Indicators by Development Strategic Objective

Financial Assistance Projects / Indicator Reference (Transportation (Roads, Bridges, Railroad, Aviation, Ports, and Land Transportation))

Note: Those written in blue are Global Sustainable Development Goal (SDG) Indicators. In light of recent global trends, relevant Global SDG indicators are listed for project officers who may wish to refer to these indicators when developing a project plan (setting indicators).

Development strategic objectives (*)	Mid-term objectives	Mid-term sub-targets	Types of infrastructure	Indicators / Global SDG Indicators, etc. (written in blue)		Policy and methods for setting indicators	Reference projects by infrastructure type		
							Country name	Project name	Evaluation year
2. Internationalization and regionalization (*)	2-1. Facilitation, strengthening of safety, and security measures of international movement of people	2-1-1. Development of international transportation networks	Trunk roads and bridges (international)	Operation and effect indicators	**Basic indicators** [1] Annual average daily traffic (AADT) (vehicles/day or vehicles/24 hours) [2] Passenger and freight volumes (spot traffic in persons/year and tons/year)	Annual average daily traffic (AADT) (vehicles/day or vehicles/24 hours): Refers to annual average traffic measured at certain points or representative points or estimated as a distance weighted average. The number of full-size and compact cars should be counted separately and converted in passenger car unit (PCU) or totaled to determine the sum of all vehicles as a reference value. The data should in principle be reported on a daily (24-hour) basis or otherwise on a 12-hour basis. When the project constructs a new road (highway or bypass) parallel to an existing one, the volume of spot traffic should be calculated as the sum of traffic flows on the new and existing roads. It is desirable to show future projections of traffic on the new road and the impact of traffic reductions on the existing road.	Cambodia	The Project for Construction of a Bridge over the Mekong River	2006
							Senegal	Road Improvement and Transport Facilitation Program on the Southbound Bamako-Dakar Corridor (ODA Loan)	2005
							Thailand	Second Mekong International Bridge Construction Project (ODA Loan)	2011
							Laos	Second Mekong International Bridge Construction Project (ODA Loan)	2011
				Effect indicators	**Basic indicators** [1] Reduction in travel time (hours) **Supplementary indicators** [1] Increase in the number of large vehicles passing through the road [2] Increase in the number of bridges passable by large vehicles [3] Passenger and freight transport volumes (measured in person*km and ton*km or estimated as the volume of spot traffic (ton/year) in the same way as for the traffic estimates) [4] Reduction in transportation costs (yen (and local currencies)/year) [5] Increase in average travel speed (km/h) [6] Reduction in road closure days due to natural disasters (days/year) [7] GDP growth in roadside areas Reference: Global SDG Indicator 9.1.1. Proportion of the rural population who live within 2 km of an all-season road Global SDG Indicator 9.1.2. Passenger and freight volumes, by mode of transport Global SDG Indicator 11.2.1. Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities Reference: Japanese Government's SDGs Implementation Guiding Principles Indicator: Number of projects formulated in consideration of SDGs Reference: JICA 4th Medium-term Objective Indicator: [1] Passenger and freight volumes [2] Number of training in transportation sector [3] Number of technical cooperation or collaboration on operation and maintenance	Reduction in travel time (hours): Determined by actual measurements of travel time. When the project is designed to develop disaster management capacity (e.g. slope protection and flood control) and not expected to reduce travel time, use another appropriate indicator, such as a reduction in road closure time. Increase in average travel speed (km/h): Calculated by dividing the distance before and after the project by the above-mentioned travel time. Reduction in road closure days due to natural disasters (days/year): Estimated based on statistics obtained from road authorities.	Laos	The Project for Reconstruction of the Bridges on the National Road No. 9	2016
							Laos	The Project for Improvement of the National Road Route 9	2006
							Cambodia	National Road No. 5 Improvement Project (ODA Loan)	2016
							Cambodia	The Project for Construction of Neak Loeung Bridge	2010
							Viet Nam	Saigon East-West Highway Construction Project (ODA Loan)	2010
							Myanmar	East-West Economic Corridor Improvement Project (ODA Loan)	2015
							Viet Nam	North-South Expressway Construction Project (ODA Loan)	2016

				Operation indicators	Basic indicators [1] Implementation of inspection systems according to international standards (increased number of persons and items inspected, monitoring and security area expansion, reduced number of accidents and incidents, etc.) [2] Establishment of reliable and safe navigation / operation systems (aircraft taking off and landing, ship berthing and unberthing, etc.) Reference: Global SDG Indicator 9.1.2. Passenger and freight volumes, by mode of transport Reference: Japanese Government's SDGs Implementation Guiding Principles Indicator: Number of projects formulated in consideration of SDGs Reference: JICA 4th Medium-term Objective Indicator: [1] Passenger and freight volumes [2] Number of training in transportation sector [3] Number of technical cooperation or collaboration on operation and maintenance	Percentage of take-off and landing operations that meet ICAO standards Percentage of safe berthing and unberthing operations	Afghanistan	The Project for Improvement of Equipment of the Kabul International Airport	2008
2. Internationalization and regionalization	2-1. Facilitation strengthening of safety, and security measures of international movement of people and goods	2-1-3. Strengthening of safety and security measures	Enhancement of security management at ports, airports, and international borders (smuggling control and passenger and baggage inspection), quality improvement in flight control, etc.				Pakistan	The Project for Security Improvement in Port Karachi and Port Bin Qasim	2014
							Pakistan	The Project for Improvement of Airport Security	2013
							Afghanistan	The Project for Strengthening Security in Kabul International Airport	2013

3. Balanced development of a whole country (national transportation)	3-1. Improvement of road transportation	3-1-1. Improvement and development of trunk road networks	Trunk roads and bridges (domestic)	**Operation and effect indicators**	**Basic indicators** [1] Annual average daily traffic (AADT) (vehicles/day or vehicles/24 hours) [2] Passenger and freight volumes (spot traffic in persons/year and tons/year)		India	Hyderabad Outer Ring Road Project (ODA Loan)	2008
							Indonesia	Sumatra East Coast Highways Project (ODA Loan)	2008
				Effect indicators	**Basic indicators** [1] Reduction in travel time (hours) **Supplementary indicators** [1] Increase in the number of large vehicles passing through the road [2] Increase in the number of bridges passable by large vehicles [3] Passenger and freight transport volumes (person*km and ton*km) [4] Reduction in transportation costs (yen (and local currencies)/year) [5] Increase in average travel speed (km/h) [6] Reduction in road closure days due to natural disasters (days/year) [7] Improvement in access to international trunk roads and major airports and ports (number of passengers and quantity of freight transported within X hours, etc.) [8] Roadside environment improvement (number of beneficiaries in the case of new road (bypass) construction) Reference: Global SDG Indicator 9.1.1. Proportion of the rural population who live within 2 km of an all-season road Global SDG Indicator 9.1.2. Passenger and freight volumes, by mode of transport Global SDG Indicator 11.2.1. Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities Reference: Japanese Government's SDGs Implementation Guiding Principles Indicator: Number of projects formulated in consideration of SDGs Reference: JICA 4th Medium-term Objective Indicator: [1] Passenger and freight volumes [2] Number of training in transportation sector [3] Number of technical cooperation or collaboration on operation and maintenance		El Salvador	Road Improvement Project (ODA Loan)	2006
							Philippines	Cordillera Road Improvement Project (ODA Loan)	2010
							Viet Nam	National Highway No. 10 Improvement Project (ODA Loan)	2009
							Viet Nam	National Highway No. 18 Improvement Project (ODA Loan)	2010
							China	Guiyang-Xinzhai Highway Construction Project (ODA Loan)	2005
							China"	Heilongjiang Heihe-Bei'an Road Construction Project (ODA Loan)"	2009"
							Ghana	Achimota-Anyinam Road Improvement Project (ODA Loan)	2000
		3-1-3. Strengthening of road maintenance systems	Road maintenance	**Operation and effect indicators**	**Basic indicators** [1] Total length of roads improved (repaired), etc. (km/year or square meters/year)		Bosnia and Herzegovina	The Project for Equipment Supply for Road Construction	2005
				Operation indicators	**Basic indicators** [1] Increase in the number of construction machines available for operations (units) [2] Number of operating days (days/year) / equipment utilization rate (percent) **Supplementary indicators** [1] Machine repair times (times/year)		Yemen	The Project for Upgrading and Revitalization of Road Construction Machinery Workshop at Nukum	2010
							Kyrgyz	The Project for Improvement of the Equipment for Road Maintenance in Issyk-Kul and Chui Oblasts	2010
				Effect indicators	**Supplementary indicators** [1] Reduction in annual maintenance costs (yen (and local currencies)) [2] Road surface conditions (roughness (e.g. international roughness index (IRI)), rutting, cracking, etc.)				

| | | | | | Reference: Global SDG Indicator 9.1.1. Proportion of the rural population who live within 2 km of an all-season road Global SDG Indicator 9.1.2. Passenger and freight volumes, by mode of transport Global SDG Indicator 11.2.1. Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities

Reference: Japanese Government's SDGs Implementation Guiding Principles Indicator: Number of projects formulated in consideration of SDGs

Reference: JICA 4th Medium-term Objective Indicator: [1] Passenger and freight volumes [2] Number of training in transportation sector [3] Number of technical cooperation or collaboration on operation and maintenance | | | | |

							Myanmar	Yangon-Mandalay Railway Improvement Project (ODA Loan)	2016
					Operation and effect indicators	**Basic indicators** [1] Number of passengers carried per year [2] Number of passengers getting on and off at mainline stations per year			
					Operation indicators	**Basic indicators** [1] Number of running trains (trains/day) [2] Train operation ratio (%) (when rolling stocks are procured) [3] Rolling stock kilometers (km/year) (when rolling stocks are procured) [4] Number of cars per train set [5] Train kilometers (km/year)	Number of running trains: Refers to the annual average daily number of running trains. The data should be reported separately for passenger and freight transport and for different routes. Train operation ratio = annual operating days / number of procured cars x (365 - annual average number of inspection days) x 100% Rolling stock kilometers (total kilometrage traveled by rolling stock) = train kilometers x number of cars Refer to the glossary on the Ministry of Land, Infrastructure, Transport, and Tourism website: http://www.mlit.go.jp/k-toukei/tetsuyu/yougo.html Train kilometers = total kilometrage traveled by train	Bangladesh Indonesia	Dhaka-Chittagong Railway Development Project (ODA Loan) Railway Double Tracking on Java South Line Project (ODA Loan)	2007 2013
3. Balanced development of a whole country (national transportation)	3-2. Improvement of railway transportation	3-2-1. Restoration, improvement, and development of railway networks	**Restoration, improvement, and development of railway networks**	**Effect indicators**	**Basic indicators** [1] Time required to pass through a specific section (hours) [2] Annual passenger revenue (local currencies/year) [3] Annual freight revenue (local currencies/year) **Supplementary indicators** [1] Maximum speed (km/h) [2] Scheduled speed (km/h) [3] Passenger transport volume and freight transport volume (passenger*km/year and ton*km/year) Reference: Global SDG Indicator 9.1.2. Passenger and freight volumes, by mode of transport Global SDG Indicator 11.2.1. Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities Reference: Japanese Government's SDGs Implementation Guiding Principles Indicator: Number of projects formulated in consideration of SDGs Reference: JICA 4th Medium-term Objective Indicator: [1] Passenger and freight volumes [2] Number of training in transportation sector [3] Number of technical cooperation or collaboration on operation and maintenance	Time required to pass through a specific section: Measured monthly and reported separately for passenger and freight transport. Maximum speed: Determined by actual measurements. Scheduled speed = operating distance / travel time Passenger transport volume = number of passengers x passenger travel distance Freight transport volume = quantity of freight x freight travel distance The data should be reported on a yearly basis.	Uzbekistan Tunisia India	Karshi-Termez Railway Electrification Project (ODA Loan) Metropolitan Railway Electrification Project (ODA Loan) Dedicated Freight Corridor Project (ODA Loan)	2011 2009 2017

Note: the leftmost cell also shows "2016" at top.

				Operation and effect indicators	**Basic indicators** [1] Cargo volume (tons/year) 1. Container cargo volume (TEU/year and tons/year) 2. Bulk cargo volume (tons/year) 3. Liquid cargo volume (tons/year and barrels/year) 4. Cargo volume handled per hour (containers/hour for container cargoes and tons/h for bulk cargoes) [2] Number of passengers (persons/year)	Cargo volume = 1. Container cargo volume + 2. Bulk cargo volume + 3. Liquid cargo volume The choice of indicator(s) should depend on the content of the project. If the project procures gantry cranes, use Indicators 1 and 4. If the project constructs grain silos and/or oil tanks, use Indicator 2. A TEU is equivalent to a 20-foot container.	Solomon Samoa	The Project for Improvement of Honiara Port Facilities The Project for Enhancement of Safety of Apia Port	2014 2015
3. Balanced development of a whole country (national transportation)	3-3. Improvement of maritime transportation	3-3-1. Restoration, improvement and development of ports and port facilities	**Restoration, improvement and development of ports and port facilities**	Operation indicators	**Basic indicators** [1] Total gross tonnage of ships calling at the port (annual) (GT) [2] Berth occupancy rate (annual) (percent) **Supplementary indicators** [1] Average berthing time / waiting time for ships to enter the port (hours) [2] Improvement in cargo handling efficiency / working rate of cargo handling equipment [3] Maximum vessel size the port can accommodate (maximum deadweight tonnage (DWT) and draught)	Total gross tonnage of ships calling at the port = gross tonnage of each ship (GT/ship) x annual number of ships calling at the port (ships) GT (gross tonnage) is the volume or size of a ship measured in tons. Berth occupancy rate = Berth occupancy time (hours) / berth operating time (hours) Maximum deadweight tonnage (DWT): Refers to the largest ship by deadweight tonnage among those calling at the port in a year. DWT is the maximum carrying capacity of a ship measured in tons. Draught: Refers to the distance from the bottom of a ship to the level of the water. Containerization rate = containerized cargoes (tons) / cargoes that can be containerized (tons) Indicator 1 refers to the average offshore waiting time for ships to enter the port, and Indicator 2 refers to the average waiting time for passenger ships to leave the port.	Kenya Viet Nam Bulgaria	Mombasa Port Development Project (ODA Loan) Lach Huyen Port Infrastructure Construction Project (ODA Loan) New Container Terminals Development Project at the Ports of Varna and Bourgas (ODA Loan)	2007 2016 2008
				Effect indicators	**Basic indicators** [1] Containerization rate (annual) (percent) [2] Average waiting time (minutes) 1. Berthing time (hours/ship and days/ship) 2. Unberthing time (minutes/person) Reference: Global SDG Indicator 9.1.2. Passenger and freight volumes, by mode of transport Reference: Japanese Government's SDGs Implementation Guiding Principles Indicator: Number of projects formulated in consideration of SDGs Reference: JICA 4th Medium-term Objective Indicator: [1] Passenger and freight volumes [2] Number of training in transportation sector [3] Number of technical cooperation or collaboration on operation and maintenance		Rumania Mozambique Myanmar China China	Port of Constantza South Development Project (ODA Loan) Nacala Port Development Project (ODA Loan) Infrastructure Development Project in Thilawa Area (ODA Loan) Sihanoukville Port Multipurpose Terminal Development Project (ODA Loan) Galle Port Development Project (ODA Loan) Port Sector Rehabilitation Project (ODA Loan)	2006 2015 2015 2009 2005 2013

3. Balanced development of a whole country (national transportation)	3-4. Improvement of air transportation	3-4-1. Infrastructure development for economic growth 3-4-2. Air transport infrastructure development for strengthening of regional connectivity	Airport facilities	**Operation and effect indicators**	**Basic indicators** [1] Number of passengers (persons) [2] Cargo volume handled (tons) [3] Number of take-offs and landings (times)	Number of passengers (persons): International and domestic flight passengers should be counted separately. - Do annual, peak-month, and peak-day counts. It is desirable to count the number of passengers separately as follows: (1) Number of departing passengers (foreign and domestic passengers) (2) Number of arriving passengers (foreign and domestic passengers) (3) Number of transit passengers (foreign and domestic passengers)	Afghanistan	The Project for Improvement of Existing Bamyan Airport	2011
							Egypt	Borg El Arab International Airport Modernization Project (ODA Loan)	2015
							Mongolia	New Ulaanbaatar International Airport Construction Project (ODA Loan)	2015
				Operation indicators	**Supplementary indicators** [1] Fixed gate utilization rate (percent)	Cargo volume handled: International and domestic flight cargoes should be counted separately. Departing and arriving cargoes should be counted separately. Number of take-offs and landings: The take-offs and landings of international and domestic flights should be counted separately. Do annual, peak-month, and peak-day counts. The take-offs and landings of regular and irregular (commercial) flights should be counted separately. Fixed gate utilization rate: Refers to the ratio of the annual number of airplanes that were parked at fixed gates to the total number of airplanes that could be parked in the airport.	Bangladesh	Hazrat Shahjalal International Airport Expansion Project (ODA Loan)	2017
							Sri Lanka	Bandaranaike International Airport Development (ODA Loan)	2015
				Effect indicators	**Supplementary indicators** [1] Number of sightseeing tourists (persons) [2] Number of business tourists (persons) Reference: Global SDG Indicator 9.1.2. Passenger and freight volumes, by mode of transport Reference: Japanese Government's SDGs Implementation Guiding Principles Indicator: Number of projects formulated in consideration of SDGs Reference: JICA 4th Medium-term Objective Indicator: [1] Passenger and freight volumes [2] Number of training in transportation sector [3] Number of technical cooperation or collaboration on operation and maintenance	Number of sightseeing tourists: Refers to the number of international flight passengers (foreign passengers). Departing and arriving passengers should be counted separately. Number of business tourists: Refers to the number of international flight passengers (foreign passengers). Departing and arriving passengers should be counted separately.	Viet Nam	Terminal 2 Construction Project in Noi Bai International Airport (ODA Loan)	2011
							Philippines	New Bohol Airport Construction and Sustainable Environment Protection Project (ODA Loan)	2012
							Kyrgyz	The Project for Improvement of Equipment of the Manas International Airport	2015
							Malawi	The Project for Expansion of the Terminal Building at Kamuzu International Airport	2015
							Tajikistan	The Project for Improvement of Dushanbe International Airport	2014

3. Balanced development of a whole country (national transportation)	3-4. Improvement of air transportation	3-4-3. Enhancement of air transport safety and reliability	Aeronautical navigation aid systems (air-route surveillance radars, etc.)	**Operation and effect indicators**	**Basic indicators** [1] Number of take-offs and landings (times)	Number of take-offs and landings (times): The take-offs and landings of international and domestic flights should be counted separately. - Do annual, peak-month, and peak-day counts - The take-offs and landings of regular and irregular (commercial) flights should be counted separately.	Afghanistan	The Project for Rehabilitation of Airfield Pavements at Kabul International Airport	2010	
				Operation indicators	**Supplementary indicators** [1] Increase in the maximum number of airplanes the airport can accommodate (airplanes) [2] Ratio of the range of aeronautical lights to the area of the international airport 1. Runways (percent) 2. Taxiways (percent) 3. Aprons (percent) [3] Proportion of international flights under radar-based air traffic control (percent) [4] Proportion of flights under radar-based air traffic control (percent)		Malawi	The Project for the Replacement of Air Navigation System at Kamuzu International Airport	2010	
							Nepal	Tribhuvan International Airport Modernization Project	2012	
				Effect indicators	**Supplementary indicators** [1] Reduction in the number of accidents on taxiways and aprons Reference: Global SDG Indicator 9.1.2. Passenger and freight volumes, by mode of transport Reference: Japanese Government's SDGs Implementation Guiding Principles Indicator: Number of projects formulated in consideration of SDGs Reference: JICA 4th Medium-term Objective Indicator: [1] Passenger and freight volumes [2] Number of training in transportation sector [3] Number of technical cooperation or collaboration on operation and maintenance		Nepal	The Project for Improvement of Aviation Safety Facilities in Major Airports	2016	
							Bangladesh	The Project for Improvement of Airport Safety and Security Systems	2014	
							Myanmar	The Project for Improvement of Nationwide Airport Safety and Security	2012	
							Laos	The Project for Modernization of Equipment for Transition to New CNS/ATM System	2012	
							Pakistan	The Project for Improvement of Airport Security	2013	
		3-5-2. Transportation safety measures	Development of transportation safety facilities, etc.	**Effect indicators**	**Basic indicators** [1] Reduction in the number of traffic accidents and casualties in sections (or areas) equipped with traffic control systems Reference: Global SDG Indicator 3.6.1. Death rate due to road traffic injuries Global SDG Indicator 11.2.1. Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities Reference: Japanese Government's SDGs Implementation Guiding Principles Indicator: Number of projects formulated in consideration in consideration of SDGs Reference: JICA 4th Medium-term Objective Indicator: [1] Number of training in transportation sector [2] Number of technical cooperation or collaboration on operation and maintenance	This number should be estimated based on traffic accident statistics obtained from public safety authorities. This indicator can be estimated in monetary terms when the amount of life and property losses per accident is defined.				

| 3. Balanced development of a whole country (national transportation) | 3-5. Strengthening of intermodal transportation as well as improvement of issues common to all modes of transportation | 3-5-3. Disaster management | (For road facilities and bridges) slope protection, seismic resistance enhancement, etc. | Operation and effect indicators | **Basic indicators**
[1] Annual average daily traffic (AADT) (vehicles/day or vehicles/24 hours)
[2] Passenger and freight volumes (spot traffic in persons/year and tons/year) | | Nepal | The Program for Rehabilitation and Recovery from Nepal Earthquake (Bridge construction along the Gorkha-Barpak Road) | 2015 |
| | | | | Effect indicators | **Basic indicators**
[1] Reduction in road closure days due to natural disasters (days/year)
[2] Safety rate of developed / improved facilities
[3] Reduction in travel time (hours)

Supplementary indicators
[1] Increase in the number of large vehicles passing through the road
[2] Increase in the number of bridges passable by large vehicles
[3] Reduction in transportation costs (yen (and local currencies)/year)
[4] Increase in average travel speed (km/h)

Reference:
Global SDG Indicator 9.1.1. Proportion of the rural population who live within 2 km of an all-season road
Global SDG Indicator 9.1.2. Passenger and freight volumes, by mode of transport
Global SDG Indicator 13.1.1. Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population

Reference:
Japanese Government's SDGs Implementation Guiding Principles Indicator: Number of projects formulated in consideration of SDGs

Reference:
JICA 4th Medium-term Objective Indicator:
[1] Passenger and freight volumes
[2] Number of training in transportation sector
[3] Number of technical cooperation or collaboration on operation and maintenance | Reduction in road closure days due to natural disasters (days/year): Estimated based on statistics obtained from road authorities.

Note that an increase in the maximum tonnage of vehicles allowed to pass and an increase in the pavement load-bearing capacity / axil load limits (tons) should be considered not as outcome indicators but as design conditions. | Indonesia | The Project for Improvement of Bridges in Nias Island | 2009 |

4. Sustainable urban development and improvement of urban life (urban transportation)	4-1. Development of transportation networks	4-1-2. Development of transportation networks	**Development of trunk road networks and bypasses**	**Operation and effect indicators**	**Basic indicators** [1] Annual average daily traffic (AADT) (vehicles/day or vehicles/24 hours) [2] Passenger and freight volumes (spot traffic in persons/year and tons/year)		India	Hyderabad Outer Ring Road Project (ODA Loan)	2007
							Bangladesh	Chittagong City Outer Ring Road Project (ODA Loan)	2009
							Viet Nam	Saigon East-West Highway Construction Project (ODA Loan)	2000
				Effect indicators	**Basic indicators** [1] Reduction in travel time (hours)		Philippines	Davao City Bypass Construction Project (South and Center Sections) (ODA Loan)	2015
							El Salvador	San Miguel Bypass Construction Project (ODA Loan)	2014
					Supplementary indicators [1] Reduction in transportation costs (yen (and local currencies)/year) [2] Increase in average travel speed (km/h) [3] Reduction in congestion length and pass-through time (meters and hours) [4] Reduction in road closure days due to natural disasters (days/year) Reference: Global SDG Indicator 3.6.1. Death rate due to road traffic injuries Global SDG Indicator 9.1.1. Proportion of the rural population who live within 2 km of an all-season road Global SDG Indicator 9.1.2. Passenger and freight volumes, by mode of transport Global SDG Indicator 11.2.1. Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities Reference: Japanese Government's SDGs Implementation Guiding Principles Indicator: Number of projects formulated in consideration of SDGs Reference: JICA 4th Medium-term Objective Indicator: [1] Passenger and freight volumes [2] Number of training in transportation sector [3] Number of technical cooperation or collaboration on operation and maintenance	Reduction in congestion length and pass-through time: Determined by actual measurements of peak congestion length and pass-through time.	Tanzania	The Project for Improvement of Transport Capacity in Dar es Salaam	2012
							Kenya	The Project for the Construction of Nairobi Western Ring Road	2010
							Bangladesh	Chittagong City Outer Ring Road Project (ODA Loan)	2009

4. Sustainable urban development and improvement of urban life (urban transportation)	4-2. Improvement and development of urban public transportation services	4-2-2. Introduction and improvement of bus services	Improvement of buses	Operation and effect indicators	**Basic indicators** [1] Bus transport capacity (ten thousand person*km/day)		Burundi	The Project for Rehabilitation of Public Transportation	2009
							Laos	The Project for Improvement of Transportation Capacity of Public Bus in Vientiane Capital	2010
				Operation indicators	**Basic indicators** [1] Number of operable buses [2] Number of bus services (services/day) [3] Number of bus routes [4] Total length of bus routes (km) **Supplementary indicators** [1] Public transport usage rate changed (as a result of modal shift) Reference: Global SDG Indicator 9.1.1. Proportion of the rural population who live within 2 km of an all-season road Global SDG Indicator 9.1.2. Passenger and freight volumes, by mode of transport Global SDG Indicator 11.2.1. Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities Reference: Japanese Government's SDGs Implementation Guiding Principles Indicator: Number of projects formulated in consideration of SDGs Reference: JICA 4th Medium-term Objective Indicator: [1] Passenger and freight volumes [2] Number of training in transportation sector [3] Number of technical cooperation or collaboration on operation and maintenance		Brazil	Belem Metropolitan Trunk Bus System Project (ODA Loan)	2012
							Cambodia	The Project for Improvement of Transportation Capacity of Public Bus in Phnom Penh	2016

5. Sustainable rural development and improvement of rural life (rural transportation)	5-1. Securing of comprehensive means of transport	5-1-1. Development of comprehensive means of transport	Rural roads and small bridges	Operation and effect indicators	**Basic indicators** [1] Annual average daily traffic (AADT) (vehicles/day or vehicles/24 hours) [2] Passenger and freight volumes (spot traffic in persons/year and tons/year)	Note that an increase in the maximum tonnage of vehicles allowed to pass and an increase in the pavement load-bearing capacity / axil load limits (tons) should be considered not as outcome indicators but as design conditions.	Sri Lanka	The Project for Construction of Manmunai Bridge	2011
							Indonesia	The Project for Construction of Bridges in the Province of Nusa Tenggara Barat Phase II	2009
				Effect indicators	**Basic indicators** [1] Reduction in travel time (hours) **Supplementary indicators** [1] Passenger and freight transport volumes (person*km and ton*km) [2] Reduction in transportation costs (yen (and local currencies)/year) [3] Increase in average travel speed (km/h) [4] Reduction in road closure days due to natural disasters (days/year) [5] Improvement in access to social infrastructure (schools, health centers, waste disposal facilities, etc.) (persons/day) [6] Improvement in trunk road access (number of passengers and quantity of freight transported within X hours, etc.) [7] Roadside environment improvement (number of beneficiaries in the case of new road (bypass) construction) Reference: Global SDG Indicator 9.1.1. Proportion of the rural population who live within 2 km of an all-season road Global SDG Indicator 9.1.2. Passenger and freight volumes, by mode of transport Global SDG Indicator 11.2.1. Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities Global SDG Indicator 11.a.1. Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city Reference: Japanese Government's SDGs Implementation Guiding Principles Indicator: Number of projects formulated in consideration of SDGs Reference: JICA 4th Medium-term Objective Indicator: [1] Passenger and freight volumes [2] Number of training in transportation sector [3] Number of technical cooperation or collaboration on operation and maintenance		Nepal	The Project for the Improvement of Community Access	2009
							Paraguay	Rural Roads Improvement Project (ODA Loan)	2010
							Sri Lanka	Provincial/Rural Road Development Project (Central and Sabaragamuwa Provinces) (ODA Loan)	2009

(*) Development Strategic Objective 1 (Facilitation of policy and strategy formulation) is omitted because it is not associated with any financial projects. Other irrelevant mid-term objectives and sub-objectives are also omitted.