Digital India
Power To Empower

स्वच्छ भारत
एक कदम स्वच्छता की ओर

सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF HOUSING AND URBAN AFFAIRS

11th Urban Mobility India Conference & Expo 2018

EcoLogistics:

Low carbon freight for sustainable cities

Funded through IKI, BMU, Germany

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ICLEI South Asia

UMI 2018, Nagpur

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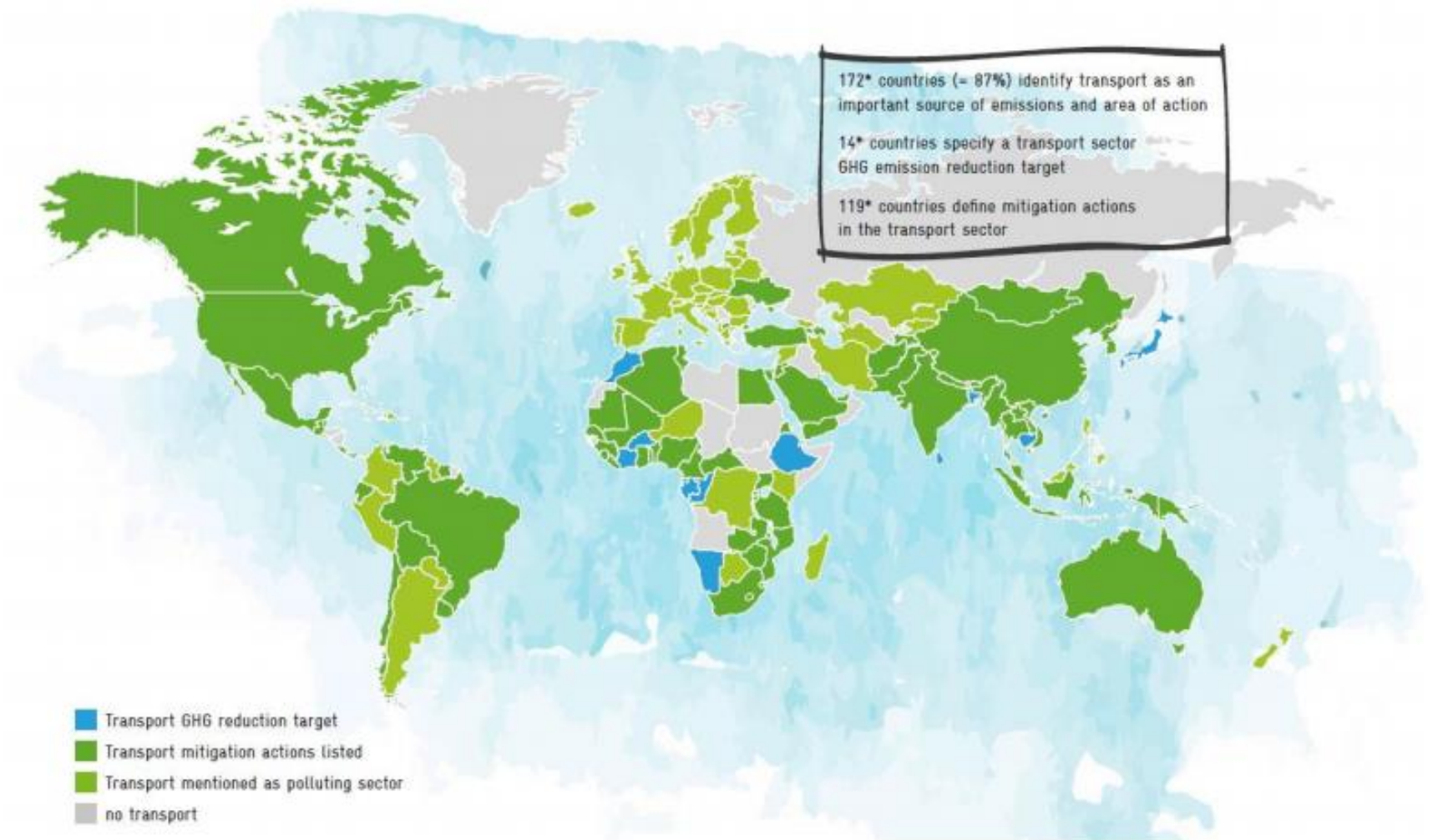
Local Governments for Sustainability

Global Assessment of NDCs by GIZ tells us:



Source: GIZ, Transport in Nationally Determined Contributions (NDCs), Lessons learnt from case studies of rapidly motorising countries, Synthesis Report

But before we start,

Let's understand some **key** terminologies.

Freight *is goods transported in bulk by truck, ship, or aircraft. Freight can be considered as the economy in motion*

Logistics *is the management of the flow of things between the point of origin and the point of consumption in order to meet requirements of customers, industries or enterprises.*

Urban freight transport *is all movements of goods <u>into, out of, through or within the urban area</u>, made by NMT, light or heavy vehicles, rail, ferries, ships including:*

Delivery of goods (business and home);

- *Service transport and demolition traffic;*
- *Shopping trips made by private households;*
- *Reverse logistics for waste removal and for returns management;*
- *Service vans for maintenance, supply and removal of parts.*

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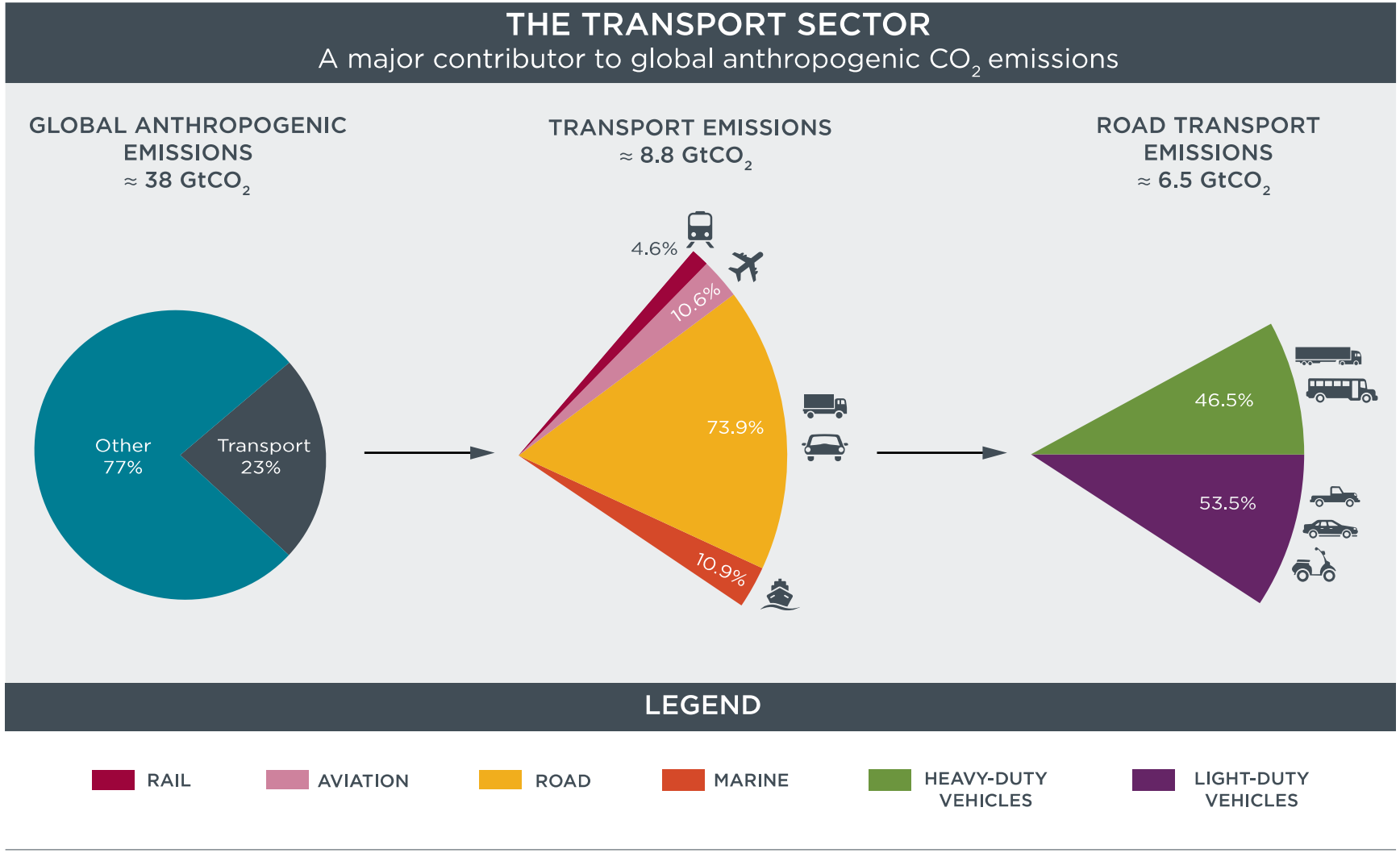
Globally transport is

- Responsible for 23% of CO_2 emissions
- Road transport (incl. freight) is responsible for around 74% of these emissions



Source: Kodjak D, 2015, Policies To Reduce Fuel Consumption, Air Pollution, and Carbon Emissions from vehicles in G20 Nations, May 2015, The International Council for Clean Transportation (ICCT)

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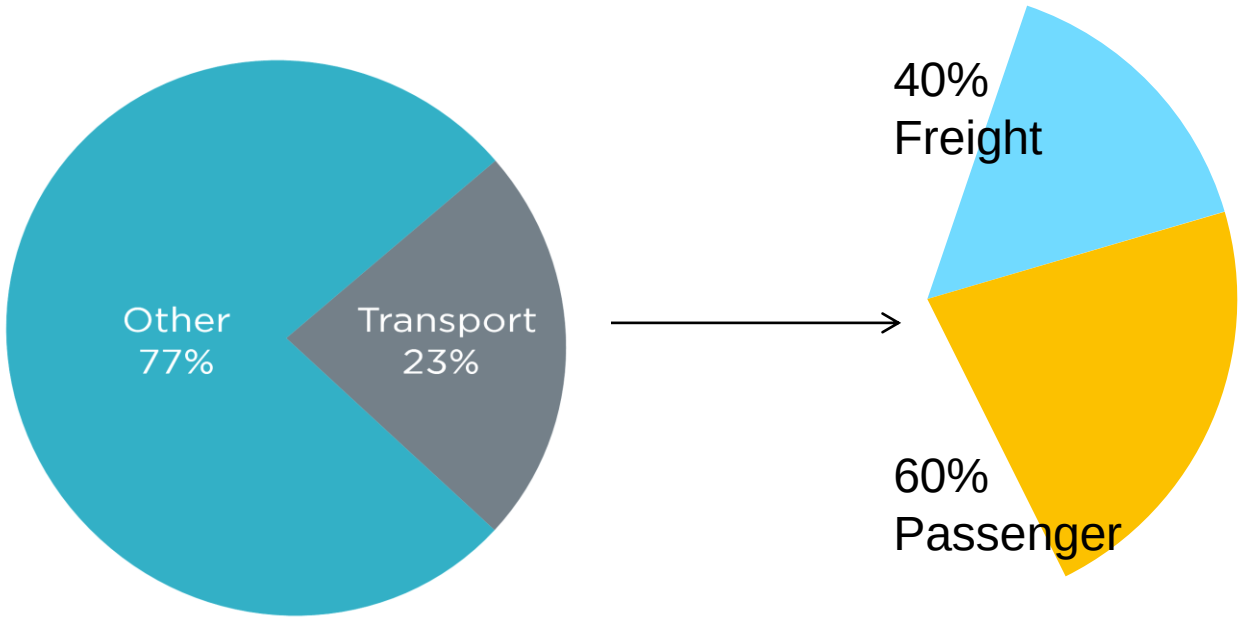
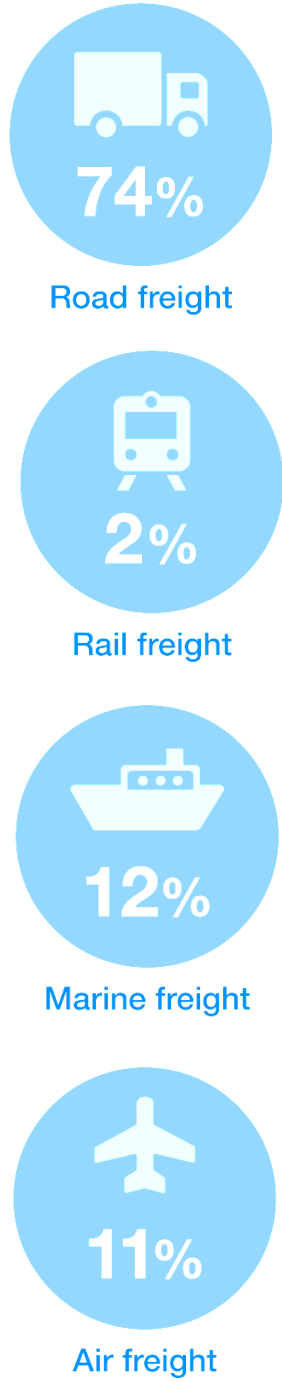
Global transport emissions

- 40% of emisssions come from freight transport.
- 74% of freight emissions are from road transport.





Source: Kodjak D, 2015, Policies To Reduce Fuel Consumption, Air Pollution, and Carbon Emissions from vehicles in G20 Nations, May 2015, The International Council for Clean Transportation (ICCT), ITF 2017, Accenture research

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Summary so far

- Globally, transport is responsible for **23%** of CO_2 emissions.
- Globally, surface transport is responsible for **78%** of CO2 emissions from the overall transport sector
- Globally, freight transport is responsible for **40%** of the transport emissions. (surface, sea and air)
- Transport remains the sector with growing GHG emissions (example: +16% in EU).
- In EU freight transport contributes to **1/3rd** of CO_2 emissions (of urban transport emissions).
- Freight transport volume is projected to **double** by 2050.

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Urban freight and urban life

Health

Noise & Vibration

Road Safety

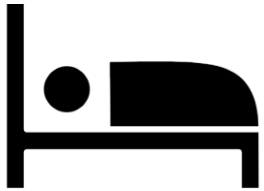
Congestion

Road maintenance

Emissions

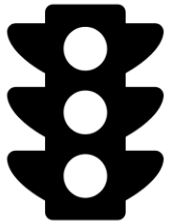
The way in which goods are transported cause big concerns around….

7 Mio deaths every year (world)



Noise & Vibration Deliveries at night can distrub sleep.

HGVs=5% of traffic but are involved in 18% of cyclists‘ road deaths each year



50% of urban traffic increases 1998-2008 were due to HGV traffic

More damaging to road surfaces

HGVs=5% of traffic but are responsible for 21% CO_2 emissions from road transport.

Source: UK data

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Benefits to urban life

People centered urban development

Health

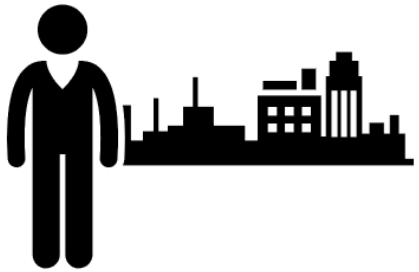
Safety

Economic benefits

Time saving

Low emissions

Tackling the problem of urban freight has multiple benefits.



Urban space for people

Reduced air & noise pollution

Reduced accidents, saver streets

More job opportunities

Reduced traffic congestion

Reduced emissions

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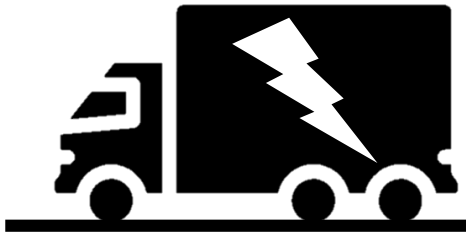
EcoLogistics

ICLEI's approach

ICLEI Members plan, set rules and provide infrastructure for transporting goods by giving priority to **people-centered urban development, health, safety and low-emission.** They promote circular and regional economies to limit the growth of freight transport.

"EcoLogistics" promotes a transportation of goods which minimize impacts on air quality, noise, health, fatalities & injuries, traffic congestion, and which reduces GHG emissions.

Our vision aims to integrate strategies for **passenger and freight transport.**



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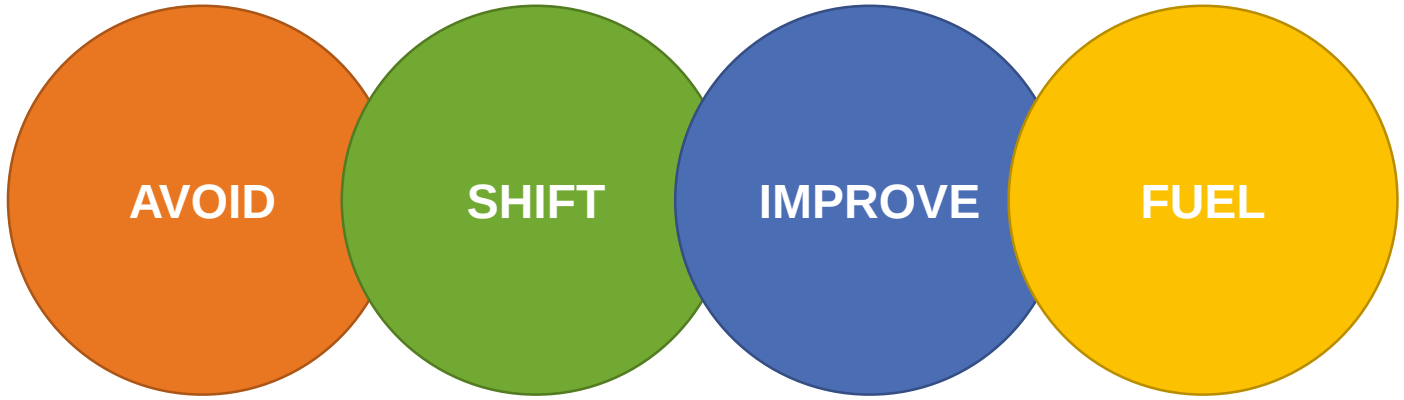
EcoLogistics strategy



Avoid (empty) trips	Shift road transport to non-motorized transport	Use technologies for fuel efficient trucks	Use alternative fuels and drive systems
Reduce freight volume and haul distance	Maintain and strengthen non-motorized freight sector	Better operate and manage logistics, traffic	Improve fuel quality
Increase load factor	Shift road transport to rail	Reduce air pollutants & noise	
Customize vehicle sizes	Shift road transport to ship		

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EcoLogistics

Low carbon freight for sustainable cities

Project Duration
2017-2021

Funded by
BMU through IKI

Partners
ICLEI WS, ICLEI SAS, ICLEI SAMS, Despacio, SFC, ZLC

Target Countries
Argentina, Colombia, India

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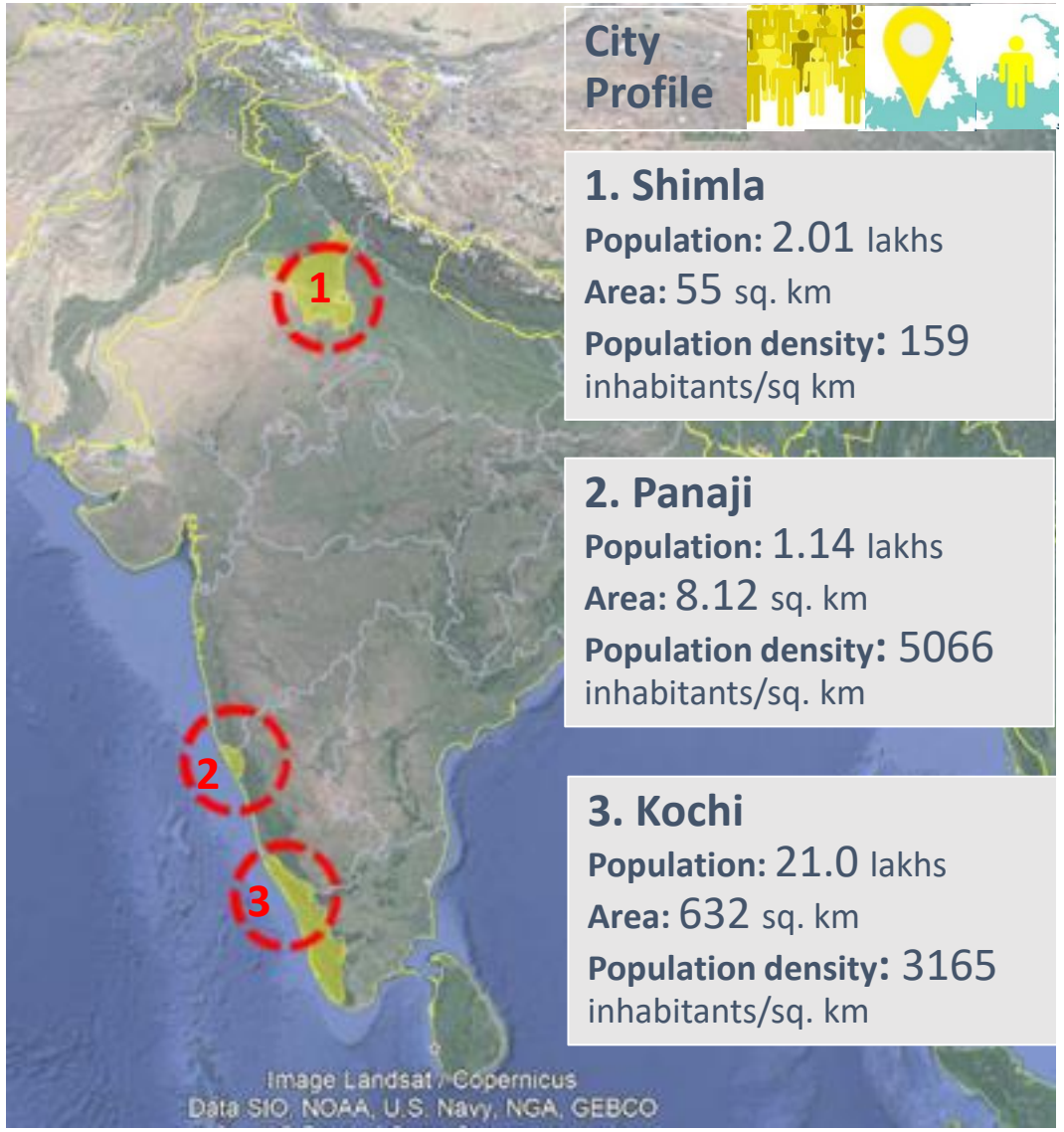
ICLEI's 'EcoLogistics' project (2017-2021) supported by the Federal Ministry of the Environment, Nature Conservation and Nuclear Safety (BMU) through the International Climate Initiative (IKI), will **capacitate** governmental and non-governmental actors to **build strategies and policies to promote** low carbon and more sustainable urban freight in the target cities.

Project cities



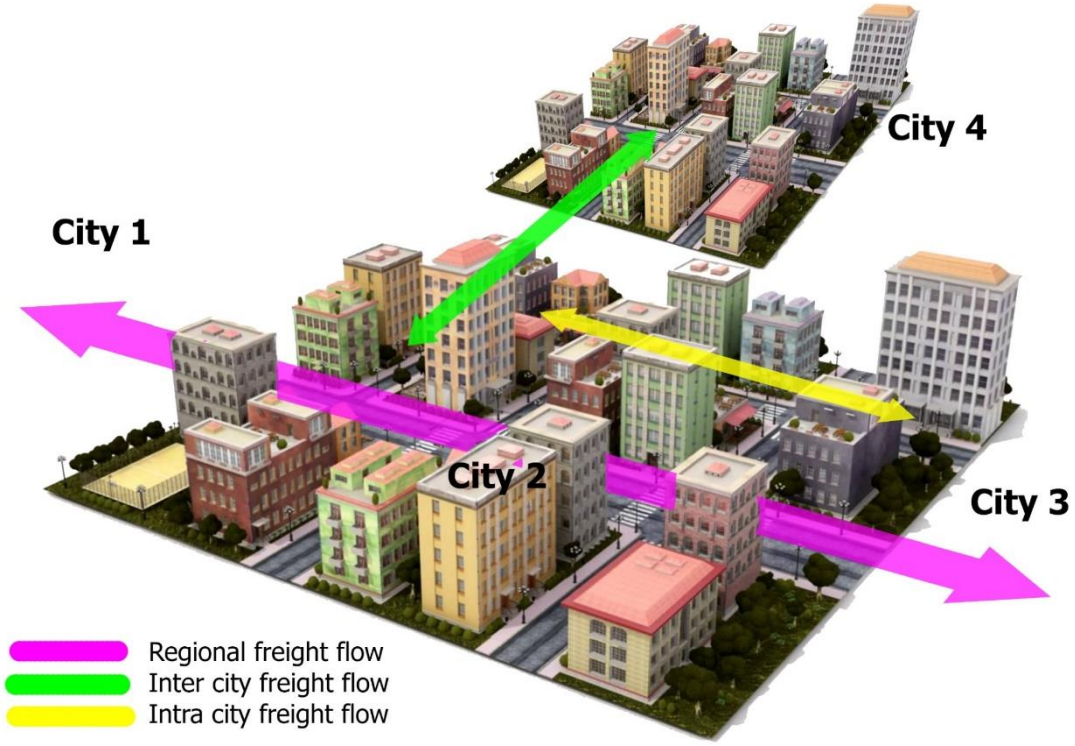
- **Queen of Hills**
- Himachal Pradesh **State capital** and Administrative city with dominance of tourism and institutions.
- Connected through **Road**:NH88, NH22, SH16 and SH13)
  Railways: Kalka station(90km)
  Air transport: Jubbarhatti airport (20 km)

- **Capital** of Goa and **3rd largest** city of Goa after Madgaon & Vasco
- **Connectivity**
  Road: **NH-17** and **NH-4A**
  Dabolim International **Airport** (30 km)
  Railway stations: Karmali-11.4 km, Thivim-16.5 km, Pernem 24 km, Madgaon 29.2km
  Mormugao **Port** (30 km from city), Minor **Ferry** routes

- Originally known as **Queen of Arabian Sea**
- **Gateway for maritime freight**
- **Connectivity:** Road: NH 66, NH544, NH49
  Railways: Ernakulam town station and Ernakulam Junction
  Airport: Kochi international Airport (29km)
  Major port: Kochi port

Freight movement pattern in cities

- **34.4%** of freight vehicles in Shimla are of external to external movement (**Regional movement**)
- **78%** of freight vehicles **originate/ terminate in Kochi** and only **21%** were found **bypassing** the city.
- Freight movement in Panaji majorly takes place due to prominent **tourism and commercial** character of the city



Information Source: Shimla CMP 2012, Development Plan Kochi 2031

Project impact and outputs

Impact

Low carbon urban freight **policies and practices** contribute to climate change mitigation and to meeting the **ambitions of NDCs.**

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Outcome

The project cities have enhanced **capacities**, **strategies** **and** **policies** to promote low carbon urban freight through **local action** and national support.

Output I	Output II	Output III	Output IV	Output V
City Freight profile	Low carbon Action Plan	Demonstration Project	Future scenarios & NELPR	EcoLogistics Handbook

Kickoff meeting

MOEFCC
Logistics division, MOC
NIUA

Organised on 31st October 2018, World Cities Day.

Panaji MC
Shimla MC, RTO
Kochi MC

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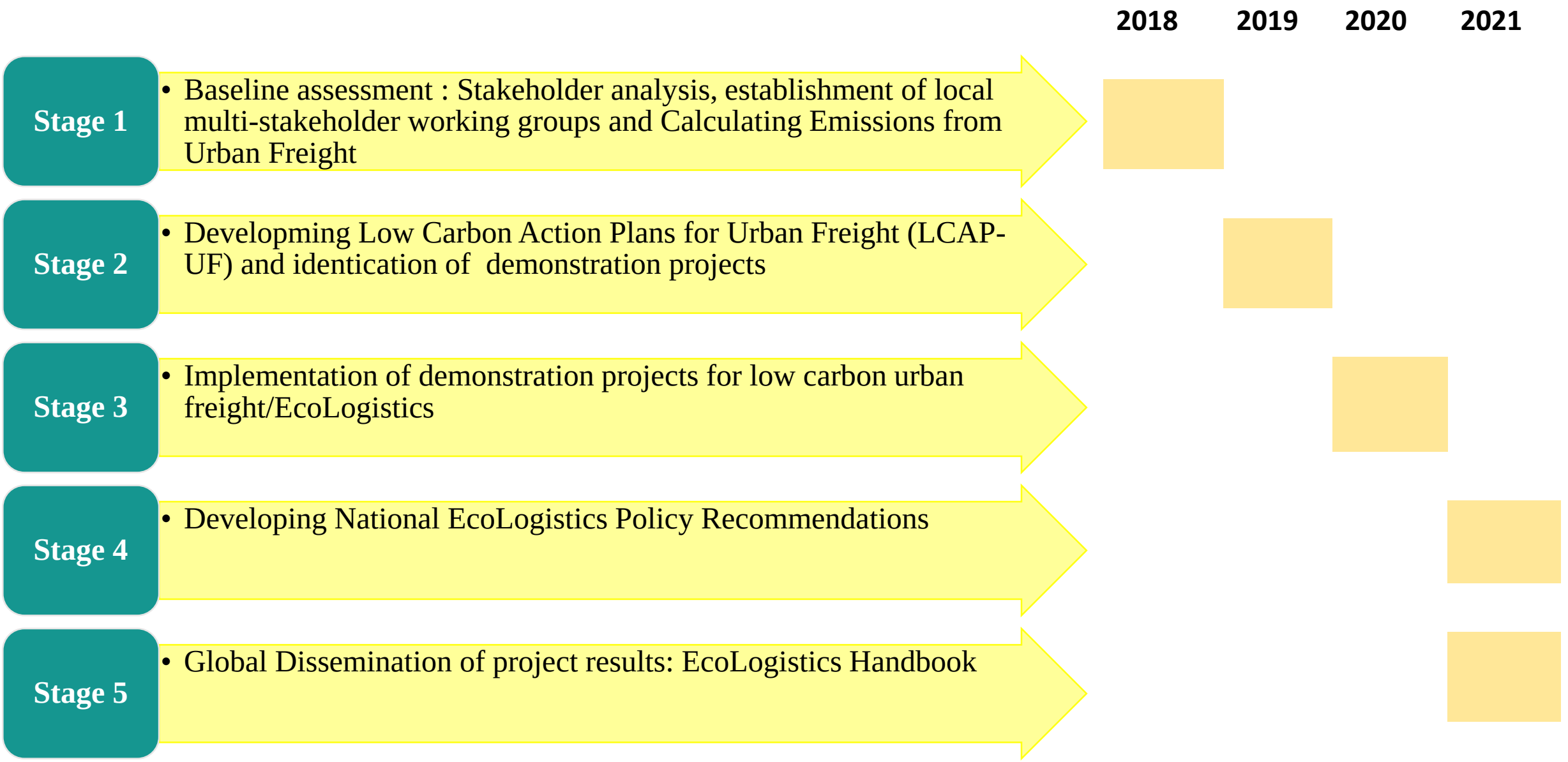
Next Steps-Project activities



EcoMobility Alliance

Enthusiastic **cities** with a common goal: to create and implement urban mobility strategies that **prioritize people, urban quality and environment**

23 City leaders changing how more than **45 million** people move in cities

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Challenging discussion points

- Can we **avoid** freight?
- **Technology** alone can not solve the urban freight problem, what else do we **need?**
- How to design **policies** for EcoLogistics?
- Will policies for EcoLogistics affect **economic growth**?
- How **e-commerc**e will influence urban freight in future? (Same day delivery, free return policies etc.)
- Can drone deliveries, autonomous vehicle reduce the worries from **urban logistics** in future?

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Thank You

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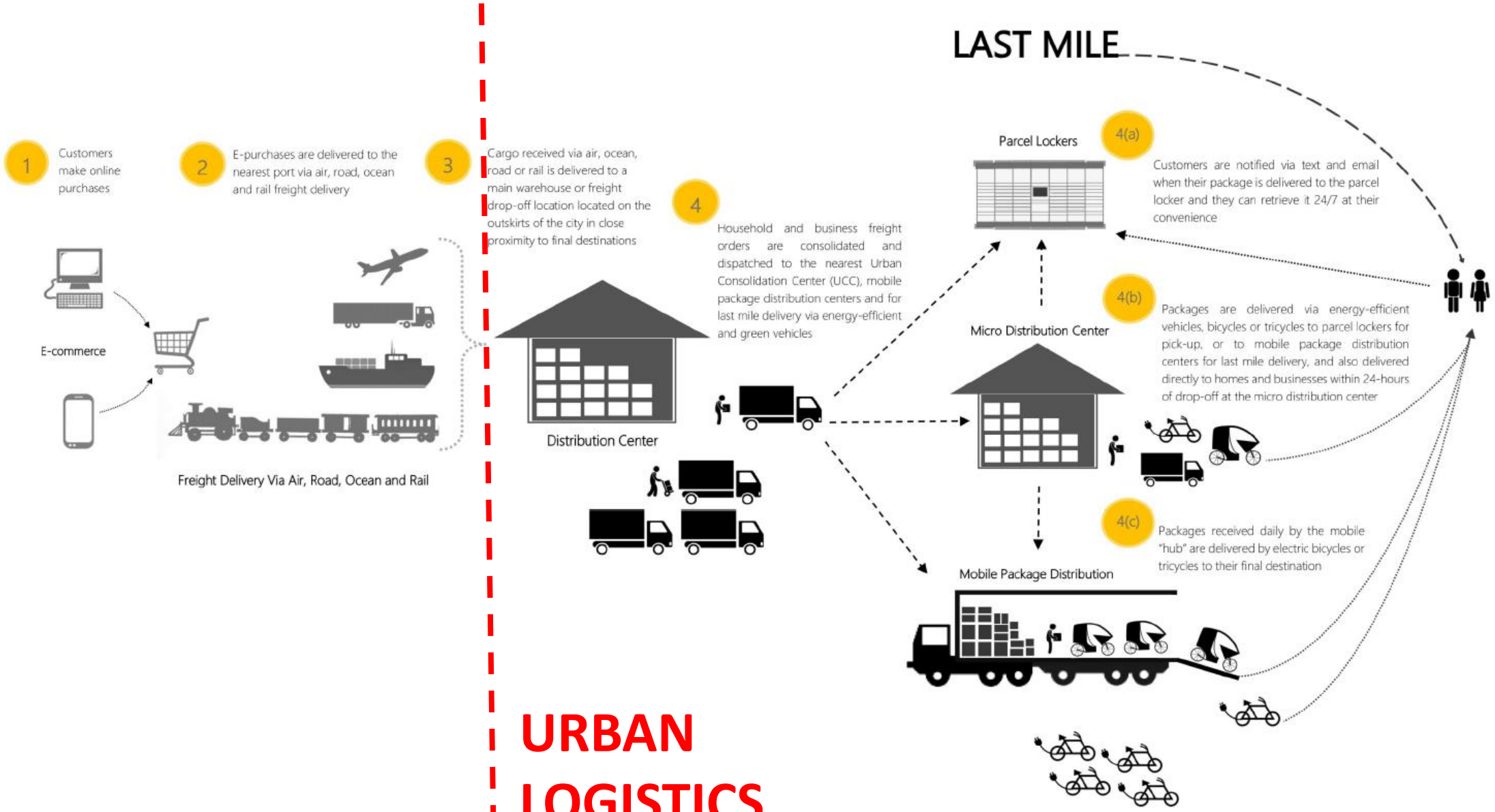
LAST MILE
1
Customers make online purchases
2
E-purchases are delivered to the nearest port via air, road, ocean and rail freight delivery
3
Cargo received via air, ocean, road or rail is delivered to a main warehouse or freight drop-off location located on the outskirts of the city in close proximity to final destinations
4
Household and business freight orders are consolidated and dispatched to the nearest Urban Consolidation Center (UCC), mobile package distribution centers and for last mile delivery via energy-efficient and green vehicles
E-commerce
Freight Delivery Via Air, Road, Ocean and Rail
Distribution Center
Parcel Lockers
4(a)
Customers are notified via text and email when their package is delivered to the parcel locker and they can retrieve it 24/7 at their convenience
Micro Distribution Center
4(b)
Packages are delivered via energy-efficient vehicles, bicycles or tricycles to parcel lockers for pick-up, or to mobile package distribution centers for last mile delivery, and also delivered directly to homes and businesses within 24-hours of drop-off at the micro distribution center
4(c)
Packages received daily by the mobile "hub" are delivered by electric bicycles or tricycles to their final destination
Mobile Package Distribution
URBAN LOGISTICS
Infographic by Hadia A. Sheerazi based on information collected by the research team