# Assessment of Existing Freight Scenario and Strategy Planning for Sustainable Urban Freight in Panaji

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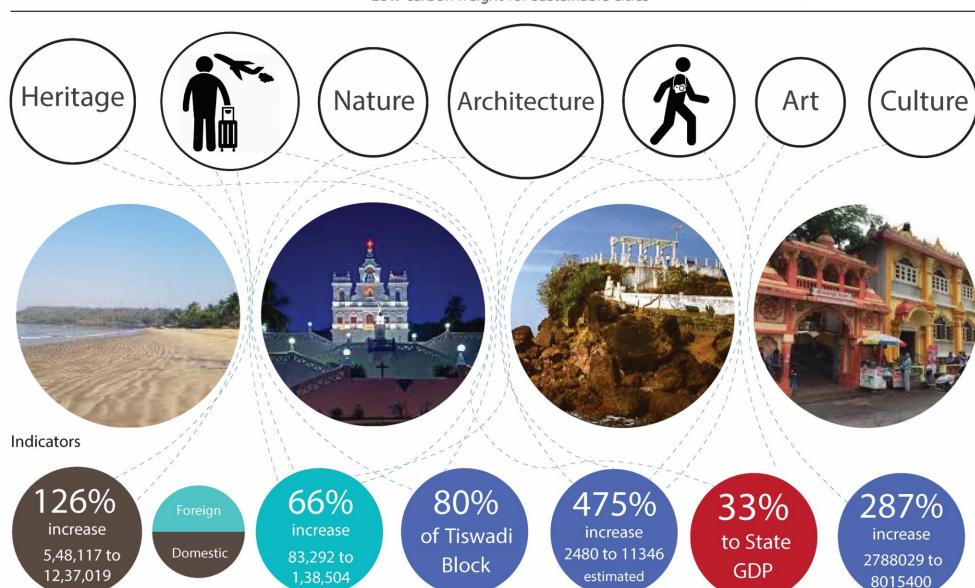


# **EcoLogistics** Low carbon freight for sustainable cities



Increase in state tourists

2012 to 2018(Annual)



Tourism in

Panaji

Increase in Panaji tourists

2011 to 2041(Per day)

Economic

contribution

Source: www.goatourism.gov.in Source: CDP 2041

Tourism in Tiswadi

(2008 to 2015)







Limited information/ understanding about urban freight

Fragmented Sector

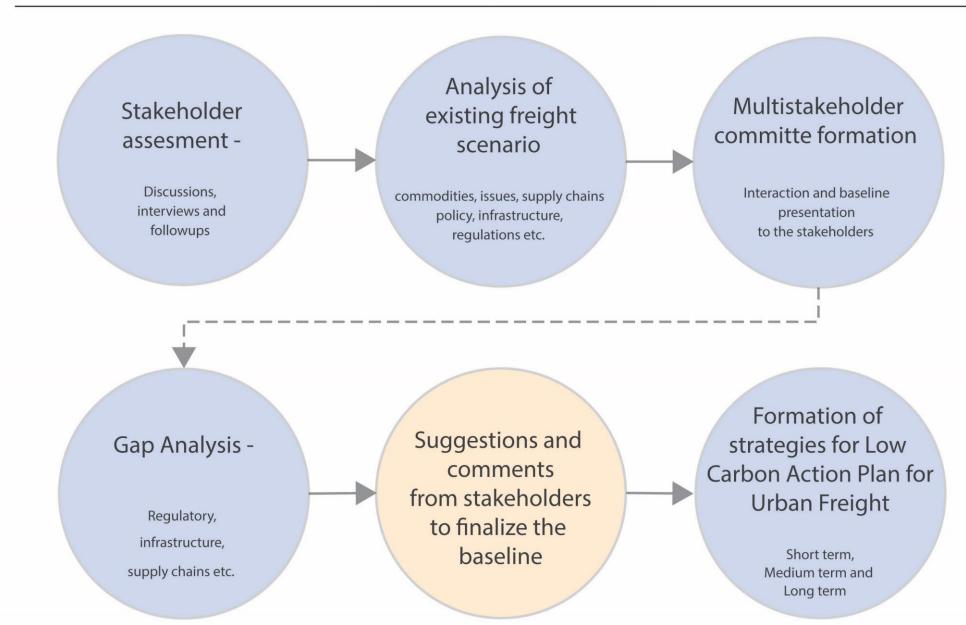
Lack of integration into the mainstream Planning and development

Absence of efficient governance mechanism for urban freight

Informal
Sectors and
networks



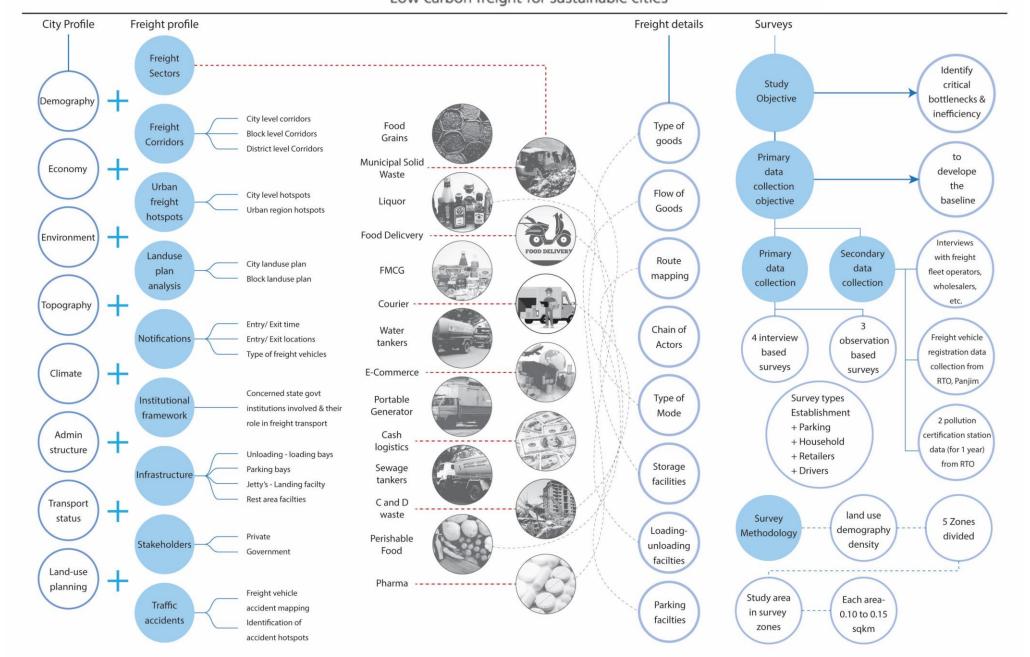




# Project Approach Matrix











# **Forward Logistics**



Food grains



Liquor



Perishable food



**FMCG** 

# **Reverse Logistics**



Sewage



Municipal Solid Waste



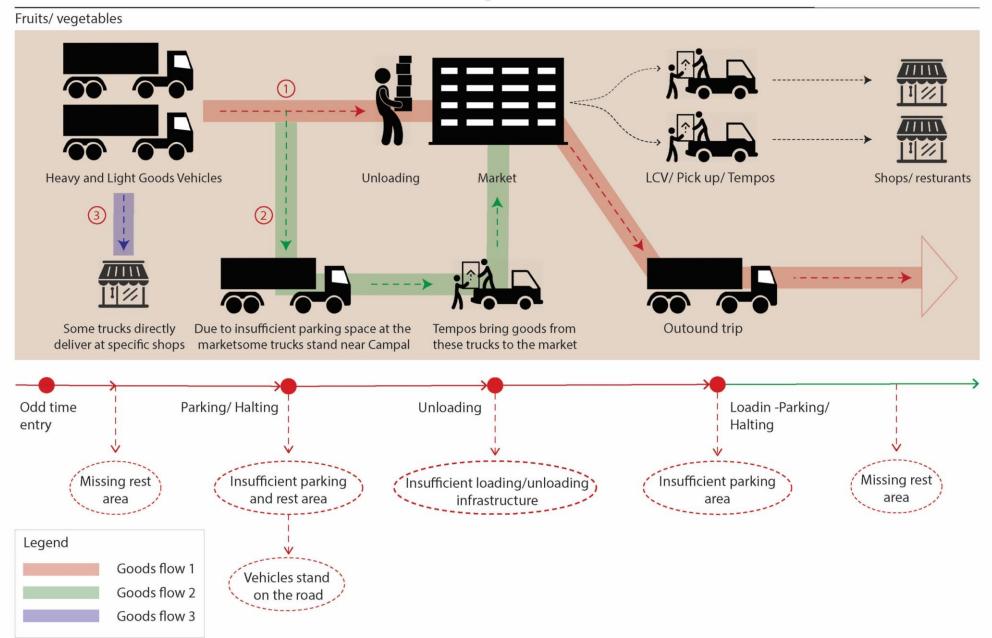


### Approximate number of freight vehicles moving in the city (Daily) Heavy Goods **Light Commercial** Van/Rickshaws/ Water Tankers + Two Vehicles Tempo/ Pick up **Night Soil Tankers** Wheelers Vehicles 500 130 -270 -110 -30 to 40 - 600 150 300 130 Loading -**Urban Freight** Freight Parking unloading bays Bicycles Hotspots Stands 10 to 15 2 - 3 3 to 4 5 (Market)

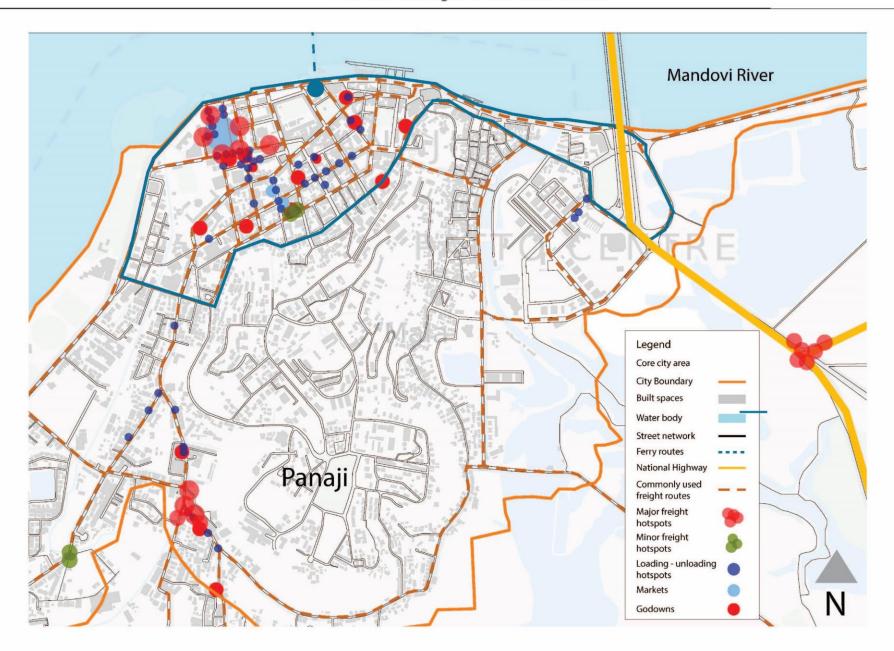
# Types of freight movement - examples





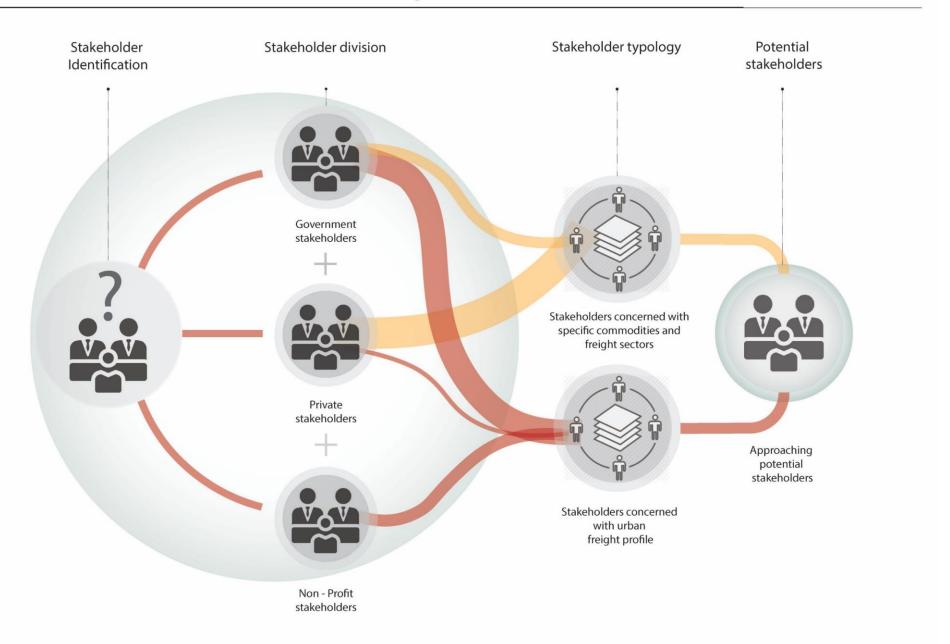






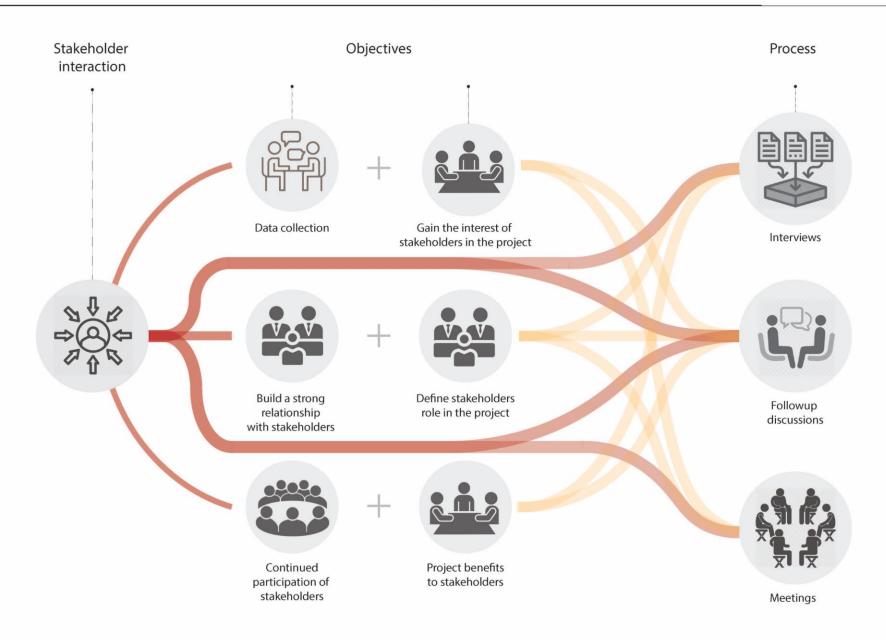








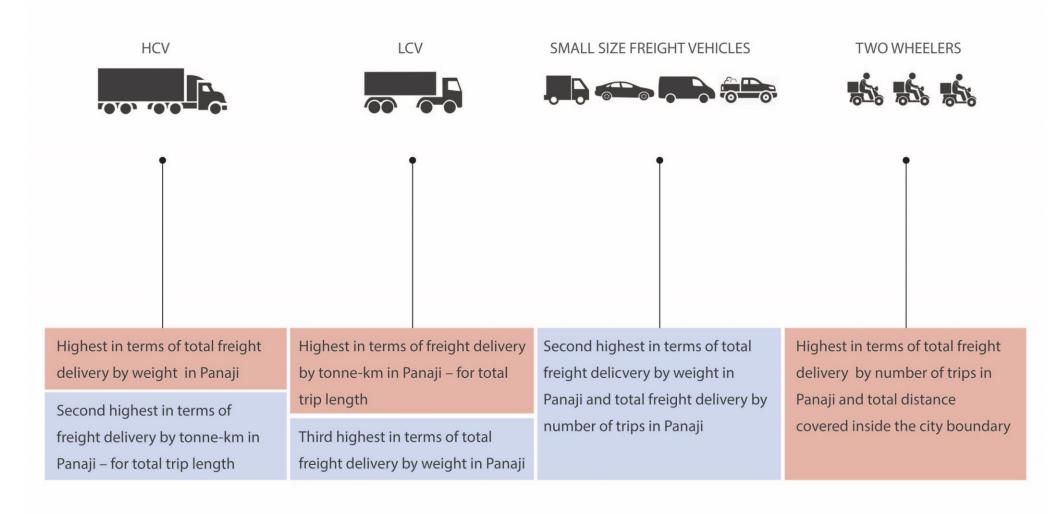








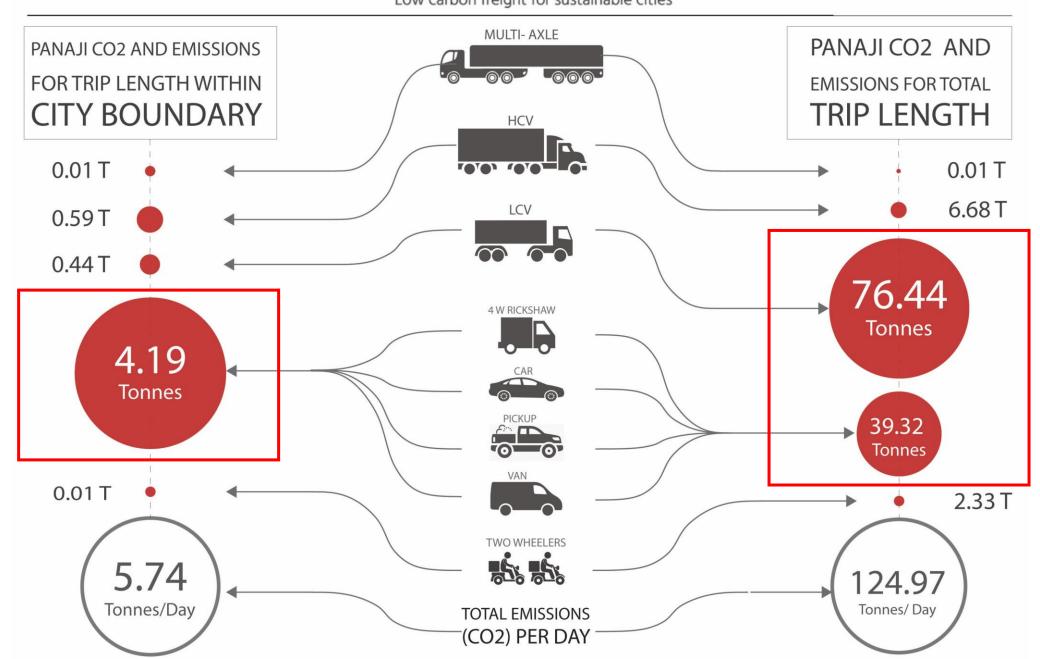
## Freight indicators according to the type of vehicles



### FREIGHT EMISSIONS IN PANAJI

# EcoLogistics Low carbon freight for sustainable cities





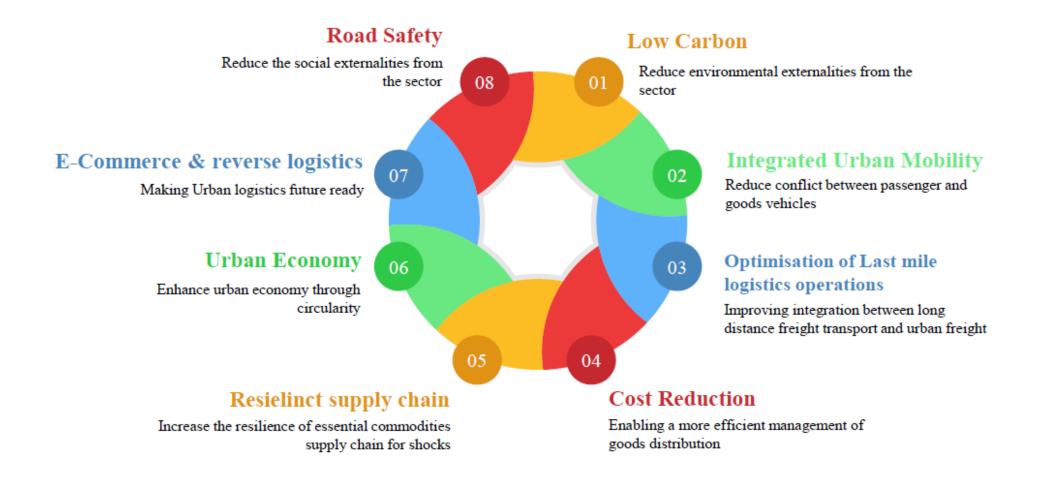




!	<u> </u>
WRONG PARKING	OBSTRUCTION AND CONGESTION
INADEQUATE PARKING	CONGESTION AND INCREASES IDLING TIME
INFRASTRUCTURE GAPS	INEFFICIENT SUPPLY CHAINS
UNPLANNED INFRASTRUCTURE	OBSTRUCTION AND CONGESTION
INORGANIZED STREET ACTIVITIES	OBSTRUCTION TO THE MOVEMENT AND CONGESTION
LACK OF TECHNICAL ADVANCEMENTS	INCREASED EMISSIONS
WEAK ENFORCEMENT AND INDISCIPLINED TRAFFIC	OBSTRUCTION AND CONGESTION

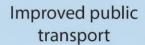
















Intergated Transport plan



Promote Non - motorized transport



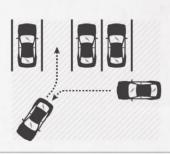
Climate Action Planning



Better land use planning



**Smart Parking** 



Reduced emissions from Solid waste collection vehicles



Improved Road Safety



Improved traffic signage network



Reduced Road Congestion



Improved pedestrian infrastructure



Promote bicycling



Reduced transport emissions



Introduce E- mobility



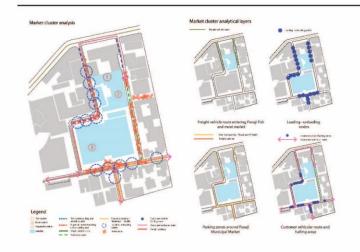
Improved Freight
Transport

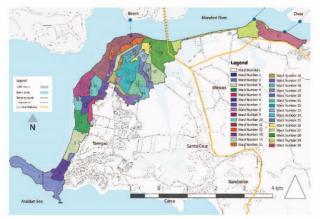


# Stratgey integration scales

















# Thank you!

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