

The Green Urban Mobility Partnership Newsletter

Volume 1, Issue 1

November 2021

India and Germany – together for a green future

India and Germany have been working for more than 60 years together on environment-friendly urban development projects. To further deepen this cooperation, in November 2019, the Ministry of Housing & Urban Affairs (MoHUA), Government of India and the German Federal Ministry for Economic Cooperation and Development (BMZ) signed a Joint Declaration of Intent on Green Urban Mobility Partnership (GUMP). Both countries agreed to collaborate more closely to transform urban transport systems through more efficient, people-centric and low carbon mobility solutions.

BMZ agreed to make available concessional loans in the volume of € 1 billion through KfW Development Bank over a period of five years up to 2023. The utilisation of funds is envisaged to cover a wide range of sustainable urban mobility infrastructure improvement measures such as city bus transport systems, trams, water transport, cable cars, non-motorised transport, and multimodal integration. In addition, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) is providing technical cooperation to enhance the capacities of national, state and local institutions and decision-makers for designing sustainable, inclusive and smart solutions for easy and affordable mobility.

The implementation of this agreement is accompanied by a policy dialogue between the Indian and German sides to achieve effective international contributions to fighting climate change jointly.



COVID-19 pandemic has obliged all stakeholders to look at public mobility in a different way, learnings would be useful in formulating the future roadmap for green mobility.

Mr. Durga Shanker Mishra
Secretary,
MoHUA

We aim to support India in providing sustainable and innovative solutions to cater the mobility needs of its tremendously fast growing urban population.

Prof. Dr. Claudia Warning
Director General, German Federal
Ministry for Economic Cooperation
and Development (BMZ).



ABOUT BMZ



Federal Ministry
for Economic Cooperation
and Development

The Federal Ministry for Economic Cooperation and Development (BMZ) of Germany assists developing countries in making headway on climate change mitigation and dealing with the consequences of climate change. To that end, the Ministry works together with its partner countries across the world, helping to foster implementation of the Paris Agreement and the United Nations 2030 Agenda for Sustainable Development.

India has a key role to play in finding solutions for global challenges such as how to protect the climate or achieving the global development goals adopted in the 2030 Agenda. That is why India is one of Germany's "global development partners" for international development cooperation. Priority areas of German-Indian development cooperation are renewable energy and energy efficiency, sustainable urban development, and environmental protection and resource conservation. The main focus of this cooperation is supporting programmes with a structural impact on climate change mitigation and adaptation. These programmes build on India's own efforts and reform programmes. They demonstrate model solutions and leave the participating partners qualified to carry on with, or extend, the projects on their own.

KfW

in India

Projects under
implementation

€ ~7bn

Current annual
commitments

€ ~1bn

Mobility
portfolio in
India

Projects under
implementation

€ ~1.33bn

Green Urban
Mobility Partnership

€ 1bn



ABOUT KfW

KfW Development Bank is responsible for implementing the Financial Cooperation in India on behalf of the German Government. Being one of the world's leading promotional banks with decades of experience, it works on behalf of the Federal Government and the federal states of Germany to improve economic, social and ecological living conditions at home and abroad.

The KfW office in New Delhi is KfW's largest office worldwide, and KfW undertakes an annual commitment of around € 1 billion every year, with its focal areas covering the energy sector, sustainable urban development, mobility and natural resource management. One primary focus of the Indo-German financial cooperation is the mainstreaming mobility transition in India. Urban Mobility alone, being one of the most important components of Sustainable Urban Development, has a KfW portfolio of € 1.33 billion under implementation. Climate Friendly Urban Mobility programmes from 2013-2018, alone committed € 970 million, currently supporting ongoing mobility projects in Kerala, Maharashtra and Tamil Nadu and preparing future mobility initiatives pan-India.

*Multi-Modal Integration

ABOUT GIZ



giz
DEUTSCHE ZUSAMMENARBEIT

As a development agency in the field of international cooperation for sustainable development, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is dedicated to shaping a future worth living in. GIZ provides the technical assistance with international and national experts to help reshape the city infrastructure and policies on several government levels.

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH has been working jointly with partners in India for sustainable economic, ecological, and social development.

Transport Portfolio

1

SMART-SUT:
Integrated and Sustainable Urban Transport Systems for Smart Cities in India

Ministry of Housing and Urban Affairs (MoHUA) + BMZ*

2

Green Freight:
Climate Friendly Freight Transport in India/Green Freight

Ministry of Commerce and Industry (MoCI) + BMU**

3

NDC TIA:
India component of the Nationally Determined Contributions - Transport Initiatives for Asia

NITI Aayog + BMU**

5

SUM-ACA:
Sustainable Urban Mobility – Access, Climate Change and Air Quality Control

Ministry of Housing and Urban Affairs (MoHUA) + BMZ*

4

E-Mobility:
Promotion of the transformation to sustainable and climate-friendly E-Mobility

Ministry of Heavy Industries (MoHI)+ BMZ*

*Federal Ministry for Economic Cooperation and Development

** Federal Ministry of the Environment, Nature Conservation and Nuclear Safety



India is one of the most important global partners for Germany's development cooperation identified under the BMZ strategy. India is striving towards low-emission cities and we are happy to support and also learn from innovation in mobility systems at scale for replication in other parts of the world and including in Germany. Both countries are working to make mobility more accessible, climate-friendly & resilient.

Mr. Philipp Knill

Head of Division

Policy Issues of Cooperation with Asia,
South Asia - 310 BMZ - Federal Ministry for Economic
Cooperation and Development (BMZ)





Climate-friendly modernization of bus services Tamil Nadu



The goal is to carry additional 600,000 passengers and save around 2,900 tons of CO₂ each day.

600,000
passengers

and save around

2,900
tons of CO₂ each day

Currently, the state-owned bus company Tamil Nadu State Transport Corporation (TNSTC) with its 8 STUs, transports around

18 million
people

daily with a fleet of more than 21,000 diesel buses. In a first step, about

2,213
aged and uneconomical diesel buses

are to be replaced with modern, more energy-efficient models, using BS VI standards.

a fleet of

500
E-Buses

will be introduced in Chennai, Coimbatore and Madurai. To strengthen ecological sustainability, it is foreseen that solar systems on the roofs of the bus depots generate part of the energy required. This will further strengthen the green energy grid capacity that the state of Tamil Nadu has.

What is it about?

In India, motorization rate is growing five times faster than the population. Increasing economic prosperity in major cities, rapid population growth and high urbanization rates have led to more and more private on road leading to increased congestion. As existing public transport systems and infrastructure cannot keep up with the increasing demand for mobility, people rely on private motorization with well-known negative consequences for the climate and human health. To counteract this development, the state of Tamil Nadu is setting an example in promoting safe and sustainable public transport with a comprehensive modernization and restructuring program for the bus sector.

With KfW's concessional financing assistance under the Indo-German Development Cooperation, the state bus modernisation project focuses on modernising the bus fleet, digitalising the bus route planning and operations as well as promoting user-experience.

What is the current status?

The Project Implementation Unit (PIU) under Transport Development Finance Corporation (TDFC) has been established and coordinates consultant activities, integrates various stakeholders, prepares necessary decisions and initiates their implementation. Relevant decisions are taken by a steering committee, consisting of the management of the relevant stakeholders under the chairmanship of the Transport Secretary of Tamil Nadu.

Two consultant teams have been contracted since beginning of 2021 – an Implementation Consultant, supporting TDFC/TNSTC with the implementation of the project and a consultant for the Accompanying Measure to facilitate respective training and capacity building.

First tenders for new Diesel Buses BS VI are expected to be published very shortly.



Walter J. Lindner, German Ambassador to India, at Boat Building Facility at Cochin Shipyard



Ongoing trials of Kochi Water metro boat

Picture Courtesy: Kochi Metro Rail Limited

Climate Friendly Urban Mobility – Integrated Water Transport Kochi

Due to Kochi's particular geography, inland waterways have traditionally played an important role in urban transport. Lack of investment in the deteriorating waterways mobility system whilst focus on road infrastructure and increased ownership of private vehicles have led to a vicious cycle wherein the ferry ridership has steeply declined and an unsustainable shift to road-based transport is being experienced. Hence, reviving the inland waterways for passenger movement through investments in modern ferries, jetties (boat stations) and last-mile connectivity around the jetty areas (e.g. electric feeders, bicycle sharing and walkways) is an important pillar of Kochi's public transport strategy. Due emphasis on accessible infrastructure and safety provisions for women and differently-abled is critical.

The German Development Bank, KfW on a mandate from the Federal Ministry for Economic Cooperation and Development (BMZ) supports Kochi Metro Rail Ltd (KMRL) with implementing the Kochi Water Metro initiative by introducing a modern sustainable and integrated water transportation system until the end of 2022, which shall be a user-oriented and socially integrated ferry service.

The project envisages use of KfW financial assistance to bring in increased share of energy efficient ferries for the development and modernization of organized waterborne passenger transport in the backwaters of Kochi, Kerala.

Where do we stand today?

- The construction work for 11 jetties is underway – with Vytilla and Kakkanad nearing completion. Inauguration ceremony of the two terminals was held in February 2021 in the presence of the Chief Minister of Kerala Shri Pinarayi Vijayan, the German Ambassador to India Mr Walter J. Lindner and other dignitaries.

- Construction of 23 hybrid 100 passenger capacity boats has been commissioned. The first such boat successfully passed the "watering-in" in March and is currently under trials

- Other activities, like the construction of Floating Pontoons with Gangways, procurement and installation of Information and Information Technology Management System (ITMS) as well as Passenger Counting Systems are ongoing and will be successively completed shortly. It is planned to inaugurate the first ferry route still in 2021.



Jengu – Kochi Metro's mascot

Flagship project under Indo-German Development Cooperation and fully supported by the Ministry of Housing and Urban Affairs and Government of Kerala. The system shall include

15 routes connecting
38 jetties across **10** islands

Upon full implementation

80,000 rides/day
and an average time saving of upto 30% as opposed to roadways traffic are expected.

At the same time, it is envisaged that through improved and modernized technology, a fuel usage reduction by around 41% will be achieved, leading to reduced carbon emissions.

National Level Capacity Building & Training Programme

Executive Programme in Sustainable Transport



27 officials are working on sustainable urban transport projects in their respective cities as part of action learning module to bring ground changes.

9 Mobilogues to be organised, as part of training programme, between June to February, 2022. Out of which 6 already conducted.



The programme was launched during the 13th Urban Mobility India (UMI) Conference on 9th November 2020 by Secretary, MoHUA. It aims to enhance the capacities of in-service transport professionals at State/City level agencies. Adopting an experiential approach, the programme intends to sensitise participants to new emerging areas and sub-sectors in transport, their inter-relationships and role in achieving sustainability.

Topics covered as part of the webinar series are:	Mobilogue 1:	Mobilogue 5:
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Demystifying parking for Indian Cities (29 Aug, 2021)	Gender and Mobility (6 Sept, 2021)
	Mobilogue 2: Bus Operations: Outsourcing and Contract Management (8 July, 2021)	Mobilogue 6: E-mobility Transition in India (8 Oct, 2021)
	Mobilogue 3: Bus Maintenance and Asset Management (29 July, 2021)	Mobilogue 7: Mobility as a Service (MaaS) – Opportunities, Challenges and Way Forward for Indian Cities (16 Dec, 2021)
	Mobilogue 4: Freight Management in Cities (12 Aug, 2021)	Mobilogue 8: Role of Open Data in Urban Mobility (4 Feb, 2022)
		Mobilogue 9: Bus Prioritisation (28 Feb, 2022)

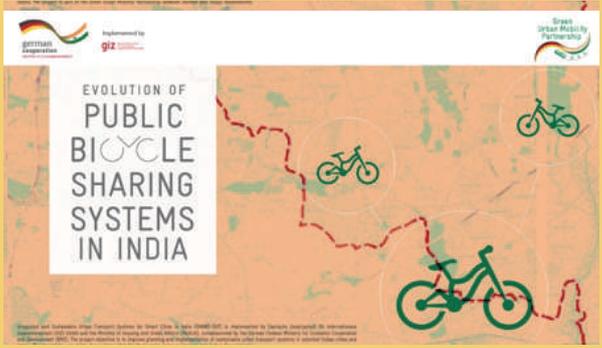


Topics covered as part of the active learning module: Urban Context and Sustainable Mobility, Equity and Gender, Planning for urban street and Active Mobility, Public Transport Planning, Gender Mainstreaming, Multi Modal Integration, Demand management - Parking, Intelligent Transportation System, Financing and Institutionalisation in Urban Transport, Institutional Integration.

Evolution of Public Bicycle Sharing Systems in India

More than 14 cities across India implemented PBS systems in the last four years, and many more are in the process of introducing them. While some are successful, others have struggled to sustain operations. The study collates experiences from five Indian cities (Bhopal, Bengaluru, Pune, Ranchi, and Mysuru) and international case studies and attempts to investigate the overall planning and policy framework.

The study captures the impact of distinct parameters such as business models, planning & design parameters, and system technology on the performance of the system. It brings out issues and challenges in operation of PBS, the key learnings across various fundamental parameters as well as the need for a regulatory framework to streamline the adoption of such systems in Indian cities.



Read more: <https://bit.ly/3dRIt11>

SMARTmove

INNOVATIVE URBAN MOBILITY CHALLENGE

Top ten solutions were shortlisted from 100+ proposals received during the short listing stage. Out of which three winners and two proposals worth special mention have been selected by the distinguished Jury members.



Winner 1 Transit scheduling via prediction of transit crowding levels through machine learning	Winner 2 Increasing the efficiencies in bus routes through performance evaluation of operations, route design, and cost efficiency	Bus-priority signalization using Intelligent Transport System to increase transit travel-time savings	Special mention To improve safety, accessibility and the perception of safety through communication and outreach programmes, aimed at regaining the trust of the citizenry in the public transportation system and to increase ridership
A computer vision approach for rapid assessment and identification of bus stops that need safety and accessibility	Targeting women safety - a journey planning app that provides real time details on available modes	An approach to help achieve an integrated shared mobility system and solve Indian cities' first and last mile complexities	
Winner 3 A tool for bus operators that maps GPS and user smartphone data to assess this transit demand	Special mention A platform which maps all Electric Vehicle (EV) charge points and thereby increase ease of convenience.	A dashboard that will optimise bus schedules by redeployment and reducing trip overlaps	

The top 3 proposals will be provided contracts and will receive the opportunity to present their solutions to Smart Cities Mission, Ministry of Housing and Urban Affairs, Government of India.

Smart Move Compendium link: <https://smartmove.niua.org/#/>



Mobility is crucial for development, and where women are not respected there is no development. We need to ensure safer first & last-mile connectivity for women commuters.

Mr. Jyothilal
IAS & Principal Secretary, Gov of Kerala

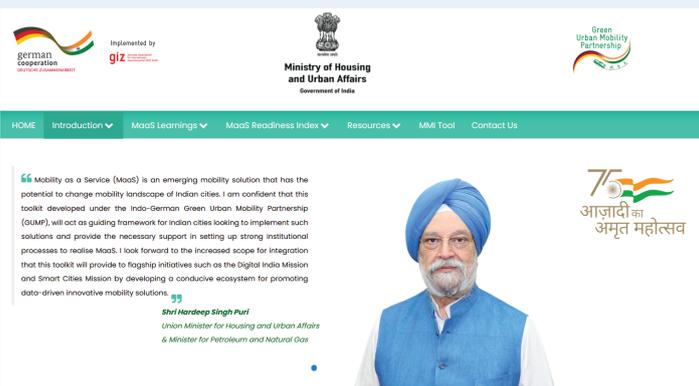


Data Challenges such as Smart Move provide young academicians and professionals with an opportunity to address some of the pressing problems that commuters face on a daily basis.

Mr. Durga Shanker Mishra
Secretary, Ministry of Housing and Urban Affairs



Creating Framework for Mobility as a Service (MaaS) in Indian Cities



The study aims to explore opportunities for implementing MaaS in Indian cities and identify a structured approach towards developing a smart mobility ecosystem which is required for developing such a solution by leveraging the real value of mobility data.

All the learnings and outcomes from the study have been compiled and published on a web portal which would act as an open-source knowledge resource and ready reckoner toolkit for Indian cities planning to implement MaaS by integrating different transport modes. The toolkit consists of downloadable materials, expert video recordings and other related resources.

Explore the MaaS toolkit:
<https://www.maastoolkit.org/>



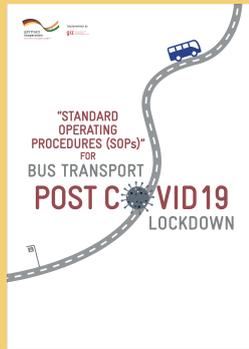
Support by SMART-SUT during COVID-19



Impact of COVID-19 globally and on Indian Cities: GIZ along with other partners collated survey findings from globally and India based policy makers, subject matter experts, researchers and professionals on likely changes in cities and mobility patterns as a result of COVID-19. The research included thoughts and opinions of the leaders and experts who provide strategic direction in managing cities and transport systems in India.



To establish passengers' trust in public transport as a safe mobility choice post-COVID19, SMART-SUT prepared some useful Standard Operating Procedures (SoPs) for Bus Transport Services post-COVID19. The document provides strategies for essential mobility services post lockdown, maintain desirable social distancing between the passengers inside buses, at bus shelters/terminals and interchange, safety for the crew on-board, as well as at depot & terminals.



Capital Region Urban Transport (CRUT) and SMART-SUT conducted 80-hour virtual capacity-building workshops for the bus crew of Odisha State Road Transport Corporation and CRUT, covering vital topics like crew motivation, fuel-efficient driving, and better maintenance practices, and passenger-friendly approaches. GIZ also provided technical support to CRUT on crowd management post-lockdown, helping them prepare a phase-wise deployment, procure safety equipment, including air purifiers, disinfectant tunnels at bus depots, and COVIDCARE kits, along with installing physical separators in the entire fleet of Mo Bus.



To address the concerns over safe commute, the Kerala Motor Vehicles Department and GIZ launched a campaign on 'Safe Use of Public Transport During COVID19' by sensitising the public on best practices to be followed for safe travel. As a part of "break the chain" initiative, GIZ supported the Ernakulam Auto Drivers Cooperative Society (EJADCS) in installing physical separators and QR codes for cashless payment in autos to reduce the risk of transmission.



In May 2021, Kochi Municipal Corporation, EJADCS, and GIZ jointly launched a fleet of auto ambulances operating 24/7 on COVID19 duty. The auto ambulances equipped with portable oxygen cans, pulse oximeters, & PPE kits, ferried COVID19 patients to the hospital, and also delivered medical equipment and other essentials to patients in home isolation. They fulfilled a total of 234 requests, including 79-night cases, spread over 4068 service kilometres.



In Kochi & Coimbatore, SMART-SUT undertook sustained efforts to promote walking & cycling as safer alternatives for travel. These include creating safer pedestrian spaces, TU interventions, pop-up cycle tracks and heritage cycle routes.

Training Needs Assessment (TNA) of E-Buses in India



Training Needs Assessment (TNA) for E-Buses in India study identified training needs at Public Transport Authorities (PTAs) across E-Bus life cycle functions, activities, departments, and hierarchies. The study targeted PTAs and supply-side stakeholders (battery manufacturers, charger manufacturers, electricity distribution companies, training institutes, vehicle manufacturers, policy makers, private operators, etc.) to assess current skill sets and the knowledge level at PTAs. The study lays down the blueprint of a national level E-Bus training programme for PTAs in India. It presents a detailed structure and design of the Training Modules and Delivery Mechanisms. The study also provides a ready reckoner on organisation structure, staff numbers and job descriptions for 100% transition to a fleet of E-Buses.

DOWNLOADS

Volume I	Volume II	Volume III



Promoting the transformation to sustainable and climate-friendly e-mobility in India

Government of India and BMZ are happy to announce a new transport project "Promoting the transformation to sustainable and climate-friendly E-mobility" under the German Climate Technology Initiative (DKTI) project, commissioned by BMZ and to be implemented by partner Ministry of Heavy Industries and GIZ-India. The project timeframe is from July 2021 to June 2024 with a budget of € 4.8 Million.

The main goal of the project is to improve the conditions for creating a synergy between the transport and energy sectors in India. This will be achieved by developing e-mobility concepts for various electric vehicles, elaborating strategies for the supply of renewable energy to the vehicles, testing measures in one city, and training and capacity development of relevant transport and energy staff in key authorities. The project is in tandem with the € 1.3 billion Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles (FAME II) program of MoHI (Then MoHIPE), which is a financial incentive scheme for the acquisition of electric vehicles.

The project is also tied to the National Electric Mobility Mission Plan 2020 (NEMMP), which aims at increasing the share of newly registered, battery-powered vehicles (cars, two- and three-wheelers, buses) to 30% by 2030. Aligning with the goal of sector coupling, the multidisciplinary project team consists of staff from the SMART-SUT transport project and the Nationally Determined Contributions-Transport Initiatives for Asia (NDC-TIA) India component project, which is part of the GIZ-India energy cluster.



Upcoming events



Mobilogue 7:
Mobility as a Service (MaaS)- Opportunities, Challenges and Way Forward for Indian Cities. (16 Dec, 2021)

Mobilogue 8:
Role of Open data in Urban Mobility. (4 Feb, 2022)

Mobilogue 9:
Bus Prioritisation (28 Feb, 2022)



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