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Local Governments
for Sustainability

MAPPING SUPPLY CHAINS



PANAJI

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About the document- This document is a deliverable of the “EcoLogistics: Low Carbon Freight for Sustainable Cities” project. It includes illustrations a description of the supply chain of priority sectors that were identified during discussions with various stakeholders. The mapping is an illustrative adaptation of technical findings of the EcoLogistics baseline report for Panaji. It includes freight items like food grains, fruits and vegetables, FMCG products, fish and seafood and sewage. The type of freight vehicles that are used to transport freight are also illustrated.

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About the EcoLogistics project- Supported by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) through the International Climate Initiative (IKI), ICLEI's EcoLogistics project aims to increase the capacity of governmental and non-governmental actors in building strategies and policies to promote low-carbon and sustainable urban freight in Argentina, Colombia and India, involving nine cities and regions:

- Argentina: Córdoba, Rosario, Santa Fe de la Vera Cruz (Santa Fe)
- Colombia: Capital District of Bogotá, Metropolitan Area of the Aburrá Valley (AMVA), Manizales
- India: Kochi, Shimla, Panaji

For more information, please visit: sustainablemobility.iclei.org/ecologistics

About ICLEI - Local Governments for Sustainability

ICLEI – Local Governments for Sustainability is a global network of more than 2500 local and regional governments committed to sustainable urban development. Active in 125+ countries, we influence sustainability policy and drive local action for low emission, nature-based, equitable, resilient and circular development.

Acknowledgement

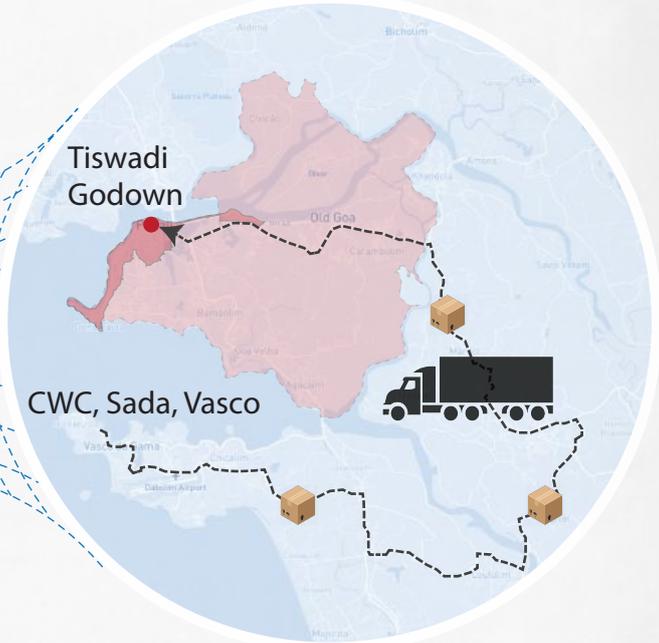
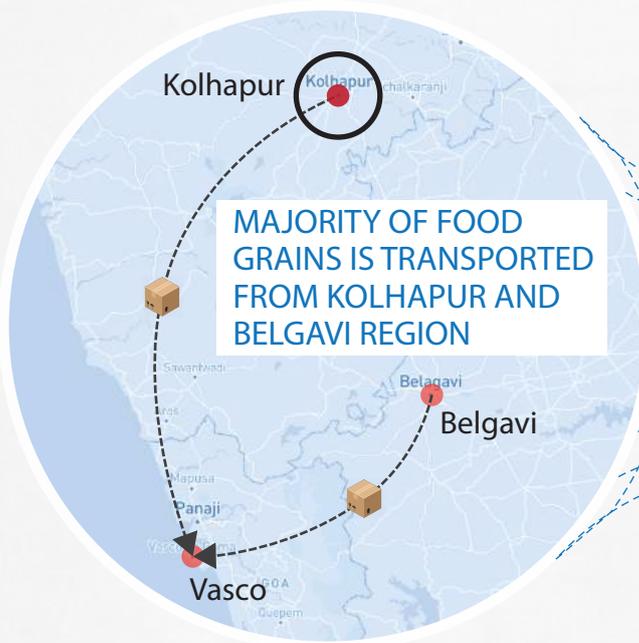
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Disclaimer

The information in this document is based on the primary and secondary data collection and interaction with various stakeholders in Panaji under 'EcoLogistics – Low Carbon Freight for Sustainable Cities' Project. While every effort has been made to ensure the correctness of data/ information used in this report, neither the authors nor ICLEI South Asia accept any legal liability for the accuracy or inferences drawn from the material contained therein or for any consequences arising from the use of this material.

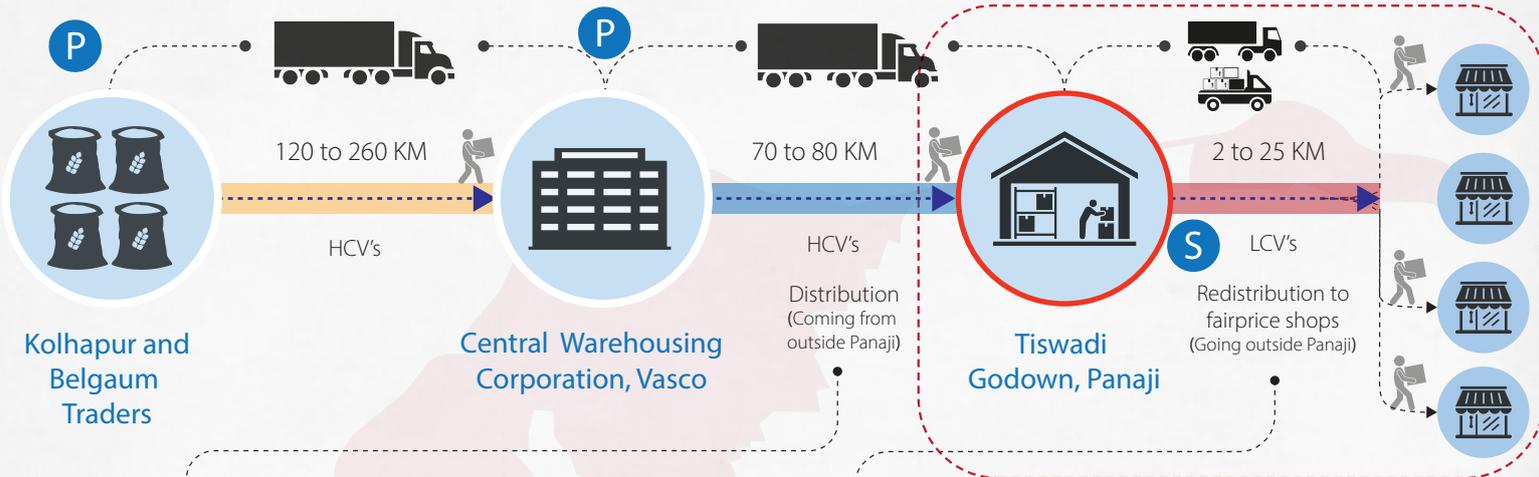
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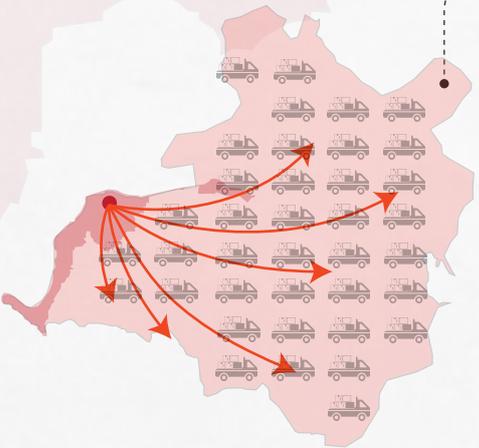


From Kolhapur and other locations to Central Warehousing Corporation, Sada, Vasco

From Central Warehousing Corporation to Tiswadi Godown, Panaji



APPROX 40 to 50 HEAVY COMMERCIAL VEHICLES ENTER PANAJI TO DELIVER FOOD GRAINS

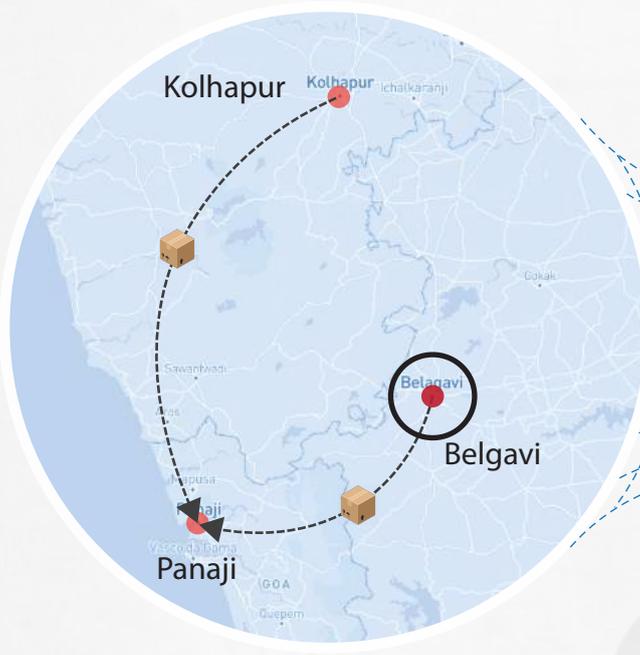


APPROX 80 to 100 LCVs TO PICK UP THE GOODS GRAINS FROM THE GODOWN AND DISTRIBUTE TO FAIRPRICE SHOPS IN TISWADI



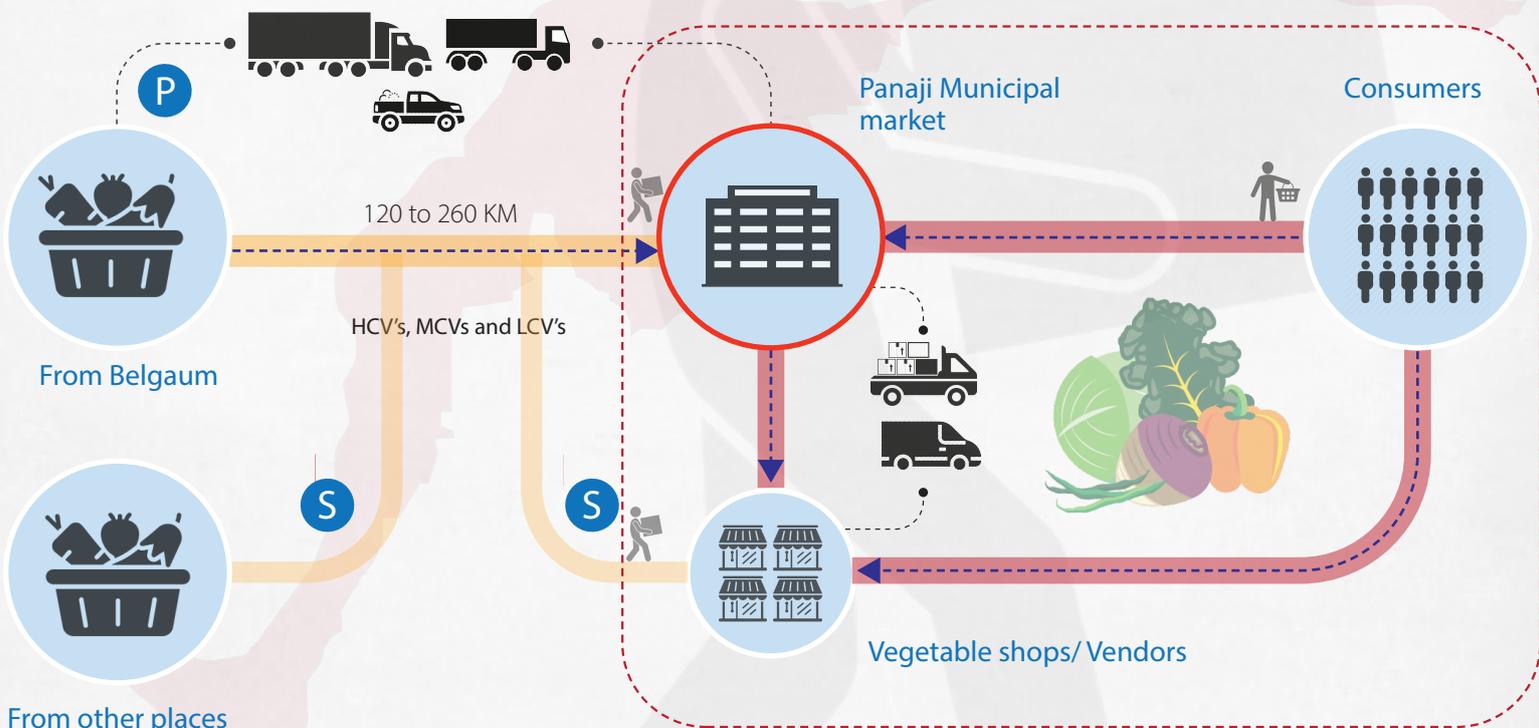
The Department of Civil Supplies and Consumer Affairs, Government of Goa looks after the procurement and distribution of essential commodities at affordable prices. It mainly includes distribution of food grains to the fairprice shops under the Public Distribution System. The following illustration provides information about supply chain of foodgrains at Tiswadi Godown.

P Primary Linkage **S** Secondary Linkage
HCV's- Heavy Commercial Vehicles, LCV's- Light Commercial Vehicles



MAJORITY OF VEGETABLES ARE IMPORTED FROM BELGAVI AND KOLHAPUR TO PANAJI MUNICIPAL MARKET

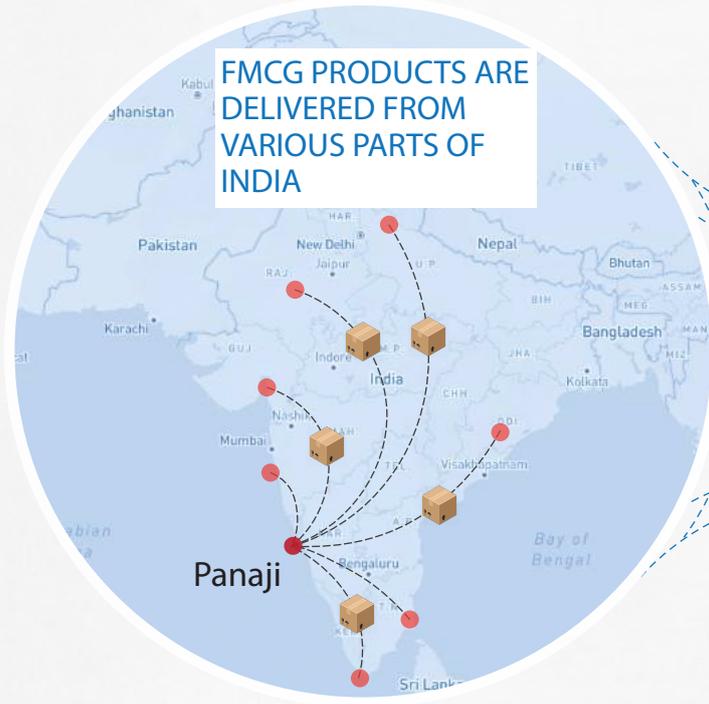
VEGETABLES TRANSPORTED FROM PANAJI MUNICIPAL MARKET TO VARIOUS SHOPS AND VENDORS



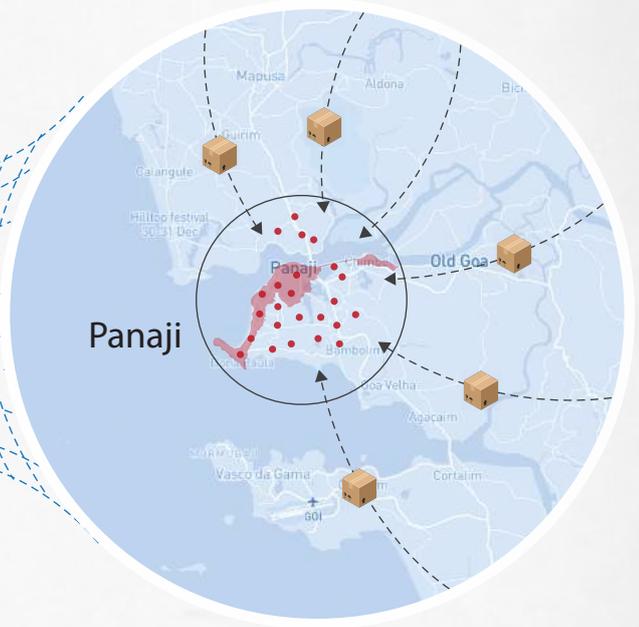
From other places
 Approximately 12 to 14 trucks come to the Panaji Municipal Market everyday. Out of 12 to 14 trucks, 6 to 7 bring vegetables and rest bring vegetables and fruits. Number of trucks vary everyday. Majority of vegetables come from Belgaum. Consumers may purchase the fruits and vegetables directly from the Panaji Municipal market or from the shops/vendors.



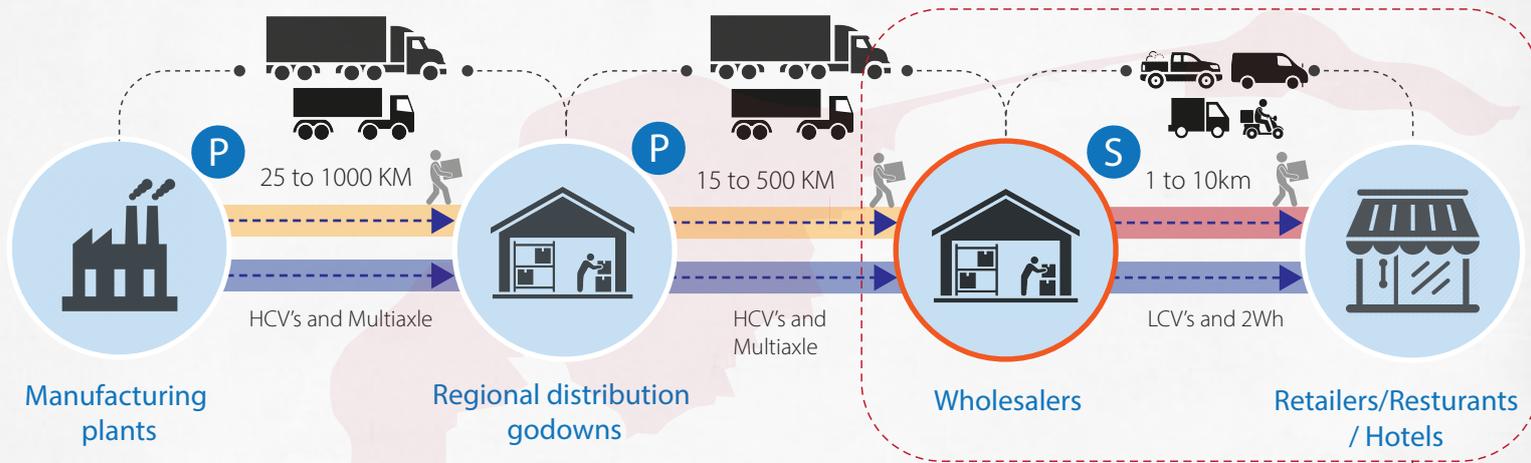
P Primary Linkage **S** Secondary Linkage
 HCVs- Heavy Commercial Vehicles, MCVs- Medium Commercial Vehicles, LCVs- Light Commercial Vehicles



FMCG products getting transported from various locations in India to Panaji



FMCG products getting delivered to the Panaji region FMCG wholesalers



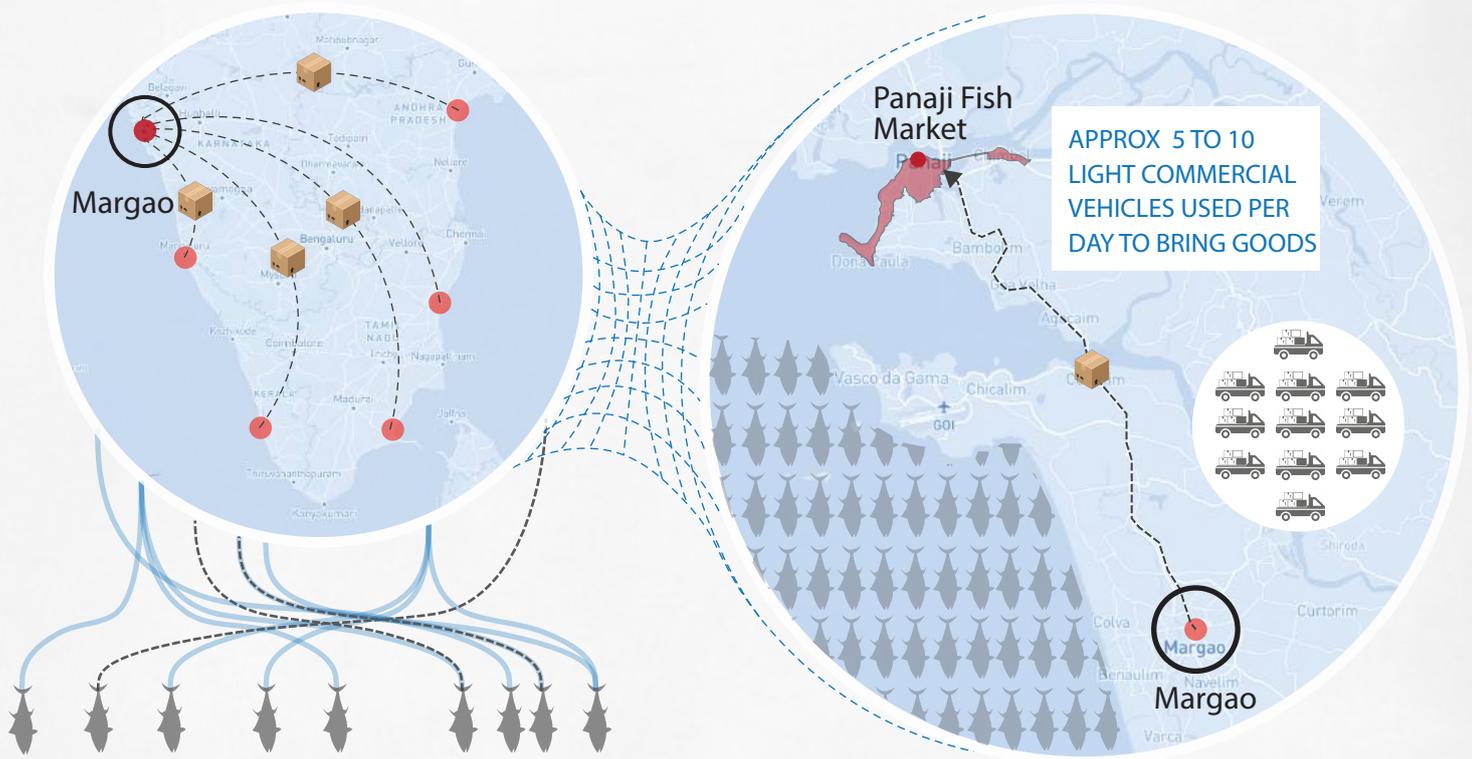
INDIVIDUAL RETAIL ESTABLISHMENT IN PANAJI LINKED WITH FMCG PRODUCTS ATTRACTS 22,849 KG OF FMCG GOODS PER YEAR



FMCG products are manufactured and supplied from all over India and abroad. Majority of FMCG products supplied to retailers and other establishments come from wholesalers. In some cases, FMCG products are directly supplied through manufacturers or distributors godowns.



P Primary Linkage **S** Secondary Linkage
 HCVs- Heavy Commercial Vehicles, MCVs- Medium Commercial Vehicles, LCVs- Light Commercial Vehicles

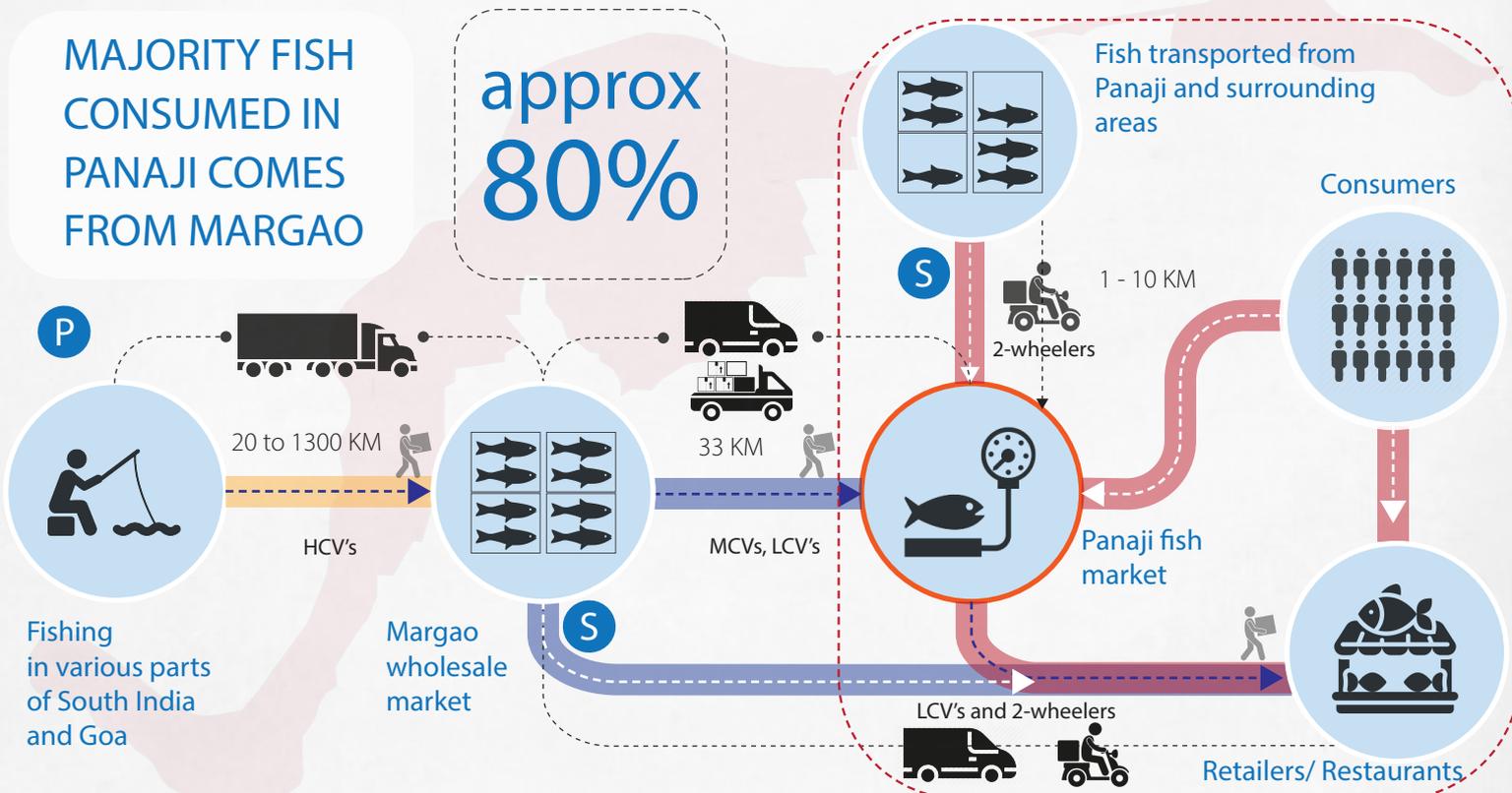


Fish and seafood transported from various locations in South India to the Margao wholesale fish market

From Margao Municipal market to Panaji fish market

MAJORITY FISH CONSUMED IN PANAJI COMES FROM MARGAO

approx **80%**

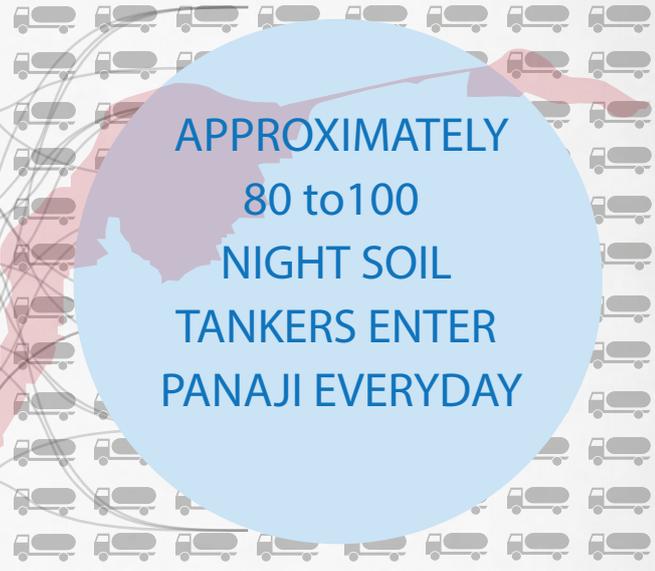
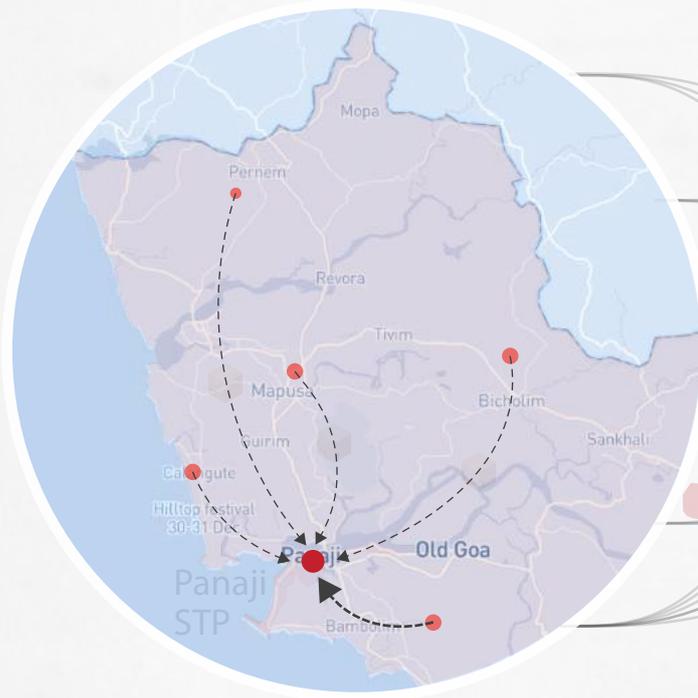


Majority of seafood and fish comes from southern part of India to Margao Fish Market. From Margao Fish Market, fish and other seafood gets transported to Panaji in small commercial vehicles such as pick up trucks, goods rickshaws and vans.

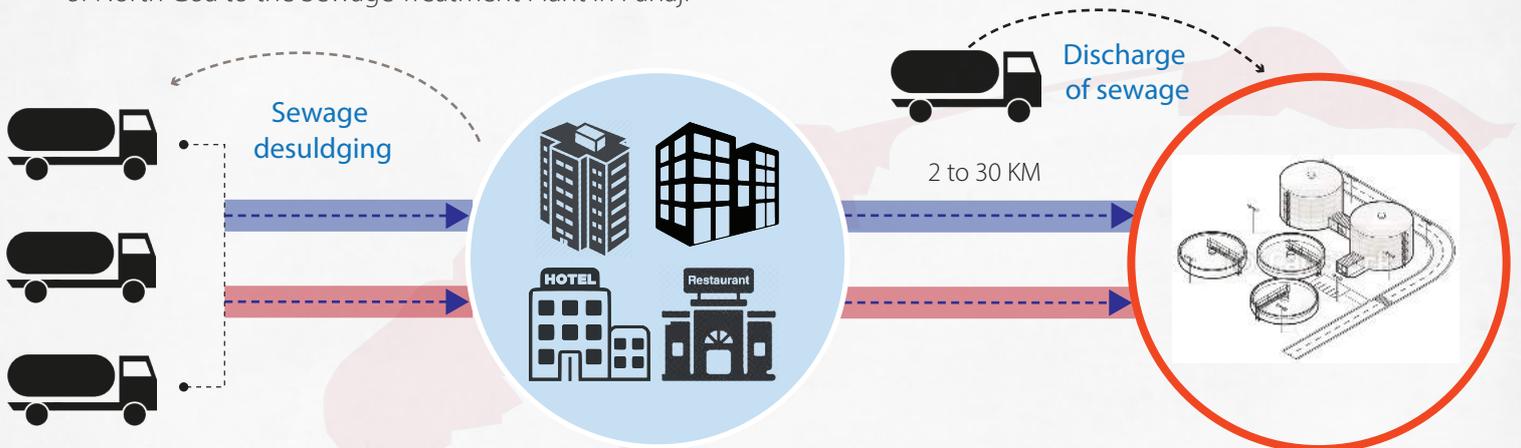


P Primary Linkage **S** Secondary Linkage

HCVs- Heavy Commercial Vehicles, MCVs- Medium Commercial Vehicles, LCVs- Light Commercial Vehicles



Sewage getting transported from various locations of North Goa to the Sewage Treatment Plant in Panaji



Heavy and Light Commercial Tankers

Desludging of sewage from hotels, restaurants, residential areas, commercial establishments from various places in the North Goa

Discharging of sewage at the Sewage Treatment Plant, Panaji

710 TONNES OF SEWAGE IS TRANSPORTED BY APPROX 89 FREIGHT TRIPS PER DAY BY NIGHT SOIL TANKERS

TOTAL DISTANCE TRAVELLED (PER DAY) BY ALL FREIGHT MODES

FOR THE ENTIRE TRIP LENGTH

INSIDE THE CITY BOUNDARY

3550.80 Vehicle Km

798.93 Vehicle Km

The largest STP of North Goa district is located in Panaji. Night soil tankers desluge sewage from septic tanks, latrines etc and transport it to the sewage treatment plant (STP). Thus, Panaji attracts heavy night soil tanker activity from the North Goa district.

