JICA Country Analysis Paper
for
India

Japan International Cooperation Agency

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The JICA Country Analysis Paper (JCAP) is a document prepared by JICA that analyzes each country from a development perspective, and is intended to be used by development agencies in considering and implementing effective cooperation with the Country concerned. It is also intended to provide information from a development perspective for the Japanese government when formulating aid policies, such as Country Development Cooperation Policies. The actual contents of cooperation and projects to be implemented in a country will be reviewed and determined according to the policies of the Government of Japan, the size of the budget for each fiscal year, and the circumstances surrounding the project.

List of Abbreviations

Abbreviation	English Name/ Definition
ADB	Asian Development Bank
AI	Artificial Intelligence
AIIB	Asian Infrastructure Investment Bank
AIS	All India Services
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
ASEAN	Association of Southeast Asian Nations
BJP	Bharatiya Janata Party
CCS	Carbon Capture and Storage
CCUS	Carbon Capture, Utilization and Storage
CDRI	Coalition for Disaster Resilient Infrastructure
CPI	Consumer Price Index
CSO	Civil Society Organization
CWIS	Citywide Inclusive Sanitation
DEA	Department of Economic Affairs
DFC	U.S. International Development Finance Corporation
DPG	Digital Public Goods
DPI	Digital Public Infrastructure
DSA	Debt Sustainability Analysis
DX	Digital Transformation
EIB	European Investment Bank
FDI	Foreign Direct Investment
FOIP	Free and Open Indo-Pacific
FVC	Food Value Chain
GDP	Gross Domestic Product
GGGI	Global Gender Gap Index
GHG	Greenhouse Gas
GoI	The Government of India
GX	Green Transformation
HLPF	High-Level Political Forum
ICT	Information and Communication Technology
IFC	International Finance Corporation
IIT	Indian Institutes of Technology
IITH	Indian Institutes of Technology Hyderabad
IMF	International Monetary Fund

INC	Indian National Congress
JBIC	Japan Bank for International Cooperation
JCAP	JICA Country Analysis Paper
JICA	Japan International Cooperation Agency
LEAP2	Leading Asia's Private Infrastructure Fund 2
MRT	Mass Rapid Transit
NCDs	Non-Communicable Diseases
NDB	New Development Bank
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organization
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development
PLI	Production Linked Incentive Scheme
PPP	Public-Private Partnership
PPR	Pandemic Prevention, Preparedness and Response
PLC	Public Limited Company
R&D	Research and Development
RBI	Reserve Bank of India
RISE	Resilient and Inclusive Supply-Chain Enhancement
SDGs	Sustainable Development Goals
SHEP	Smallholder Horticulture Empowerment and Promotion
TOD	Transit-Oriented Development
UHC	Universal Health Coverage
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
VNR	Voluntary National Reviews
WEF	World Economic Forum
WHO	World Health Organization

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Contents

1. Analysis of Development Policies, Plans, Key Development Issues and Sectors in India

1.1 India's development policies and plans (including their relationship to the SDGs and NDC)

- <Towards becoming a developed country by 2047: Vision India @2047> India has set a goal of becoming an advanced economy by 2047, the 100th anniversary of its independence. When the central government's draft budget for FY2024 was announced after the general election for the Lower House in 2024, the nine priority areas for achieving the Vision were announced: improving agricultural productivity, employment and skills training, comprehensive human resource development and social justice, manufacturing and services, urban development, energy security, infrastructure development, innovation and R&D, and next generation reforms. It was also indicated that the comprehensive development approach would continue to focus on the needs of the poor, farmers, youth and women.
- <SDGs> GoI is actively working towards achieving the SDGs, including becoming a VNR country to announce its plans to achieve each goal at the HLPF held at the UN in July 2017. At the 2020 HLPF, India became a VNR country for the second time and announced its action plan for the next decade. With prioritization according to the characteristics of regional challenges and initiatives to measure the degree of achievement of the SDGs in the region, GoI is accelerating the promotion of the SDGs at the regional level.
- <Manufacturing industry promotion measures: Make in India[1] / Self Reliant India> Since 2014, the GoI has promoted the "Make in India" policy to encourage the development of domestic manufacturing, and has encouraged infrastructure development, deregulation, and legal and tax reforms. In addition, the "Self-Reliant India" policy announced in 2020 added an economic security perspective to the previous "Make in India" policy, such as reducing dependence on imports from certain countries. In addition to manufacturing, Prime Minister Modi has recently referred to this policy in the energy and food sectors in light of the Ukraine crisis.
- <Infrastructure development> Prime Minister Modi announced the Gati Shakthi (Speed and Power) National Master Plan in August 2021. Previously, each ministry and state government had promoted infrastructure development separately, leading to inefficiencies and delays in development. To address these issues, a national master plan has been created that integrates the plans of 16 ministries to plan and implement infrastructure connectivity projects in an integrated and coordinated manner.

[1] https://www.makeinindia.com/

- <Ties with neighboring countries: the Act East Policy> In 2014, GoI announced the "Act East Policy," a foreign policy aimed at strengthening economic partnerships with ASEAN member countries and East Asian countries. In 2018, the Act East Forum was established to expand Japan-India cooperation in the North East Region of India, the nexus between India and Southeast Asia.
- <Gender> GoI is promoting the development of a legal system and policies that emphasize gender equality. The Companies Act, 2013 requires PLC, of a certain size or larger, to appoint at least one female director. Under the Labor Act, the period of maternity leave for women was extended from 12 weeks to 26 weeks in 2017. The Modi administration has also expanded its policies to protect female infants and promote education of girls. GoI has also introduced a loan subsidy scheme to encourage female entrepreneurship.

1.2 Key development issues and sectors in India

- India's SDGs achievement score for 2024 was 64.0, ranking 109th out of 167 countries, lower than the average score of 66.5 for the Asia region. Even when looking at the 17 goals separately, none of them were achieved.
- IMF has identified the followings for continued sustainable growth: expanding quality employment and employment opportunities for women; improving productivity in each sector (e.g. agriculture); continuing to improve public infrastructure and the investment environment; and improving the health and education systems that are the foundation for all above.[2]
- The main development issues and background information in key sectors are as follows.

<Energy supply and efficiency, and support for decarbonization>

- India is the world's third largest energy consumer. Approximately 60% of its power generation capacity is supplied by fossil fuel-based thermal power generation, and it is also the world's third largest emitter of GHG. On the other hand, demand for electricity is expected to continue to grow at an average annual rate of 4-5% through 2030.
- Under these circumstances, Prime Minister Modi declared at the 26th Conference of the Parties (COP26) to the UNFCCC: United Nations Framework Convention on Climate Change in 2021 that the country would achieve zero net GHG emissions by 2070. In addition, in its NDC under the Paris Agreement, GoI has set a policy of increasing its non-fossil fuel power generation capacity to 500 GW (about 50% of

[2] India: 2023 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for India

total power generation capacity) by 2030[3] (as of 2023, about 43% of total power generation capacity, or about 179 GW, was derived from non-fossil fuels[4]) and reducing GHG emissions by 45% compared to 2005 levels[5].

- To achieve these goals, the capacity of renewable energy facilities, especially solar and wind, is expanding rapidly, and both private and state-owned companies are actively participating in the business. In addition, GoI announced a policy to support and promote the supply of green hydrogen and green ammonia in January 2023 when it approved the National Green Hydrogen Mission at a cabinet meeting. The promotion of renewable energy is also important from an energy security perspective, as it helps improve energy self-sufficiency and reduce dependence on imports of crude oil and natural gas. In order to achieve the reduction in greenhouse gas emissions set by GoI, further introduction of renewable energy sources such as solar and wind power is required.
- On the other hand, there are concerns about the stability of renewable energy supply, making it urgent to take measures such as the development of pumped storage power plants and storage batteries that can respond quickly to changes in output.
- In the area of power transmission and distribution, there are persistent problems such as high transmission and distribution losses (approximately 19.27% in 2021), frequent power outages due to sudden voltage fluctuations, and a lack of power transmission and distribution infrastructure. Therefore, the implementation of smart grids and the maintenance and upgrading of power transmission and distribution networks are necessary.

<Fostering industry and strengthening competitiveness>

- According to UN statistics, India overtook China in 2024 to become the country with the world's largest population. On the other hand, the country has not been able to create enough jobs to match the population growth, and as of 2023, the average unemployment rate across the country was 4.2%.[6] The unemployment rate among young people and highly educated people with university degrees or higher is particularly high, at 13%[7]. One of the reasons for this is the lack of progress in reallocating labor to highly productive sectors such as manufacturing,

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[3] Ministry of Petroleum & Natural Gas, Press Information Bureau (pib.gov.in)(Mar, 2022).
[4] Ministry of Power, Power Sector at a Glance ALL INDIA | Government of India | Ministry of Power (powermin.gov.in) (Jun, 2023)
[5] Central Electricity Authority, National Electricity Plan (Draft) (Sep, 2022)
[6] World Bank,. (2024). Unemployment, total (% of total labor force) (modeled ILO estimate) - India
[7] World Bank. (2024). Unemployment with advanced education (% of total labor force with advanced education) - India

services, and the IT industry,[8] and there is a need to create employment in high value-added fields. In addition, the trade deficit is widening as production and exports in the manufacturing sector remain sluggish.

- To create jobs and improve the trade deficit as mentioned above, GoI has implemented the "Make in India" program since 2014 to strengthen the manufacturing sector, and the "Startup India[9]" program since 2016 to promote start-ups. GoI has also implemented the PLI Scheme (a program that provides incentives to companies that set up new factories based on their sales growth) for various manufacturing industries, as well as large subsidies for the electronics industry, including semiconductors. On the other hand, the unemployment rate and labor productivity are still under the improvement, and further efforts are needed to promote industry and start-ups.
- GoI is working to increase the amount of Foreign Direct Investment (FDI) through legal reforms, tax reforms, and the aforementioned PLI, and the total FDI inflow, which was $45.2 billion in FY2014, has increased to $70.0 billion in FY2023.[10] On the other hand, the business environment in India, which is one of the key factors for increasing FDI, has also been identified as a problem, and in particular, companies expanding into the country have identified issues such as weak infrastructure, unclear application of laws, a complex tax collection system, and unstable public security and social conditions as issues to be considered when looking at further investments.[11]

<Developing highly skilled human resources, promoting human exchanges>

- India has produced excellent human resources such as engineers, managers and government officials from the Indian Institutes of Technology (IIT), etc., and has also achieved results in research, ranking third in the world in terms of total number of research papers. On the other hand, there are 16 IITs established after 2000, including IIT Hyderabad (IITH), which is supported by Japan, and there is a need for initiatives to further develop advanced human resources, such as improving university infrastructure, especially in the newly established IITs.
- In addition, there is a serious problem with the skill level of the workforce, with only 10% or less of the working population having received technical training. In such a situation, there will be a further shortage of highly skilled and knowledgeable industrial manpower, which is essential for the industrial upgrading and

[8] "World Economic Trends 2023 I, Chapter 2: Characteristics and Challenges of India's Development," (Economic & Social Research No. 42, October 2023, Cabinet Office).
[9] https://www.startupindia.gov.in/
[10] Invest India (2024) "FDI Entry Routes into INDIA"
[11] Japan Bank for International Cooperation (2022) "Survey Report on Overseas Business Operations by Japanese Manufacturing Companies."

manufacturing development being promoted by GoI.

- India is the world's largest exporter of migrant workers (18 million)[12], but the number of Indian workers in Japan has not grown as fast as the number of workers from other countries, despite a Memorandum of Cooperation on the Technical Intern Training Program between Japan and India signed in October 2017, which aims to enable Indian workers to acquire skills and knowledge through employment in Japan. The two countries also signed a Memorandum of Cooperation on a Basic Framework for Partnership for Proper Operation of the System Pertaining to "Specified Skilled Workers" in January 2021, which aims to cooperate on the sending and receiving of specified skilled workers from abroad, but the number of applications is currently limited to fields such as nursing, automobile maintenance, and agriculture. The background to these challenges includes the relatively low demand within Japan for countries outside Southeast Asia, the lack of awareness in India of employment opportunities in Japan and how to approach them, and the need for people to learn Japanese.
- In addition to the development of highly skilled and industrial human resources in India, the promotion of human exchanges between India and Japan related to such human resources is of great importance to both Japan and India in terms of attracting and developing human resources, improving scientific and technological capabilities, revitalizing the economy, and strengthening bilateral relations. At the Japan-India Summit in March 2023, the two countries agreed to promote Japanese language education in India and to consider increasing the number of Indian students studying in Japan. On the other hand, the number of Indian students studying in Japan as of June 2024 was 1,825[13], accounting for only 0.6% of the total number of foreign students in Japan[14]. In order to further promote human exchanges between the two countries, there is a growing need to expand the international student exchange system and promote exchange between businesses and educational institutions.

<Railway Network Development>

- Against the backdrop of rapid urbanization and population growth, demand for transportation is increasing[15], and the lack of public transportation infrastructure in

[12] WMR-Data-Snapshot-Top-Origin-and-Destination-Countries.pdf
[13] According to e-Stat Portal Site of Official Statistics of Japan, https://www.e-stat.go.jp/stat-search/files?page=1&layout=datalist&toukei=00250012&tstat=000001018034&cycle=1&year=20240&month=12040606&tclass1=000001060399&tclass2val=0
[14] Japan Student Services Organization (JASSO), International Student Enrollment Status Survey Results (studyinjapan.go.jp) (March 2022)
[15] One specific example is the rapid increase in the number of registered vehicles (Year 2001: 55 million; Year 2016: 230 million. (Source: Statistical Year Book 2018).

major cities such as Delhi and Mumbai continues to cause problems, including economic losses due to traffic congestion, deterioration of the urban environment due to air and noise pollution from vehicle use, and health problems[16]. To meet both the growing demand for transportation and the associated environmental problems, passenger railway networks are being developed, particularly in metropolitan areas. Maximizing the benefits of development includes increasing the number of passengers by expanding lines and achieving sustainable operations and maintenance. Other issues are urban planning, which includes transportation networks to and from stations, and connectivity with intercity transportation.

- The volume of railway passenger transport in India was 80.86 million in 2019, before Covid-19 outbreak, an increase of about 1.7 times from 48.33 million in 2000, and as the population continues to grow, the demand for increased transport capacity is expected to continue to increase[17]. On the other hand, the track capacity as of 2014 was only about 50% of the amount that is expected to be needed for passenger transport demand in 2032, and it is considered a challenge to develop smooth railway tracks and passenger transport networks.
- In addition, as the amount of freight transported increases each year and the amount transported by road also increases, there is a need to develop freight railways that can transport large volumes of freight in an environmentally friendly way.[18]
- To address the challenges of passenger transport in cities, GoI formulated the Metro Policy in 2017, which promotes the development of public railway networks in major cities, emphasizing safety, energy efficiency, and environmental protection, in addition to meeting the growing demand for transportation. In addition, the National Infrastructure Pipeline plan (FY2019-2025), which set out the medium- to long-term outlook for infrastructure projects, also emphasizes the development of passenger and freight transport infrastructure, including within and between cities.

<Road maintenance and logistics improvement>

- India has the second largest road network in the world of about 6.33 million km, with National Highways/ Expressways, State Highways, and others (Major District Roads, Other Districts Roads, and Village Roads).[19] Alongside railways, it is an important means of transport that supports the domestic transport sector, and is

[16] BCG, Unlocking Cities -the impact of ridesharing across India (2018)
Times of India, Soot at site: Vehicles still biggest culprits in Delhi, says IIT study (2023)
UNEP, Air Pollution Note - Data you need to know
[17] Ministry of Railways. (2023). INDIAN RAILWAYS ANNUAL REPORT & ACCOUNTS2021-22
[18] World Bank, Country Partnership Framework, 2018
[19] Ministry of Road Transport and Highways, Annual Report 2022-2023

responsible for 90% of passenger transport and 67% of freight transport[20], and there is a great need for road maintenance to support the increase in passenger and freight traffic.[21]

- In the North East Region in particular, the Special Accelerated Road Development Programme for North East (SARDP-NE)[22] promotes the development of national highways between major cities in the region as a means of promoting socio-economic development and reducing the gap with other regions, but progress is only halfway there. In addition, GoI is promoting integrated trade promotion in the North East Region and Bangladesh[23], but cross-border logistics in the region have not yet been modernized or streamlined. The South Asian region centered on India has the lowest level of intra-regional trade in the world, accounting for less than 5% of total trade, and there is an important need to improve inadequate infrastructure development and inefficient border procedures and systems.
- Traffic congestion in urban areas in India is also worsening due to population growth and increased car ownership. In addition to the decline in the functioning of the transport sector, which plays an important role in the economy, the increase in GHG emissions makes the situation undesirable from the perspective of climate change[24], and efficient road development in cities is an important issue.
- As the development of road infrastructure continues, accidents are becoming more frequent due to the deterioration of road maintenance and management (e.g. more than 4,000 accidents occur each year in India at locations where the road surface has deteriorated [25]). The construction of systems and structures for the maintenance and management of road assets, including sea link roads that are difficult to maintain and manage properly, and the improvement of related technologies are important issues.
- Furthermore, as climate change progresses, the implementation of resilient road development (e.g. road layouts, drainage systems, and slope stabilization measures that take into account the occurrence of flooding due to heavy rainfall)

[20] Ministry of Road Transport and Highways, Road Transport Year Book (2017-18&2018-19)
[21] Ministry of Road Transport and Highways, Motor Vehicles - Statistical Year Book India 2018
[22] Special Accelerated Road Development Programme for the North East (SARDP-NE)
[23] GoI promotes regional cooperation with the North East Region of India and neighboring countries through the Act East Policy and the Neighborhood First Policy. In addition, regional organizations such as the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), the South Asian Association for Regional Cooperation (SAARC), and the South Asian Association for Regional Cooperation (SAARC) are advocating and promoting improved regional connectivity, including between the North East Region of India and Bangladesh. It is hoped that this will lead to improved connectivity and the creation of an industrial value chain through organic collaboration with Bangladesh's The Bay of Bengal Industrial Growth Belt (BIG-B) initiative.
[24] Verma A, Harsha V, Subramanian GH. Evolution of Urban Transportation Policies in India: A Review and Analysis.
[25] Ministry of Road Transport and Highways, Road Accidents in India 2022

is becoming an important issue, especially in urban areas with high traffic density and in regions where natural disasters are likely to occur.

- From the perspective of improving the business environment, there continues to be a strong need for Japanese companies entering the local market to improve infrastructure and other aspects of logistics.

<Agriculture and rural development >

- In India, the agriculture sector accounts for 16%[26] of GDP and about 50%[27] of employment (World Bank data (2023)). In addition, for people living in rural areas (about 64% of total population, about 900 million people[28]), agriculture is a sector that can provide employment opportunities in rural areas and is important in terms of labor absorption.
- The number of poor people in India is up to 180 million (in 2021)[29], accounting for about 26% of the world's poor population. About 40% of these people are farmers (including households engaged in agriculture without owning land)[30], and increasing the income of farmers is an urgent issue. The background to this is that about 80% of farmers are smallholders with less than 2 ha of farmland (including 20% of landless farmers), which are not highly productive, and due to the lack of economies of scale, have little power to negotiate prices with market actors.
- In response to this situation, GoI has been working to increase farmers' incomes through measures such as the Doubling Farmers' Income program, which includes the development of irrigation infrastructure; improving productivity through measures such as improving the commercial price of agricultural products, diversifying crops into more profitable horticultural crops, improving storage and post-harvest processing efficiency to achieve better commercial prices; and building value chains through measures such as organizing and strengthening producer groups and collaboration with private agri-tech companies, though currently it is only halfway there[31].
- Agriculture is a major source of GHG emissions and rice production also makes heavy use of groundwater, and in some areas, there is a risk of groundwater

[26] Source: Agriculture, forestry, and fishing, value added (% of GDP) - India | Data (worldbank.org)
[27] Source: Employment in agriculture (% of total employment) (modeled ILO estimate) - India | Data (worldbank.org). 43% of the total employed population is engaged in agriculture in 2019 statistics.
[28] Source: Rural population - India | Data (worldbank.org)
[29] World Bank (2024), Spring 2024 Poverty and Equity Briefs -India https://www.worldbank.org/en/topic/poverty/publication/poverty-and-equity-briefs
[30] Source: Key Indicators of the Situation of Agricultural Households in India (pib.gov.in)
[31] The average monthly income of Indian farmers is approximately 10,218 rupees (as of 2022, Ministry of Agriculture, India), which is lower than the average monthly income of permanent workers across India (approximately 18,840 rupees (as of 2022, Bureau of Statistics of India)).

depletion. In addition, the effects of climate change on agriculture include changes in rainfall patterns, which make it more difficult to obtain water for agricultural use, and changes in suitable cultivation areas due to higher temperatures. For these reasons, there is a need to promote environmentally sustainable and climate-resilient agriculture.

- India ranks first in milk production, accounting for 21% of the world's total. The dairy sector also accounts for 5% of India's GDP and is the main source of income for small and marginal-sized farmers (average of about 15.5% of farm income)[32]. However, due to delays in consolidating milk production and sales and insufficient development of modern distribution networks, organizing dairy workers and building value chains are issues. GoI is actively promoting the conversion of cow dung into biogas and organic fertilizer to reduce emissions and improve sustainability in the sector.
- The fisheries sector has recorded an average annual GDP growth of over 10% since 2014, and India has the world's second largest catch (14 million tons per year) and the world's second largest production in inland fisheries and aquaculture.[33] However, the “Blue Revolution” of GoI aims to improve the productivity of the fisheries industry and increase the income of producers through improvements in storage and post-harvest processing.

<Health>

- India has various health issues that need to be addressed, such as the neonatal mortality rate (22 per thousand live births[34], UNICEF, 2019) and maternal mortality rate (145 per 100,000[35] women, UNICEF, 2017), which the country emphasizes in its public health policy (National Health Mission), both have significant room for improvement compared to the 2030 SDG indicator targets (12 and 70, respectively). In recent years, due to changes in lifestyle accompanying economic development, NCDs such as cancer, diabetes, and cardiovascular disease have also increased, accounting for more than 60% of all deaths.[36] Furthermore, there are significant healthcare disparities between urban and rural areas due to differences in access to healthcare and economic conditions, and some socially vulnerable groups, such as women, persons with disabilities, and ethnic minorities, are left out of health services. From a gender perspective, as mentioned above,

[32] Source: World Bank (2022) NSDP Phase 2 Project Information Document
[33] Source: Handbook Fisheries Statistics 19.01.2023 (Final File).cdr
[34] UNICEF UNICEF_SOWC_2021_table2.pdf
[35] UNICEF UNICEF_SOWC_2021_table3.pdf
[36] Indian Ministry of Health, 2017 (https://main.icmr.nic.in/sites/default/files/reports/2017_India_State_Level_Disease_Burden_Initiative_Full_Report.pdf)

there are problems such as high maternal mortality ratios, and a higher rate of undernutrition and anemia among women.[37] This may be due to physical factors, such as women's lack of access to hospitals, as well as socio-cultural norms that restrict women's behavior. In the future, new issues are expected to emerge, such as elderly care, which is growing as a result of increased life expectancy and declining birthrates.

- To address these issues, it is important to achieve UHC, which ensures that all people have access to the full range of quality health services they need, but the main challenges include a lack of medical infrastructure and medical personnel, and a lack of management capacity for health services.[38]
- With regard to infrastructure and human resource shortages, the number of hospital beds (0.9 per thousand; World Bank, 2019) is below the global average (2.9 beds[39]; World Bank, 2017) and the number of doctors (0.9 per thousand[40]; OECD, 2019) is also below the WHO standard of at least one doctor per thousand people (WHO, 2018). Although public medical facilities provide free services, the government's investment is low and development is not progressing, and there are many problems in terms of quality of service, so 70-80% of people use private medical facilities even if they have to pay out of pocket.
- There are also a number of issues that need to be addressed to develop a management system that allows for the effective use of medical resources, such as facilities and personnel for the development and improvement of medical equipment, proper maintenance and management, strengthening of referral systems, and efficient management of patient information in each hospital.
- In 2017, GoI launched the National Health Policy 2017, which aims to achieve a high level of health condition for all without economic hardship through preventive/promotional health measures.

<Water supply, sewage, and sanitation improvements>

- In India, approximately 91% (2011) of households in urban areas have access to drinking water on their premises through water supply systems, wells, etc., which is an improvement from 81% in 1991. On the other hand, the amount of water demand is increasing with population growth and economic development, and continuous development of water sources and water supply systems is required

[37] NFHS-5_Phase-II_0.pdf (mohfw.gov.in)

[38] In addition, India's health spending as a percentage of total government spending and out-of-pocket (OOP) health spending are below the global average, and there are issues with health financing.

[39] WB Hospital beds (per 1,000 people) | Data (worldbank.org)

[40] OECD Health resources - Doctors - OECD Data

(2023, Economic Survey)[41].

- As for the operation and maintenance of water supply systems, there are issues of a high non-revenue water ratio (38% as of 2020)[42] and low tariffs, and in some areas, facilities are deteriorating due to lack of financial resources for operation and maintenance. In addition, due to delays in the development of water supply systems, women and children continue to be forced to work fetching water in some areas, resulting in physical burden and loss of opportunities for employment and schooling.
- The development of sewage systems has also not kept pace with population growth, and while the total amount of sewage discharged in India in 2020 was estimated to be 72,368 million liters per day, the capacity of sewage treatment plants was only 31,841 million liters per day (about 43.9% of the total sewage discharged), and the amount of sewage treated was only 20,235 million liters per day (about 27.9% of the total sewage discharged)[43]. Furthermore, only about 25% of households have sewage connections or basic sanitation facilities (such as septic tanks, toilets with septic tanks, and improved ventilated toilets), and there is a high demand for the development of sewage systems, including sanitary sewage treatment facilities.
- Aiming to solve the above-mentioned problems, GoI declared AMRUT (2015), which aims to provide basic services, including access to water and sewage systems, to each household and to improve the lives of all people, including the poor and disabled, through the development of facilities. Based on this declaration, more than 4,500 projects have been implemented in 500 cities across the country, connecting 13.4 million households to water supply and 10.2 million households to sewage systems (including individual household fecal sludge treatment) by 2022. Furthermore, AMRUT 2.0 was formulated as a follow-up policy in 2021, and efforts are being made to achieve 100% coverage of water supply in all cities with a population of 100,000 or more, while sewage and sludge management projects (including recycling/reuse of treated sewage) are being implemented in 500 cities that were covered by the preceding AMRUT policy. In addition, the Jal Jeevan Mission is being implemented to provide household level connections to all rural households by 2024, and GoI is working to achieve a 100% water supply coverage across the country. As of 2024, approximately 140 million households (77%) out of the approximately 190 million rural households have been connected at the

[41] English Appendix Final PDF for Print (30-01-2023).pdf (indiabudget.gov.in
[42] Industrial Automation (2020), "A Fundamental Challenge in India's Water Utility Sector", Articles | Non Revenue Water - A Fundamental Challenge in India's Water Utility Sector (industrialautomationindia.in)
[43] *National Inventory of Sewage Treatment Plants June 2020 (cpcb.nic.in)

household level.

- In addition, there are issues with public health understanding and habits in India, with reports showing that only 36% of people wash their hands before eating (25% in rural areas)[44], and a study showing that 13-14% of deaths in children under the age of 5 are due to diarrhea, a common symptom of infectious diseases[45], indicating the need for improvements in hygiene such as infectious disease control and hygiene education.

<Improving ecosystem services>

- The ecosystems of India are rich in diversity due to their geographical characteristics. The diverse ecosystems have a wide range of functions as “ecosystem services” for local residents, such as recharging water sources, preventing sediment runoff, conserving soil, regulating floods, and providing forest resources to ensure livelihoods and means of living.
- Forests are a typical ecosystem in India, and in the National Forest Policy formulated in 1988, GoI set a target of restoring the forest cover to 33%, and has been promoting initiatives related to forest conservation and the development of a legal system, etc. As a result, the forest cover, which had decreased to 19% in 1997, recovered to approximately 22% in 2021 (Forest Survey of India, 2021). On the other hand, deforestation and degradation pressures continue to exist against the backdrop of rapid population growth and rapid urbanization. In addition, the rate of open forest that are not fully functioning is high at 43% in 2021 and improving the quality of forests is also an issue.
- India is also home to about 7-8% of the world's flora and fauna, and is home to four of the world's 36 biodiversity hotspots. Despite this rich natural environment, in recent years, due to urbanization, population growth, rapid economic development, etc., biodiversity, which is an important element in maintaining diverse ecosystems, has been declining.
- In addition, India is considered to be highly vulnerable to natural disasters in about 85% of its land area, and there are concerns that weather disasters will become more severe due to changes in rainfall caused by climate change. In this context, the demand of disaster prevention infrastructure is high, and the consideration of the use of ecosystem services is also becoming important. As the amount of carbon dioxide emissions, currently the third highest in the world, is expected to increase in line with economic growth, etc., GoI has announced a policy to reduce GHG emissions by 45% compared to 2005 levels by 2030, and the absorption of

[44] National Sample Survey Organization (2018). 76th Round.
[45] Gupta et al (2021). Handwashing barriers and influencer study in Faridabad district, India.

carbon dioxide by forests is also important as a measure to mitigate climate change. The Ministry of Environment, Forests and Climate Change has positioned the contribution to mitigation and adaptation to climate change as one of the main goals of forest and biodiversity regeneration and conservation activities, and intends to strengthen specific initiatives.

<Disaster risk reduction >

- India is prone to various natural disasters such as floods, cyclones, droughts, landslides and slope collapses, earthquakes and tsunamis, and so on, and in recent years, the impact of climate change and uncontrolled urbanization have led to a trend of increasingly severe disaster damage. Of the disasters that occur, floods are considered to cause the most damage in terms of the number of incidents, the number of deaths, and the amount of damage, and between 1995 and 2020, there were around 200 floods, resulting in around 38,000 deaths and damage of around 70.7 billion dollars.[46] The North East Region, which has been a focus of Japan's recent assistance, is also vulnerable to disasters, having experienced numerous floods, landslides, earthquakes, and cyclones between 1980 and 2022, with frequent flooding in recent years affecting more than 2 million people.[47]
- In 2005, GoI enacted the Disaster Management Act, which requires each state to formulate disaster management plans, develop the necessary organizational structures, and make budgetary provisions. GoI is also leading the Coalition for Disaster Resilient Infrastructure (CDRI)[48], an inter-governmental coalition working to build infrastructure that is resilient to disaster that are becoming more severe due to climate change. On the other hand, although the state governments are taking measures based on the Disaster Management Act, the government's actual actions tend to be limited to post-disaster responses such as rescuing victims and supporting the reconstruction of disaster-stricken areas, and the disaster prevention infrastructure for disaster risk reduction and mitigation is insufficient. Therefore, it is necessary to promote disaster risk reduction through structural measures and land use regulations against large-scale disasters that affect the national economy.

[46] Based on statistics from EM-DAT (Disaster Database).
[47] Based on statistics from EM-DAT (Disaster Database).
[48] It has 40 member countries, including Japan and 7 international organizations

2. Derivation of Key Development Issues and Sectors to be Addressed by JICA

2.1 Significance of Japan’s cooperation to India

- <Development> India’s number of people living below the poverty line are approximately 180 million (2021)[49], accounting for about 26% of the world's population living in poverty, making support to India critical to global poverty reduction and the global achievement of the SDGs. In addition, problems associated with rapid economic growth and urbanization are becoming more serious, and deep-rooted inequalities within the country are also persistent. Continued improvements are also needed to achieve the SDG goal of "Leave no one behind”. From a human security perspective, in addition to the importance of reducing poverty and achieving the SDGs mentioned above, there is also a need to improve physical infrastructure such as safe clean water, all-weather roads, and disaster risk reduction facilities. Moreover, complex crises that cannot be addressed by a single country are a serious threat to human security today, and India's response in terms of climate change mitigation and food security is considered important for the human security of other countries, as shown by the fact that India is the world's third largest emitter of GHG and the world's largest exporter of rice.
- <Economy> Based on factors such as its huge market size and abundant labor force, India has remained its position as the top country for “Promising Countries for Overseas Business over the Medium-Term” in the FY2024 JBIC Survey Report on Overseas Business Operations by Japanese Manufacturing Companies. On the other hand, the number of Japanese companies expanding into India has remained flat in recent years and began to decline in FY2021. In addition, the country still faces major challenges in attracting the foreign investment needed for further economic growth, such as its underdeveloped infrastructure. From Japan’s perspective, there is also a high need to attract human resources, such as highly skilled personnel and technical interns.
- <Foreign diplomacy and security> Japan and India have built a strong bilateral relationship and share fundamental values such as democracy and the rule of law. Development cooperation with India is an important component of the “Japan-India Special Strategic and Global Partnership”, and it also contributes to maintaining and strengthening the free and open international order based on the rule of law and strengthening relations with emerging and developing countries under the vision of the FOIP. Based on this background, the leaders of both countries have

[49] World Bank (2022), Poverty & Equity Briefs
https://www.worldbank.org/en/topic/poverty/publication/poverty-and-equity-briefs

confirmed their intention to cooperate in various fields at successive bilateral summit meetings.

- <Mutual benefit and reciprocity between Japan and India> Building on the relationship of trust with GoI and people that has been cultivated through many years of development cooperation, it is hoped that Japanese companies will expand overseas with ODA as a catalyst by deepening the co-creation of a wide range of diverse actors in both Japan and India, including industry, government and academia, local governments, and CSOs/NGOs through development cooperation. It is also hoped that this will lead to an increase in the impact and sustainability of development cooperation by promoting human exchanges, including the circular flow of human resources to Japan, knowledge accumulation through academic collaboration [50], and innovation. In addition, Japan-India cooperation with third countries can contribute to further deepening Japan-India relations while making use of Japan's knowledge as an aid donor.

2.2 Key development issues and sectors to be addressed by JICA

2.2.1 Review of cooperation under the previous Country Assistance Policy

- <Country Assistance Policy> The Japanese government's Country Assistance Policy to India (March 2016) outlines the basic policy of "cooperation toward realizing 'faster, inclusive and sustainable growth', based on the shared values between Japan and India" and identifies the strengthening of connectivity, industrial competitiveness and support for sustainable and inclusive growth as priority areas.
- <Accomplishments> To date, a total of 7.66 trillion yen (up to FY2022) (7.44 trillion yen in ODA loans, 53 billion yen in grants, 114.3 billion yen in technical cooperation, and 52.5 billion yen in Private Sector Investment Finance) has been provided as ODA. In the most recent five-year period from FY2018 to FY2022, 2.14 trillion yen in ODA loans, 6.9 billion yen in grants, 41 billion yen in technical cooperation, and 50.3 billion yen in Private Sector Investment Finance. The Department of Economic Affairs (DEA) and other organizations that receive ODA in India also highly value the careful project monitoring carried out by JICA during the implementation stage.
- <Strengthening of connectivity> Aiming to remove infrastructural bottlenecks for investment and growth, JICA has been working to develop railways (dedicated

[50] For Japanese academia, project sites in India are valuable as research targets from the perspective of rapid development, and because they are funded by Japanese ODA loans and the implementing agencies and related research institutions are cooperative (and furthermore, because JICA provides support as part of the implementation monitoring in the event of any problems), the Japan-India academic partnership that utilizes ODA loans is seen as an attractive opportunity for the research environment in developing countries.

freight railways, urban transport, etc.) and roads that would serve as transportation hubs and networks.

- <Strengthening industrial competitiveness> Aiming to strengthen the competitiveness of manufacturing and other industries, JICA implements support that contributes to the development of important infrastructure such as railways, roads and electricity, as well as the promotion of foreign direct investment in India and industrial talent development in fields such as higher education.
- <Support for sustainable and inclusive growth> Aiming to achieve sustainable economic growth and ensuring that the benefits of this growth are shared by society, JICA provides support in the fields of health, agriculture, water supply and sewage, forestry, etc.

2.2.2 Need to review the direction of cooperation based on the current understanding of challenges

- The Japanese government's Country Development Cooperation Policy for India (November 2023) sets out the basic policy of “Cooperation in Building a Strong Foundation for Inclusive and Sustainable Growth”, with a focus on strengthening industrial development through co-creation, enhancing multilayered connectivity, and promoting clean socio-economic development.
- There is a need to respond to the contemporary issues (DX, natural disaster risk, decarbonization, GX, etc.) that were not included in the previous Country Assistance Policy. It is also important to deepen cooperative relations (such as human exchange and joint cooperation with third countries) that will benefit both Japan and India, as India is rapidly expanding its economic scale, rapidly increasing its influence in the international community, and playing an important role in the construction of the international order, including the Indo-Pacific region. Although these points are also mentioned in the current Country Development Cooperation Policy, it is necessary to consider measures for further concretization of specific content and implementation methods.
- In India, the Modi government has entered its third term and continues to strive to join the ranks of developed countries by 2047. On the other hand, due to issues such as economic inequality, unemployment, and rural economic stagnation, the ruling party had loss of seats, in the 2024 general elections.
- In the Japan-India Joint Statement issued during Prime Minister Kishida's visit to India in March 2022, the two countries agreed to aim for a total investment of 5 trillion yen in India over the next five years in both the public and private sectors.
- On the other hand, the situation regarding Japan’s support schemes has also changed since the previous JCAP was formulated (FY2017). The scale of ODA loans to India has averaged over 300 billion yen per year, but considering changes

in the international situation, such as the fact that its GDP will soon exceed Japan's[51], it is necessary to reconsider the scale of support. In addition, when implementing cooperation, it is necessary to emphasize support that considers the reciprocity with Japan, responses to diplomatic issues, and projects that can be used as models for other countries, including the "Co-Creation for Common Agenda Initiative".

2.2.3 Directions for future cooperation

Overview

- <JICA's comparative advantages and schemes> In India, JICA has a track record in all of its schemes: Technical Assistance, ODA Loans and Grant Aid. There is also room to expand development impact through inter-scheme collaboration (e.g. expanding the knowledge gained from technical assistance to ODA loans). In addition, there is the possibility of leveraging the scale of ODA loans and assets based on the trust relationship JICA has built with India over many years, and using JICA projects as a catalyst to expand development impact through collaboration with private companies (e.g. IITH), and promoting DX (e.g. Delhi Metro). In addition, there are high expectations for improving the business environment, which will also contribute to promoting the expansion of Japanese companies, supporting the upstream of development in terms of policies and regulations, etc., through technical assistance and development policy loans, among others. Besides, sectors such as metro and forestry have a track history of providing a lot of support, and these are sectors that have a comparative advantage over other donors in terms of quality project formulation and project management, and there is great importance in continuing to provide support in the face of ongoing challenges (urbanization, climate change, etc.).
- <Basic Principles> The Japanese government's Country Development Cooperation Policy for India (November 2023) states that "Under enhanced collaboration with various entities, Japan aims to strategically utilize ODA, such as promoting the "Co-Creation for Common Agenda Initiative" and mobilizing private sector funds, to co-create new solutions for social challenges by leveraging the strengths of both Japan and India. This supports India's pursuit of the 17 SDG goals and the "Act East" policy, fostering a robust foundation for inclusive and sustainable growth beneficial to both Japan and India, and promoting development cooperation that contributes to inclusive and sustainable growth, supporting the interests of both countries". JICA steadily put this into practice, while also paying

[51] In terms of GDP per capita, India is at 2,730 USD (IMF, 2024), and it is still classified as a lower-middle-income country.

attention to the consistency with JICA's Global Agenda (cooperation strategies for global issues).

- <Priority Areas> The Country Development Cooperation Policy outlines the following priority areas: strengthening industrial development through co-creation, enhancing multilayered connectivity, and clean socio-economic development. Based on Japan’s experience and strengths, as well as the results and lessons learned from past development cooperation, JICA aims to focuses on (1) mutually beneficial and strategic projects that emphasize bilateral relations (such as key infrastructure and human exchange) and (2) projects that are expected to contribute to high development effectiveness, human security, and the elimination of disparities, and in which JICA’s involvement is expected to add significant value during the project formulation and implementation stage (such as agriculture, health, water, etc.).
- <Focused regions> The North East Region continue to be a focus, given its historical relationship with Japan, its strategic importance in realizing a free and open Indo-Pacific, and the progress in development and the policies of the Japanese government. While the formulation of cooperation requests is basically left to each state’s ownership, the DEA, which acts as the contact point for external assistance, also considers regional balance. Under these circumstances, while there is no single cross-sectoral region of special focus outside of the North East Region, programs and individual projects are formulated considering a comprehensive range of factors, including the maturity of the project, the significance and effectiveness of the project, consistency with the Country Development Cooperation Policy, regional balance, synergy with existing efforts, and poverty status by state and region.
- <ODA Loans> Although JICA is currently implementing multiple ODA loan projects in each sector, JICA seeks to add value and develop new ideas in ODA loan projects without not being limited by the framework of existing projects, while making use of past achievements and lessons learned. JICA focuses especially on formulating projects that can improve impact or promote innovation through co-creation, DX, etc., and projects that will benefit both Japan and India. In order to effectively respond to various development issues, JICA considers not only project loans, but also development policy loans, two-step loans, results-based loans, and so on. While the scale of approvals in each fiscal year will not necessarily be maintained at the same level as before, JICA gives priority to project formulation that considers India’s development needs, as well as the mutual benefit and reciprocity between Japan and India, and cases that can serve as models for other countries. JICA seeks an appropriate scale, based on the result of these considerations and the Japanese government’s policies at the time (including

diplomacy and the adoption of new initiatives such as the “Co-Creation for Common Agenda Initiative”, which was announced as a new tool in the 2023 Development Cooperation Charter).

- <Private Sector Investment Finance> JICA actively work on project formulation from the perspective of providing rapid, flexible, and creative value to meet the increasingly specialized and diverse development needs and expanding opportunities for collaboration between JICA and external stakeholders. The priority areas will include climate change projects (such as renewable energy development and industrial green transformation), food security, and financial inclusion, which are the target areas of each financing facility[52] established in May 2023, as well as projects that contribute to gender equality and DX promotion. In addition to collaboration with ADB (including collaboration through the use of LEAP2, which was updated in 2023), IFC, and other international development financial institutions with a history of successful projects, JICA also places importance on collaboration with bilateral development financial institutions, including G7 countries. In addition, JICA actively works to mobilize private-sector funds for JICA projects through collaboration with commercial banks and private sector.
- <Technical Assistance> JICA strategically formulates projects in sectors that benefit both Japan and India, after clearly defining the positioning of technical assistance. In the case of technical assistance under the finance and investment account, JICA considers providing assistance in areas where Japan’s strengths can be utilized, on the premise that it will support the smooth implementation of ODA loan projects through its consulting services and soft components. In addition, JICA also actively explores technical cooperation to improve policies and systems, with the aim of benefiting Japanese companies among others. From the perspective of promoting mutual benefit and reciprocity between Japan and India, JICA strategically and actively considers inviting high-level Indian government officials to Japan for training.
- <Grant Aid> Although ODA loans are the main instrument of financial cooperation in India, the possibility of providing grant aid for projects of high diplomatic significance and priority for both governments are also being considered. In addition, it is also possible to consider using ODA to provide assistance that will also contribute to the market expansion of Japanese companies, but in this case, it is desirable to proceed on the premise that there is a prospect for market expansion after the ODA assistance ends.

[52] Facility for Accelerating Climate Change Resilient and Sustainable Society (ACCESS), Facility for Supporting Agricultural Supply Chain and Food Security Enhancement (SAFE), and Facility for Accelerating Financial Inclusion (FAFI).

- <Volunteer program> To promote human exchange between Japan and India and to cultivate Japan-friendly individuals, dispatchment of volunteers to provide Japanese language education at primary, secondary and higher education institutions, vocational training schools is continued. Furthermore, JICA expands dispatchment of volunteers to sport-related fields, including university partnership projects, to promote human exchange through sport. JICA also seeks to diversify the types of positions for increasing the number of volunteers, expand the types of positions that are linked with other schemes to achieve a synergistic effect, and increase the number of volunteers dispatched to the North East Region.
- <Three-Tiered Structure> As shown in Table 2, under the current Country Development Cooperation Policy for India, 3 priority areas, 7 development issues and 11 cooperation programs are outlined (in the previous three-tiered structure of the Country Assistance Policy (Table 1), there were 3 priority areas, 8 development issues and 11 cooperation programs). The details of each cooperation program are as follows. As cross-cutting initiatives, JICA aims to increase development effectiveness by incorporating co-creation, human exchange and human resource development, sustainability, DX promotion and gender mainstreaming.

Table 1: JICA Country Analysis Paper for India: Three-Tiered Structure (March 2018)

Cooperation toward realizing "faster, more inclusive and sustainable growth" based on the shared values between Japan and India		
Priority Areas	**Development Issues**	**Development Programs**
Enhancing Connectivity	Integrated regional development	Regional corridor development program (DMIC and CBIC)
	Development of regional networks	Transport network improvement program
		Regional connectivity network program
Strengthening Industrial Competitiveness	Stable energy supply	Energy supply and efficiency program
	Urban transportation	Urban transport program
	Human resource development and promotion of human exchange	Advanced and industrial human resource development program
Supporting Sustainable and Inclusive Growth	Improvement of basic social services	Basic social services improvement program
	Economic development and livelihood improvement in rural areas	Agriculture and rural development program
	Addressing environmental issues and climate change	Forest resource management program
		Water supply, sewage, sanitation and pollution prevention program
		Disaster risk reduction program
Others		Others

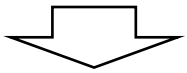

Table 2: Revised proposal

Cooperation in Building a Strong Foundation for Inclusive and Sustainable Growth			
Priority Areas	Development Issues	Development Programs	Co-creation, Human exchange and human resource development, Sustainability, DX promotion, Gender mainstreaming
Strengthening Industrial Development through Co-Creation	Stable energy supply	Energy supply and efficiency program	
	Enhancing industrial competitiveness and developing business environment	Industrial development and competitiveness enhancement program	
	Human resource development and promotion of human exchange	Advanced and industrial human resource development program	
Enhancing Multilayered Connectivity	Development of regional networks	Railway network development program	
		Road development and logistics improvement program	
Clean Socio-Economic Development	Economic development and livelihood improvement in rural areas	Agriculture and rural development program	
	Improvement of basic social services	Health and medical and welfare services program	
		Water supply, sewage, and sanitation improvement program	
	Addressing climate change issues	Ecosystem services improvement program	
		Disaster risk reduction program	
		Decarbonization enhancement program	
Others		Others	

Details of cooperation

<<Strengthening Industrial Development through Co-Creation>>

<Energy supply and efficiency> (SDG targets 7.1, 7.2, 7.3, 13.2)

- In order to ensure a stable supply of electricity, JICA works to strengthen the transmission/distribution network, improve system stability, and cooperate to improve the supply and demand of electricity.
- Specifically, JICA considers using Finance and Investment Cooperation to support the construction and operation of power generation facilities, with a focus on renewable energy projects, as well as the development and modernization of transmission/distribution networks, the introduction of automated distribution

equipment and voltage regulators.

- In addition, in order to secure energy that can be self-supplied, JICA considers to introduce a two-step loan that widely provides financing to end-users, including private sector power generation and transmission companies, through government financial institutions, and a sector loan that provides broad support for the introduction of renewable energy and the development of transmission lines in each state. In supporting power generation projects, care is taken not to crowd out the private sector.
- These initiatives are in line with the directions of two cluster strategies under the JGA for Energy and Mining: “Promoting Introduction of Renewable Energy” and the “Promoting Energy Efficiency”, and a cluster under the JGA for Climate Change: “Co-benefits of climate change”.

<Industry development and competitiveness enhancement> (SDG Targets 4.4, 5.5, 8.1, 8.2, 8.3, 8.5, 8.6, 9.3, 10.1, 10.2, 10.b)

- To create jobs and strengthen the economic base in response to population growth, JICA supports private sector development that directly contributes to strengthening the competitiveness of manufacturing and other industries. In particular, JICA supports to strengthen the competitiveness of India's SMEs and start-ups, strengthen advanced sectors such as semiconductors, improve industrial policy, develop the business and investment environment, and improve access to finance for businesses.
- In these efforts, JICA utilizes various schemes and pursue synergies through cross-program cooperation beyond individual scheme. In addition, actively engage in co-creation with Japanese and Indian companies and research institutions, intellectual exchange between Japan and India, industry-government-academia collaboration, and promotion of and collaboration between business linkages (including reverse innovation). In addition, by using Private Sector Investment Finance, JICA continuously promotes the support to local companies through direct finance and investment or through local financial institutions (commercial banks, NBFCs, etc.).
- These initiatives are in line with the directions of two cluster strategies under the JGA for Private Sector Development: “Support for Building Startup Ecosystems for Innovation Creation” and “Promotion of Investment and Industries in Asia”.

<Advanced and industrial human resource development and human exchange> (SDG Targets 4.3, 4.4, 8.6, 9.5)

- JICA promotes the development of advanced human resources and industrial human resources: Specifically, implement infrastructure development and capacity

building for research institutions, etc. In addition, JICA promotes the acceptance of Indian senior administrative officials, etc. to study in Japan, and considers measures with Japan-India industry-academia-government collaboration to increase the number of Indian students studying in Japan. Furthermore, JICA works to support promoting the acceptance of Indian human resources in Japan under the Technical Intern Training Program[53] and the Specified Skilled Worker Programs for foreign nationals.

- JICA also promotes exchanges between Japan and India in the fields of advanced human resources and industrial human resources. Specifically, JICA considers initiatives to promote cooperation between India's top universities, such as the rapidly growing IIT, and Japanese universities and industry, and to expand the "brain circulation" between Japan and India through academic exchanges and joint research, as well as to expand the scope of human exchanges between the two countries. In addition, JICA continues to promote partnerships between Japanese universities and Indian academic and industrial communities, with IITH, which has been supported by JICA for many years, as the hub. Regarding inter-university collaboration, a people- and organization-based network has already been fostered through mutual visits by faculty members and small-scale joint research, and JICA makes use of this foundation to promote the acquisition of external funding and make the collaboration sustainable. Regarding industry-academia collaboration, JICA aims to strengthen joint initiatives in advanced fields such as semiconductors while also collaborating with Japanese companies that do not have R&D functions in India. JICA also strategically utilizes training and invitation schemes in Japan to create an impact after the participants return home.
- These initiatives are in line with the direction of a cluster strategy under the JGA for Education: "Strengthening leading universities".

<<Enhancing Multilayered Connectivity>>

<Railway network development> (SDG targets 8.1, 8.2, 8.5, 8.6, 9.1, 9.4, 11.2, 11.6, 11.7, 13.2, 13.a)

- To eliminate infrastructure bottlenecks for investment and growth, JICA supports the development of railways (including MRT) that serve as transport hubs and networks, while also taking into account environmental and social considerations, with the aim of enhancing connectivity within and between major industrial cities

[53] On June 14th, 2024, the "Act on Partial Revision of the Immigration Control and Refugee Recognition Act and the Act on Proper Technical Intern Training and Protection of Technical Intern Trainees" was promulgated. Consequently, it is expected that by 2027, the Technical Intern Training Program (TITP) will be replaced by the "Employment for Skill Development (ESD)" program, which aims to develop and secure human resources..

and economic regions in India.

- In addition to the traditional construction of metro and railway lines, cooperation also involves pursuing synergies with existing projects in other sectors, strengthening operational and maintenance systems for sustainable management, human resource development for operational organizations, establishing non-fare revenue, and utilizing digital technology. To improve the urban environment, JICA also supports the consolidation of residential and commercial facilities around stations (including around the stations of the High-Speed Rail project) to reduce traffic congestion and deterioration of the urban environment caused by the increase of automobiles (Transit Oriented Development: TOD), First Mile/Last One Mile development, etc., to create added value for cooperation. Considering these perspectives, JICA actively engages in collaboration with external parties such as private sector companies.
- In December 2015, the Prime Ministers of Japan and India agreed in a joint statement to utilize Japanese high-speed railway technology and experience to develop a high-speed railway for the Mumbai-Ahmedabad section, and it is also important to make steady progress on this project.
- These initiatives are in line with the directions of a cluster strategy under the JGA for Transportation: “Urban Public Transport Promotion”, a cluster strategy under the JGA for Urban and Regional Development: “Urbanization”, and a cluster strategy under the JGA for Climate Change: “Co-benefits of climate change”.

< Road development and logistics improvement > (SDG targets 3.6, 8.1, 9.1, 9.4, 11.2, 11.5, 11.6, 11.7, 13.1, 13.3)

- JICA supports the following development as indicated in the Bharatmala Pariyojana, a national economic corridor development policy established in 2017: developing economic corridors through the continuous development of national highways, developing inter-corridor and state highways, improving corridor efficiency, developing border roads and improving international connectivity, developing coastal and port connecting roads, and promoting the improvement of logistics infrastructure.
- Specifically, JICA continues to promote the corridor development projects (national highway and bridge development) that contribute to improving connectivity both domestically and internationally, such as promoting connectivity in the North East Region, which has been endorsed by the leaders of Japan and India, and building an industrial value chain through organic cooperation with the Bay of Bengal Industrial Growth Belt (BIG-B) initiatives in Bangladesh.
- With the aim of reducing congestion in urban areas, JICA promotes the formulation of projects that contribute to the development of urban roads, such as peripheral

ring roads, and support economic growth and the development of smart cities. Also JICA considers new approaches to contributing to the development of high speed corridors, which are becoming increasingly important in future road development, and the application of PPP models.

- In addition, in response to the growing importance of road asset maintenance and management in India, JICA pursues cooperation in road asset maintenance and management, including sea link roads, which are difficult to maintain and manage appropriately.
- In implementing the above, consideration is given to road development that is resilient to climate change (e.g. disaster risk analysis at the road planning stage, establishment of disaster detection systems, design that takes into account the impact of climate change, application of slope control technologies that are appropriate for the type of disaster, etc.) and road development that contributes to low carbonization and decarbonization (e.g. development of the EV environment). In addition, JICA pursues measures to improve operational efficiency and road services through the use of DX, such as the management and use of big data and the digitization of inspections at each stage of construction and during operation.
- These initiatives are in line with the directions of two cluster strategies under the JGA for Transportation: “Building a global network” and “Road Asset Management”, and a cluster strategy under the JGA for Climate Change: “Co-benefits of climate change”.

<<Clean Socio-Economic Development>>

<Agriculture and rural development> (SDG Targets 1.1, 1.2, 1.5, 2.1, 2.2, 2.3, 2.4, 2.a, 5.5, 8.1, 8.2, 13.1)

- In order to promote balanced and inclusive growth in urban and rural areas, JICA prioritizes cooperation that focuses on increasing the income of farmers groups, etc. In addition, JICA supports the promotion of sustainable agriculture that reduces environmental impact (such as addressing excessive groundwater pumping).
- To achieve the above, the following actions are carried out: Improving productivity and adding value to agriculture, dairy and fisheries through the development of irrigation facilities and aquaculture inputs, as well as technology transfer of techniques of agriculture, dairy and aquaculture; Promoting market-oriented agriculture, focusing on the introduction of the SHEP approach to achieve highly profitable agriculture; Promoting organization of farmers; Building value chains through the development of facilities for collection, cold storage, processing, distribution and sale of products, as well as marketing support; Promoting sustainable agriculture through crop diversification to items with low environmental

impact; Implementing proper disposal of crop residues and cow dung; Providing agricultural support that takes into account the effects of climate change, etc. In addition, emphasis is placed on human resource development, etc. to implement these measures.

- In addition, in carrying out such cooperations, JICA also considers the use of digital technology, adding value through industry-government-academia collaboration, and implementing initiatives that contribute to solving social issues through gender mainstreaming and improving nutrition. In particular, with regard to collaboration with the private sector, given the trend of private sector players emerging in areas such as AgriTech as the agricultural market expands, JICA proactively mobilizes related schemes such as the Private Sector Investment Finance.
- These initiatives are in line with the directions of three cluster strategies under the JGA for Agriculture and Rural Development: “Smallholder Horticulture Empowerment and Promotion (SHEP)”, “Strengthening Food Value Chain (FVCs)”, and “Promoting the fisheries-centered Blue Economy”, and a cluster strategy under the JGA for Climate Change: “Co-benefits of climate change”.

<Health> (SDG Targets 3.1, 3.2, 3.3, 3.4, 3.8, 3.c)

- JICA continues to provide assistance that contributes to the achievement of UHC. Specifically, JICA formulates projects that include not only the provision of medical facilities and equipment, but also soft components such as medical human resource development and management at hospitals, etc., in fields where Japan has strengths or where there is mutual benefit between Japan and India. Also, JICA strengthens measures related to NCDs and nutritional improvement, for which support needs are increasing, and considers and pursues support related to PPR, education and human resource development, medical equipment development, measures for an aging society and nursing care, support for people with disabilities, prevention and diagnosis, etc., for which needs are expected in the future.
- In implementing these kind of supports, JICA considers various factors such as the use of DX, partnership with academia and private sectors, and the introduction of RBL (Results-based Loan), and will work to add value to projects. In particular, with regard to private sector partnership, JICA actively mobilizes related scheme such as the Private Sector Investment and Finance, taking into account the trend that private sector players are emerging in HealthTech and other fields as the medical field market expands. In addition, it is important to pay attention to the enhancement of appropriate health services for socially vulnerable groups, the development of facilities that take into account the safety and needs of women, and consideration for diseases specific to women.
- These initiatives are in line with the direction of a cluster strategy under the JGA

for Health: “Strengthening Diagnosis and Treatment Capacity of Core Hospitals”.

<Water supply, sewage, and sanitation improvement> (SDG Targets 3.2, 3.3, 6.1, 6.2, 6.3, 6.4, 6.a, 6.b, 13.1)

- To address the water shortages and lack of sanitary sewage treatment facilities that have arisen as a result of rapid economic growth and urbanization, JICA improves services by expanding and maintaining water and sewage facilities as basic social infrastructure. In doing so, JICA ensures stable business operations through the expansion of the revenue base by introducing pay-per-use systems, etc., and the reduction of non-revenue water, water resource management from a gender perspective in rural areas, and the improvement of the CWIS environment. In addition, as a response to flooding and water damage, which will be discussed later, JICA considers the development of drainage facilities (development of drainage channels, installation of drainage pumps, development of underground rainwater storage facilities, strengthening of rivers, etc.) in conjunction with the development of water supply and sewage facilities.
- In conducting this kind of assistance, JICA aims to solve problems effectively and quickly by utilizing the technologies and DX of Japanese companies, while also focusing on facility development (pipeline expansion and renewal, energy efficiency, water meter dissemination, etc.) that contributes to service improvements and operational and management efficiency in water supply entities. For example, JICA considers the digitalization of business operations (promoting the automation of operation and maintenance management systems, etc.), the digitalization of customer management and services (meter reading, fee collection, customer information and non-performing loans management, customer service, etc.), the application of recycled water circulation technology, and support for the maintenance and management of businesses centered on small water purifiers and decentralized water supply and sanitation facilities. JICA also considers ways to improve the overall capacity and performance of the many implementing agencies by cooperating with GoI in areas such as the creation of guidelines and capacity-building initiatives, while also making use of technical cooperation and other measures.
- In addition to improving water and sewage infrastructure, JICA also carries out public health promotion and awareness activities, working to ensure that understanding and habits for improving hygiene take root.
- These initiatives are in line with the directions of two cluster strategies under the JGA for Sustainable Water Resources Management and Water Supply: “Practical Integrated Water Resources Management to Resolve Water-related Issues in the

Regions” and “Supporting the Growth of Water Utilities - Urban Water Supply－”, a cluster strategy under the JGA for Environmental Management – JICA Clean City Initiative: “Promotion of Healthy Environment through Appropriate Environmental Regulations and Pollution Control”, and a cluster strategy under the JGA for Climate Change: “Co-benefits of climate change”.

<Ecosystem services improvement> (SDG Targets 1.1, 1.2, 1.5, 5.5, 13.1, 13.2, 13.3, 14.2, 15.1, 15.2, 15.3, 15.4, 15.5, 15.8, 15.a, 15.b)

- In order to maintain and improve ecosystem services and promote measures to address climate change, JICA strengthens support for forest management and biodiversity conservation.
- Specifically, based on the results of past cooperation, implement activities such as afforestation, protecting rare species and mitigating conflicts with wildlife, conserving water and soil, and supporting activities that help improve the livelihoods of people living near forests.
- In implementing such assistance, JICA aims to increase value added by improving the efficiency of initiatives through the promotion of DX, expanding project results through cooperation with external partners such as academic institutions, and utilizing Japanese knowledge such as forest conservation techniques. In addition, use the Annual Workshop in Forestry Sector and other events held annually with the executing agencies of ODA loans for the forestry sector to expand the knowledge that has been cultivated.
- These initiatives are in line with the directions of two cluster strategy under the JGA for Climate Change: “Promoting the implementation of the Paris Agreement” and “Co-benefits of climate change,” and a cluster strategy under the JGA for Natural Environment Conservation: “Natural Environment Conservation”.

<Disaster risk reduction> (SDG Targets 1.5, 11.5, 11.b, 13.1)

- In addition to emergency response after a disaster occurs, JICA also works to prevent disasters, mitigate damage, and build back better, taking into account the effects of climate change, and implements cooperation for creating a society with high disaster resilience.
- In particular, with regard to floods, which cause the most damage in India, severely affect urban areas, JICA considers supporting the development of disaster management infrastructure that will help prevent river flooding and strengthen water drainage capacity in urban area. In doing so, JICA also considers the applicability of Japanese technologies (underground floodways, etc.). Also, JICA considers the possibility of providing non-structural support at the local government level, such as promoting land use based on disaster risk and improving disaster

management and response capabilities. With consideration of the significance of Japanese support (utilizing Japanese technology and expertise, etc.), responses to other types of disaster are also examined.

- In the North East Region, JICA provides support to strengthen the disaster mitigation and disaster prevention response capabilities of each state government, and also considers providing support for the necessary disaster prevention infrastructure development, mainly through ODA loans.
- These initiatives are in line with the directions of a cluster strategies under the JGA for Disaster Risk Reduction through Pre-disaster Investment and Build Back Better: “Realizing pre-disaster investment”, and a cluster under the JGA for Climate Change: “Co-benefits of climate change”.

<Decarbonization enhancement> (SDG Targets 7.1, 7.2, 7.3, 13.2)

- JICA engages in cooperation to promote low carbonization and decarbonization of energy systems. Specifically, JICA supports the formulation of master plans for low carbonization and decarbonization through technical cooperation projects and dispatch of experts, and also explores the feasibility of demonstration and introduction of excellent low carbon and decarbonization technologies (CCS/CCUS, use of hydrogen or ammonia, etc.), with a view to utilizing Finance and Investment Cooperation, taking into account international trends and government policies on sustainability.
- In light of the objectives of RISE[54] launched by the Government of Japan at the 2023 World Bank/IMF Annual Meetings, JICA also considers support to promote the diversification of supply chain for clean energy and energy efficiency products (such as solar PV panels and heat pumps) through Private Sector Investment Finance and a sector loan under ODA loans.
- These initiatives are in line with the directions of two cluster strategies under the JGA for Energy and Mining: “Promoting introduction of renewable energy” and “Promoting energy efficiency”, and two cluster strategies under the JGA for Climate Change: “Promote the implementation of the Paris Agreement,” and “Co-benefits of climate change.”

[54] The Partnership for Resilient and Inclusive Supply-chain Enhancement (RISE) Announced by the Ministry of Finance, Japan, October 11, 2023: The launch event of the Partnership for Resilient and Inclusive Supply-chain Enhancement (RISE) (October 11, 2023) : Ministry of Finance

3. Key points for effective cooperation

<Security measures>

- Especially in infrastructure development (including the high-speed rail project) using ODA loans, JICA strengthens cross-project efforts to prevent construction accidents by establishing construction security systems, formulating hazard prevention measures and safety codes of conduct, and ensuring safety by spreading public safety awareness.

<Sustainability>

- The JICA Sustainability Policy (November 2023) states that, in addition to mitigation measures to reduce climate change, JICA implements adaptation measures to achieve societies that are resilient to climate change, with specific targets for project implementation: contributing around 1 trillion yen annually to climate change, doubling its contribution to adaptation measures by 2030 and contributing to GHG emissions reduction by 4 million tons per year by 2030.[55]
  India has the largest scale of ODA loan projects among all JICA projects, so efforts are made to formulate and implement projects that will contribute to these targets through ODA loans, etc. In addition, JICA promotes the realization of the Paris Agreement through the implementation of projects and other measures to strengthen climate change measures and decarbonization in India, the world's third largest GHG emitter.

<Partnership with Japanese companies >

- JICA promotes initiatives that contribute to the promotion of investment by Japanese companies and the expansion of business opportunities in order to promote the introduction of Japanese technology and expertise to India. More specifically, initiatives that would benefit both Japanese companies and India could be adopted, such as improving the business environment through development policy loans, and creating an environment that would encourage the expansion of products and technologies in which Japanese companies have a comparative advantage, with the aim of solving development problems in India.
- In considering such cooperation, JICA utilizes various schemes such as ODA loans, Private Sector Investment Finance, technical assistance, SDGs Business Supporting Surveys, and volunteer programs, and pursues synergies through mutual collaboration between departments within JICA that span across schemes.

<Mobilization of external funds>

- From the perspective of expanding the impact of JICA projects, it is desirable to expand the results of JICA projects by mobilizing external funds. For example, in

[55] Sustainability Report 2023
https://www.jica.go.jp/about/policy/environment/n_files/sustainability_report_2023.pdf

the case of Private Sector Investment Finance, through co-financing with private sector entities such as commercial banks, JICA can provide financing products that are beyond the reach of private funds. This is achieved by maintaining financial discipline and taking on country and project risks that the private sector alone cannot bear, and identifying and supporting projects with significant development impact. This approach has a proven track record in India.[56] In addition, it is also possible to aim for an expanded business impact through ODA loan by supporting research and development funding for start-up companies, etc., and by pursuing collaborations with these companies to incorporate their innovative technologies.

<Partnership with research institutes>

- As development issues and tools change, in cases such as climate change measures and DX, there is a need for constant improvement in the effective implementation of JICA projects. As there are limitations to what can be achieved by implementing agencies and consultants alone, it is important to obtain advice from a more expert perspective. In addition, with India's large population and large-scale ODA loan projects, it is considered highly significant from the perspective of research verification and social implementation, and the number of researchers who are showing an interest in JICA projects are increasing.
- The India side has also expressed interest in strengthening research, implementing policies in a more scientific way, and raising awareness of the importance of implementing each policy, etc. In recent ODA loan projects, research activities are often included as a component, and there is also a positive trend towards collaboration with Japanese research institutions and input into projects.
- Given this situation, in ODA loan projects, etc., JICA aims to expand the impact of projects by pursuing effective approaches to projects and conducting quantitative evaluations of project effects in collaboration with research institutions in Japan and other countries.

<ICT, Digital Technology, DX>

- India is actively promoting the use of digital technology and data throughout the country, and a system called India Stack is being built in various sectors, which includes various DPI and DPG functions to enable the government, private companies, developers, etc., to easily use data and create various services. In JICA projects, to maximize the project's effectiveness and ensure sustainability, JICA makes the most of the available DPI/DPG to utilize data, and works on project formulation, management, and follow-up, including the trial and implementation of

[56] For example, in the case of the Agriculture Sector Support Project in India (borrower: IndusInd Bank Limited) approved in March 2023, JICA achieved a coordinated loan with Citibank, a commercial bank, and reported to the OECD authorities on the mobilization of private funds equivalent to the Citibank loan amount (4.1 billion yen).

digital technology. Also, in JICA's focus areas, horizontal deployment of new DPI/DPG will be considered (in the medium term, it is also possible to expand outside of India through Japan-India collaboration). In addition, JICA also pursues DX promotion toward Executing Agency and public corporation level when formulating and implementing each project. Such cooperation shall be implemented while identifying use cases with impact (services that solve beneficiaries' issues and provide value).

- Regarding AI support, the Government of Japan is placing importance on leading international rulemaking, through the Hiroshima AI Process, etc., strengthening cooperative relationships with the Global South, and developing cooperation models, etc. GoI announced its National AI Strategy in 2018, and AI is at the core of its growth strategy, with advanced initiatives already in place. On the other hand, there are issues to be addressed in terms of improving competitiveness, ensuring safety and governance, and developing infrastructure related to AI promotion. For this reason, while keeping in mind the potential impact on other countries, JICA also pursues responses to these issues through Japan-India collaboration.

<Gender mainstreaming>

- India's WEF Gender Gap Index (GGGI) ranks 129th out of 146 countries (2024)[57], and the UNDP Human Development Index's Gender Inequality Index ranks 108th out of 166 countries (2022). Despite signs of improvement, it remains one of the countries with the largest gender gap. Of the GGGI categories, political participation is at 65th, education is at 112nd, and health and economic participation are low at 142nd.[58]
- JICA projects in India have also been working to incorporate a gender perspective into project formulation. Going forward, JICA considers further initiatives and indicator setting in line with the following when formulating and implementing projects in each sector: JICA's five priorities "Women's Economic Empowerment", "Women's Peace and Security", "Women's Education and Lifetime Health", "Gender-Equal Governance" and "Gender-Responsive Infrastructure" as well as the cluster strategies of "Promotion of Gender Smart Business (GSB)" and "Elimination of Sexual and Gender-Based Violence (SGBV)".

<Disability mainstreaming>

- GoI ratified the UN Convention on the Rights of Persons with Disabilities in 2007, and in 2016 it enacted the Rights of Persons with Disabilities Act as domestic

[57] WEF_GGGR_2024.pdf

[58] Challenges remain in women's employment and political participation, such as their share of wage earners in the non-agricultural sector (12% in 2009) and in the Central Assembly (12% in 2015). Women are also particularly disadvantaged in a competitive environment in financial inclusion, with 90% of women entrepreneurs relying on informal financial resources.

legislation. In 2012, it established the Department of Empowerment of Persons with Disabilities within the Ministry of Social Justice and Empowerment as an organization in charge of disability-related administration and is working to strengthen its policies for persons with disabilities. On the other hand, law enforcement is inadequate, and discrimination and stigmatization against persons with disabilities, as well as barriers to social participation, remain serious social problems. In particular, the situation of non-enrolment of persons with disabilities is much worse than that of Muslims and Scheduled Castes and Tribes, and the traditional social structure, such as the caste system, promotes discrimination against persons with disabilities. In addition, there are many problems such as differences in systems between local governments (lack of social services for persons with disabilities in rural areas).

- Based on the above, JICA promotes efforts to mainstream disability. This includes involving disability groups and experts from the planning stage of projects to ensure that the needs and issues of persons with disabilities are properly understood and reflected in project planning, as well as ensuring physical and information accessibility and providing reasonable accommodations necessary for persons with disabilities to participate in projects.

<Third Country Cooperation>

- As development issues become more diverse and complex, there are many problems that cannot be solved by developed countries and international organizations alone. It is important for emerging countries like India, which are still facing development challenges, but are also rapidly developing, to take a new role as supporters of development assistance. India also plays a central role in promoting intra-regional (cross-border) cooperation in South Asia. India is already supporting other developing countries through technical cooperation and concessional financing, and there are potential for expanding the development impact by Japan and India working together to provide cooperation to third countries. This will also contribute to further deepening of Japan-India relations while making use of Japan's knowledge as an aid donor.
- In light of these, at the Japan-India Foreign Ministers' Strategic Dialogue in March 2024, the two countries agreed to establish a new forum for discussions on Japan-India relations, with the aim of supporting third countries by drawing on the strengths of both countries.
- On the other hand, to make practical progress with trilateral cooperation, it will be necessary to coordinate between the three countries, so it is expected that the hurdles will be higher than in the case of normal bilateral cooperation between Japan and India. Therefore, while initially focusing on trial efforts in India's neighboring countries, JICA promotes mutual understanding and seeks to expand

the scope and deepen the framework of these efforts based on the process and results. Also, further dialogue with other donors is vital in promoting intra-regional (cross-border) cooperation in South Asia. In considering such cooperation, it is important to fully confirm the need of third countries for assistance from India.

< Co-Creation for Common Agenda Initiative>

- There are currently no projects in India that have been realized as “Co-Creation for Common Agenda Initiative”, but the country's Development Cooperation Policy (November 2023) states the strategic use of such initiative, and JICA considers its use in the future.
- GoI has strong ownership over ODA, and while it does not officially accept proposals from Japan, there are cases (such as development policy loans for investment promotion) that have been launched after being proposed by the Japanese side to state governments, etc., although it is time consuming. While being careful in our communication with GoI, JICA could also consider organizing such cases as a form of such initiative in a broad sense and promoting it.

<Development Partnership>

- In the past, the bulk of development finance for India was provided by Japanese ODA loans, WB and ADB, but in recent years, the AIIB, the NDB and the EIB, which were set up by emerging economies, have also become involved, and the situation of development partnership is changing, with even GoI, which had not been very proactive in terms of aid coordination, now allowing coordination, such as between the AIIB and the WB. On the other hand, there have been very few cases of coordinated financing for Japanese ODA loans, although there have been some cases of development policy loans.
- Regarding cofinancing of ODA loans, RBL (Results-based Loan) and development policy loans, etc., are actively considered in cases where benefits arise. In addition to cofinancing, the possibility of sharing knowledge, results and creating synergies should be explored in project formulation and implementation where the same region or implementing agency is being supported.
- In Private Sector Investment Finance, JICA has long been working on coordinated investment and finance with international development financial institutions (IFC, ADB, etc.) and bilateral development financial institutions (US DFC, etc.). As this approach continues to be highly significant in terms of risk sharing among development financial institutions, joint monitoring of projects and protection of claims, reaching customers and projects that JICA alone cannot access, and application of various standards, JICA continues to maintain this form of cooperation in the future, together with the application of LEAP2, which is established by ADB.

<Stocktaking of past cooperation and their extensive use>

- As mentioned above, the policy for future cooperation with India is to expand the impact of projects while incorporating new elements including responses to contemporary issues such as climate change, co-creation with other stakeholders, and mutual benefit/reciprocity between Japan and India. Some of projects implemented so far have been successful in scaling up their impact in the vast country of India, such as the development of the metro system. JICA works to systematize and organize this knowledge (successes, failures, outcomes, lessons learned, etc.) into a narrative. It is also important to take these factors fully into account and use them when considering new cooperation content. Furthermore, it is also possible to consider the use of this knowledge in the above-mentioned cooperation with third countries through its dissemination.

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