99	0.20	1.18
Cashew	3.82	0.35	4.17
Chili	5.11	1.40	6.51
Coconut	3.45	1.32	4.77
Coriander	5.33	0.55	5.87
Sugarcane	7.29	0.60	7.89
Turmeric	3.60	0.84	4.44
Livestock produces			
Egg	4.88	2.31	7.19
Inland fish	4.18	1.05	5.23
Marine fish	9.61	0.91	10.52
Meat	1.99	0.72	2.71
Poultry meat	2.74	4.00	6.74
Milk	0.71	0.21	0.92

Source: ICAR CIPHET, Ludhiana report, 2015. Ministry of Food Processing Industries, Govt of India.

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Table 2.9: India Share in Global Food Trade

	(US \$Million)			
	2015	2016	2017	2018
World food export	13,04,998.95	13,25,685.67	14,33,362.50	14,71,089.23
World food import	13,33,359.41	13,36,423.20	14,45,981.58	15,05,427.59
India Food export to world	30,417.56	29,199.88	34,434.32	34,023.88
India Food export from world	20,783.16	21,939.09	25,064.67	19,561.08
% share of India's food export in world	2.33	2.20	2.40	2.31
% share of India's food export from world	1.56	1.64	1.73	1.30

Source:MOFPI Annual report 2019-20.

Table 2.10: Foreign Direct Investment in Food Processing Industries

Sl. No.	Year (April- March)	FDI (Rs, Crores)	FDI (US\$ Million)
1	2010-11	860.99	188.67
2	2011-12	859.02	170.21
3	2012-13	2,193.65	401.46
4	2013-14	25,106.77	3,982.89
5	2014-15	3,164.72	515.86
6	2015-16	3,312.00	505.88
7	2016-17	4,865.85	727.22
8	2017-18	5,835.62	904.90
9	2018-19	4,430.44	628.24
10	2019-20	6380.08	904.70

Source:MOFPI Annual report 2019-20.

<https://economictimes.indiatimes.com/news/economy/finance/fdi-in-food-processing-rises-44-pc-to-904-7-mn-in-2019-20/articleshow/76326264.cms> updated on June 11, 2020.

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Table 2.11: Gross Value Added (GVA) by Food Processing Industries (FPI) at Current Prices

(Rs. In Lakh Crore)								
Sl. No.	Economic Activity	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	GVA- All India	92.03	103.63	115.04	125.74	139.65	155.13	171.40
2	GVA- Manufacturing	15.73	17.13	18.78	21.46	23.34	25.47	27.67
3	GVA- Agriculture, Forestry and Fishing	16.75	19.26	20.94	22.28	25.19	27.97	29.23
4	GVA- FPI	1.41	1.50	1.56	1.84	2.26	2.43	2.63
(%) Growth								
Sl. No.	Economic Activity	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
5	GVA- All India	13.52	12.60	11.01	9.30	11.06	11.08	10.49
6	GVA- Manufacturing	11.56	8.90	9.63	14.27	8.76	9.13	8.64
7	GVA- Agriculture, Forestry and Fishing	11.52	14.99	8.72	6.40	13.06	11.04	4.50
8	GVA- FPI	-4.08	6.38	4.00	17.95	22.83	7.52	8.23
(%) Share in Total GVA of								
Sl. No.	Economic Activity	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
9	GVA- All India	1.53	1.45	1.36	1.46	1.62	1.57	1.53
10	GVA- Manufacturing	17.09	16.53	16.32	17.07	16.71	16.42	16.14
11	GVA- Agriculture, Forestry and Fishing	18.20	18.59	18.20	17.72	18.04	18.03	17.05
(%) Share of FPI in								
Sl. No.	Economic Activity	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
12	GVA- Manufacturing	8.96	8.76	8.31	8.57	9.68	9.54	9.50

Note:All GVAs have been adjusted for Financial Intermediation Services Indirectly Measured (FISIM).

Source: National Accounts Division, Central Statistics Office.

https://mofpi.nic.in/sites/default/files/gva_constant_4.pdf. Accessed on 24.02.2021.

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Table 2.12: Pattern of Processed Foods in International Trade (2016-18)

Sl. No.	Industry	Percentage
1	Meat and Meat Products	18
2	Fish and Fish products	13
3	Fruits	9
4	Vegetable and animal oil and fat	14
5	Dairy products	10
6	Grain Mill Products	5
7	Starches	2
8	Prepared animal feed	3
9	Bakery products	4
10	Sugar	3
11	Cocoa, Chocolate etc.	6
12	Others	13

Source: Food Processing Industry in India: Challenges and Potential, Reserve Bank of India, Bulletin, March 11, 2020.

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Table 2.13: State-wise Number and Capacity of Cold Storages for Storing Perishable Horticultural Produce in India (As on 31.08.2020)

States/UTs	No. of Cold Storages	Capacity(In MT)
A & N Islands	3	810
Andhra Pradesh	405	15,67,664
Arunachal Pradesh	2	6,000
Assam	39	1,78,096
Bihar	311	14,79,122
Chandigarh	7	12,462
Chhattisgarh	99	4,87,292
Delhi	97	1,29,857
Goa	29	7,705
Gujarat	969	38,22,112
Haryana	359	8,19,809
Himachal Pradesh	76	1,46,769
Jammu and Kashmir	69	2,50,169
Jharkhand	58	2,36,680
Karnataka	223	6,76,832
Kerala	199	81,705
Lakshadweep	1	15
Madhya Pradesh	302	12,93,574
Maharashtra	619	10,09,693
Manipur	2	4,500
Meghalaya	4	8,200
Mizoram	3	4,001
Nagaland	3	7,150
Odisha	179	5,72,966
Puducherry	3	85
Punjab	697	23,15,096
Rajasthan	180	6,11,831
Sikkim	2	2,100
Tamil Nadu	183	3,82,683
Telangana	74	4,10,905
Tripura	14	4,6,354
Uttar Pradesh	2,406	1,47,14,235
Uttarakhand	55	1,91,314
West Bengal	514	59,47,311
India	8,186	3,74,25,097

Source: Rajya Sabha Unstarred Question No. 1446, dated on 23.09.2020.

<https://www.indiastat.com/table/agriculture/state-wise-number-capacity-cold-storages-storing-p/1383948>. Accessed on 24.02.2021.

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Table 2.14: Selected State-wise Capacity Plan for Construction of Godowns by Central Warehousing Corporation (CWC) in India (2020-21)

States	Capacity (In MT)
Andhra Pradesh	10,750
Gujarat	19,274
Haryana	14,800
Karnataka	10,400
Kerala	4,300
Madhya Pradesh	10,600
Maharashtra	15,772
Odisha	8,325
Rajasthan	35,000
Uttar Pradesh	13,250
India	1,42,471

Source: Lok Sabha Unstarred Question No. 1420, dated on 20.09.2020.

<https://www.indiastat.com/table/agriculture/selected-state-wise-capacity-plan-construction-god/1375982>.

Accessed on 24.02.2021.

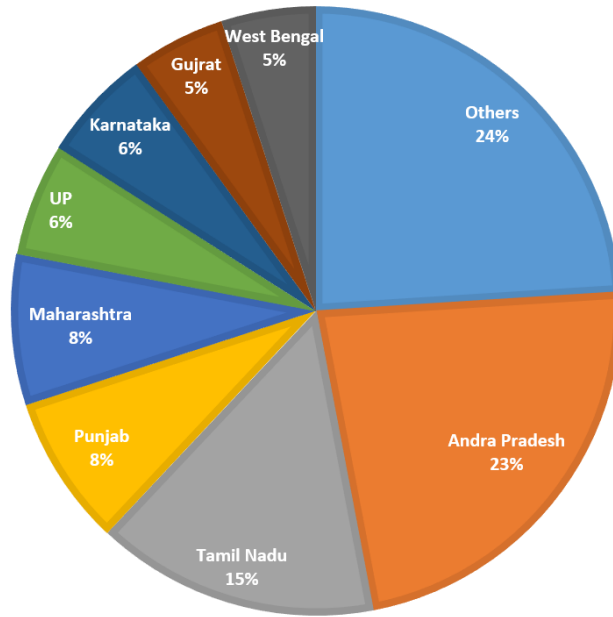
Table 2.15: Details of Primary and Referral Food Testing Laboratories

Primary food testing laboratories		Numbers
1	State food laboratories	12
2	Labs of Central Government institutes/autonomous bodies	19
3	Private laboratories	190
4	Government laboratories under transition provision	76
Total primary food testing laboratories		297
Referral food testing laboratories		
1	Labs under Central Government institutes/autonomous bodies	19
2	Food Authority's own laboratories	2
Total referral laboratories		21

Note: Recognized and notified under the transition provision under section 98 of FSS Act 2006.

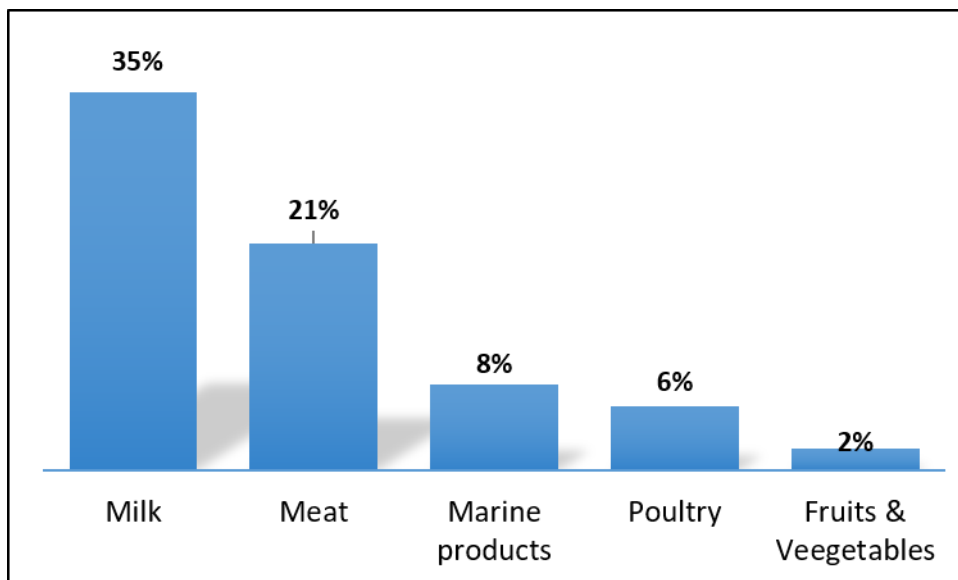
Source: https://fssai.gov.in/upload/uploadfiles/files/Annual_Report_2018_19_English_28_10_2020.pdf.

Fig. 2.2: State-wise Share of Food Processing Industries



Source:Fruits & Vegetables Availability Maps of India <https://mofpi.nic.in/sites/default/files/mapfileversion.pdf>.

Fig. 2.3: Current Food Processing Level as Percentage of Production



Source:Fruits & Vegetables Availability Maps of India <https://mofpi.nic.in/sites/default/files/mapfileversion.pdf>.