10th Regional EST Forum in Asia, 14-16 March 2017, Vientiane, Lao PDR

Intergovernmental Tenth Regional Environmentally Sustainable Transport (EST) Forum in Asia

2030 Road Map for Sustainable Transport ~Aligning with Sustainable Transport Development Goals (SDGs)~

Country Report

(Draft)

\<India\>

✓Country EST Report (covering from Nepal EST Forum 2015 to Lao EST Forum 2017)

a) Name of the Country: India
b) Name, Designation and Line Ministry/Agency Respondent: Ministry of Urban Development
c) List other Line Ministries/Agencies contributing to preparation of the Country Report: Ministry of Road Transport & Highways and Ministry of Shipping
d) Reporting period: 2015-2017

With the objective of demonstrating the renewed interest and commitment of Asian countries towards realizing a promising decade (2010-2020) of sustainable actions and measures for achieving safe, secure, affordable, efficient, and people and environment-friendly transport in rapidly urbanizing Asia, the participating countries of the Fifth Regional EST Forum in Asia discussed and agreed on a goodwill and voluntary declaration - "**Bangkok Declaration for 2020 – Sustainable Transport Goals for 2010-2020**." At the Seventh Regional EST Forum held in Bali in 2013, the participating countries adopted the "**Bali Declaration on Vision Three Zeros- Zero Congestion, Zero Pollution and Zero Accidents towards Next Generation Transport Systems in Asia**" reinforcing the implementation of Bangkok 2020 Declaration (2010-2020) with emphasis to zero tolerance towards congestion, pollution and road accidents in the transport policy, planning and development. Bali Vision Three Zeros calls for a paradigm shift in thinking on the role of motorization and mobility in realizing sustainable development in Asia. Subsequently, EST member countries adopted the "**Colombo Declaration"** for the promotion of next generation low-carbon transport solutions in Asia.

Each member country of the Forum is kindly requested to prepare a consolidated country report (by <mark>15 January 2017</mark>*) reflecting how EST trends and developments have taken place in the country from Nepal EST Forum 2015 to Lao PDR EST Forum 2017 around the Goals of the Bangkok 2020 Declaration as an interim assessment following the below format.* You are most welcome to add extra pages or sections to share any major on-going initiatives or future plans, including mega transport projects, transport master plans, special transport corridor development, expansion of railways and rail route developments, etc.

The objective of the Country Reporting is to share among international community the voluntary progress/achievements/initiatives include various challenges faced by countries in implementing each of the underlined goals of the Bangkok 2020 Declaration to realize the Bali Vision Three Zeros

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- Zero Congestion, Zero Pollution, and Zero Accidents towards Next Generation Transport Systems in Asia. This would help development agencies, donors, development banks in assessing the sustainable transport needs and challenges to better devise their existing as well as future capacity building programs and operations in sustainable transport areas.

Timeline for submission by <mark>15 January 2017.</mark>

by email to: est@uncrd.or.jp

Goal No.		Goal Description	Voluntary Progress/Achievements/Major Initiatives, including any transport master plans, development of special transport corridors, in Implementing the Bangkok 2020 Declaration from Nepal EST Forum 2015 to Lao EST Forum 2017.	
I. Strategies to <u>Avoid</u> unnecessary travel and reduce trip distances				
"Avoid" Strategy	1	Formally integrate **land-use and transport planning** processes and related institutional arrangements at the local, regional, and national levels	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ■ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation: Where ever land sue pattern is well defined, change in land use pattern take time

Goal No.		Goal Description	Voluntary Progress/Achievements/Major Initiatives, including any transport master plans, development of special transport corridors, in Implementing the Bangkok 2020 Declaration from Nepal EST Forum 2015 to Lao EST Forum 2017.
			Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant. **Policy:** • **NUTP 2006** highlights the intrinsic linkage of transport demand and land use planning and the need to develop an integrated master plan for each city. • **Service Level Benchmarks (SLB)** specify parameters to measure the effectiveness of land use-transport planning. • **12th Five Year Plan** recommended "the responsibility for integrated land use transport planning is assigned to UMTA, the proposed dedicated agency in each city. • **Comprehensive Mobility Planning** (CMP) is vision statement of the direction in which urban transport in the city should grow. CMPs cover all aspects that affect urban transport for integrated planning. It recognizes the value of more accessible land use patterns and mobility substitutes such as tele-commuting and delivery services as ways to improve transportation while reducing total physical travel. • National level planning guidelines '**The Urban Development Plans Formulations and Implementation Guidelines' (UDPFI),** by MOUD has undergone changes in 2014 by including inclusive planning, sustainable habitat, land use and transport integration at planning stage, preparation of CMP for urban transport, SLB etc and urban reforms

Goal No.	Goal Description	Voluntary Progress/Achievements/Major Initiatives, including any transport master plans, development of special transport corridors, in Implementing the Bangkok 2020 Declaration from Nepal EST Forum 2015 to Lao EST Forum 2017.
		Project • MoUD initiated research study for 12 cities of India namely, Delhi, Jaipur, Jammu/Katra, Nanded, Patna, Vijayawada, Kohima, Bhubaneswar, Ahmedabad, Surat, Mysore, Hubli –Dharwad. • UMTA for Rajasthan, Madhya Pradesh, Andhra Pradesh, and Karnataka has included landuse transport integration as one of its important functionality • More than 100 CMPs have already been prepared by various cities • More than 90 Master plan have already been prepared by various cities
		Examples of important actions that you plan to carry out in next year (2017~2018) • Launch of TOD Policy and Green Urban Mobility Scheme • Integration of CMP for cities in Master Plan • Strengthening of Public transport System • Road infrastructure development project • New metro Projects
		What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development? • Minimize the transport demand • Contribute to short trip length and less dependence on motorized travel • Improving accessibility, mobility and traffic flow • Reducing air & noise pollution and consumption of crude oil

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Goal No.		Goal Description	Voluntary Progress/Achievements/Major Initiatives, including any transport master plans, development of special transport corridors, in Implementing the Bangkok 2020 Declaration from Nepal EST Forum 2015 to Lao EST Forum 2017.	
"Avoid" Strategy	2	Achieve **mixed-use development** and medium-to-high densities along key corridors within cities through appropriate land‐use policies and provide people‐oriented local access,	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ▣ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation: Where ever land sue pattern is well defined, change in land use pattern take time

Goal No.	Goal Description	Voluntary Progress/Achievements/Major Initiatives, including any transport master plans, development of special transport corridors, in Implementing the Bangkok 2020 Declaration from Nepal EST Forum 2015 to Lao EST Forum 2017.
	and actively promote transit-oriented development (TOD) when introducing new public transport infrastructure	Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant. **Policy:** MoUD is in process of formulating the draft National TOD Policy and guidance document for TOD has been released. **Scheme:** Smart City launched by the Government of India in June 2015: Some typical features of comprehensive development in Smart Cities are • Promoting mixed land use in area-based developments — planning for 'unplanned areas' containing a range of compatible activities and land uses close to one another in order to make land use more efficient. The States will enable some flexibility in land use and building bye-laws to adapt to change; • Promoting a variety of transport options — TOD, public transport and last mile para-transport connectivity; **Project:** • **Ahmedabad (Station Level TOD)** – It is implemented along Ahmedabad BRTS network. Some of the highlights are special tax – "betterment charge" – on property within 200 m of transit corridor, increased FSI along transit corridors- 1.8 to 3.6/ 4, Additional 2.2 FSI to be Purchased From ULB, 10% reduction in parking for commercial uses, and income from Sale of FSI/Concessions to be Part of Transport Fund

Goal No.	Goal Description	Voluntary Progress/Achievements/Major Initiatives, including any transport master plans, development of special transport corridors, in Implementing the Bangkok 2020 Declaration from Nepal EST Forum 2015 to Lao EST Forum 2017.
		• Kochi (Station Level TOD) – Some of the features are FSI in TOD Area – 3, Mixed Land Use Development, Multimodal Integration, NMT and Place Making. The Land Value Capture is captured through Sale of Additional FAR, Metro Cess on Property Transactions and "Accessibility Tax" as part of property tax. • Delhi (Area Level TOD) – Applicable: 500 m belt along Metro corridors and it covers 20% of Delhi urban area. This has a 20% of road & 30% of Green Space under land distribution. And, reduce residential travel needs by 30%. Private mode share will come down from 37% to 31% and Public transport share will rise from 20% to 27%. • Mumbai – (Area Level TOD) – The main features of TOD are Premium FSI ranging from 2 to 8, land amalgamation having a minimum of 1 Ha plot, density oscillates from 400Du/Ha to 1000Du/Ha, mix landuse to have 20% non-residential and 30% to be inclusive housing for LIG. • Bhopal (Area Level TOD) – For the city of Bhopal, TOD has planned along transit corridor. The indicative FAR for residential area is 20-70%, commercial 40-60%, Industrial 50-80%, and for transportation is is 30%. • Navi Mumbai (City Level TOD) – Seawoods in Navi Mumbai. Similar to Canary Wharf in London, IFC in Hong Kong, Shinjuku in Tokyo and being Implemented by L&T. With a total area of: 40 acres has a proposed built-up area 33,90,477 sq feet with mall 5,08,633 square feet, offices 26,78,799 sq ft and hospitality / service apartments 2,03,453 sq ft • Naya Raipur (City Level TOD) – Multimodal Transit Interconnected Street Pattern, Mixed Use Development, Walkability, Compact Development, Urban Place making & Streetscape Design

			- Delhi Development Authority has issued the guidelines on TOD as part of the Master Plan 2021 - Naya Raipur, Chhattisgarh, is being developed on the principles of TOD. - Madhya Pradesh has also formulated a TOD policy, which is at the stage of finalization.
			Examples of important actions that you plan to carry out in next year (2017~2018) - National TOD policy will be issued for implementation at State level - Launch of Green Urban Mobility Scheme
			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development? - To encourages compact development and at the same time shortens trip lengths and improve access to public transport. - TOD encourages mixed land use which reduces the need for travel and at the same time improved access facilitates shift to public transport. - To create opportunities for creation of compact walkable communities with a high degree of livability and affordability

	3	Institute policies, programmes, and projects supporting **Information and Communications Technologies** (ICT), such as internet access, teleconferencing, and telecommuting, as a means to reduce unneeded travel	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ☒ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation:
"Avoid" Strategy		Ministry of Communication and Information Technology Not Applicable	Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant. **Policy** Smart City Guideline launched by the Government of India in June 2015: One of the core infrastructure elements in a Smart City would include robust IT connectivity and digitalization. **Projects** - Driving License data is available on Sarthi web portal. - The Ministry of Road Transport & Highways has been facilitating computerization of more than 1000 Road Transport Offices (RTOs) across the country. RTOs issue Registration Certificate (RC) & Driving License (DL) that are valid across the country. These facilities are available at https://parivahan.gov.in . - The VAHAN & SARATHI are conceptualized to capture the functionalities as mandated by Central Motor Vehicle Act, 1988 as well as State motor vehicle Rules with customization in the core product to suit the requirements of 36 States/UTs.		

			Examples of important actions that you plan to carry out in next year (2017~2018) To upgrade the RTOs from VAHAN 2.0 and SARTHI 2.0 to VAHAN 4.0 and SARTHI 4.0 respectively which is citizen centric online based application.
			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development?

II. Strategies to <u>Shift</u> towards more sustainable modes

"Shift" Strategy	4	Require **Non-Motorized Transport** (NMT) components in transport master plans in all major cities and prioritize transport infrastructure investments to NMT, including wide-scale improvements to	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ▉ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation: • Carving out of space on existing roads and ensure proper resettlement of project effective persons take time in land acquisition.

| | | pedestrian and bicycle facilities, development of facilities for intermodal connectivity, and adoption of complete street design standards, wherever feasible | Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant.

Policy:

- NUTP, 2006 emphasizes promotion of NMT across cities.
- Sugamya Bharat Abhiyan (Accessible India)

Act:

- The **Rights of Persons with Disabilities Act, 2014** have been passed by the Parliament of India to enjoy a life of equality and can lead a life with dignity and respect and integrity like others.

Codes:

- The Code of Practice for Urban Roads, 2012 also incorporates pedestrian and NMT facilities as an integral part of the road network in cities.
- Public Bicycle Sharing Scheme Guidelines
- Indian Road Congress (IRC) codes for urban roads under preparation

Scheme:

- **AMRUT** mission launched by the Government of India in June 2015, identifies development of pedestrian, non- motorized and public transport facilities as thrust areas for investments. These include development of footpaths/ walkways, sidewalks, foot over bridges etc.
- **Smart City Guideline** launched by the Government of India in June 2015
  - Creating walkable localities — reduce congestion, air pollution and resource depletion, boost local economy, promote interactions and ensure security. The road network is created or refurbished not only for vehicles and public transport, but also for |

pedestrians and cyclists, and necessary administrative services are offered within walking or cycling distance;

o Preserving and developing open spaces — parks, playgrounds, and recreational spaces in order to enhance the quality of life of citizens, reduce the urban heat effects in Areas and generally promote eco-balance;

- Green Mobility Scheme being drafted given priority to NMT and pedestrians
- Advisories issued by Government of India from time to time has also emphasized on development of pedestrian facilities along all new roads.

Project:

- The Corporation of Chennai is introducing a host of initiatives by prioritizing pedestrians and cyclists. The Corporation has initiated the development of footpaths on all 471 Bus Route Roads in the city in 2012. Today 26 streets have wide and continuous footpaths and work on the 60 streets has commenced as part of the second phase.
- The State of Uttar Pradesh have also focused on development of cycle tracks in major cities across the states. Lucknow, the state capital has planned 270km of cycle track along 28 routes of which about 70km has been constructed Noida and Ghaziabad have also constructed 40km and 20km of cycle tracks respectively.

Activity:

- To promote pedestrian facilities in cities, Raahgiri was also introduced in India. A day every week is dedicated to inviting people on those streets and made them experience their streets with activities like cycling, walking and performing arts. Gurgaon was the first city which experienced it and was adopted by more the 55 other cities within three years. New Delhi, Bhopal, Ahmedabad, Bangalore are few of the cities.

			• Recently Delhi Government experimented with the Odd- Even Scheme for personalized cars. The scheme helped in reducing traffic on the main arterials, which resulted in 30-50% increase in travel speeds.
			Examples of important actions that you plan to carry out in next year (2017~2018) • Launch of Green Urban Mobility Scheme • Release of Revised IRC code for urban area
			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development? • Priority to the Non motorized users on existing road network • Increase the share of NMT in cities which reduces the traffic congestion and air pollution

"Shift" Strategy	5	Improve **public transport** services including high quality and affordable services on dedicated infrastructure along major arterial corridors in the city and connect with feeder services into residential communities	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ■ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation: • Competing demand from same resources

Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant.

Policy:

- **NUTP 2006** objective is to encourage greater use of public transport modes by offering Central financial assistance for this purpose.
- MoUD is formulating a new **Metro Rail Policy** which includes innovative models of implementation, enabling provisions for private participation, appraisal framework, standardisation and indigenisation towards comprehensive approach in integrating metro with the overall mobility needs of urban areas.

Scheme:

- Under **JnNURM**, MoUD provided financial assistance to various cities for purchase of buses exclusively for city bus service and Bus Rapid Transit System (BRTS).
- **AMRUT** mission launched by the Government of India in June 2015, identifies public transport facilities as one of the thrust areas for investments. It includes development of more Bus Rapid Transit System (BRTS)
- **Green Urban Mobility Scheme** being drafted provides financial assistance for development of public transport infrastructure

Code of Practice:

- **Urban Bus Specifications** 1 & 2- These specifications envisaged modern buses with facilities for access of physically challenged as well as **intelligent** transport system features.

			Project:
			• Under **JnNURM** scheme, more than 25,000 buses have been sanctioned to more than 170 cities have received the financial **assistance** for purchase of buses. Many of which are small and medium size cities that did not have a formal public transport system. Of these about 17,000 have been procured till date. In the year 2014-15, ministry had released central assistance of rs 884.21 crore for purchase of 7509 buses.
			• **Bus Rapid Transit System (BRTS)** is increasingly being adopted by cities in India. Approx. 620 km of BRT is under various stages of development across 16 cities. In the year 2014-15, following BRTS have been launches
			    ▪ Pimpri-Chinchwad - Corridor 2 of 14.5 km was launched on 5th sep-2015 & has achieved daily rider-ship of 67000 till date and Corridor 3 runs of 8 km, launched on 28th Nov-2015 & has already attracted daily rider-ship of about 10000 till date.
			    o Pune, part of the BRT corridor from Sangramwadi to Vishrantvadi (7 km) has been launched in September 2015
			• RRTS is being planned along three corridors connecting Delhi to neighboring satellite towns
			• **Metro:** The success of the Delhi Metro as a mass rapid transit system, many cities have implemented or have come up with proposals for metro rail systems. Today there are 326 km of metro systems operational in Delhi, Kolkata, Mumbai, Bangalore, Gurgaon, Jaipur and Chennai.
			    o LUCKNOW METRO RAIL PROJECT: The Project covers a length of 22.878 km from CCS Airport to Munshi Pulia at an estimated cost of Rs.6928 crore. The Project was approved on 22.12.2015.

o NAGPUR METRO RAIL PROJECT: The project covers a length of 38.215 km along two corridors viz. Line-1 (North-South Corridor) covering 19.658 km and 17 stations from Automotive Square to MIHAN and Line-2 (East-West Corridor) covering 18.557 km with an estimated completion cost of ₹ 8,680 crore. The project was approved on 20.08.2014.

o AHMEDABAD METRO RAIL PROJECT PHASE-I: The Project consists of two corridors for a total length of 35.96 km namely (i) North-South Corridor (APMC to Motera Stadium-15.42 km) and (ii) East-West Corridor (Thaltej Gam to Vastral Gam- 20.54) at a total estimated completion cost of Rs. 10,773 crore. The project was approved by the Government on 18.10.2014.

o METRO LINES OPENED FOR PUBLIC (63 KM): Metro lines of 63 km were opened to public in the last 20 months. The details of the lines opened are as under:
  ▪ Delhi: (22 KM)
    • Central Secretariat to Mandi House (3.074 KM)on 26.06.2014,
    • Mandi House to ITO (0.974 KM) on 08.06.2015.
    • Badarpur to Faridabad (13.875 KM) on 06.06.2015.
    • Jahangirpuri to Samaypur Badli (4.373KM) on10.11.2015.
  ▪ Bangalore: (11 KM)
    • Peenya Industry and Nagasandra (3.5KM) on 01.05.2015
    • Magadi Road to Mysore Road (7 KM) on 16.09.2015.
  ▪ Chennai: Koyambedu to Alandur(10.15KM) on 29.06.2015
  ▪ Mumbai: Versova to Ghatkopar(11.4KM) (by Private Partner) on 08.06.2014
  ▪ Jaipur: Mansarovar to Chandpole (9.278KM) on 03.06.2015

			Examples of important actions that you plan to carry out in next year (2017~2018) • Implementation of Green Urban Mobility Scheme • Sanctioning of Metro Rail (522 KM)- Delhi & NCR (55.3 km), Delhi Metro Phase-IV (103.93 km), Vijayawada (26.03 km), Visakhapatnam (42.55 km) Bhopal (27.81 km), Indore (31.55 km), Kochi Metro Phase-2 (11.2 km), Greater Chandigarh Region Metro Project (37.56 km), Patna (27.88 km), Kanpur Metro (32.38 km) Guwahati (61 km), Varanasi (29.24 km), Thiruvananthapuram LRT (21.82 km), Kozhikode LRT (13.3 km). • Implementation of RRTS corridor
			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development? • Expansion and Improvement of Public Transport Network • Sustainably operational and cost effective form of public transport which will increase the share of PT modes • Launch of Green Urban Mobility Scheme

"Shift" Strategy	6	Reduce the urban transport mode share of private motorized vehicles through **Transportation Demand Management** (TDM) measures, including pricing measures that integrate congestion, safety, and	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ◼ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation:

		pollution costs, aimed at gradually reducing price distortions that directly or indirectly encourage driving, motorization, and sprawl	Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant.

Policy

- The committee constituted by the Ministry of Road Transport and Highways has issued the guidelines for app based taxis.   The report has been accepted by the government. The policy recommendations ensure that bigger aggregators do not undercut the traditional cabs. The major focus of the policy is to ensure safe, secure and affordable ride to the common public so as to help in reducing congestion as well as pollution in the cities. It is expected that the policy would help in a healthy growth of the taxi industry. The policy is recommendatory in nature and would help to provide a particular framework to help the States in framing detailed regulations.

- NUTP 2006: To recognize that people occupy centre-stage in our cities and all plans would be for their common benefit and well-being and emphasizes on parking management

- 12th Five Year Plan- Recommendation in the form of parking pricing, road pricing, fuel cess, green cess, ride share, HOC priority etc

- Green Urban Mobility Scheme

Toolkit: Transport Demand Management Toolkit - MoUD under SUTP 2013, UNDP (http://www.sutpindia.com/skin/pdf/Toolkits/Transport%20Demand%20Management.pdf)

Projects:

- Parking Policy
    - Public Parking Policy   - Pune 2016
    - Draft BHUBANESWAR ON-STREET PARKING REGULATIONS – 2015
    - Draft PARKING POLICY FOR Hyderabad Municipal Authority, 2013
    - Parking Policy as a Travel Demand Management Strategy – UTTIPEC, Delhi 2010 etc.

- **Congestion pricing:**
    - Road Tolls are utilized for revenue recovery in almost all highway construction projects in India.
    - Pollution cost of Green Cess are been levied from vehicle manufacturers and certain cities like Jaipur levy from vehicles entering the city.
    - Shimla, hill city has also proposed for green cess for the vehicles which enter the city.
    - In Delhi, Heavy Vehicles entering the city has to pay NGT tax
    - Aizwal city in Mizoram, a hill city has regulation on vehicle registration as it is mandate to provide proof of availability of owned parking

- **Fuel taxes levied** in India are excise duty dealer VAT or sales tax added with dealers commission makes fuel price more than double the cost of petroleum. The government had collected Rs 99,184 crore in excise collections from the petroleum sector in 2014-15. (The economic Times Nov 09, 2015; http://economictimes.indiatimes.com/industry/energy/oil-gas/duty-hike-effect-taxes-have-now-exceeded-actual-cost-of-production-of-petrol/articleshow/49725062.cms?intenttarget=no

			Examples of important actions that you plan to carry out in next year (2017~2018)
			Implementation of parking policy at various cities and introduction of road pricing/congestion pricing in pilot cities.
			Launch of Green Urban Mobility Scheme
			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development?
			Parking regulations and congestion pricing intend to reduce the usage of private vehicle in the city and reduce the congestion on roads

"Shift" Strategy	7	Achieve significant shifts to more sustainable modes of **inter-city passenger and goods transport**, including priority for high-quality long distance bus, inland water transport, high-speed rail over car and air passenger travel, and priority for train and barge freight over truck and air freight by building supporting infrastructure such as dry inland ports ==Ministry of Railways, Innalnd Waterways authority of India, MoRTH==	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ☐ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation:

Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant.
Examples of important actions that you plan to carry out in next year (2017~2018) Launch of Green Urban Mobility Scheme
What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development?

III. Strategies to **Improve** transport practices and technologies			
"Improve" Strategy	8	Diversify towards more sustainable **transport fuels and technologies**, including greater market penetration of options such as vehicles operating on electricity generated from renewable sources, hybrid	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ■ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation: .

		technology, and natural gas	Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant.

Policy:

- **Ministry of Heavy Industries & Public Enterprises**
  - National Electric Mobility Mission Plan 2020 (NEMMP) in 2012 which focuses on introduction of approx. 6-7 million hybrid/electric vehicles in India by 2020.
  - Faster Adoption and Manufacturing of Hybrid and Electric vehicles (FAME) - The policy aims at Full range of electric vehicle technologies - mild hybrid, full hybrid (HEVs), Plug in Hybrids (PHEVs) and Pure Electric Vehicles (PEVs) for 2 wheelers, 3 wheelers, 4 wheelers, Light Commercial Vehicles, Buses and also retro fitment vehicles. It focuses on technology development, Pilot Projects, Demand Creation and Charging Infrastructure. It targets deploying 5 to 7 million electric vehicles lowering of vehicular emissions by 1.3 percent in the country by 2020. The scheme envisages Rs 795 crore in support of the initiative..

- **Ministry of Petroleum & Natural Gas (MoP&NG)**
  - Auto fuel Policy, 2003 - It addressed measures such as vehicular emission norms, fuel quality and standard of CNG/LPG kits, measures to reduce emissions, Research & Development etc.
  - Auto Fuel Vision and Policy- 2025- It includes road-map with aim to minimize the contribution of vehicular pollution in the shortest possible time frame and to do so in a financially sustainable manner. Source: http://petroleum.nic.in/docs/autopol.pdf

Project

Many cities like Navi Mumbai, Shimla, BEST Mumbai and Pune are in the process of procurement of electric/ hybrid buses.

			Examples of important actions that you plan to carry out in next year (2017~2018) • According to the Auto Fuel Policy 2025, BS IV Auto Fuels Coverage to 50 Cities by 2017 and new refinery commissioning and quality upgradation projects will be taken up. • Introduction of BS VI fuel standards by leap frogging BSV. Notification has been published Vide GSR 889 (E) dated 16.9.202016 mandating BS VI for all motor vehicles.
			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development? India is the fourth largest CO2 emitting country, following closely behind the European Union, and ahead of the Russian Federation. About 10. 25 % CO2 (2013) emissions comes from the transport sector in India of which 9. 5% is from road based transport alone. Over the years there is marked shift as levels of PM10 and NOx are increasing in a number of Indian cities. Therefore a major shift to more sustainable transport fuels and technologies is the need of the hour. Source: Co2 Emissions From Fuel Combustion Highlights (2015 Edition)-International Energy Agency, https://www.iea.org/publications/freepublications/publication/CO2EmissionsFromFuelCombustionHighlights2015.pdf

	9	Set progressive, appropriate, and affordable **standards** for fuel quality, fuel efficiency, and tailpipe emissions for all vehicle types, including new and in-use vehicles	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ■ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation:
"Improve" Strategy				

Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant.

Policy

- Ministry of Petroleum & Natural Gas (MoP&NG) has issued Auto fuel Policy, 2003 and Auto Fuel Vision and Policy- 2025 to address vehicular emission norms, fuel quality and standard of CNG/LPG kits, and a road-map to minimize the contribution of vehicular pollution.

- Ministry of Road Transport & Highways has amended the Central Motor Vehicles Rules, 1989 to implement BS-IV mass emission standards for all categories of vehicles from 01.04.2017 across all India vide G.S.R notification no. 643(E) dated 19th August, 2015.

- Furthermore, it was decided to introduce BS-IV fuel standards by leapfrogging BS-V. Notification has been published vide GSR 889(E) dated 16.09.2016 mandating BS-VI for all motor vehicles from 1st April, 2020.

Standards

- India has pledged reduce its GHG emissions intensity (the ratio of emissions to GDP) by 20–25 percent from 2005 levels to 2020. In order to achieve the target, the emission norms of various fuel categories along with the timeline for implementation are attached in Annexure1.

- India is developing its fuel economy standards for passenger vehicles by Bureau of Energy Efficiency (BEE) in cooperation with the Ministry of Road Transport and Highways.

			Examples of important actions that you plan to carry out in next year (2017~2018) - BS IV Auto Fuels Coverage to 50 Cities by 2017 and new refinery commissioning and quality upgradation projects will be taken up. - Introduction of BS VI fuel standards by leap frogging BSV. Notification has been published Vide GSR 889 (E) dated 16.9.202016 mandating BS VI for all motor vehicles.
			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development? This will lead to cumulative fuel saving, improved fuel efficiency, reduction of GHG emission which would result in improving urban air quality

	10	Establish effective vehicle testing and compliance regimes, including formal vehicle registration systems and appropriate periodic vehicle **inspection and maintenance** (I/M) requirements, with particular emphasis on commercial vehicles, to enforce progressive emission and safety standards, resulting in older polluting commercial vehicles being gradually phased-out from the vehicle fleet, as well as testing and compliance regimes for vessels **Not Applicable**	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ☑ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation:

Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant.
The vehicle should be allowed to ply on road as long as it meets safety and emission norms. The safety and emissions requirements can be achieved if the vehicles go through a fitness test after regular intervals. Therefore, the Government decided to put in place a suitably designed Inspection and Maintenance System for vehicles. During 11th Plan, 9 Inspection and Certification (I&C) Centre was sanctioned to set up one each in different states. Some of the Centres are also operational now. During 12th Plan, the Government has set the target to set up 10 more such centres in different states.

Examples of important actions that you plan to carry out in next year (2017~2018)

"Improve" Strategy

			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development?

"Improve" Strategy	11	Adopt **Intelligent Transportation Systems** (ITS), such as electronic fare and road user charging systems, transport control centres, and real-time user information, when applicable	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ▮ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation:

Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant.

Policy:

1. Government of India is implementing a scheme namely Strengthening of Public Transport system for augmentation of IT features in Public Transport System under which financial assistance are provided to State Road Transport Undertaking (SRTU) for use of latest technologies such as GPS / GSM based vehicle tracking system, computerized reservation system, Automatic fare collection system, electronic ticket vending machines, inter-modal fare integration, passenger information system etc. for services covering inter-city and mofussil areas

2. Urban Bus specifications II envisaged modern buses with intelligent transport system features like GPS/GPRS, audiovisual passenger information system, LED sign boards, vehicle tracking system, automatic fare collection system

3. Smart City Programme 2015: This programme focuses on smart parking and ITS based traffic management solutions for cities.

4. Drafted Green Urban Mobility Scheme

Projects

1) Bangalore –BTRAC Project, under this project, 179 surveillance cameras, 5 traffic enforcement cameras, 340 signals running on solar energy,49 pelican light signals for pedestrians and 20 Variable Message Signs (VMS) have also been installed to relay live traffic data for regulation, monitoring and enforcement. Also central control room has been set up for the traffic control of cities.

2) The ITS Project of Mysore city covers 500 Buses, 105 Bus Stops, 6 Bus Terminals and 45 platforms. This was initiated by KSRTC. The multi-faceted program has many benefits: it provides real time information about bus arrival and departure through PIS, SMS and their website

3) Mumbai - The Area Traffic Control (ATC) the project in Mumbai was implemented by the Municipal Corporation of Greater Mumbai (MCGM) on behalf of the Mumbai Traffic Police (MTP).Under the project 255 ATC signal junctions (Milestone I -53 junctions and Milestone II-202 junctions) were installed and two control rooms were established. The system help in centrally coordinated traffic signal using real-time data collected through detectors which helps to maximize traffic flow, reduce congestion & reduces in junction stop.

4) Buses procured under the financial assistance provided by GoI are pre equipped with ITS features such as GPS, passenger information system and CCTV cameras, which improves the overall travel experience of the commuters.

5) BRTS systems implemented in Ahmedabad, Indore, Pune etc across the country also rely on ITS for passenger information and efficient operations.

6) Electronic toll collection implemented by NHAI across all its facilities.

7) ITS Toolkit for Traffic Management System has been published by the Ministry under "Sustainable Urban Transport Project" to create awareness among city officials.

8) Government of India had launched the National Common Mobility Card. The Card has already been adopted by Kochi Metro Rail Limited and the model is being circulated to other metro rail companies for adaptation.

			Examples of important actions that you plan to carry out in next year (2017~2018) Launch of Green Urban Mobility Scheme Launch of Metro Policy
			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development? • It provides traffic and other transport system related data continuously in real time which can be used to assess travel demand in cities. • ITS adoption by cities in public transport helps in improving efficiency , reliability , safety, real time tracking of vehicles , integrated timetables for the convince of commuters .

	12	Achieve improved **freight transport** efficiency, including road, rail, air, and water, through policies, programmes, and projects that modernize the freight vehicle technology, implement fleet control and management systems, and support better logistics and supply chain management	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ☑ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation:
"Improve" Strategy			Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant. • Drafted Green Urban Mobility Scheme • In order to facilitate inter-state movement of goods carriages, a new national permit system has been implemented in all states/Union Territories with effect from 08.05.2010, national permit has been notified vide S.O. 1848(E) dated 28.7.2010. as per the new arrangement, national permit can be granted by the home state on payment of Rs. 1000/- as home state authorization fee and Rs. 15000/- per annum per truck towards consolidated fee authorizing the permit. The permit holder to operate throughout the country. The new national permit system has also been implemented electronically through a web portal developed by National Informatics Centre (NIC) w.e.f. 15.09.2010	
			Examples of important actions that you plan to carry out in next year (2017~2018) Launch of Green Urban Mobility Scheme	

			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development?

IV. **Cross-cutting** strategies				
"Cross-Cutting"	13	Adopt a zero-fatality policy with respect to road, rail, and waterway safety and implement appropriate speed control, traffic calming strategies, strict driver licensing, motor vehicle registration, insurance	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ▣ Largely in Place ☐ Fully Completed (Please Check the box	Barriers/Challenges faced in implementation:

| requirements, and better post-accident care oriented to significant reductions in accidents and injuries

==Rail and Waterways== ==ministry== | Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant.

Policy:
• MoRTH has initiated National Road Safety Policy in 2010 to improve the road safety activities in the country. Some of the initiatives involved are Awareness about Road Safety Issues, Establish a Road Safety Information Database, Establish a Road Safety Information Database, road Traffic Safety Education and Training etc.
• Establish a dedicated agency viz. a National Road Safety Board to oversee the issues related to road safety and evolve effective strategies for implementation of the Road Safety Policy.
• Establish a National Road Safety Fund to finance road activities through the allocation of a certain percentage of the cess on gasoline and diesel. (Source:http://morth-roadsafety.nic.in/WriteReadData/LINKS/171d16c6e7-cda5-4820-b860-37e09d8b6e0d.pdf).
• Annexure 2 provides information about the share of top thirteen States in India in total number of road accidents, persons killed and persons injured in road accidents in the backdrop of their share in India's motor vehicle population.
 Source: http://morth-roadsafety.nic.in/index1.aspx?lsid=38&lev=2&lid=32&langid=1
Other initiatives that have been taken
• Railway Budget 2017 expressed his intention to bring in a "zero-accident" regime in the near future by infusing technology and eliminating all unmanned level crossings from the rail network. The plans in the pipeline aim to eliminate all unmanned level crossings on the broad gauge network in 3-4 years for which innovative financing mechanism are being worked out to curb train accidents. The action plan also includes installation of Train Collision Avoidance System, getting Japan and Korean railways to partner with India to help in improving safety record and working out a technological solution to people falling off trains especially in suburban sections.(Source: http://indianexpress.com/article/business/budget/rail-budget-zero-accident-plan-to-prevent-mishaps/) |

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help in improving safety record and working out a technological solution to people falling off trains especially in suburban sections. (Source: http://indianexpress.com/article/business/budget/rail-budget-zero-accident-plan-to-prevent-mishaps/)

- **Motor Vehicle** (Amendment) **Bill 2016:** The Government has introduced Motor Vehicle (Amendment) Bill, 2016 in Lok Sabha in August 2016. The bill envisages the provision of strict driver licensing, motor vehicle registration, enhanced penalties for violation of traffic rules, etc. For controlling the overspending, the Government has issued GSR 290(E) dated 15.04.2015 amending Central Motor Vehicles Rules, 1989 mandating speed governor for transport vehicles. Further, provisions regarding issue of driving licence are contained in Chapter II of Motor Vehicles Act, 1988(MV Act) and Chapter II of Central Motor Vehicles Rules, 1989(CMVRs) and provisions for mandatory third party insurance is contained in Chapter XI of Motor Vehicles Act, 1988.

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			Examples of important actions that you plan to carry out in next year (2017~2018) Road Safety auditing to be done in million plus cities
			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development? The highest motorization growth rate in the world accompanied by rapid expansion in road network and urbanization over the years including India, has serious impacts on road safety levels. The total number of road accidents increased by 2.5 per cent from 4, 89, 400 in 2014 to 5, 01,423 in 2015 (Source: Road Accidents In India – 2015, Government of India Ministry Of Road Transport & Highways Transport Research Wing). The road fatalities per 100, 000 motor vehicles in India is 130.1 compared to Europe 19 and America 33 in 2013 (Source: https://en.wikipedia.org/wiki/List_of_countries_by_traffic-related_death_rate). Therefore in order to control the accidents this goal is considered very important.

"Cross-Cutting" Strategy	14	Promote monitoring of the **health** impacts from transport emissions and noise, especially with regard to incidences of asthma, other pulmonary diseases, and heart disease in major cities, assess the economic impacts of air pollution and noise, and devise mitigation strategies, especially aiding sensitive populations near high traffic concentrations	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ☐ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation:
			Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant. • For reducing the pollution, the Government has amended the Central Motor Vehicles Rules, 1989 to implement BS-IV mass emission standards for all categories of vehicles from 01.04.2017 across all India vide G.S.R notification no. 643(E) dated 19th August, 2015. • Furthermore, after consultation with concerned Ministries/Departments, it was decided to introduce BS-IV fuel standards by leapfrogging BS-V. Notification has been published vide GSR 889(E) dated 16.09.2016 mandating BS-VI for all motor vehicles from 1st April, 2020.			

			Examples of important actions that you plan to carry out in next year (2017~2018)
			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development?

	15	Establish country-specific, progressive, health-based, cost-effective, and enforceable **air quality and noise** standards, also taking into account the WHO guidelines, and mandate monitoring and reporting in order to reduce the occurrence of days in which pollutant levels of particulate matter, nitrogen oxides, sulphur oxides, carbon monoxide, and ground-level ozone exceed the national standards or zones where noise levels exceed the national standards, especially with regard to environments near high traffic concentrations Environment Ministry	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ☒ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation: • Uncontrolled growth of vehicle population in all major cities/towns has resulted in high levels of air and noise pollution.

Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant.

Policy

- National Air Quality Monitoring Programme (NAMP)- Central Pollution Control Board is executing a nation-wide programme of ambient air quality monitoring known as National Air Quality Monitoring Programme (NAMP). http://www.cpcb.nic.in/air.php

Project

- Central Pollution Control Board (CPCB) with the help of concerned State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) is monitoring the ambient air quality in the country at 332 operating stations in 121 cities/towns in 25 states and 4 Union Territories (Annexure 3).
- Central Government provides funds through CPCB for National Air Monitoring Programme to various SPCBs and PCCs. The objectives of the NAMP are to determine the status and trends of ambient air quality; to ascertain whether the prescribed ambient air quality standards are violated;
  http://www.gktoday.in/blog/air-quality-control-and-monitoring-in-india/

"Cross-Cutting"

- From the Annexure 4, it is observed that maximum source of pollution in cities in India are through vehicles. This is done under the National Air Quality Monitoring Programme (NAMP).

Source: http://www.gktoday.in/blog/air-quality-control-and-monitoring-in-india/

- National Ambient Noise Monitoring Network Programme (NANMP) 2010 systematic monitoring of ambient noise is proposed at 10 monitoring stations to be established in each of seven identified cities i.e. Mumbai, Delhi, Kolkata, Bangalore, Chennai, Lucknow and Hydrabad. Out of 10 stations proposed in Mumbai, 5 continuous monitoring stations have been installed at Mumbai/Navi Mumbai/Thane area already.

  http://mpcb.gov.in/images/pdf/AmbientNetwork.pdf

Standards

- National Air Quality Index (NAQI) The NAQI was prepared by an expert group, set up the Ministry of Environment and Forests, comprising of renowned medical practitioners from hospitals and research agencies. The index is a part of the government's Swachh Bharat Mission launched in 2015. The index measures eight major pollutants, namely, particulate matter (PM 10 and PM 2.5), nitrogen dioxide, sulphur dioxide, ozone, carbon monoxide, ammonia and lead. Currently, only particulate matter, nitrogen dioxide and sulphur dioxide. The index is based on real time monitoring, and the health risks

  http://www.gktoday.in/blog/air-quality-control-and-monitoring-in-india/

- Establishment of "The Noise Pollution (Regulation and Control) Rules, 2000" under the Environment (Protection) Act, 1986 (Amended in 2010).

  http://cpcb.nic.in/divisionsofheadoffice/pci2/noise_rules_2000.pdf

- Setting up of National Ambient Air Quality Standards in the Gazette of India for SO2, NO2, PM10 , PM2.5 , O3 etc. for industrial, residential and village areas in 2009.

  http://cpcb.nic.in/National_Ambient_Air_Quality_Standards.php

			Examples of important actions that you plan to carry out in next year (2017~2018) 1. The National Air Quality Index index will be extended to 46 cities having a population of more than one million, and 20 state capitals over the next five years. http://www.gktoday.in/blog/air-quality-control-and-monitoring-in-india/ 2. The government has announced its intention to make Bharat IV standards universal for LDVs and HDVs across the country by 2017.
			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development? The establishment of NAMP is in line with the 2030 agenda for ambient air quality monitoring of cities including monitoring for particulate matters, NOx, SOx etc. The Noise Pollution (Regulation and Control) Rules further boost the agenda for establishing a formal noise monitoring programme across the cities and towns.

"Cross-Cutting"	16	Implement sustainable low-carbon transport initiatives to mitigate the causes of **global climate change** and to fortify national **energy security**, and to report the inventory of all greenhouse gases emitted from the	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ☐ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation: ●

| | | transport sector in the National Communication to the UNFCCC | Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant.

Act
• The Energy Conservation Act of 2001 provides a legal mandate for implementation of the energy efficiency measures through the institutional mechanism of Bureau of Energy Efficiency (BEE).
• Government has amended the Central Motor Vehicles Rules, 1989 to implement BS-IV mass emission standards for all categories of vehicles from 01.04.2017 across all India vide G.S.R notification no. 643(E) dated 19th August, 2015.
• Furthermore, after consultation with concerned Ministries/Departments, it was decided to introduce BS-IV fuel standards by leapfrogging BS-V. Notification has been published vide GSR 889(E) dated 16.09.2016 mandating BS-VI for all motor vehicles from 1st April, 2020

Scheme
• The National Action Plan on climate change, has mandated to initiate a "National Mission on Strategic Knowledge for Climate Change" focusing on working with the global community in research and technology development supported by climate change related institutions and a Climate Research Fund. |

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Projects

- Promoting Low Carbon Transport in India was a major transport initiative in collaboration with The United Nations Environment Programme (UNEP).
- 8 GEF funded transport development projects are currently approved for the country.
  https://www.thegef.org/country/india
- Indian Network of Climate Change Assessment (INCCA) has been conceptualized as a network-based scientific programme designed to (a) Assess the implications of climate change through scientific research; (b) Prepare climate change assessments once every two years (greenhouse gas estimations and impact of climate change, associated vulnerabilities and adaptation); and (c) Develop decision support systems.
  http://www.moef.nic.in/sites/default/files/INCCA%20Exec%20Summary_1.pdf

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Examples of important actions that you plan to carry out in next year (2017~2018)

1. In Budget 2017-18, Rs 175 crore has been earmarked for the FAME India scheme, to promote electric and hybrid vehicles, as an initiative to implement sustainable low-carbon transport initiative.
2. Energy savings at the end of the 12th 5-year plan (2012–17) with the implementation of Energy Conservation Act 2001.

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			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development? Various policy level initiatives like National Action Plan, INCCA etc. and promotion of alternate technologies with the introduction of schemes like FAME have assisted in implementation of sustainable low-carbon transport to mitigate the causes of global climate change and to fortify national energy security.

	17	Adopt **social equity** as a planning and design criteria in the development and implementation of transport initiatives, leading to improved quality, safety and security for all and especially for women, universal	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ◼ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation:
"Cross-Cutting"				

		accessibility of streets and public transport systems for persons with disabilities and elderly, affordability of transport systems for low-income groups, and up-gradation, modernization and integration of intermediate public transport	Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant. **Policy** • National Urban Transport Policy (2006) has focused on equitable allocation of road space and promotion of ITS for improved passenger safety in all public transport systems. • Guidelines and standards for barrier free built environment for disabled and elderly persons have been framed by Government of India for the integration of persons with disabilities into the social mainstream. **http://cpwd.gov.in/Publication/HandbookonBarrier.pdf** **Act:** • The **Rights of Persons with Disabilities Act, 2014** have been passed by the Parliament of India to enjoy a life of equality and can lead a life with dignity and respect and integrity like others. **Codes:** • The Code of Practice for Urban Roads, 2012 also incorporates pedestrian and NMT facilities as an integral part of the road network in cities. • Indian Road Congress (IRC) codes for urban roads under preparation **Scheme** • Introduction of Atal Mission for Rejuvenation and Urban Transportation (AMRUT) in 2015 aimed at building amenities in cities to improve the quality of life, especially the poor and the disadvantaged. • Smart City Mission initiated by the Government of India is an attempt to improve the quality of living of all the citizens, including the poor, by ensuring availability of all basic services in a comprehensive manner.

			• Sugamya Bharat Abhiyan (Accessible India)
			Examples of important actions that you plan to carry out in next year (2017~2018) **Implementation of Rights of Persons with Disabilities Act, 2014 across India**
			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development? Social equity planning and providing quality, safe and secure transport services for all and especially for women, universal accessibility of streets and public transport systems for persons with disabilities and elderly, affordability of transport systems for low-income groups has been the governing criteria for schemes like smart city and AMRUT. This EST is in line with the initiatives of the Government to provide the most affordable transport services to the low income groups.

	18	Encourage innovative **financing** mechanisms for sustainable transport infrastructure and operations through measures, such as parking levies, fuel pricing, time-of-day automated road user charging, and public-private partnerships such as land value capture, including consideration of carbon markets, wherever feasible	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ☒ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation:

Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant.

Policy

- National Urban Transport Policy, 2006 - **Innovative financing mechanisms using land as a resource:** The Central Government would encourage the levy of dedicated taxes to be credited to an urban transport fund and used exclusively to meet urban transport needs within the State.
- National Transport Development Policy Committee and 12th Five Year Plan highlights Pricing as a mechanism as a relative financial costs between an alternative mode and driving and various other strategies.
- National Mission on Sustainable Habitat (NMSH): Institutionalise fiscal and funding mechanisms to ensure financial sustainability of investments in public transport and non-motorised transport (UTF).
- Road Transport and Safety Act, 2014 recommends Zoning and congestion pricing as a strategy for significant reduction in congestion in urban areas.

(left column, rotated) "Cross-Cutting" Strategy

			Advisories by MoUD: • Introduction of Congestion Charging in Central Business Areas / Congested Areas in Indian Cities, D. O. No. K-14011/7/2007-UT-II(Pt.1), dated 15th January 2013 • Reserving a lane for public transport/high capacity bus system/high occupancy vehicles on all new road links or widened roads, D. O. No. K-14011/07/2007-UT, dated 13th December 2007. **Existing Practices in India:** • Delhi Masterplan 2021 – recommends Parking District Management for various with TOD measures. • Pune Parking Policy- levy differential parking charges • Green Cess in Rajasthan and other cities for tackling vehicular pollution. • Toll Revenue 2014-2015 by NHAI : toll revenue 3148.21 crore (NHAI ANNUAL REPORT 2014-15) • Urban Transport Fund has been formed in cities like Pimpri-chinchwad, UP state level - Lucknow etc. • Cost – Benefit Analysis has been conducted for all Metro and BRT Projects
			Examples of important actions that you plan to carry out in next year (2017~2018) • Congestion charging and parking policy has been in planning stages and may implement in various cities. • Launch of Green Urban Mobility Scheme • Launch of TOD Policy • Launch of Metro Policy

			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development?
			Innovating financing may generate additional revenue which could be utilized for infrastructure development. Also, congestion pricing may lead to reduction in vehicles which in turn wi;; reduce the travel time and air pollution.

"Cross-Cutting"	19	Encourage widespread distribution of **information and awareness** on sustainable transport to all levels of government and to the public through outreach, promotional campaigns, timely reporting of monitored	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ☐ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation:

indicators, and participatory processes	Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant.
	Policy
	• National Urban Transport Policy (NUTP), 2006- Capacity building and sensitizing the city and state officials about a sustainable transport is an integral part of NUTP, 2006.
	Project
	• To promote clean and green mobility in cities, Sustainable Urban transport Project (SUTP) was initiated by Government of India with support of Global Environment Facility (GEF), United Nations Development Program (UNDP), World Bank (WB) and participating states and cities in May 2010. The project with an estimated cost of Rs 20 billion comprises of National Capacity Development initiatives and Implementation of Demonstration Projects in select cities. The aim of the Project is to support the implementation of the NUTP, 2006, particularly those aspects of the policy that emphasize on priority to the use of public transport, non-motorized transport; and Capacity building at both national and local levels.
	http://www.sutpindia.com/TopMenuDescription.aspx?status=1&menu_id=1&mmenuid=1
	• Institute of Urban Transport (India) has been mandated by The Government of India to support the Ministry in capacity building initiatives for spreading information and creating awareness on sustainable transport at different government levels. Accordingly, IUT has launched an awareness campaign to make small and medium sized cities aware of the adverse environmental consequences of inaction, introduce them to the importance of sustainable urban transport.

			Examples of important actions that you plan to carry out in next year (2017~2018)
			• Capacity building programmes to be conducted across the country to apprise the government officials (state and city) about the sustainable transport development for providing good mobility to the city and its population. • Setting up of a Knowledge Management Centre (KMC) on Urban Transport
			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development? India being a developing country, creating public awareness on sustainable transport to both, government as well as public is an essential part. The GoI through its initiatives has tried to create outreach through promotional campaigns, capacity building to create an environment of sustainable transport development among the Indian cities.

	20	Develop dedicated and funded **institutions** that address sustainable transport-land use policies and implementation, including research and development on environmentally-sustainable transport, and promote good **governance** through implementation of environmental impact assessments for major transport projects	Any action had been taken so far? ☐ Not yet ☐ Some progress (design – piloting) ☑ Largely in Place ☐ Fully Completed (Please Check the box)	Barriers/Challenges faced in implementation:
"Cross-Cutting" Strategy			Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions. Please attach reports or include websites where relevant. 1. The Institute of Urban Transport (India) - IUT is professional bodies under the purview of the Ministry of Urban Development Government of India (MoUD) with the objective to promote, encourage and coordinate the state-of-the-art urban transport including planning, development, operation, education, research and management. http://www.iutindia.org/services/TSMoUD.aspx 2. SUTP is supported by the Government of India (GoI), through the Ministry of Urban Development (MoUD) for capacity building programmes and city demonstration projects on urban transport development in the country. 3. MoUD has created four centre of excellence at IIT Delhi, IIT Chennai, Centre for Environmental Planning and Technology (CEPT) and NIT Warangal		
			Examples of important actions that you plan to carry out in next year (2017~2018) Capacity Building programs will be continued		

			What importance does this particular EST Goal attach in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development?
			The Govt. of India has taken dedicated steps to develop and fund institutions that address sustainable transport-land use policies and implementation along with research and development on environmentally-sustainable transport. The initiatives to promote organizations like Institute of Urban Transport (India), Cnetre of Excellence and promoting projects like SUTP has helped India to work towards achieving the agenda for sustainable development.

==Major policy initiatives/projects/action plan to improve rural access:==

		Take policy initiatives to **improve rural access** leading, leading to improved quality, safety and security for all and especially for women, disadvantaged groups persons with disabilities and elderly, low-income groups, access to farms, agriculture centers, education and health ==Not Applicable==	List some of actions taken to improve rural access in your country so far?	Barriers/Challenges faced in improving rural connectivity:
"Cross-Cutting" Strategy			Please add few specific examples of initiatives, pilot projects, major policies or programmes developed or under development (or) any major investment decisions to improve rural access. Please attach reports or include websites where relevant.	
			Examples of important actions that you plan to carry out in next year (2017~2018)	
			Importance of improving rural access in your country's on-going efforts in achieving the Sustainable Development Goals (SDGs) under the 2030 Agenda for Sustainable Development?	