



सत्यमेव जयते



वाणिज्यिक जानकारी एवं सांख्यिकी महानिदेशालय  
Directorate General of Commercial Intelligence & Statistics



रेल, नदी और वायु द्वारा माल का अंतर्राज्यीय परिसंचन/प्रवाह'

## INTER/INTRA - STATE MOVEMENTS/FLOWS OF GOODS BY RAIL, RIVER, AND AIR

वाणिज्यिक जानकारी एवं सांख्यिकी महानिदेशालय  
वाणिज्य विभाग  
वाणिज्य एवं उद्योग मंत्रालय  
भारत सरकार  
565, आनंदपुर, वार्ड नं. 108, प्लॉट नं.- 22  
कोलकाता-700107

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2023-24

## प्राक्कथन

एक मजबूत और ठोस सांख्यिकीय अवसंरचना ज्ञान आधारित अर्थव्यवस्था का मूल आधार है। इस विचार को पूरा करने के लिए, वाणिज्यिक जानकारी एवं सांख्यिकी महानिदेशालय (डीजीसीआईएस) द्वारा अंतर्देशीय व्यापार आंकड़ों पर विभिन्न रिपोर्टें वार्षिक आधार पर प्रकाशित की जा रही हैं। अंतर्राष्ट्रीय सौदागरी व्यापार सांख्यिकी के अतिरिक्त, 'रेल, नदी और वायु द्वारा माल का अंतर्राज्यीय परिसंचलन/प्रवाह' ऐसा ही एक प्रकाशन है जो आंतरिक व्यापार के क्षेत्र में ज्ञान के अंतर को पाटने का प्रयास करता है। देश के एक हिस्से से दूसरे हिस्से तक माल की परिसंचलन को इस अनूठे प्रकाशन में सम्मिलित किया जा रहा है। यह प्रकाशन पहले भी उतना ही महत्वपूर्ण था जितना अभी है। डेडिकेटेड फ्रेट कॉरिडोर, सागर माला परियोजना और जल मार्ग विकास परियोजना जैसी परियोजनाओं के पूरा होने से भारत के आंतरिक व्यापार में कई गुना बढ़ोत्तरी होगी। यह प्रकाशन रेल, नदी और वायु के माध्यम से बढ़ते आंतरिक व्यापार की जटिल गतिशीलता को प्रदर्शित करता है और इसका उद्देश्य इस क्षेत्र में काम करने वाले सभी नीति निर्धारकों और अनुसंधान अध्येताओं के लिए एक आवश्यक पथप्रदर्शक बनना है।

इसलिए, पूर्ण आशा है कि हर साल इस प्रकाशन को बेहतर बनाने के हमारे निरंतर प्रयास हमारे प्रयोक्ताओं के लिए अत्यधिक लाभकारी सिद्ध साबित होंगे। आगामी अंकों में सुधार के लिए टिप्पणियों और सुझावों का स्वागत है।

डॉ. बंदना सेन

महानिदेशक, डीजीसीआईएस

वाणिज्यिक जानकारी एवं सांख्यिकी महानिदेशालय

वाणिज्य एवं उद्योग मंत्रालय

भारत सरकार

565, आनंदपुर,

कोलकाता-700107

फरवरी, 2025

## Preface

A strong and robust statistical framework is the fundamental basis of a knowledge economy. To fulfil this idea, the Directorate General of Commercial Intelligence & Statistics (DGCIS) has been publishing various reports on inland trade statistics on an annual basis. Apart from International Merchandise Trade Statistics, this publication, the 'Inter-state Movements/Flows of Goods by Rail, River and Air', is one such publication that attempts to bridge the knowledge gap in the area of Internal Trade. The movement of goods from one part of the Country to another part is being captured in this unique publication. This publication was as important in the past as it is now. With the completion of projects like the Dedicated Freight Corridor, the Sagar Mala Project and the Jal Marg Vikas project, internal trade in India will increase multi-fold. This publication captures the complex dynamics of increasing Internal Trade through Rail, River and Air and aims to be an essential guide to all policy makers and research fellows working in this area.

It is, therefore, sincerely hoped that our sustained efforts in improving this publication every year will prove immensely beneficial to our users. Comments and suggestions for improvement of forthcoming issues are welcome.

Dr. BANDANA SEN,  
Director General, DGCIS

Directorate General of Commercial  
Intelligence and Statistics  
Ministry of Commerce and Industry  
Government of India  
565, Anandapur,  
Kolkata-700 107  
February, 2025

| शब्द-संक्षेप |   |
|--------------|---|
| डीजीसीआईएस   | वाणिज्यिक जानकारी एवं सांख्यिकी महानिदेशालय |
| डीओसी        | वाणिज्य विभाग                               |
| एमओसीआई      | वाणिज्य एवं उद्योग मंत्रालय                 |
| सीआरआईएस     | रेलवे सूचना प्रणाली केंद्र                  |
| आईडब्ल्यूआई  | भारतीय अंतर्देशीय जलमार्ग प्राधिकरण         |
| डीजीएफटी     | विदेश व्यापार महानिदेशालय                   |
| एफओआईएस      | फ्रेट प्रचालन सूचना प्रणाली                 |
| जीएसटी       | वस्तु एवं सेवा कर                           |
| आईएमटीएस     | अंतर्राष्ट्रीय सौदागरी व्यापार सांख्यिकी    |
| आईटीसीएचएस   | भारतीय व्यापार वर्गीकरण सुसंगत प्रणाली      |

| ABBREVIATION |   |
|--------------|---|
| <b>DGCIS</b> | Directorate General of Commercial Intelligence and Statistics |
| <b>DoC</b>   | Department of Commerce  |
| <b>MoCI</b>  | Ministry of Commerce & Industry                               |
| <b>CRIS</b>  | Centre for Railway Information System                         |
| <b>IWAI</b>  | Inland Waterways Authority of India                           |
| <b>DGFT</b>  | Directorate General of Foreign Trade                          |
| <b>FOIS</b>  | Freight Operations Information System                         |
| <b>GST</b>   | Goods and Services Tax  |
| <b>IMTS</b>  | International Merchandise Trade Statistics                    |
| <b>ITCHS</b> | Indian Trade of Classification Harmonised System              |

|   |                                     |   |
|---|-------------------------------------|---|
| 1 | भा.व्या.वर्गी.सुसं.प्र.(आईटीसीएचएस) | आईटीसी से तात्पर्य है इण्डियन ट्रेड क्लासिफिकेशन (भारतीय व्यापार वर्गीकरण)। आईटीसी-एचएस कोड में 6-अंकीय सुसंगत कोड सहित 2 अतिरिक्त अंक होते हैं। इसके परिणामतः एक 8-अंकीय कोड बनता है जो उत्पाद के बारे में विस्तृत जानकारी प्रदान करता है। |
| 2 | 2- अंकीय आईटीसीएचएस                 | प्रथम दो अंक (सुसं-2) उस अध्याय का बोध कराते हैं जिसमें उन वस्तुओं को वर्गीकृत किया गया है।   |
| 3 | 99 आईटीसीएचएस अध्याय संशोधन 2023    | आईटीसी-एचएस कोड 2023 का अद्यतन संस्करण(प्रविष्टि/विलोपन/संशोधन)   |
| 4 | प्रमुख पण्य                         | प्रमुख पण्य से तात्पर्य उस वस्तु से है जिसे समान प्रकार की अन्य 8-अंकीय वस्तुओं के साथ समूहीकृत किया गया है और व्यापार सांख्यिकी के प्रकाशन में इसका प्रयोग किया जाता है।   |
| 5 | ई-वाणिज्य                           | ई-वाणिज्य अथवा इलेक्ट्रॉनिक वाणिज्य से तात्पर्य इंटरनेट पर वस्तुओं तथा सेवाओं के व्यापार से है (यथा, इलेक्ट्रॉनिक रूप में उत्पादों अथवा ऑनलाईन सेवाओं का क्रय-विक्रय)।  |
| 6 | अंतःगामी/राज्य को/ को निर्यातित     | किसी विशिष्ट राज्य को वस्तुओं का परिवहन   |
| 7 | बहिर्गामी/राज्य से/ से निर्यातित    | किसी विशिष्ट राज्य से वस्तुओं का परिवहन   |
| 8 | आंतरिक                              | किसी विशिष्ट राज्य के भीतर वस्तुओं का परिपरिसंचलन   |

|   |                                   |  |
|---|-----------------------------------|--|
| 1 | ITCHS                             | ITC stands for Indian Trade Classification. The ITC-HS codes contain the 6-digit HS code, plus 2 additional digits. This results in an 8-digit code which gives more detailed information about the product. |
| 2 | 2-digit ITCHS                     | The first two digits (HS-2) identify the chapter the goods are classified in.  |
| 3 | 99 Chapter of ITCHS Revision 2023 | Updated version of ITC-HS codes 2023(Insertion/Deletion/Modification)  |
| 4 | Principal Commodity               | Principal Commodity means the item grouped with the same kinds/types of several 8-digit commodities, and is used in publications of the Trade Statistics.  |
| 5 | e-Commerce                        | Ecommerce or electronic commerce is the trading of goods and services (i.e. electronically buying or selling of products on online services) on the internet.  |
| 6 | Inward/To State/Exported To       | Transport of goods to a particular State   |
| 7 | Outward/From State/ Exported From | Transport of Goods from a particular State   |
| 8 | Internal                          | Movements of Goods within a particular State   |

## प्रकाशनों से जुड़े अधिकारियों की टीम

| क्रम संख्या | नाम                      | पदनाम                 | अभ्युक्ति |
|-------------|--------------------------|-----------------------|-----------|
| 1           | श्रीमती एन. संगीता       | उप महानिदेशक          |           |
| 2           | श्री शुभजीत रॉय          | निदेशक                |           |
| 3           | श्री बिप्लव सरकार        | उप निदेशक             |           |
| 4           | श्री समीरेंदु भट्टाचार्य | वरिष्ठ अन्वेषक        |           |
| 5           | श्री अनिन्द्य चटर्जी     | वरिष्ठ अन्वेषक        |           |
| 6           | श्री देवाशीष हालदार      | वरिष्ठ अन्वेषक        |           |
| 7           | श्री शोभन सरकार          | आंकड़ा प्रक्रमण सहायक |           |

## TEAM OF OFFICERS ASSOCIATED WITH THE PUBLICATIONS

| Serial No | Name                         | Designation               | Remarks |
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| 2         | Shri Subhajit Roy            | Director                  |         |
| 3         | Shri Biplab Sarkar           | Deputy Director           |         |
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| 5         | Shri Anindya Chatterjee      | Senior Investigator       |         |
| 6         | Shri Debasis Halder          | Senior Investigator       |         |
| 7         | Shri Sovon Sarkar            | Data Processing Assistant |         |

## विषय-वस्तु सारणी

| क्र.सं. | अध्याय     | प्रमुख श्रेणी  | उप-श्रेणी                                | पृष्ठ संख्या |
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## Chapter I

### 1.1 परिचय

भारत के विभिन्न राज्यों के बीच माल के अंतर/अंतः-राज्य परिसंचलन/प्रवाह को आमतौर पर अंतर्देशीय व्यापार के रूप में जाना जाता है, जिसमें विभिन्न तरीकों से माल का परिसंचलन शामिल होता है, जैसे (क) समुद्रीमार्ग (ख) वायुमार्ग (ग) रेलमार्ग (घ) नदीमार्ग और (ङ) सड़कमार्ग। वा.जा.सां.म.नि., कोलकाता द्वारा प्रकाशित इस रिपोर्ट में रेलमार्ग, नदी-मार्ग और वायु-मार्ग द्वारा माल के अंतर्देशीय व्यापार को शामिल किया गया है, जबकि समुद्रीमार्ग से होने वाले व्यापार को "अंतर्देशीय तटीय व्यापार के आंकड़े - भारत के पारेषण" में शामिल किया गया है। वा.जा.सां.म.नि. द्वारा ई-वे बिल प्रणाली पर रिपोर्ट को, जो प्रमुख रूप से सड़कमार्ग के माध्यम से माल के परिसंचलन को सम्मिलित करती है, "ई-वे बिल के अनुसार भारत का आंतरिक परिसंचलन/माल का प्रवाह" नामक एक अलग प्रकाशन में प्रस्तुत किया गया है।

"रेल, नदी और वायु द्वारा माल का अंतर्राज्यीय/अंतः-राज्यीय परिसंचलन/प्रवाह" रिपोर्ट रेलवे बोर्ड के सहयोग से रेलवे सूचना प्रणाली केंद्र (सीआरआईएस) से, भारतीय अंतर्देशीय जलमार्ग प्राधिकरण (आईडब्ल्यूआई), केरल सरकार के सिंचाई विभाग और कार्गो एयरलाइंस से प्राप्त आंकड़ों के संकलन पर आधारित है, जो देश के भीतर अंतर्देशीय व्यापार के संबंधित तरीकों अर्थात् रेल, नदी और वायु व्यापार पर आधारित है।

### 1.1 Introduction

The Inter/Intra-State Movements/Flows of Goods between various States of India is commonly known as Inland Trade, which involves movement of goods by different modes namely, (a) Sea, (b) Air, (c) Rail, (d) River, and (e) Road. This report published by DGCI&S, Kolkata - involves inland trade of goods by Railways, River-ways and Air-ways while that by sea is covered in "Statistics of the Inland Coasting Trade – Consignments of India". Report by DGCI&S on e-way bill system which majorly covers movement of goods through Roadways is dealt in a separate publication called "India's Internal Movements/Flows of Goods as per E-way Bills".

The report "Inter/Intra-State Movements/Flows of Goods by Rail, River and Air" is based on compilation of data received from Centre for Railway Information System (CRIS) in collaboration with Railway Board, Inland Waterways Authority of India (IWAI), Irrigation Department, Govt of Kerala and Cargo Airlines on their respective modes of inland trade viz. rail, river and air borne trade within the country.

### 1.2 प्रकाशन का क्षेत्र

इस खंड में प्रकाशित आंकड़ा (i) विभिन्न राज्यों और केंद्र शासित प्रदेशों के बीच अंतर्देशीय रेल और नदीमार्ग द्वारा परिसंचलित 169 प्रमुख वस्तु समूहों (8 अंकीय भा.व्या.वर्गी.सु.प्र. कोड को 169 समरूप प्रमुख वस्तु समूहों में पुनर्समूहित किया गया है) की मात्रा के आंकड़ों से संबंधित है एवं (ii) देश के भीतर एक वायु पत्तन से दूसरे वायु पत्तन और राज्यों और केंद्र शासित प्रदेशों में वायु मार्ग से ले जाए जाने वाले सकल भार में कार्गो से संबंधित है। इस संस्करण में भारत के भीतर माल की अंतः-राज्यीय परिसंचलन के साथ-साथ भारत के प्रादेशिक जल में परिसंचलन भी शामिल है।

## 1.2 Scope of the Publication

The data published in this volume relates to (i) Quantity figures of 169 Principal Commodity Groups (8-digit level ITCHS codes have been regrouped into 169 homogeneous Principal Commodity Groups) moving by inland rail and river among different States and Union Territories and (ii) Cargo in gross - weight moving by air from one airport to another airport and also to States and Union Territories within the country. This edition also contains the Intra-State movement of goods within India as well as movements in the territorial waters of India.

### 1.3 सांख्यिकी के स्रोत

इस प्रकाशन में सांख्यिकीय विश्लेषण हेतु मूल दस्तावेज भारत के प्रत्येक रेलवे स्टेशन से भेजी गई वस्तुओं के पारेषण से संबंधित चालान हैं। माल भेजते समय, आंकड़ों को सीआरआईएस द्वारा फ्रेट ऑपरेशंस इंफॉर्मेशन सिस्टम (FOIS) नामक अपनी प्रणाली के माध्यम से प्राप्त किया जाता है और अखिल भारतीय स्तर पर समेकित किया जाता है जिसे बाद में वा.जा.सां.म.नि. के साथ साझा किया जाता है।

जलमार्गों के माध्यम से माल के परिसंचन के संबंध में राष्ट्रीय जलमार्गों के माध्यम से माल ले जाने वाली विभिन्न संस्थाओं द्वारा भारतीय अंतर्देशीय जलमार्ग प्राधिकरण (आईडब्ल्यूआई) के साथ दाखिल रिटर्न से आंकड़ा एकत्र किया जाता है। ध्यातव्य है कि पश्चिम बंगाल में डायमंड हार्बर, सागर जैसे खुले समुद्र में अस्थायी जेटी/लंगर से निकटतम बंदरगाहों तक माल का महत्वपूर्ण परिसंचन होता है। इन गतिविधियों को आईडब्ल्यूआई द्वारा प्राप्त किया गया है एवं वा.जा.सां.म.नि. के साथ साझा किया गया है और चूंकि ये गतिविधियाँ भारत के क्षेत्रीय जल के अन्तर्गत थीं इसे इस प्रकाशन में शामिल किया गया है।

वायु कार्गो के संबंध में, स्रोत घरेलू एयरलाइंस हैं (1. एयर इंडिया, 2. एलायंस एयर एविएशन लिमिटेड, 3. एआईएक्स कनेक्ट प्राइवेट लिमिटेड (एयर एशिया), 4. ब्लू डार्ट एविएशन लिमिटेड, 5. बिग चार्टर प्राइवेट लिमिटेड (फ्लाइ बिग), 6. स्पाइस जेट लिमिटेड, 7. क्विक जेट कार्गो एयरलाइंस प्राइवेट लिमिटेड, 8. एसएनवी एविएशन प्राइवेट लिमिटेड (आकासा एयर), 9. टाटा एसआईए एयरलाइंस लिमिटेड (विस्तारा) एवं 10. इंडिगो) जो पारेषक या पारेषी से वायुमार्ग बिल एकत्र करते हैं और वायु पतन-वार कार्गो परिसंचन को संकलित करते हैं।

### 1.3 Sources of the Statistics

The basic documents for the statistical analysis in this publication are the invoices relating to consignments of commodities dispatched from each railway station in India. While dispatching the goods, the data is captured by CRIS through their system called Freight Operations Information System (FOIS) and is consolidated at an all-India level which is then shared with DGCIS.

In case of movement of goods through Waterways, data is collected from the returns filed by various agencies carrying consignments through the National Waterways with the Inland Waterways Authority of India (IWAI). It may be noted that there is significant movement of cargo from temporary jetties/anchorage in high seas, such as Diamond Harbour, Sagar in West Bengal to the nearest ports. These movements have been captured by the IWAI and shared with DGCIS and has been included in this publication as these movements were within the territorial waters of India.

In case of air cargo, the sources are domestic Airlines (1. Air India, 2. Alliance Air Aviation Ltd., 3. AIX Connect Pvt. Ltd. (Air Asia), 4. Blue Dart Aviation Ltd., 5. Big Charter Pvt. Ltd. (Fly Big), 6. Spice Jet Ltd., 7. Quik jet Cargo Airlines Pvt. Ltd, 8. SNV Aviation Pvt. Ltd. (Akasa Air), 9.

Tata SIA Airlines Ltd. (Vistara) and 10. Indigo) who collect airway bills from consignor or consignee and compile airport -wise cargo movements.

#### **1.4 मात्राएँ और मूल्यवर्ग**

इनमें दिए गए आंकड़े केवल मात्रा से संबंधित हैं, क्योंकि रेल मार्ग, नदी-मार्ग और वायु मार्ग चालान में मूल्य के आंकड़े उपलब्ध नहीं हैं। मात्रा को रेल मार्ग, नदी-मार्ग और वायु मार्ग चालान में दर्ज सकल वजन के रूप में व्यक्त किया जाता है। इस प्रकाशन में मीट्रिक प्रणाली को अपनाया गया है।

रेल और नदी तथा वायु मार्ग के संबंध में रिपोर्ट की गई वजन की इकाई 'टन' में है।

### **1.4 Quantities & Denomination**

The figures in these accounts relate only to quantity, as value figures are not available in railway, river-way and airway invoices. The quantities are expressed as gross weight as recorded in the railway, river-way and airway invoices. The metric system is adopted in this publication. The reported unit of weight is in 'Ton' in case of Rail & River and Air.

#### **1.5 समाहित की गई वस्तुएं**

रिपोर्ट के उद्देश्य से 169 प्रमुख पण्य समूहों को ध्यान में रखा गया है।

अंतर्राष्ट्रीय स्तर पर अपनाए जाने वाले 6-अंकीय अं.व्या.वर्गी.सु.प्र. कोड के स्थान पर राष्ट्रीय स्तर पर 8-अंकीय भा.व्या.वर्गी.सु.प्र. कोड अपनाए गए हैं। इन भा.व्या.वर्गी.सु.प्र. कोडों को 169 समरूप प्रमुख पण्य समूहों में पुनर्समूहित किया गया है।

ये वस्तुएं भारत के अंदर रेलवे और नदी-मार्गों द्वारा पारेषित किये जाने वाले माल का बड़ा हिस्सा हैं और आम तौर पर अंतर्देशीय व्यापार की महत्वपूर्ण वस्तुएं हैं। रेल द्वारा माल के परिसंचन को अंतर्राष्ट्रीय व्यापार वर्गीकरण (सुसंगत प्रणाली) संशोधित संस्करण 2023 के 99 अध्यायों के अनुसार भी वर्गीकृत किया गया है। वायु मार्ग के मामले में, पण्य-वार ब्यौरा अलग से प्रदर्शित नहीं किया जाता है क्योंकि एयरलाइंस इसे उपलब्ध नहीं कराती हैं।

### **1.5 Commodities Covered**

169 Principal Commodity Groups have been taken into consideration for reporting purposes. 8-digit ITCHS codes have been adopted at National level against the 6 -digit ITCHS codes adopted internationally. These ITCHS codes have been regrouped into 169 homogeneous Principal Commodity Groups.

These commodities represent the major portion of merchandise consignable by railways and river-ways within India and are generally the important commodities of inland trade. The movement of goods by Rail has also been classified according to the 99 Chapters of International Trade Classification (Harmonized System) Revised edition 2023. In case of air, commodity-wise break ups are not shown separately as Airlines do not provide the same.

#### **1.6 प्रकाशन का महत्व:-**

माल का अंतर/अंत:- राज्यीय परिसंचन एक राज्य से दूसरे राज्य में माल की प्रविष्टि के बारे में जानकारी प्रदान करता है जिससे उस राज्य में उस माल के स्टॉक में वृद्धि का संकेत मिलता है, जहां पर उसका प्रवेश होता है, इसके साथ ही उस राज्य में उस माल के स्टॉक की अवनति का भी संकेत मिलता है, जहां से उसका गमन होता है।

किसी राज्य में माल के प्रवेश को सामान्यतः अंतःगामी परिसंचलन के रूप जबकि किसी राज्य से माल का बाहर जाना बहिर्गामी परिसंचलन के रूप में जाना जाता है। किसी राज्य की सीमाओं के अंदर माल के संचलन को राज्य के आंतरिक परिसंचलन के रूप में देखा जाता है, जिससे वस्तुओं के आंतरिक उपयोग पर जानकारी मिलती है।

अतः माल के अंतर/अंतः- राज्यीय परिसंचलनों/प्रवाहों के आंकड़े राज्य में उत्पादित तथा देश के कोने-कोने में औद्योगिक/विनिर्माण/निर्माण/कृषि हेतु निश्चित उपयोग के लिए अन्य राज्यों को परिवहन किए जाने वाले ऐसे माल की मांग के स्वरूप को दर्शाते हैं।

## 1.6 Importance of the Publication

Inter/Intra-State movement of goods provides information on entry of goods from one state to another state and thus indicates addition to the stock of the said goods of the state to which movement occurs as well as indicates decline in stock of that goods of the State from which movement occurs.

The entry of goods to a State is commonly known as inward movement while exit of goods from a State is known as outward movements. Movements of goods within a state's borders are seen as internal movements within the state, providing information on how the goods are used internally.

Thus, statistics on Inter/Intra-State Movements/Flows of Goods reflects the demand pattern of such goods produced in a State and transported to other States for definite industrial/manufacturing/ construction/agricultural use across length and breadth of the country.

### तथ्य एवं आंकड़े:-

#### रेल मार्ग

- ▶ 2023-24 के दौरान, भारत में रेल द्वारा आंतरिक परिसंचलन सहित कुल 15431.91 लाख टन माल का परिवहन किया गया, जो 2022-23 के 14659.29 लाख टन की तुलना में 5.27% की सकारात्मक वृद्धि दर्शाता है।
- ▶ 2023-24 में रेल द्वारा माल के कुल अंतर्राज्यीय परिसंचलन में 66.95% हिस्सेदारी के साथ शीर्ष 03 पण्य 'कोयला, कोक और ब्रिकेट आदि', 'सीमेंट, क्लिंकर और एस्बेस्टस' तथा 'लौह अयस्क' थे।
- ▶ 2023-24 में रेल द्वारा माल के कुल आंतरिक परिसंचलन में 78.74% हिस्सेदारी वाले शीर्ष 03 पण्य "कोयला, कोक और ब्रिकेट आदि", 'लौह अयस्क', और 'सीमेंट, क्लिंकर और एस्बेस्टस' थे।
- ▶ भारत के शीर्ष 03 मूल राज्य जहां से 2023-24 में रेल द्वारा अन्य राज्यों में माल का परिसंचलन हुआ, वे झारखंड, ओडिशा और छत्तीसगढ़ थे जिनकी वर्ष के लिए माल के कुल बाहरी परिसंचलन में हिस्सेदारी क्रमशः 17.42%, 16.36% और 13.47% थी।

► भारत के शीर्ष 03 गंतव्य राज्य जिनमें 2023-24 में रेल द्वारा अन्य राज्यों से माल का परिसंचलन हुआ, वे पश्चिम बंगाल, उत्तर प्रदेश और महाराष्ट्र थे जिनकी वर्ष के लिए माल के कुल परिसंचलन में हिस्सेदारी क्रमशः 11.39%, 11.27% और 8.75% थी।

► भारत के शीर्ष 03 राज्य जिनके भीतर 2023-24 में रेल द्वारा माल का आंतरिक परिसंचलन हुआ, वे ओडिशा, महाराष्ट्र और छत्तीसगढ़ थे, जिनकी वर्ष के लिए माल के कुल आंतरिक परिसंचलन में हिस्सेदारी क्रमशः 29.96%, 11.68% और 10.17% थी।

## Facts & Figures

### Railways

- During 2023-24, total 15431.91 lakh tonnes of goods were transported by rail within India, including internal movement, which shows a positive growth of 5.27 % over 14659.29 lakh tonnes in 2022-23.
- Top 03 commodities with 66.95% share in total inter-state movement of goods by rail in 2023-24 were 'Coal, Coke and Briquettes etc.', 'Cement, Clinker and Asbestos', and 'Iron Ore'.
- Top 03 commodities with 78.74% share in total internal movement of goods by rail in 2023-24 were 'Coal, Coke and Briquettes etc.', 'Iron Ore', and 'Cement, Clinker and Asbestos'.
- Top 03 origin states of India from which Outward movement of goods to other states by rail took place in 2023-24, were Jharkhand, Odisha and Chhattisgarh with shares of 17.42%, 16.36% and 13.47% of total Outward movement of goods for the year respectively.
- Top 03 destination states of India to which Inward movement of goods from other states by rail took place in 2023-24 were West Bengal, U.P. and Maharashtra with shares of 11.39%, 11.27% and 8.75% of total Inward movement of goods for the year respectively.
- Top 03 states of India within which Internal movement of goods by rail took place in 2023-24 were Odisha, Maharashtra and Chhattisgarh with shares of 29.96%, 11.68% and 10.17% of total Internal movement of goods for the year respectively.

### वायुमार्ग

► 2023-24 के दौरान भारत में अंतर-राज्यीय परिसंचलन (आंतरिक परिसंचलन सहित) में वायु मार्ग से कुल 710.68 हजार टन माल का परिवहन किया गया, जो 2022-23 में अंतर-राज्यीय परिसंचलन (आंतरिक परिसंचलन सहित) में वायु मार्ग से किए गए परिवहन 712.37 हजार टन माल की तुलना में 0.24% कम है।

► 2023-24 में वायु मार्ग से अन्य राज्यों में पण्यों के बहिर्मुखी परिसंचलन में शामिल भारत के शीर्ष तीन (3) मूल राज्य दिल्ली, महाराष्ट्र और कर्नाटक थे, जिनकी वर्ष के लिए माल के कुल बाहरी परिसंचलन में हिस्सेदारी क्रमशः 30.51%, 18.56% और 13.57% थी।

► वही तीन (3) राज्य, दिल्ली, महाराष्ट्र और कर्नाटक प्रमुख गंतव्य राज्य थे जिनमें 2023-24 में अन्य राज्यों से वायु मार्ग से माल की आवक हुई, जिनमें वर्ष के लिए माल की कुल आवक का क्रमशः 20.83%, 16.78% और 12.88% हिस्सा था।

► भारत के शीर्ष तीन (3) राज्य जिनके भीतर 2023-24 में वायु मार्ग से माल का आंतरिक परिसंचलन हुआ, वे महाराष्ट्र, पश्चिम बंगाल और कर्नाटक थे, जिनकी वर्ष के लिए माल के कुल आंतरिक परिसंचलन में हिस्सेदारी क्रमशः 43.78%, 23.12% और 18.20% थी।

### Airways

- During 2023-24, total 710.68 thousand tonnes of inter-state movement (including internal movement) goods were transported by airways within India, a decrease by 0.24% over 712.37 thousand tonnes of inter-state movement (including internal movement) goods transported by airways in 2022-23.
- Top three (3) origin states of India involved in Outward movement of commodities to other states by airways in 2023-24, were Delhi, Maharashtra and Karnataka with shares of 30.51%, 18.56% and 13.57% of total Outward movement of goods for the year respectively.
- Same three (3) states, Delhi, Maharashtra and Karnataka were major destination states in which Inward movement of goods by airways took place from other states in 2023-24 with shares of 20.83%, 16.78% and 12.88% of total Inward movement of goods for the year respectively.
- Top three (3) states of India within which Internal movement of goods by airways took place in 2023-24 were Maharashtra, West Bengal and Karnataka with shares of 43.78%, 23.12% and 18.20% of total Internal movement of goods for the year respectively.

### नदी-मार्ग

► 2023-24 के दौरान, भारत में नदी-मार्गों द्वारा आंतरिक परिसंचलन सहित कुल 774.11 लाख टन माल का परिवहन किया गया, जो कि 2022-23 में नदी-मार्गों द्वारा परिवहन किए गए 719.41 लाख टन माल की तुलना में 7.60% अधिक है।

► 2023-24 में नदी-मार्गों द्वारा माल के कुल अंतर-राज्यीय परिसंचलन में 94.33% हिस्सेदारी वाले शीर्ष 03 पण्य 'लौह अयस्क', 'लौह और इस्पात' और 'कोयला, कोक और ब्रिकेट आदि' थे।



- ▶ 2023-24 में नदी-मार्गों द्वारा माल के कुल आंतरिक परिसंचलन में 83.61% हिस्सेदारी वाले शीर्ष 03 पण्य 'लौह अयस्क', 'कोयला, कोक और ब्रिकेट आदि' और 'प्रसंस्कृत खनिज' थे।
- ▶ भारत के शीर्ष 03 मूल राज्य जिनसे 2023-24 में नदी-मार्गों द्वारा अन्य राज्यों में वस्तुओं का बहिर्मुखी परिसंचलन हुआ, वे गुजरात, आंध्र प्रदेश और ओडिशा थे जिनकी वर्ष के लिए माल के कुल बहिर्मुखी परिसंचलन में हिस्सेदारी क्रमशः 55.14%, 21.51% और 18.16% थी।
- ▶ भारत के शीर्ष 03 गंतव्य राज्य जिनमें 2023-24 में नदी-मार्गों द्वारा अन्य राज्यों से माल का अंतर्मुखी परिसंचलन हुआ, वे महाराष्ट्र, आंध्र प्रदेश और ओडिशा थे, जिनकी वर्ष के लिए माल के कुल अंतर्मुखी परिसंचलन में हिस्सेदारी क्रमशः 43.52%, 27.77% और 22.99% थी।
- ▶ भारत के शीर्ष 03 राज्य जिनमें 2023-24 में नदी-मार्गों द्वारा माल का आंतरिक परिसंचलन हुआ, वे महाराष्ट्र, पश्चिम बंगाल और गोवा थे, जिनकी वर्ष के लिए कुल आंतरिक माल परिसंचलन में हिस्सेदारी क्रमशः 63.25%, 9.94% और 7.03% थी।

### River-ways

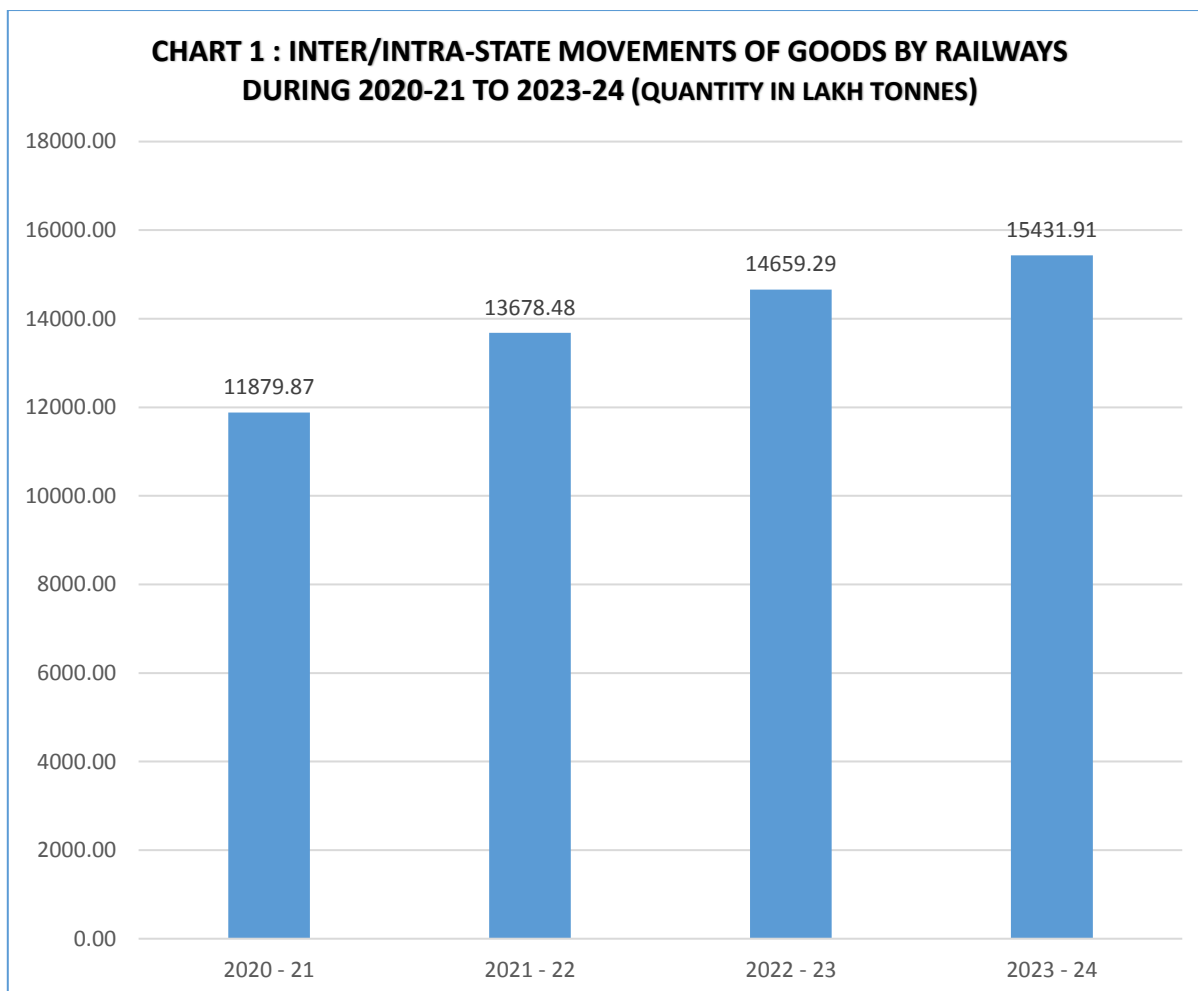
- During 2023-24, total 774.11 lakh tonnes of goods were transported by River-ways within India, including internal movement, which is a rise by 7.60% over 719.41 lakh tonnes of goods transported by river ways in 2022-23.
- Top 03 commodities with 94.33% share in total inter-state movement of goods by River-ways in 2023-24 were 'Iron ore'; 'Iron and Steel' and 'Coal, Coke and Briquettes etc'.
- Top 03 commodities with 83.61% share in total internal movement of goods by River-ways in 2023-24 were 'Iron Ore'; 'Coal, Coke and Briquettes etc' and 'Processed Minerals'.
- Top 03 origin states of India involved in Outward movement of commodities to other states by River-ways in 2023-24 were Gujarat, Andhra Pradesh and Odisha with shares of 55.14%, 21.51% and 18.16% of total Outward movement of goods for the year respectively.
- Top 03 destination states of India to which Inward movement of goods from other states by River-ways took place in 2023-24 were Maharashtra, Andhra Pradesh and Odisha with shares of 43.52%, 27.77% and 22.99% of total Inward movement of goods for the year respectively.
- Top 03 states of India within which internal movement of goods by River-ways took place in 2023-24 were Maharashtra, West Bengal and Goa with shares of 63.25%, 9.94% and 7.03% total internal movement of goods for the year respectively.



## Chapter II

### 2.1 INTER/INTRA-STATE MOVEMENTS/FLOWS OF GOODS BY RAILWAYS

Railways is one of the important modes of Inter/Intra-State movement of goods in India. Indian Railways is consistently transporting commodities to different parts of the country using freight trains.



During 2023-24, total 15431.91 lakh tonnes of goods were transported by rail within India, including internal movement, which shows a positive growth of 5.27 % over 14659.29 lakh tonnes in 2022-23. During 2023-24, total outward/inward movement of goods by railways was of the order of 10377.32 lakh tonnes, a rise by 2.84% over 10090.27 lakh tonnes in 2022-23.

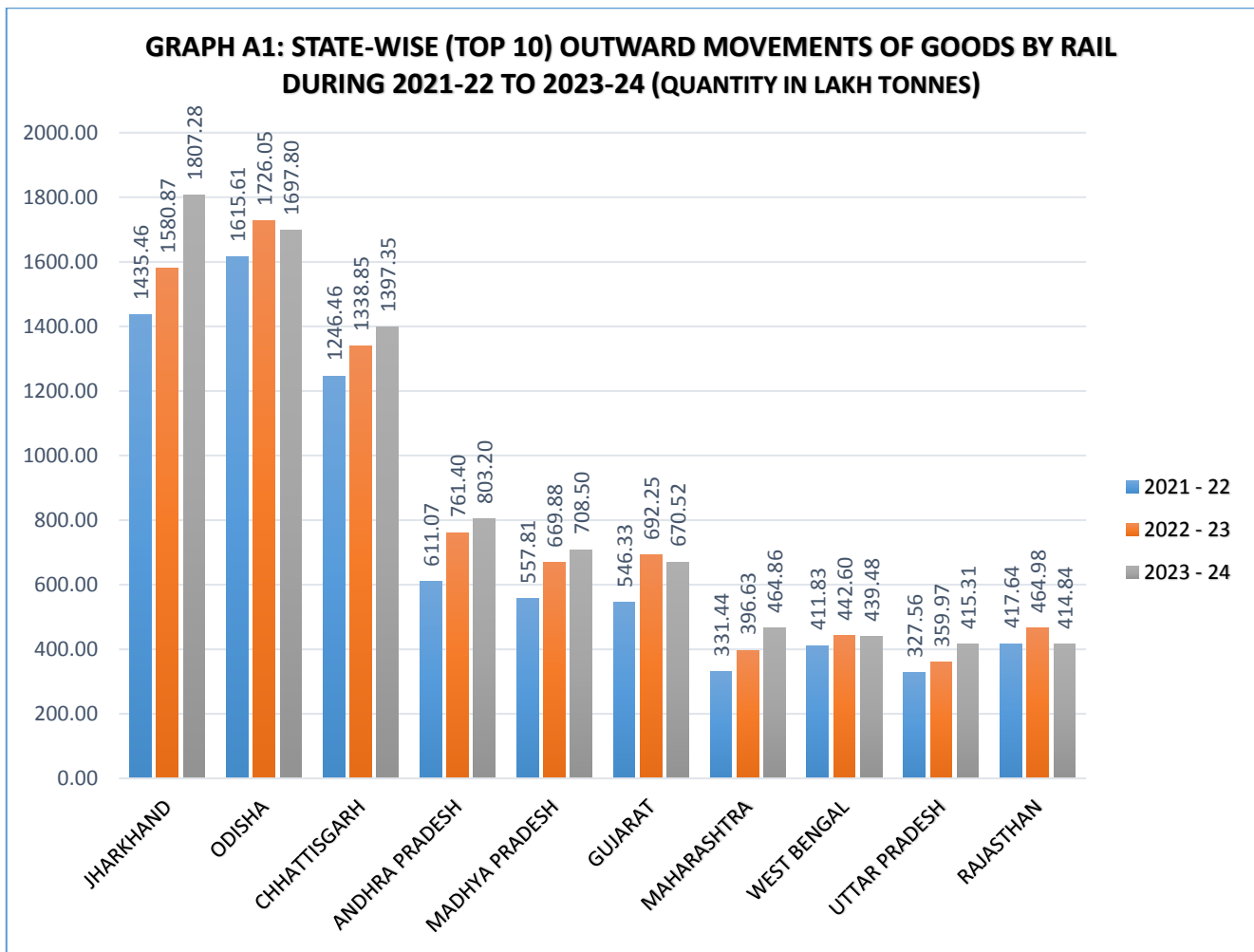
## 2.2 STATE WISE MOVEMENT BY RAIL

### 2.2.1 OUTWARD MOVEMENT BY RAIL

Share of top 10 states in total outward movement of goods by rail in 2023-24 is 84.98% recording a growth rate of 4.57% in total outward movement of goods (measured in Lakh Tonnes) vis-a-vis 2022-23. The growth rate was 11.83% in 2022-23 over 2021-22.

| TABLE A1: TREND IN OUTWARD MOVEMENTS OF GOODS OF TOP 10 MOST CONTRIBUTING STATES BY RAIL<br>(QUANTITY IN LAKH TONNES) |           |          |           |                        |                        |                        |   |
|---|-----------|----------|-----------|------------------------|------------------------|------------------------|---|
| STATES  | 2021 - 22 | 2022-23  | 2023 - 24 | Share (%) in 2021 - 22 | Share (%) in 2022 - 23 | Share (%) in 2023 - 24 | Growth rate (%) in 2023 - 24 over 2022 - 23 |
| JHARKHAND   | 1435.46   | 1580.87  | 1807.28   | 15.74                  | 15.67                  | 17.42                  | 14.32                                       |
| ODISHA  | 1615.61   | 1726.05  | 1697.80   | 17.71                  | 17.11                  | 16.36                  | -1.64                                       |
| CHHATTISGARH  | 1246.46   | 1338.85  | 1397.35   | 13.67                  | 13.27                  | 13.47                  | 4.37  |
| ANDHRA PRADESH  | 611.07    | 761.40   | 803.20    | 6.70                   | 7.55                   | 7.74                   | 5.49  |
| MADHYA PRADESH  | 557.81    | 669.88   | 708.50    | 6.12                   | 6.64                   | 6.83                   | 5.77  |
| GUJARAT   | 546.33    | 692.25   | 670.52    | 5.99                   | 6.86                   | 6.46                   | -3.14                                       |
| MAHARASHTRA   | 331.44    | 396.63   | 464.86    | 3.63                   | 3.93                   | 4.48                   | 17.20                                       |
| WEST BENGAL   | 411.83    | 442.60   | 439.48    | 4.52                   | 4.39                   | 4.23                   | -0.70                                       |
| UTTAR PRADESH   | 327.56    | 359.97   | 415.31    | 3.59                   | 3.57                   | 4.00                   | 15.37                                       |
| RAJASTHAN   | 417.64    | 464.98   | 414.84    | 4.58                   | 4.61                   | 4.00                   | -10.78                                      |
| TOP TEN STATES TOTAL  | 7501.21   | 8433.49  | 8819.14   | 82.24                  | 83.58                  | 84.98                  | 4.57  |
| OTHERS  | 1619.71   | 1656.79  | 1558.18   | 17.76                  | 16.42                  | 15.02                  | -5.95                                       |
| TOTAL   | 9120.92   | 10090.27 | 10377.32  | 100.00                 | 100.00                 | 100.00                 | 2.84  |

As shown in table A1, Jharkhand is the highest in contributing to total outward movement of goods in 2023-24, with a share of 17.42% followed by Odisha (16.36%) and Chhattisgarh (13.47%). The respective shares of these three (3) states have remained quite consistent over the years from 2021-22 to 2023-24.



From the Graph A1, it is clear that outward movement of goods in 2023-24 was more than that in 2022-23 and 2021-22 for all the states except West Bengal (-0.70%), Odisha (-01.64%), Gujarat (-03.14%) and Rajasthan (-10.78%) where movement of goods declined in 2023-24 over 2022-23 – although it had increased in 2022-23 over 2021-22 like all other top Ten (10) states. Maharashtra recorded the most significant growth – rate of 17.20% in 2023-24 over 2022-23 like previous year.

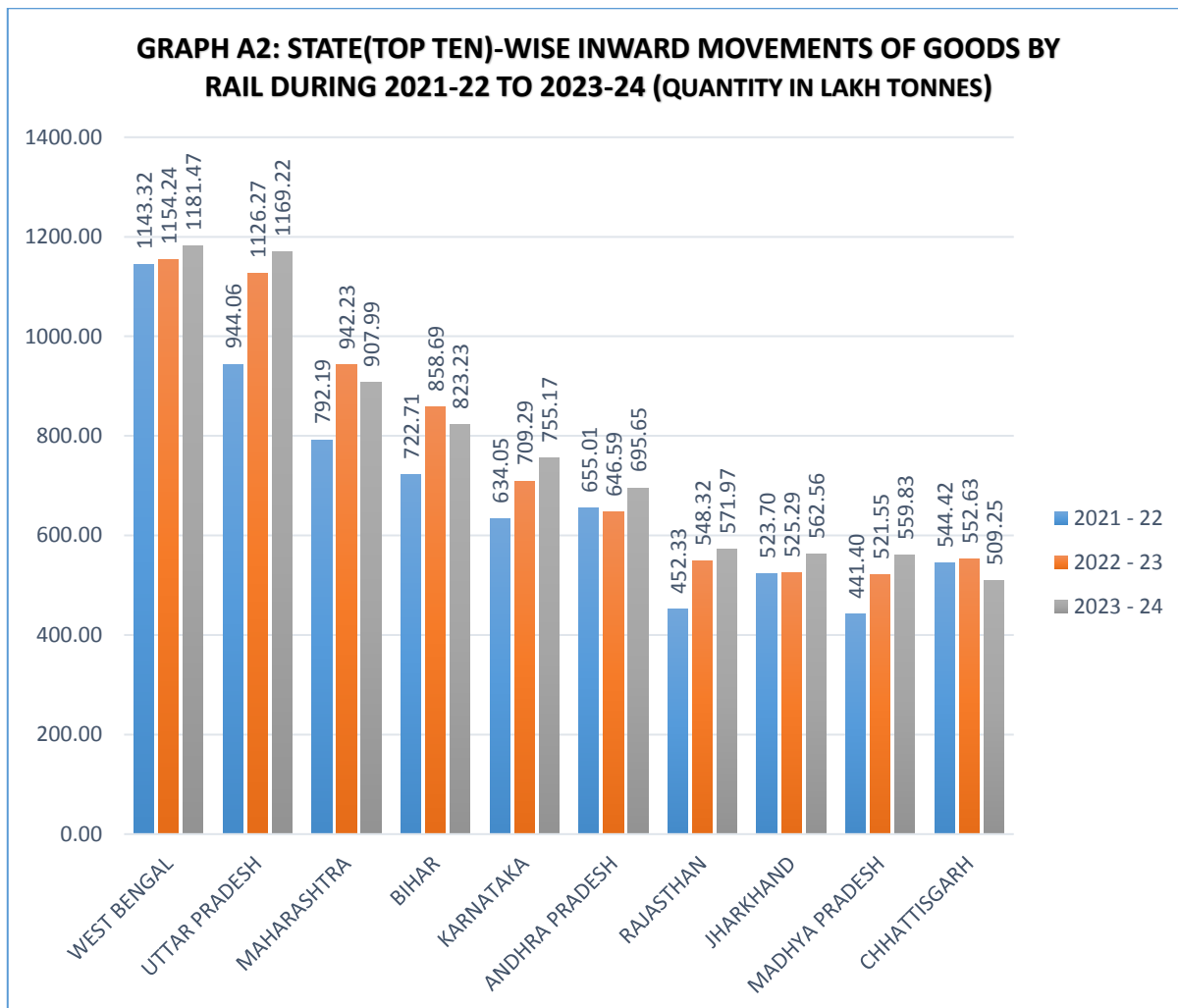
## 2.2.2 INWARD MOVEMENT BY RAIL

Top 10 states in total Inward movement of goods by rail in 2023-24 have a share of 74.55%. In terms of growth an increase of 1.99% in FY 2023-24 over FY 2022-23 was recorded in total Inward movements of goods in the top Ten (10) states. For these top Ten (10) states an increase of 10.68% was recorded in 2022-23 over 2021-22.

**TABLE A2: TREND IN INWARD MOVEMENTS OF GOODS OF TOP 10 MOST CONTRIBUTING STATES BY RAIL  
(QUANTITY IN LAKH TONNES)**

| STATES               | 2021 - 22 | 2022 - 23 | 2023 - 24 | Share (%) in 2021 - 22 | Share (%) in 2022 - 23 | Share (%) in 2023 - 24 | Growth rate (%) in 2023 - 24 over 2022 - 23 |
|----------------------|-----------|-----------|-----------|------------------------|------------------------|------------------------|---|
| WEST BENGAL          | 1143.32   | 1154.24   | 1181.47   | 12.54                  | 11.44                  | 11.39                  | 2.36  |
| UTTAR PRADESH        | 944.06    | 1126.27   | 1169.22   | 10.35                  | 11.16                  | 11.27                  | 3.81  |
| MAHARASHTRA          | 792.19    | 942.23    | 907.99    | 8.69                   | 9.34                   | 8.75                   | -3.63                                       |
| BIHAR                | 722.71    | 858.69    | 823.23    | 7.92                   | 8.51                   | 7.93                   | -4.13                                       |
| KARNATAKA            | 634.05    | 709.29    | 755.17    | 6.95                   | 7.03                   | 7.28                   | 6.47  |
| ANDHRA PRADESH       | 655.01    | 646.59    | 695.65    | 7.18                   | 6.41                   | 6.70                   | 7.59  |
| RAJASTHAN            | 452.33    | 548.32    | 571.97    | 4.96                   | 5.43                   | 5.51                   | 4.31  |
| JHARKHAND            | 523.70    | 525.29    | 562.56    | 5.74                   | 5.21                   | 5.42                   | 7.10  |
| MADHYA PRADESH       | 441.40    | 521.55    | 559.83    | 4.84                   | 5.17                   | 5.39                   | 7.34  |
| CHHATTISGARH         | 544.42    | 552.63    | 509.25    | 5.97                   | 5.48                   | 4.91                   | -7.85                                       |
| TOP TEN STATES TOTAL | 6853.20   | 7585.10   | 7736.34   | 75.14                  | 75.17                  | 74.55                  | 1.99  |
| OTHERS               | 2267.72   | 2505.18   | 2640.98   | 24.86                  | 24.83                  | 25.45                  | 5.42  |
| TOTAL                | 9120.92   | 10090.27  | 10377.32  | 100.00                 | 100.00                 | 100.00                 | 2.84  |

As shown in table A2, West Bengal stands top in terms of total inward movement of goods in 2023-24, with a share of 11.39%, followed closely by Uttar Pradesh (11.27%) and Maharashtra (8.75%).



From Graph A2 above, it is clear that inward movement of goods in 2023-24 was more than that in 2022-23 and 2021-22 for all the states except Maharashtra (-3.63%), Bihar (-4.13%) and Chhattisgarh (-7.85%) where movement of Goods declined in 2023-24 over 2022-23 although those were increased in 2022-23 vis-à-vis 2021-22 like all other states. Andhra Pradesh followed by Madhya Pradesh recorded the most significant growth rates of 7.59% and 7.34% respectively.

### 2.2.3 INTERNAL MOVEMENT BY RAIL

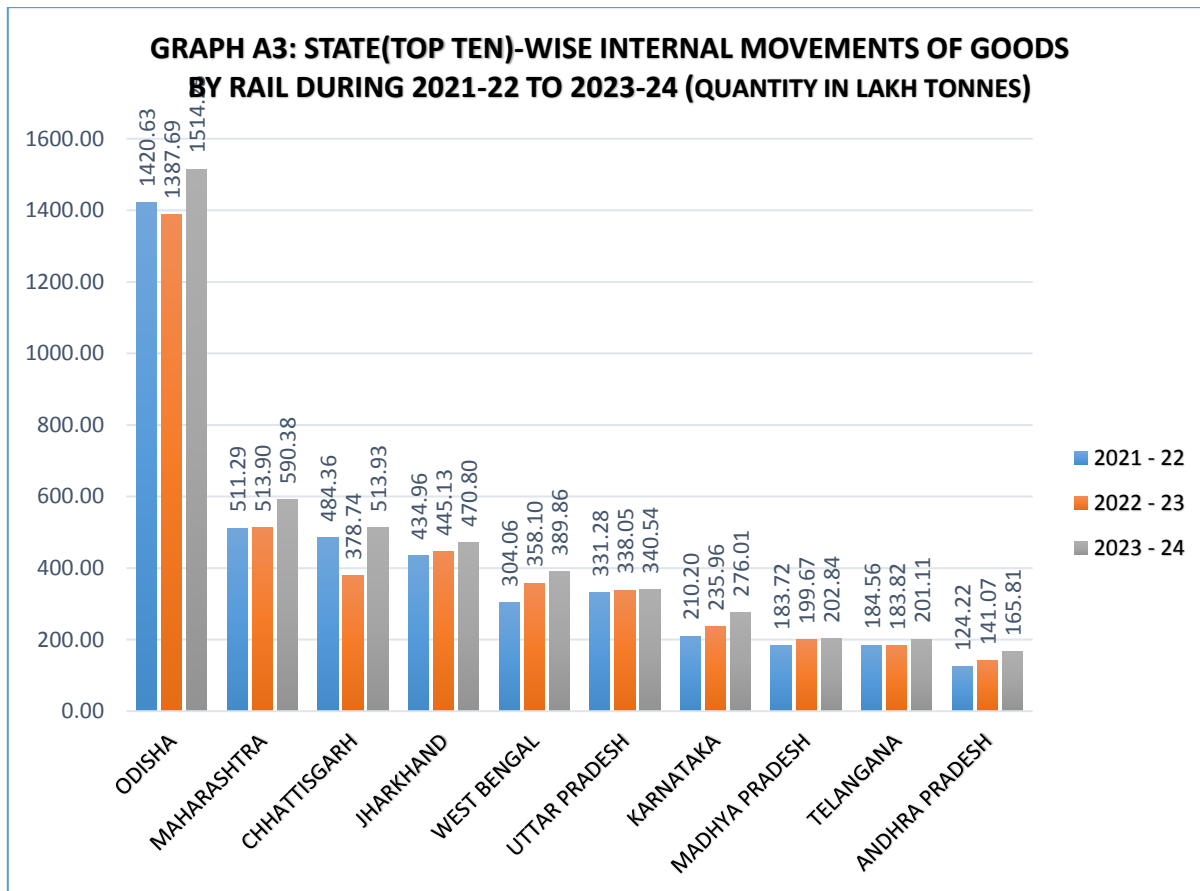
During 2023-24, total internal movement of goods by rail was 5054.58 lakh tonnes, registering a decent double-digit growth of 10.63% over 4569.02 lakh tonnes in 2022-23.

| TABLE A3: TREND IN INTERNAL MOVEMENTS OF GOODS OF TOP 10 MOST CONTRIBUTING STATES BY RAIL (QUANTITY IN LAKH TONNES) |                |                |                |                        |                        |                        |   |
|---|----------------|----------------|----------------|------------------------|------------------------|------------------------|---|
| STATES  | 2021 - 22      | 2022 - 23      | 2023 - 24      | Share (%) in 2021 - 22 | Share (%) in 2022 - 23 | Share (%) in 2023 - 24 | Growth rate (%) in 2023 - 24 over 2022 - 23 |
| ODISHA  | 1420.63        | 1387.69        | 1514.25        | 31.17                  | 30.37                  | 29.96                  | 9.12  |
| MAHARASHTRA   | 511.29         | 513.90         | 590.38         | 11.22                  | 11.25                  | 11.68                  | 14.88                                       |
| CHHATTISGARH  | 484.36         | 378.74         | 513.93         | 10.63                  | 8.29                   | 10.17                  | 35.69                                       |
| JHARKHAND   | 434.96         | 445.13         | 470.80         | 9.54                   | 9.74                   | 9.31                   | 5.77  |
| WEST BENGAL   | 304.06         | 358.10         | 389.86         | 6.67                   | 7.84                   | 7.71                   | 8.87  |
| UTTAR PRADESH   | 331.28         | 338.05         | 340.54         | 7.27                   | 7.40                   | 6.74                   | 0.74  |
| KARNATAKA   | 210.20         | 235.96         | 276.01         | 4.61                   | 5.16                   | 5.46                   | 16.98                                       |
| MADHYA PRADESH  | 183.72         | 199.67         | 202.84         | 4.03                   | 4.37                   | 4.01                   | 1.58  |
| TELANGANA   | 184.56         | 183.82         | 201.11         | 4.05                   | 4.02                   | 3.98                   | 9.40  |
| ANDHRA PRADESH  | 124.22         | 141.07         | 165.81         | 2.73                   | 3.09                   | 3.28                   | 17.53                                       |
| TOP TEN STATES TOTAL  | 4189.29        | 4182.14        | 4665.52        | 91.92                  | 91.53                  | 92.30                  | 11.56                                       |
| OTHERS  | 368.27         | 386.88         | 389.06         | 8.08                   | 8.47                   | 7.70                   | 0.56  |
| <b>TOTAL</b>  | <b>4557.56</b> | <b>4569.02</b> | <b>5054.58</b> | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>          | <b>10.63</b>                                |

The top 10 states accounted for a share of 92.30% of total internal movement of goods in 2023-24 in India registering a slide increase from 91.53% share held in 2022-23. In terms of total quantity of goods internally moved, a growth of 11.56% is observed between 2022-23 and 2023-24 for top 10 states i.e., from 4182.14 lakh tonnes to 4665.52 lakh tonnes, although between 2021-22 and 2022-23 there was a decrease of 0.17% for the top Ten (10) states highlighted in above tables.

As shown in table A3, internal movement of goods occurred majorly in Odisha with share 29.96% of total internal movement of goods in India, followed by Maharashtra (11.68%) and Chhattisgarh (10.17%). The share of all other states (combined) has been gradually increasing over the years.





From the Graph A3, it is clear that internal movement of goods within Odisha far outweighs than that of any other States. Chhattisgarh occupying the 3<sup>rd</sup> Position, has recorded the highest growth rate of 35.69% in internal movement of goods between 2022-23 and 2023-24.

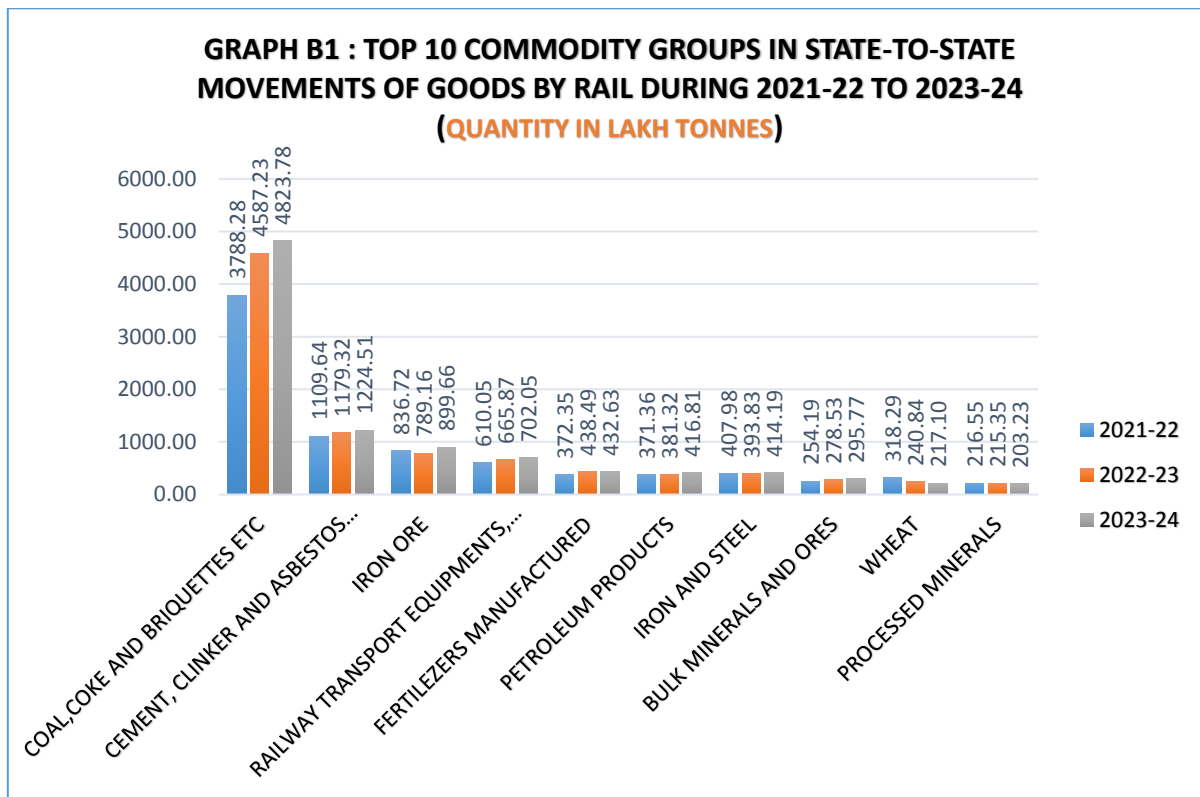
## 2.3 COMMODITY WISE MOVEMENT BY RAIL

### 2.3.1 STATE TO STATE(Outward/Inward) MOVEMENT BY RAIL

Total state-to-state movement of top 10 commodity groups by rail was 9629.72 lakh tonnes, contributing 92.80% in total state-to-state movement of goods during 2023-24.

| TABLE B1: TREND IN STATE-TO-STATE MOVEMENTS OF GOODS OF TOP 10 COMMODITY GROUPS BY RAIL (QUANTITY IN LAKH TONNES) |                |                 |                 |                         |                         |                         |  |
|---|----------------|-----------------|-----------------|-------------------------|-------------------------|-------------------------|--|
| COMMODITY   | 2021-22        | 2022-23         | 2023-24         | Share (%)<br>in 2021-22 | Share (%)<br>in 2022-23 | Share (%)<br>in 2023-24 | Growth rate<br>(%)<br>in 2023-24<br>over 2022-23 |
| COAL, COKE AND BRIQUETTES ETC   | 3788.28        | 4587.23         | 4823.78         | 41.53                   | 45.46                   | 46.48                   | 5.16   |
| CEMENT, CLINKER AND ASBESTOS CEMENT   | 1109.64        | 1179.32         | 1224.51         | 12.17                   | 11.69                   | 11.80                   | 3.83   |
| IRON ORE  | 836.72         | 789.16          | 899.66          | 9.17                    | 7.82                    | 8.67                    | 14.00  |
| RAILWAY TRANSPORT EQUIPMENTS, PARTS   | 610.05         | 665.87          | 702.05          | 6.69                    | 6.60                    | 6.77                    | 5.43   |
| FERTILIZERS MANUFACTURED  | 372.35         | 438.49          | 432.63          | 4.08                    | 4.35                    | 4.17                    | -1.34  |
| PETROLEUM PRODUCTS  | 371.36         | 381.32          | 416.81          | 4.07                    | 3.78                    | 4.02                    | 9.31   |
| IRON AND STEEL  | 407.98         | 393.83          | 414.19          | 4.47                    | 3.90                    | 3.99                    | 5.17   |
| BULK MINERALS AND ORES  | 254.19         | 278.53          | 295.77          | 2.79                    | 2.76                    | 2.85                    | 6.19   |
| WHEAT   | 318.29         | 240.84          | 217.10          | 3.49                    | 2.39                    | 2.09                    | -9.86  |
| PROCESSED MINERALS  | 216.55         | 215.35          | 203.23          | 2.37                    | 2.13                    | 1.96                    | -5.63  |
| TOP TEN COMMODITIES TOTAL   | 8285.44        | 9169.93         | 9629.72         | 90.84                   | 90.88                   | 92.80                   | 5.01   |
| OTHERS  | 835.48         | 920.34          | 747.61          | 9.16                    | 9.12                    | 7.20                    | -18.77   |
| <b>TOTAL</b>  | <b>9120.92</b> | <b>10090.27</b> | <b>10377.32</b> | <b>100.00</b>           | <b>100.00</b>           | <b>100.00</b>           | <b>2.84</b>                                      |

Table B1 exhibits that 'Coal, Coke and Briquettes etc.' was the dominant commodity group transported from one state to another state in 2023-24 with a share of 46.48% in total state-to-state movement of goods. 'Cement, Clinker and Asbestos Cement' with share of 11.80% occupied the second-slot and 'Iron Ore' with share of 8.67% occupied the third-slot. Wheat is the only one (1) forms of cereals that figure in the above list.



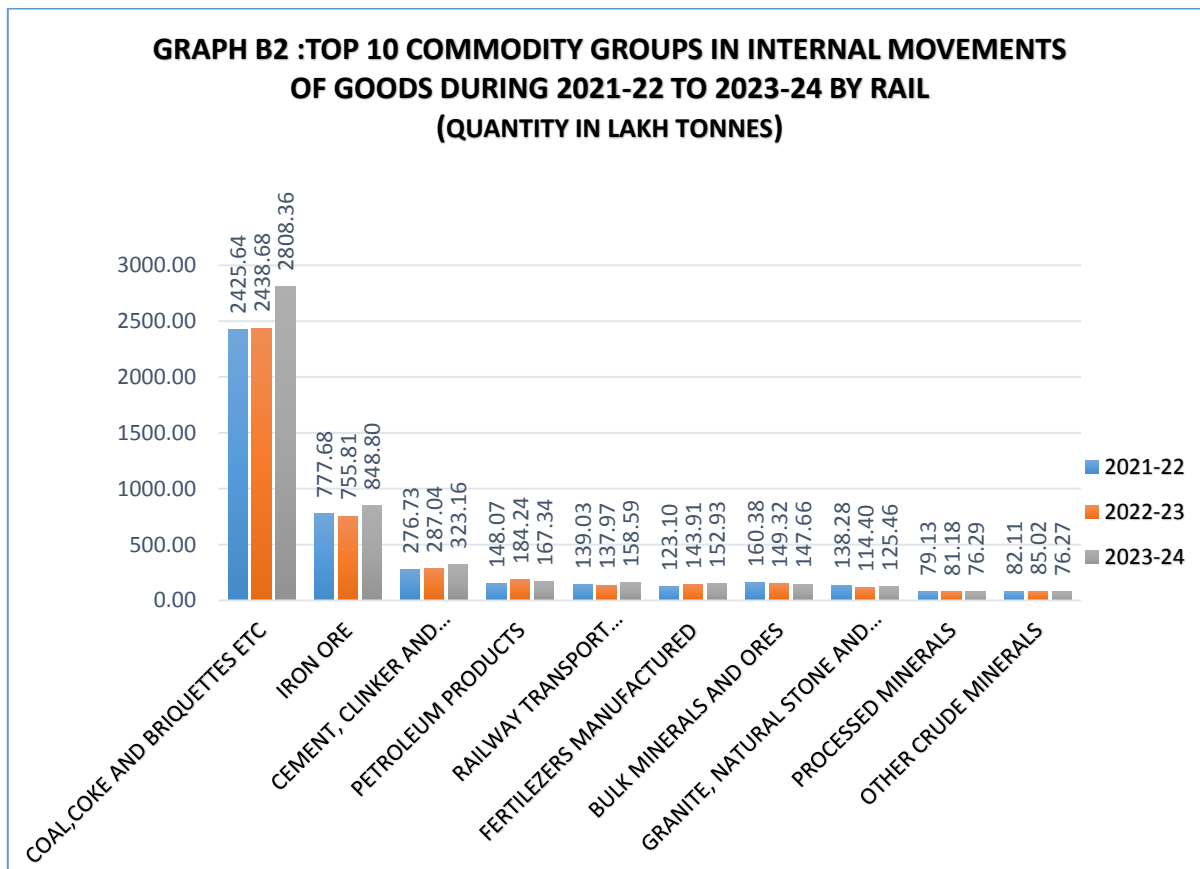
From Table B1 and Graph B1 above, it is observed that 'Iron Ore' experienced a significant growth rate of over 14% as regards state - to- state movements of goods between 2022-23 and 2023-24 followed by 'Petroleum Products' with a growth rate of 09.31% and 'Bulk Minerals and Ores' in the 3rd slot registered a positive growth rate 6.19% in 2023-24 compared to 2022-23. However, among top 10 commodities State to State movement of Wheat has decreased most, i.e., by 9.86% between 2022-23 and 2023-24.

**2.3.2 INTERNAL MOVEMENT BY RAIL**

Total internal movement of top 10 commodity groups by rail was 4884.86 lakh tonnes, contributing 96.64% in total internal movement of goods during 2023-24.

| <b>TABLE B2: TREND IN INTERNAL MOVEMENTS OF TOP 10 COMMODITY GROUPS BY RAIL (QUANTITY IN LAKH TONNES)</b> |                |                |                |                             |                             |                             |  |
|---|----------------|----------------|----------------|-----------------------------|-----------------------------|-----------------------------|--|
| <b>COMMODITY</b>  | <b>2021-22</b> | <b>2022-23</b> | <b>2023-24</b> | <b>Share (%) in 2021-22</b> | <b>Share (%) in 2022-23</b> | <b>Share (%) in 2023-24</b> | <b>Growth rate (%) in 2023-24 over 2022-23</b> |
| COAL, COKE AND BRIQUETTES ETC   | 2425.64        | 2438.68        | 2808.36        | 53.22                       | 53.37                       | 55.56                       | 15.16  |
| IRON ORE  | 777.68         | 755.81         | 848.80         | 17.06                       | 16.54                       | 16.79                       | 12.30  |
| CEMENT, CLINKER AND ASBESTOS CEMENT   | 276.73         | 287.04         | 323.16         | 6.07                        | 6.28                        | 6.39                        | 12.58  |
| PETROLEUM PRODUCTS  | 148.07         | 184.24         | 167.34         | 3.25                        | 4.03                        | 3.31                        | -9.18  |
| RAILWAY TRANSPORT EQUIPMENTS, PARTS   | 139.03         | 137.97         | 158.59         | 3.05                        | 3.02                        | 3.14                        | 14.94  |
| FERTILIZERS MANUFACTURED  | 123.10         | 143.91         | 152.93         | 2.70                        | 3.15                        | 3.03                        | 6.27   |
| BULK MINERALS AND ORES  | 160.38         | 149.32         | 147.66         | 3.52                        | 3.27                        | 2.92                        | -1.11  |
| GRANITE, NATURAL STONE AND PRODUCT  | 138.28         | 114.40         | 125.46         | 3.03                        | 2.50                        | 2.48                        | 9.67   |
| PROCESSED MINERALS  | 79.13          | 81.18          | 76.29          | 1.74                        | 1.78                        | 1.51                        | -6.02  |
| OTHER CRUDE MINERALS  | 82.11          | 85.02          | 76.27          | 1.80                        | 1.86                        | 1.51                        | -10.30   |
| <b>TOP TEN COMMODITIES TOTAL</b>  | <b>4350.14</b> | <b>4377.58</b> | <b>4884.86</b> | <b>95.45</b>                | <b>95.81</b>                | <b>96.64</b>                | <b>11.59</b>                                   |
| OTHERS  | 207.42         | 191.44         | 169.72         | 4.55                        | 4.19                        | 3.36                        | -11.35   |
| <b>TOTAL</b>  | <b>4557.56</b> | <b>4569.02</b> | <b>5054.58</b> | <b>100.00</b>               | <b>100.00</b>               | <b>100.00</b>               | <b>10.63</b>                                   |

Table B2 is showing that 'Coal, Coke and Briquettes etc.' was the major item transported within states in 2023-24 with a bulk share of 55.56% of total internal movement of goods. 'Iron Ore' and 'Cement, Clinker and Asbestos Cement' have occupied the 2nd and 3rd slots with 16.79% and 6.39% shares respectively in 2023-24.



From Table B2 and Graph B2, it is clear that 'Coal, Coke and Briquettes etc.' has hold on to its position at top quite consistently and grew highest whereas Railway Transport Equipment, Parts has registered the 2<sup>nd</sup> highest positive growth in total quantity internally transported between 2022-23 and 2023-24.

Coal is the most important fossil fuel in India and accounts for a substantial percentage of the nation's energy demand with bulk of the Coal reserves concentrated in eastern and south – central parts of the country which clearly correlate to the fact that Coal, Coke and Briquettes etc is the most important commodity transported between states (state to state movement by Rail) and internally (internal movement by Rail) in each state. Moreover, railways is the most suitable medium of transport of bulk materials.

## 2.4 COMMODITY BY STATE WISE MOVEMENT BY RAIL

Table C1 shows Top 5 (five) States which contributed in Outward movement of each of the Top 5 commodities in Inter-State Trade through Rail in 2021-22 to 2023-24.

| TABLE C1: OUTWARD MOVEMENTS OF TOP 5 COMMODITIES FROM MAJOR STATES (QUANTITY IN LAKH TONNES) |                                     |                |         |         |         |  |
|--|-------------------------------------|----------------|---------|---------|---------|--|
|  | COMMODITY                           | STATE          | 2021-22 | 2022-23 | 2023-24 | Growth rate (%) in 2023-24 over 2022-23 State by State |
| 1  | COAL, COKE AND BRIQUETTES ETC       | JHARKHAND      | 992.78  | 1135.60 | 1338.24 | 17.84  |
|  |                                     | ODISHA         | 778.86  | 934.65  | 858.23  | -8.18  |
|  |                                     | CHHATTISGARH   | 684.50  | 791.71  | 823.27  | 3.99   |
|  |                                     | ANDHRA PRADESH | 205.28  | 325.41  | 320.80  | -1.42  |
|  |                                     | MADHYA PRADESH | 213.37  | 271.49  | 293.49  | 8.10   |
|  |                                     | All STATES     | 3788.28 | 4587.23 | 4823.78 | 5.16   |
| 2  | CEMENT, CLINKER AND ASBESTOS CEMENT | RAJASTHAN      | 223.12  | 260.86  | 242.78  | -6.93  |
|  |                                     | CHHATTISGARH   | 206.04  | 208.50  | 233.32  | 11.91  |
|  |                                     | MADHYA PRADESH | 164.54  | 164.87  | 180.71  | 9.61   |
|  |                                     | ANDHRA PRADESH | 119.30  | 128.44  | 134.49  | 4.71   |
|  |                                     | KARNATAKA      | 122.58  | 123.05  | 130.95  | 6.42   |
|  |                                     | All STATES     | 1109.64 | 1179.32 | 1224.51 | 3.83   |
| 3  | IRON ORE                            | ODISHA         | 461.14  | 420.87  | 418.04  | -0.67  |
|  |                                     | CHHATTISGARH   | 188.22  | 159.03  | 178.97  | 12.54  |
|  |                                     | JHARKHAND      | 85.26   | 76.37   | 101.46  | 32.85  |
|  |                                     | KARNATAKA      | 48.68   | 50.65   | 72.13   | 42.41  |
|  |                                     | MAHARASHTRA    | NIL     | 24.21   | 55.98   | 131.24   |
|  |                                     | All STATES     | 836.72  | 789.16  | 899.66  | 14.00  |
| 4  | RAILWAY TRANSPORT EQUIPMENTS, PARTS | GUJARAT        | 185.04  | 210.14  | 234.33  | 11.51  |
|  |                                     | RAJASTHAN      | 92.65   | 103.50  | 87.27   | -15.68   |
|  |                                     | MAHARASHTRA    | 61.16   | 74.89   | 78.78   | 5.19   |
|  |                                     | HARYANA        | 61.75   | 62.35   | 72.42   | 16.15  |
|  |                                     | ODISHA         | 26.78   | 28.75   | 38.95   | 35.50  |
|  |                                     | All STATES     | 610.05  | 665.87  | 702.05  | 5.43   |
| 5  | FERTILEZERS MANUFACTURED            | GUJARAT        | 132.53  | 155.40  | 127.48  | -17.97   |
|  |                                     | ANDHRA PRADESH | 65.00   | 80.80   | 75.03   | -7.15  |
|  |                                     | UTTAR PRADESH  | 37.43   | 40.60   | 44.62   | 9.88   |
|  |                                     | ODISHA         | 35.19   | 39.34   | 40.72   | 3.53   |
|  |                                     | RAJASTHAN      | 28.40   | 30.95   | 29.98   | -3.16  |
|  |                                     | All STATES     | 372.35  | 438.49  | 432.63  | -1.34  |

NOTE: 'NIL' indicates no movements

Table C2 shows Top 5 (five) States which contributed in Inward movement of each of the Top 5 commodities of Inter-State trade through Rail in 2021-22 to 2023-24.

| <b>TABLE C2: INWARD MOVEMENTS OF TOP 5 COMMODITIES TO MAJOR STATES (QUANTITY IN LAKH TONNES)</b> |  |                |                |                |                |   |
|--|--|----------------|----------------|----------------|----------------|---|
|  | <b>COMMODITY</b>                           | <b>STATE</b>   | <b>2021-22</b> | <b>2022-23</b> | <b>2023-24</b> | <b>Growth rate (%) in 2023-24 over 2022-23 State by State</b> |
| 1  | <b>COAL, COKE AND BRIQUETTES ETC</b>       | UTTAR PRADESH  | 360.36         | 499.37         | 533.69         | 6.87  |
|  |  | WEST BENGAL    | 482.50         | 490.06         | 512.47         | 4.57  |
|  |  | MAHARASHTRA    | 352.60         | 490.88         | 477.06         | -2.82   |
|  |  | KARNATAKA      | 326.72         | 381.30         | 437.42         | 14.72   |
|  |  | RAJASTHAN      | 295.27         | 359.11         | 401.70         | 11.86   |
|  |  | All STATES     | 3788.28        | 4587.23        | 4823.78        | 5.16  |
| 2  | <b>CEMENT, CLINKER AND ASBESTOS CEMENT</b> | UTTAR PRADESH  | 236.03         | 236.97         | 244.97         | 3.37  |
|  |  | WEST BENGAL    | 154.92         | 164.23         | 170.91         | 4.07  |
|  |  | BIHAR          | 139.12         | 167.25         | 169.87         | 1.57  |
|  |  | MAHARASHTRA    | 142.44         | 138.39         | 154.42         | 11.58   |
|  |  | JHARKHAND      | 73.79          | 72.60          | 83.52          | 15.04   |
|  |  | All STATES     | 1109.64        | 1179.32        | 1224.51        | 3.83  |
| 3  | <b>IRON ORE</b>                            | WEST BENGAL    | 222.30         | 233.49         | 248.06         | 6.24  |
|  |  | ANDHRA PRADESH | 218.03         | 193.05         | 247.54         | 28.22   |
|  |  | CHHATTISGARH   | 113.84         | 109.38         | 103.40         | -5.47   |
|  |  | JHARKHAND      | 124.65         | 108.92         | 98.53          | -9.54   |
|  |  | ODISHA         | 63.72          | 48.35          | 96.14          | 98.83   |
|  |  | All STATES     | 836.72         | 789.16         | 899.66         | 14.00   |
| 4  | <b>RAILWAY TRANSPORT EQUIPMENTS, PARTS</b> | GUJARAT        | 147.08         | 148.28         | 159.72         | 7.72  |
|  |  | HARYANA        | 80.25          | 93.30          | 108.96         | 16.79   |
|  |  | MAHARASHTRA    | 67.31          | 69.68          | 68.69          | -1.43   |
|  |  | RAJASTHAN      | 71.42          | 77.20          | 66.05          | -14.45  |
|  |  | PUNJAB         | 28.13          | 45.20          | 53.56          | 18.49   |
|  |  | All STATES     | 610.05         | 665.87         | 702.05         | 5.43  |
| 5  | <b>FERTILEZERS MANUFACTURED</b>            | UTTAR PRADESH  | 61.93          | 62.76          | 61.14          | -2.58   |
|  |  | MADHYA PRADESH | 35.67          | 46.35          | 45.96          | -0.85   |
|  |  | MAHARASHTRA    | 33.23          | 44.89          | 44.39          | -1.12   |
|  |  | BIHAR          | 31.72          | 38.77          | 37.94          | -2.13   |
|  |  | PUNJAB         | 32.08          | 32.68          | 34.07          | 4.25  |
|  |  | All STATES     | 372.35         | 438.49         | 432.63         | -1.34   |

Table C3 shows Top 5 (five) States which contributed in Internal movement of each of the Top 5 commodities through Rail in 2021-22 to 2023-24.

| TABLE C3: INTERNAL MOVEMENTS OF TOP 5 COMMODITIES FROM MAJOR STATES (QUANTITY IN LAKH TONNES) |                                     |               |         |         |         |  |
|---|-------------------------------------|---------------|---------|---------|---------|--|
|   | COMMODITY                           | STATE         | 2021-22 | 2022-23 | 2023-24 | Growth rate (%) in 2023-24 over 2022-23 State by State |
| 1   | COAL, COKE AND BRIQUETTES ETC       | ODISHA        | 805.95  | 830.91  | 933.99  | 12.41  |
|   |                                     | MAHARASHTRA   | 319.95  | 300.03  | 355.69  | 18.55  |
|   |                                     | CHHATTISGARH  | 323.82  | 233.06  | 336.54  | 44.40  |
|   |                                     | WEST BENGAL   | 203.72  | 247.45  | 279.49  | 12.95  |
|   |                                     | JHARKHAND     | 186.67  | 194.44  | 209.80  | 7.90   |
|   |                                     | All STATES    | 2425.64 | 2438.68 | 2808.36 | 15.16  |
| 2   | IRON ORE                            | ODISHA        | 356.07  | 318.09  | 360.41  | 13.30  |
|   |                                     | JHARKHAND     | 186.67  | 196.54  | 201.57  | 2.56   |
|   |                                     | KARNATAKA     | 110.65  | 123.08  | 139.61  | 13.44  |
|   |                                     | CHHATTISGARH  | 118.49  | 109.12  | 138.88  | 27.27  |
|   |                                     | WEST BENGAL   | 5.47    | 3.39    | 6.24    | 84.15  |
|   |                                     | All STATES    | 777.68  | 755.81  | 848.80  | 12.30  |
| 3   | CEMENT, CLINKER AND ASBESTOS CEMENT | MAHARASHTRA   | 57.94   | 67.54   | 87.06   | 28.90  |
|   |                                     | UTTAR PRADESH | 45.06   | 41.31   | 47.70   | 15.46  |
|   |                                     | WEST BENGAL   | 35.11   | 43.74   | 37.22   | -14.91   |
|   |                                     | KARNATAKA     | 21.36   | 21.99   | 29.13   | 32.44  |
|   |                                     | ODISHA        | 25.18   | 28.07   | 25.04   | -10.80   |
|   |                                     | All STATES    | 276.73  | 287.04  | 323.16  | 12.58  |
| 4   | PETROLEUM PRODUCTS                  | UTTAR PRADESH | 37.04   | 36.15   | 32.37   | -10.47   |
|   |                                     | MAHARASHTRA   | 23.09   | 29.34   | 28.51   | -2.82  |
|   |                                     | KARNATAKA     | 19.14   | 29.87   | 26.32   | -11.90   |
|   |                                     | GUJARAT       | 20.33   | 26.86   | 21.47   | -20.06   |
|   |                                     | WEST BENGAL   | 10.57   | 11.22   | 12.06   | 7.42   |
|   |                                     | All STATES    | 148.07  | 184.24  | 167.34  | -9.18  |
| 5   | RAILWAY TRANSPORT EQUIPMENTS, PARTS | GUJARAT       | 54.52   | 50.50   | 64.52   | 27.78  |
|   |                                     | MAHARASHTRA   | 43.67   | 45.73   | 48.23   | 5.47   |
|   |                                     | HARYANA       | 23.15   | 25.91   | 27.22   | 5.06   |
|   |                                     | RAJASTHAN     | 4.87    | 7.55    | 8.30    | 9.95   |
|   |                                     | UTTAR PRADESH | 1.40    | 1.40    | 3.75    | 166.86   |
|   |                                     | All STATES    | 139.03  | 137.97  | 158.59  | 14.94  |

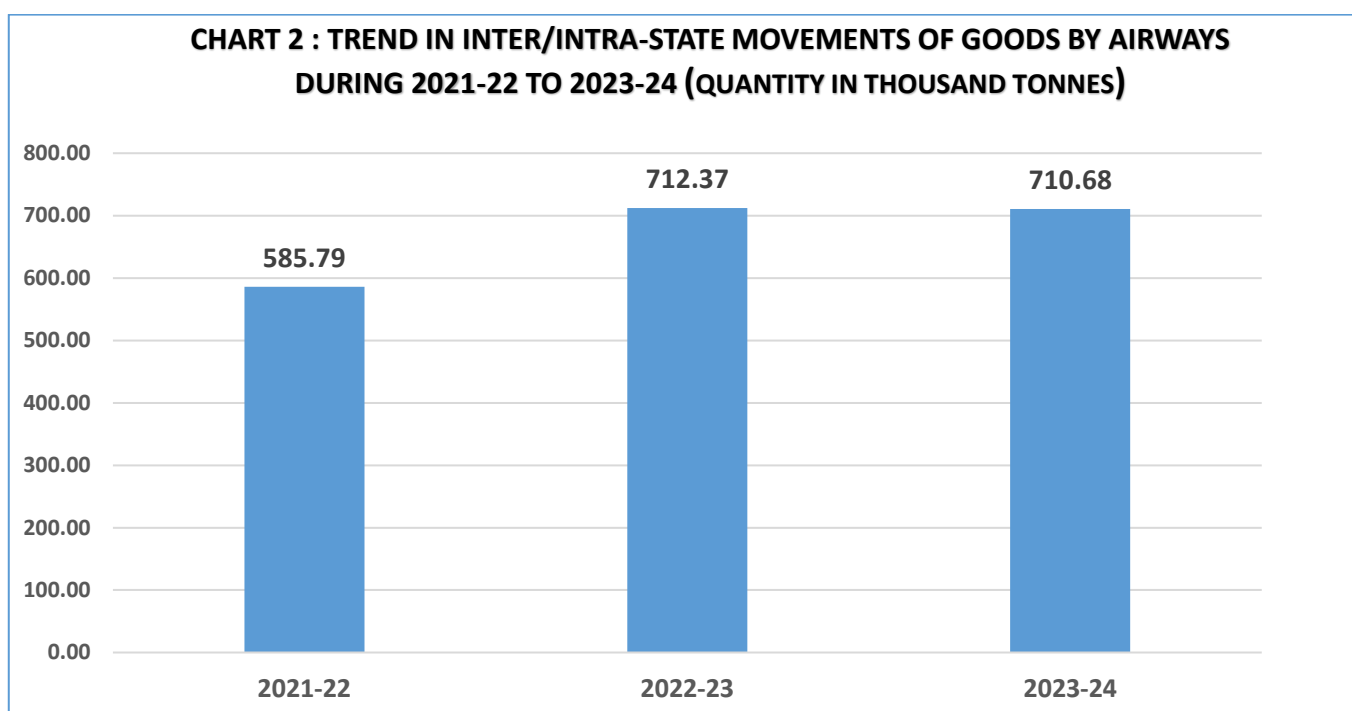




## Chapter III

### 3.1 INTER/INTRA-STATE MOVEMENTS/FLOWS OF GOODS BY AIRWAYS

Air transport is one of the several ways to transport goods across the country at a fast pace i.e., speedily. Air transportation provides convenient, reliable and fast services of transport. Importance of Air transportation has increased in recent times with the advent and spread of e-commerce and heightened demand for rapid delivery. Moreover, changing business models such as just-in-time manufacturing, outsourcing of critical components and processes have all contributed to it. During 2023-24, 710.68 thousand tonnes of goods were transported by airways within India, a decrease by 0.24% over previous year.



During 2023-24, total outward/inward movement of goods by airways was of 701.00 thousand tonnes, and internal movement accounted for the remaining 9.68 thousand tonnes.

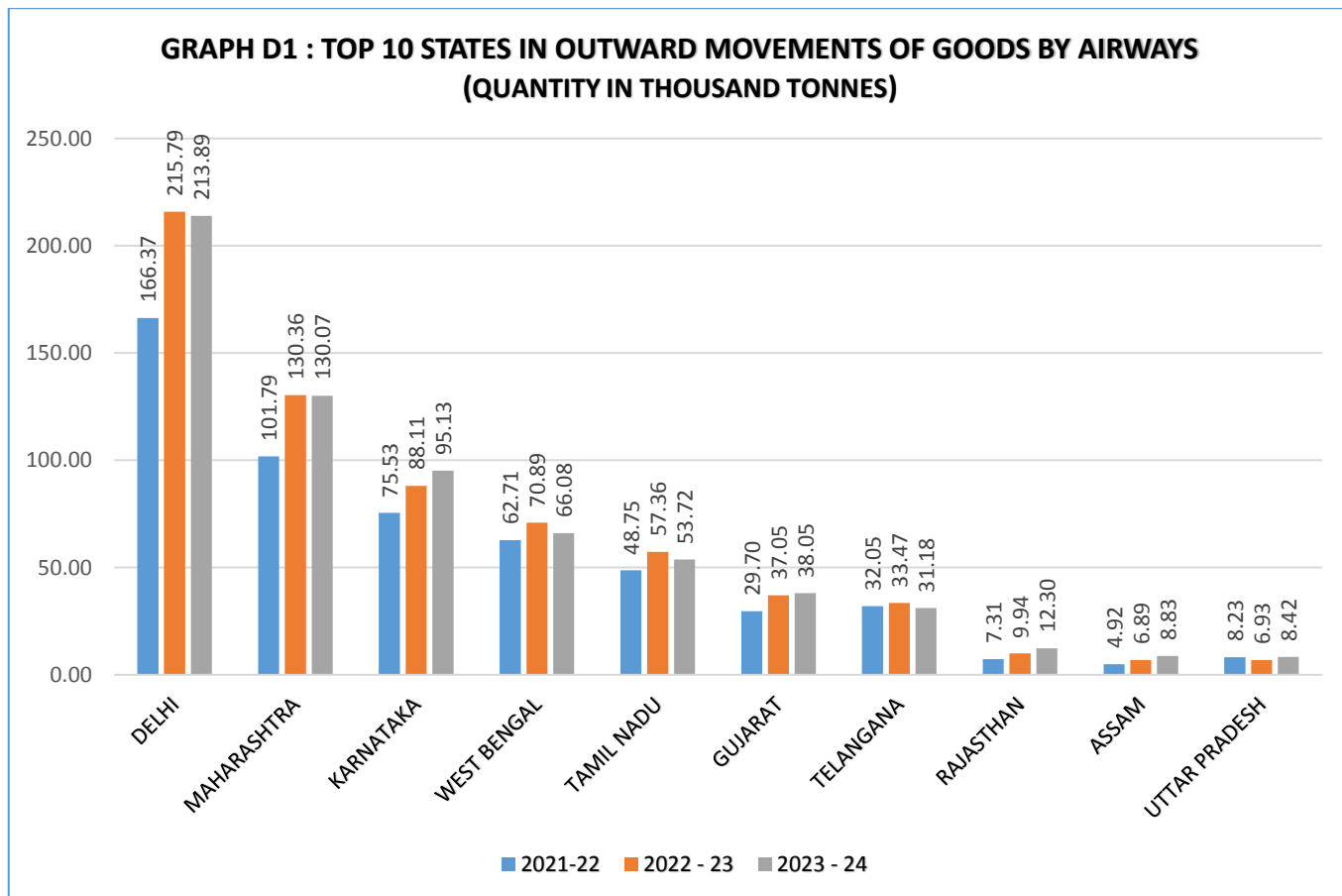
## 3.2 STATE-WISE MOVEMENTS BY AIRWAYS

### 3.2.1 OUTWARD MOVEMENTS BY AIRWAYS

Over the last three years, top 10 states in terms of total outward movement of goods by airways have a combined share of more than 93% of total outward trade. For 2023-24, it is 93.82%. Total outward movement of goods from these top 10 states increased by 0.14% in 2023-24 over the previous year. Total outward movement of goods in India by airways decreased by 0.24% in 2023-24 over 2022-23.

**TABLE D1: TOP 10 STATES IN OUTWARD MOVEMENTS OF GOODS BY AIRWAYS (QUANTITY IN THOUSAND TONNES)**

| STATES                          | 2021-22       | 2022 - 23     | 2023 - 24     | Share (%)<br>in 2021 - 22 | Share (%)<br>in 2022 - 23 | Share (%)<br>in 2023 - 24 | Growth rate (%)<br>in 2023 - 24<br>over 2022 - 23 |
|---------------------------------|---------------|---------------|---------------|---------------------------|---------------------------|---------------------------|---|
| DELHI                           | 166.37        | 215.79        | 213.89        | 28.81                     | 30.71                     | 30.51                     | -0.88   |
| MAHARASHTRA                     | 101.79        | 130.36        | 130.07        | 17.63                     | 18.55                     | 18.56                     | -0.22   |
| KARNATAKA                       | 75.53         | 88.11         | 95.13         | 13.08                     | 12.54                     | 13.57                     | 7.97  |
| WEST BENGAL                     | 62.71         | 70.89         | 66.08         | 10.86                     | 10.09                     | 9.43                      | -6.79   |
| TAMIL NADU                      | 48.75         | 57.36         | 53.72         | 8.44                      | 8.16                      | 7.66                      | -6.33   |
| GUJARAT                         | 29.70         | 37.05         | 38.05         | 5.14                      | 5.27                      | 5.43                      | 2.70  |
| TELANGANA                       | 32.05         | 33.47         | 31.18         | 5.55                      | 4.76                      | 4.45                      | -6.84   |
| RAJASTHAN                       | 7.31          | 9.94          | 12.30         | 1.27                      | 1.41                      | 1.76                      | 23.74   |
| ASSAM                           | 4.92          | 6.89          | 8.83          | 0.85                      | 0.98                      | 1.26                      | 28.11   |
| UTTAR PRADESH                   | 8.23          | 6.93          | 8.42          | 1.43                      | 0.99                      | 1.20                      | 21.39   |
| <b>TOP TEN STATES<br/>TOTAL</b> | <b>537.36</b> | <b>656.79</b> | <b>657.68</b> | <b>93.05</b>              | <b>93.47</b>              | <b>93.82</b>              | <b>0.14</b>                                       |
| OTHERS                          | 40.15         | 45.89         | 43.32         | 6.95                      | 6.53                      | 6.18                      | -5.59   |
| <b>TOTAL</b>                    | <b>577.51</b> | <b>702.67</b> | <b>701.00</b> | <b>100.00</b>             | <b>100.00</b>             | <b>100.00</b>             | <b>-0.24</b>                                      |



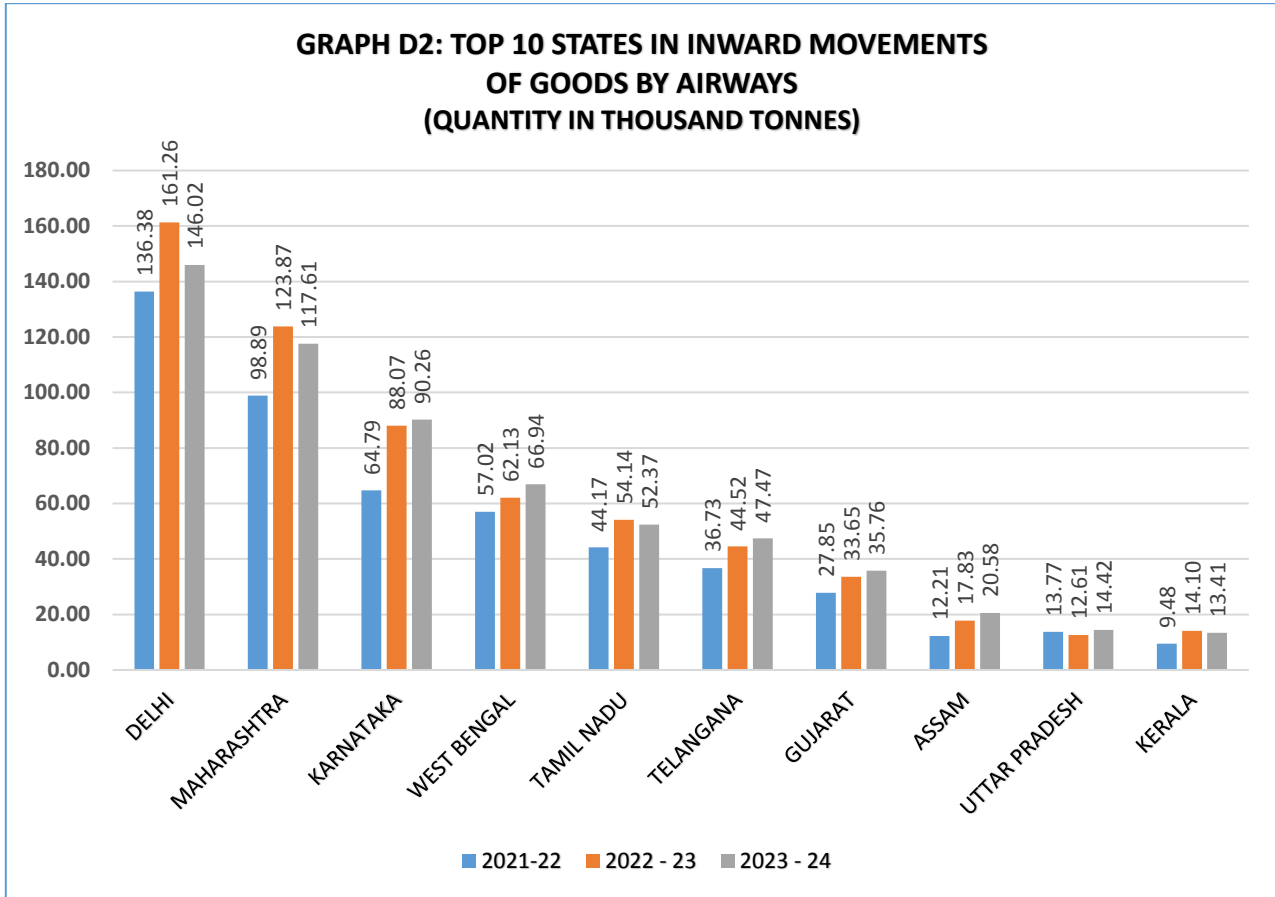
Delhi ranks top in total outward movement of goods by airways in 2023-24, with a share of 30.51% followed by Maharashtra (18.56%), Karnataka (13.57%) and West Bengal (09.43%). These four states together contribute more than 72.07% of total outward movement of goods in India by airways in 2023-24. Assam has recorded the highest growth rate of around 28.11 % followed by Rajasthan (23.74%) and Uttar Pradesh (21.39%). Telangana, West Bengal, Tamil Nadu registered decline of around 7% between 2022-23 and 2023-24. Delhi has consistently topped the chart with its share in total hovering around 30% between 2022-23 and 2023-24.

### 3.2.2 INWARD MOVEMENTS BY AIRWAYS

Over the past three years top 10 states in terms of total inward movement of goods by airways have a combined share of more than 86% of total inward trade. For 2023-24, it is 86.28%. Inward movement of goods from these top 10 states decreased by 1.20% in 2023-24. Total inward movement of goods decreased by 0.24% in 2023-24 over 2022- 23.

**TABLE D2: TOP 10 STATES IN INWARD MOVEMENTS OF GOODS BY AIRWAYS (QUANTITY IN THOUSAND TONNES)**

| STATES               | 2021-22       | 2022 - 23     | 2023 - 24     | Share (%) in 2021 - 22 | Share (%) in 2022 - 23 | Share (%) in 2023 - 24 | Growth rate (%) in 2023 - 24 over 2022 - 23 |
|----------------------|---------------|---------------|---------------|------------------------|------------------------|------------------------|---|
| DELHI                | 136.38        | 161.26        | 146.02        | 23.62                  | 22.95                  | 20.83                  | -9.45                                       |
| MAHARASHTRA          | 98.89         | 123.87        | 117.61        | 17.12                  | 17.63                  | 16.78                  | -5.05                                       |
| KARNATAKA            | 64.79         | 88.07         | 90.26         | 11.22                  | 12.53                  | 12.88                  | 2.49  |
| WEST BENGAL          | 57.02         | 62.13         | 66.94         | 9.87                   | 8.84                   | 9.55                   | 7.74  |
| TAMIL NADU           | 44.17         | 54.14         | 52.37         | 7.65                   | 7.70                   | 7.47                   | -3.26                                       |
| TELANGANA            | 36.73         | 44.52         | 47.47         | 6.36                   | 6.34                   | 6.77                   | 6.62  |
| GUJARAT              | 27.85         | 33.65         | 35.76         | 4.82                   | 4.79                   | 5.10                   | 6.28  |
| ASSAM                | 12.21         | 17.83         | 20.58         | 2.11                   | 2.54                   | 2.94                   | 15.43                                       |
| UTTAR PRADESH        | 13.77         | 12.61         | 14.42         | 2.38                   | 1.80                   | 2.06                   | 14.33                                       |
| KERALA               | 9.48          | 14.10         | 13.41         | 1.64                   | 2.01                   | 1.91                   | -4.84                                       |
| TOP TEN STATES TOTAL | 501.28        | 612.17        | 604.85        | 86.80                  | 87.12                  | 86.28                  | -1.20                                       |
| OTHERS               | 76.23         | 90.50         | 96.15         | 13.20                  | 12.88                  | 13.72                  | 6.24  |
| <b>TOTAL</b>         | <b>577.51</b> | <b>702.67</b> | <b>701.00</b> | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>          | <b>-0.24</b>                                |



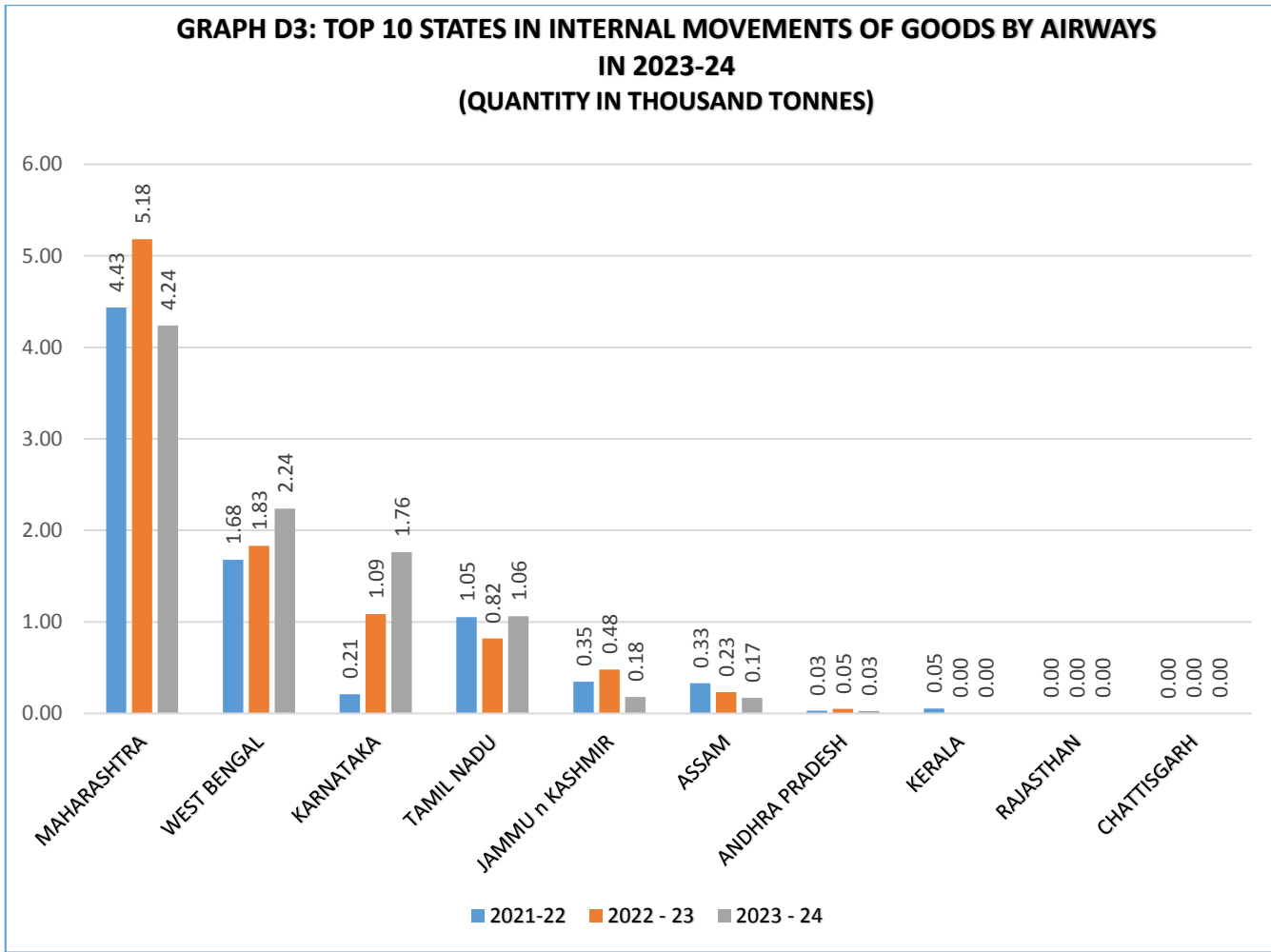
Here too Delhi ranks top in total inward movement of goods by airways in 2023-24, with a share of 20.83% followed by Maharashtra (16.78%), Karnataka (12.88%) and West Bengal (9.55%). These four states together contribute around 60% of total inward movement of goods in India by airways in 2023-24. Assam has recorded the highest growth rate of 15.43% followed by Uttar Pradesh (14.33%). Delhi, despite being top in terms of volume, it has registered a decline in terms of growth by 9.45% between 2022-23 and 2023-24.

### 3.2.3 INTERNAL MOVEMENTS BY AIRWAYS

Top 10 states in terms of total internal movement of goods by airways have a combined share of more than 98% of total internal trade over the last three years. Total internal movement of goods for these top 10 states decreased by -0.02% in 2023-24 over the previous year.

| TABLE D3: TOP 10 STATES IN INTERNAL MOVEMENTS OF GOODS BY AIRWAYS (QUANTITY IN THOUSAND TONNES) |         |           |           |                        |                        |                        |   |
|---|---------|-----------|-----------|------------------------|------------------------|------------------------|---|
| STATES  | 2021-22 | 2022 - 23 | 2023 - 24 | Share (%) in 2021 - 22 | Share (%) in 2022 - 23 | Share (%) in 2023 - 24 | Growth rate (%) in 2023 - 24 over 2022 - 23 |
| MAHARASHTRA   | 4.43    | 5.18      | 4.24      | 53.53                  | 53.41                  | 43.78                  | -18.19                                      |
| WEST BENGAL   | 1.68    | 1.83      | 2.24      | 20.24                  | 18.89                  | 23.12                  | 22.14                                       |
| KARNATAKA   | 0.21    | 1.09      | 1.76      | 2.54                   | 11.18                  | 18.20                  | 62.40                                       |
| TAMIL NADU  | 1.05    | 0.82      | 1.06      | 12.69                  | 8.45                   | 10.98                  | 29.63                                       |
| JAMMU n KASHMIR   | 0.35    | 0.48      | 0.18      | 4.20                   | 4.93                   | 1.86                   | -62.34                                      |
| ASSAM   | 0.33    | 0.23      | 0.17      | 4.00                   | 2.40                   | 1.76                   | -26.62                                      |
| ANDHRA PRADESH  | 0.03    | 0.05      | 0.03      | 0.36                   | 0.51                   | 0.26                   | -49.23                                      |
| KERALA  | 0.05    | 0.00      | 0.00      | 0.65                   | 0.02                   | 0.03                   | N.A.  |
| RAJASTHAN   | 0.00    | 0.00      | 0.00      | 0.01                   | 0.02                   | 0.01                   | N.A.  |
| CHATTISGARH   | NIL     | 0.00      | 0.00      | N.A.                   | N.A.                   | N.A.                   | N.A.  |
| TOP TEN STATES TOTAL  | 8.14    | 9.69      | 9.68      | 98.22                  | 99.82                  | 99.99                  | -0.02                                       |
| OTHERS  | 0.15    | 0.02      | 0.00      | 1.78                   | 0.18                   | 0.01                   | N. A  |
| TOTAL   | 8.28    | 9.70      | 9.68      | 100.00                 | 100.00                 | 100.00                 | -0.19                                       |

NOTE: 'NIL' indicates no movements; '0' indicates negligible movement and 'N.A.' indicates not applicable.



Maharashtra is the largest among all states for internal movement of goods by airways with a share of 43.78% in 2023-24 followed by West Bengal (23.12%) and Karnataka (18.20%). This year Karnataka has recorded a growth rate of over 62.40% followed by Tamil Nadu with growth rate of 29.63%. Jammu n Kashmir, Andhra Pradesh, Assam and Maharashtra have recorded decelerations of significant levels.

The top three states Maharashtra, West Bengal and Karnataka together have contributed more than 85% in total internal movement of goods in 2023-24.



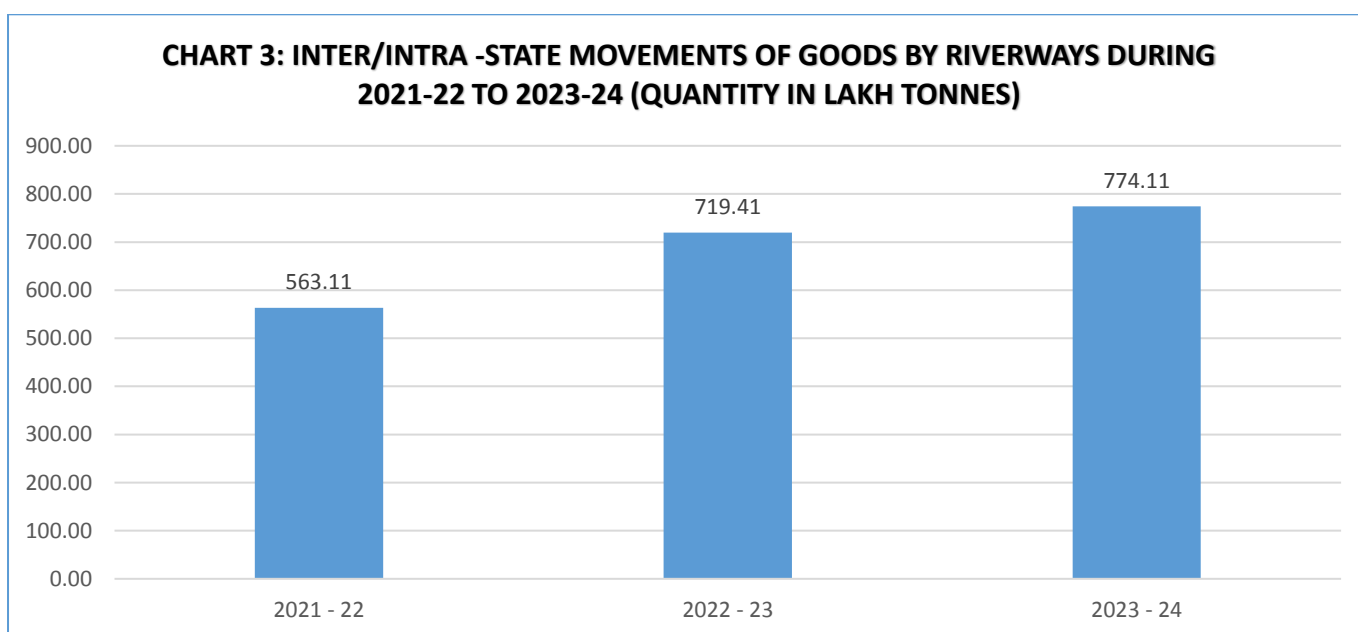


## Chapter IV

### 4.1 INTER/INTRA-STATE MOVEMENTS/FLOWS OF GOODS BY RIVER-WAYS

Waterway/River way is the cheapest means of transportation of goods and is most suitable to carry heavy and bulky goods. It is a fuel-efficient and environment-friendly mode of transport.

During 2023-24, total 774.11 lakh tonnes of goods were transported through river ways within India, a rise by 7.60% over 719.41 lakh tonnes of goods transported through river ways in 2022-23.



During 2023-24, total outward/inward movement of goods by river ways is of 273.56 lakh tonnes, a slight decrease by 0.83% over 275.85 lakh tonnes of outward/inward movement of goods in 2022-23. Internal movement of goods within states through river-ways was 500.55 lakh tonnes in 2023-24.

## 4.2 STATE-WISE MOVEMENTS BY RIVERWAYS

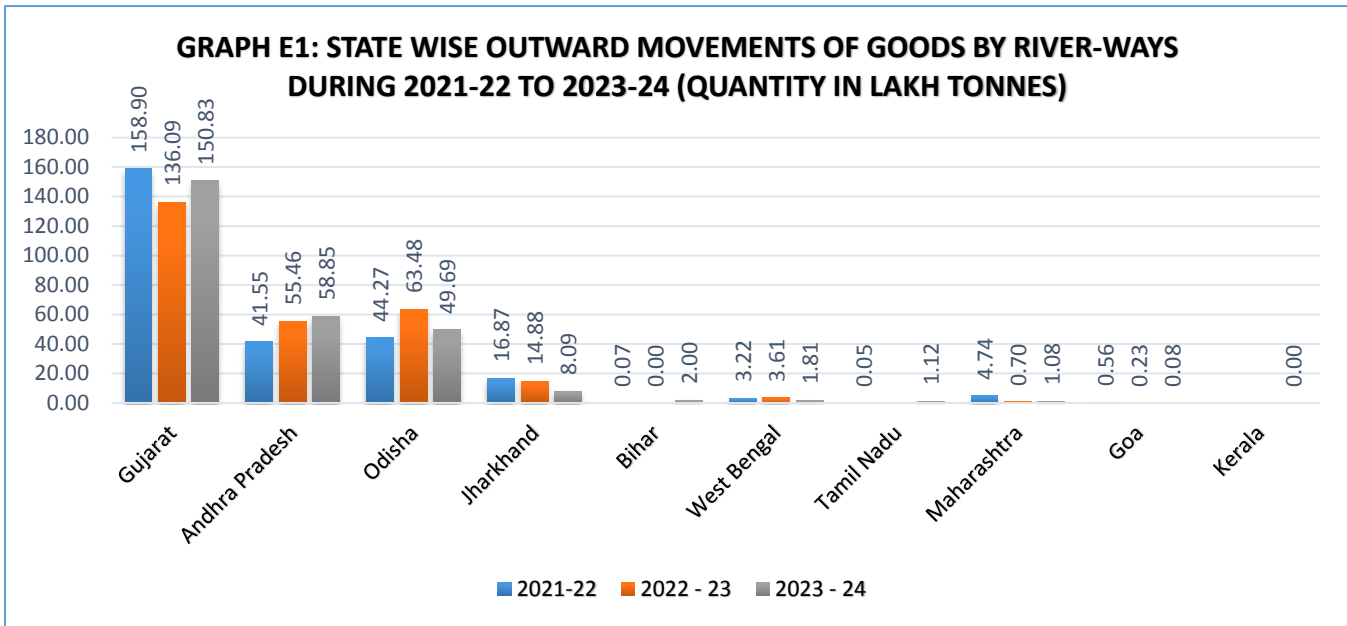
### 4.2.1 OUTWARD MOVEMENTS BY RIVER-WAYS

**TABLE E1: TOP 10 STATES IN OUTWARD MOVEMENTS OF GOODS BY RIVER-WAYS (QUANTITY IN LAKH TONNES)**

| States         | 2021-22       | 2022 - 23     | 2023 - 24     | Share (%)<br>in 2021 - 22 | Share (%)<br>in 2022 - 23 | Share (%)<br>in 2023 - 24 | Growth rate (%) in<br>2023 - 24 over<br>2022 - 23 |
|----------------|---------------|---------------|---------------|---------------------------|---------------------------|---------------------------|---|
| Gujarat        | 158.90        | 136.09        | 150.83        | 58.80                     | 49.34                     | 55.14                     | 10.83   |
| Andhra Pradesh | 41.55         | 55.46         | 58.85         | 15.38                     | 20.11                     | 21.51                     | 6.11  |
| Odisha         | 44.27         | 63.48         | 49.69         | 16.38                     | 23.01                     | 18.16                     | -21.72  |
| Jharkhand      | 16.87         | 14.88         | 8.09          | 6.24                      | 5.39                      | 2.96                      | -45.65  |
| Bihar          | 0.07          | 0.00          | 2.00          | 0.03                      | 0.00                      | 0.73                      | 100.00  |
| West Bengal    | 3.22          | 3.61          | 1.81          | 1.19                      | 1.31                      | 0.66                      | -49.86  |
| Tamil Nadu     | 0.05          | NIL           | 1.12          | 0.02                      | N.A.                      | 0.41                      | N.A.  |
| Maharashtra    | 4.74          | 0.70          | 1.08          | 1.75                      | 0.26                      | 0.40                      | 53.82   |
| Goa            | 0.56          | 0.23          | 0.08          | 0.21                      | 0.08                      | 0.03                      | -65.82  |
| Kerala         | NIL           | NIL           | 0.00          | N.A.                      | N.A.                      | N.A.                      | N.A.  |
| Others         | 0.00          | 1.39          | NIL           | 0.00                      | 0.50                      | N.A.                      | -100.00   |
| <b>Total</b>   | <b>270.23</b> | <b>275.85</b> | <b>273.56</b> | <b>100.00</b>             | <b>100.00</b>             | <b>100.00</b>             | <b>-0.83</b>                                      |

NOTE: 'NIL' indicates no movements; '0' indicates negligible movement and 'N.A.' indicates not applicable.

Table E1 shows Share of top 10 states in total outward movement of goods through river in 2023-24. Four out of these 10 states - Gujarat, Andhra Pradesh, Odisha and Jharkhand contributed 97.77% of the total outward movement of goods through river-ways in 2023-24. Out of these four states, shares of Odisha and Jharkhand declined and shares of Gujarat and Andhra Pradesh increased in 2023-24.



From Graph E1, it is observed that outward movement of goods by River ways of Gujarat & Andhra Pradesh increased but declined for Odisha & Jharkhand in 2023-24 compared to 2022-23.

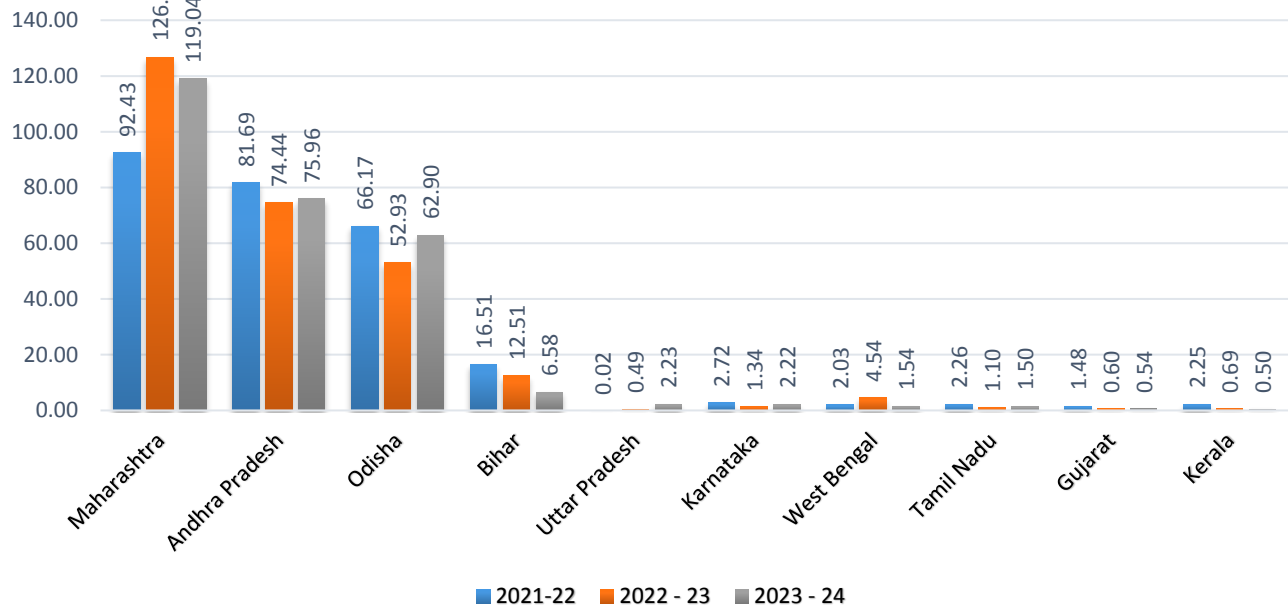
## 4.2.2 INWARD MOVEMENTS BY RIVERWAYS

TABLE E2: TOP 10 STATES IN INWARD MOVEMENTS OF GOODS BY RIVER-WAYS (QUANTITY IN LAKH TONNES)

| States         | 2021-22       | 2022 - 23     | 2023 - 24     | Share (%)<br>in 2021 - 22 | Share (%)<br>in 2022 - 23 | Share (%) in<br>2023 - 24 | Growth rate (%)<br>in 2023 - 24<br>over 2022 - 23 |
|----------------|---------------|---------------|---------------|---------------------------|---------------------------|---------------------------|---|
| Maharashtra    | 92.43         | 126.69        | 119.04        | 34.20                     | 45.93                     | 43.52                     | -6.04   |
| Andhra Pradesh | 81.69         | 74.44         | 75.96         | 30.23                     | 26.99                     | 27.77                     | 2.04  |
| Odisha         | 66.17         | 52.93         | 62.90         | 24.49                     | 19.19                     | 22.99                     | 18.85   |
| Bihar          | 16.51         | 12.51         | 6.58          | 6.11                      | 4.54                      | 2.40                      | -47.42  |
| Uttar Pradesh  | 0.02          | 0.49          | 2.23          | 0.01                      | 0.18                      | 0.82                      | 355.10  |
| Karnataka      | 2.72          | 1.34          | 2.22          | 1.00                      | 0.49                      | 0.81                      | 65.46   |
| West Bengal    | 2.03          | 4.54          | 1.54          | 0.75                      | 1.65                      | 0.56                      | -66.17  |
| Tamil Nadu     | 2.26          | 1.10          | 1.50          | 0.84                      | 0.40                      | 0.55                      | 36.43   |
| Gujarat        | 1.48          | 0.60          | 0.54          | 0.55                      | 0.22                      | 0.20                      | -10.18  |
| Kerala         | 2.25          | 0.69          | 0.50          | 0.83                      | 0.25                      | 0.18                      | -27.19  |
| Others         | 2.68          | 0.52          | 0.55          | 0.99                      | 0.19                      | 0.20                      | 5.93  |
| <b>Total</b>   | <b>270.23</b> | <b>275.85</b> | <b>273.56</b> | <b>100.00</b>             | <b>100.00</b>             | <b>100.00</b>             | <b>-0.83</b>                                      |

Total 12 states are involved in inward movements of goods. Four out of these states - Maharashtra, Andhra Pradesh, Odisha and Bihar contributed 96.68% in total inward movement of goods in 2023-24. All states of Table E2 except for Uttar Pradesh, Andhra Pradesh, Odisha, Karnataka, and Tamil Nadu registered decrease in 2023-24. Overall, on YoY basis there was decrease in total outward/inward movement of goods in 2023-24 by 0.83% over previous year.

**GRAPH E2: STATE WISE INWARD MOVEMENTS OF GOODS BY RIVER-WAYS DURING 2021-22 TO 2023-24 (QUANTITY IN LAKH TONNES)**



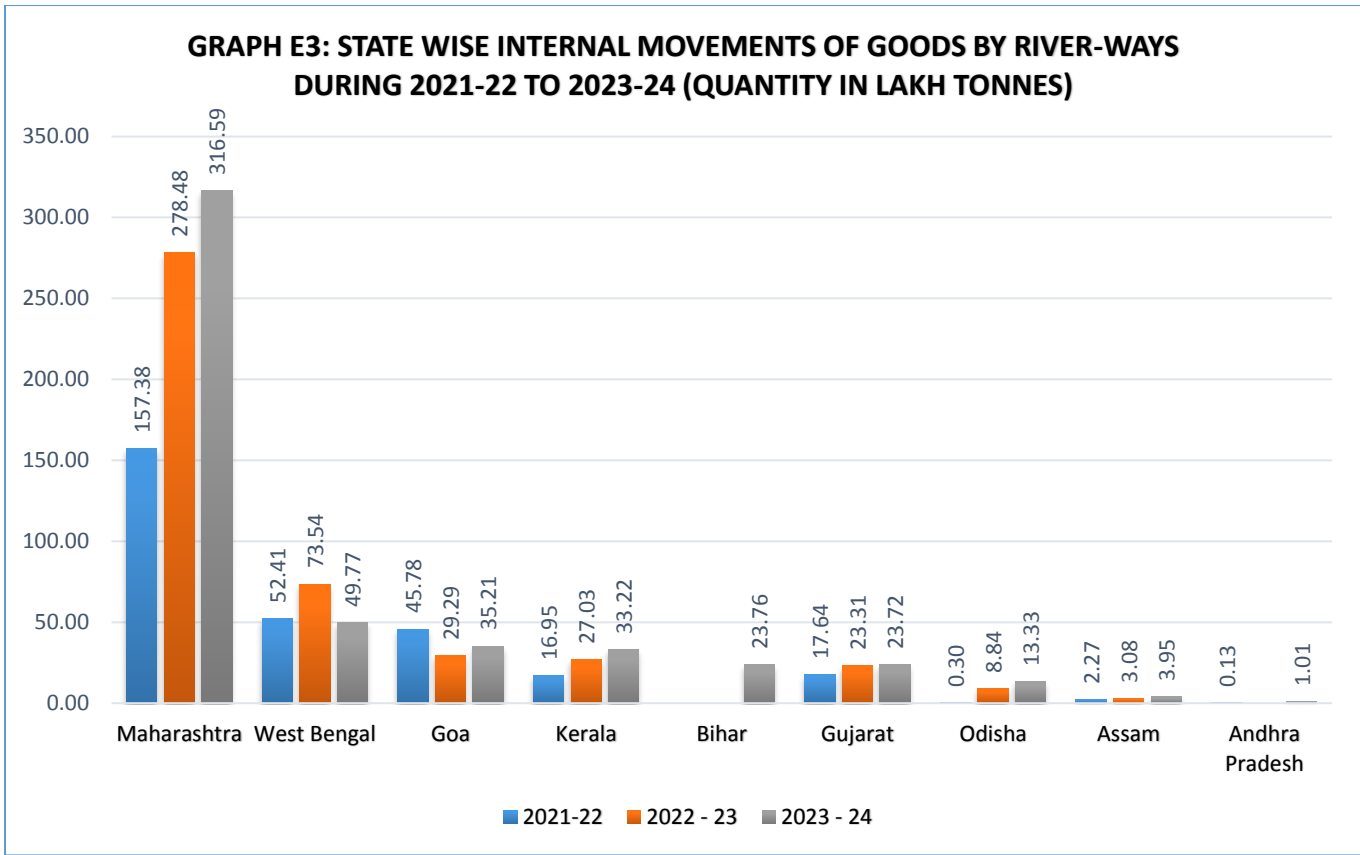
## 4.2.3 INTERNAL MOVEMENTS BY RIVERWAYS

TABLE E3: TOP STATES IN INTERNAL MOVEMENT OF GOODS BY RIVER WAYS (QUANTITY IN LAKH TONNES)

| States         | 2021-22       | 2022 - 23     | 2023 - 24     | Share (%) in 2021 - 22 | Share (%) in 2022 - 23 | Share (%) in 2023 - 24 | Growth rate (%) in 2023 - 24 over 2022 - 23 |
|----------------|---------------|---------------|---------------|------------------------|------------------------|------------------------|---|
| Maharashtra    | 157.38        | 278.48        | 316.59        | 53.73                  | 62.78                  | 63.25                  | 13.68                                       |
| West Bengal    | 52.41         | 73.54         | 49.77         | 17.90                  | 16.58                  | 9.94                   | -32.32                                      |
| Goa            | 45.78         | 29.29         | 35.21         | 15.63                  | 6.60                   | 7.03                   | 20.21                                       |
| Kerala         | 16.95         | 27.03         | 33.22         | 5.79                   | 6.09                   | 6.64                   | 22.91                                       |
| Bihar          | NIL           | NIL           | 23.76         | N.A.                   | N.A.                   | 4.75                   | N.A.  |
| Gujarat        | 17.64         | 23.31         | 23.72         | 6.02                   | 5.25                   | 4.74                   | 1.78  |
| Odisha         | 0.30          | 8.84          | 13.33         | 0.10                   | 1.99                   | 2.66                   | 50.81                                       |
| Assam          | 2.27          | 3.08          | 3.95          | 0.78                   | 0.69                   | 0.79                   | 28.02                                       |
| Andhra Pradesh | 0.13          | NIL           | 1.01          | 0.04                   | N.A.                   | 0.20                   | N.A.  |
| Others         | 0.02          | 0.00          | NIL           | 0.01                   | 0.00                   | N.A.                   | N.A.  |
| <b>Total</b>   | <b>292.88</b> | <b>443.57</b> | <b>500.55</b> | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>          | <b>12.85</b>                                |

NOTE: 'NIL' indicates no movements; '0' indicates negligible movement and 'N.A.' indicates not applicable.

Among 9(nine) states using waterways for internal movement of goods, top 7(seven) states contributed more than 99% in 2023-24. Maharashtra is highest in internal movement of goods by river-ways in 2023-24, followed by West Bengal and Goa with shares of 9.94% and 7.03% respectively. All states except West Bengal registered positive growth in 2023-24. In the year 2023-24 YoY growth of total internal movement of goods by river was a significant 12.85% over previous year.



From the Graph E3, it is clear that internal movement of goods by River-ways, increased for all other states except West Bengal in 2023-24.



### 4.3 COMMODITY WISE MOVEMENTS BY RIVERWAYS

#### 4.3.1 STATE TO STATE MOVEMENTS BY RIVERWAYS

Total state-to-state movement of top 10 commodity groups by river-ways was 273.02 lakh tonnes, contributing 99.80% of total state-to-state movement of goods during 2023-24.

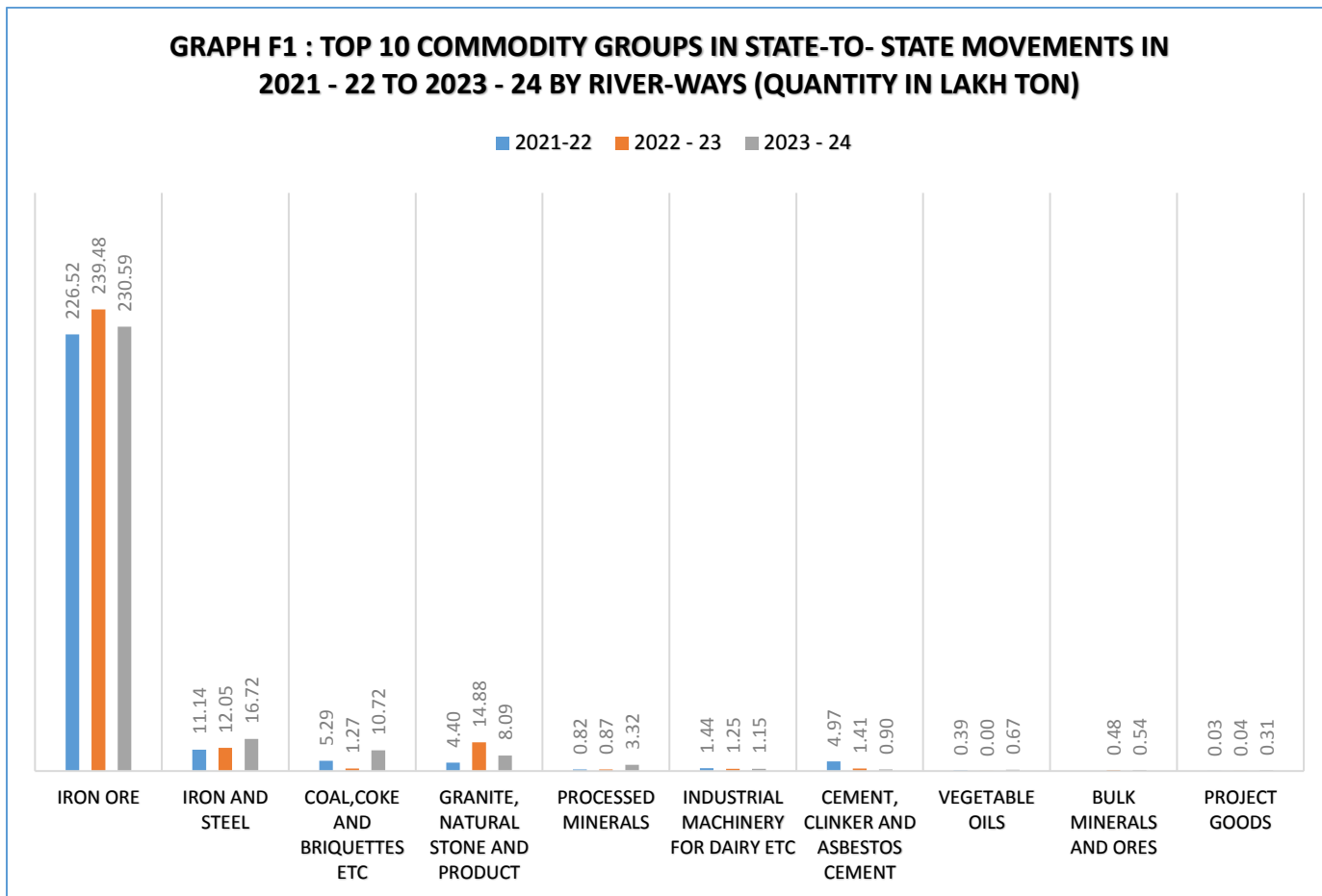
**TABLE F1: STATE-TO-STATE MOVEMENTS OF TOP 10 COMMODITY GROUPS BY RIVER WAYS (QUANTITY IN LAKH TONNES)**

| Commodity                              | 2021-22       | 2022 - 23     | 2023 - 24     | Share (%)<br>in 2021 -<br>22 | Share (%)<br>in 2022 -<br>23 | Share (%)<br>in 2023 - 24 | Growth rate<br>(%) in 2023 -<br>24 over 2022 -<br>23 |
|--|---------------|---------------|---------------|------------------------------|------------------------------|---------------------------|--|
| IRON ORE                               | 226.52        | 239.48        | 230.59        | 83.82                        | 86.82                        | 84.30                     | -3.71  |
| IRON AND STEEL                         | 11.14         | 12.05         | 16.72         | 4.12                         | 4.37                         | 6.11                      | 38.83  |
| COAL, COKE AND<br>BRIQUETTES ETC       | 5.29          | 1.27          | 10.72         | 1.96                         | 0.46                         | 3.92                      | 744.09   |
| GRANITE, NATURAL STONE<br>AND PRODUCT  | 4.40          | 14.88         | 8.09          | 1.63                         | 5.39                         | 2.96                      | -45.65   |
| PROCESSED MINERALS                     | 0.82          | 0.87          | 3.32          | 0.30                         | 0.31                         | 1.21                      | 281.61   |
| INDUSTRIAL MACHINERY<br>FOR DAIRY ETC  | 1.44          | 1.25          | 1.15          | 0.53                         | 0.45                         | 0.42                      | -8.09  |
| CEMENT, CLINKER AND<br>ASBESTOS CEMENT | 4.97          | 1.41          | 0.90          | 1.84                         | 0.51                         | 0.33                      | -36.41   |
| VEGETABLE OILS                         | 0.39          | 0.00          | 0.67          | 0.14                         | 0.00                         | 0.25                      | N.A.   |
| BULK MINERALS AND ORES                 | NIL           | 0.48          | 0.54          | N.A.                         | 0.17                         | 0.20                      | 12.32  |
| PROJECT GOODS                          | 0.03          | 0.04          | 0.31          | 0.01                         | 0.02                         | 0.11                      | 675.00   |
| Others                                 | 15.23         | 4.12          | 0.54          | 5.64                         | 1.49                         | 0.20                      | -86.91   |
| <b>Total</b>                           | <b>270.23</b> | <b>275.85</b> | <b>273.56</b> | <b>100.00</b>                | <b>100.00</b>                | <b>100.00</b>             | <b>-0.83</b>   |

NOTE: 'NIL' indicates no movements; '0' indicates negligible movement and 'N.A.' indicates not applicable.

Table F1 shows that 'Iron Ore' and 'Iron and Steel' were two dominant items transported from one state to another state in 2023-24 with a combined share of 90.41% in total state-to-state movement of goods followed by 'coal, Coke and Briquettes Etc.' with a share of 3.92%.

graphical representation of top 10 commodities in Table F1 is presented as under.



From the Graph F1, it is clear that Trend in State-to-State movement of 'Iron and Steel'; 'Coal, Coke and Briquettes', 'Processed Minerals', 'Bulk Minerals and Ores', 'Project Goods' increased substantially in 2023-24 over previous financial year but declined for the 'Iron Ore'; 'Cement, Clinker and Asbestos Cement'; 'Granite, Natural Stone and Product.' & 'Industrial Machinery for Dairy etc.' in 2023-24.

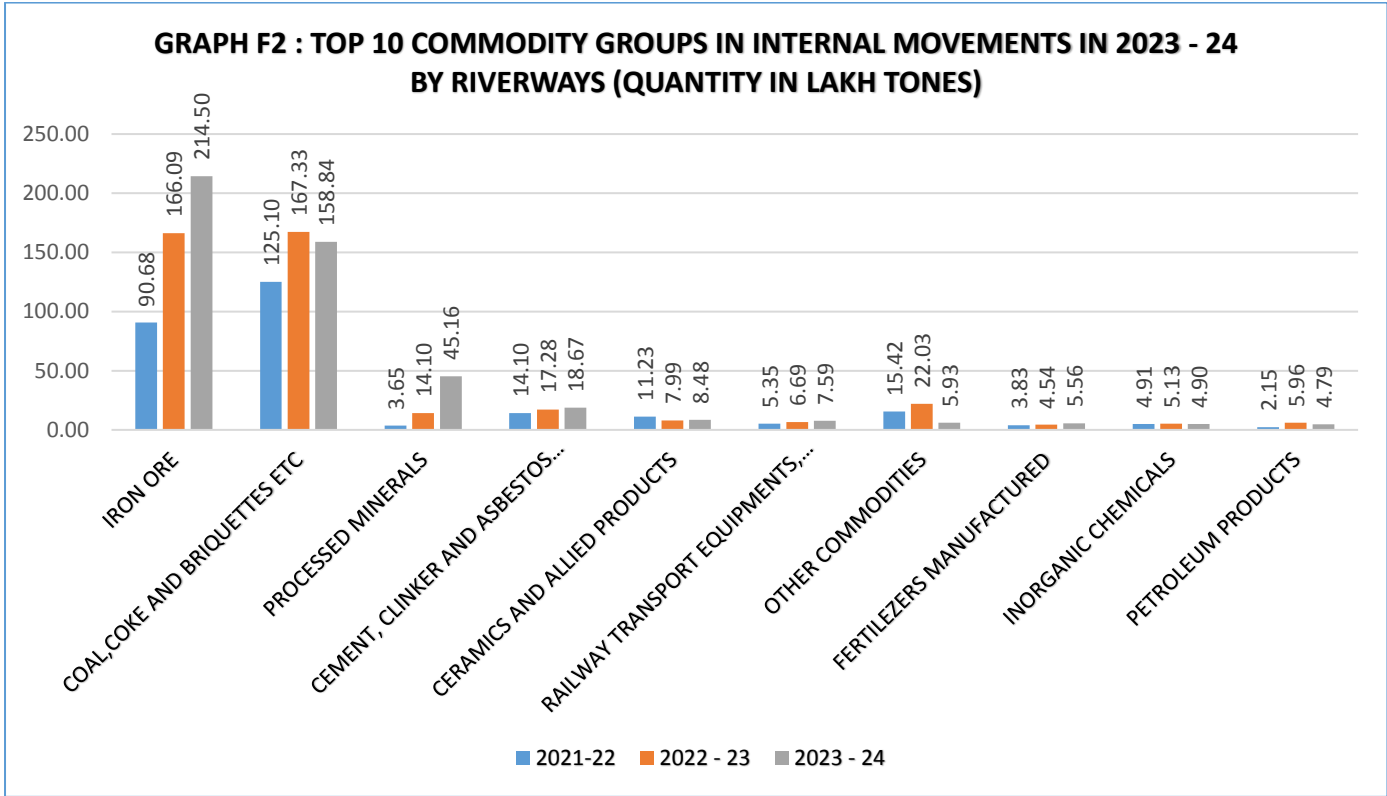
### 4.3.2 INTERNAL MOVEMENTS BY RIVERWAYS

Total internal movement of top 10 commodity groups by river were 474.42 lakh tonnes, contributing 94.78% in total internal movement of goods during 2023-24.

**TABLE F2: INTERNAL MOVEMENT OF TOP 10 COMMODITY GROUPS BY RIVER WAYS (QUANTITY IN LAKH TONNES)**

| Commodity                           | 2021-22       | 2022 - 23     | 2023 - 24     | Share (%) in 2021 - 22 | Share (%) In 2022 - 23 | Share (%) In 2023 - 24 | Growth rate (%) in 2023 - 24 over 2022 - 23 |
|-------------------------------------|---------------|---------------|---------------|------------------------|------------------------|------------------------|---|
| IRON ORE                            | 90.68         | 166.09        | 214.50        | 30.96                  | 37.44                  | 42.85                  | 29.15                                       |
| COAL, COKE AND BRIQUETTES ETC       | 125.10        | 167.33        | 158.84        | 42.71                  | 37.72                  | 31.73                  | -5.07                                       |
| PROCESSED MINERALS                  | 3.65          | 14.10         | 45.16         | 1.25                   | 3.18                   | 9.02                   | 220.19                                      |
| CEMENT, CLINKER AND ASBESTOS CEMENT | 14.10         | 17.28         | 18.67         | 4.81                   | 3.90                   | 3.73                   | 8.05  |
| CERAMICS AND ALLIED PRODUCTS        | 11.23         | 7.99          | 8.48          | 3.83                   | 1.80                   | 1.69                   | 6.13  |
| RAILWAY TRANSPORT EQUIPMENTS, PARTS | 5.35          | 6.69          | 7.59          | 1.83                   | 1.51                   | 1.52                   | 13.42                                       |
| OTHER COMMODITIES                   | 15.42         | 22.03         | 5.93          | 5.27                   | 4.97                   | 1.18                   | -73.09                                      |
| FERTILIZERS MANUFACTURED            | 3.83          | 4.54          | 5.56          | 1.31                   | 1.02                   | 1.11                   | 22.38                                       |
| INORGANIC CHEMICALS                 | 4.91          | 5.13          | 4.90          | 1.68                   | 1.16                   | 0.98                   | -4.41                                       |
| PETROLEUM PRODUCTS                  | 2.15          | 5.96          | 4.79          | 0.73                   | 1.34                   | 0.96                   | -19.62                                      |
| Others                              | 16.46         | 26.42         | 26.13         | 5.62                   | 5.96                   | 5.22                   | -1.09                                       |
| <b>Total</b>                        | <b>292.88</b> | <b>443.57</b> | <b>500.55</b> | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>          | <b>12.85</b>                                |

Table F2 shows that 'Iron Ore' and 'Coal, Coke and Briquettes etc.' were major items transported within state in 2023-24 with a combined share of 74.58% of total internal movement of goods; followed distantly by - 'Processed Minerals' and 'Cement, Clinker and Asbestos Cement'. In terms of growth rates recorded in 2023-24 vis-a-vis 2022-23 all commodities but for 'Coal, Coke and Briquettes etc.', 'Inorganic Chemicals', 'Petroleum Products' and 'Other Commodities' registered positive figures with 'Processed Minerals' registering a significant 220.19% growth rate.



From the Graph F2, it is clear that Trend in Internal Movements of Goods by River-ways increased in 2023-24 compared to that in 2022-23 but it declined for the commodity group 'coal, Coke and Briquettes'; 'Other Commodities'; 'Inorganic Chemicals' and 'Petroleum Products' in 2023-24 than that in 2022-23.

## 4.4 COMMODITY BY STATE WISE MOVEMENTS BY RIVERWAYS

Table G1 shows the States involved in Outward movements of top 5 commodities through River ways in 2021-22 to 2023-24

TABLE G1: OUTWARD MOVEMENT OF TOP 5 COMMODITIES FROM MAJOR STATES (QUANTITY IN LAKH TONNES)

| Commodity                          | State          | 2021-22      | 2022 - 23     | 2023 - 24     | Share (%) in 2021 -22 | Share (%) in 2022 - 23 | Share (%) in 2023 - 24 | Growth rate (%) in 2023 - 24 over 2022 - 23 |
|------------------------------------|----------------|--------------|---------------|---------------|-----------------------|------------------------|------------------------|---|
| IRON ORE                           | Gujarat        | 142.44       | 121.19        | 131.46        | 62.88                 | 50.60                  | 57.01                  | 8.48  |
|                                    | Andhra Pradesh | 37.54        | 54.07         | 58.10         | 16.57                 | 22.58                  | 25.20                  | 7.46  |
|                                    | Odisha         | 43.46        | 62.71         | 39.78         | 19.19                 | 26.19                  | 17.25                  | -36.57                                      |
|                                    | West Bengal    | 1.78         | 0.96          | 1.25          | 0.78                  | 0.40                   | 0.54                   | 30.19                                       |
|                                    | Others         | 1.29         | 0.55          | NIL           | 0.57                  | 0.23                   | N.A.                   | N.A.  |
|                                    | <b>Total</b>   |              | <b>226.52</b> | <b>239.48</b> | <b>230.59</b>         | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>                               |
| IRON AND STEEL                     | Gujarat        | 11.06        | 11.91         | 16.20         | 99.29                 | 98.91                  | 96.85                  | 35.95                                       |
|                                    | Maharashtra    | 0.03         | 0.13          | 0.53          | 0.23                  | 1.09                   | 3.15                   | 307.69                                      |
|                                    | Others         | 0.05         | NIL           | NIL           | 0.48                  | N.A.                   | N.A.                   | N.A.  |
|                                    | <b>Total</b>   | <b>11.14</b> | <b>12.05</b>  | <b>16.72</b>  | <b>100.00</b>         | <b>100.00</b>          | <b>100.00</b>          | <b>38.83</b>                                |
| COAL, COKE AND BRIQUETTES ETC      | Odisha         | 0.80         | NIL           | 9.91          | 15.16                 | N.A.                   | 92.49                  | N.A.  |
|                                    | Tamil Nadu     | NIL          | NIL           | 0.45          | N.A.                  | N.A.                   | 4.16                   | N.A.  |
|                                    | Gujarat        | 1.36         | 0.16          | 0.36          | 25.67                 | 13.02                  | 3.35                   | 117.83                                      |
|                                    | Others         | 3.13         | 1.10          | NIL           | 59.17                 | 86.98                  | N.A.                   | N.A.  |
|                                    | <b>Total</b>   | <b>5.29</b>  | <b>1.27</b>   | <b>10.72</b>  | <b>100.00</b>         | <b>100.00</b>          | <b>100.00</b>          | <b>744.09</b>                               |
| GRANITE, NATURAL STONE AND PRODUCT | Jharkhand      | 4.34         | 14.88         | 8.09          | 98.58                 | 100.00                 | 100.00                 | -45.65                                      |
|                                    | Others         | 0.06         | NIL           | NIL           | 1.42                  | N.A.                   | N.A.                   | N.A.  |
|                                    | <b>Total</b>   | <b>4.40</b>  | <b>14.88</b>  | <b>8.09</b>   | <b>100.00</b>         | <b>100.00</b>          | <b>100.00</b>          | <b>-45.65</b>                               |
| PROCESSED MINERALS                 | Bihar          | NIL          | NIL           | 2.00          | N.A.                  | N.A.                   | 60.39                  | N.A.  |
|                                    | Gujarat        | 0.82         | 0.87          | 1.24          | 100.00                | 100.00                 | 37.26                  | 42.31                                       |
|                                    | Goa            | NIL          | NIL           | 0.08          | N.A.                  | N.A.                   | 2.35                   | N.A.  |
|                                    | Others         | NIL          | NIL           | NIL           | N.A.                  | N.A.                   | N.A.                   | N.A.  |
|                                    | <b>Total</b>   | <b>0.82</b>  | <b>0.87</b>   | <b>3.32</b>   | <b>100.00</b>         | <b>100.00</b>          | <b>100.00</b>          | <b>281.61</b>                               |

NOTE: 'NIL' indicates no movements, 'N.A.' indicates not applicable.

**Table G2 shows the States involved in Inward movements of top 5 commodities through River ways in 2021-22 to 2023-24.**

| TABLE G2: INWARD MOVEMENT OF TOP 5 COMMODITIES FROM MAJOR STATES (QUANTITY IN LAKH TONNES) |                |               |               |               |                        |                        |                        |   |
|--|----------------|---------------|---------------|---------------|------------------------|------------------------|------------------------|---|
| Commodity  | State          | 2021-22       | 2022 - 23     | 2023 - 24     | Share (%) in 2021 - 22 | Share (%) in 2022 - 23 | Share (%) in 2023 - 24 | Growth rate (%) in 2023 - 24 over 2022 - 23 |
| <b>IRON ORE</b>  | Maharashtra    | 84.50         | 118.29        | 99.13         | 37.30                  | 49.40                  | 42.99                  | -16.20                                      |
|  | Andhra Pradesh | 80.35         | 73.95         | 73.75         | 35.47                  | 30.88                  | 31.98                  | -0.26                                       |
|  | Odisha         | 60.29         | 47.24         | 57.71         | 26.62                  | 19.73                  | 25.03                  | 22.16                                       |
|  | Others         | 01.37         | NIL           | NIL           | 0.60                   | N.A.                   | N.A.                   | N.A.  |
|  | <b>Total</b>   | <b>226.51</b> | <b>239.48</b> | <b>230.59</b> | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>          | <b>-3.71</b>                                |
| <b>IRON AND STEEL</b>  | Maharashtra    | 3.38          | 4.69          | 7.31          | 30.29                  | 38.94                  | 43.73                  | 55.90                                       |
|  | Odisha         | 3.63          | 4.86          | 5.17          | 32.61                  | 40.33                  | 30.92                  | 6.44  |
|  | Karnataka      | 2.72          | 1.23          | 2.22          | 24.37                  | 10.18                  | 13.26                  | 80.88                                       |
|  | Tamil Nadu     | 1.36          | 1.10          | 1.50          | 12.24                  | 9.10                   | 8.95                   | 36.43                                       |
|  | Gujarat        | 0.00          | 0.13          | 0.53          | 0.01                   | 1.09                   | 3.15                   | 307.69                                      |
|  | Others         | 0.05          | 0.04          | NIL           | 0.48                   | 0.35                   | N.A.                   | N.A.  |
|  | <b>Total</b>   | <b>11.14</b>  | <b>12.05</b>  | <b>16.72</b>  | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>          | <b>38.83</b>                                |
| <b>COAL, COKE AND BRIQUETTES ETC</b>   | Maharashtra    | 1.38          | 1.20          | 10.36         | 26.13                  | 94.77                  | 96.65                  | 763.33                                      |
|  | Andhra Pradesh | 0.89          | NIL           | 0.36          | 16.77                  | N.A.                   | 3.35                   | N.A.  |
|  | Others         | 3.02          | 0.07          | NIL           | 57.10                  | 5.23                   | N.A.                   | N.A.  |
|  | <b>Total</b>   | <b>5.29</b>   | <b>1.27</b>   | <b>10.72</b>  | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>          | <b>744.09</b>                               |
| <b>GRANITE, NATURAL STONE AND PRODUCT</b>  | Bihar          | 4.34          | 10.38         | 6.55          | 98.58                  | 69.72                  | 80.99                  | -36.87                                      |
|  | West Bengal    | 0.06          | 4.51          | 1.54          | 1.42                   | 30.28                  | 19.01                  | -65.89                                      |
|  | Others         | NIL           | NIL           | NIL           | N.A.                   | N.A.                   | N.A.                   | N.A.  |
|  | <b>Total</b>   | <b>4.40</b>   | <b>14.88</b>  | <b>8.09</b>   | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>          | <b>-45.65</b>                               |
| <b>PROCESSED MINERALS</b>  | Uttar Pradesh  | NIL           | NIL           | 2.00          | N.A.                   | N.A.                   | 60.39                  | N.A.  |
|  | Maharashtra    | 0.82          | 0.70          | 1.31          | 100.00                 | 80.55                  | 39.61                  | 87.83                                       |
|  | Others         | NIL           | 0.17          | NIL           | N.A.                   | 19.45                  | N.A.                   | N.A.  |
|  | <b>Total</b>   | <b>0.82</b>   | <b>0.87</b>   | <b>3.32</b>   | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>          | <b>281.61</b>                               |

NOTE: 'NIL' indicates no movements; '0' indicates negligible movement, 'N.A.' indicates not applicable.

**Table G3 shows the States involved in Internal movements of top 5 commodities through River ways in 2021-22 to 2023-24.**

**TABLE G3: INTERNAL MOVEMENT OF TOP 5 COMMODITIES FROM MAJOR STATES (QUANTITY IN LAKH TONNES)**

| COMMODITY                                  | STATE        | 2021-22 | 2022 - 23     | 2023 - 24     | SHARE (%) IN 2021 - 22 | SHARE (%) IN 2022 - 23 | SHARE (%) IN 2023 - 24 | GROWTH RATE (%) IN 2023 - 24 OVER 2022 - 23 |
|--|--------------|---------|---------------|---------------|------------------------|------------------------|------------------------|---|
| <b>IRON ORE</b>                            | Maharashtra  | 53.63   | 143.81        | 185.74        | 59.14                  | 86.59                  | 86.59                  | 29.16                                       |
|  | Goa          | 36.57   | 21.32         | 27.39         | 40.33                  | 12.84                  | 12.77                  | 28.46                                       |
|  | Gujarat      | 0.48    | 0.57          | 1.08          | 0.53                   | 0.34                   | 0.50                   | 90.81                                       |
|  | West Bengal  | NIL     | 0.39          | 0.29          | N.A.                   | 0.23                   | 0.14                   | -25.64                                      |
|  | Others       | NIL     | NIL           | NIL           | N.A.                   | N.A.                   | N.A.                   | N.A.  |
|  | <b>Total</b> |         | <b>90.68</b>  | <b>166.09</b> | <b>214.50</b>          | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>                               |
| <b>COAL, COKE AND BRIQUETTES ETC</b>       | Maharashtra  | 102.28  | 131.92        | 128.17        | 81.76                  | 78.84                  | 80.69                  | -2.85                                       |
|  | West Bengal  | 17.29   | 25.96         | 22.42         | 13.82                  | 15.51                  | 14.11                  | -13.64                                      |
|  | Goa          | 4.48    | 6.75          | 6.27          | 3.58                   | 4.03                   | 3.95                   | -7.05                                       |
|  | Gujarat      | 1.05    | 2.70          | 1.98          | 0.84                   | 1.62                   | 1.25                   | -26.63                                      |
|  | Others       | NIL     | NIL           | NIL           | N.A.                   | N.A.                   | N.A.                   | N.A.  |
|  | <b>Total</b> |         | <b>125.10</b> | <b>167.33</b> | <b>158.84</b>          | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>                               |
| <b>PROCESSED MINERALS</b>                  | Bihar        | NIL     | NIL           | 23.75         | N.A.                   | N.A.                   | 52.60                  | N.A.  |
|  | Odisha       | 0.29    | 7.55          | 12.22         | 7.96                   | 53.52                  | 27.06                  | 61.87                                       |
|  | Kerala       | NIL     | 5.03          | 7.56          | N.A.                   | 35.65                  | 16.73                  | 50.26                                       |
|  | West Bengal  | 2.99    | 1.53          | 1.63          | 81.92                  | 10.83                  | 3.62                   | 6.90  |
|  | Others       | 0.37    | NIL           | NIL           | 10.12                  | N.A.                   | N.A.                   | N.A.  |
|  | <b>Total</b> |         | <b>3.65</b>   | <b>14.10</b>  | <b>45.16</b>           | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>                               |
| <b>CEMENT, CLINKER AND ASBESTOS CEMENT</b> | Gujarat      | 14.08   | 15.96         | 18.60         | 99.90                  | 92.34                  | 99.62                  | 16.57                                       |
|  | Kerala       | NIL     | 0.00          | 0.05          | N.A.                   | 0.01                   | 0.25                   | N.A.  |
|  | West Bengal  | 0.01    | 0.02          | 0.02          | 0.10                   | 0.14                   | 0.13                   | -4.14                                       |
|  | Others       | NIL     | 1.30          | NIL           | N.A.                   | 7.51                   | N.A.                   | N.A.  |
|  | <b>Total</b> |         | <b>14.10</b>  | <b>17.28</b>  | <b>18.67</b>           | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>                               |
| <b>CERAMICS AND ALLIED PRODUCTS</b>        | West Bengal  | 11.23   | 7.98          | 8.48          | 100.00                 | 99.78                  | 100.00                 | 6.36  |
|  | Others       | NIL     | 0.02          | NIL           | N.A.                   | 0.22                   | N.A.                   | N.A.  |
|  | <b>Total</b> |         | <b>11.23</b>  | <b>7.99</b>   | <b>8.48</b>            | <b>100.00</b>          | <b>100.00</b>          | <b>100.00</b>                               |

NOTE: 'NIL' indicates no movements; '0' indicates negligible movement and 'N.A.' indicates not applicable.