



Impact Report

JICA COVID-19 Response Social Bonds

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Issuance Records

Items	Details	
Name	57 th Japan International Cooperation Agency Bonds	58 th Japan International Cooperation Agency Bonds
Tenor	10 years (Maturity date: December 20, 2030)	20 years (Maturity date: December 20, 2040)
date of issue	December 25, 2020	
Issue amount	JPY 10 billion	JPY 5 billion
Issued for	Wholesale and retails	Wholesale
Rating	AA+ / A+ (R&I / S&P)	
ESG label	Social Bonds with the second party opinion obtained from Japan Research Institute https://www.jica.go.jp/Resource/investor/bond/ku57pq00001qs7yu-att/Second_Opinion.pdf	

Background

- JICA has been supporting the early recovery from the health crisis and economic impact caused by the pandemic of COVID-19 in developing countries.
- “JICA COVID-19 Response Social Bonds” were launched in December 2020. The bonds aimed to help developing countries strengthen healthcare systems and public health environment as well as mitigate economic impacts of the COVID-19 crisis.

Use of Proceeds

- Proceeds are allocated to JICA’s Finance and Investment Cooperation projects that contribute to:
 - strengthening healthcare systems and public health environment, and
 - mitigating economic impacts of the COVID 19 crisis (financial support for small and medium-sized enterprises (SMEs)) in developing countries



Photo by JICA



Photo by Kenshiro Imamura



Photo by JICA

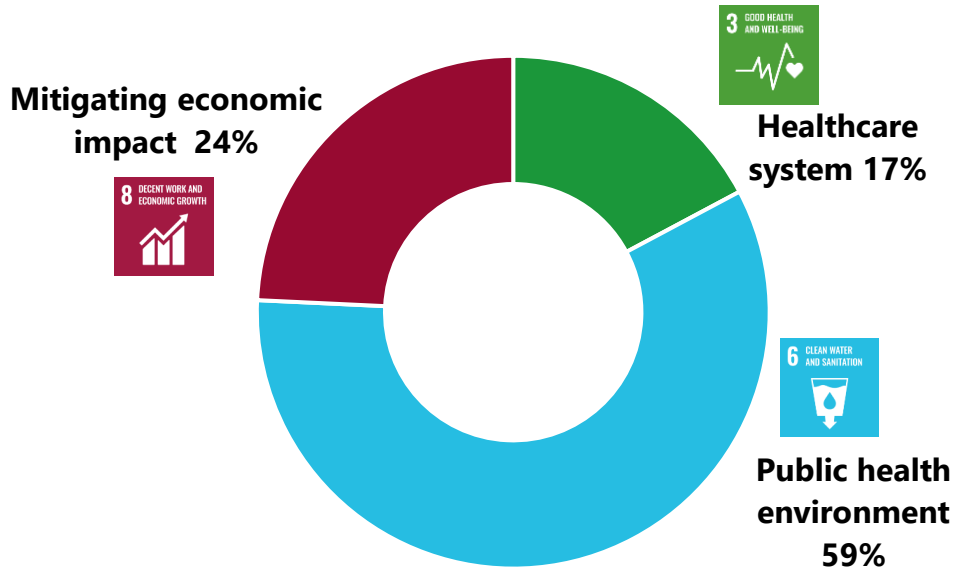


Photo by East-West Medical College Hospital

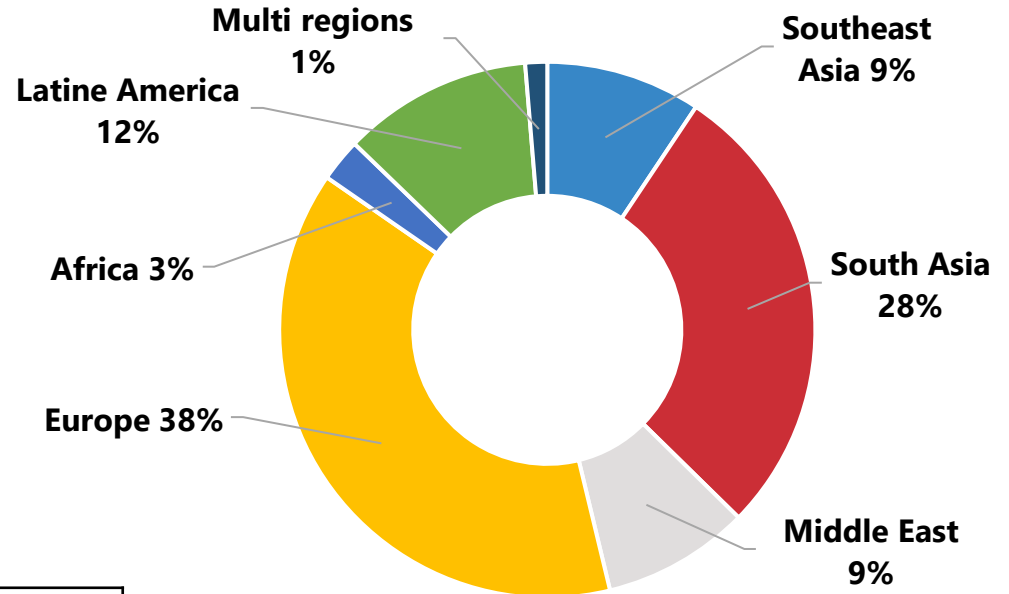
Allocation of Funds

- The proceeds of JPY 15 billion raised through the JICA COVID-19 Response Social Bonds were fully allocated to JICA's Finance and Investment Cooperation projects that contribute to strengthening healthcare systems, public health environment and mitigating economic impact of COVID-19 crisis in developing countries.

Allocation by usage



Allocation by regions



Total: 15 billion yen
 (Allocation period: From issuance date until March 2023)

Healthcare System	<ul style="list-style-type: none"> • Construction of referral hospitals, installment of medical equipment, human resource development, strengthening capacity of medical examination • Improvement of quarantine and border control against infectious diseases
Public Health Environment	<ul style="list-style-type: none"> • Water supply and sewage infrastructure development
Mitigating Economic Impact	<ul style="list-style-type: none"> • Financial support* for small and medium-sized enterprises (SMEs) in developing countries, which are affected by the COVID-19 crisis

*The financial support strengthening financial access of SMEs of under policy finance system of developing countries. The governments of developing countries on-lend the ODA loan borrowed from JICA to development banks (policy banks) and/or commercial banks, and those banks on-lend the funds to end users (the SMEs). This is also called "two-step loan".

Expected Impact (1) – Healthcare System



Better Healthcare for All through Universal Health Coverage (UHC)

Project Name	Assam Health System Strengthening Project (ODA Loan)
Country / Region	India (South Asia)
Loan amount	45,605 million yen
Agreement Date	March 31, 2022

In India, there are challenges remained toward achieving the universal health coverage (UHC), where everyone can access to healthcare services, In Assam State, In Assam, the largest state in northeastern India, out of eight tertiary healthcare facilities (medical colleges and hospitals) in the state, only two are Super Specialty Hospitals that provide highly specialized medical care and train medical specialists. The existing facilities have inadequate or outdated medical equipment and do not have the capacity to cope with the increasing number of patients.

In addition, there are also challenges in the training system of physicians. Furthermore, sufficient management system to distribute healthcare infrastructure and human resources appropriately have not been placed. This project will improve the quality of medical services for the residents of the target areas in the state of Assam by comprehensively promoting the development of public medical institutions, mainly secondary and tertiary medical facilities that will serve as core medical centers, the capacity development of medical personnel, and improvement of the management of medical services, thereby contributing to achieve UHC in the Assam state.

Expected Main Project Effects

Qualitative Effects

- Decrease in outpatients at primary health care level in tertiary care facilities
- Enhancement of the inter-hospital referral system and high-quality healthcare personnel
- Increase in patient satisfaction with healthcare services

Quantitative Effects

Indicator	Baseline (actual value in 2021)	Target (2 years after completion)
Number of newly installed beds in the new SSHs at the targeted 6 tertiary hospital (MCHs) and in the targeted 4 secondary hospitals (CDHs) of Type 1	-	600 (secondary) 780 (tertiary)
Number of medical staffs who have participated in the training(s) related to patient-centered care, improved internship program and refresher training(s) (persons)	-	3,180
No. of staff who have participated in the training(s) and activities of 5S-KAIZEN and Total Quality Management (TQM), training(s) on eHospital and Management Information System (persons)	-	1,960

*5S-KAIZEN is the principles of work environment improvement developed among Japanese manufacturing industry and have been adopted in many industries including healthcare system.

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2021_ID-P302_1_s.pdf



Existing secondary medical facilities

Photo by JICA

Expected Impact (2) – Public Health (clean water)



Improving sanitation and living condition by accessing safe water

Project Name	Basrah Water Supply Improvement Project (ODA Loan)
Country /Region	Iraq (Middle East)
Loan amount	62,384 million yen
Agreement Date	June 11, 2008 (phase 1); May 13, 2018 (phase 2)

Commissioned in June 2022

In Iraq, due to repeated wars and economic sanctions, existing water supply facilities have not been able to keep up with new construction or renovations, and their functionality has deteriorated significantly. In particular, cities facing the sea in southern Iraq have been forced to use water with high salinity, as the amount of water from the rivers they draw from is decreasing, and seawater is flowing up into the rivers.

This project supports the construction of water treatment plants capable of desalination in the cities of Basra and Khalsa in southern Iraq, with the participation of Japanese companies, so that the residents of both cities can use safe water in their daily.

The plants were commissioned in June 2022.

Eng. Nasser Hussein Mozan Al-Ramadan, an Iraqi engineer who has been engaged in this project for many years, says the following while drinking the clean water produced at the water treatment plant.

I didn't drink tap water before, but now I can drink it with confidence. Although the environment surrounding the project was not easy due to the worsening security situation and the pandemic of COVID-19, we have high hopes for this project and are proud of it, as it is affectionately referred to as the "Japan Project" by local residents. It's like my precious child to me.



Eng. Nasser Hussein Mozan Al-Ramadan

Expected Main Project Effects

Qualitative Effects

-Economic and social reconstruction of Basra and Khalsa cities

Quantitative Effects

Indicator	Baseline	Target (2 years after completion)
Water supply amount from the newly constructed water treatment plant (m ³ /day)	-	199,000
Quality of water treated at the newly constructed water treatment plant (turbidity; NTU)*	-	Not more than 10 (measured in the transmission reservoir)
Quality of water treated at the newly constructed water treatment plant (TDS; mg/L)	-	Not more than 900 (measured in the transmission reservoir)

*NTU : Abbreviation for Nephelometric Turbidity Unit . A unit expressing turbidity.

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2017_IQ-P26_1_f.pdf



Newly constructed water treatment plants



Water purification area

Expected Impact (3) – Healthcare System



Improving Maternal, Neonatal and Child Health Services and Health System

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

In Bangladesh, the infant mortality rate, under-five mortality rate, and maternal mortality rate have decreased, and overall maternal and child health indicators have improved, but issues remain in raising awareness of maternal, neonatal and child health and in services provided. In addition, non-communicable diseases are increasing due to recent changes in eating habits and lifestyles, as well as an increase in smoking.

This project will support improvement of maternal, neonatal and child health following the JICA’s project (Maternal and Child Health Improvement Project (Phase 1) (Health, Population and Nutrition Sector Development Program) implemented till 2014). This project also support installment of medical equipment for early diagnosis of non-communicable diseases as well as improving education and training environment at nursing educational institutions. This will contribute to improving Maternal, Neonatal and Child Health services and strengthen health system of Bangladesh.

Expected Main Project Effects

Qualitative Effects

- Higher patient satisfaction with medical services
- Improvement in the quality of medical professionals and promoting evidence-based treatment
- Improving in the quality of clinical research and education

Quantitative Effects

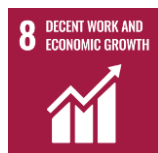
Indicator	Baseline (actual value in 2014)	Target value (2 years after completion)
Percentage of delivery by skilled birth attendants (%)	34.4	50
Antenatal care coverage (at least 4 visits) (%)	25	50
Number of examinations by each diagnostic imaging equipment (people/year)	-	increase
Patients’ out of pocket payment for diagnostic imaging examination (Bangladesh Taka/year)	-	decrease

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



Training for staffs engaged in local health facilities, called “community clinic” and members of resident groups.

Expected Impact (4) – Mitigating Economic Impact



Support for Micro and Small Enterprises affected by COVID-19 in Turkey

Project Name	Rapid Support for Micro and Small Enterprises Project (ODA loan)
Country / Region	Turkey (Europe)
Loan amount	300 million USD
Agreement Date	April 15, 2021

In Turkey, micro and small enterprises (MSEs) account for 99% of the number of enterprises, 57% of employment, and 38% of exports, and many of them have been severely affected by the COVID-19 pandemic. As an emergency support measure for the MSEs, this project provides liquidity support to help them continue their business and maintain employment. This is a parallel co-financing with the World Bank.

In order to maximize the project's impacts, technical supports have been also provided to the target MSEs, who received the liquidity support, such as one-on-one business diagnosis and consultation workshop in that experts advised them about business management. This project will contribute to the sustainable growth of industry and economy through supporting the MSEs in Turkey.



Online business consultation workshop for the target MSEs affected by the COVID-19 pandemic (November 2021)

Photo by JICA

Expected Main Project Effects

Qualitative Effects

- Improvement of financing scheme for MSEs
- Sustainable growth of industry and economy

Quantitative Effects

Indicator	Baseline (actual value in 2020)	Target value (1 year after project completion)
Share of beneficiary MSEs that survive the COVID-19 crisis for at least six months after receiving performance-based reimbursable support financing (%)	0	65
Share of beneficiary innovative young firms that survive the COVID-19 crisis for at least six months after receiving performance-based reimbursable support financing (%)	0	50
Share of beneficiary surviving MSEs that maintain employment at the level recorded in March 2020, for at least six months after receiving performance-based reimbursable support financing (%)	0	70

Expected Impact (5) – Mitigating Economic Impact



Support women entrepreneurs affected by COVID-19 in Asia

Project Name	Covid-19 Emerging & Frontier Markets MSME Support Fund (Private-Sector Investment Finance)
Country / Region	Asia
Loan amount	Max 35 million USD
Agreement Date	November 5, 2020

The COVID-19 pandemic has had a significant impact on micro, small and medium enterprises (MSMEs) in developing countries, and financing has become an issue for many MSMEs with weak business foundations. In particular, female business owners in developing countries have traditionally had poor access to finance and are more likely to have lower incomes than male, so their businesses have become even more unstable under the impact of pandemic.

This project aims to improve financial access as well as maintain employment for MSMEs with a specific gender lens on female run businesses, by providing funds through MFIs that are financed by the "Covid-19 Emerging & Frontier Markets MSME Support Fund". The Fund is managed by BlueOrchard Finance Ltd (hereinafter referred to as "BO"), who has been actively working on women's financial access and empowerment as an experienced fund manager in the microfinance space.

Expected Main Project Effects

Qualitative Effects

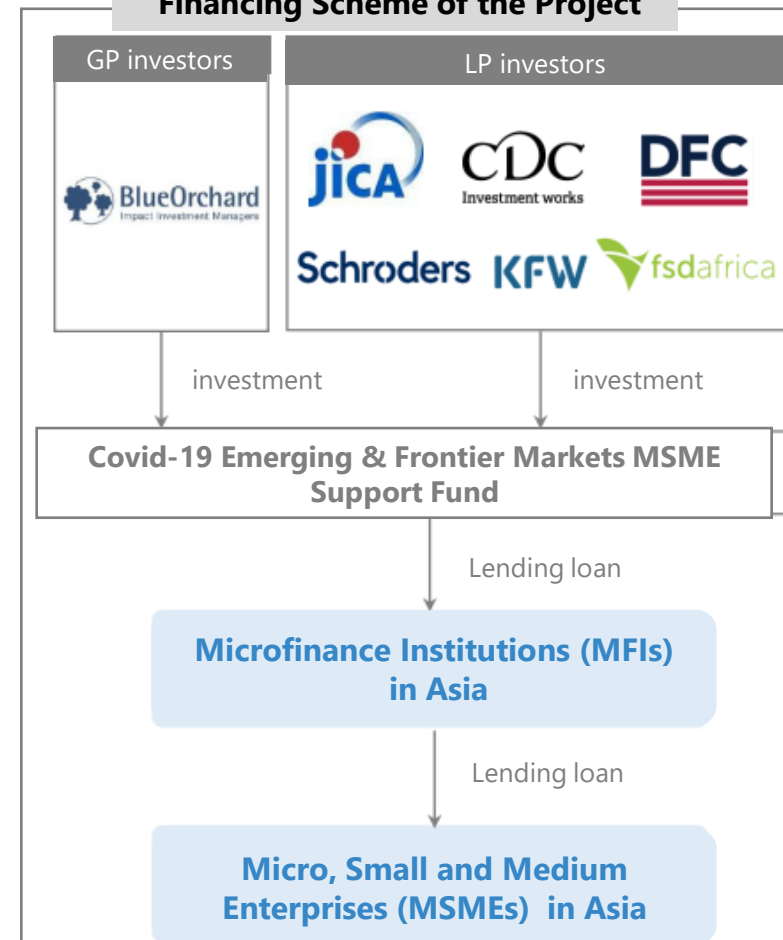
-Improving financial access for MSMEs, maintaining employment and empowering women

Quantitative Effects

Indicator	Baseline (actual value in 2020)	Target (fund end year)
Number of MSMEs served by MFIs in the Fund in Asia (Unit: million)	0	2.8
Number of jobs maintained in Asia (Unit: million)	0	60
Average percentage of women clients of MFI served through the Fund in Asia (%)	-	>=75

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2020_7164_1_s.pdf

Financing Scheme of the Project





List of allocated projects (1/18)

Project Name	Jakarta Sewerage Development Project (Zone1) (ODA Loan)		
Country	Indonesia	Commitment Amount (million JPY)	57,061
Project Outline	This project is to improve wastewater treatment and sanitation access in Special Capital Region of Jakarta (DKI Jakarta) by introducing a sewerage system, which consists of sewer network and wastewater treatment plant, thereby contributing to enhancing its water environment, citizens' living conditions and urban development.		

Expected Main Project Effects

Indicator	Baseline	Target
Population Covered by Sewerage Service (persons)	0	989,389
Sewerage Service Coverage (%)	0	80
Capacity of Wastewater Treatment (m ³ /day)	0	240,000
Amount of Treated Wastewater (m ³ /day)	0	200,000
Effluent BOD* Concentration (mg/L)	No data	Less than 20

*BOD : Biochemical Oxygen Demand

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2019_IP-581_1_f.pdf

Project Name	Jakarta Sewerage Development Project (Zone6) (Phase1) (ODA Loan)		
Country	Indonesia	Commitment Amount (million JPY)	30,980
Project Outline	This Project is to improve water environment and sanitation access in Special Capital Region of Jakarta (DKI Jakarta) by introducing a sewerage system, which consists of sewer network and wastewater treatment plant, thereby contributing to enhancing its citizens' living conditions and urban development.		

Expected Main Project Effects

Indicator	Baseline	Target
Population Covered by Sewerage Service (persons)	0	195,000
Capacity of Wastewater Treatment (m ³ /day)	0	47,500
Effluent BOD Concentration (mg/L)	N/A	Less than 20

*BOD : Biochemical Oxygen Demand

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2019_IP-579_1_f.pdf



List of allocated projects (2/18)

Project Name	Siem Reap Water Supply Expansion Project (Phase2) (ODA Loan)		
Country	Cambodia	Commitment Amount (million JPY)	6,336
Project Outline	The objective of the Project is to ensure water supply through expanding the water supply system, thereby contributing to improve the living environment in Siem Reap city where water shortages have reached critical levels due to a combination of rapid urbanization and tourism growth, and to promote the tourism industry in the region.		

Expected Main Project Effects

Indicator	Baseline	Target
Number of households connected to water supply (households)	4,867	30,516
Total served population (persons)	24,876	183,096
Turbidity (NTU)	-	Less than 5
Water treatment plant operating rate (%)	-	44

*NTU : Nephelometric Turbidity Unit

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2021_CP-P26_1_s.pdf

Project Name	Vientiane Capital Water Supply Expansion Project (ODA Loan)		
Country	Laos	Commitment Amount (million JPY)	10,271
Project Outline	This project aims to improve water supply services in Vientiane Capital through expanding the Chinaimo water treatment plant (located in southern Vientiane), water intake plant, as well as water distribution/supply center facilities, thereby contributing to better living condition and promoting further investment in Vientiane Capital.		

Expected Main Project Effects

Indicator	Baseline	Target
Population Served in Urban Area (persons)	489,175	782,157
Amount of Water supply in Urban area (m ³ /day)	199,619	326,224
Percentage of Population Served in Urban area (%)	72	95
Daily Average Water Supply Amount of Chinaimo water treatment plant (m ³ /day)	93,272	109,090
Facility utilization rate for the Chinaimo water treatment plant (%)	116.6	90.9

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2015_LS-P9_1_s.pdf



List of allocated projects (3/18)

Project Name	Dong Nai Province Water Infrastructure Construction Project (ODA Loan)		
Country	Vietnam	Commitment Amount (million JPY)	14,910
Project Outline	The objective of this project is to meet the industrial and domestic water demand in Dong Nai province by expanding the water supply system along National Highway 51, thereby contributing to sanitary conditions and industrial development in the province.		

Expected Main Project Effects

Indicator	Baseline	Target
Water supply volume (m ³ /day)	209,800	476,800
Facility utilization rate (%)	76	100
Water supply coverage (%)	32	65

Source: Ex-ante Evaluation https://www2.jica.go.jp/ja/evaluation/pdf/2015_VN14-P4_1_s.pdf
(Japanese version only)

Project Name	Water Supply Expansion Project in Binh Duong Province (Private-Sector Investment Finance)		
Country	Vietnam		
Project Outline	The objective of the Project is to enhance the water supply capacity of Binh Duong Province through the expansion of water purification plant, thereby contributing to sustainable economic growth of the Province and southern district including Ho Chi Minh City.		

Expected Main Project Effects

Processing capacity of purification plant, water supply volume of purification plant and usage rate of expanded facilities are measured.

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2020_0905_1_s.pdf

Project Name	Ha Long City Drainage and Wastewater Treatment Project (ODA Loan)		
Country	Vietnam	Commitment Amount (million JPY)	11,891
Project Outline	The objective of the project is to increase the wastewater treatment volume in Ha Long City, the capital city of Quang Ninh Province, by constructing wastewater treatment facilities, thereby contributing to the improvement of sanitary conditions in the city and the Ha Long Bay and sustainable development of the Quang Ninh Province.		

Expected Main Project Effects

Indicator	Baseline	Target
Population subject to sewage water treatment in the target area of this project (persons)	78,545	254,545
Amount of treated sewage water in the target area of this project (m ³ /day)	10,800	44,800
Usage rate of facilities in newly-built sewage plants (%)	0	>=40
BOD density of discharged water from treatment facilities in this project (mg/L)	<50	<=30
Penetration rate of sewer in the target area of this project (%)	<30	80

*BOD : Biochemical Oxygen Demand

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2020_VN18-P1_1_f.pdf



List of allocated projects (4/18)

Project Name	Second Ho Chi Minh City Water Environment Improvement Project (III), (IV) (ODA loan)		
Country	Vietnam	Commitment Amount (million JPY)	20,967 (III) 10,813 (IV)
Project Outline	The objective of the Project is to lessen the damage caused by flooding and raise the capacity for treating polluted water, through the improvement of sewerage and drainage system in Ho Chi Minh City, thus contributing to an improvement to its urban and living hygiene environment.		

Project Name	Greater Yangon Water Supply Improvement Project (Phase II) (I) (ODA loan)		
Country	Myanmar	Commitment Amount (million JPY)	25,000
Project Outline	The objective of the Project is to enhance water supply service by Kokkowa Water Treatment Plant and improving distribution network in western and central area of Yangon city, thereby contributing to improvements in the living environment of residents in Yangon city, Myanmar.		

Expected Main Project Effects

Indicator	Baseline	Target
Population treated (persons)	0	1,421,000
Amount of wastewater treated (m ³ /day)	0	469,000
BOD concentration in sewage treatment plants (inflow, water release, disposal rate)	-	Inflow: 200mg/L Discharge: 50mg/L Removal rate: 75%
Discharge capacity (m ³ /s)	52	73
The number of households by overflow for 1/2 year rainfall (households)	40,000	0
Annual maximum inundated depth caused by 10-year rainfall (m)	1.68	1.44

*BOD : Biochemical Oxygen Demand

Source: Ex-ante Evaluation

(I) (II) (III) https://www2.jica.go.jp/en/evaluation/pdf/2016_VN15-P6_1_f.pdf

(IV) https://www2.jica.go.jp/en/evaluation/pdf/2021_VN20-P1_1_s.pdf

Expected Main Project Effects

Indicator	Baseline	Target
[Water distribution Zone1 and 9]		
Served Population (thousand persons)	546	1,066
Maximum Amount of Water Supply (million gallons per day)	46	78
Rate of Facility Utilization (Kokkowa Water Treatment Plant) (%)	-	99
Water Pressure in Distribution Network (MPa)	0.075	0.15
Non-revenue Water Ratio (%)	66	20
Rate of Continuous Dosing of Disinfection Facility (%)	0	100
Minimum Amount of Remained Chlorination (mg/L)	0	0.1
Served Coverage Ratio (%)	36	65
[Yangon City]		
Served Population (thousand persons)	1,991	3,959
Maximum Amount of Water Supply (million gallons per day)	162	289
Served Coverage Ratio (%)	37	59

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2016_MY-P19_1_f.pdf



List of allocated projects (5/18)

Project Name	Project for the Development of Finance for Small and Medium-sized Enterprises (ODA loan)		
Country	Myanmar	Commitment Amount (million JPY)	5,033
Project Outline	The objective of the Project is to improve the financial intermediation for, and to increase the production and investments of, the Small and Medium-sized Enterprises (SMEs) in Myanmar, by providing the medium- and long-term funds through the participating financial institutions (PFIs) and strengthening the capacity of PFIs, thereby contributing to inclusive development of the country's industry and economy as well as employment generation.		

Project Name	Project for the Development of Finance for Small and Medium-sized Enterprises (Phase2) (ODA loan)		
Country	Myanmar	Commitment Amount (million JPY)	14,949
Project Outline	The objective of this project is to provide financing to small and medium-sized enterprises (SMEs) through intermediary financial institutions (PFIs) and support capacity-building at intermediary financial institutions, thereby strengthening SME financing by financial intermediaries and expanding production and investment by SMEs, which will contribute to industrial development and job creation in Myanmar.		

Expected Main Project Effects

Indicator	Baseline	Target
Sales of SMEs targeted for financing	Data on the previous year's financial results recorded when providing sub-loans	Increase over the baseline
Profits of SMEs targeted for financing	Same as above	Same as above
Amount of facility investments made by SMEs targeted for financing	Same as above	Same as above
Outstanding balance of long-term loans to SMEs provided by PFIs	Data recorded when certifying PFIs	Increase over the baseline
Number of loans to SMEs approved and executed by PFIs	Data on the previous year's financial results when certifying PFIs	Same as above
PFIs' non-performing loan ratios	Data recorded when certifying PFIs	No increase over the baseline

Expected Main Project Effects

Indicator	Baseline	Target
Sales turnover of the benefited SMEs (million MMK)	Data collected upon the application of Sub-Loans	Increase from the baseline figure
Profit of the benefited SMEs (million MMK)	Same as above	Same as above
Amount of capital investment of the benefited SMEs (million MMK)	Same as above	Same as above
Total medium- and long-term loan outstanding of the PFIs to SMEs (million MMK)	Data collected upon the accreditation	Same as above
Total loan outstanding for loans under eased conditions of the PFIs to SMEs (million MMK)	Data collected upon the accreditation	Same as above
Number of approval and disbursement of loan by the PFIs to SMEs	Same as above	Same as above
Ratio of non-performing loans of PFIs (%)	Same as above	Not Increase from the baseline figure

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2015_MY-P12_1_f.pdf

※MMK is the currency of Myanmar.

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2017_MY-P23_1_f.pdf



List of allocated projects (6/18)

Project Name	Assam Health System Strengthening Project (ODA loan)		
Country	India	Commitment Amount (million JPY)	45,605
Project Outline	The objective of the Project is to improve the quality of medical services for the residents of the target areas in the state of Assam by comprehensively promoting the development of public medical institutions, mainly secondary and tertiary medical facilities that will serve as core medical centers, the capacity development of medical personnel, and improvement of the management of medical services, thereby contributing to achieve universal health coverage (UHC) in the state.		

Expected Main Project Effects

Indicator	Baseline	Target
Number of newly installed beds at secondary care facilities (CDHs) and tertiary care facilities (MCHs)	N/A	600 (secondary care) 780 (tertiary care)
Bed occupancy rate (%)	N/A	70~80 (secondary care) 80~90 (tertiary care)
Number of outpatients (persons/year)	2,536,000	2,721,000
Number of angiography (tests and/or catheter interventions) (times/year)	0	13,500
Number of delivery (times/year)	15,070	16,171
Cumulative total number of medical staff who have participated in the training(s) related to patient-centered care, improved internship program and refresher training(s) (persons)	N/A	3,180
Cumulative total number of staff who have participated in the training(s) and activities of 5S-KAIZEN* and Total Quality Management (TQM), training(s) on eHospital and Management Information System (MIS) management (persons)	N/A	1,960
Cumulative total number of trainers to be trained regarding strengthening referral system and promotion of health awareness of local residents to change their medical behavior (persons)	N/A	246

* 5S-KAIZEN: A method for improving the workplace environment and controlling quality developed in Japanese industry. In the health field, efforts are being implemented in each country to maximize the use of existing resources and improve the quality of health and medical services.

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2021_ID-P302_1_s.pdf



List of allocated projects (7/18)

Project Name	Tamil Nadu Urban Health Care Project (ODA loan)		
Country	India	Commitment Amount (million JPY)	25,537
Project Outline	By developing health care facilities and equipment and building the capacity of medical personnel for non-communicable diseases (NCDs) interventions in Tamil Nadu State, this Project aims to improve urban health care systems, thereby contributing to the health promotion of residents in the state.		

Expected Main Project Effects

Indicator	Baseline	Target
Number of surgeries with catheter interventions (cases)	Madurai Medical College Hospital: 336 Kilpauk Medical College Hospital: 0 Coimbatore Medical College Hospital: 0	Madurai Medical College Hospital: 700 Kilpauk Medical College Hospital: 150 Coimbatore Medical College Hospital: 150
Number of surgeries performed in hybrid operating rooms (cases)	Madurai Medical College Hospital: 46 Kilpauk Medical College Hospital: 0 Coimbatore Medical College Hospital: 5	Madurai Medical College Hospital: 280 Kilpauk Medical College Hospital: 200 Coimbatore Medical College Hospital: 100
Number of mammography examinations (cases)	Vellore: 0 Tirunelveli: 10 District headquarters hospital: 0	Vellore: 1000 Tirunelveli: 1000 District Headquarters Hospital: 650
Number of hemodialysis treatments (cases)	<Tertiary medical facilities> Tirunelveli: 460, Nagercoil: 62, Tuticorin: 202, Trichy: 294 <Secondary medical facilities> Erode: 1249, Cuddalore: 694, Other district headquarters hospitals: 0	For each hospital listed on the left: 600
Inpatient bed occupancy rate (%)	Avadi: 85.4 Others: N/A	All hospitals as listed on the left: 90
Number of seats in a training course for cardiologists (persons)	Madurai Medical College Hospital: 2 Kilpauk Medical College Hospital: 0 Coimbatore Medical College Hospital: 0	Madurai Medical College Hospital: 4 Kilpauk Medical College Hospital: 2 Coimbatore Medical College Hospital: 2
Fill rate of cardiology positions (%)	Madurai Medical College Hospital: 100 Kilpauk Medical College Hospital: N/A Coimbatore Medical College Hospital: N/A	All hospitals as listed on the left: 100
Number of certified tertiary and secondary medical facilities (hospitals)	Number of certified secondary medical facilities: 0 Number of tertiary medical facilities with certified cardiology, radiology, nephrology, and anesthesiology units: 0	Number of certified secondary medical facilities: 4 Number of tertiary medical facilities with certified cardiology, radiology, nephrology, and anesthesiology units: 3



List of allocated projects (8/18)

Project Name	Odisha Integrated Sanitation Improvement Project (II) (ODA loan)		
Country	India	Commitment Amount (million JPY)	25,796
Project Outline	The Project is to provide reliable sewerage services and improve rainwater drainage system in the cities of Bhubaneswar and Cuttack in the eastern Indian state of Odisha by improving their sewerage facilities and rainwater drainage facilities, thereby contributing to the improvement of sanitation and living environment of residents in the areas.		

Project Name	Project for Construction of Chennai Seawater Desalination Plant (I) (ODA loan)		
Country	India	Commitment Amount (million JPY)	30,000
Project Outline	The Project aims to achieve a safe and stable water supply service in Chennai Metropolitan Area (CMA), located in the south Indian state of Tamil Nadu, by constructing a seawater desalination plant and constructing and improving water transportation and distribution facilities, thereby contributing to improvement in local resident living conditions and the investment environment.		

Expected Main Project Effects

Indicator	Baseline		Target	
	Bunneshwar	Cuttack	Bunneshwar	Cuttack
Population covered (1,000 persons)	-	55	260	387
Capacity of wastewater treated (m ³ /day)	-	5,500	28,800	42,500
Rate of sewage treatment plant (STP) facility utilization (%)	-	-	60	50
Average effluent BOD concentration (mg/L)	-	-	<10	<10
Sewage coverage (%)	-	10	60	50
Maximum inundation area (ha)		470		30
Annual inundation (time)		3-5		<3

*BOD : Biochemical Oxygen Demand

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2015_ID-P252_1_f.pdf

Expected Main Project Effects

Indicator	Baseline	Target
Indicators for Chennai Metropolitan Area (reference values)		
Population served (1,000 persons)	7,800	12,800
Average amount of water supply (million liters per day)	900	1,750
Indicators concerning seawater desalination plant		
Plant utilization rate (%)	-	68
Indicators for Chennai Corporation concerning the distribution network to be developed in the Project		
Population served (1,000 persons)	7,100	8,200
Pipe-served water supply rate (%)	61	88
Meter installation rate (%)	4	100
Average amount of water supply (million liters per day) (reference value)	810	1,300

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2017_ID-P267_1_f.pdf



List of allocated projects (9/18)

Project Name	Project for Pollution Abatement of River Mula-Mutha in Pune (ODA loan)		
Country	India	Commitment Amount (million JPY)	19,064
Project Outline	The objective of the Project is to improve the water quality in the Mula, Mutha and Mula-Mutha rivers by augmenting sewage collection systems and sewage treatment facilities in Pune Municipal area. It also includes taking other measures required for the pollution abatement and thereby improving the sanitation and living conditions of people who reside in Pune City and in the watershed of the downstream area.		

Expected Main Project Effects

Indicator	Baseline	Target
Treated sewage amount (m ³ /day) average of the year (1,000 persons)	2,192	4,794
Serviced population (persons) Service coverage (%)	465,600 64%	794,400 94%
Effluent BOD concentration (mg/L)	10	Not more than 10
Effluent SS concentration (mg/L)	13	Not more than 10

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2016_ID-P243_1_f.pdf

*BOD : Biochemical Oxygen Demand

*SS: Suspended Solid, TSS: Total Suspended Solid

Project Name	Bengaluru Water Supply and Sewerage Project (Phase3) (I) (ODA loan)		
Country	India	Commitment Amount (million JPY)	45,000
Project Outline	By developing water supply facilities (using the Cauvery River as the water source) and sewerage facilities, the Project will provide safe and stable water supply and sewerage services in response to the rapidly increasing demand for water in Bengaluru metropolitan area (BBMP) of the state of Karnataka in the southern region of India. This will contribute to the development of a sanitary living environment in this region, as well as to the stimulation of its industry.		

Expected Main Project Effects

Indicator	Baseline	Target
Water supply		
Water supply volume (110villages) (m ³ /day)	0	280,000
Water supply volume (BBMP) (m ³ /day)	1,310,000	1,710,000
Water treatment plant utilization rate (%)	-	52
Sewerage		
Treated sewage volume (110villages) (m ³ /day)	0	160,000
Sewage treatment plant utilization rate (%)	-	37
Concentration of released BOD (mg/L)	-	Not more than 10
Concentration of released TSS (mg/L)	-	Not more than 20
Reference values		
Population served by water supply (110villages)(persons)	0	1,570,000
Population served by water supply in BBMP (persons)	5,840,000	9,060,000
Population treated by sewage treatment facilities (110 villages) (persons)	0	1,210,000

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2017_ID-P266_1_f.pdf



List of allocated projects (10/18)

Project Name	Maternal, Neonatal and Child Health (MNCH) and Health System Improvement Project (ODA loan)		
Country	Bangladesh	Commitment Amount (million JPY)	17,520
Project Outline	The objective of the Project is to improve Maternal, Neonatal and Child Health (MNCH) services and strengthen health system of Bangladesh by implementing Maternal, Neonatal and Child Health (MNCH) related activities and activities to improve service provision at all levels of health facilities under the Health, Population and Nutrition Sector Development Program (HPNSDP) 2011-2016 and beyond, thereby contributing to the improvement of health status of the people of Bangladesh.		

Expected Main Project Effects

Indicator	Baseline	Target
Number of community support groups trained	37,731	48,000
Percentage of delivery by skilled birth attendants (%)	34.4	50
Antenatal care coverage (at least 4 visits) (%)	25	50
Graduation rate of seven BSc nursing colleges	-	Increased
Number of examinations by each diagnostic imaging equipment	-	Increased
Radiation exposure level at the waiting rooms in the diagnostic imaging centers	-	Maintain stable under the safe level
Radiation exposure level of radiologists and radiographers working in the diagnostic imaging centers	-	Maintain under the safe level
Patients' out of pocket payment for diagnostic imaging examination	-	Reduced

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



List of allocated projects (11/18)

Project Name	Health and Medical Service Improvement Project (ODA loan)		
Country	Sri Lanka	Commitment Amount (million JPY)	10,639
Project Outline	The objective of the project is to improve medical service for diagnosis and treatment of non-communicable diseases (NCDs) including cardiovascular diseases by improving medical facilities and equipment in tertiary hospitals and training institutions for medical professionals as well as strengthening the maintenance of medical equipment in Western, North Western, Central, North Central, Eastern and Uva Provinces, and it would contribute to health improvement of citizens in the target area.		

Expected Main Project Effects

Indicator	Target hospitals and schools	Baseline	Target
Number of diagnoses with angiography (per year)	Badulla Provincial General Hospital	0	1,300
	Trincomalee District General Hospital	0	1,300
	Kandy Teaching Hospital	2,624	3,300
	Kurunegala Teaching Hospital	999	3,200
	Anuradhapura Teaching Hospital	160	2,000
Number of catheter interventions (per year)	Badulla Provincial General Hospital	0	300
	Trincomalee District General Hospital	0	300
	Kandy Teaching Hospital	603	2,200
	Kurunegala Teaching Hospital	243	800
	Anuradhapura Teaching Hospital	3	1,400
Number of students per microscope	MLT Training School (Colombo)	3.20	2.17
	MLT Training School (Kalutara)	3.90	2.29
Number of lessons using a safety cabinet	MLT Training School (Colombo)	0	5
	MLT Training School (Kalutara)	0	5
	MLT Training School (Peradeniya)	0	5
Number of equipment items which can be repaired by BES	Bio-medical Engineering Services Unit of Ministry of Health (BES)	34	57

※MLT : Medical Laboratory Technologist

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2018_SL-P118_1_f.pdf



List of allocated projects (12/18)

Project Name	Anuradhapura North Water Supply Project (Phase2) (ODA loan)		
Country	Sri Lanka	Commitment Amount (million JPY)	23,137
Project Outline	This project is to construct a water supply system in the northern part of Anuradhapura District to provide safe drinking water and increase the water supply coverage, thereby improving health conditions and the living environment in the project area.		

Project Name	Kalu Ganga Water Supply Expansion Project (I) (ODA loan)		
Country	Sri Lanka	Commitment Amount (million JPY)	31,810
Project Outline	The objective of this project is to improve access to safe water and water supply efficiency in the southern area of Western Province by expanding the Kalu Ganga water supply facilities and restructuring water distribution networks, thereby contributing to improvement in the living conditions of this project area.		

Expected Main Project Effects

Indicator	Baseline	Target
Population served by water supply (persons)	26,589	99,073
Coverage of water supply from surface water sources (%)	0	70
Concentration of fluoride in drinking water (maximum value) (mg/L)	1.9	Less than 1.0
Facility utilization rate (%)	-	85

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2016_SL-P115_1_f.pdf

Expected Main Project Effects

Indicator	Baseline	Target
Water supply volume (m ³ /day)	115,000	260,000
Service connections (connections) (Colombo District)	79,513	103,276
Service Connections (connections) (Kalutara District)	66,961	140,834
Non-revenue water rate (%) (Dehiwala and Moratuwa)	24.09	18.5

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2017_SL-P117_1_f.pdf



List of allocated projects (13/18)

Project Name	Healthcare Sector Enhancement Project (Private-Sector Investment Finance)
Country	Brazil
Project Outline	The objective of the Project is to enhance the healthcare sector in Brazil by improving the capacity of private hospitals and bolstering the supply capacity of medical equipment and pharmaceutical companies, especially at this time due to the COVID-19 pandemic.

Expected Main Project Effects

Itaú Unibanco Holding's Healthcare Sector Loan Outstanding and Sub-Loan Outstanding of Private Hospital/Clinic are measured.

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2021_0917_1_s.pdf

Project Name	Basrah Water Supply Improvement Project (II) (ODA loan)		
Country	Iraq	Commitment Amount (million JPY)	19,415
Project Outline	By developing water supply facilities, including a water treatment plant and a water transmission and distribution network, in Basrah and Hartha cities in Basrah Governorate in southern Iraq, this Project aims to improve water supply in the cities, thereby contributing to economic and social reconstruction in both cities.		

Expected Main Project Effects

Indicator	Baseline	Target
Water supply amount from the newly constructed water treatment plant (m ³ /day)	-	199,000
Quality of water treated at the newly constructed water treatment plant (turbidity; NTU)	-	Not more than 10 (measured in the transmission reservoir)
Quality of water treated at the newly constructed water treatment plant (TDS; mg/L)	-	Not more than 900 (measured in the transmission reservoir)

*NTU : Nephelometric Turbidity Unit *TDS: Total Dissolved Solids

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2017_IQ-P26_1_f.pdf



List of allocated projects (14/18)

Sewerage Construction Project in Kurdistan Region (I) (ODA loan)			
Project Name			
Country	Iraq	Commitment Amount (million JPY)	34,417
Project Outline	The objective of the Project is to enhance the sewerage treatment capacity by establishing a sewerage system in Erbil City, Kurdistan Region, located in northern Iraq, thereby contributing to the improvement of the sanitary environment and ensure water resources for effective utilization in the region.		

Water Supply Improvement Project in Kurdistan Region (II) (ODA loan)			
Project Name			
Country	Iraq	Commitment Amount (million JPY)	2,463
Project Outline	By constructing and expanding water intake and treatment facilities and constructing water transmission and distribution facilities in Sulaymaniya, Erbil, and Duhok Governorates in the Kurdistan Region of northern Iraq, this Project aims to improve water supply services in the target cities, thereby contributing to economic and social reconstruction in these cities.		

Expected Main Project Effects

Indicator	Baseline	Target
Beneficiary: Sewerage service population (persons)	0	540,000
Amount of treated wastewater (m ³ /day)	0	210,000
Collection ratio of household sewerage charge (%)	0	77
BOD of outflow from WWTP (mg/L)	-	25 or less
BOD of flow in storm sewer pipes in Pilot Area (mg/L)	-	40 or less
Coverage ratio of sewerage service (%)	0	32

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2015_IQ-P23_1_f.pdf

Expected Main Project Effects

Indicator	site	Baseline	Target
Water supplied population (persons)	Halabja City	102,000	174,000
	Erbil City	788,000	1,248,000
	Sulaymaniya City	871,000	1,328,000
	Duhok City	247,000	427,000
Average daily water supply (m ³ per day)	Halabja City	17,000	58,000
	Erbil City	315,000	416,000
	Sulaymaniya City	272,000	272,000
	Duhok City	82,000	142,000
Water supply duration (hours per day)	Halabja City	1	12
	Erbil City	8	12

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2018_IQ-P28_1_f.pdf



List of allocated projects (15/18)

Project Name	Sfax Sea Water Desalination Plant Construction Project (ODA loan)		
Country	Tunisia	Commitment Amount (million JPY)	36,676
Project Outline	The objective of the Project is to enhance the quantity and quality of the water supply to the Sfax metropolitan area by constructing seawater desalination plant in Sfax City, thereby contributing to better living conditions, as well as greater economic and social growth in the area.		

Project Name	Rapid Support for Micro and Small Enterprises Project (ODA loan)		
Country	Turkey	Commitment Amount (million USD)	300
Project Outline	The objective of the Project is to maintain business operation and employment of micro and small Enterprises (MSEs) impacted by COVID-19 in Turkey by providing emergency liquidity support to micro and small enterprises, thereby contributing to sustainable growth of industries and economy.		

Expected Main Project Effects

Indicator	Baseline	Target
Average facility utilization rate (July–August) (%)	-	70
Water quality (Salt level) (mg/L)	1,528 to 2,568	Below 1,500
Average amount of water supplied to the Sfax metropolitan area (m ³ /day)	114,732	129,000

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2017_TS-P40_1_f.pdf

Expected Main Project Effects

Indicator	Baseline	Target
Share of beneficiary MSEs that survive the COVID-19 crisis for at least six months after receiving performance-based reimbursable support financing (%)	0	65
Share of beneficiary innovative young firms that survive the COVID-19 crisis for at least six months after receiving performance-based reimbursable support financing (%)	0	50
Share of beneficiary surviving MSEs that maintain employment at the level recorded in March 2020, for at least six months after receiving performance-based reimbursable support financing (%)	0	70

Source: Ex-ante Evaluation <https://www.jica.go.jp/Resource/english/news/press/2021/c8h0vm0000fdjj4q-att/ExAnteEvaluation.pdf>



List of allocated projects (16/18)

Project Name	Local Authorities Infrastructure Improvement Project (ODA loan)		
Country	Turkey	Commitment Amount (million JPY)	45,000
Project Outline	The objective of the Project is to improve infrastructure services of target local authorities affected by Syrians who are under temporary protection in Turkey by providing long-term finance to infrastructure projects through Iller Bank, thereby contributing to improvement of living conditions of the people.		

Project Name	Local Authorities Environmental Improvement Project (ODA loan)		
Country	Turkey	Commitment Amount (million JPY)	45,000
Project Outline	The objective of the Project is to promote development of social infrastructure including water supply, wastewater management and solid waste management, by providing long-term finance to social infrastructure projects in target provinces affected by influx of the Syrians who are under temporary protection in Turkey, thereby contributing to improvement of living conditions of these Syrians and host communities.		

Expected Main Project Effects

Indicator	Baseline	Target
Total amount of sub-loans (million JPY)	-	44,900
Number of sub-loans	-	
[Water supply] Population served (persons) Water supply volume (m ³ /day) Water supply coverage (%) Water supply per person per day	The indicators for each sector are shown as typical ones. The baseline and target values are to be set up after the establishment of each sub-project.	
[Wastewater management] Population served (persons) Treated wastewater volume (m ³ /day) Sewerage coverage rate (%) Water quality improvement (BOD)		
[Solid waste management] Solid waste collection rate (%) Served population by municipal waste collection (persons)		

*BOD : Biochemical Oxygen Demand

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

Expected Main Project Effects

Indicator	Baseline	Target
[Water supply] Population Served (persons) Water Supply volume (m ³ /day) Water supply coverage (%) Water Supply per person per day	Baseline and Target values will be set through F/S after Sub-Projects are selected, for all sectors including other sectors than those mentioned on the left. Also other indicator which is not mentioned on the left can be included.	
[Wastewater management] Population served (persons) Treated wastewater volume (m ³ /day) Sewerage coverage rate (%) Water quality improvement (BOD)		
[Solid waste management] Ratio of solid waste collection (%) Served population by municipal waste collection (%)		

*BOD : Biochemical Oxygen Demand

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2021_TK-P22_1_s.pdf



List of allocated projects (17/18)

Project Name	Bortnychi Sewage Treatment Plant Modernization Project (ODA loan)		
Country	Ukraine	Commitment Amount (million JPY)	108,193
Project Outline	The Project contributes to improve sewage treatment in Kyiv city in Ukraine by developing and modernizing the Bortnychi Sewage Treatment Plant facilities, thereby contributing to improved sanitation and living conditions for the citizens of Kyiv city.		

Project Name	Mamelles Sea Water Desalination Project (ODA loan)		
Country	Senegal	Commitment Amount (million JPY)	27,463
Project Outline	To increase water production capacity, to diversify water resources, and to improve access to safe water by constructing desalination plant and the related 3 facilities in the seaside area of Mamelles, as well as improving distribution networks, thereby contributing to better living conditions of the people, and sustainable economic growth in the Dakar Region.		

Expected Main Project Effects

Indicator	Baseline	Target
Effluent quality of total nitrogen (Block1) (mg/L)	24.6	10
Effluent quality of total phosphorus (Block1) (mg/L)	6.2	1
Wastewater treatment capacity (Block1) (m ³ /day)	200,000	577,000
Wastewater treatment capacity (Block2) (m ³ /day)	450,000	577,000
Wastewater treatment capacity (Block3) (m ³ /day)	350,000	419,000
Moisture content of sludge cake (%)	-	76
Sludge volume reduction rate (%)	-	99

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2015_UKR-P2_1_f.pdf

Expected Main Project Effects

Indicator	Baseline	Target
Indicators for the entire region of Dakar (reference)		
Number of households connected to the water supply network (households)	312,558	418,652
Annual water production capacity of the Dakar Region (million m ³ /year)	104.6	138.8
Annual revenue water volume (million m ³ /year)	82.5	108.3
Indicators for the Mamelles Sea Water Desalination Plant		
Average water production capacity of the Mamelles Sea Water Desalination Plant (m ³ /day)	-	23,151
Maximum water production capacity of the Mamelles Sea Water Desalination Plant (m ³ /day)	-	50,000
Indicators for the improvement of the water distribution network in Dakar Zone I		
Non-revenue water rate (%)	26.9	20.0
Annual non-revenue water volume (million m ³ /year)	15.2	13.1
24-hour water supply (%)	68.3	100.0
Water supply with adequate water pressure (%)	80.3	100.0

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2016_SE-P3_1_f.pdf

List of allocated projects (18/18)

Project Name	COVID-19 Emerging & Frontier Markets MSME Support Fund (Private-Sector Investment Finance)		
Country	Asian countries	Commitment Amount (million USD)	Max 35
Project Outline	The Project aims at improving financial access, maintaining employment and supporting micro, small and medium enterprises (MSMEs) affected by COVID-19 in Asia, by expanding financing to microfinance institutions (MFIs) with a focus on the empowerment of women.		

Expected Main Project Effects

Indicator	Baseline	Target
Number of MSMEs served by MFIs in the Fund in Asia (Unit: million)	0	2.8
Number of jobs maintained in Asia (Unit: million)	0	60
Average percentage of women clients MFIs served through the Fund in Asia (%)	-	>=75

Source: Ex-ante Evaluation https://www2.jica.go.jp/en/evaluation/pdf/2020_7164_1_s.pdf

-Overcoming the unprecedented crisis together- JICA 's support responding the COVID crisis

From the next page onwards, we will introduce various types of support that JICA has implemented in response to the COVID-19 crisis.

(*This include projects other than those eligible for use of the bond proceeds.)

JICA's Initiative for Global Health and Medicine

JICA launched a new "Initiative for Global Health and Medicine" aiming to overcome the COVID crisis and realize more resilient society to new infectious diseases. JICA has supported developing regions with various types of support under the initiative.

Pillar 1: Treatment

Strengthen capability of diagnosis and treatment

● **200** million people in **22** countries

Support establishing and expanding hospitals (Apr 2020 - Jun 2022)

※Type of support : ODA loan, Private Sector-Investment Finance, Technical Cooperation and Grant Aid

● **2,500** healthcare workers in **11** countries

Online trainings on extensive care responding the COVID-19 for healthcare workers in developing countries provided by Japanese physicians (May 2021 - Jun 2022)

※Type of support : Technical Cooperation



Photo by East-West Medical College Hos



Pillar 3: Precaution

Strengthening testing and research systems for infectious diseases

● **80%** of PCR testing in Ghana

Noguchi Memorial Institute for Medical Research (NMIMR), that JICA has been cooperating since 1970s, processed 80% of PCR testing in Ghana. (Mar 2020 - Jun 2020)

※Type of support : Technical Cooperation and Grant Aid



Photo by JICA

● Increased to **403** testing agencies

National Institute of Hygiene and Epidemiology (NIHE), that JICA has been cooperating since 2020s, has played a central role in building and expanding a nationwide COVID-19 laboratory network and contributed to the increase in accredited COVID-19 testing agencies. (Feb 2020-Jun 2022)

※Type of support : Technical Cooperation and Grant Aid

Pillar 2: Prevention

Deploy vaccines and improve sanitation

● **64** countries equipped for COVID prevention

Provide necessary equipment to strengthen prevention measures (JFY2021-2022)

※Type of support : Grant Aid

● **300** million people in **61** countries

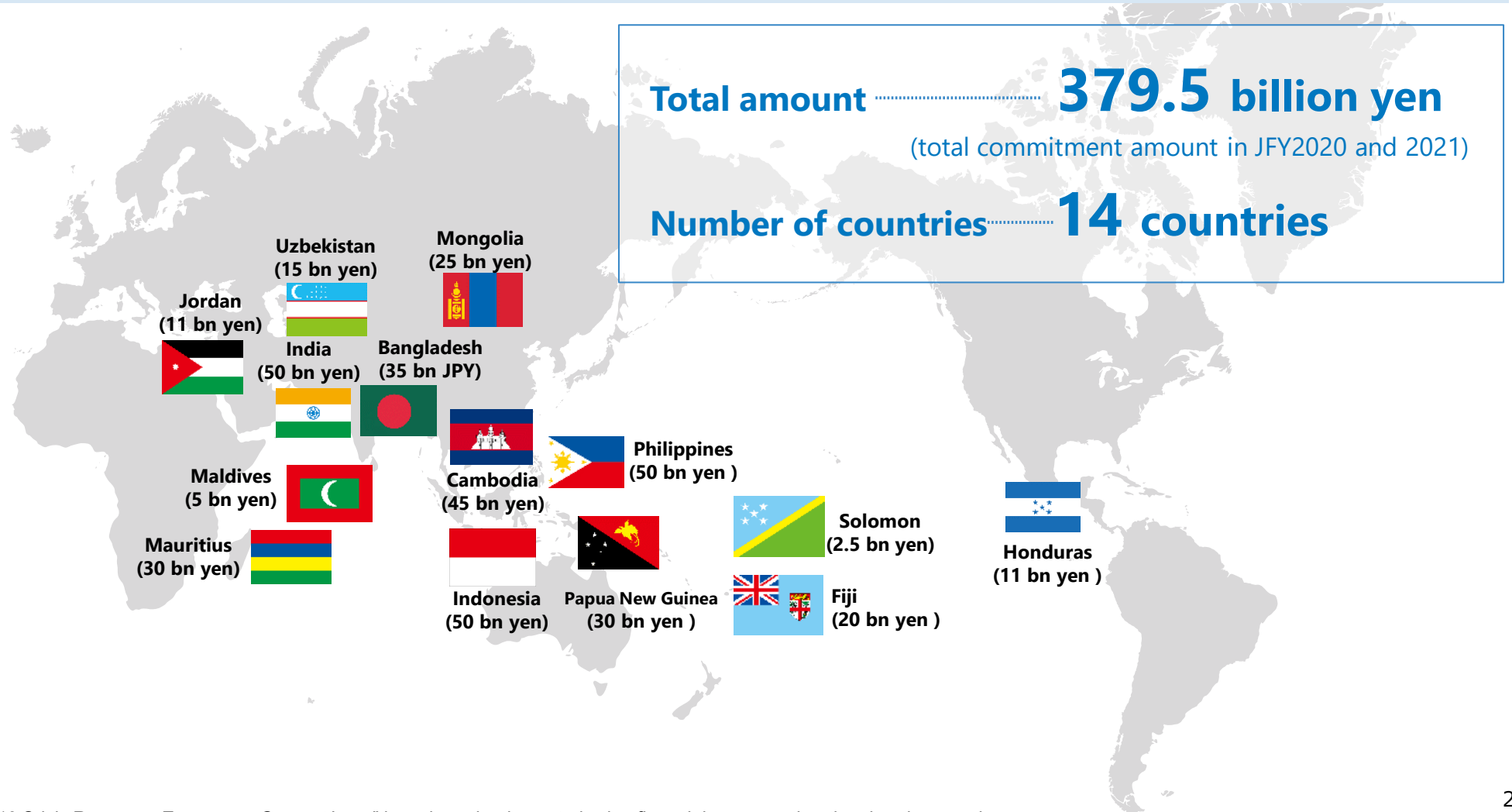
Raising awareness of hand-washing to prevent COVID (Sep 2020 -Mar 2022)

※Type of support : Technical Cooperation



COVID-19 Crisis Response Emergency Support Loan*

JICA provided emergency financial supports through ODA loan to developing countries that had been severely affected by the COVID-19 pandemic in order to support their efforts to strengthen healthcare system and economic policy measures for mitigating economic impact.



*"COVID-19 Crisis Response Emergency Support Loan" have been implemented using financial sources other than bond proceeds.

“Made in Japan” Technologies Save the People

By utilizing the high quality products, services, and know-how possessed by Japanese companies, JICA provided support to developing countries severely affected by the COVID-19 pandemic.



Operation training on the Chuwa Industrial's medical waste incinerator held in Morocco



CHUWA INDUSTRIAL CO., LTD. (Tokyo)

Smokeless incinerators for medical waste, developed by Chuwa Industrial, were installed in hospitals in Morocco. The company's incinerator is now highly recognized in developing regions and it is also on the list of UNIDO's "Sustainable Technology Promotion Platform (STePP)".

[Type of support: SDGs Business Supporting Surveys (SME support type), Technical Cooperation]



Saraya Co., Ltd. (Osaka prefecture)

Saraya's high-quality and inexpensive **hand sanitizers have been distributed and are highly recognized among healthcare professionals in Uganda**. In addition to improving sanitation, it also contributes to job creation by localizing production processes.

[Type of support: SDGs Business Supporting Surveys (SME support type)]



Twinbird's portable ultra-low temperature refrigerators

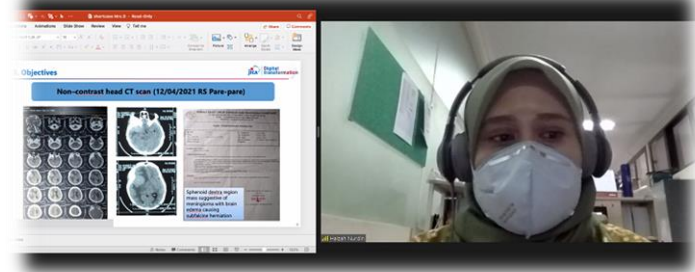


Handover ceremony in East Timor

Twinbird Corporation (Niigata Prefecture)

Portable ultra-low temperature refrigerators for carrying vaccines, developed by Twinbird Corporation, control temperature precisely and are vibration-resistant. They were distributed in East Timor and Mozambique, enabling delivery of the COVID vaccines, while maintaining their quality, to the "Last One Mile" such as remote areas with rough roads.

[Type of support: Grant Aid]



Indonesian physician receiving remote training through the Vitaars's system

Vitaars Inc. (Hyogo prefecture)*

Amid the COVID pandemic, trainings on intensive care for physicians and health workers in developing regions, were conducted through **unique online communication system for intensive care** developed by Vitaars, enabling real-time technical advice remotely.

※The company name was "T-ICU Co.,Ltd." when the project was implemented in 2021.

[Type of support: Technical Cooperation]



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