Implemented by

Mobility from a Gender Perspective - Examples from India

Presented by: SMART-SUT, GIZ INDIA

19th November 2021

Photograph: The Economic Times

GUMP : Indo – German Green Urban Mobility Partner

- **Partnership** between **German and Indian Governments** agreed in November 2019 and planned to be in place till 2030. Stakeholders: Ministry of Housing and Urban Affairs (MoHUA), Federal Ministry of Economic Cooperation and Development (BMZ), GIZ and KfW (German Financial Cooperation).

- **OBJECTIVE:** To speed-up the construction of **sustainable transport infrastructure**, rollout of **e-busses**, and **integration** of various modes for seamless travel

- **BUDGET:** Concessional finance of **Euros 1 billion + technical cooperation** to support improvements of green urban mobility infrastructure and services and strengthen capacities of national, state and local institutions to design and implement sustainable, inclusive and smart mobility solutions in Indian cities

SMART-SUT : Background

Technical Cooperation Project commissioned by **German Ministry for Economic Cooperation and Development (BMZ)** under the German Climate Technology Initiative

To Improve **Planning and Implementation of Sustainable Urban Transport Projects** in Selected Indian Cities

Project Duration

Aug 2017- June 2022

Project Volume

9 Million Euros

Implementation Agreement signed with **Ministry of Housing and Urban Affairs (MoHUA)** on 08.12.2017

SMART – SUT : Partner States/Cities

State	Partner City	Upscaling City
Odisha	Bhubaneshwar	Cuttack
		Puri
Tamil Nadu	Coimbatore	Salem
		Madurai
Kerala	Kochi	Thiruvananthapuram

Sustainable Mobility for ALL

- **Integration** of perspective at all stages and **levels of policies, programs and projects**
- **Identification of problems, concerns and needs** of different groups and definition of strategies
- **Long term strategies** that compliments specific policies for the advancement of specific groups
- **Cross-sectoral approach** instead of silos
- **Responsibility of all actors**

Urban Poor

Women

Men

Sustainable Transport = Inclusive Transport

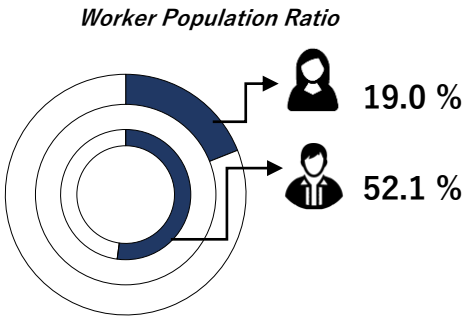
Vulnerable & Marginalized Groups

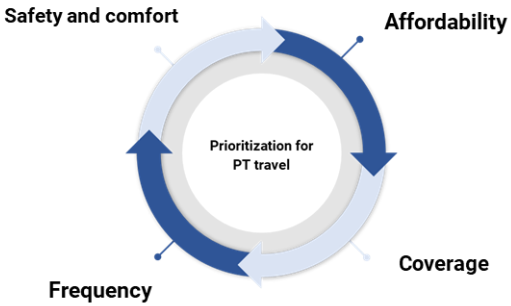
Differently Abled People

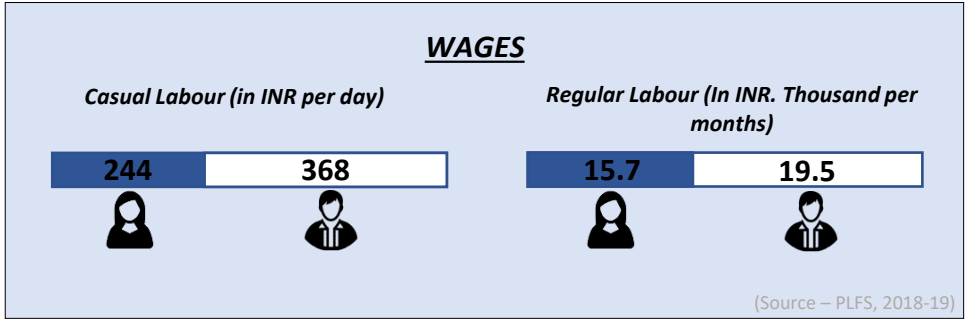
giz

Barriers Faced By Indian Women In Public Transportation Systems

- Transport is found to be one of the barriers to women's participation in work force.*
- Most women have faced harassment in public transport
  - In Mumbai 46%* of the respondents faced sexual harassment. While in Delhi it is 90 %* and for Lucknow it is 88%*
- Infrastructure systems designed without considering women's perspective
- Lack of data capturing women's travel pattern
- Underrepresentation of women in transport sector
  - Very few transport organisation with women decision-makers
  - Only after 1980s state transport corporations allowed women to apply for post of conductors and drivers

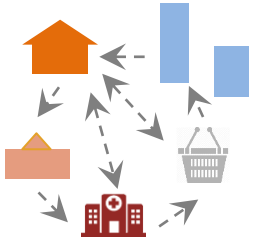
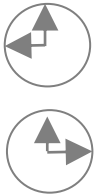




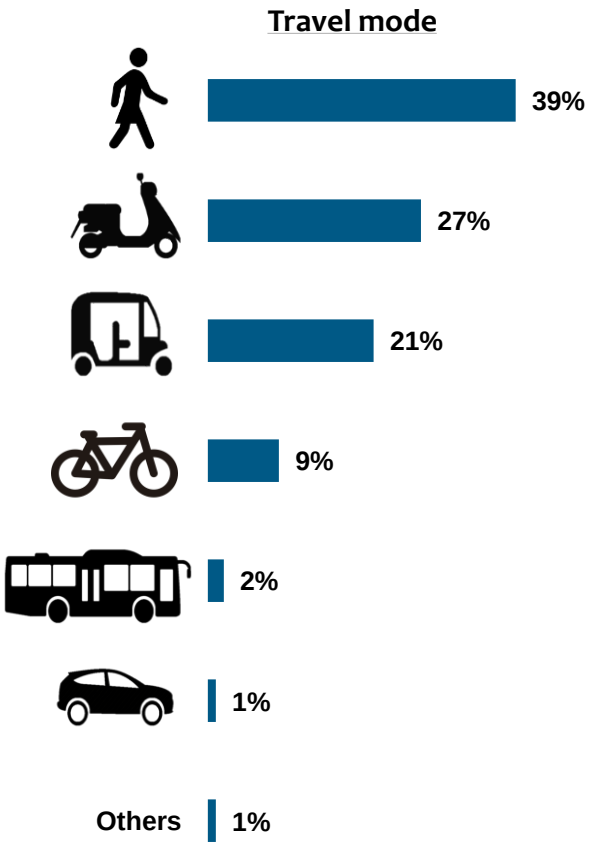


*Surveys –
*Akshara,2013
*Jagori,2010
*Safe Safar with UCL, London
*Bengaluru Métropolitain Transport Corporation (BMTC) Survey

Impact on Mobility – Mobility Patterns

Gender	Trip Chaining	Accompanying Travellers	Time of Travel
			
			

- **2/3rd of men's trips are for work**
- **2/3rd of women's trips are for purchases and HH & care work**
- **50% of women** undertake multiple activities per trip
- **30% of women** travel with dependents as compared to 17% of men
- **Walking** is the predominant mode of transport for women
- Women **spend lesser on transportation** than men
- **10% of driving licenses** were issued to women in 2016-17 (MORTH)



Source: Shah, S. (2020). Women's access to urban transport in Bihar. The Urban Catalysts and C3.

Activities at State/City Level

Kerala

Introduction – Gender Studies In Kerala

- SMART-SUT is supporting the Kerala State Transport Department in implementation of sustainable urban transportation systems
- Objective of the study- **Understand the issues faced by women of Kerala and frame recommendations for the State Transport Department**
- Parameters used to identify issues:
  - Literature Review
  - Focus Group Discussions
  - Online and offline perception survey
  - Infrastructure assessment
  - Key Initiatives of the State

Parameters For Identification of Issues

300 PARTICIPANTS

Students

Scholars

Working Women

Kudumbasree Women

Subject of Focus Group Discussion
1. Harassment Faced
2. Impact of Mobility
3. Factors Affecting Women Safety
4. Responses Towards Harassment
5. Feedback on Infrastructure Systems

1300 RESPONDENTS

- Outcome of FGDs used to design perception survey- focussing more of bus system
- Near various bus stops and terminals, at different times of the day, different socio-economic background.

Subject of the Questions In Perception Survey
1. Education Background
2. Travel Pattern
3. Travel Experience and Safety at Night
4. Sexual Harassment Faced
5. Perception of safety at different stages of travel journey
6. Priority actions

INFRASTRUCTURE ASSESSMENT

Parameters for assessing bus system and first and last mile
1. Visibility
2. Openness
3. Women presence
4. Eyes on streets
5. Crime preventing elements
6. Accessibility
7. Comfort
8. Data and technology
9. Crowd

Key Outcomes of the FGDs and Perception Survey

~90% of the interviewed women use public transport

~80% of the respondents walk to the bus stop

~68% female respondents experienced sexual harassment

- Factors affecting women's safety:
  - Deserted streets
  - Poor crowd management in buses,
  - Poor crew conduct- private operator's buses
  - Absence of PIS increasing perceived waiting time
  - Unmaintained facilities,
  - Inadequate lighting at bus stops, terminals, streets
  - Long and arduous process of complaint registration deters women from filing FIR

Key Outcomes of the FGDs and Perception Survey

68% respondents avoid travelling by themselves at night.

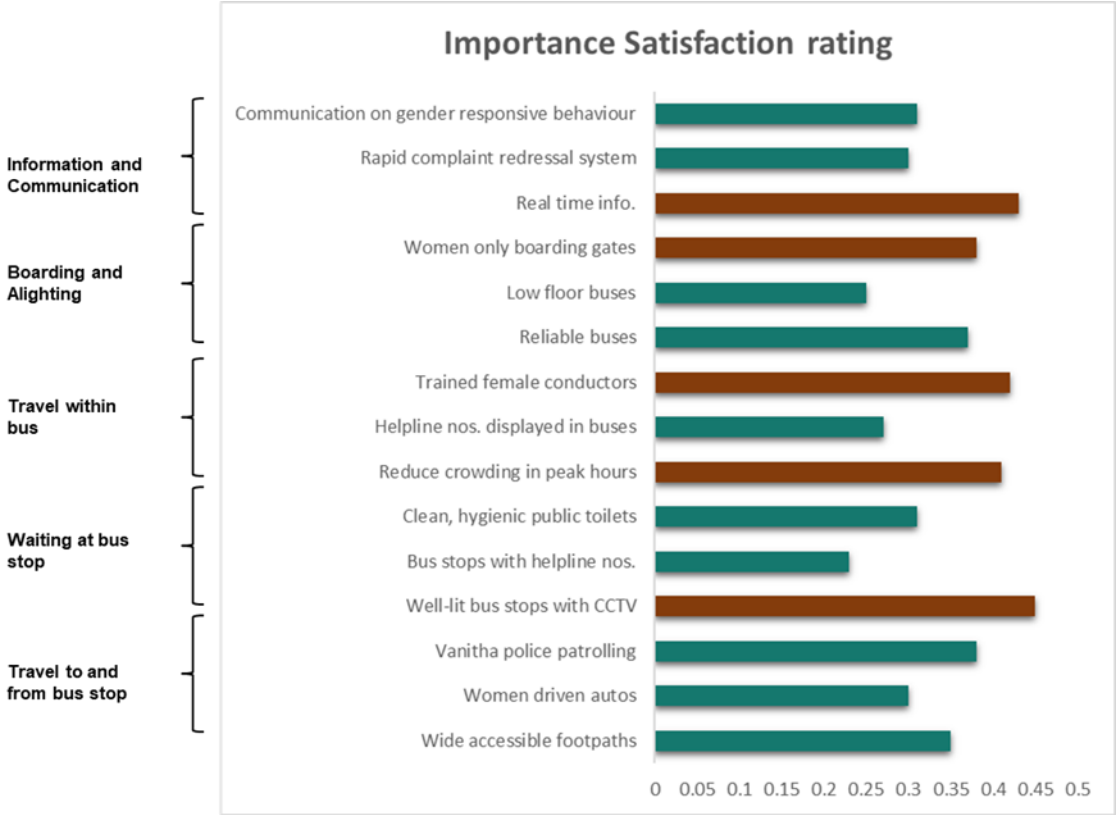
82% respondents prefer not to travel after 7 pm; limiting employment opportunities

11% women feel safe waiting at bus stop at night.

82% feel safe in PT journey at daytime but post 7 PM only **20%** respondents feel safe.

Prioritizing Actions Based on Perception Survey

Top priorities of women respondents considering the perception of quality of the said parameter



- Well-lit bus stops with CCTV
- Reduced crowding in peak hours
- Trained female conductors
- Women only boarding gates
- Real time information
- Reliable buses
- Frequent patrolling at night
- Female auto drivers
- Displaying helpline numbers in buses and at bus stops
- Low floor buses

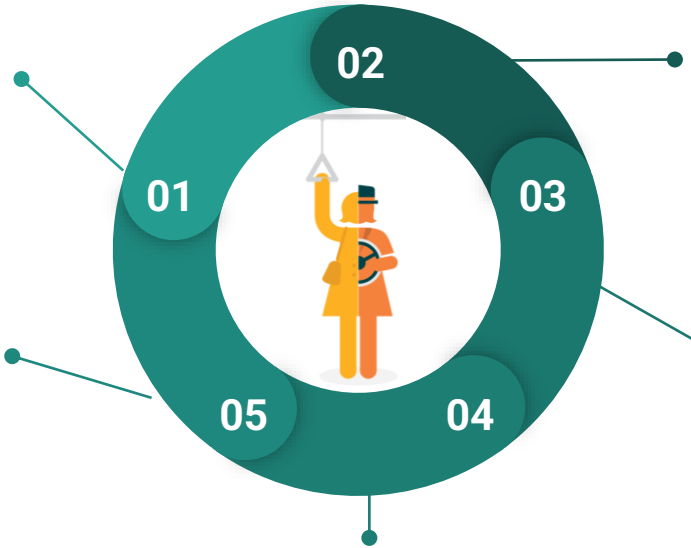
Suggestive Measures For Gender Sensitive Reforms In Public Transport

- Gender disaggregated Data Framework – Use of Data for Better mobility
- Regulatory & Policy changes
- Women employment in Transport Sector
- Role of trainings and awareness programs
- Infrastructure Upgradation

Gender Disaggregated Data Collection – Use Of Data For Women Mobility

Ticketing Data

- **Assessment of travel pattern across the routes. Peak/off-peak hours/weekdays/weekends**
- Stops wise boarding/alighting data at different times of day
- Segregated data collection through ETMs, smart cards
- **Trave Time, waiting time, travel cost**



Women Employment In Transport

- Department wise % of women staff
  - Decision making profiles
  - Class I, II, III, IV, V
  - Department-wise
  - Drivers conductors, depot managers, ticket checkers (Buses)
- **Gender inclusive policies**
- Office infrastructure
- Women IPT Drivers

Disaggregated Data Collection And Analysis For Comprehensive Mobility Plans

- Mode share - % of Walking/cycling/PT/private modes
- **Trip purpose, Trip length**
- Cost on Transport per month
- **Sexual harassment faced/perception of safety- streets/bus stops/inside vehicles**
- NMT infrastructure within 500 mts of transit hubs
- **Cost on Transport per month**
- **Household data (Trip Chain/ Trip Diary.**

Harassment Reports

- Complaints within vehicle, bus stop, terminals
- Comprehensive data record on harassment issues in bus, bus stops and terminals
- Comprehensive grievance Redressal system

Stops/ Terminals & Infrastructure Upgradation

- Universally accessible bus stops with- Lighting, Signage, Vendors
- Public information System
- Helpline numbers
- Pedestrian Oriented Streets
- **Participatory street audits**
- **Blind spot mapping**
- **Police Patrols**
- Rest rooms/toilets
- **Inclusion of safety audits in any road development tender**
- Transparent back panel

Activities at State/City Level

Odisha

Reimagining Transport Data Through Mobility Lens

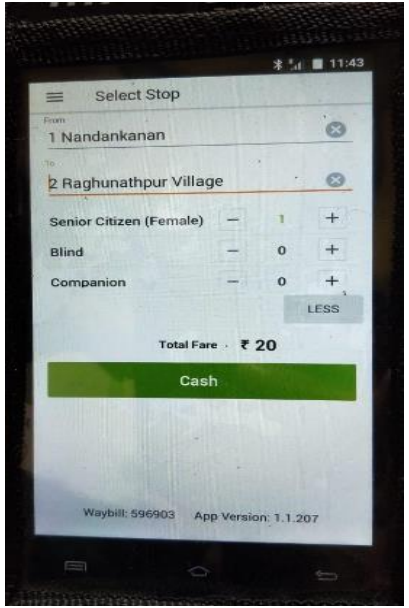
Collecting Gender-Segregated Data through E-Ticketing using ETMs

The process of collecting gender segregated data using ETM machines has been introduced in public transport buses in Bhubaneshwar.

Female Commuters in MoBus Bhubaneshwar

Reimagining Transport Data Through Mobility Lens

Generating and Analyzing Gender-Segregated Data in Public Transport



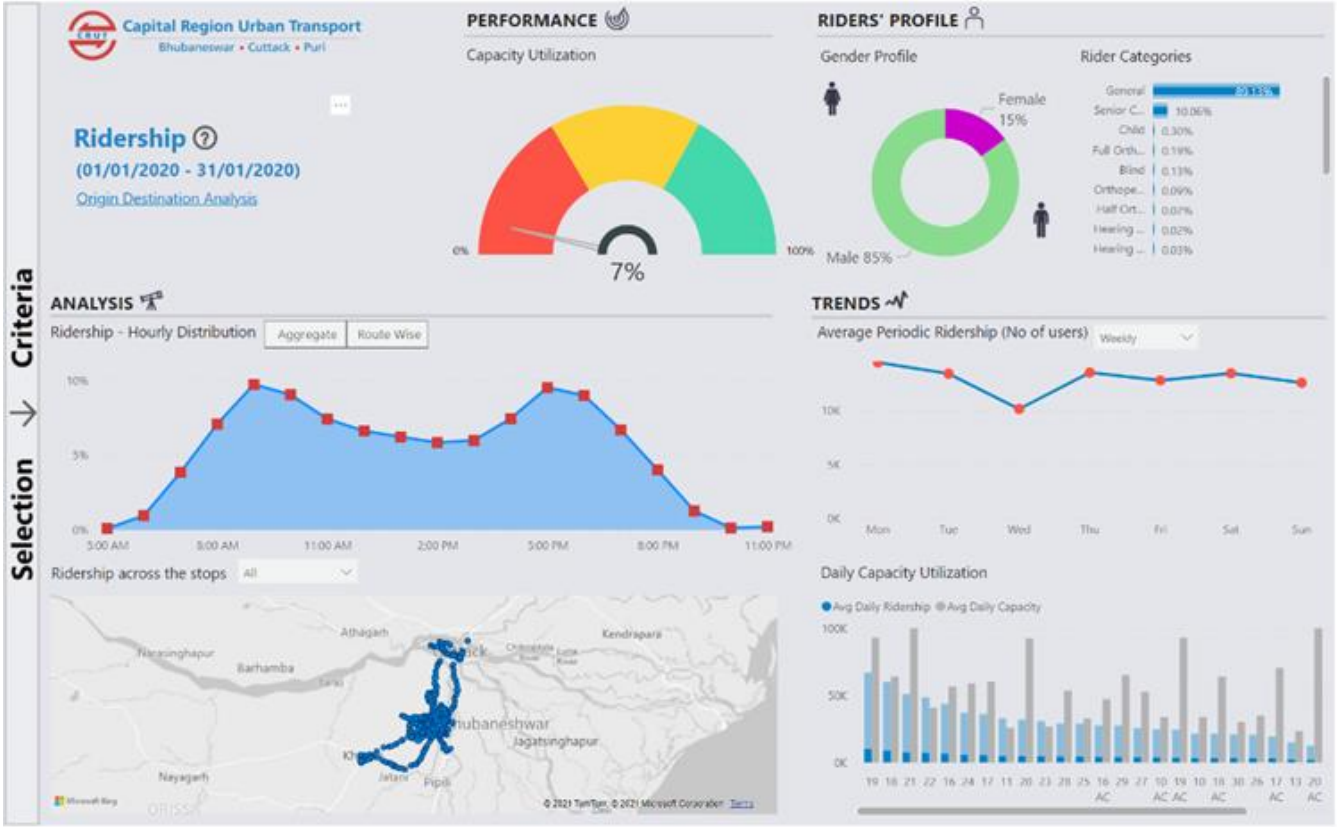
Ticketing Screen of ETMs

After collecting ticketing data, Gender segregated data will be available in 'ETM transaction reports' and can be used to analyze female travel pattern and preferences such as -

- ✓ **Ridership** (daily/route-wise/trip-wise ridership)
- ✓ **Age Group** (can be collected through smart card/mobile ticketing)
- ✓ **Affordability**
- ✓ **Boarding and Alighting Pattern**
- ✓ **Travel Demand**
- ✓ **Travel Preferences of Female Commuters** (Fleet type, average trip length, average journey time, average waiting time, trip frequency etc.)
- ✓ **Safety and Security issues at Specific Location and Time**
- ✓ **Restricted Movement and Access to Opportunities**

Reimagining Transport Data Through Mobility Lens

Dashboard Interface



The Road Ahead: Women And Transgenders As Drivers of Change

- Pilot Project : Launch 50 E- Rickshaws as a feeder service covering Bhubaneswar.
- Organized system with defined routes and fixed fares
- Not competing with the auto rickshaws only plying on fixed routes <2km from MoBus shelters and stops.
- Smaller E – Rickshaws (Lithium-Ion) in BBSR to serve narrow lanes for last mile connections.
- Social Inclusion : Training of women, transgenders and HIV affected young adults as the future driver beneficiaries.

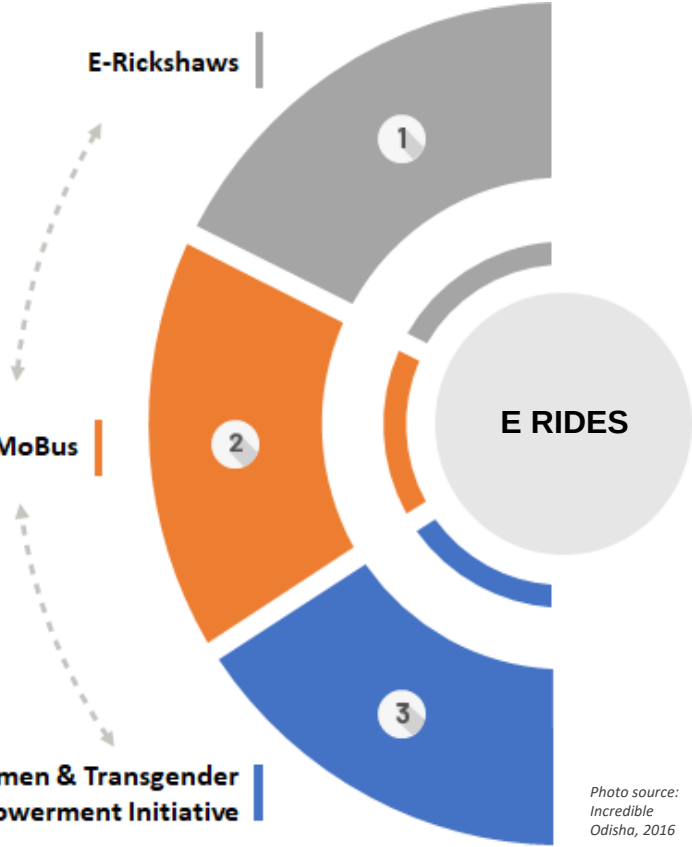
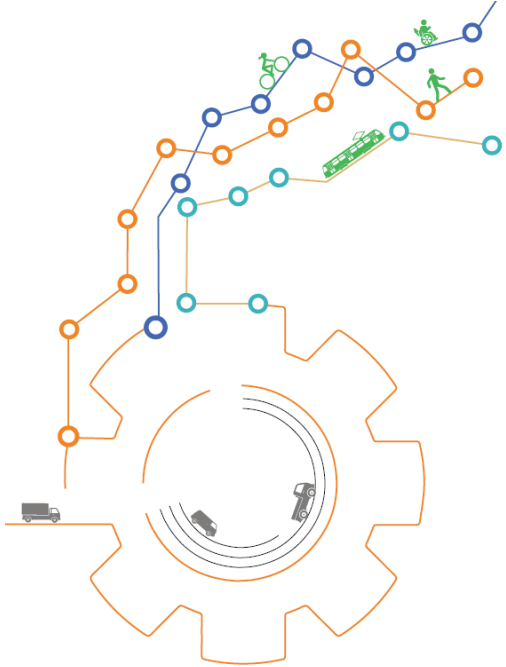


Photo source: Incredible Odisha, 2016

giz

Thank you very much for your attention!



Follow our project, our cluster and GIZ India!

SMART-SUT https://twitter.com/giztransportIN

SUID Cluster https://www.facebook.com/SUID.India

GIZ India https://twitter.com/giz_india + https://www.linkedin.com/company/giz-india/

Contact

Andrea Bluemel

Senior Advisor SMART-SUT

andrea.bluemel@giz.de
M +91 99 58865254

www.giz.de

https://twitter.com/giz_gmbh

https://www.facebook.com/gizprofile/

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices
Bonn and Eschborn

Friedrich-Ebert-Allee 36 + 40
53113 Bonn, Germany
T +49 228 44 60 - 0
F +49 228 44 60 - 17 66

Dag-Hammarskjöld-Weg 1 - 5
65760 Eschborn, Germany
T +49 61 96 79 - 0
F +49 61 96 79 - 11 15

E info@giz.de
I www.giz.de

Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH