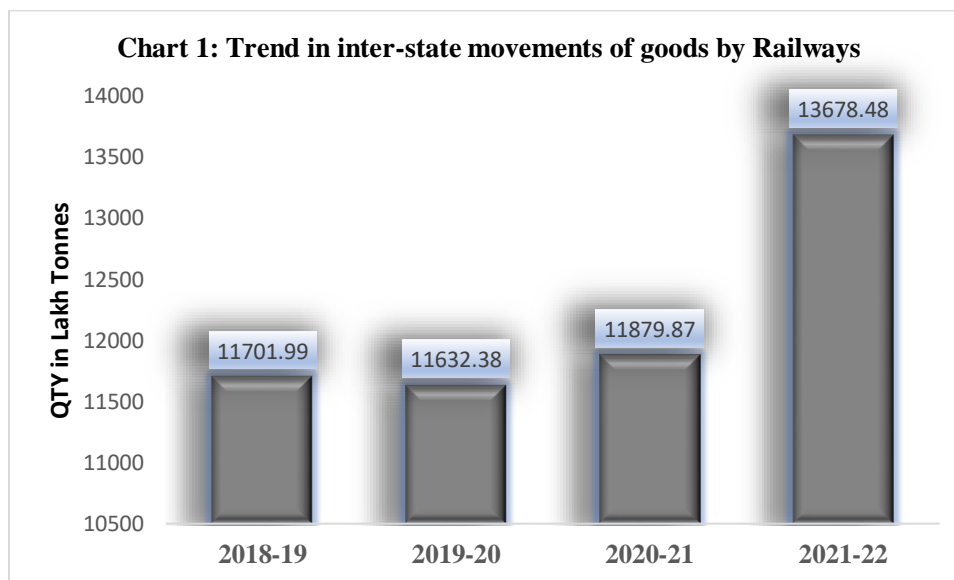


Chapter I

Inter-state movements/flows of goods by Railways in 2021-22

Rail is the one of the important modes of inter-state movement of goods in India. Indian Railways is transporting commodities to different parts of the country using freight trains.



During 2021-22, total 13678.48 lakh tonnes of goods were transported by rail within India, including internal movement, which shows a positive growth of 15.14 % over 11879.87 lakh tonnes in 2020-21. During 2021-22, total outward/inward movement of goods by rail was of 9120.9 lakh tonnes, a rise by 18.36% over 7706.2 lakh tonnes in 2020-21.

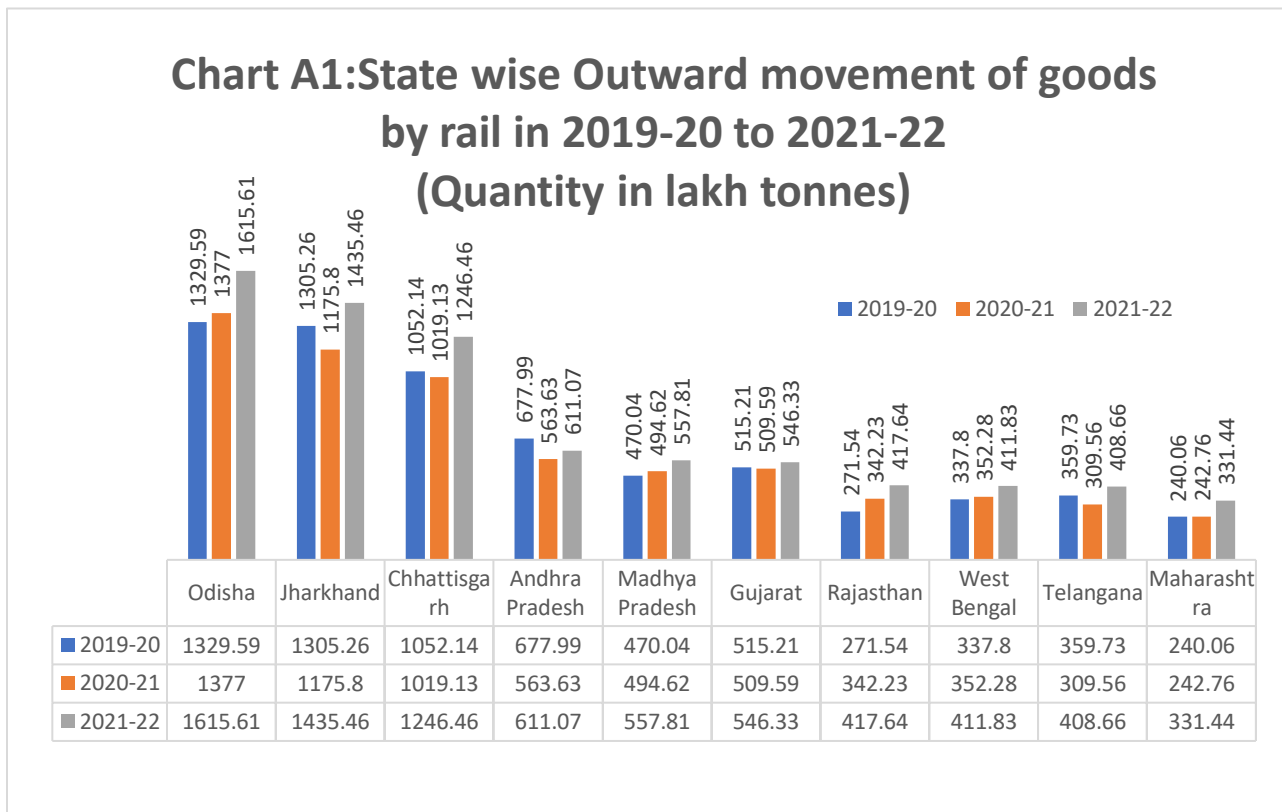
State wise movement by Rail

Outward Movement by Rail

Share of top 10 states in total outward movement of goods by rail in 2021-22 is 83.13%. which is a marginal decrease of 0.34% than 2020-21. However, in 2020-21 it witnessed decline by 1.92% over 2019-20. A decline in this share indicates a movement towards more diversification while an increase in it indicates more concentration.

As shown in table A1, Odisha is the most contributing state in total outward movement of goods in 2021-22, with share 17.71% followed by Jharkhand (15.74%) and Chhattisgarh (13.67%).

Table A1: Trend in outward movements of goods of top 10 most contributing states comparison with previous 2 years of those states by Rail (Quantity in lakh tonnes)							
States	2019-20	2020-21	2021-22	Share in 2019-20	Share in 2020-21	Share in 2021-22	Growth in 2021-22 over 2020-21
Odisha	1329.59	1377	1615.61	17.23%	17.87%	17.71%	17.33%
Jharkhand	1305.26	1175.80	1435.46	16.92%	15.26%	15.74%	22.08%
Chhattisgarh	1052.14	1019.13	1246.46	13.64%	13.22%	13.67%	22.31%
Andhra Pradesh	677.99	563.63	611.07	8.79%	7.31%	6.70%	8.42%
Madhya Pradesh	470.04	494.62	557.81	6.09%	6.42%	6.12%	12.77%
Gujarat	515.21	509.59	546.33	6.68%	6.61%	5.99%	7.21%
Rajasthan	271.54	342.23	417.64	3.52%	4.44%	4.58%	22.04%
West Bengal	337.80	352.28	411.83	4.38%	4.57%	4.52%	16.90%
Telangana	359.73	309.56	408.66	4.66%	4.02%	4.48%	32.01%
Maharashtra	240.06	242.76	331.44	3.11%	3.15%	3.63%	36.53%
Top 10 states	6559.35	6386.57	7582.30	85.02%	82.88%	83.13%	18.72%
Others	1155.91	1319.64	1538.62	14.98%	17.12%	16.87%	16.59%
Total	7715.27	7706.21	9120.92				18.36%



From the chart a1, it is clear that outward movement of goods in 2021-22 was more than that in 2020-21 and 2019-20 for all the states.

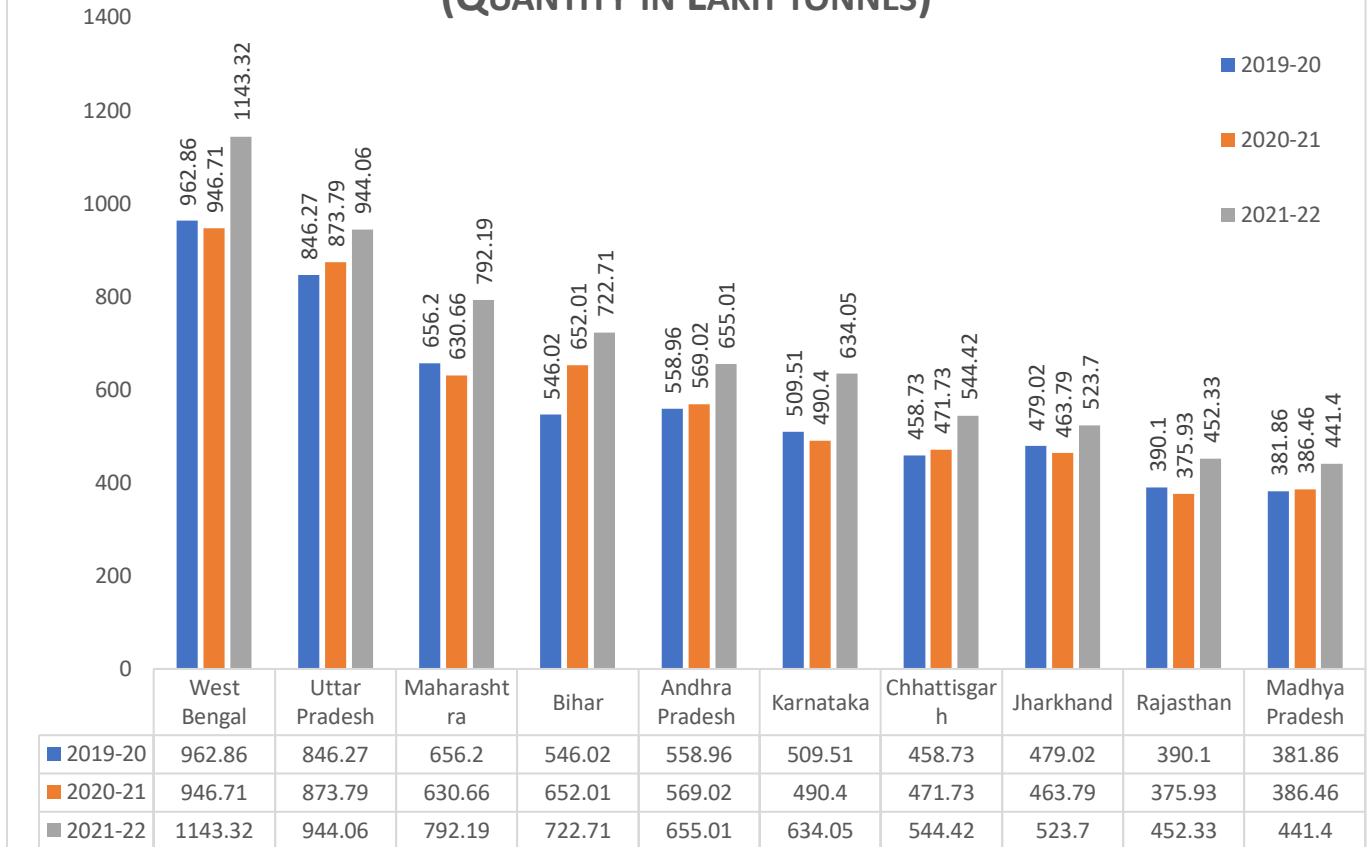
Inward Movement by Rail

Top 10 states in total Inward movement of goods by rail in 2021-22 have share 75.14% which was decreased by 0.91% over 2020-21. It increased by 1.01% in 2020-21 over 2019-20.

Table A2: Trend in inward movement of goods of top 10 most contributing states comparison with previous 2 years of those states by Rail (Quantity in lakh tonnes)							
STATE	2019-20	2020-21	2021-22	Share in 2019-20	Share in 2020-21	Share in 2021-22	Growth in 2021-22 over 2020-21
West Bengal	962.86	946.71	1143.32	12.48%	12.29%	12.54%	20.77%
Uttar Pradesh	846.27	873.79	944.06	10.97%	11.34%	10.35%	8.04%
Maharashtra	656.20	630.66	792.19	8.51%	8.18%	8.69%	25.61%
Bihar	546.02	652.01	722.71	7.08%	8.46%	7.92%	10.84%
Andhra Pradesh	558.96	569.02	655.01	7.24%	7.38%	7.18%	15.11%
Karnataka	509.51	490.40	634.05	6.60%	6.36%	6.95%	29.29%
Chhattisgarh	458.73	471.73	544.42	5.95%	6.12%	5.97%	15.41%
Jharkhand	479.02	463.79	523.70	6.21%	6.02%	5.74%	12.92%
Rajasthan	390.10	375.93	452.33	5.06%	4.88%	4.96%	20.32%
Madhya Pradesh	381.86	386.46	441.40	4.95%	5.01%	4.84%	14.22%
Top 10 state	5789.52	5860.49	6853.20	75.04%	76.05%	75.14%	16.9%
Others	1925.75	1845.72	2267.72	24.96%	23.95%	24.86%	24.0%
Total	7715.27	7706.21	9120.92				18.4%

As shown in table A2, West Bengal stands top in terms of total inward movement of goods in 2021-22, with share of 12.54%, followed by Uttar Pradesh (10.35%) and Maharashtra (8.69%). For UP and Bihar it declined in 2021-22 while for Maharashtra and West Bengal it increased.

**CHART A2: STATE WISE INWARD MOVEMENT OF GOODS BY RAIL
IN 2019-20 TO 2021-22
(QUANTITY IN LAKH TONNES)**



From the chart a2, it is clear that inward movement of goods in 2021-22 was more than that in 2020-21 and 2019-20 for all the states.

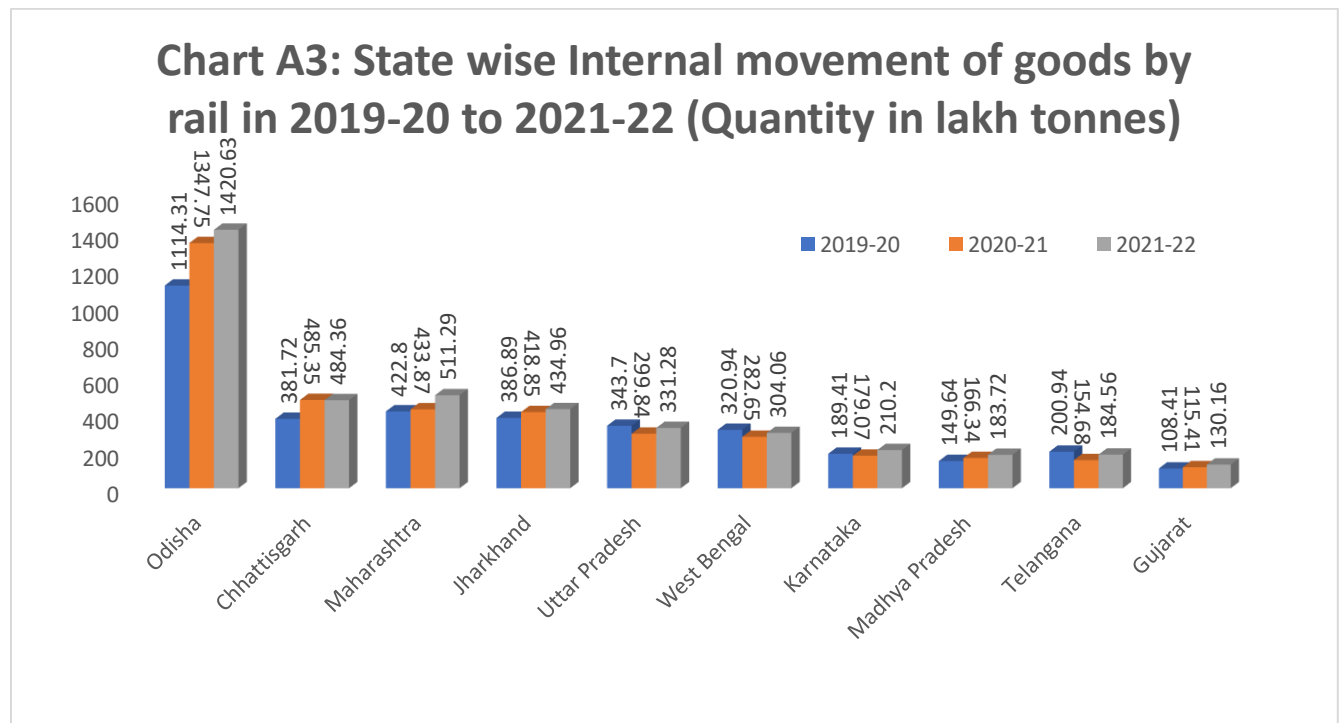
Internal movement by Rail

During 2021-22, total internal movement of goods of goods by rail was of 4557.56 lakh tonnes, growing at 9.20% over 4173.7.1 lakh tonnes in 2020-21.

Table A3: Trend in internal movement of goods of top 10 most contributing states by Rail (Quantity in lakh tonnes)							
STATE	2019-20	2020-21	2021-22	Share in 2019-20	Share in 2020-21	Share in 2021-22	Growth in 2021-22 over 2020-21
Odisha	1114.31	1347.75	1420.63	28.45%	32.29%	31.17%	5.41%
Maharashtra	422.80	433.87	511.29	10.79%	10.40%	11.22%	17.84%
Chhattisgarh	381.72	485.35	484.36	9.74%	11.63%	10.63%	-0.20%
Jharkhand	386.89	418.85	434.96	9.88%	10.04%	9.54%	3.85%
Uttar Pradesh	343.70	299.84	331.28	8.77%	7.18%	7.27%	10.49%
West Bengal	320.94	282.65	304.06	8.19%	6.77%	6.67%	7.57%
Karnataka	189.41	179.07	210.20	4.84%	4.29%	4.61%	17.38%
Madhya Pradesh	149.64	166.34	183.72	3.82%	3.99%	4.03%	10.45%
Telangana	200.94	154.68	184.56	5.13%	3.71%	4.05%	19.32%
Gujarat	108.41	115.41	130.16	2.77%	2.77%	2.86%	12.78%
Top 10 state	3618.76	3883.81	4195.23	92.38%	93.06%	92.05%	8.02%
Others	298.36	289.85	362.33	7.62%	6.94%	7.95%	25.01%
Total	3917.12	4173.7	4557.56				9.20%

The top 10 states accounted for a share of 92.0% of total internal movement of goods in 2021-22 in India. This is a decline by 1.01% over total internal movement of goods in 2020-21 implying that internal trade is no more limited to larger states in terms of share. The other smaller states also witnessing an increase in internal movement.

As shown in table A3, internal movement of goods occurred majorly in Odisha with share 31.17% of total internal movement of goods in India, followed by Maharashtra (11.22%), Chhattisgarh (10.63%).



From the chart A3, it is clear that internal movement of goods within Odisha far outweighs than that of any other States. Also, it has been increasing over the years.

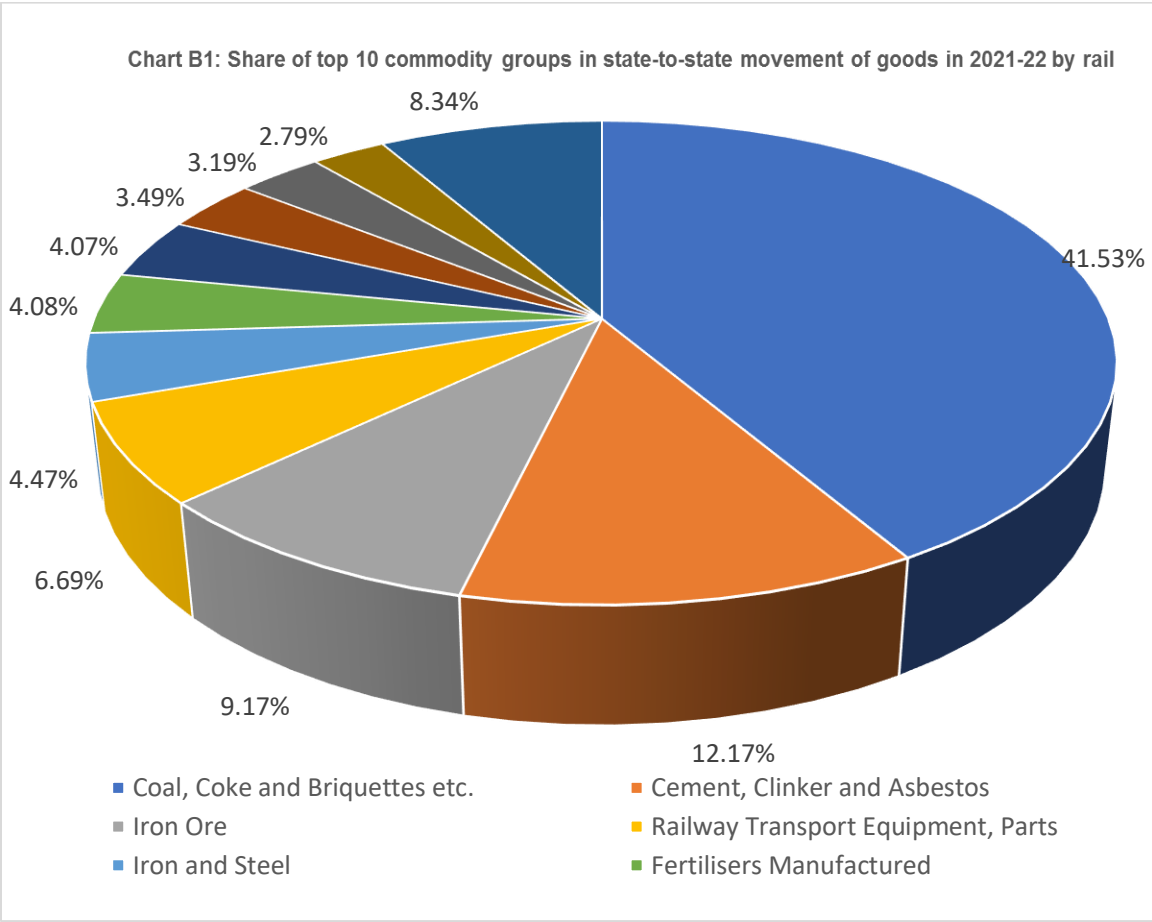
Commodity wise movement by Rail

State to State Movement by Rail

Total state-to-state movement of top 10 commodity groups by rail was 8359.84 lakh tonnes, contributing 91.65% in total state-to-state movement of goods during 2021-22.

Table B1: Trend in state-to-state movement of goods of top 10 commodity groups by rail (Quantity in lakh tonnes)		
Commodity	2021-22	Share in Total
Coal, Coke and Briquettes etc.	3788.28	41.53%
Cement, Clinker and Asbestos	1109.64	12.17%
Iron Ore	836.72	9.17%
Railway Transport Equipment, Parts	610.05	6.69%
Iron and Steel	407.98	4.47%
Fertilisers Manufactured	372.35	4.08%
Petroleum Products	371.36	4.07%
Wheat	318.29	3.49%
Rice (Other than Basmati)	290.98	3.19%
Bulk Minerals and Ores	254.19	2.79%
Others	761.05	8.34%
Total	9120.89	

Table B1 is showing that Coal, Coke & Briquettes etc. were the dominant item transported from one state to another state in 2021-22 with a share of 41.53% in total state-to-state movement of goods. Cement, Clinker and Asbestos with share of 12.17% and Iron Ore with share of 9.17% in total state-to-state movement of goods in 2021-22 were other two important categories.

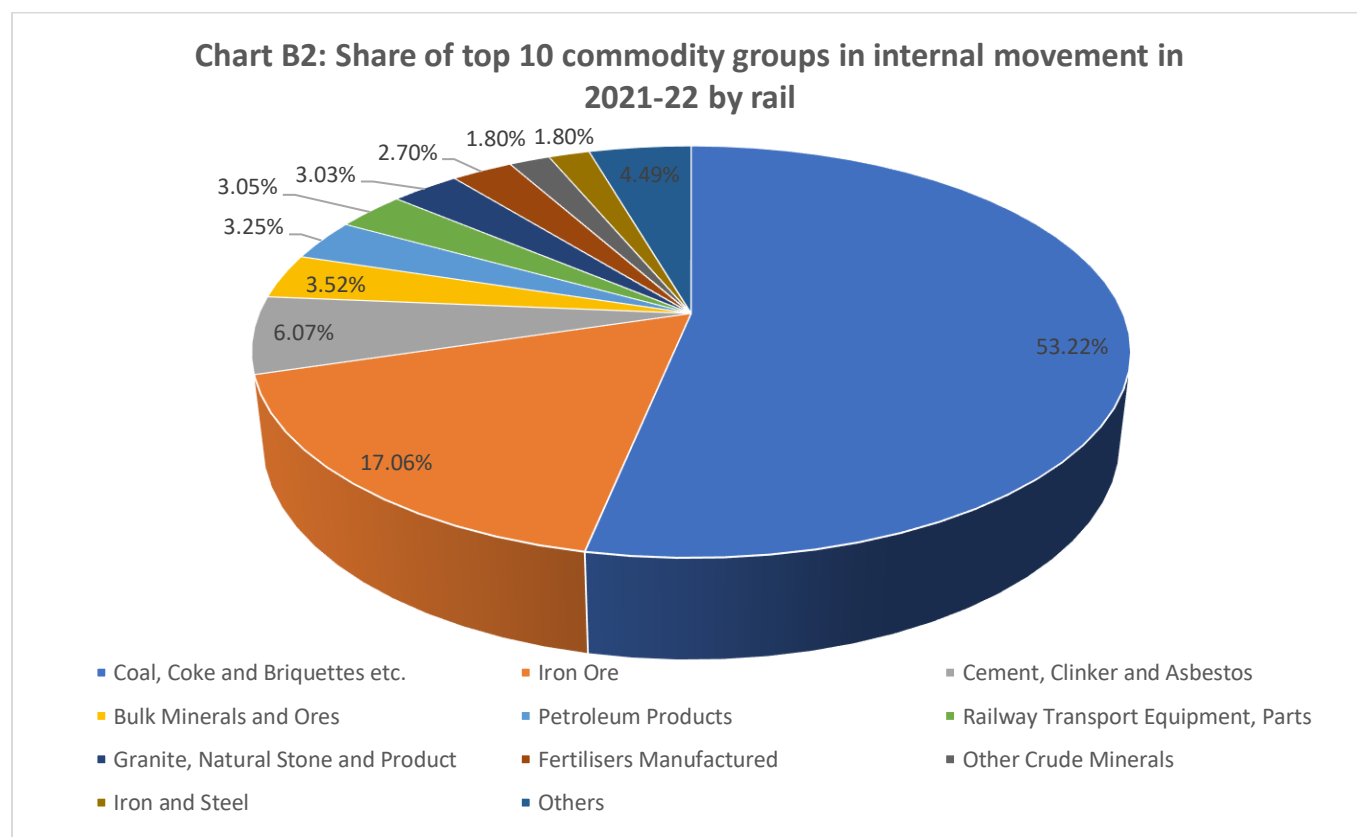


Internal movement by Rail

Total internal movement of top 10 commodity groups by rail was 4352.98 lakh tonnes, contributing 95.51% in total internal movement of goods during 2021-22.

Table B2: Trend in internal movement of top 10 commodity groups by rail (Quantity in lakh tonnes)		
Commodity	2021-22	Share in Total
Coal, Coke and Briquettes etc.	2425.64	53.22%
Iron Ore	777.68	17.06%
Cement, Clinker and Asbestos	276.73	6.07%
Bulk Minerals and Ores	160.38	3.52%
Petroleum Products	148.07	3.25%
Railway Transport Equipment, Parts	139.03	3.05%
Granite, Natural Stone and Product	138.28	3.03%
Fertilisers Manufactured	123.10	2.70%
Other Crude Minerals	82.11	1.80%
Iron and Steel	81.97	1.80%
Others	204.58	4.49%
Total	4557.56	

Table B2 is showing that Coal, Coke & Briquettes etc. was the major item transported within states in 2021-22 with a share of 53.22% of total internal movement of goods. Iron Ore & Cement, Clinker, Asbestos were other major items transported internally in 2021-22 with shares of 17.06% and 6.07% respectively in 2021-22.



Commodity by State wise movement by Rail

Table C1 shows Top 05 States involved in outward movement of Top 05 commodities of Inter-State trade through Rail in 2021-22.

Table C1: Outward movement of top 5 commodities from top 5 states (Quantity in lakh tonnes)		
Commodity	State	2021-22
Coal, Coke and Briquettes etc.	Jharkhand	992.78
	Odisha	778.86
	Chhattisgarh	684.50
	Telangana	274.78
	Madhya Pradesh	213.37
	All States	3788.28
Cement, Clinker and Asbestos	Rajasthan	223.12
	Chhattisgarh	206.04
	Madhya Pradesh	164.54
	Karnataka	122.58
	Andhra Pradesh	119.30
	All States	1109.64
Iron Ore	Odisha	461.14
	Chhattisgarh	188.22
	Jharkhand	85.26
	Karnataka	48.68
	West Bengal	31.57
	All States	836.72
Railway Transport Equipment, Parts	Gujarat	185.04
	Rajasthan	92.65
	Haryana	61.75
	Maharashtra	61.16
	Uttar Pradesh	34.19
	All States	610.05
Iron and Steel	Odisha	109.51
	Jharkhand	100.92
	Karnataka	65.97
	Chhattisgarh	52.23
	West Bengal	29.94
	All States	407.98

Table C2 shows Top 05 States involved in Inward movement of Top 05 commodities of Inter-State trade through Rail in 2021-22.

Table C2: Inward movement of top 5 commodities from top 5 states (Quantity in lakh tonnes)		
Commodity	State	2021-22
Coal, Coke and Briquettes etc.	West Bengal	482.50
	Uttar Pradesh	360.36
	Maharashtra	352.60
	Karnataka	326.72
	Chhattisgarh	318.41
	All States	3788.28
Cement, Clinker and Asbestos	Uttar Pradesh	236.03
	West Bengal	154.92
	Maharashtra	142.44
	Bihar	139.12
	Jharkhand	73.79
	All States	1109.64
Iron Ore	West Bengal	222.30
	Andhra Pradesh	218.03
	Jharkhand	124.65
	Chhattisgarh	113.84
	Odisha	63.72
	All States	836.72
Railway Transport Equipment, Parts	Gujarat	147.08
	Haryana	80.25
	Rajasthan	71.42
	Maharashtra	67.31
	Uttar Pradesh	37.40
	All States	610.05
Iron and Steel	Maharashtra	71.32
	Uttar Pradesh	46.76
	Tamil Nadu	40.42
	Haryana	36.31
	West Bengal	31.23
	All States	407.98

Table C3 shows Top 05 States involved in Internal movement of Top 05 commodities through Rail in 2021-22.

Table C3: Internal movement of top 5 commodities from top 5 states (Quantity in lakh tonnes)		
Commodity	State	2021-22
Coal, Coke and Briquettes etc.	Odisha	805.95
	Chhattisgarh	323.82
	Maharashtra	319.95
	West Bengal	203.72
	Uttar Pradesh	189.40
	All States	2425.64
Iron Ore	Odisha	356.07
	Jharkhand	186.67
	Chhattisgarh	118.49
	Karnataka	110.65
	West Bengal	5.47
	All States	777.68
Cement, Clinker and Asbestos	Maharashtra	57.94
	Uttar Pradesh	45.06
	West Bengal	35.11
	Odisha	25.18
	Karnataka	21.36
	All States	276.73
Bulk Minerals and Ores	Odisha	81.69
	Andhra Pradesh	15.71
	Gujarat	14.11
	Jharkhand	10.78
	West Bengal	8.63
	All States	160.38
Petroleum Products	Uttar Pradesh	37.04
	Maharashtra	23.09
	Gujarat	20.33
	Karnataka	19.14
	Madhya Pradesh	11.41
	All States	148.07