

Statistical Annex: Infrastructure Indicators

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Introduction

This statistical annex is intended to provide an overview of the state of economic infrastructure in the main developing countries of East Asia. It contains for selected years information on stock, access, affordability, efficiency, the state of reform, and financial performance of the Energy, Water Supply and Sanitation, Telecom, and Transport sectors. In addition, the annex also presents figures on Urban issues and rough estimates of infrastructure investment. The annex is comprised of 7 tables and 165 infrastructure indicators.

Data Collection

The annex attempts to present the most relevant data needed to assess infrastructure. Because the official lenders' and donors' primary business is to provide lending and advice to low and middle income countries, the annex focuses on the main client countries in the region. The majority of this data is on the national level, the exception being Water Supply and Sanitation indicators, some of which are at the city, urban, or rural level. Virtually all of the data was collected using publicly available sources, including publications and internet websites from development institutions, sector-specific international agencies, and national statistical offices. In some cases, data was also collected through conversations with national government agencies or World Bank sector specialists and reports. This data set was collected in Washington, D.C. and in World Bank field offices.

Reliability and Comparability

Data collected from publicly available, country-specific sources are always subject to reliability and comparability issues. These inconsistencies arise from a number of factors, including differences in classifications, definitions, and coverage across countries. Given these inevitable challenges, even though all efforts were made to verify the data in this annex and note any definitional peculiarities by local World Bank staff and consultants, care must be taken when analyzing these indicators. It is impossible to completely guarantee the validity of the data presented, though the figures are current best estimates of the indicators presented. In some instances, available data deemed to be too unreliable was excluded from the annex. A complete list of indicator definitions, along with any definitional discrepancies or notes needed to correctly interpret the data by country, is available in the technical notes section. Readers are strongly encouraged to consult the technical notes when interpreting the figures presented in this annex. More detailed information, including the data set for all available years along with sources for each figure, can be found on the EAP Infrastructure Flagship website located at:

<http://lnweb18.worldbank.org/eap/eap.nsf/0/11BB5BBB5C35E03D85256EB6004EFF2E?OpenDocument>

Key

Units are provided in the tables next to the indicator name. In addition, a number of notations that are present in the tables require further explanation, including:

.. Not available

0.0 Less than half the unit shown

* See notes on the figure(s) in the technical annex

Figures in italics indicate data that are for years or periods other than those specified, or data that is comprised of figures from years other than those specified (e.g. the sum of data from other year).

Technical Notes

Energy

E1: Household with an electricity connection – Electricity access at the household level. It comprises commercially sold electricity, both on-grid and off-grid. It also includes self-generated electricity for those countries where access to electricity has been assessed through surveys by government or government agencies. The data do not capture unauthorized connections.

- Country Notes
 - i. China- Areas covered by the State Grid Corporation

E2: Households using Solid Fuels - The percentage of households using solid fuels, which include wood, straw, dung, coal, and charcoal.

- Country Notes
 - i. China- Figure is for urban households only. 95 percent of rural households use solid fuels.

E3: Spending on energy services - The average share of total household expenditure spent of energy services.

- Country Notes
 - i. Cambodia- Urban areas only; figure ranges from 12 percent to 30 percent
 - ii. Lao PDR- 1.4 percent for urban areas, 0.6 percent for rural areas
 - iii. Mongolia – All utilities, not just energy
 - iv. Thailand – Electricity only

E4: Hours of power outages from public grid - The number of hours of service interruptions in a year.

- Country Notes
 - i. Lao PDR – Vientiane area only

E5: Average residential electricity tariff - The national average residential electricity tariff.

- Country Notes
 - i. Cambodia- Phnom Penh only
 - ii. China - There is no available weighted average for the country. It has not changed much in the last five years, though it increased slightly in 2003.
 - iii. Philippines – Manila area only
 - iv. Vietnam – 1998 figure includes tax, 2003 figure does not include tax

E6: Average industrial electricity tariff - The national average industrial electricity tariff.

- Country Notes
 - i. Cambodia – Phnom Penh only
 - ii. China - There is no available weighted average for the country. The figure is for the general industry. It is much lower for the heavy industry.
 - iii. Philippines – Manila area only
 - iv. Vietnam – 1998 figure includes tax, 2003 figure does not include tax

E7: Transmission and distribution losses - Technical and non-technical losses. Includes electricity losses due to operation of the system and the delivery of electricity as well as those caused by unmetered supply. This comprises all losses due to transport and distribution of electrical energy and heat.

- Country Notes
 - i. Cambodia – Phnom Penh only
 - ii. China – This is the average for the State Grid. It does not include losses in some counties which own their own distribution companies.

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iii. Lao PDR – 1998 figure for Region 1 only, 2003 figure for entire country

E8, E14, E20, E26, E32: Power, Oil, or Gas: Has the utility (state owned enterprise) been commercialized and corporatized? - This first step of reform involves (1) the removal of the utility from the direct control that results from being a part of a ministry and (2) the creation of an independent legal corporation with the goal of behaving like a commercial company (e.g. maximizing profits).

E9, E15, E21, E27, E33: Power, Oil, or Gas: Has an 'Energy Law' been completely passed by Parliament (a law that permits the creation of a sector that could be unbundled and/or privatized in part or whole)? - This second step is crucial to allowing the sale of a state utility to the private sector. It should be noted that the question specifically asks whether the law is completely passed, since many countries have started the process of drafting and validating a new law but have not enacted it, despite the passage of a considerable period of time.

- Country Notes
 - i. Indonesia – Yes for power sector, but Law was annulled by the Constitution Court

E10, E16, E22, E28, E34: Power, Oil, or Gas: Has a regulatory body that is separate from the utility and ministry started work? - Note that the question focuses only on those cases where the regulatory body is actually in place.

- Country Notes
 - i. Indonesia – Yes for power sector, but Law was annulled by the Constitution Court

E11, E17, E23, E29, E35: Power, Oil, or Gas: Has there been any private sector investment on greenfield sites in operation or under construction? - A greenfield site refers to the construction of an entirely new plant, rather than the change in ownership of an existing plant or extension of capacity at an existing plant.

E12, E18, E24, E30, E36: Power, Oil, or Gas: Has the core state owned utility been restructured/separated? - Restructuring/separation results in separate generation, transmission, and distribution entities.

- Country Notes
 - i. Indonesia – Upstream oil and gas sector currently undergoing restructuring

E13, E19, E25, E31, E37: Power, Oil, or Gas: Has any of the existing state owned enterprises been privatized (including outright sale, voucher privatization, or joint ventures)? - This question asks whether there is *some* privatization, not whether the sector has been completely privatized. To this extent it treats as equal those cases where the state has sold a minority of shares in a company to private shareholders, and cases where the whole of a generating plant or regional distribution network have been sold outright to a single owner. Hence the answer must be seen as measuring whether the country has proved itself willing to permit private ownership of previously state-owned assets, rather than measuring the extent of private ownership.

Water supply and sanitation

W1: Access to Improved Water Services - "Improved" water supply technologies are: household connection, public standpipe, borehole, protected dug well, protected spring, and rainwater collection. Availability of at least 20 liters per person per day from a source within one kilometer of the user's dwelling. "Not improved" are: unprotected well, unprotected spring, vendor-provided water, bottled water

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(based on concerns about the quantity of supplied water, not concerns over the water quality), and tanker truck-provided water.

W2: Urban Access to Improved Water Services – See W1 above; limited to urban population only

W3: Rural Access to Improved Water Services - See W1 above; limited to rural population only

W4: Access to Improved Sanitation Services - "Improved" sanitation technologies are: connection to a public sewer, connection to septic system, pour-flush latrine, simple pit latrine, ventilated improved pit latrine. The excreta disposal system is considered adequate if it is private or shared (but not public) and if hygienically separates human excreta from human contact. "Not improved" are: service or bucket latrines (where excreta are manually removed), public latrines, latrines with an open pit.

W5: Urban Access to Improved Sanitation Services - See W4 above; limited to urban population only

W6: Rural Access to Improved Sanitation Services - See W4 above; limited to urban population only

W7: Spending on Water Services - Average share of total household expenditure spent of water services

- Country Notes
 - i. Cambodia – Urban residents only
 - ii. Indonesia – PDAM customers in Jakarta and Bandung pay between 1-2 percent of average annual income on water, while in areas not served by PDAMs surveys have found some of the poorest household spending 16-33 percent.
 - iii. Lao PDR – Public utility connection only; households without a connection spend 1.4 percent
 - ii. Mongolia – All utilities, not just WSS

W8: Average Volume of Water Used - Volume of water used from all sources

- Country Notes
 - i. Indonesia – Low income PDAM customers use about 3.8 m³/week; the same figure for high income customers is 9.6 m³/week

W9: Average water tariff from water utility - The average water tariff of water sold from main utility in the specified city

- Country Notes
 - i. Manila – The two main providers are MWCI and MWSI

W10 – W11: Average water tariff from alternative sources 2 and 3 - The average water tariff of water sold from alternative sources in the specified city

- Country Notes
 - i. Manila – Source 2 is water vendors reselling MWSS water
 - ii. Phnom Penh – Source 2 is private networks pumping untreated water from rivers, Source 3 is further treated PPWSA water sold as bottled water
 - iii. Ho Chi Minh – Source 2 is tankers, Source 3 is bottled water
 - iv. Jakarta – Source 2 is private tankers, Source 3 is bottled water from refilling stations
 - v. Ulaanbaatar – Source 2 is bottle water
 - vi. Vientiane, Savannakhet – Source 2 is 20 liter bottles, Source 3 is 1L drinking water bottles

W12: Average sanitation tariff - The average sanitation tariff from main utility in the specified city

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W13: Percentage of Utility Service Area with 24 hour Supply - Percentage of the population served by main utility in the specified city with a 24 hour supply

W14: Working Ratio - Operating cost divided by operating revenue for main utility in the specified city

W15: Staff Ratio - Number of staff divided by thousands of connections for main utility in the specified city

- Country Notes
 - i. Mongolian cities – Connections in Mongolia are bulk connections

W16: Collection Rate - Collections divided by billings for main utility in the specified city

W17: Average Revenue Per m3 Produced - Total revenue divided by total water production for main utility in the specified city

W18: Type of Sewerage Treatment - Type of treatment process for wastewater in the specified city

W19: Type of Water Supply Treatment - Type of treatment process for water supply in the specified city

W20: Water Volume Billed per Connection - Total volume of water billed divided by the total number of connections for the main utility in the specified city

- Country Notes
 - i. Beijing – Each connection serves approximately 35 people
 - ii. Ulaanbaatar, Darkhan – Each connection serves approximately 260 and 113 people, respectively

Telecoms

T1: Cellular Subscribers per 100 inhabitants - Calculated by dividing the number of cellular mobile subscribers by the population and multiplying by 100.

T2: Main Lines per 100 inhabitants - Calculated by dividing the number of main lines by the population and multiplying by 100.

T3: Total telephone subscribers per 100 inhabitants – Calculated by summing cellular subscribers per 100 inhabitants and main lines per 100 inhabitants.

T4: Internet users per 100 inhabitants - Calculated by dividing the number of internet users by the population and multiplying by 100.

T5: Telephone faults per 100 main lines - This is calculated by dividing the total number of reported faults for the year by the total number of main lines in operation and multiplying by 100. The definition of fault can vary. Some countries include faulty customer equipment. Others distinguish between reported and actual found faults. There is also sometimes a distinction between residential and business lines. Another consideration is the time period as some countries report this indicator on a monthly basis; in these cases data are converted to yearly estimates.

T6: Price of analog cellular 3 minute call - Cellular cost of 3-minute local peak call.

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T7: Analog cellular monthly subscription charge - Cellular monthly subscription refers to the recurring charge for a cellular subscriber. The charge should cover the rental of the line but not the rental of the terminal (e.g., telephone set) where the terminal equipment market is liberalized. In some cases, the rental charge includes an allowance for free or reduced rate call units. If there are different charges for different exchange areas, the largest urban area is used.

T8: Price of three minute local call - Local call refers to the cost of a peak rate 3-minute call within the same exchange area using the subscriber's own terminal (i.e. not from a public telephone).

T9: Residential monthly telephone subscription - Residential telephone monthly subscription refers to the recurring fixed charge for a residential subscriber to the Public Switched Telephone Network (PSTN). The charge should cover the rental of the line but not the rental of the terminal (e.g., telephone set) where the terminal equipment market is liberalized. In some cases, the rental charge includes an allowance for free or reduced rate call units. If there are different charges for different exchange areas, the largest urban area is used.

T10: Residential telephone connection charge - Installation refers to the one time charge involved in applying for basic telephone service for residential purposes. Where there are different charges for different exchange areas, the charge is generally for the largest urban area.

T11: Waiting list for main lines - Un-met applications for connection to the PSTN which have had to be held over owing to a lack of technical facilities (equipment, lines, etc.). This indicator refers to registered applications and thus may not be indicative of the total unmet demand.

T12: Mobile telecom revenue per subscriber - Calculated by dividing total mobile telecom revenue by the number of mobile subscribers. Mobile telecom revenue includes revenues from the provision of all types of mobile communications services such cellular, private trunked radio and radio paging. The number of mobile subscribers refers to users of portable telephones subscribing to an automatic public mobile telephone service which provides access to the PSTN using cellular technology. This can include analogue and digital cellular systems but should not include non-cellular systems. Subscribers to fixed wireless (e.g., Wireless Local Loop), public mobile data services, or radio paging services are not included.

T13: Income per fixed line - Calculated by dividing total fixed line revenue by the number of main lines in operation. The revenue includes non-refundable connection charges, line rentals and local, national long distance and international call usage charges. It typically also includes revenue from public payphones. The treatment of interconnection and settlement payments varies across countries. Most countries include receipts as revenue; some include only billed revenues (not counting any interconnection or settlement payments) while others include net revenues (receipts-payments). A main line is a telephone line connecting the subscriber's terminal equipment to the public switched network and which has a dedicated port in the telephone exchange equipment. This term is synonymous with the term "main station" or "Direct Exchange Line (DEL)" which are commonly used in telecommunication documents. It may not be the same as an "access" line or a subscriber. The definition of access line used by some countries varies. In some cases, it refers to the total installed capacity (rather than lines in service. In other cases it refers to all network access points including mobile cellular subscribers. Telephone subscribers would not generally include public telephones which are included in main lines.

T14: Telecom revenue per staff - Calculated by dividing total telecom revenue by the total number of full-time telecom staff. The revenue refers to earnings from the direct provision of facilities for providing telecommunication services to the public (i.e., not including revenues of resellers). This includes revenues

from fixed telephone, mobile communications, text (telex, telegraph and facsimile), leased circuits and data communications services. Some countries include telecommunication-related revenue such as directory advertising and equipment rental or sales. Others include value-added telecommunication services such as the provision of electronic mail or on-line services. The denominator includes full-time staff employed by telecommunication network operators in the country for the provision of public telecommunication services. Part-time staff are generally expressed in terms of full-time staff equivalents. Some countries do not distinguish between staff working for the provision of telecommunications services and those working in postal services.

Road transport

Rd1: Total road network - Kilometer length of the road network. The road network includes all roads in a given area.

- Country Notes
 - i. Philippines – National, provincial, city, municipal, and barangay roads
 - ii. Lao PDR – Includes 600 km of “special roads” that aren’t included in Rd2 through Rd5
 - iii. Mongolia – The Ministry of Road, Transport, and Tourism classifies roads according to national and regional roads only. This figure does not include rural roads.

Rd2: Motorways, highways, main, or national roads – Motorways include roads specifically designed and built for motor traffic, which does not serve properties bordering on it, and which: (a) is provided, except at special points or temporarily, with separate carriageways for the two directions of traffic, separated from each other, either by a dividing strip not intended for traffic, or exceptionally by other means; (b) does not cross at level with any road, railway or tramway track, or footpath; (c) is specially sign-posted as a motorway and is reserved for specific categories of road motor vehicles. Entry and exit lanes of motorways are included irrespectively of the location of the signposts. Highways, main, or national roads include kilometer length of A-level roads. A-level roads are roads outside urban areas and other roads outside urban areas. A-level roads are roads outside urban areas that are not motorways but belong to the top-level road network. A-level roads are characterized by a comparatively high quality standard, either non-divided roads with oncoming traffic or similar to motorways. In most countries, these roads are financed by the federal or national government.

Rd3: Secondary or regional roads - Kilometer length of roads that are the main feeder routes into, and provide the main links between highways, main or national roads.

- Country Notes
 - i. Indonesia – Provincial roads
 - ii. Philippines – Provincial roads

Rd4: Other urban roads - Length of roads within the boundaries of a built-up area, which is an area with entries and exists specially sign-posted as such.

- Country Notes
 - i. Philippines – City roads
 - ii. Mongolia – The national and regional network in Rd2 and Rd3 includes urban roads

Rd5: Other rural roads - Length of all remaining roads in a country not included in categories Rd2, Rd3, and Rd4

- Country Notes
 - i. Indonesia – Kabupaten roads

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- ii. Philippines – Municipal and barangay roads

Rd6: Total paved roads - Length of all roads that are surfaced with crushed stone (macadam) and hydrocarbon binder or bituminized agents, with concrete or with cobblestones. Aggregate of Rd7, Rd8, Rd9, Rd10

- Country Notes
 - i. Lao PDR – Includes 55 km of paved “special roads” not captured in Rd7 though Rd10

Rd7: Paved motorways, highways, main, or national roads - Length of highways, main, or national roads that are paved.

- Country Notes
 - i. Cambodia – Includes national roads 1-7

Rd8: Paved secondary or regional roads - Length of secondary or regional roads that are paved.

Rd9: Paved other urban roads - Length of other urban roads that are paved.

- Country Notes
 - i. Mongolia – A portion of these roads are national roads in urban areas and are included in Rd7

Rd10: Paved other rural roads - Length of other rural roads that are paved.

Rd11: Total roads in “good” or “fair” condition - Total length of roads that are in “good” or “regular” condition. 'Roads in good condition': Paved roads, largely free of defects, requiring only routine maintenance and perhaps surface treatment. Unpaved roads which need only routine grading and localized repairs. 'Roads in regular (or fair) condition': Paved roads with defects and weakened structural resistance. They require resurfacing of the pavement, but without the need to demolish the existing pavement. Unpaved roads, which require grading and additional new gravel, plus drainage repair in some places. Aggregate of Rd12, Rd13, Rd14, and Rd15

Rd12: Motorways, highways, main, or national roads in “good” or “fair” condition - Length of highways, main, or national roads in “good” or “fair” condition

- Country Notes
 - i. Indonesia – 75 percent of the national and provincial network in “good” or “fair” condition; assumes same percentage across both categories

Rd13: Secondary or regional roads in “good” or “fair” condition - Length of secondary or regional roads in “good” or “fair” condition

- Country Notes
 - i. Cambodia – Includes national B and provincial trafficable roads
 - ii. Indonesia – 75 percent of the national and provincial network in “good” or “fair” condition; assumes same percentage across both categories

Rd14: Other urban roads in “good” or “fair” condition - Length of other urban roads in “good” or “fair” condition

- Country Notes
 - i. Lao PDR - Includes other rural and urban roads
 - ii. Mongolia – These roads are national and regional roads in urban areas and are included in those figures (Rd12 and Rd13)

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Rd15: Other rural roads in “good” or “fair” condition - Length of other rural roads in “good” or “fair” condition

- Country Notes
 - i. Indonesia – 38 percent of the kabupaten road network is in “good” or “fair” condition

Rd16: Does an institution that advises the Minister on various matters pertaining to management [and financing] of roads, namely a National Roads Board (NRB) (or Road Council, Highways Agency Board) exist? – No definition needed

Rd17: Does the Main (National) Road Agency - responsible for the main road network - operate with a report published at least on an annual basis? – No definition needed

Rd18: Main (National) Road Agency Administration Cost - The amount of resources spent by the Main (National) Road Agency in conjunction with its own operation and service per year.

Rd19: Annual road expenditure - The total amount of expenditure on new construction and extension of existing roads, including reconstruction, renewal and major repairs of roads per year.

- Country Notes
 - i. Lao PDR – National Roads only
 - ii. Indonesia – Government expenditure only (includes national, provincial, district, and toll roads)
 - iii. Philippines – Includes national and local roads
 - iv. Thailand – Highway department only

Rd20: Capital investment - The total amount of investment in the road sector to maintain sufficient capacity as well as increase capacity per year.

- Country Notes
 - i. China – Capital investment in highway construction; does not include urban roads, which are under the jurisdiction of the Ministry of Construction
 - ii. Indonesia – Government expenditure only (includes national, provincial, district, and toll roads)
 - iii. Lao PDR – National Roads only
 - iv. Philippines – Includes national and local roads

Rd21: Maintenance expenditure - The total expenditure for keeping roads in working order per year. This includes maintenance, patching, and running repairs (work relating to roughness of carriageway’s wearing course, roadsides, etc.)

- Country Notes
 - i. Cambodia – Includes all costs other than capital investment
 - ii. Indonesia – Government expenditure only (includes national, provincial, district, and toll roads)
 - iii. Lao PDR – National Roads only
 - iv. Philippines – Includes national and local roads

Rd22: Road maintenance requirement - The amount of financing required per year to keep roads in working order. This includes maintenance, patching, and running repairs (work relating to roughness of carriageway’s wearing course, roadsides, shoulder, drains, structures, slopes, signs, etc.)

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Rd23: Total daily traffic - Total number of road motor vehicles that move on a given network per day. When a road motor vehicle is being carried on another vehicle, only the movement of the carrying vehicle (active mode) is considered.

- Country Notes
 - i. Mongolia – Calculated by multiplying the average traffic flow over 11121 km of the road network

Rd24: Daily traffic on motorways, highways, main, or national roads - Total average daily road motor vehicle traffic on main/national highways

- Country Notes
 - i. Mongolia – Calculated by multiplying the average traffic flow over 1720 km of the main national road network (UB-Darhan, UB-Zuunmod, UB-Lun, UB-Baganuur)

Rd25: Daily traffic on secondary or regional roads - Total average daily road motor vehicle traffic on secondary/regional highways

Rd26: Number of rural people living within 2 km of an all-season road - “With access” means that the distance from a village or household to an all-season road is no more than 2 km; that is that a walk of no more than 20 minutes or so is required to reach an all-season road. An “all-season road” is a road that is motorable by the prevailing means of rural transport (often a pick-up or a truck which does not have four-wheel-drive) all year round. Predictable interruptions of short duration during inclement weather (e.g. heavy rainfall) are permitted, particularly on low volume roads.

- Country Notes
 - i. Thailand – Percentage of rural villages, not number of people

Rd27: Are there clear and reasonable processes for transport operators to be legally able to deliver different forms of transport service in a competitive manner? – No definition needed

- Country Notes
 - i. Cambodia – Bidding processes are in place though real competition is doubtful

Rd28: Are road construction works and road traffic measures subject by law to a thorough appraisal (at least equivalent to the standards required for WB investment) of environmental impact and monitoring? – No definition needed

- Country Notes
 - i. Cambodia – Decree is in place though implementation is doubtful
 - ii. Indonesia – Processes in place though implementation is doubtful

Rd29: Is there a government endorsed plan to improved road safety, which is published and being actively implemented? – No definition needed

- Country Notes
 - i. China – A new road safety law has been passed on Oct. 28, 2003 and implemented in May 2004

Rd30: Number of Fatalities from Road Accidents - Number of people who were involved in any injury accident with at least one motor road vehicle in motion on a public road or private road to which the public has right of access, resulting in at least one person killed as a result of the accident and within 30 days of its occurrence. Included are: collisions between road vehicles; between road vehicles and pedestrians; between road vehicles and animals or fixed obstacles and with one road vehicle alone. Included are collisions between road and rail vehicles. Multi-vehicle collisions are counted as only one

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accident provided that any successive collisions happen at very short intervals. Injury accident excludes accidents incurring only material damage.

Rd31: Are road construction works and road traffic measures subject by law to a thorough appraisal (at least equivalent to the standards required for WB investment) of social impact and monitoring? – No definition needed

Rail transport

RI1: Total Network - Total length of railway route open for public passenger and freight services (excl. dedicated private resource railways) Aggregate of RI2, RI3

RI2: Main lines - Total length of main inter-city and other main passenger and freight routes available for public services

RI3: Secondary lines - Total length of remaining passenger and freight routes available for public services

RI4: Single lines - Route length of network consisting of single tracked lines

RI5: Traffic units – Aggregate of RI6 and RI7

RI6: Passenger travel - Total passenger travel measured in units of one passenger by one kilometer

RI7: Freight coverage - Total freight travel measured in units of one metric ton by one kilometer

RI8: Railway Diesel Fuel Consumption - Fuel used for powering trains and other rolling stock movements

RI9: Railway Electrical Energy Consumption - Electrical energy used for powering trains and other rolling stock movements

RI10: Is the main national railway company predominantly private (including private concession) rather than publicly owned? – Anything above 50 percent is considered predominant

RI11: If public, is the national railway company a corporatised commercial entity rather than a government department authority? – This step of reform include (1) the removal of the entity from the direct control that results from being a part of a ministry and (2) the creation of an independent legal corporation with the goal of behaving like a commercial company (e.g. maximizing profits).

RI12: Is there institutional vertical separation of infrastructure and operations? – No definition needed.

RI13: Are there track access rights for private train operating companies? - No definition needed.

RI14: Passenger fare revenue - No definition needed.

RI15: Freight tariff revenue - No definition needed.

RI16: Other commercial revenue – Other revenue may include interest income, scrap sales, real estate, etc

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RI17: Passenger yield - Total passenger fare revenue divided by total passenger-km

RI18: Freight yield - Total freight tariff revenue divided by total tonne-km

RI19: Is there a safety regulator independent of the railway operating department or authority? – No definition needed.

RI20: Is there a formal safety case or safety plan which is fully documented and regularly updated? - No definition needed.

RI21: Number of Passenger fatalities - No definition needed.

- Country Notes
 - i. Mongolia – Figure according to the UB Railway Authority, but this type of data is considered confidential

RI22: Number of Serious incidents – See country specific definitions below.

- Country Notes
 - i. China – Includes derailments, collisions, and incidents involving human casualties
 - ii. Mongolia – Figure according to the UB Railway Authority, but this type of data is considered confidential
 - iii. Philippines – Incidents include derailment and sideswiping incidents
 - iv. Thailand – Derailment or collision that causes large damage or human casualties
 - v. Vietnam – Vietnam Railways defines "serious rail incident" as an incident that Vietnam Railways responsible for and that it causes huge damages including human damage

RI23: Are road construction works and road traffic measures subject by law to a thorough appraisal (at least equivalent to the standards required for WB investment) of environmental impact and monitoring? - No definition needed.

RI24: Are road construction works and road traffic measures subject by law to a thorough appraisal (at least equivalent to the standards required for WB investment) of social impact and monitoring? - No definition needed.

Urban

U1: Slum Population - The definition of a slum varies widely, but they are generally neglected parts of cities where housing and living conditions are appallingly poor. Slums range from high density, squalid central city tenements to spontaneous squatter settlements without legal recognition of rights, sprawling at the edge of cities. UN Habitat's publication "Slums of the World," which defines a slum household as a group of individuals living under the same roof that lack one or more of the following conditions: insecure residential status, inadequate access to safe water, inadequate access to sanitation, poor structural quality of housing and overcrowding.

- Country Notes
 - vi. Mongolia – Share of households living in ger

U2: Urbanization Rate - Urban Population as a percentage of the total population

- Country Notes
 - vii. Cambodia – PNH municipality only

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U3: Annual Growth Rate of Urban Population - Percentage growth rate of the urban population

- Country Notes
 - viii. Cambodia – PNH municipality only

U4 – U7: Number of Urban Cities – Urban area defined by densely populated area containing the city proper; suburbs, and continuously settled commuter areas

U8: Percentage of housing stock built of materials lasting 20 years or more – Materials lasting at least 20 years include cement, brick, iron, tile, etc

- Country Notes
 - i. Cambodia – Based of roof material only
 - ii. Mongolia – Gers not included in housing stock

U9: Percentage of housing stock built and managed by public sector– No definition needed

U10: Number of months to obtain permits for land subdivisions– No definition needed

U11: Percentage of Solid Waste Collected – Municipal solid waste collected as a percentage of what is generated

- Country Note
 - iii. Cambodia – Downtown areas of Phnom Penh only
 - iv. Lao PDR – Includes urban residents only
 - v. Mongolia – Best estimate for Ulanbaatar only
 - vi. Philippines – Metro Manila only

U12: Percentage of Solid Waste Safely Disposed - Municipal solid waste safely disposed (sanitary landfill, incinerated, and/or recycled) as a percentage of what is generated

- Country Notes
 - vii. Lao PDR – Includes urban residents only
 - viii. Mongolia – Best estimate for Ulanbaatar only
 - ix. Philippines – Metro Manila only

Finance

F1 – F6: Total Expenditure on Infrastructure – Includes *available* capital and current expenditure on transportation, telecommunications, water supply and sanitation, power, and other urban (solid waste, housing, etc) from national government, local government, SOEs, and private sources. The totals presented are simply the sum of the components under F7 through F25. Thus, any figures not available from F7 through F25 are also omitted in the total. Further, the available data in F7 through F25 may be from years other than those specified (denoted by italics) or have omissions/additions themselves (denoted by an asterisk next to the figures in that section). Given these limitations, the figures presented can be interpreted as a broad estimate of the true amount spent on infrastructure.

F7 – F11: National Government Expenditure on Infrastructure - Includes capital and current expenditure on transportation, telecommunications, water supply and sanitation, power, and other urban (solid waste, housing, etc) from national government unless otherwise specified below.

- Country Notes –
 - i. Cambodia – Telecom includes actual (current) expenditures incurred by Ministry of Post and Telecommunications. No figures on capital expenditure available.

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WSS figures are capital expenditures only. Power figures are current expenditures incurred by MIME.

- ii. China – Although Telecom and WSS expenditure are not available, most expenditure in these sectors come from SOEs.
- iii. Indonesia – Transport figures include Transportation, Meteorology and Geophysical sector; WSS figures include water and irrigation; Telecom figures include Tourism, Post, and Telecom (but most expenditures are on telecom)
- iv. Lao PDR – Road expenditure only
- v. Mongolia – Calculation based on fiscal data and GDP composition by sectors; F7 includes telecom
- vi. Philippines – all figures include capital outlays only, Power figures include other energy also
- vii. Vietnam – F7 figures include investment by central and local Government and SOEs for Transport, Storage, Telecommunications. F9 figures include investment by central and local Government and SOEs for electricity, gas, and water. Investment outlays are the total expenditure to achieve the goal of investment and include expenditure on investigation for construction planning, preparation of investment, expenditure on design and construction, purchase of equipment and other

F12 – F16: Local Government Expenditure on Infrastructure - Includes capital and current expenditure on transportation, telecommunications, water supply and sanitation, power, and other urban (solid waste, housing, etc) from local government (non-central government) unless otherwise specified below.

- Country Notes
 - i. Cambodia – Available figures are actual current expenditures spent by the provincial department only.
 - ii. China – Transport includes urban transport capital construction
 - iii. Indonesia – Transport figures include Transportation, Meteorology and Geophysical sector; WSS figures include water and irrigation; Telecom figures include Tourism, Post, and Telecom (but most expenditures are on telecom)
 - iv. Mongolia – Calculation based on fiscal data and GDP composition by sectors
 - v. Philippines – all figures include capital outlays only, Power figures includes other energy also

F17 – F21: SOE Government Expenditure on Infrastructure - Includes capital and current expenditure on transportation, telecommunications, water supply and sanitation, power, and other urban (solid waste, housing, etc) from SOEs unless otherwise specified below.

- Country Notes
 - i. China – Telecom and WSS data includes capital construction only
 - ii. Lao PDR – EdL only, 1998 power figure excludes investment (includes operating costs only)
 - iii. Philippines – all figures include capital outlays only

F22 – F25: Private Investment in Infrastructure – Includes planned disbursements in assets and facilities based on financial closure year.

- Country Notes
 - i. Vietnam – F22 figures include non-state and foreign investment outlays for Transport, Storage, Telecom. F24 figures include non-state and foreign investment outlays for electricity, gas, and water. Investment outlays are the total expenditure to achieve the goal of investment and include expenditure on

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investigation for construction planning, preparation of investment, expenditure on design and construction, and purchase of equipment

F26: Total Local Government Expenditures - Total local government expenditures as a share of total public expenditures

- Country Notes
 - i. Cambodia – Current expenditure only

F27: Total Local Government Revenues - Total local government revenues as a share of total public revenues