



JICA Social Bond Impact Report

October 2022

**SUSTAINABLE
DEVELOPMENT
GOALS**

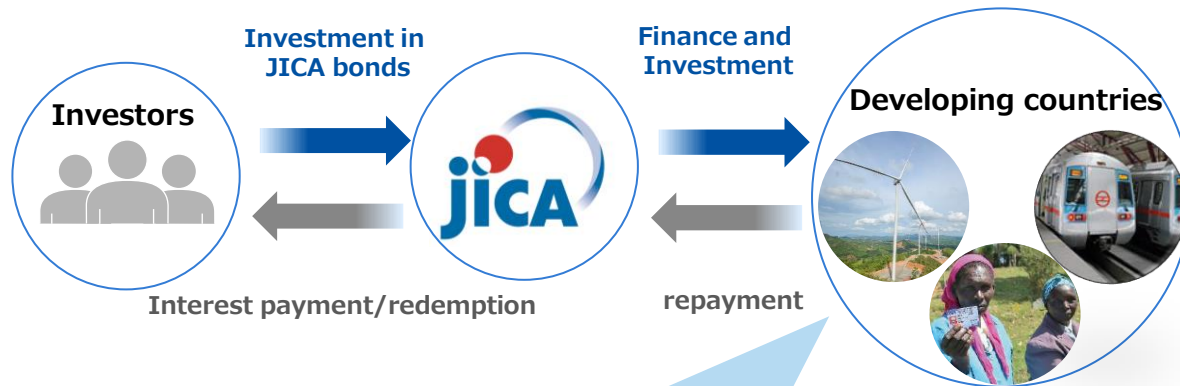
Japan International Cooperation Agency



JICA Bonds for Sustainable Development

Use of Proceeds of JICA bonds

Proceeds of JICA bonds are allocated to JICA's Finance and Investment activities and utilized for the socioeconomic development of developing countries and regions.



Proceeds of JICA Bonds are used for basic needs such as infrastructure development, health and education, climate change response, etc.

Issuance Record (as of March 2022)

Total amount of FILP^(Note 1) agency bonds 790 billion yen
Of which are Social Bonds 340 billion yen

Major impacts and achievements^(Note 2)

	Access to Safe Water	72.84 million people
	Access to Energy	20.77 million people ^(Note 3)
	Road Network	23,490 km ^(Note 4)
	Railway Passengers	1.71 billion people/year
	Airport	78.06 million people / year
	Port (cargo)	350 million tons / year
	Disaster risk prevention	3.88 million people
	Afforestation	2.85 million ha.

Note 1: Fiscal Investment and Loan Program

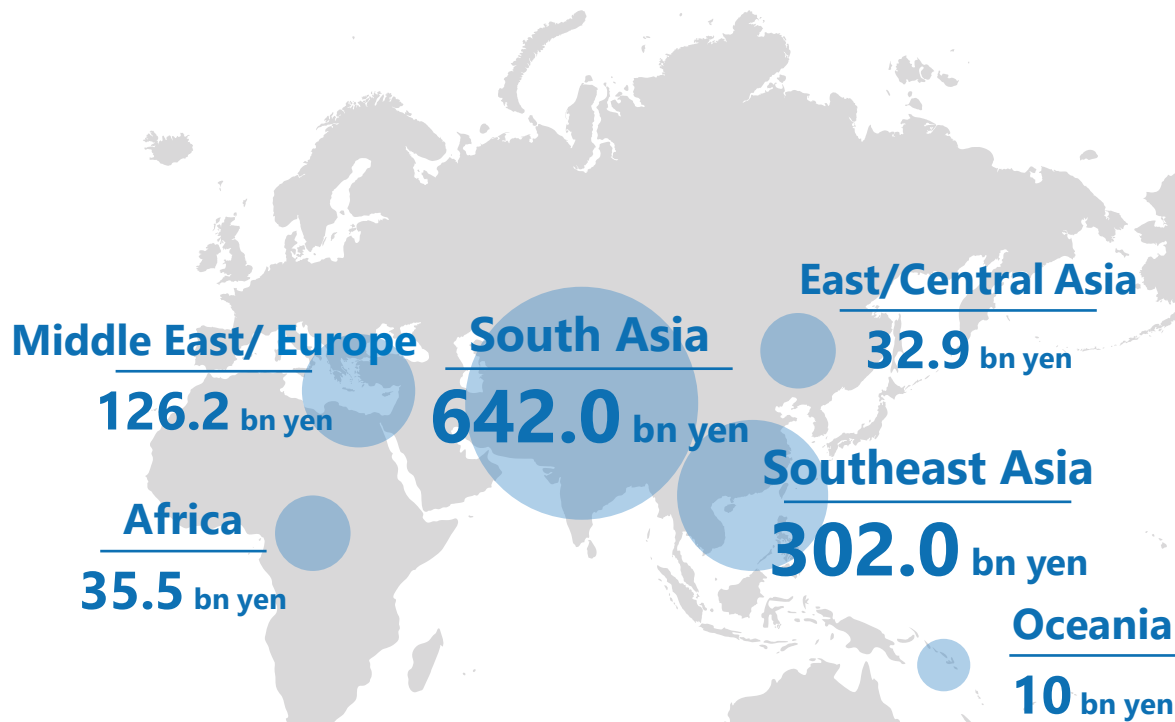
Note 2: Impacts of Finance and Investment activities that are confirmed from ex-post evaluations conducted between FY2011 and FY2020

Note 3: Calculated based on generation capacity of JICA financed projects against the world data in 2015 for energy consumption and population.

Note 4: JICA financed projects added 5,373km new roads and 18,117km rehabilitated/improved existing roads.

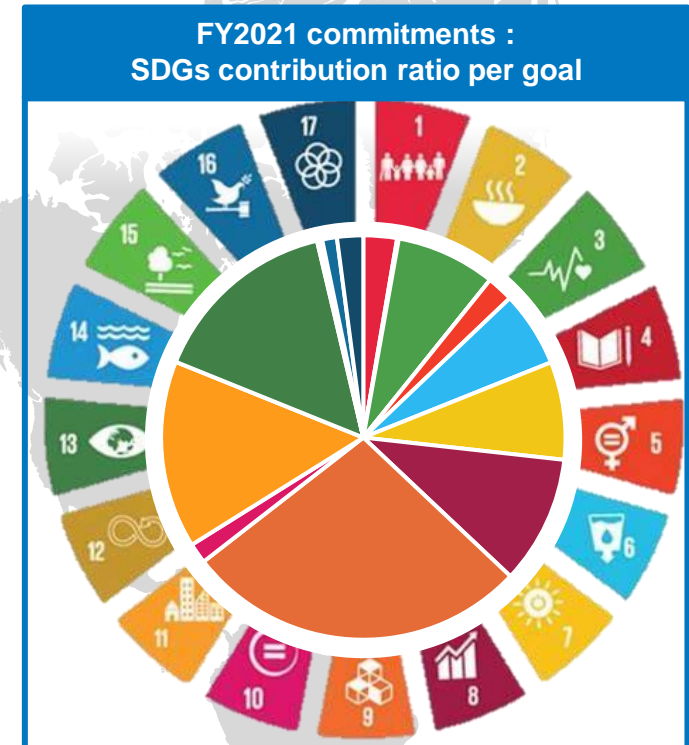
New Commitments in FY2021

- In FY2021, JICA approved 41 projects worth a total of 1,274.7 billion yen under the Finance and Investment Account in 19 developing countries, mostly in Asia.
- In terms of SDGs, many of those approved projects are categorized under Goal 8 (Economic growth), Goal 9 (Infrastructure), Goal 11 (Sustainable Cities & Communities), and Goal 13 (Climate action).



Loan Agreements... **¥1,274.7 billion**

Country/ region... **19 countries / 1 region**



Latin America
103.2 billion yen

* The total amount of Loan Agreements includes commitments per region shown on this page and commitments for others (international organizations/other regions, i.e. 23.1 billion yen).

* For each of the projects approved in FY2021, the SDGs contribution ratio per goals are calculated based on the loan amount for the goal targeted and mentioned in its ex-ante evaluation report. For projects that are expected to contribute to multiple goals, the loan amount is divided equally among the pertaining goals.

List of projects signed in FY2021 (new commitments) (1/2)

ODA Loans (28 projects)

Region	Country	Project Name	Commitment Amount (million yen)
Southeast Asia	Cambodia	Siem Reap Water Supply Expansion Project (Phase 2)	6,336
		The COVID-19 Crisis Response Emergency Support Loan (Phase 2)	20,000
	Vietnam	Second HCMC Water Environment Improvement Project (IV)	10,813
	Philippines	Metro Manila Subway Project (Phase 1) (II)	253,307
Oceania	Fiji	The COVID-19 Crisis Response Emergency Support Loan (Phase 2)	10,000
East/Central Asia	Uzbekistan	Development Policy Support Program	21,500

Region	Country	Project Name	Commitment Amount (million yen)	
South Asia	India	Dedicated Freight Corridor Project (Phase 2) (III)	116,520	
		Chennai Metro Project(Phase 2)(II)	73,000	
		Bengaluru Water Supply and Sewerage Project (Phase 3) (II)	37,068	
		North East Road Network Connectivity Improvement Project (Phase 6)	23,129	
		Uttarakhand Integrated Horticulture Development Project	6,401	
		Tamil Nadu Biodiversity Conservation and Greening Project for Climate Change Response	10,535	
		Assam Health System Strengthening Project	45,605	
		Bangladesh	Matarbari Ultra Super Critical Coal-Fired Power Project (VI)	137,252
			Dhaka Mass Rapid Transit Development Project (Line 1) (II)	115,027
			COVID-19 Crisis Response Emergency Support Loan Phase 2	40,000
	Dhaka Mass Rapid Transit Development Project (V)		18,285	
	Nepal	The Policy Loan for Economic Growth and Resilience	10,000	

* JICA bonds will be used for loans/investment projects, excluding coal-fired power generation projects.

List of projects signed in FY2021 (new commitments) (2/2)

ODA loan (continued from the previous page)

Region	Country	Project Name	Commitment Amount (million yen)
Latin America	Dominican Republic	Program to Strengthen Public Policy and Fiscal Management in Response to the Health and Economic Crisis Caused by COVID-19 in the Dominican Republic	22,100
		Energy Efficiency Program	3,888
	Paraguay	Project for Improving Efficiency of the National Electric Power System	9,294
	Honduras	COVID-19 Crisis Response Emergency Support Loan	11,011
Africa	Tanzania	Arusha-Holili Road Improvement Project	24,310
		Zanzibar Urban Water Distribution Facilities Improvement Project	10,864
Middle East/ Europe	Turkey	Rapid Support for Micro and Small Enterprises Project	33,100
		Local Authorities Environmental Improvement Project	45,000
	Iraq	Basrah Refinery Upgrading Project(III)	32,700
	Jordan	COVID-19 Crisis Response Emergency Support Loan	11,000

Private-Sector Investment Finance (13 projects)

Region	Country	Project Name
Southeast Asia	Vietnam	Quang Tri Province Onshore Wind Power Project
		Project of Promoting Women's Financial Inclusion Targeting Micro, Small and Medium-sized Enterprises
	Cambodia	Kampong Chhnang Province Solar Power Project
South Asia	India	Financial Inclusion for Women Project
		DX Start-ups Investment Project
		Promotion of Small and Medium-sized Enterprise through Impact Investment
East/Central Asia	Georgia	Support for Micro, Small, and Medium Enterprises
Latin America	Brazil	Healthcare Sector Enhancement Project
		MSME Financial Access Improvement Project
	Columbia	Micro, Small and Medium Enterprises Support Project
Africa	Kenya	Bio-recycling Project
Middle East/Europe	Iraq	Project of Development of a New Container Terminal at the Umm Qasr Port
Others (International organizations/regions)	Africa	Support for COVID-19 Responses in Africa

* JICA bonds will be used for loans/investment projects, excluding coal-fired power generation projects.

Project performance in FY2021

Commitments

(Unit: billion yen)

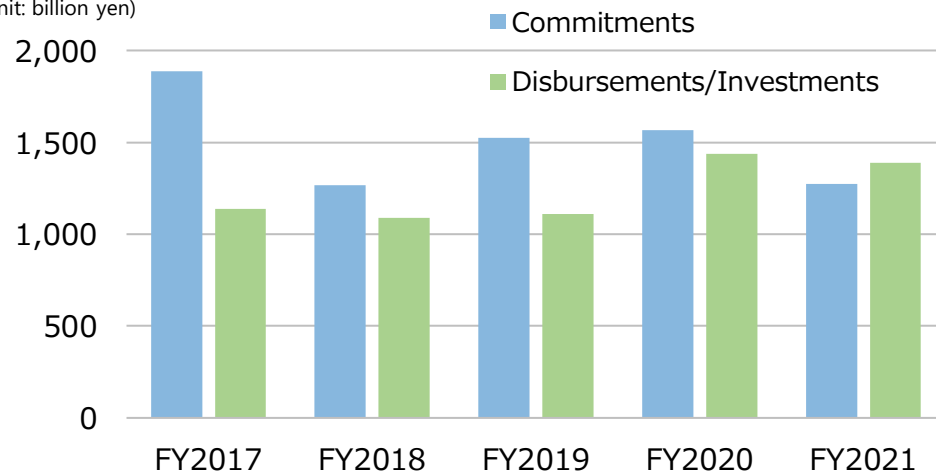
FY2017	FY2018	FY2019	FY2020	FY2021
1,888.4	1,266.1	1,523.2	1,566.6	1,274.7

Disbursements/Investments

(Unit: billion yen)

FY2017	FY2018	FY2019	FY2020	FY2021
1,138.5	1,089.4	1,107.9	1,438.8	1,388.2

(Unit: billion yen)



Commitment for Top 10 Countries in FY2021

(Unit: billion yen)

	Country name	Commitment amount
1	India	321.4
2	Bangladesh	310.6
3	Philippines	253.3
4	Turkey	78.1
5	Brazil	39.5
6	Iraq	37.1
7	Tanzania	35.2
8	Cambodia	26.8
9	Dominican Republic	26.0
10	Vietnam	21.9

Source: JICA

Track Record for FY2021 : Social Bonds

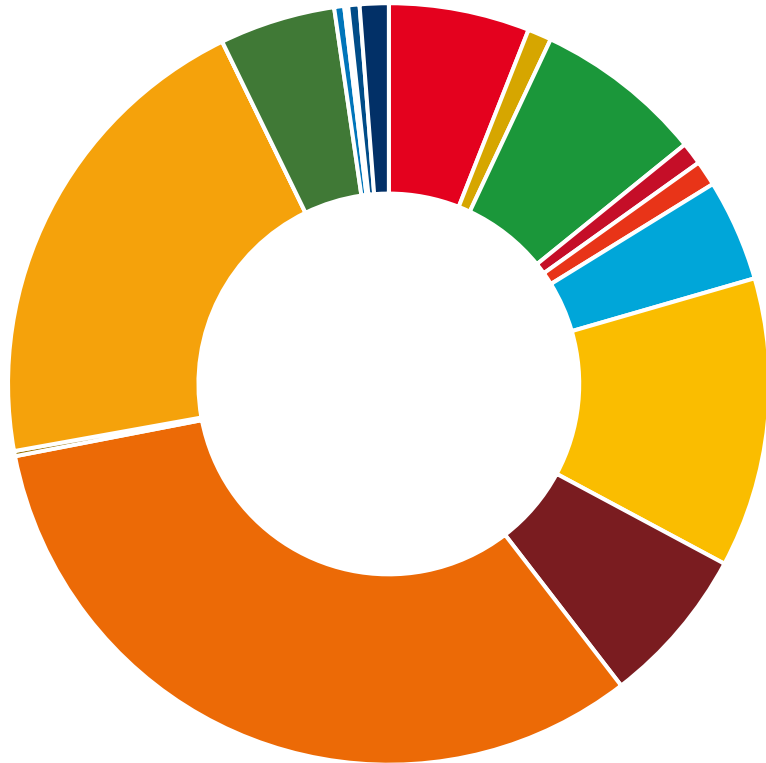
No.	Issued Amount	Date of Issuance	Term (Redemption Date)
59	10 billion yen	June 29, 2021	10 years (June 29, 2031)
60	10 billion yen	June 29, 2021	20 years (June 29, 2041)
61 (Gender Bond)	10 billion yen	September 27, 2021	10 years (September 27, 2031)
62 (Gender Bond)	10 billion yen	September 27, 2021	20 years (September 27, 2041)
63	10 billion yen	January 28, 2022	10 years (January 28, 2032)
64	7 billion yen	January 28, 2022	20 years (January 28, 2042)
65 (Retail)	3 billion yen	February 7, 2022	10 years (February 6, 2032)

**Total issuance for FY2021 Social Bonds: 60 billion yen
including Theme Bonds (Gender Bond) 20 billion yen**

Allocation Ratio per SDGs

- For JICA bonds issued in FY2021, 40 billion yen* was fully allocated to JICA's Finance and Investment projects** that contribute to the achievement of SDGs in developing regions as shown below.

* The remaining 20 billion yen issued under Gender Bonds is scheduled to be fully allocated by March 2023 (FY2022).
 **Excludes investments in coal-fired power generation projects



**Total allocation:
40 billion yen**

(Allocation period: From the date of issuance of each bond till March end 2022)

Allocations per Sustainable Development Goals (%)



(Note) Allocation is made for the disbursed/invested projects during the allocation period, and is divided according to the expected SDGs contribution of the projects based on ex-ante evaluation reports. For projects that are expected to contribute to multiple goals, the allocation is divided equally among the pertaining goals.

Examples of impacts per SDGs from allocated projects



Expected Impacts (1)



Helping rural residents improve their livelihoods through upgradation of irrigation systems

Project	Northern Nghe An Irrigation System Upgrading Project
Country / Region	Vietnam (Southeast Asia)
Loan Amount	19,122 million yen
Loan Agreement	March 22, 2013

Nghe An Province in Vietnam has one of the largest irrigation facilities in the country, covering an area of 29,147 hectares. On the other hand, water demand is increasing in the province, and strengthening water supply capacity for agricultural, domestic, and industrial usage is an urgent issue.

This project will upgrade irrigation facilities in Nghe An Province and develop a training center for strengthening the capacity to maintain and manage irrigation facilities. This will increase the irrigation coverage in the area and develop human resources, thereby improve agricultural productivity and the livelihoods of rural residents.

Expected Main Project Effects

Qualitative effects

- Poverty Reduction through increased agricultural productivity

Quantitative effects

Indicators	Baseline (Actual value in 2012)	Target (2 yrs after completion)
Irrigation coverage (ha)	19,636	27,656
Crop production (rice, long grain) (ton / year)	228,152.4	279,442.8
Crop production (peanuts) (tons / year)	27,512.0	65,354.4
Crop production (sweet potato) (tons / year)	78,699.5	111,080.7
Irrigation facility maintenance & management training (session)	189	2,651



(Left photo) Tidal gate under construction (existing floodgate behind)
(Upper right photo) The existing flood gate. Concrete and gate facilities are severely degraded
(Bottom right of photo) Branch waterway that has been almost completely repaired



Expected Impacts (2)



Strengthening maternal and child health services and health systems through provision of medical equipment and others

Project	Maternal, Neonatal and Child Health (MNCH) and Health System Improvement Project
Country / Region	Bangladesh (South Asia)
Loan Amount	17,520 million yen
Loan Agreement	December 13, 2015

In Bangladesh, overall maternal and child health indicators have improved but further efforts are needed to increase public awareness and improve service delivery. In addition, non-communicable diseases are increasing due to recent changes in diets and lifestyles.

This project will aim to improve Maternal, Neonatal and Child Health (MNCH) services and strengthen the health system of Bangladesh by implementing related activities, including procurement of medical equipment and improvement of the educational environment and training at nursing colleges. It will thereby, contribute to improving the health status of the people

Expected Main Project Effects

Qualitative effects

- Improving patient satisfaction with medical services
- Improving the quality of medical professionals and promoting the implementation of evidence-based medical care
- Improving the quality of clinical research and education

Quantitative Effects of Bangladesh.

Indicators	Baseline (Actual value in 2014)	Target (2 yrs after completion)
Birth assistance rate by skilled midwives	34.4%	50%
Pregnancy checkup rate (more than 4 times)	25%	50%
Number of examinations for each diagnostic imaging equipment at target medical institutions (persons / year)	-	gain
Patient's out of pocket payment for diagnostic imaging tests (BDT / yr)	-	Decrease

Source: Ex-ante Evaluation
https://www2.jica.go.jp/en/evaluation/pdf/2015_BD-P83_1_f.pdf



Photo by JICA

A training scene for community clinics, which are health facilities in the vicinity of residents and members of residents' groups.

Expected Impacts (3)



Restoring better education through reconstruction and seismic strengthening of schools after a devastating earthquake

Project	Emergency School Reconstruction Project
Country / Region	Nepal (South Asia)
Loan Amount	14,000 million yen
Loan Agreement	December 21, 2015

On April 25, 2015, a 7.8 magnitude earthquake (U.S. Geological Survey) occurred with an epicenter about 80 km northwest of the capital city of Kathmandu, causing immense damage. More than 31,000 classrooms and school facilities were completely destroyed or severely damaged. Students at damaged schools were studying in temporary classrooms made of bamboo and plastic sheets.

This project supports the reconstruction of schools and related facilities in districts severely affected by the earthquake. This will improve the education environment and strengthen buildings for earthquake resilience, thereby contributing to a sustainable social and economic growth for the region.

Expected Main Project Effects

Qualitative effects

- Reconstruction of educational environment
- Sustainable social and economic development of the region
- Realization of Build Back Better (BBB)

Quantitative Effects

Indicators	Baseline (Actual value in 2015)	Target (2 yrs after completion)
School buildings with anti-seismic design in the targeted district (number)	0	gain
Enrollment rate by gender in primary education	n/a*	boys: 91.7% girls: 92.5%
Enrollment rate by gender in secondary education	n/a*	boys: 37.8% girls: 39.0%

* At the time of loan signing, the school enrollment rate of boys and girls after the earthquake was yet to be measured. The figure obtained at the time investigation will be used as the reference value for baseline.



Students taking lessons in a temporary classroom made of just bamboo frames with straw mats and vinyl sheets hanging over the walls and roof. There are no glass windows or doors, and when it rains, the desks, chairs, and even the floor is flooded .

Expected Impacts (4)

7 AFFORDABLE AND CLEAN ENERGY

13 CLIMATE ACTION

17 PARTNERSHIPS FOR THE GOALS

Increasing electricity supply and addressing climate change through clean energy development (wind power generation)

Reduction of CO2 emission
143,190 tons / year

Project	Quang Tri Province Onshore Wind Power Project (Private Sector Investment Finance)
Country / Region	Vietnam (Southeast Asia)
Loan Amount	Maximum US\$ 25 million
Loan Agreement	May 21, 2021

By developing an onshore wind power generation facility in Quang Tri Province, central Vietnam, this project supports efforts to improve energy access and combat climate change for the country.

The project provides financing to a project company jointly invested by RENOVA Co., Ltd., a Japanese renewable energy power generation company, and a local Vietnamese company. The project is co-financed by the Asian Development Bank (ADB) and Export Finance Australia, an Australian government affiliate .

Expected Main Project Effects

Qualitative Effects

- Improving living environment for communities
- Regional economic revitalization, etc.

Quantitative Effects

Indicators	Baseline	Target (2 yrs after completion)
CO2 emission reduction (ton / year)	-	143,190

Source: Ex-ante Evaluation
https://www2.jica.go.jp/en/evaluation/pdf/2021_0915_1_s.pdf



Photo courtesy of RENOVA

Wind power generation facility constructed by the project borrower

Expected Impacts (5)



Increasing power supply and addressing climate change through clean energy development (Geothermal Power Generation)

Project	Guanacaste Geothermal Development Sector Loan (Borinken I Geothermal Development Project)
Country / Region	Costa Rica (Latin America)
Loan Amount	25,991 million yen
Loan Agreement	June 20, 2017

Reduction of **GHG emission**
115,404 tons / year

With the steady economic growth in recent years, Costa Rica needs to develop new power sources. Hydropower, which is a renewable energy, is their largest power source, but the amount of power generation decreases during the dry season. Geothermal power generation is considered important because it can provide a stable power supply throughout the year and is expected to reduce

greenhouse gas emissions.

This is a sub-project under Guanacaste Geothermal Development Sector Loan and is implemented after the Las Pailas 2 Project. This project will increase the supply of power using renewable energy and respond to climate change impacts, and thereby contribute to the sustainable development of Costa Rica.

Expected Main Project Effects

Qualitative Effects

- Promotion of economic growth
- Development of local economy
- Improvement of living environment

Quantitative Effects

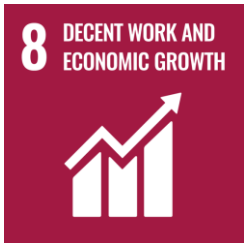
Indicators	Baseline (Actual value in 2016)	Target (2 yrs after completion)
Maximum power (NetMW)	-	52
Greenhouse gas (GHG emission reduction) (ton / year)	-	115,404

Source: Ex-ante Evaluation
https://www2.jica.go.jp/en/evaluation/pdf/2017_CR-P5-2_1_f.pdf



Guanacaste Geothermal Development (Before Use of Borinken 1 Hydrothermal Pit)

Expected Impacts (6)



Preservation of historical heritage and creation of employment opportunities through construction of the Grand Egyptian Museum

Project	The Grand Egyptian Museum Construction Project (Phase 2)
Country / Region	Egypt (Middle East)
Loan Amount	Phase 2: 49,409 million yen (Phase1: 34,838 million yen)
Loan Agreement	October 24, 2016

Tourism industry is one of the four major sources of foreign currency earnings for Egypt. In particular, effective utilization of historical and cultural heritage is identified as the most important issue in increasing attractiveness as a tourist destination. However, the Egyptian Museum of Cairo (opened in 1902) is underutilized due to aging of its buildings and facilities after more than 100 years since its opening.

This project will construct a new museum and strengthen functions related to historical and cultural heritage, such as preservation, restoration, exhibition, research and education, and thereby contribute to the advancement of tourism industry and creation of job opportunities as well as promotion of socio-economic development of the country.

Expected Main Project Effects

Qualitative Effects

- Enhance functions related to historical and cultural heritage (conservation, restoration, exhibition, research, and education)
- Advancement of tourism industry
- Job creation

Quantitative Effects

Indicators	Baseline	Target (2 yrs after completion)
Number of visitors (1,000 persons/year)	-	5,085
Admission revenue (million USD / year)	-	55.08
Number of cultural properties restored (cases, cumulative)	-	15,000
Publication on archeology, preservation and restoration (papers, cumulative)	-	20



Photo by JICA

Construction site (outer wall) of the new Grand Egyptian Museum built by this project

Source: Ex-ante Evaluation: https://www2.jica.go.jp/en/evaluation/pdf/2016_EG-P40_1_f.pdf

Expected Impacts (7)



Utilizing Japanese urban railway technology to develop public transportation in Bangkok

**Commissioning
Aug 2021**

Project	Mass Transit System Project in Bangkok (Red Line)
Country / Region	Thailand (Southeast Asia)
Loan Amount	268,081 million yen (Phase 1 : 63,018 million yen, Phase 2 : 38,203 million yen, Phase 3 : 166,860 million yen)
Loan Agreement	Phase 1: March 30, 2009, Phase 2: June 12 , 2015, Phase 3: September 30 , 2016

Catering a population of approximately 10 million, Bangkok Metropolitan area face serious rise in traffic congestion caused by heavy reliance on automobile. While traffic congestion is a bottleneck in the flow of people and products, air pollution caused by automobiles is also an issue and easing the load on the environment is required.

In this project, the Red Line (total distance of 26.4 km, including the 22.5 km section between Bang Sue and Rangsit) was developed in central Bangkok. This will help meet the increasing transportation demand, alleviate traffic congestion, and thereby contribute to the urban economic development and environmental improvement.

Expected Main Project Effects

Qualitative Effects

No setting

Click here for opening ceremony



Quantitative Effects

Indicators	Baseline	Target (2 yrs after completion)
Operating rate (%)	-	85.4
Running distance (thousand km/ day)	-	43.9
Number of running trains (Runs / day)	-	432
Passenger transport volume (1,000 passengers / km / day)	-	1,755

Source: Ex-ante Evaluation : https://www2.jica.go.jp/en/evaluation/pdf/2008_TXXXI-1_1_f.pdf



Newly introduced Japanese rolling stock

Expected Impacts (8)



Promotion of logistics and improvement of living environment through development of safe roads

Project	Ethiopia Integrated Transport Program Phase 1: Jimma-Chida and Sodo-Sawla Road Upgrading Project (Jimma-Chida Section)
Country / Region	Ethiopia (Africa)
Loan Amount	9,655 million yen
Loan Agreement	March 30, 2020 (Joint Co-finance with AfDB)

The Oromia and the Southern Nations, Nationalities and Peoples Regional States, located in southwestern Ethiopia, are the country's leading agricultural region but the gravel roads in the mountainous Jimma-Chida section deteriorate during the rainy season and transportation of fertilizers and agricultural

products is reliant on traditional means (donkeys, etc.) which leads to increased travel cost and time. Locals also face difficulties in access to medical and education facilities. By improving this section to asphalt/concrete pavement, this project aims to contribute to improved agricultural logistics and better access to social and economic facilities.

Expected Main Project Effects

Qualitative Effects

- Secure safe/smooth transportation routes
- Promote logistics and revitalize trade for agriculture
- Improve access to social and economic services
- Improve livelihood of the residents

Quantitative Effects

Indicators	Baseline (Actual value in 2016)	Target (2 yrs after completion)
① Between Jimma - Sheki, ② Between Sheki- Chida		
Average traffic volume (vehicle / day)	① 630 ② 110	① 1,330 ② 260
Jimma - Chida travel time (hours)	2.00	1.25
Passenger transport volume (1,000 persons / year)	① 1,200 ② 145	① 2,800 ② 480
Freight transportation volume (1,000 tons / year)	① 502 ② 79	① 1,040 ② 163

Source: Ex-ante Evaluation
https://www2.jica.go.jp/ja/evaluation/pdf/2019_ET-P4_1_s.pdf

Photo by JICA



(Left photo) Starting point on the Jimma section
 (Right photo) A tank truck running on a gravel in a mountainous area. Since it is not paved, the road surface deteriorates during the rainy season and is dangerous to travel.

Expected Impacts (9)



Revitalizing regional logistics and improving food security through expansion of West Africa's largest port

Project	Abidjan Port Grain Berth Construction Project
Country / Region	Cote d'Ivoire (Africa)
Loan Amount	10,869 million yen
Loan Agreement	March 30, 2017

The port of Abidjan in Côte d'Ivoire handles the largest cargo volume in West Africa and functions as a gateway that connects to inland countries in the Sahel region, such as Mali, Burkina Faso, and Niger, via international corridors and railways. However, infrastructure development has not kept up with the increase in cargo demand in the backdrop of population and economic growth in the region.

In this project, new cereal berths will be constructed at Abidjan port, and the average load of grains carried by cargos entering the port will be doubled, thereby responding to growing demand for grain logistics, revitalizing the economy and contributing to food security in the Sahel region.

Expected Main Project Effects

Qualitative effects

- Logistics and economic revitalization for Cote d'Ivoire and inland Sahel countries
- Food security

Quantitative Effects

Indicators	Baseline (Actual value in 2014)	Target (2 yrs after completion)
Grain * cargo handling volume (tons)	1,967,517	2,111,701
Maximum draft of incoming grain vessel (meters)	9-10	13
Grain cargo average load (tons)	20,000	40,000
Berth occupancy rate (%)	70.5	60

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2016_IC-P1_1_f.pdf



Abidjan port

Photo by JICA

Expected Impacts (10)

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

11 SUSTAINABLE CITIES AND COMMUNITIES

Economic growth by strengthening key airport functions in island countries

Project	Nadzab Airport Redevelopment Project
Country / Region	Papua New Guinea (Oceania)
Loan Amount	26,942 million yen
Loan Agreement	October 14, 2015

Papua New Guinea is comprised of over 600 islands, large and small, and air travel plays a vital role in transportation of people. Nadzab Airport, located on the outskirts of Lae City (the 2nd largest city after the capital, Port Moresby), which is the hub of local industry and logistics for the northern region of the country, is heavily congested during peak hours because carry-on luggage and security checks are handled manually. In addition to the lack of airport facilities such as

aeronautical lights, the deterioration of passenger terminal buildings hinder effective airport operations. This project supports the construction of new passenger terminal buildings and improvement of runway, etc. at the airport. This will improve the safety and convenience of air transportation and contribute to the promotion of economic growth in the northern region of the country.

Expected Main Project Effects

Qualitative effects

- Improving convenience & safety of air travel
- Promoting regional economic growth
- Reduction of loaded fuel for flights using Port Moresby International Airport by developing an alternative airport

Quantitative Effects

Indicators	Baseline (Actual value In 2012)	Target (3 yrs after completion)
Number of passengers * (persons / year)	328,000 (Domestic flights only)	27,656*
Cargo handling volume * (tons / year)	2,900 (Domestic flights only)	5,142*

* Total of domestic and international flights

Source: Ex-ante Evaluation
https://www2.jica.go.jp/en/evaluation/pdf/2015_PN-P11_1_f.pdf

Photo by JICA



Existing runway at Nadzab Airport. Severe pavement damage



An aging control tower



An old exit gate



(Above) Entrance gate. With no screening machine, baggage is opened and visually inspected, leading to insufficient security check.

Expected Impacts (11)



Supporting socio-economic recovery post-conflict through infrastructure development

Project	Regional Infrastructure Development Project in Emerging Regions
Country / Region	Sri Lanka (South Asia)
Loan Amount	12,957 million yen
Loan Agreement	July 7, 2017

After civil war ending in 2009, considerable economic disparities still exist between the Western Province, including Colombo, and the other 8 provinces. Efforts have been made to rehabilitate and construct basic infrastructure, mainly in urban areas and along national highways in Northern and Eastern as well as the neighboring North-Central and Uva Provinces which were heavily affected by the civil war.

However, development of rural roads, medium and small-scale irrigation systems, and potable water supply facilities are still insufficient. This project will develop basic infrastructure in underdeveloped areas where effects of conflicts remain and aims to improve the living conditions of local residents in the four provinces, and thereby contribute to the promotion of local economy, reduction of regional disparities, and poverty reduction.

Expected Main Project Effects

Qualitative Effects

- Promote local economy
- Mitigate regional disparities
- Poverty Reduction

Quantitative Effects

Indicators	Baseline (Actual value in2013)	Target (2 years after completion)
Total length of constructed rural roads (km)	-	560
Total irrigation area (ha)	14,709	17,735
Population with access to water supply (people)	-	120,846
Income per household (rupee / year) *	-	TBD

* Baseline survey will be conducted after subprojects are finalized, and baseline and target values will be updated.

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2017_SL-P116_1_f.pdf



Photo by JICA

Loan Agreement signing ceremony

Expected Impacts (12)

13 CLIMATE ACTION



Mitigating damage from natural disasters caused by climate change with flood control measures in river basin

Project	Cavite Industrial Area Flood Risk Management Project
Country / Region	Philippines (Southeast Asia)
Loan Amount	15,928 million yen
Loan Agreement	November 13, 2017

Cavite, situated next to the southern part of the Manila metropolitan area, is one of the most highly populated provinces and boasts remarkable economic growth. The lower reaches of the San Juan River, which flows through the state, have low flood downflow capabilities, causing flood damage to occur once every two years in recent years. This not only hinders people's livelihoods, but also causes economic losses to

industrial parks and main roads. In this project, flood control measures will be implemented in the San Juan River Basin by constructing diversion canals and improving drainage channels. This will reduce flood damage in the region, where industries are concentrated, and thereby contribute to the sustainable and stable economic development of the region.

Expected Main Project Effects

Qualitative effects

- Improve living environment and investment environment
- Adaptation to climate change

Quantitative Effects

Indicators	Baseline	Target (2 yrs after completion)
Maximum no. of submerged houses (San Juan River Basin, annual)	7,032	0
Maximum no. of submerged houses (Marimango River Basin, annual)	1,207	0

* San Juan or Marimango River basin is presumed to have heavy rain at a reoccurrence interval of 25 or 15 years.

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2017_PH-P265_1_f.pdf



Photo by JICA

(Left photo) Marimango drainage channel to be repaired
(Right photo) Hat-shaped steel sheet piles and H - shaped steel to be used in the project (Japanese technology)

Expected Impacts (13)



Mitigating damage from natural disasters caused by climate change with flood control measures in river basin

Project	Mejerda River Flood Control Project
Country / Region	Tunisia (Middle East)
Loan Amount	10,398 million yen
Loan Agreement	July 17, 2014

The northern part of Tunisia is experiencing frequent torrential rains in recent years, causing large-scale flood damage. Such major floods not only cause material losses to crops, infrastructure facilities and houses, but also economic and social losses such as economic stagnation and increased poverty triggered by disasters. It is one of the risk factors in achieving sustainable development. This project will improve flood control functions by civil works including river improvement for the Mejerda River Basin, and will also formulate effective operation plans

for dam management systems and evacuation / flood control systems to improve existing non-structural measures. This will strengthen the flood control function in the basin, thereby contribute to the improvement of the living environment of local residents and the development of economic activities.

Expected Main Project Effects

Qualitative Effects

- Improve living environment of local residents

Quantitative Effects

Indicators	Baseline (Actual value in 2012)	Target (2 years after completion)
Annual maximum flood inundation area (ha)	9,137	4,171
Annual maximum number of flooded houses (units)	10,975	0

* Actual values for 2012 are values for flood of 10 -year probability



Photo by JICA

(Upper left photo) Railway bridge to be raised in this project
(Upper right photo) Same railway bridge as left during flooding.



(Bottom photo) Flooded farmland. It has significant impact on local economic activities.

Expected Impacts (14)



Strengthen sustainable fisheries resource management through construction of a new marine and fisheries research vessel

Project	Oceanographic and Fishery Research Vessel Construction Project
Country / Region	Morocco (Middle East)
Loan Amount	5,371 million yen
Loan Agreement	January 16, 2017

Morocco has excellent fishing grounds along the Atlantic Ocean, and fishery is an important industry in Morocco in terms of foreign currency revenue and job creation. However, since 2000, the marine ecosystem has been greatly affected by climate change and ocean pollution, and fluctuations in annual catch has been influencing fishery workers' living. For this reason, improving the quality of oceanographic and fishery research in

order to manage their fisheries resources sustainably and appropriately has become an imminent issue. The research vessels used by the country for fishery resource surveys were provided by Japan through grant aid but have aged. By constructing a new vessel, this project will improve the country's ability to manage fisheries resources and thereby contribute to the sustainable development of the fisheries industry.

Expected Main Project Effects

Quantitative Effects

Qualitative effects

- Improvement of research capabilities related to the fisheries industry
- Prevention of depletion of marine resources,
- Early detection and control of marine pollution

Indicators	Baseline (Actual value in 2015)	Target (2 yrs after completion)
Number of survey navigation days (days / year)	-	145
Increased fish species sustainably managed: Stock assessment reports updated for octopus, squid, 5 pelagic fish (sardine, big-eyed herring, anchovy, horse mackerel, Spanish mackerel)	-	3 or more
Information to fishermen/aquaculturist: Number of marine distribution maps created for water temperature/salinity/chlorophyll etc.	-	1



Photo by JICA

Design plan for the marine and fisheries research vessel to be built in this project

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2016_MR-P34_1_f.pdf

Expected Impacts (15)



Afforestation, biodiversity conservation and improving livelihoods of local residents

Project	Uttarakhand State Forest Resource Management Project
Country / Region	India (South Asia)
Loan Amount	11,390 million yen
Loan Agreement	April 11, 2014

The state of Uttarakhand in northern India is surrounded by the Himalayas in the north, and many of the rural population depend on forest resources to sustain their livelihoods. To sustainably manage the forest resources, it is necessary to improve the livelihoods of local residents who depend on forests for their livelihoods, while collaborating with those local residents to conduct appropriate forest management. This project supports the implementation of eco-

restoration activities (forest restoration and moisture conservation, plantation, wildlife management, biodiversity conservation, etc.) and disaster management activities (erosion control and sediment disaster mitigation, restoration of forest roads, construction of evacuation shelters, etc.). This will contribute to environmental conservation and harmonized socioeconomic development of Uttarakhand.

Expected Main Project Effects

Qualitative Effects

- Environmental conservation
- Improving the living standards of residents
- Promotion of women's social participation and economic activities
- Mitigation and adaptation to climate change

Quantitative Effects

Indicators	Baseline (2013)	Target (2 years after completion)
Eco-restoration area (ha)	-	37,500
Survival rate of planted trees (%)	-	60
No. of villages targeted for eco-restoration activities	-	750
Community Organizations Targeted Livelihood Improvements	-	1,500
Participants trained (persons)	-	Forest Department staff and others: 2,060 Resident Organization Members : 13,700



Photo by JICA

Local residents dependent on forest resources

Expected Impacts (16)



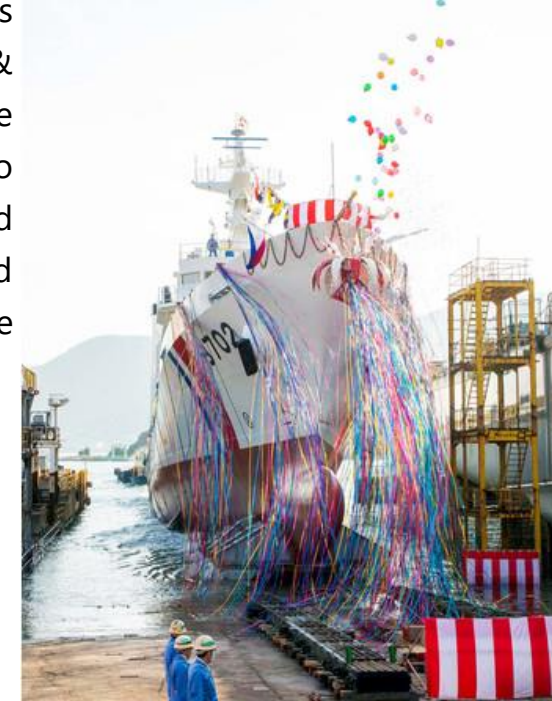
Strengthening maritime rescue and preventing maritime crimes by supporting the construction of new coast guard ships

Project	Maritime Safety Capability Improvement Project Phase II
Country / Region	Philippines (Southeast Asia)
Loan Amount	16,455 million yen
Loan Agreement	October 26, 2016

Maritime transportation in the Philippines plays a major role in the economic and social development of the Philippines. In addition to natural disasters and risks of maritime accidents, risks of smuggling, illegal fishing, illegal possession of arms, terrorism are also increasing in recent years, and strengthening maritime law enforcement has become

increasingly important. This project will support the Philippine Coast Guard in procuring ships and strengthening their maintenance & management capabilities. This will improve the ability to promptly and appropriately respond to coastal maritime incidents including search and rescue, and maritime law enforcement, and thereby contribute to the maritime safety of the country.

Photo courtesy of Mitsubishi Heavy Industries Group



Expected Main Project Effects

Qualitative Effects

- Strengthening of maritime safety system
- Amplification of Rescue and Surveillance Areas
- Improving maritime safety

Quantitative Effects

Indicators	Baseline (Actual value in 2015)	Target (2 yrs after completion)
Annual operating hours (hours /2 vessels)	0	1,200
Annual no. of scheduled patrol (times /2 vessels)	0	24

Ship launching ceremony (newly built multi-purpose vessel by this project)

Mitsubishi Shipbuilding constructed the ship and utilized its advanced shipbuilding technology.

Source: Ex-ante evaluation https://www2.jica.go.jp/ja/evaluation/pdf/2016_PH-P263_1_s.pdf

Expected Impacts (17)



Promoting livable societies for refugees and host communities	
Project	Local Authorities Infrastructure Improvement Project
Country / Region	Turkey (Europe)
Loan Amount	45,000 million yen
Loan Agreement	May 15, 2015

Since the beginning of the Syrian conflict in 2011, Turkey has been receiving a large number of Syrian refugees (approximately 1.75 million as of April 2015, Source: Turkish Government) and many are living in municipalities, outside of refugee camps. Due to the large influx of refugees, the level of services provided by local governments, such as water supply, sewerage, waste

management, and others have declined and is becoming a challenging issue. This project will improve infrastructure services of target local authorities affected by Syrians who are under temporary protection in Turkey by providing long-term finance for infrastructure development through Iller Bank, thereby contributing to improvement of living conditions of local government residents, including Syrian refugees.

Expected Main Project Effects

Qualitative effects

- Alleviating the financial burden of infrastructure development for local governments accepting Syrian refugees
- Improvement of living conditions
- Sustainable economic development

Quantitative Effects

Indicators
Water supply population (persons), Water supply amount (m ³ / day), Water supply coverage (%), Water supply per capita (1/ person/day)
Sewerage treatment population (persons), Sewerage treatment volume (m ³ / day), Sewerage coverage (%), Water quality improvement (BOD)
Waste collection rate (%) , Waste collection population (persons)

* Baseline and target values are to be set up after the establishment of each sub-project

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2015_TK-P21_1_f.pdf



Photo by JICA

Construction site of central sewage treatment plant in Gaziantep city, Gaziantep province



Contacts

Japan International Cooperation Agency Treasury, Finance and Accounting Department

Address 5-25 Nibancho, Chiyoda-ku, Tokyo 102-8012

TEL +81(3)-5226-9279 **FAX** +81(3)-5226-6383

URLs <https://www.jica.go.jp/english/ir/index.html>

Disclaimer

This material has been prepared solely for the purpose of providing information about JICA and is not intended to solicit subscriptions to or encourage purchases of bonds. In addition, information related to domestic organizations other than JICA, international organizations, statistical figures, etc. described in this document is quoted from public information, etc., and does not guarantee the accuracy of the information.

Investors are advised to consider bond purchases only after a careful study of the details of the bond issue as described in the relevant explanatory documents provided by the issuer and in any other relevant and current materials they can obtain. A decision to purchase bonds is solely the responsibility of the investor.