

11th Regional EST Forum in Asia

(2-5 Oct 2018, Ulaanbaatar, Mongolia)

Pre-event 1: Rural Urban Connectivity ~ Implication towards Poverty Alleviation and SDGs
2 October 2018 / 09:30-13:00, Ball Room 1, Shangri La Hotel, Ulaanbaatar

***Rural-Urban Connectivity – Vientiane Declaration
on Sustainable Rural Transport towards Achieving
the 2030 Agenda for Sustainable Development***



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2 Oct 2018



United Nations Centre for Regional Development



Environmentally
Sustainable
Transport

ASIAN EST INITIATIVE



Aichi Statement
(defining core EST areas)

Kyoto Declaration
(endorsed first by 22, now 47 Asian Mayors with addendum 2014)

Seoul Statement
(climate change)

Bangkok 2020 Declaration
(20 goals)

Colombo Declaration for Next Generation Low-carbon Transport Solutions in Asia

Bali Declaration on Vision Three Zeros
(Zero Congestion, Zero Pollution, Zero Accidents)

Vientiane Declaration on Sustainable Rural Transport (2017)



Awareness Raising on Sustainability Transport in Asia

Formulation of National EST Strategies (Philippines, Viet Nam, Cambodia, Lao PDR, Indonesia, Nepal)

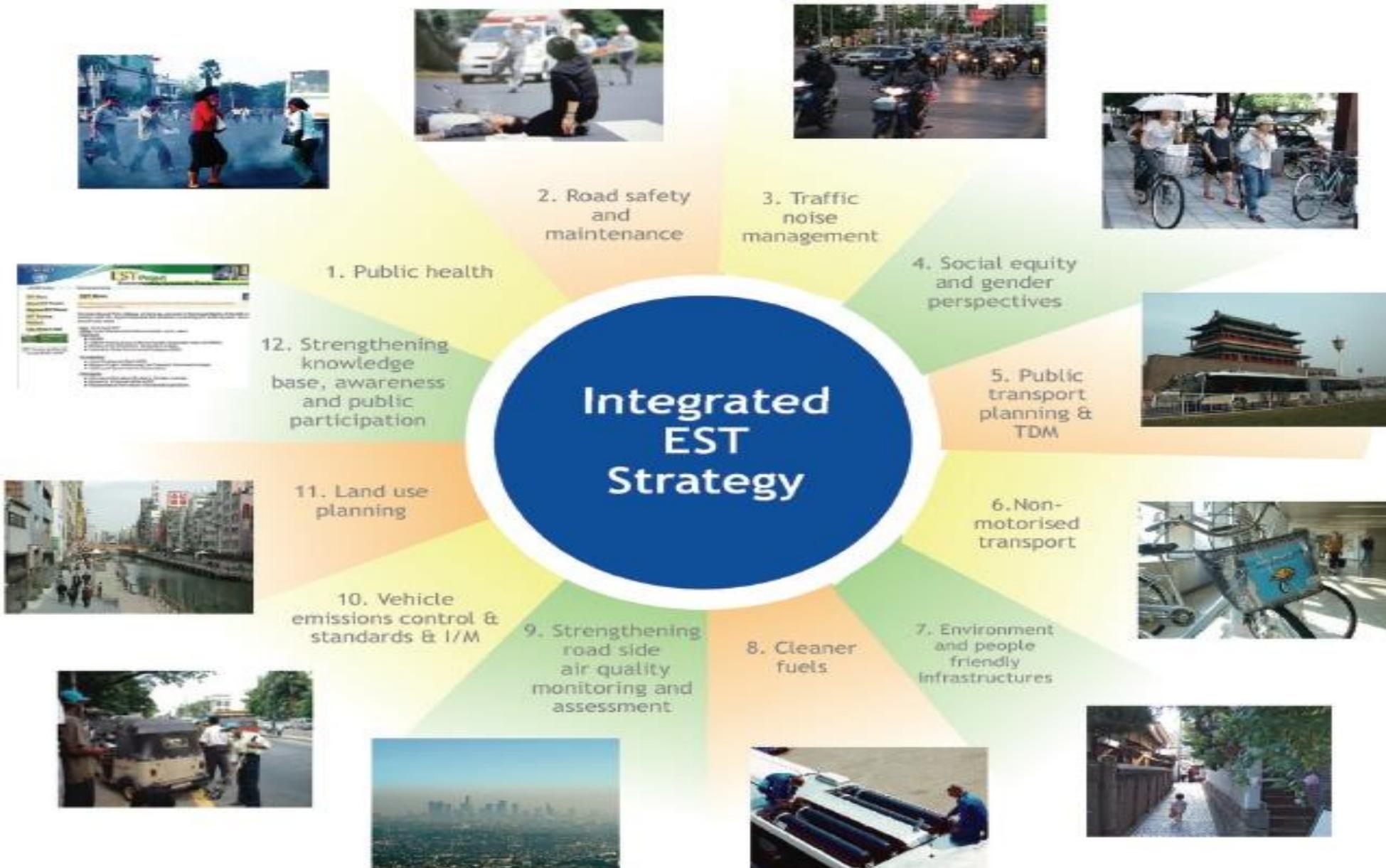
Development Banks start shifting funding to Sustainable Transport

Promotion of Green Freight in Asia/Green Freight Agreement in Asia

Greater focus on sustainable transport, low carbon solutions for livable society in Asia in line with Rio+20 outcome – The Future We Want, SG’s Climate Summit (2014), Post-2015 Development Goals/SDGs.

- Avoid trips**
- Shift to most efficient mode**
- Improve efficiency**

INTEGRATED EST STRATEGY – AICHI STATEMENT (2005)~BANGKOK 2020 DECLARATION



Avoid-Shift-Improve Principles:

Avoid – avoid or reduce travel or the need to travel

Shift – shift to more environmentally friendly modes

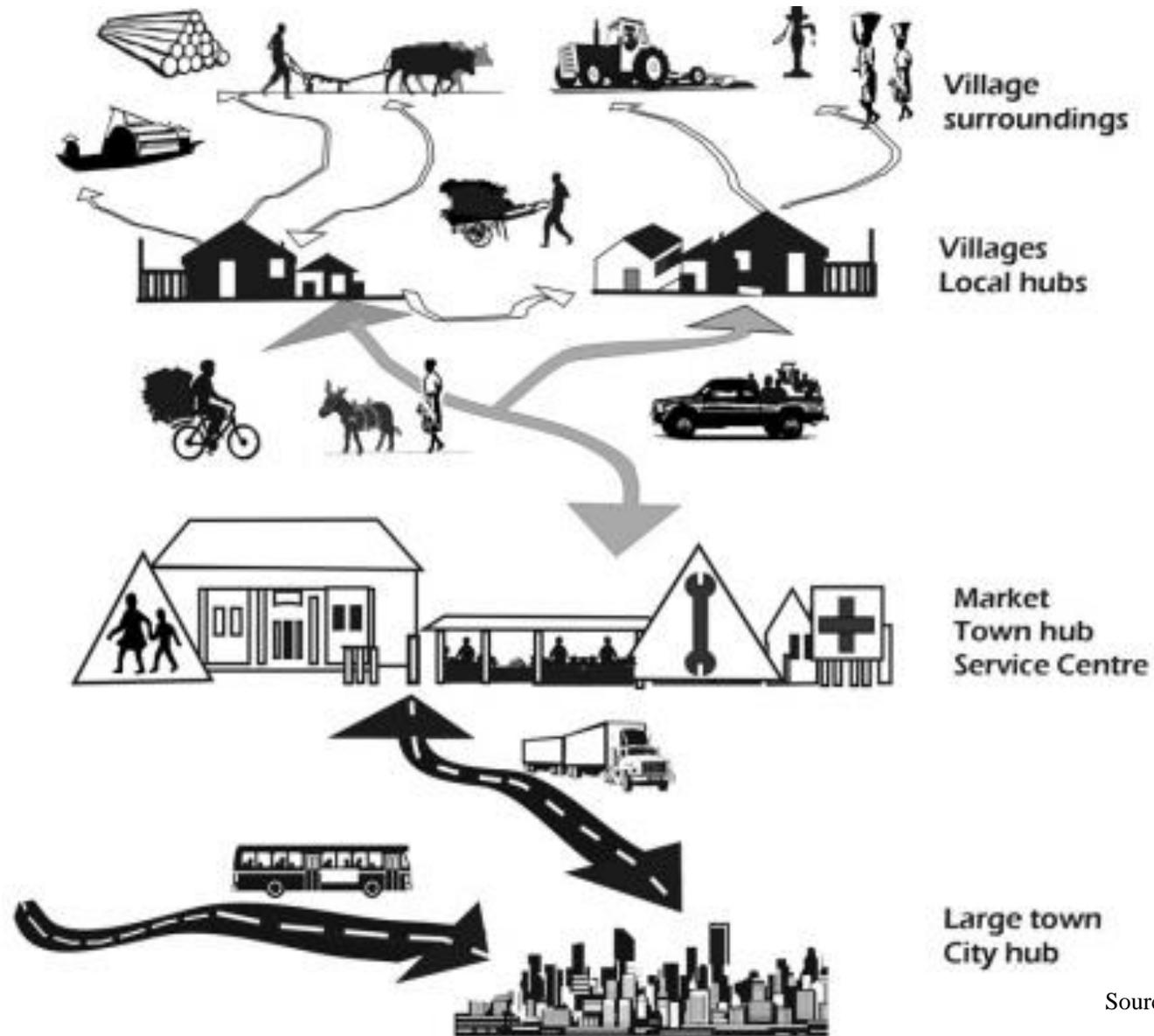
Improve – improve the energy efficiency of transport modes and vehicle technology

*12 THEMATIC AREAS ~
MUTUALLY LINKED AND
REINFORCING EACH OTHER
TOWARDS AIR POLLUTION
REDUCTION AND GHG
REDUCTION WHILE
ADDRESSING SUSTAINABLE
TRANSPORT AND MOBILITY*

Rural Urban connectivity

- Issues
- Role and benefits
- Contribution to SDGs

- Accessibility is central to poverty eradication
- Transport contribute to > 12 SDGs
- Rural transport is a neglected area in political and investment domain - potential role of rural-urban connectivity for regional and economic development, including bridging regional disparities



Integrated EST Strategy – Vientiane Declaration

“Vientiane Declaration on Sustainable Rural Transport towards Achieving the 2030 Agenda for Sustainable Development” (10th Regional EST Forum in Asia, 2017, Vientiane, Lao PDR)

Reaffirming the **significance of sustainable rural transport** and **multiple benefits of rural access** in the effective implementation of the Sustainable Development Goals (SDGs) and related targets set by the United Nations and international community

“No one is left behind”

- Recognizes **rural poverty as a major barrier** to SDGs
- Rural areas as growth engine of agricultural products - **cost of transport, limits access** to opportunities and growth
- Need for increased **financing for rural connectivity**
- Reducing **food waste because of inadequate rural transport**
- Rural transport is a **key enabler for achieving social and economic equity**
- Efficient **rural-urban** connectivity plays a crucial role for **economic growth and food security**

- Call for the widest possible **national, regional and international cooperation** and support for reviewing progress, institutional capacity-building, knowledge sharing, technology transfer, and research and development for innovative solutions to improve rural-urban connectivity; to **improve and green supply chain logistics** (from producers to consumers); and to **minimize local and transboundary pollution, address illegal, transboundary movement of hazardous waste, as well as mitigate, and adapt to climate change.**

Issues related to rural transport



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An estimated **700 million** people (40% of the Asia Pacific region) lack direct access to **all-season road** (ESCAP, 2015)

Poor rural transport condemns the poor to stay disconnected and poor



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"Jugaad", a popular mode for rural transport in Gujarat, India. This mode is only transport service available to many villages.
Picture source: Asia Lite

Limited transport connectivity is a critical constraint to access markets and other economic opportunities

- **Isolation of rural communities due to lack of transport infrastructure**
- **Reduced access economic and social opportunities for rural communities**



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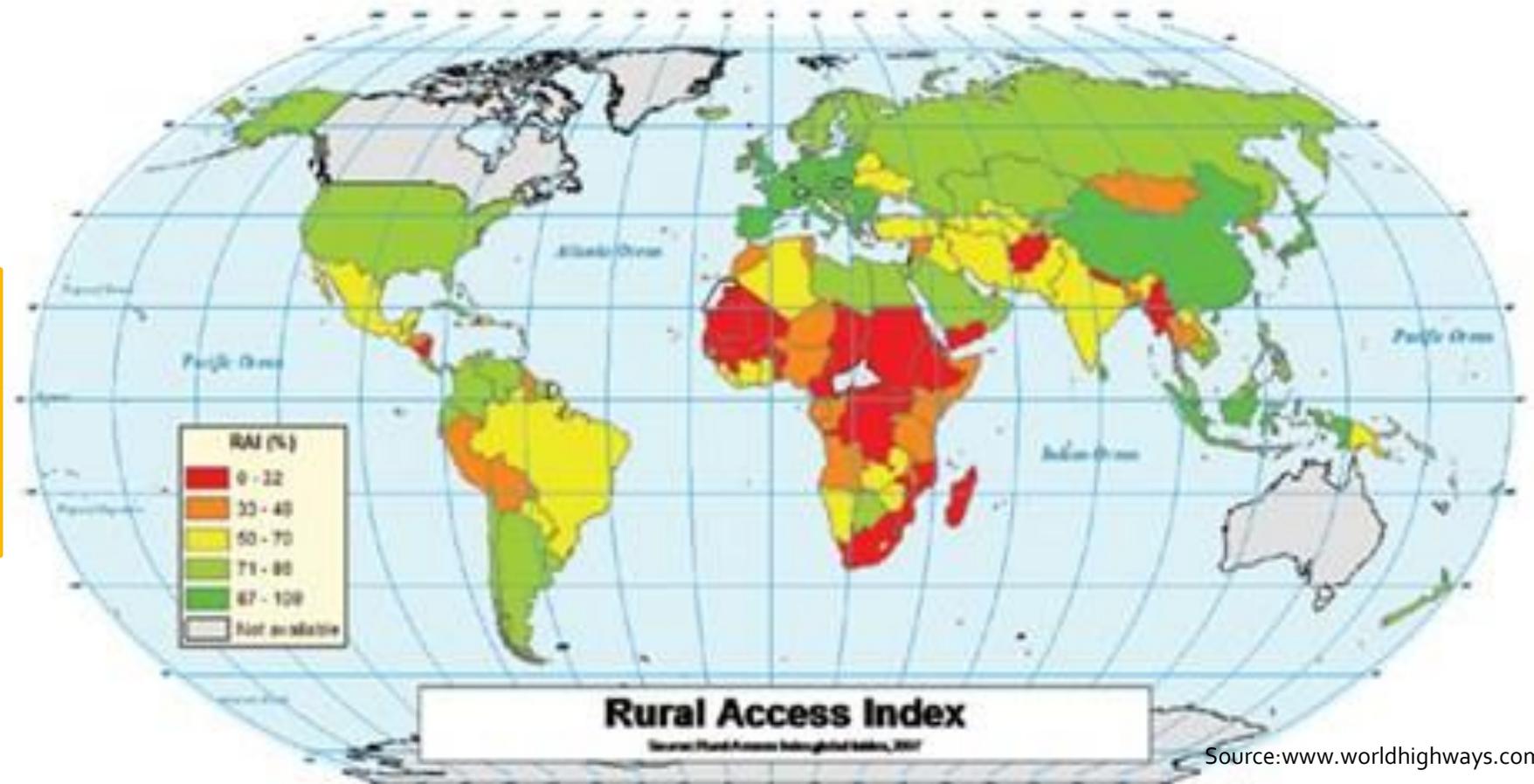
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Isolated rural communities: In Nepal, few are villages that are separated by a 10-day walk from the nearest road (Afram and Salvi Del Pero 2012)

Restricted access to markets: In developing countries, 40% of **food losses** occur post-harvest due to poor transport conditions (World Bank, 2017)

Issues related to rural transport

Rural access: a core poverty indicator



The Rural Access Index (RAI) measures the percentage of the rural population with "access" to the transport network

Issues related to rural transport



Socio Economic and Caste Census (SECC) counted **315.7 million Indians in rural areas as illiterate** in 2011 – Poverty combined with lack of access to educational facilities can be attributed to this

- **Rural areas suffer unequal access to education**
- **Lack of transport systems means higher school drop out rates for girls than boys in rural areas**
- **Children often have to walk long distances and through dangerous paths to reach school**



Indonesia: School children trek to reach their school. The **rocky hills and rivers they cross can be dangerous**, it is the only way to reach school (www.wvi.org/asia-pacific/article/12-incredible-journeys-school)



Lack of road infrastructure, Vietnam: School **children walk 3 km from their village to school**, crossing a river and scaling steep slopes. In the rainy season, the slopes become **slippery and dangerous** (www.wvi.org/asia-pacific/article/12-incredible-journeys-school)



Issues related to rural transport



Women are frequently required to make more trips than men as they must combine their agricultural activities with the domestic responsibilities (such as preparing meals for the household, collecting fuel and water, and child-care).

Lack of rural urban connectivity increases gender inequality and vulnerability of rural women



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Transport during harvesting is usually carried out by women and **carry headloads of approx. 20kg per trip**– World Bank



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Travel time for water collection, excluding the time spent queuing at the source lie between **2-4 hours per day**



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Trip distances for women between the home and the field can range between **1 and 20km** in rural areas – World Bank

Issues related to rural transport



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- 56% of world's rural population do not have access to healthcare facilities as compared to 22% in urban areas.
- Extreme disparities found in the Asia-Pacific region (ILO report)

Lack of transport facilities in rural areas increases the medical risk of the rural population, especially for women, children and the elderly



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Indonesia: the percentage of people not covered by basic healthcare services is twice as high in rural areas as in urban areas.- ILO report



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Lack of accessibility (India Case): The pregnant woman was carried by the men across the Nagabali river with waist deep water and all the way for five kilometres on the potholed road. (Source: <http://odishatv.in>; published in Jul 11, 2017)

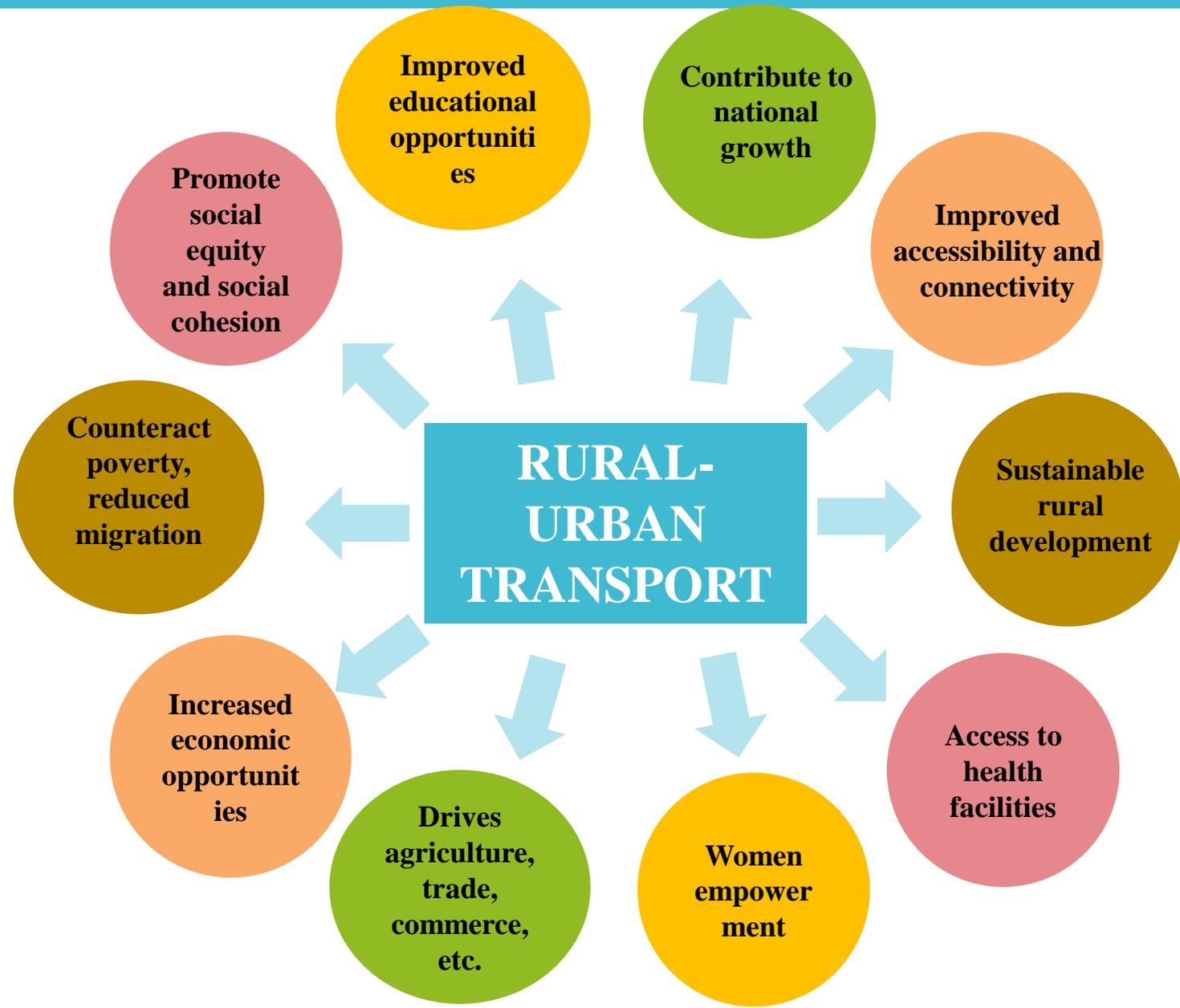
- Only 13% of rural population in India have access to primary health centers, 33% to sub-center and 9.6% to a hospital
- 70% of rural population has no access to specialist care as 80% of specialists live in urban areas (NFHS-II)

Role and benefits of improved Rural – Urban connectivity

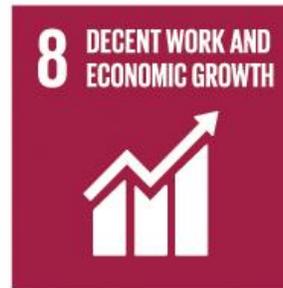
- **Enables better access** to services located in urban areas such as healthcare, education, markets, etc.
- Improves incomes and **reduces poverty**
- Reduces **social isolation** of rural communities. Increased participation in social and political activities
- Slows **down migration** rates because of improved opportunities in rural areas
- Supports **women empowerment** by providing opportunities for girls to go to school, engage in small scale economic activities and travel between destinations
- Enables rural population to **access of medical facilities**
- Provides direct **employment** to rural population during the construction of rural roads and indirect employment through improving agriculture, trade, etc.
- The **quality of life** and housing conditions of rural population improve
- Enables cities to be better served by rural for **mutual co-existence** and benefits
- Prevents wastage of agricultural produce and perishable goods by timely transportation to markets- crucial for **food security**
- **Political empowerment** – enhance ability to take part and contribute actively in local/provincial/national political agenda

Role and benefits of Rural – Urban connectivity

Rural Urban connectivity – Transport access is complementary to the availability of other basic services



Contribution of Rural – Urban connectivity towards SDGs



- Transport alone cannot reduce poverty
- Critical complementary role
- **Pre-condition to generating rural income**
- Enables travel to alternative work and income sources
- Strengthens rural markets and supply chain

**1 NO
POVERTY**



**Rural – Urban
connectivity benefits**

Direct benefits of rural urban connectivity

- Operate at the level of improving basic access for the poor
- Enhancing human capital formation -education and health
- Improving access to economic and social opportunities - labour and product markets, schools, and health facilities

Indirect benefits of rural urban connectivity

- Operate at the level of improving overall mobility
- Increasing the efficiency of resource allocation
- Improve performance of markets
- Fostering of economic growth.



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- By providing households with dry season road access in South East Asia, rural poverty incidence could be reduced permanently from the then 33% to 29.7%.
- A further reduction to 26% could be obtained by providing all rural households with all-season road access. (Warr,2010)



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In case of Lao PDR, due to improve transport connectivity, 22% of the poverty rate decrease during the two-years period (Contribution of transport to Rural Development, 2013). Improved road infrastructure in the rural area of Lao PDR significantly helped farmers' accessibility to markets and trading activities, as a result, the poverty rate in the project areas reduced by 22% in the past two years (GIZ, 2011).

Poverty Eradication in Vietnam: Rural access improved significantly from an average of 76% to 84 % at the provincial level during 2002 to 2004 and the poverty also dropped with an average 24% in the same period (Regmi, 2013).



<http://www.gtkp.com/themepage.php&themepgid=162>

2 ZERO HUNGER



Rural – Urban
connectivity benefits

- Better rural transport is key for **food security and zero hunger**
- Transport can ensure access to safe, nutritious and sufficient food all year round to all people, especially the poor and people in vulnerable situations
- Improving rural access can lead to lower costs for farm inputs and lower transport costs for marketed outputs - increasing agricultural production to enhance food security.
- Increased income for small-scale food producers



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Good connectivity of roads means that crops can be transported all over the country – Delhi's wholesale vegetable markets receives produce daily from places that are upto 72 hours away



Source: www.adb.org

Kurunegala rural road project Sri Lanka : The improved road has resulted in an increase in the milk trade, with more motorscooter collectors, and more people joining the Weeragama cooperative every year – (ADB, 2002)



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Rural-urban connectivity significantly helps Cambodian farmers for selling their vegetables using bicycles and tricycles.



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Implementation of RRMIMP-2 in Bangladesh, enabled 92% of respondednts of a survey to buy sufficient food as compared to 30% before the project

2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



Rural – Urban connectivity benefits

- Better rural transport access to medical facilities leads to wider community well-being
- Travel time significantly affects mortality rates during emergency maternal health
- Transport affects levels of clinic attendance for basic primary care, prenatal care, etc.
- Availability of rural transport service impacts children's vaccination rates and access to emergency care
- Permits medical outreach teams to reach far off rural communities to set up medical camps
- Decreased infant mortality rates, mortality rate, maternal mortality
- Reduced traffic accidents due to better designed roads



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Photos courtesy of GMB Akash/Save the Children

Access to Health in Bangladesh: In the last decade, due to rural-urban connectivity, health facility for deliveries increased rapidly from 12% to 37% in rural communities, reducing both maternal and infant mortality incidences

- Hospital on rails “Lifeline Express” is an initiative by Impact India Foundation (IIF) and Indian Railways to provide healthcare facilities to far flung areas of rural India. The medical camps provide offered free consultation, treatment and surgeries in various specialties. www.thebetterindia.com/
- A study in India found that road construction could impact healthcare accessibility by 30% (Kanuganti et al. 2015)

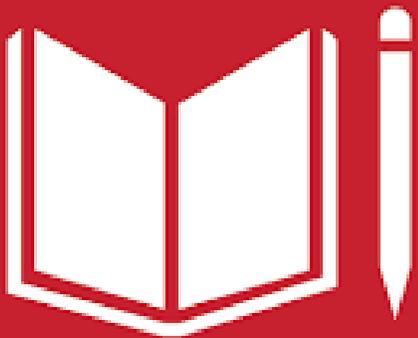
Use of IT technology to support access to medical facilities in China, Reduced need for travel - 349 villages in Henan province have mobile all-in-one diagnostic stations and online consultation facilities with doctors and specialists in urban areas

<https://www.scmp.com/tech/article/2135880/look-how-china-using-technology-improve-rural-access-quality-health-care>



<https://www.scmp.com/tech/article/2135880/look-how-china-using-technology-improve-rural-access-quality-health-care>

4 QUALITY EDUCATION



Rural – Urban
connectivity benefits

- Rural transport facilities are important for accessing sparsely located secondary schools in rural areas
- Girls' school attendance, whether at basic or secondary level, benefits from improved transport
- The long walks to primary school for majority of children may lead to late enrollment, truancy and early drop-out



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IMAGE ID: 651947089
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Rural Roads and Markets Improvement and Maintenance Project (RRMIMP-2) in Bangladesh reduced school drop outs per family to 0.23 from 0.38. the benefits were specifically safer movement of school children/expansion in education/ setting of more schools (Ahmed, 2000, World Bank)



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Access to Education in India: Data analysis of Indian PMGSY rural road project show school attendance increased by 22% as a result of the new village access roads (Mukherjee, 2012).



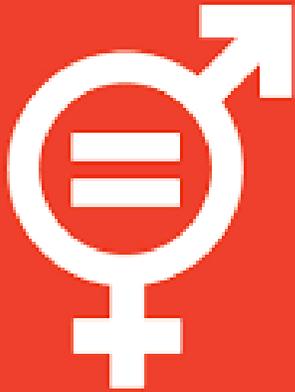
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4 QUALITY EDUCATION



PMGSY, India: 5% improvement in primary educational enrolment for 5-14 year old children, without significant gender differences (Aggarwal 2014)

5 GENDER EQUALITY



Rural – Urban
connectivity benefits

- Women and children in rural areas tend to experience greater deficiencies in transport services
- Women and their children often fill the household transport gap as pedestrian transporters and often with heavy loads - implications on their health and children's education
- Girls' school attendance, whether at basic or secondary level, has particularly benefitted from improved transport



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For women traders in rural areas, when appropriate transport is available, they may be able to travel to more distant markets with better prices



Women empowerment in Pakistan: Improved mobility options and access to transport provide numerous opportunities for women which help to improve their education, health care and livelihood. Photograph shows women actively participating in a rally in Pakistan.

Give a girl a bike projects are becoming popular in India and these projects are aimed keep girls in schools and enable them to pursue high school. State governments and various foundations like Mann Deshi Foundation, Asta No Kai, etc. have various schemes to help towards this cause (Various sources)



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www.alamy.com

Fujian Highway Sector Investment Project, China: about half of the women in villages have changed from heavy farm work to non-agriculture jobs after the project (Source:www.worldbank.org)



6 CLEAN WATER AND SANITATION



Rural – Urban
connectivity benefits

- Improves access to safe and clean drinking water in rural communities with no water of their own
- Better rural transport helps decrease the effort and time spend in collecting water for household use
- Reduces the burden on women and children who are usually responsible for household water collection – more time for other activities like schooling



Source:indiatoday

A village in Andra Pradesh, India receives water through water tankers through government intervention (Source:India today, 14 May 2017)



Source:Kyaw Ko Ko/The Myanmar Times

Tada-U township in Myanmar has the highest number of villages vulnerable to water shortages. Water tank trucks owned by the Fire Department and City Development Committee will be used in transporting water from artesian wells and storage ponds within 10 miles or as far away as 50 miles from the villages. (The Myanmar Times, 14 Sept 2018)



8 DECENT WORK AND ECONOMIC GROWTH



Rural – Urban
connectivity benefits

- Rural road development provides direct employment, indirect employment and contributes to overall development of the region
- The economic markets and the labor markets improve and contribute significantly to economic growth
- Reduces travel time and increases productivity
- Increased connectivity also encourage and enable key service personnel like teachers, health workers, agricultural officers, etc. to reach out to rural areas on a regular basis



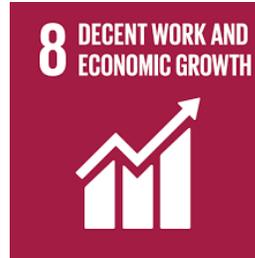
Source:www.lged.gov.bd

Rural Infrastructure Program II Bangladesh showed an increase of 197% in household income in addition to reduction in travel costs and increases in secondary school and healthcare service attendance (Sieber & Allen, 2016)



Source:www.worldbank.org

Fujian Highway Sector Investment Project, China: survey of rural roads found significant travel time reductions for rural residents: 27% for work travel; 42% to access health services and markets in towns; and 40% for student trips to middle schools. Average household income also increased by 23% (Source:www.worldbank.org)



The Common Minimum Program, Bhutan: As part of this program projects such as the construction of farm roads and the blacktopping of Gewog (village block) center roads, installation of rural banks and farm shops were undertaken. It contributed to uplift the livelihood and wellbeing of people in rural areas through the provision of basic infrastructure and socioeconomic facilities. (<https://thediplomat.com/2018/08/bhutans-unique-success-in-reducing-poverty/>)



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9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Rural – Urban
connectivity benefits

- Direct link to target 9.1 : Develop quality, reliable, sustainable and resilient infrastructure
- Indicator 9.1.1: Proportion of the rural population who live within 2 km of an all-season road
- Completes the loop – Rural-urban connectivity helps contribute towards SDGs and SDG 9 directly supports improvement of rural urban connectivity



Fujian Highway Sector Investment Project, China aimed to improve about 35,000 kilometers of non-paved Class III and IV rural roads as part of the Rural Roads Improvement Program in 7,500 administrative villages by 2010. About 1.31 million people are estimated to have directly benefited from the project

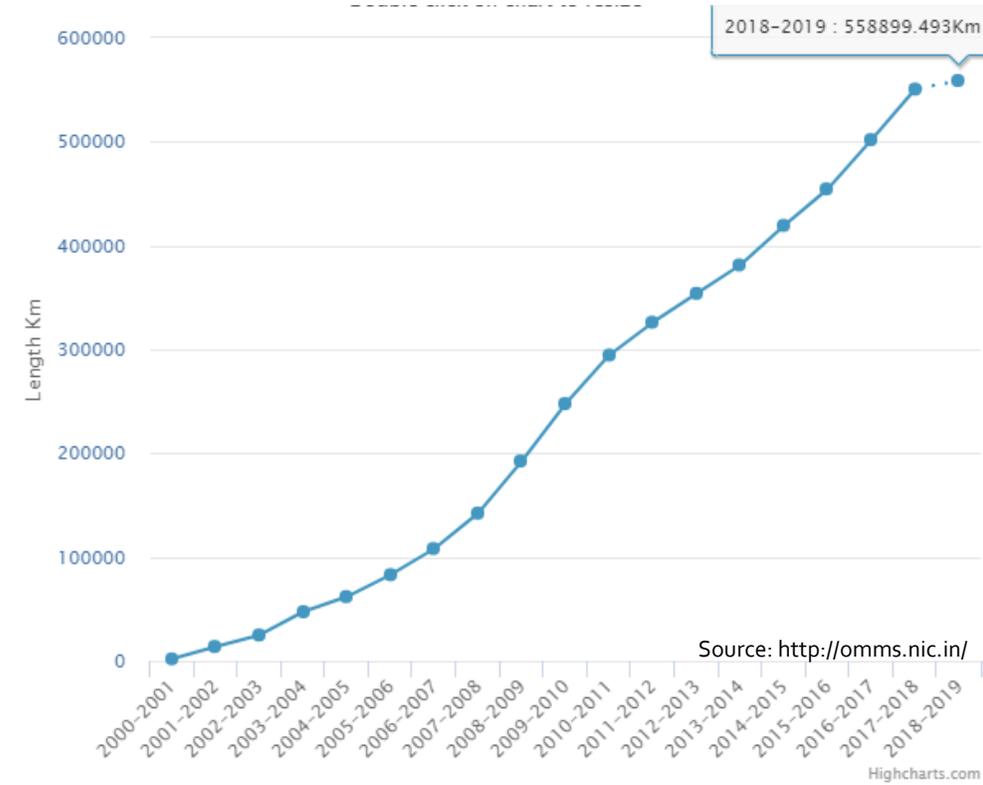
(Source:www.worldbank.org)



Source:CNN.com

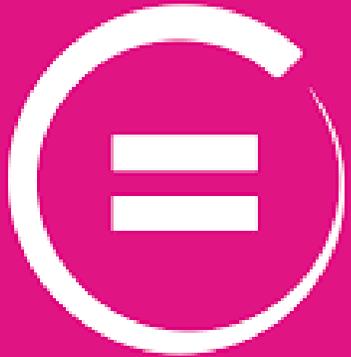
Gansu Rural-Urban Integration Project, China will build and repair rural roads and bridges connecting 48 villages and benefit 168,000 people, many living below the national poverty line. (Source:www.worldbank.org)

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



The Pradan Mantri Gran Sadak Yojna (PMGSY) will cater to connecting 1.67 lakh unconnected habitations, according to latest figures made available by the State Governments under a survey. About 3.71 lakh km. of roads for New Connectivity and 3.68 lakh km upgradation work will be carried out. The progress of the scheme since inception is shown in the figure. Source: <http://omms.nic.in/>

10 REDUCED INEQUALITIES



Rural – Urban connectivity benefits

- Rural-urban connectivity brings numerous benefit to different segments of society mainly disadvantaged groups such as poor, elderly, children, women and girls, youth and farmers
- Transport services are of vital significance and can contribute to elevating the chronic poverty of rural areas
- Increased women empowerment
- Reduced inequalities in access to medical and education opportunities
- Reducing the rural-urban divide



Source: Richard Abrina/ADB

Rural Infrastructure Improvement Project II (RIIP-II) aims to contribute to poverty reduction by expanding the economic opportunities of the rural poor and strengthening women's economic opportunities in Bangladesh

Source: Richard Abrina/ADB



Source: Wikipedia



Source: Mahmud Hossain Opu for NPR

'Floating Schools', Bangladesh – 23 school boats have been set by Shidhulai Swanirvar Sangstha, a local nonprofit group to help educate rural children. They pick up kids along the river, then pull over into the marshy riverbank to hold class

(Source-Mahmud Hossain Opu for NPR)



To ease access and boost attendance, World Vision is working with the local government to improve roads and school facilities in central Laos' rural heartland

(www.wvi.org/asia-pacific/article/12-incredible-journeys-school)

PMGSY rural road project, Orissa demonstrated that access to rural roads can provide concrete health-care improvements, such as people needing more serious medical attention increasingly being taken to distant hospitals rather than being treated in village health centres (Bell and van Dillen, 2012)

11 SUSTAINABLE CITIES AND COMMUNITIES



Rural – Urban connectivity benefits

- Direct benefit to **SDG Target 11.a** – support positive economic, social, environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning
- Better rural –urban connectivity reduces the divide
- Brings mutual benefits for both rural and urban areas
- Better transport provides for supply of resources and products between rural and urban areas
- Improved rural – urban connectivity ensures agricultural markets are kept running and improves food security
- The employment, educational and medical facilities in urban areas are made accessible for rural population
- Ensures that persons like teachers, doctors, etc. can reach rural areas to carry out their work efficiently
- During disasters, better connectivity ensures that both the regions can be served by the other, enhance resilience



Source: IndiaMART

Amul India produces about 10.16 million liters of milk daily, which is collected from 2.7 million farmers, processed through 30 dairy plants, and distributed through 500,000 retail outlets across the country

(<http://seasofchange.net>) This is possible only because of a good rural urban connectivity



Better rural connectivity enables medical staff from urban areas to go to rural areas: A medical camp being held at Mindrolling Monastery as part of a medical expert volunteer project in Zhanang county, Tibet Autonomous Region. Source: <https://potomac-aviation.com/for-communities/a-doctor-gestures-as-she-gives-a-medical-check-to-a-tibetan-monk-at-mindrolling-monastery-as-part-of-a-medical-expert-volunteer-project-zhanang-county/>



source: indiatimes.com

The availability of good rural urban transport facilities the farmers to sell their produce directly to customers: The Maharashtra government is coming out with a scheme that would allow / encourage housing societies to allot space in their societies for farmers to sell their produce (source: The Economic Times, 12 September 2018).

13 CLIMATE ACTION



Rural – Urban connectivity benefits

- It is vital to build resilient rural transport infrastructure for increasing climate adaptability of rural communities
- The vulnerability of rural communities during droughts, heavy rainfall, flooding, etc. can be greatly reduced with better transport connectivity
- Ensure food security and access to clean water in changing climatic conditions
- Rural roads crucial part of disaster management
- In event of natural disasters, improved rural connectivity can aid in evacuation operations, rescue missions and relief dispersal



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Evidence from the Bihar Rural Roads Project, shows that sound asset management of rural roads could neutralize the increase in GHG emissions from the expected traffic growth of 7% per year (<http://blogs.worldbank.org/transport/climate-change-forcing-us-reinvent-rural-transport-better>)



Kerala, India: Recently during the devastating floods in Kerala, Indian Railways dispatched trains carrying drinking water as part of disaster relief affected people



Jaldoot express, India: The state of Maharashtra started running trains daily carrying water to drought-hit Marathwada. (Source: Indianexpress.com, April 17, 2016)



THANK
YOU



Source: World
Nomads Journals



Source: Daily Monitor

*Towards a better future through improved
rural-urban connectivity/linkages*



Source: Dreamstime.com



Source: wvi.org