

Republic of India

FY2022 Ex-Post Evaluation Report of
Japanese ODA Loan “Program for Japan-India Cooperative Actions towards
Sustainable Development Goals in India”

External Evaluator: Kazuhiro Nakagawa, OPMAC Corporation

0. Summary

The objective of the Program for Japan-India Cooperative Actions towards Sustainable Development Goals (SDGs) in India (the Program) is to promote efforts towards SDGs in India’s social development by strengthening and assisting the framework of various policies and implementation platforms for the SDGs, thereby contributing to the achievement of SDGs in 2030. The implementation of the Program was consistent with the development policy and development needs of India. The Program was also consistent with Japan’s ODA policy, internally consistent with JICA’s other projects, and externally consistent with the activities of other donors. Therefore, its relevance and coherence are high.

As for the operation and effect indicators, 9 indicators were set at the time of appraisal for 5 sectors: health and nutrition, education, agriculture and water resources, financial inclusion and skill development, and basic infrastructure. Of these, two indicators (Percentage of learning outcomes in mathematics for grade 3 of elementary school and Employment percentage of youths who took skills training courses) achieved more than the planned targets at the Program completion. Four indicators (Percentage of pregnant women receiving ante natal check-ups 4 times or more, Percentage of secondary schools with electricity connection, Percentage of the population with bank accounts, and Percentage of villages with internet connectivity) were mostly achieved. Three indicators (Percentage of children of 9 to 11 months fully immunized, Percentage of high value crops, and Percentage of population in rural areas with access to adequate quantity of potable water) had been partially achieved. As for qualitative effects, all three effects envisaged at the time of appraisal (the enhancement of a system to monitor the achievement of SDGs by the central government of India, the promotion of Japan-India cooperation such as SDGs-related technical input by Japan, and the enhancement of the skills of government agency staff in the SDGs) were achieved. Regarding impact, 11 goals were expected to have been improved by the implementation of the Program at the time of appraisal. Of these, seven goals (Goal 2: Zero Hunger, Goal 3: Good Health and Well-being, Goal 4: Quality Education, Goal 5: Gender Equality, Goal 6: Clean Water and Sanitation, Goal 9: Industry, Innovation and Infrastructure, and Goal 13: Climate Action) were improved. In addition, technical and intellectual inputs for the achievement of SDGs in India, based on experience in Japan and JICA-supported projects and programs in India, were provided, a ranking mechanism was introduced in the Aspirational Districts Programme (ADP) supported by the Program, and a database was established and operated to confirm and monitor progress. In general, the expected impact has been observed. The Program

also had a certain positive impact on gender, marginalized people, social systems and norms, human well-being and human rights, due to the nature of the Program, which supported activities to achieve the SDG. Therefore, the effectiveness and impacts of the project are considered to be high.

Sustainability is ensured since there are no problems with the operation and maintenance of the Program in terms of the policy and system aspects and the institutional/organizational aspects. Preventive measures have been taken against risks.

1. Project Description



Project location (Source: Evaluator)¹



Solar panels installed at a primary health center (Source: NITI Aayog)

1.1. Background

The Millennium Development Goals (MDGs), which were set to be achieved by 2015, highlighted the fact that, while India had made improvements in many of the goals, it continued to face challenges in areas of social development, such as sanitation, education, and health, that were common to many developing countries.

The Government of India continued to work on the SDGs, which were adopted by all member states of the United Nations in 2016 as a successor to the MDGs, and also began work on a total of 17 goals. The National Institution for Transforming India (NITI Aayog), established in 2015, served as the coordinating body for SDGs in the Government of India, and designated a lead ministry for each of the 17 SDG targets, listing related government of India initiatives and schemes. In addition, in July 2017, at the High-Level Political Forum on Sustainable Development, held annually at the United Nations, the Government of India became a Voluntary National Review state, announcing plans to achieve the goals that were set as the themes of that year's forum. The Government of India has since been actively working toward achieving the

¹ Disclaimer: This map is only for illustrative purposes and does not imply any opinion of JICA on the legal status of any country or territory, the border line of any country or territory or its demarcation, or the geographic names.

SDGs. In addition, in January 2018, NITI Aayog designated 112 districts that were lagging behind in progress toward achieving the SDGs as Aspirational Districts (ADs) and launched the ADP, a program that aims to achieve SDGs across a country and raise the bottom level by ranking, based on each indicator, achievement in five sectors (health and nutrition, education, agriculture and water resources, financial inclusion and skill development, and basic infrastructure) in which deviation from the targets was particularly large in the ADs, and by promoting competition, as well as by monitoring progress monthly.

1.2. Project Outline

The objective of the Program is to promote efforts towards SDGs in India's social development by strengthening and assisting the framework of various policies and implementation platforms for the SDGs, thereby contributing to their achievement in 2030.

For efficient evaluation, the ADP, which has been implemented by the Government of India since January 2018, was considered to be a project supported by the Program. The policy actions to be achieved in the ADP for each fiscal year were organized as a policy matrix in the Program, and the achievement status was monitored by both the Government of India and JICA to promote the achievement of the policy actions.

Loan Approved Amount / Disbursed Amount	15,000 million yen / 14,985 million yen
Exchange of Notes Date / Loan Agreement Signing Date	December 2018 / January 2019
Terms and Conditions	Interest Rate 1.45% Repayment Period 30 years (Grace Period 10 years) Conditions for Procurement General Untied
Borrower / Executing Agency(ies)	The President of India / The National Institution for Transforming India (NITI Aayog)
Project Completion	March 2020
Target Area	All of India
Main Contractor(s) (Over 1 billion yen)	N.A.

Main Consultant(s) (Over 100 million yen)	N.A. ²
Related Studies (Feasibility Studies, etc.)	N.A.
Related Projects	Technical cooperation project for promotion of the program for Japan - India cooperative actions towards sustainable development goals (SDGs) in India

2. Outline of the Evaluation Study

2.1. External Evaluator

Kazuhiro Nakagawa, OPMAC Corporation

2.2. Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

Duration of the Study: September 2022 - November 2023

Duration of the Field Study: December 4 - December 23, 2022

2.3. Constraints During the Evaluation Study

The Program is a program loan project (Development Policy Lending), which encourages the implementation of reforms by the government of developing country through policy dialogue, providing funds once the reforms are accomplished. The funds provided are not earmarked for specific purposes and go into the general account budget. As a result, it is difficult to quantitatively compare inputs (expenses) and outputs (achievements), which is why efficiency is excluded from the analysis and evaluation. Sustainability is included in the analysis, but it is not subject to evaluation scope, and no sub-rating is conferred. Since no sub-rating is conferred on efficiency and sustainability, no overall rating has been conferred either.

² To support implementation, a team of experts in the “technical cooperation project for promotion of the program for Japan - India cooperative actions towards sustainable development goals (SDGs) in India” was dispatched by JICA.

3. Results of the Evaluation (Overall Rating: N/A³)

3.1. Relevance/Coherence (Rating: ③⁴)

3.1.1. Relevance (Rating: ③)

3.1.1.1. Consistency with the Development Plan of India

As described in 1.1. Background, at the time of appraisal, the Government of India had positioned the SDGs as goals to be addressed and was actively working towards achieving them. Furthermore, in January 2018, NITI Aayog had launched the ADP, a program aimed at achieving the SDGs across the country.

At the time of the ex-post evaluation, the SDGs has been positioned as goals that the Government of India should continue to address. A total of 17 goals for the SGDs were being addressed, and the ADP was being implemented with the coordination of NITI Aayog. NITI Aayog established a database called the Champions of Change Dashboard, which provides online information on the progress of each AD in five sectors (health and nutrition, education, agriculture and water resources, financial inclusion and skill development, and basic infrastructure) together with the ranking of each AD.⁵

It is recognized that the Program was consistent with the development plan at the time of appraisal and at the time of the ex-post evaluation. Policies and projects that were related to, and consistent with, the development plan at the time of appraisal also existed at the time of the ex-post evaluation. The Program has been implemented based on these policies and projects, and is consistent with the development plan.

3.1.1.2. Consistency with the Development Needs of India

At the time of appraisal, the SDG Index and Dashboards Report, published in July 2018 by Sustainable Development Solutions Network⁶ and the Bertelsmann Stiftung in Germany, found that India's achievement rate for the Goal 2. Zero hunger, 5. Gender equality, 9. Industry, innovation and infrastructure, 10. Reduced inequality, and 15. Life on land, was below 50%, ranking 112th out of 156 countries in terms of achievement. In addition, a survey conducted by NITI Aayog revealed that 112 districts in the country were particularly slow in achieving the SDGs, making it a challenge to promote achievement of the SDGs in these districts.

At the time of the ex-post evaluation, India's achievement rate against the targets for Goals 5.

³ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory, N/A: Not Applicable

⁴ ④: Very High, ③: High, ②: Moderately Low, ①: Low

⁵ Champions of Change Dashboard: <http://championsofchange.gov.in/site/coc-home/>

⁶ A global network established by the United Nations in August 2012. The objective of the Network is to bring together research institutions, universities, businesses, and civil society organizations to identify and share best practices for solving the world's environmental, social, and economic problems and achieving a sustainable society. By collaborating with businesses and civil society organizations in various countries, as well as with officials from UN agencies and other international organizations, the Network aims to utilize private sector knowledge and practical problem-solving ideas.

Gender equality, 9. Industry, innovation and infrastructure, and 10. Reduced inequality, was below 50% according to the 2022 version of the above SDG report, and the country had dropped to 121st out of 163 countries in terms of achievement. The ranking is relative to other countries, and the fact that the country's activities to achieve the SDGs were heavily restricted due to the impact of COVID-19 may have contributed to this decline in ranking.

The SDGs are targets to be achieved by 2030, and at the time of the ex-post evaluation, no targets had been achieved. Therefore there is still a need for activities to achieve the SDGs.

3.1.1.3. Appropriateness of the Project Plan and Approach

At the time of appraisal, the appropriateness of implementing the Program as a Japanese ODA loan project was discussed on the Japanese side. If the Project had been implemented as a technical cooperation project, the interaction would have been solely between the consultant having the know-how and the counterpart organization on the Indian side. Thus, it was decided that the Program would be implemented as a Japanese ODA loan project because this would allow involvement in the policy planning of the Indian central government as a policy-support-type of Japanese ODA loan project while also providing an opportunity to approach a wide range of areas in India as a whole. It was significant that the relationship between JICA and NITI Aayog was strengthened by the selection of NITI Aayog as the implementing agency for the Program, since NITI Aayog is the planning agency for the Indian government's development policy and plays an important role in the process of forming Japanese ODA projects.

The ADs targeted by the ADP were areas in India where progress toward achieving the SDGs were slow from the time of appraisal to the time of the implementation of the project. The Program supporting the ADP was designed to benefit people who were prevented from participating fairly in society, and, therefore, equality was taken into consideration in the Program.

Furthermore, lessons learned from similar past projects, which were mentioned at the time of appraisal, were utilized in the Program. Specifically, a lesson learned from the "Indonesia Climate Change Program Loan (I-III)" was that "operation and effect indicators should be such that they can be regularly monitored by the competent ministries." A lesson learned from the Japanese ODA loan project "Tamil Nadu Investment Promotion Program" for India, was that "the Program Monitoring Committee (PMC) and a Japan-India Opinion Exchange Forum should be held to discuss the implementation of policy inputs related to the target areas related to previous JICA projects." The Program's operation and effect indicators were managed through a database constructed and operated by NITI Aayog, and the indicators were updated monthly. The Japan-India SDGs Forum was held under the Program, and Japanese technology and the efforts of JICA projects were also introduced. In particular, in the agricultural sector, the Indian side requested the introduction of the Smallholder Horticulture Empowerment & Promotion (SHEP) approach, which was introduced at the Forum, and it was suggested that the SHEP approach be introduced

in ADs in the future.

Based on the above, it is evaluated that the project plan and approach were appropriate.

3.1.2. Coherence (Rating: ③)

3.1.2.1. Consistency with Japan's ODA Policy

Japan's Country Assistance Policy for India (March 2016) at the time of appraisal stipulated that Japan would provide assistance contributing to poverty reduction and development of the social sector in order for the country's high economic growth to be sustainable. The Program was related to cooperation programs in the priority area "Support for Sustainable and Inclusive Growth," such as the "Agriculture and Rural Development Program," the "Basic Social Services Improvement Program," and the "Water, Sewage, Sanitation, and Pollution Control Program." In addition, the policy mentioned support based on a program approach, in which the policy matrix was mutually agreed upon through close and continuous policy dialogue, where monitoring and reviews were conducted, and where support was provided on the basis of the progress of policy actions, contributing to the improvement of ownership in recipient countries. The gradual promotion of this policy was noted.

Through analysis in *the JICA Country Analysis Paper for India* (March 2018), it was found that while comprehensively supporting India's efforts toward the achievement of the SDGs, it was also important to focus cooperation on solving key development issues where funding needs are large and where Japan and JICA can demonstrate their strengths. In addition, it was concluded that one of the approaches to cooperation in the development issues that JICA should address was "contribution to the Government of India's National Development Program," and that JICA should consider contributing to higher-level policies by providing feedback to relevant government agencies through program loans and other means, based on its on-the-ground experience with Japanese ODA loan projects to date. Furthermore, "inclusive growth in rural areas" was raised as one of the major development issues, which said that support should be conducted for the realization of sustainable and inclusive growth in rural areas where many low-income people live. Therefore, the Program is consistent with these policies and analyses.

3.1.2.2. Internal Coherence

Although no specific synergies or interlinkages with other JICA projects were expected at the time of appraisal, during the implementation of the Program, JICA India Office published a brochure explaining JICA's contribution to the efforts to achieve the SDGs in India.⁷ In this brochure, JICA's contribution for each goal was described, and a summary is shown in Appendix

⁷ JICA India Office SDGs Brochure:

https://www.jica.go.jp/Resource/india/english/office/others/c8h0vm00004cesxi-att/brochure_19.pdf

1. As shown in Appendix 1, JICA was implementing Japanese ODA loans and technical cooperation projects in India in various areas related to the SDGs during the Program period. As an example, “Jharkhand Horticulture Intensification by Drip Irrigation” was expected to improve the livelihood of small and micro farmers and contributed to the improvement of “Goal 1: No poverty.” In addition, the implementation of the “Tamil Nadu Urban Health Care Project” has improved the urban health care system, contributing to the improvement of “Goal 3: Good health and well-being.”

3.1.2.3. External Coherence

At the time of appraisal, the World Bank identified “promoting resource efficient growth, enhancing competitiveness, and investing in human capital” as key priorities/areas in the *India - Country Partnership Framework for the Period FY18-FY22* (July 2018), and was providing support for health and education where it lagged behind in the SDGs in India as well as for economic growth. In addition, the Asian Development Bank (ADB), in the *Country Partnership Strategy 2018-2022* (September 2017), stated that it would support India’s efforts to achieve the SDGs, raising three pillars for this support: “boosting economic competitiveness,” “providing inclusive access to infrastructure networks and services,” and “addressing climate change.” Moreover, the ADB had provided a total of 20 program loans to the Government of India, totaling US\$4.7 billion (as of December 2017, in terms of agreed amount). These frameworks and strategies were up-to-date and valid at the time of the ex-post evaluation.

During the implementation of the Program, ADB and the United Nations Development Programme (UNDP) also supported the abovementioned ADP. Neither organization provided financial assistance as JICA did to NITI Aayog, but only technical cooperation. Specifically, in the five sectors covered by the ADP, they assisted ADs in the preparation of proposals to apply to the Challenge Fund⁸. The team of experts for the “technical cooperation project for promotion of the program for Japan - India cooperative actions towards sustainable development goals (SDGs) in India” provided the same support for proposal preparation, but since the ADs targeted were different, there was no overlap in the support among the three parties.

As for the consistency with development plan, since the policies at the time of appraisal are still in effect at the time of the post-evaluation, it is recognized that the Program is consistent. The SDGs are targets to be achieved by 2030, and at the time of the ex-post evaluation, there were no targets that had already been achieved. The need for the development of activities to achieve the SDGs was still recognized. The ADs targeted in the ADP were an area in India where progress

⁸ Funds for each AD to implement a subproject in the ADP. Each state submitted a project proposal for implementation of the ADP, which was reviewed and approved by the Empowered Committee of the NITI Aayog and then funded from the Challenge Fund.

toward achieving the SDGs was slow, and the Program was designed to support ADPs working in the ADs so that those who were excluded from equitable participation in society could benefit from the Program. Therefore, the Program was designed with equality as a consideration. The lessons learned from similar projects mentioned in appraisal documents were utilized in the Program, and no problems were observed regarding the appropriateness of the project plan, its approach, and so on.

The Program was consistent with Japan's aid policy at the time of appraisal, because it was also consistent with the priority areas of *Japan's Country Assistance Policy for India* (March 2016) and *the JICA Country Analysis Paper for India* (March 2018). As for internal coherence, although there were no specific synergies or interconnections with other JICA projects in appraisal documents at the time of appraisal, JICA, through the implementing agency of the Program, supported India's achievement of each of the SDGs by providing Japanese ODA loans, technical cooperation, and grant aid in areas related to each goal of the SDGs. Thus, internal coherence was observed. As for external coherence, World Bank and ADB's policy of support for India continued from the time of appraisal to the time of the ex-post evaluation, and program loans were provided to each of the sectors. Furthermore, in the ADP supported by the Program, ADB and UNDP also supported the preparation of proposals for each AD to apply for the Challenge Fund, which means there has been a synergistic effect with JICA and other donors in terms of promoting the progress of the ADP, and thus external consistency has also been observed.

Therefore, relevance and coherence are high.

3.2. Effectiveness and Impacts⁹ (Rating: ③)

3.2.1. Effectiveness

3.2.1.1. Quantitative Effects (Operation and Effect Indicators)

Under the Program, the policy actions for each policy item (five sectors: health and nutrition, education, agriculture and water resources, financial inclusion and skills development, basic infrastructure, and, in addition, overall / global partnerships) were set for each fiscal year, and loans were to be disbursed based on achievement at the end of the fiscal year. A joint evaluation conducted by JICA and NITI Aayog in FY 2019 (April 2019 - March 2020), the final year of the Program's policy action implementation, confirmed the achievement of all policy actions. Disbursements were also carried out as scheduled, although it was some time before joint evaluations were held to confirm the achievement of the policy actions for each fiscal year, which was a condition for disbursement. The achievement status of the operation and effect indicators for each field is shown in Table 1. Note that, although at the time of planning Program completion was defined as loan completion (i.e., February 2021), the target year for the operation and effect

⁹ When providing the sub-rating, Effectiveness and Impacts are to be considered together.

indicators was defined as the year of policy action completion (i.e. March 2020). Therefore, Program completion was redefined as the year of policy action completion. Achievement status was judged according to the degree of achievement of the actual value against the target value (100% or more: achieved more than planned; 70-100%: mostly achieved; 50-70%: partially achieved; 50% or less: not achieved). However, the indicators for which the actual value was below the baseline value were downgraded one level. The FY 2016 values set as the baseline value were the values for India as a whole, while for the actual value, the overall average values for all ADs were used for convenience.

Table 1: Operation and Effect Indicators

Indicator	Baseline value	Target value	Actual value		
	FY2016	FY2019	FY2018	FY2019	November 2022
		Completion Year		Completion Year	Ex-post Evaluation
<Health and Nutrition>					
Percentage of pregnant women receiving ante natal check-ups 4 times or more	64%	75%	63%	70% (93%)	80%
Percentage of children of 9 to 11 months fully immunized	89%	95%	85%	88% (93%)	95%
<Education>					
Percentage of learning outcomes for mathematics in grade 3 of elementary school	62%	75%	55%	76% (101%)	76%
Percentage of secondary schools with electricity connection	84%	95%	85%	90% (95%)	85%
<Agriculture and Water Resources>					
Percentage of high value crops	15%	20%	16%	15% (75%)	19%
<Financial Inclusion and Skill Development>					
Percentage of the population with bank accounts	32%	40%	35%	37% (93%)	45%
Employment percentage of youths who took skills training courses	18%	25%	25%	30% (120%)	40%
<Basic Infrastructure>					
Percentage of villages with internet connectivity	38%	55%	40%	45% (82%)	60%
Percentage of population in rural areas with access to an adequate quantity of potable water	82%	90%	75%	80% (89%)	85%

Source: Documents provided by JICA and NITI Aayog

The percentage of pregnant women receiving ante natal check-ups 4 times or more was mostly achieved (target ratio: 93%). Although the target was not fully achieved at the time of Program completion, partly due to lockdowns caused by COVID-19 in many ADs, the target had been achieved at the time of the post-evaluation.

The percentage of children of 9 to 11 months fully immunized was partially achieved (target ratio: 93%, below baseline). Although the target of was not fully achieved at the time of Program completion, partly due to lockdowns in many ADs caused by COVID-19, the target had been

achieved at the time of the ex-post evaluation.

The percentage of learning outcomes for mathematics in grade 3 of elementary school was achieved more than planned (target ratio: 101%). Although there were periods when students were unable to attend school due to COVID-19, the project had achieved more than planned at the time of Program completion through the introduction of e-learning and learning recovery programs. This was continuing at the time of the ex-post evaluation.

The percentage of secondary schools with electricity connection was mostly achieved (target ratio: 95%). The target was not fully achieved at the time of Program completion, partly because electrification was suspended due to the COVID-19 pandemic. At the time of the ex-post evaluation, the percentage had decreased, the reason for which could not be identified.

The percentage of high value crops was partially achieved (target ratio: 75%, below baseline); however, at the time of the ex-post evaluation, it had been mostly achieved. Although the reason of this limited achievement could not be identified, it is assumed to be partly due to the difference in reference data between the baseline value and the actual value.

The percentage of the population with bank accounts was mostly achieved (target ratio: 93%). Although the target was not fully achieved at the time of Program completion, it had been achieved at the time of the ex-post evaluation, partly due to the establishment of Customer Service Points (CSPs) providers with banking functions such as cash withdrawal within a 5 km radius of each village across India.

The employment percentage of youths who took skills training courses was achieved more than planned (target ratio: 120%). Although it was difficult to conduct on-the-job training during the lockdown caused by COVID-19, India's economy continued to grow and the demand for young people's labor was strong. Therefore, the Program achieved more than planned at the time of Program completion and this was continuing at the time of the ex-post evaluation.

The percentage of villages with internet connectivity was mostly achieved (target ratio: 82%). The target was not fully achieved at the time of Program completion, partly due to the suspension of radio tower construction during the lockdown caused by COVID-19. The target had been achieved at the time of the ex-post evaluation.

The percentage of the population in rural areas with access to an adequate quantity of potable water was partially achieved (target ratio: 89%, below baseline). Although there were suspensions in construction due to COVID-19, the development of a dashboard (database) enabled the timely monitoring and follow-up of progress in each AD, and although the target had not been achieved even at the time of the post-evaluation, it has been improving on a daily basis.



Solar panels installed at a primary health center



Drinking water facility installed in a school



Bike ambulance

Source: NITI Aayog

3.2.1.2. Qualitative Effects (Other Effects)

(1) The Enhancement of a System to Monitor the Achievement of SDGs by the Central Government of India

During the implementation of the Program, NITI Aayog established a database called the Champions of Change Dashboard and the data is available online. The database provides information on the progress of each AD in five sectors (health and nutrition, education, agriculture and water resources, financial inclusion and skill development, and basic infrastructure), as well as the ranking of each AD. The data in the database is updated periodically, and was at the time of the ex-post evaluation, and monthly rankings of ADs are published. In addition, in 2018, NITI Aayog published the SGD India Index, a report on SDG achievement by state, and the third edition of this (FY2021-2022) was available at the time of the ex-post evaluation. As mentioned above, the monitoring system (including the dashboard) for achievement of the SDGs has been established, and the data is updated and disclosed to the public in a timely manner. Thus, the system to monitor the achievement of SDGs by the central Government of India has been enhanced through the Program, and no major issues have been found.

Furthermore, the consultants hired by JICA (the team of experts for the technical cooperation project for promotion of the Program) provided assistance to some ADs in preparing Plans of Action (POA) for the Challenge Fund, which supported and enhanced NITI Aayog's activities.

(2) The Promotion of Japan-India Cooperation such as SDGs-Related Technical Input by Japan

In the first PMC (held in February 2019) JICA and NITI Aayog agreed to hold the Japan-India SDGs Forum and provide JICA technical cooperation as Japan-India cooperative actions. However, due to COVID-19 (including lockdown) from March 2020, some of the contents of these agreements were changed, such as the holding of the online instead of face-to-face forums. In addition, although the Japan-India SDG Forum was to be held in each of the five sectors

(health and nutrition, education, agriculture and water resources, financial inclusion and skill development, and basic infrastructure), due to COVID-19, it was held in only three sectors (health and nutrition, education, and agriculture and water resources). At the Forum, some Japanese systems were introduced as a reference for ADs in preparing POA for the Challenge Fund applied for under the ADP. As specific examples, school lunches in the health and nutrition sector, the improvement of school toilets in the education sector, and the SHEP approach and the One Village One Product movement in the agriculture sector were introduced.

In terms of technical cooperation, the team of experts conducted research and analysis in AD to identify issues and problems, and also provided support for the preparation of POA for the Challenge Fund based on requests from NITI Aayog.

As of the time of the ex-post evaluation, the “Data Collection Study for SHEP in India” was being conducted for the SHEP approach in the agricultural sector, introduced at the Japan-India SDG Forum held under the Program. In addition, the SHEP approach has been incorporated into some of the outcomes of the ongoing Japanese ODA loan project “Himachal Pradesh Crop Diversification Promotion Project (Phase 2)” (signed in February 2011). The new Japanese ODA loan project “Uttarakhand Integrated Horticulture Development Project” (signing in March 2022) is also considering the introduction of the SHEP approach.

From the above, it can be said that the Program has promoted Japan-India cooperation such as SDGs-related technical input by Japan.

(3) The Enhancement of Government Agency Staff Skills in the SDGs

During the implementation of the Program, the personnel in charge of the 112 districts covered by the ADP were identified, and although details could not be confirmed, regular training was provided to these personnel, including to the field workers, and was still being provided at the time of the ex-post evaluation.

The ranking system based on data measured in real time, which provided incentives for each AD to achieve SDG targets, as envisioned at the time of appraisal, was introduced by NITI Aayog during the Program period and was being continued at the time of the ex-post evaluation.

From the above, it can be said that the Program has enhanced the skills of government agency staff in the SDGs.

3.2.2. Impacts

3.2.2.1. Intended Impacts

(1) Quantitative Impacts

As the quantitative impact, achievement of the SDGs was analyzed. At the time of appraisal, it was assumed that the Program would contribute to 11 goals out of the 17 SDGs (Goal: 1-10 and 13) through support to five sectors (health and nutrition, education, agriculture and water

resources, financial inclusion and skill development, and basic infrastructure). The level of achievement of these 11 goals at the time of the ex-post evaluation was confirmed and analyzed as shown in Table 2.

Table 2: Status of Achievement of SDGs

Goal	Indicator	Actual value (2018)	Actual value (2019) Completion Year	Actual value (2020)	Target value (2030)	Analysis
1. No Poverty	1-1. % of the population living below National Poverty line	21.92	21.92	21.92	10.95	Comparing Program completion with 2020, no significant improvements were found.
	1-2. % of households with any usual member covered by any health scheme or health insurance	28.70	28.70	28.70	100	
	1-3. Persons provided with employment as a % of persons who demanded employment under MGNREGA ¹⁰	84.74	85.26	84.44	100	
	1-5. No. of homeless households per 10,000 households	10.39	4.20	4.20	0	
2. Zero Hunger	2-2. % of children under aged 5 years who are stunted in growth	38.40	34.70	34.70	21.03	Comparing Program completion with 2020, rice, wheat and coarse cereals produced annually per unit area has increased.
	2-3. % of pregnant women aged 15-49 years who are anemic (11.0 g/dl)	50.3	50.3	50.4	23.57	
	2-4. Rice, wheat and coarse cereals produced annually per unit area (kg/ha)	2,509.22	2,516.67	2,995.21	5,018.44	
3. Good Health and Well-being	3-1. Maternal mortality ratio per 100,000 population	130	122	113	70	Comparing Program completion with 2020, while the under-five mortality rate per 1,000 live births has improved, the annual notification of tuberculosis cases per 100,000 population has increased. As for the decreasing under-five mortality rate per 1,000 live births, the National Health Mission implemented by Ministry of Health and Family Welfare (MoHFW) has contributed to some extent.
	3-2. Under-five mortality rate per 1,000 live births	50	50	36	11	
	3-4. Annual notification of tuberculosis cases per 100,000 population	138.33	160	177	242	
4. Quality Education	4-5. Average annual drop-out rate at secondary level (%)	17.06	19.89	17.87	10	Comparing Program completion with 2020, the average annual drop-out rate at secondary level and % of school teachers professionally qualified have improved. Samagra Siksha
	4-6. % of school teachers professionally	81.15	78.84	82.62	100	

¹⁰ Mahatma Gandhi National Rural Employment Guarantee Act

Goal	Indicator	Actual value (2018)	Actual value (2019) Completion Year	Actual value (2020)	Target value (2030)	Analysis
	qualified					Abhiyan, implemented by Ministry of Human Resource Development (MoHRD) has contributed to some extent to the improvement.
5. Gender Equality	5-1. Sex ratio at birth (female per 1,000 male)	898	896	899	954	Comparing Program completion with 2020, the sex ratio at birth (female per 1,000 male), % of seats won by women in the general elections to state legislative assembly, and % of female labor force participation rate to male labor force participation rate have improved. In particular for the % of female labor force participation rate to male labor force participation rate, policies and projects implemented by the Ministry of Skill Development and Entrepreneurship (MoSDE) have promoted women's participation in society, and these policies and projects have contributed to some extent.
	5-4. % of seats won by women in the general elections to state legislative assembly	8.7	8.32	8.46	50	
	5-5. % of female labor force participation rate to male labor force participation rate	32	17.5	33	100	
6. Clean Water and Sanitation	6-3. % of districts verified to be open defecation free	31.95	88.41	100	100	Comparing Program completion with 2020, % of districts verified to be open defecation free has improved and the target for 2030 was also achieved.
7. Affordable and Clean Energy	7-1. % of households electrified	94.57	99.99	99.99	100	Comparing Program completion with 2020, % of households electrified has not improved but had reached almost 100% at the time of Program completion.
8. Decent Work and Economic Growth	N/A	N/A	N/A	N/A	N/A	Since there was no data for three consecutive years, comparisons could not be verified.
9. Industry, Innovation and Infrastructure	9-1. % of targeted habitations connected by all-weather roads under Pradhan Mantri Gram Sadak Yojana	47.38	69.89	97.65	100	Comparing Program completion with 2020, % of targeted habitations connected by all-weather roads and no. of internet subscribers per 100 population has improved drastically. As for no. of internet subscribers, Bharat Net implemented by Bharat Broadband Network Ltd. has contributed to some extent.
	9-2. No. of mobile connections per 100 persons in rural and urban area	82.97	88.41	84.38	100	
	9-3. No. of internet subscribers per 100 population	33.47	48.48	55.41	100	
10. Reduced Inequalities	10-3. Ratio of transgender labor force participation rate to male labor force participation rate	0.64	0.64	0.64	1	Comparing Program completion with 2020, nothing has changed.
13. Climate Action	13-3. % of renewable energy out of total installed generating capacity (including allocated shares)	17.51	35.22	36.37	40	Comparing Program completion with 2020, % of renewable energy out of total installed generating capacity has increased/improved slightly.

Source: SDG INDIA Index & Dashboard, NITI Aayog, external evaluator

Note 1. NITI Aayog has compiled a database of the progress of India and its states (including Union Territories (UTs)) toward each of the SDG targets in the SDG INDIA Index & Dashboard, which is available online. The database provides multiple indicators for each goal, and the indicator values are converted to index scores and averaged out to be used as actual values for the goal, which are used to check the progress toward the 2030 target as 100.

Note 2. At the time of the ex-post evaluation, there were only three years of data available for each goal, from 2018, when the database was first constructed, to 2020, so the impact was verified by comparing the values in 2019, when the Program was completed, with those in 2020, one year later. However, because the indicators used to calculate the score for each goal change from year to year, the indices for each goal cannot be simply compared, and only those indicators for which three years of data are available are shown in the table above. In addition, for some data, actual values cannot be collected every year for some indicators.

With regard to the 11 goals for which the situation was expected to improve as a result of the implementation of the Program at the time of appraisal, comparing the values in 2019, at Project completion, with the ones in 2020, one year later, the indicators for the following 7 goals had improved: 2. Zero hunger, 3. Good Health and Well-being, 4. Quality Education, 5. Gender Equality, 6. Clean Water and Sanitation, 9. Industry, Innovation and Infrastructure, and 13. Climate Action. The various projects and policies implemented by the ministries made a certain contribution to the improvement of those indicators.

(2) Qualitative Impacts

Qualitative impacts were assumed at the time of appraisal to contribute to Goal 17: Partnerships for the Goals through the improvement of implementation measures and systems. The progress of each achievement target under Goal 17 was verified and analyzed as follows. However, some indicators overlapped with the qualitative effects in effectiveness, and therefore these overlapping indicators were verified in the effectiveness.

1) To assist with and contribute to the on-going efforts of the Government of India to achieve all the goals and targets of SDGs by 2030

As confirmed by the quantitative impacts, although there were improvements in 7 out of the 11 goals, the achievement of the SDGs was still recognized as an issue that the Government of India should address at the time of the ex-post evaluation.

2) To make available technical and intellectual inputs for achieving SDGs in India, based on experience in Japan, and JICA supported projects and programs in India.

This indicator overlaps with the qualitative effects in effectiveness and was verified in the effectiveness.

3) To ensure a sense of competition among the government entities delivering public services having a bearing on SDGs

The level of achievement of SDGs of each State/UT and of AD as a government agency providing public services, is published in a ranking style on the database established during the Program period. This was continuously being updated at the time of the ex-post evaluation. In addition, the ADP provides funding for the implementation of subprojects for ADs with high rankings. As described above, a sense of competition

among government entities has been fostered.

- 4) To build the capacities of 36 States/UTs to achieve the SDG targets as part of SDGs-17.9, and to establish a robust system of performance monitoring and evaluation of this

This indicator overlaps with the qualitative effects in effectiveness and was verified in the effectiveness.

3.2.2.2. Other Positive and Negative Impacts

(1) Impacts on the Environment

The Program is a policy lending loan, and no large-scale construction works were implemented in the basic infrastructure sector, such as telecommunication network development and water supply works, and therefore no impact on the natural environment was observed.

(2) Resettlement and Land Acquisition

The Program is a policy lending loan, and no large-scale construction works were implemented in the basic infrastructure sector, therefore no impact on resettlement or land acquisition was identified.

(3) Gender Equality

The Program supported the achievement of the SDGs in India, with gender equality being set as one of the SDG targets. As confirmed by the quantitative impact, gender indicators have improved since Program completion.

ADP subprojects supported by the Program also included activities targeting women, such as activities to provide pre-recorded knowledge and precautions during pregnancy and after giving birth to expectant and nursing mothers via cell phone. There were also activities to organize school gatherings in which only women (mothers) could participate in order to raise awareness of the importance of education for girls. At the time of the ex-post evaluation, these activities were still ongoing, and the impact on gender, such as promoting women's participation in society, which was assumed at the time of appraisal, has been generally achieved as planned.

(4) Marginalized People

The Program supported the achievement of the SDGs in India, and reduced inequalities was set as one of the SDG targets. As confirmed by the quantitative impact, the indicator for reduced inequalities has improved since the Program completion.

In addition, the ADP supported by the Program targeted areas in India where the achievement of the SDGs was delayed, thus targeting people who were inhibited from equitable

participation in society.

In addition, the implementation of the ADP subprojects supported by the Program has resulted in positive impacts on those who were inhibited from equitable participation in society, resulting in increased child enrollment in schools and decreased dropout rates, which were not envisioned at the time of appraisal.

(5) Social Systems and Norms, Human Well-being and Human Rights

Some of the ADP subprojects supported by the Program targeted financial inclusiveness, which had the impact of contributing to the creation of a social system that provides financial services to people living in remote areas. This was not envisioned at the time of appraisal.

(6) Unintended Positive / Negative Impacts

Climate change and reduced poverty, which were assumed as impacts at the time of appraisal, were not verified as other impacts, but were confirmed in the quantitative impacts, since they are already included in the SDG targets.

In summary, as for the operation and effect indicators, although there was some impact due to COVID-19, among the nine indicators set at the time of appraisal, two indicators (Percentage of learning outcomes for mathematics in grade 3 of elementary school and Employment percentage of youths who took skills training courses) achieved the targets more than planned at the time of Program completion. Four indicators (Percentage of pregnant women receiving ante natal check-ups 4 times or more, Percentage of secondary schools with electricity connection, Percentage of the population with bank accounts, and Percentage of villages with internet connectivity) were mostly achieved, and three indicators (Percentage of children of 9 to 11 months fully immunized, Percentage of high value crops, and Percentage of population in rural areas with access to an adequate quantity of potable water) were partially achieved. As for qualitative effects, all three effects envisaged at the time of appraisal (the enhancement of a system to monitor the achievement of SDGs by the central government of India, the promotion of Japan-India cooperation such as SDGs-related technical input by Japan, and the enhancement of government agency staff skills for the SDGs) were achieved.

Regarding impact, out of the 11 goals that were expected to be improved by the implementation of the Program at the time of appraisal, 7 goals (Goal 2: Zero Hunger, Goal 3: Good Health and Well-being, Goal 4: Quality Education, Goal 5: Gender Equality, Goal 6: Clean Water and Sanitation, Goal 9: Industry, Innovation and Infrastructure, and Goal 13: Climate Action) were improved. In addition, technical and intellectual inputs for achieving SDGs in India, based on experience in Japan and JICA supported projects and programs in India, have been provided. A ranking mechanism has been introduced in the ADP supported by the Program, and a database

has been established and is operated to confirm and monitor progress. Therefore, in general, the expected impact has been observed.

The Program has had no particular negative impact on the environment, and there has been a certain positive impact on gender equality, marginalized people, social systems and norms, human well-being and human rights, since the Program naturally supports activities to achieve the SDGs in which these aspects are included as the targets.

The Program has mostly achieved its objectives. Therefore, effectiveness and impacts of the Program are high.

3.3. Sustainability (Rating: N/A)

3.3.1. Policy and System

The continuation situations of policies and projects in the five sectors (health and nutrition, education, agriculture and water resources, financial inclusion and skills development, and basic infrastructure) that were targeted for support under the Program are as follows.

(1) Health and Nutrition

In the health and nutrition sector, the National Health Mission and the Ayushman Bharat (National Health Protection Mission) were being implemented as policies and projects related to the Program at the time of appraisal. The National Health Mission is a policy that addresses strengthening of the health system, maternal and infant care, and national disease control in rural areas, together with improvement in access to health care for the urban poor. The Ayushman Bharat is a policy which has a two-pillar program: one to provide national health care coverage and the other one to provide free health care services at community health centers, including maternity care and immunization services. These policies were either planned to continue or ongoing at the time of the ex-post evaluation. In addition, the Ministry of Health and Family Welfare has established the SDG Health Dashboard, which summarizes efforts and progress related to SDG Goal 3: Good Health and Well-being, and which has identified the achievement of the SDGs as an important issue for the Ministry.

(2) Education

In the education sector, the Samagra Siksha Abhiyan (Overarching Program for the School Education Sector) was being implemented as a policy and project related to the Program at the time of appraisal. This policy comprehensively supports school education from pre-school to the end of secondary education. At the time of the ex-post evaluation, it had been decided that this would continue to be implemented until the end of March 2026. The policy is positioned by the Ministry of Education in line with Goal 4: Quality Education of the SDG.

(3) Agriculture and Water Resources

In the agriculture and water resources sector, the Pradhan Mantri Fasal Bima Yojana (Crop Insurance Scheme) was being implemented as a policy and project related to the Program at the time of appraisal. This policy is to provide government subsidies to commercial and horticultural grain farmers who use comprehensive natural disaster insurance to promote diversification of production varieties and increase farmers' income. At the time of the ex-post evaluation, the scheme was still ongoing. Farmers who wish to obtain insurance coverage under this scheme can apply for it through the scheme's website.

(4) Financial Inclusion and Skill Development

In the area of financial inclusion and skills development, Pradhan Mantri Jan Dhan Yojana (National Mission on Financial Inclusion), Deen Dayal Upadhyaya Grameen Kaushalya Yojana (Youth Employment Scheme), Pradhan Mantri Kaushal Vikas Yojana (Skill Certification Scheme), and the Programme to Mainstream Aspirational Districts through Skill Development were being implemented as policies and projects related to the Program at the time of appraisal. All of these policies were ongoing or expected to continue at the time of the ex-post evaluation, as summarized in Table 3.

Table 3: Summary of Related Policies and Projects under the Financial Inclusion and Skill Development Sector

Policy/Project	Description	Status at the Time of Ex-post Evaluation
Pradhan Mantri Jan Dhan Yojana (National Mission on Financial Inclusion)	Comprehensive government support policies to promote bank account opening and improve access to financial services such as remittances, loans, insurance, and pensions for citizens aged 18 to 65.	Ongoing. In addition to this policy, other policies such as Pradhan Mantri Jeevan Jyoti Bima (PMJJB) and Pradhan Mantri Suraksha Bima (PMSB) that provide insurance, Atal Pension Yojna (ATY) that provides pensions, Pradhan Mantri Mudra Yojna (PMMY) that provides microfinance, and other policies are also implemented by the Ministry of Finance.
Deen Dayal Upadhyaya Grameen Kaushalya Yojana (Youth Employment Scheme)	A project aimed at training to diversify sources of income for rural poor families and create jobs for young people in rural areas as part of a poverty relief plan.	Ongoing. Although the project period expired at the end of March 2023, the second phase resumed in April of the same year with improved content based on the results and lessons learned from the past implementation of the policy.
Pradhan Mantri Kaushal Vikas Yojana (Skill Certification Scheme)	A project that provides training and skills certification, mainly in soft skills, for young people engaged in the manufacturing and service industries at training centers around the country, mainly operated by the Ministry of Skills Development and Entrepreneurship.	Although the project expired at the end of March 2021, it is a program to be implemented continuously and is expected to be resumed in 2023 with improved content based on the results and lessons learned from this project.
Programme to Mainstream Aspirational Districts through Skill Development	A project that aims to strengthen the governance and organizational structure of administrative agencies by having the Ministry of Skills Development and Entrepreneurship promote the identification of issues, the formulation of improvement plans, and implementation in the field of skills development conducted by ADs.	Ongoing.

Source: Documents provided by Ministry of Finance and Ministry of Skill Development and Entrepreneurship in India

(5) Basic Infrastructure

In the basic infrastructure sector, Bharat Net (National Optical Fibre Network) and Swajal Yojana (Community-owned Drinking Water Projects) were being implemented as policies and projects related to the Program at the time of appraisal. Bharat Net is a project that aims to provide internet access to all villages in India. Swajal Yojana is a project in which the Government of India and community groups in each village jointly fund the installation of small-scale water supply facilities in rural villages in ADs, to be maintained and managed by the community groups. At the time of the ex-post evaluation, Bharat Net was still ongoing, and only 40,000 of the approximately 640,000 villages in the ADP were without internet access. Although Swajal Yojana had been completed at the time of the ex-post evaluation, Jal Jeevan Mission has been implemented from 2019 as succeeding project, not only in ADs but also in all rural areas of India.

Based on the above, at the time of the ex-post evaluation, the Government of India as a whole has continued to implement policies and projects to achieve the SDGs, and there has been no change in the priorities and positioning of these policies and projects.

3.3.2. Institutional/Organizational Aspect

The following related organizations are responsible for activities to achieve the SDGs after Program completion.

(1) NITI Aayog

NITI Aayog played the role of coordinator for SDGs in the Government of India from the time of appraisal to the time of ex-post evaluation, and has monitored the progress of achievement. A database has been established and there is the staff to maintain and update the database.

As of the time of the ex-post evaluation, the ADP was still being implemented and the team for implementing the ADP was maintained within NITI Aayog. Although personnel in charge of the ADP is changed by personnel transfers within NITI Aayog, the necessary personnel to implement the ADP have been maintained.

(2) Ministry of Health and Family Welfare

At the time of the ex-post evaluation, the Ministry of Health and Family Welfare, which is in charge of the health sector of the ADP, maintained the structure and personnel to implement the ADP and related policies and projects such as the National Health Mission and Ayushman Bharat. A mechanism to hire fixed-term consultants has been established for when additional staffing is needed.

In addition, the SDG Health Dashboard, which summarizes efforts and progress related to SDG

Goal 3: Good Health and Well-being, has been established, and the Ministry of Health and Family Welfare publishes indicators (such as the neonatal mortality rate) related to SDG Goal 3 in its annual report. Therefore, it is clear that the Ministry has established a system to confirm and monitor progress in achieving the SDG targets.

(3) Ministry of Education

At the time of the ex-post evaluation, the Ministry of Education, which is in charge of the education sector of the ADP, maintained the structure and personnel to implement the ADP and related policies and projects, such as Samagra Siksha Abhiyan, as well as to conduct field surveys for the monitoring of the ADP. The Ministry of Human Resource Development, which was in charge of the education sector at the time of appraisal, was reorganized into the Ministry of Education in 2020.

(4) Ministry of Agriculture and Farmers' Welfare

At the time of the ex-post evaluation, the Ministry of Agriculture and Farmers' Welfare, which is in charge of the agricultural sector of the ADP, maintained the structure and personnel to implement the ADP and related policies and projects such as Pradhan Mantri Fasal Bima Yojana.

(5) Ministry of Finance

At the time of the ex-post evaluation, the Ministry of Finance, which is in charge of the financial inclusiveness sector of the ADP, maintained the structure and personnel to implement the ADP and related policies and projects such as Pradhan Mantri Jan Dhan Yojana, PMJJB, PMSB, ATY, and PMMY, although the structure and personnel were not sufficient.

(6) Ministry of Rural Development

At the time of the ex-post evaluation, the Ministry of Rural Development, which is in charge of the skills training sector of the ADP, maintained the structure and personnel to implement the ADP and related policies and projects, such as Deen Dayal Upadhyaya Grameen Kaushalya Yojana. In addition, the Ministry of Rural Development has a department that checks and monitors the progress of the above policies and projects, and this system is maintained.

(7) Ministry of Skills Development and Entrepreneurship

At the time of the ex-post evaluation, the Ministry of Skill Development and Entrepreneurship, which is in charge of the skill training sector of the ADP, maintained the structure and personnel to implement the ADP and related policies and projects such as Pradhan Mantri Kaushal Vikas Yojana and the Programme to Mainstream Aspirational Districts through Skill Development.

(8) Telecommunications Bureau, Ministry of Communications

At the time of the ex-post evaluation, the Telecommunications Bureau in the Ministry of Communications, which is in charge of the basic infrastructure sector of the ADP, maintained the structure and personnel to implement the ADP and the related policies and projects such as Bharat Net. Bharat Broadband Network Ltd., which was in charge at the time of appraisal, is a state-owned company under the Ministry, and the Telecommunications Bureau of the Ministry is in charge from the perspective of monitoring the ADP.

(9) Ministry of Jal Shakti

At the time of the ex-post evaluation, the Ministry of Jal Shakti, which is responsible for the basic infrastructure sector of the ADP, maintained the structure and personnel to implement the ADP and related policies and projects such as the Jal Jeevan Mission. The Ministry of Drinking Water and Sanitation, which was listed as the responsible agency at the time of appraisal, was merged with the Ministry of Water Resources, River Development & Ganga Rejuvenation in May 2019 and became the Ministry of Jal Shakti.

The Ministry of Jal Shakti has established a database for checking and monitoring the progress of the Jal Jeevan Mission, and from this database, the progress of water supply dissemination (i.e., drinking water) in each region, including ADs, can be checked.

As of the time of the ex-post evaluation, the ADP was still being implemented, and the organization and structure of NITI Aayog, as the coordinating body, and the relevant ministries in charge of each sector were maintained.

3.3.3. Preventative Measures to Risks

(1) COVID-19

The lockdown caused by COVID-19 meant delays in the progress of policies and projects in various sectors. Some SDG indicators also worsened. In the basic infrastructure sector in particular, construction work was required and it was difficult to secure workers.

In order to proceed with the Program even in this situation, activities which could be carried out under the restrictions were carried out, some online. In many sectors, during the lockdown and other similar periods of restricted activity, some activities were conducted online. The Japan-India SDG Forum was also held online.

The Ministry of Education took action by establishing a consultation service for matters other than study, because as a result of the online school education system, the amount of time children spent with their parents at home increased, and in some cases domestic violence occurred.

The Ministry of Rural Development arranged for migrant workers to work within a region because they could not go outside the region due to the lockdown, and the ministry supported a part of their wages.

4. Conclusion, Lessons Learned and Recommendations

4.1. Conclusion

The objective of the Program is to promote efforts towards SDGs in India's social development by strengthening and assisting the framework of various policies and implementation platforms for the SDGs, thereby contributing to the achievement of SDGs in 2030. The implementation of the Program was consistent with the development policy and development needs of India. The Program was also consistent with Japan's ODA policy, internally consistent with JICA's other projects, and externally consistent with the activities of other donors. Therefore, its relevance and coherence are high.

As for the operation and effect indicators, 9 indicators were set at the time of appraisal for 5 sectors: health and nutrition, education, agriculture and water resources, financial inclusion and skill development, and basic infrastructure. Of these, two indicators (Percentage of learning outcomes in mathematics for grade 3 of elementary school and Employment percentage of youths who took skills training courses) achieved more than the planned targets at Program completion. Four indicators (Percentage of pregnant women receiving ante natal check-ups 4 times or more, Percentage of secondary schools with electricity connection, Percentage of the population with bank accounts, and Percentage of villages with internet connectivity) were mostly achieved. Three indicators (Percentage of children of 9 to 11 months fully immunized, Percentage of high value crops, and Percentage of population in rural areas with access to adequate quantity of potable water) had been partially achieved. As for qualitative effects, all three effects envisaged at the time of appraisal (the enhancement of a system to monitor the achievement of SDGs by the central government of India, the promotion of Japan-India cooperation such as SDGs-related technical input by Japan, and the enhancement of the skills of government agency staff in the SDGs) were achieved. Regarding impact, 11 goals were expected to have been improved by the implementation of the Program at the time of appraisal. Of these, seven goals (Goal 2: Zero Hunger, Goal 3: Good Health and Well-being, Goal 4: Quality Education, Goal 5: Gender Equality, Goal 6: Clean Water and Sanitation, Goal 9: Industry, Innovation and Infrastructure, and Goal 13: Climate Action) were improved. In addition, technical and intellectual inputs for the achievement of SDGs in India, based on experience in Japan and JICA-supported projects and programs in India, were provided, a ranking mechanism was introduced in the ADP supported by the Program, and a database was established and operated to confirm and monitor progress. In general, the expected impact has been observed. The Program also had a certain positive impact on gender, marginalized people, social systems and norms, human well-being and human rights, due to the nature of the Program, which supported activities to achieve the SDG. Therefore, the effectiveness and impacts of the project are considered to be high.

Sustainability is ensured since there are no problems with the operation and maintenance of the Program in terms of the policy and system aspects and the institutional/organizational aspects.

Preventive measures have been taken against risks.

4.2. Recommendations

4.2.1. Recommendations to the Executing Agency

(1) Establishment of an AD Replacement Mechanism

The ADP supported by the Program started in January 2018, with 112 districts that were lagging behind in their progress toward achieving the SDGs designated as ADs. At the time of the ex-post evaluation, although approximately five years had passed, the ADs eligible for support under the ADP had been fixed since the beginning, resulting in a widening gap between ADs that had developed and those that remained underdeveloped. As a result, some developed ADs have already improved their SDG-related indicators to a greater extent than those outside the ADs as they received more funding and could implement more subprojects. Therefore, NITI Aayog is recommended to establish a mechanism in which AD progress is evaluated every five years; ADs that meet certain criteria graduate from support, while new districts where progress is lagging behind are incorporated into the ADP as new ADs; and the overall level of ADs are raised from the bottom up.

(2) Support for Underdeveloped ADs

Although the ADP system ranks ADs according to the data in the level of development from the previous month, which makes it easier for underdeveloped ADs to obtain higher rankings because they have more room to grow, the gap between developed ADs and underdeveloped ADs was widening at the time of the ex-post evaluation, as described in (1) above. In reality, some ADs remain underdeveloped because they cannot receive financial support and cannot implement subprojects. Motivating these underdeveloped ADs to take action once again to achieve the SDGs would be effective in improving the SDG indicators for India as a whole. Among ADs, there are differences in ability to prepare proposals for applications to the Challenge Fund and to implement subprojects, so the recommendation to NITI Aayog is that more focused support be provided to underdeveloped ADs, including the dispatch of personnel (e.g., experts and consultants in various fields) to help them strengthen the capacities needed to move up the ranks.

4.2.2. Recommendations to JICA

None

4.3. Lessons Learned

(1) Database Development

In the ADP supported by the Program, a system was adopted to promote competition among ADs by ranking their achievements in each sector based on each indicator. In order for this

competition and ranking mechanism to work effectively, NITI Aayog developed a database into which each AD's indicators were entered. The database was updated and published monthly, making the ranking system transparent not only to ADs but also to third parties. With this database, not only can rankings be created and published objectively, but also the progress of SDG-related indicators by AD and by sector can be easily checked. This is also pointed out in the ADP project report which UNDP issued in December 2020.¹¹ Furthermore, the database was continuously updated and managed through the incorporation of competition and ranking mechanisms. In addition, several related organizations that implemented policies and projects in each sector also established and operated their own databases to check the progress of their policies and projects, and developed mechanisms to immediately check the progress of the policies and projects using this data. The data is very useful for checking the progress and achievement of projects such as the Program, which requires the collection and analysis of information and data from a variety of sectors, and it is recommended that a similar database be established and operated when similar Japanese ODA loan projects are implemented in the future.

(2) Collecting and Sharing Good Practices

NITI Aayog has compiled good practices of ADP activities supported by the Project and published them as Stories of Change on the NITI Aayog website. The UNDP ADP project report also provides a good example of an ADP. The JICA India Office compiles information on JICA projects that contribute to India's achievement of the SDGs and publishes this as brochures on its website. These efforts focus on those who are engaged in such work in the field, and they may encourage them to further their activities as well as serving as a reference for other organizations and groups considering similar work. In general, policy lending loans do not include large-scale construction nor the construction of visible structures, making it difficult for the recipient to understand how the loan has contributed to the development of the target country. Therefore it is important to publicize and advertise achievements through brochures and other means.

(3) Setting Policy Actions and Their Indicators

Although the policy actions on the policy matrix of the Program were implemented, there were some operation and effect indicators that were not affected by the actions. For example, for the indicator "Percentage of children of 9 to 11 months fully immunized," although a special team was formed to achieve 100% immunization and maternal care registration rates as a policy action to achieve the indicator, the baseline value and the actual value at the Program completion were almost the same. Although the impact of COVID-19 was an external factor, it is assumed that one

¹¹ UNDP (2020). Aspirational Districts Programme: An Appraisal.
<https://www.undp.org/india/publications/aspirational-districts-programme-appraisal>

of the reasons for this was the difference in the sources of reference used for the baseline and actual values. When setting policy actions and indicators, it is essential that the logic for emerging effects is properly organized and that they are set appropriately. The ex-post evaluation report of the Japanese ODA loan “Tamil Nadu Investment Promotion Program (Phase 2)” (2017-2020) describes as the lessons learned that JICA interviewed organizations including the Japan External Trade Organization (JETRO) and private companies during the appraisal; and that, based on the development needs, JICA had discussions with the implementing agencies, which resulted in a well-designed policy matrix that works in a complementary manner. Considering this lesson, at the time of appraisal, JICA should consult not only with the implementing agencies but also with other relevant parties (such as the Ministry of Health and Family Welfare and ADs in the Program) in order to set appropriate policy actions and indicators.

5. Non-Score Criteria

5.1. Performance

5.1.1. Objective Perspective

The unique feature of the Program, which differed from other Japanese ODA loan projects and support from other development partners, was that it was “a policy lending Japanese ODA loan project” with “NITI Aayog as the implementing agency” to promote the SDGs in India. Other loan-type projects, including Japanese ODA loans, are generally provided to specific sectors, and in such cases, the implementing agency is the ministry or agency with jurisdiction over the sector (Ministry of Construction or Ministry of Electricity) or a state-own enterprise. In this case, the Program did not focus on a specific SDG target, but rather targeted the promotion of the SDGs in general, and therefore, NITI Aayog, which served as the coordinating body for the SDGs, was the implementing agency. Also, an ADP supported by the Program was implemented as a policy lending Japanese ODA loan project to promote the implementation of policy actions to solve issues, with NITI Aayog as the implementing agency. Meanwhile, ADB and UNDP provided technical cooperation type support such as support for proposal preparation. Frequent policy dialogue, operational coordination, and monitoring between JICA and NITI Aayog through the Program have further deepened the relationship between the two parties and enhanced the consistency and coherence between JICA’s assistance and India’s development policies, thereby strengthening relationship with NITI Aayog, which plays an important role in the process of the Government of India’s requesting ODA projects from Japan, and providing great advantage for JICA to formulate and implement Japanese ODA loan projects continuously in the future. In conclusion, the Program has made a certain contribution to demonstrating the uniqueness of JICA’s assistance in India and to strengthening the relationship between JICA and NITI Aayog.

(End)

Appendix 1: Internal consistency

List of Cooperation with Other JICA projects

Goal	Related JICA Projects	Scheme	Project Period	Project Summary
1. No Poverty	Jharkhand Horticulture Intensification by Micro Drip Irrigation (MDI) Project	Japanese ODA Loan	2016-2023	The project improved irrigation efficiency, increased agricultural productivity, and diversified crops by installing drip irrigation systems in target farm households and providing technical assistance on horticultural crop cultivation and marketing, thereby contributing to improving the livelihoods of small and micro farmers.
	Odisha Forestry Sector Development Project	Japanese ODA Loan	Phase 1: 2006-2013 Phase 2: 2017-2027	The project enhanced the forest ecosystem along with the livelihoods of local people by improving sustainable forest management, sustainable biodiversity conservation and community development, thereby contributing to harmonization between environmental conservation and socio-economic development in Odisha.
2. Zero Hunger	Himachal Pradesh Crop Diversification Promotion Project	Japanese ODA Loan	2011-2020	The project promoted sustainable crop diversification in all districts of Himachal Pradesh by the development and rehabilitation of minor irrigation facilities and access farm roads, as well as by marketing promotion and the improvement of extension services, thereby contributing to improvement of livelihood of farmers in Himachal Pradesh.
	Andhra Pradesh Irrigation and Livelihood Improvement Project	Japanese ODA Loan	Phase 1: 2007-2013 Phase 2: 2017-2024	The project raised agricultural productivity and water management capacities through the construction of minor irrigation facilities, the rehabilitation of medium irrigation facilities, capacity building of operation and maintenance setups, and the spread of farming technologies, in the state of Andhra Pradesh in southern India, thereby contributing to an increase in farm income and the alleviation of poverty
3. Good Health and Well-being	The Project for the Improvement of the Institute of Child Health and Hospital for Children, Chennai	Grant Aid	2014-2016	By supporting the construction of a comprehensive pediatric outpatient ward and the provision of medical equipment necessary for neonatal care and pediatric care (ultrasound machines, incubators, neonatal and pediatric ventilators, pediatric surgical equipment, etc.), the project improved the quality of local health and medical services, educational functions, and the health of children.
	Tamil Nadu Urban Health Care Project	Japanese ODA Loan	2016-2021	The project developed health care facilities and equipment and built up the capacity of medical personnel for NCD interventions to improve urban health care systems in Tamil Nadu, thereby contributing to the health promotion of residents in the state.
4. Quality Education	Campus Development Project of IIT Hyderabad	Japanese ODA Loan	2014-2021	By supporting the construction of the International House and the Student House at the Indian Institute of Technology Hyderabad and

Goal	Related JICA Projects	Scheme	Project Period	Project Summary
				the procurement of related materials and equipment, the project promoted technological innovation in India and fostered the development of human resources capable of leading the industrial world.
	Japan Overseas Cooperation Volunteers	Other		The program promoted the contribution of culture to cultural diversity and sustainable development by sending volunteer Japanese language teachers to teach and promote Japanese language education.
5. Gender Equality	Rajasthan Water Sector Livelihood Improvement Project	Japanese ODA Loan	2017-2025	In Rajasthan, the project improved irrigation efficiency and agricultural productivity by rehabilitating aging irrigation facilities and providing agricultural support based on market demand, taking into consideration the participation of women farmers, thereby contributing to improving farmers' livelihoods and promoting women's participation in socio-economic activities.
	Delhi Mass Rapid Transport System Project Phase I-III	Japanese ODA Loan	1997-2021	The project encouraged women to work in urban areas and contributed to economic activity by providing safe public transportation for women.
6. Clean Water and Sanitation	Hogenakkal Water Supply and Fluorosis Mitigation Project	Japanese ODA Loan	2008-2013	The project aimed to provide safe and stable water supply services to meet the rapidly increasing water demand in the Krishnagiri and Dharmaburi districts of Tamil Nadu by constructing new water supply facilities using the Cauvery River as a water source, and by conducting anti-fluorosis activities.
	Delhi Water Supply Improvement Project	Japanese ODA Loan	2012-2022	The project supported the reconstruction and renewal of existing water supply facilities in the Chandrawal Water Treatment Plant System District, the oldest in the Delhi metropolitan area in India, to drastically improve the leakage rate and contribute to the provision of a continuous and stable water supply service 24 hours a day.
7. Affordable and Clean Energy	New and Renewable Energy Development Project	Japanese ODA Loan	Phase 1: 2011-2016 Phase 2: 2014-2020	The project aimed to secure a stable power supply to meet increasing power demand and diversify power supply sources by providing medium to long-term funds necessary for new and renewable energy development projects as loan funds for power generation companies through the Renewable Energy Development Corporation of India.
	Project for Construction of Turga Pumped Storage	Japanese ODA Loan	2018-2028	By constructing a pumped storage power plant that could easily regulate electricity, the project strengthened the power supply and grid stabilization during peak periods, contributing to the economic development and improvement of the standard of living in the state.
8. Decent Work and Economic Growth	Dedicated Freight Corridor (DFC) Project	Japanese ODA Loan	2009-2025	By constructing a new line connecting major cities and supporting the introduction of a fully automatic signaling and communication system together with high-powered, high-speed locomotives, the project contributed to the country's broad-based economic

Goal	Related JICA Projects	Scheme	Project Period	Project Summary
				development by meeting the expected high growth rate of the demand for freight transportation and by improving the efficiency of the logistics network.
	Tamil Nadu Investment Promotion Program (TNIPP) Phase I&II Gujratat Investment Promotion Program (GIPP)	Japanese ODA Loan	TNIPP (Phase 1): 2012-2015 TNIPP (Phase 2): 2016-2020 GIPP: 2016-2020	The projects aimed to improve the investment climate in Tamil Nadu and Gujarat through policy support loans.
9. Industry, Innovation and Infrastructure	The Project on Improvement of Chennai Port Operation in India	Technical Cooperation	Phase 1: 2014-2016 Phase 2: 2017-2018	The project made the Chennai Port more accessible by reducing transport time for containerized cargo.
	Mumbai Trans-harbor Link (MTHL) Project	Japanese ODA Loan	2016-2023	By constructing a marine road connecting central Mumbai to Navi Mumbai on the other side of the Mumbai Bay, the project improved access to Mumbai and Navi Mumbai, where large-scale urban development is underway, and contributed to economic development in the Mumbai metropolitan area.
10. Reduced Inequality	Bihar National Highway Improvement Project (Phase 1 and 2)	Japanese ODA Loan	Phase 1: 2013-2020 Phase 2: 2014-2022	The project was expected to contribute to the improvement of passenger and cargo transportation efficiency and the development of the tourism industry in Bihar, which has been experiencing remarkable economic growth in recent years, by supporting the construction of four-lane major arterial roads and the development of main roads, bridges, service roads, and intersections in the province.
	North East Road Network Connectivity Improvement Project (Phase 1-3)	Japanese ODA Loan	2017-2030	The project improved connectivity within the northeastern region of India and with other regions within and outside of the country by improving existing roads (including the construction of a new bypass), thereby contributing to the promotion of economic development in the region.
11. Sustainable Cities and Community	Delhi Mass Rapid Transport System Project, Chennai Metro Rail Project Bangalore Metro Rail Project Kolkata East-West Metro Project Mumbai Metro Line 3 Project Ahmedabad Metro Project	Japanese ODA Loan	-Delhi Mass Rapid Transport System Project: 1997-2021 -Chennai Metro Rail Project: 2008-2027 -Bangalore Metro Rail Project: 2007-2017 -Kolkata East-West Metro Project: 2008-2021 -Mumbai Metro Line 3 Project: 2013-2022 -Ahmedabad Metro Business: 2015-2022	The project supported the construction of rapid transit systems (metros) in the cities of Delhi, Chennai, Bengaluru, Kolkata, Mumbai, and Ahmedabad, which helped reduce traffic congestion, facilitate mobility, and disperse population.
	The Project for Implementation of Advanced Traffic Information and Management System in Core Bengaluru	Grant Aid, Japanese ODA Loan	-The Project for Implementation of Advanced Traffic Information and Management System in Core Bengaluru: 2018-2021	The project supported the development of an intelligent road transportation system in the cities of Bengaluru, Delhi, Chennai, and Hyderabad, thereby contributing to the alleviation of traffic congestion in the metropolitan area and to regional economic

Goal	Related JICA Projects	Scheme	Project Period	Project Summary
	Delhi Eastern Peripheral Expressway ITS Installation Project Project for Installation of Chennai Metropolitan Area Intelligent Transport Systems Project for the Construction of Chennai Peripheral Ring Road The Assistance for the Introduction Of ITS Related to Hyderabad Outer Ring Road Construction Project		-Delhi Eastern Peripheral Expressway ITS Installation Project: 2017-2022 -Project for Installation of Chennai Metropolitan Area Intelligent Transport Systems: 2018-2027 -Project for the Construction of Chennai Peripheral Ring Road: 2019-2026 -The Assistance for the Introduction of ITS Related to Hyderabad Outer Ring Road Construction Project: 2008-2020	development.
12. Responsible Consumption and Production	Kolkata Solid Waste Management Improvement Project	Japanese ODA Loan	2006-2016	The introduction of a wide-area waste treatment system, including the construction of a final disposal facility, covering multiple municipalities promoted the appropriate treatment of waste generated in the region, thereby contributing to an improvement in the living and sanitation environment and environmental preservation for the residents of the region.
13. Climate Action	29 projects supporting Forestry sector in India (27 Japanese ODA Loans and 2 Technical Cooperations)	Japanese ODA Loan, Technical Cooperation		Under the framework of Joint Forest Management (JFM), in which village communities surrounding forests cooperated with the State Forestry Department to conserve, plant, and manage forests, the projects supported the restoration of ecosystems through afforestation, reforestation, and conservation activities with the active participation of communities.
	Micro, Small and Medium Enterprises Energy Saving Project (Phase 3)	Japanese ODA Loan	Phase 1: 2008-2011 Phase 2: 2011-2014 Phase 3: 2014-2020	By providing medium- to long-term funds to small and micro-enterprises for energy conservation efforts, the program promoted more efficient energy use and contributed to environmental improvement, sustainable economic development, and climate change mitigation.
14. Life below Water	Ganges River Basin Urban Sanitation Improvement Project (Varanasi) Yamuna River Basin Urban Sewerage Improvement Project	Japanese ODA Loan	-Ganges River Basin Urban Sanitation Improvement Project (Varanasi): 2005-2020 -Yamuna River Basin Urban Sewerage Improvement Project: 1992-2022	In addition to the reconstruction and renewal of sewage facilities and the construction of facilities to reuse sewage after treatment, the projects contributed to the improvement of the sanitary environment and the health of residents in the cities in the basin by conducting educational and public relations activities for residents.
	Project for Upgradation of Environmental Management for Ship Recycling in Alang and Soshiya in Gujarat	Japanese ODA Loan	2017-2024	The project improved environmental and occupational health management in the Arran and Soshiya districts of Gujarat by upgrading related facilities and introducing work methods that conform to international conventions, thereby contributing to environmental conservation and sustainable industrial development in the state.
15. Life on	Sikkim Biodiversity Conservation	Japanese	2010-2020	The project contributed to environmental conservation and balanced

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Land	and Forest Management	ODA Loan		socio-economic development in the State of Sikkim in northeastern India by strengthening biodiversity conservation and forest management capacity and increasing the income of local people through biodiversity conservation activities, forest management, the promotion of eco-tourism, livelihood improvement activities, etc.
	West Bengal Forest and Biodiversity Conservation Project	Japanese ODA Loan	2012-2020	The project contributed to the conservation of biodiversity in the state while reducing greenhouse gas emissions by supporting afforestation activities with the participation of local residents, strengthening forest management, enhancing protected area management systems, and improving wildlife habitats.
16. Peace, Justice and Strong Institutions	Women Safety Net	Other		The project worked with NGOs to establish prevention programs against gender-based violence (GBV) and helped women achieve legal, social, and economic self-sufficiency by building safety nets in poverty-stricken rural areas.
	Japan Overseas Cooperation Volunteers	Other		The program dispatched JICA Overseas Cooperation Volunteers to national institutions and NGOs that support people with disabilities and contributed to creating efficient ways to improve the lives of patients through mutual cooperation with their counterparts in India.
	JICA's Anti-Corruption Policy Guide	Other		In order to put into practice a policy of adherence to anti-corruption and compliance requirements by Japanese ODA stakeholders, JICA prepared a series of policy statements and made them available on its website. In addition, to raise awareness of the anti-corruption policy, the Ministry of Foreign Affairs and JICA distribute the Anti-Corruption Policy Guide, which outlines the key concepts and required actions of the policy, to all parties involved in ODA activities.
17. Partnerships for the Goals	Japan Overseas Cooperation Volunteers	Other		JICA Overseas Cooperation Volunteers contributed to the capacity-building goals of SDG-17 by using their technical skills and practical experience to work with local communities at the grassroots level to improve holistic development.
	Private-Sector Participation	Other		In order to strengthen partnerships with Japanese companies, the project provides proposal-based funding programs to conduct market research, feasibility studies, and pilot projects in collaboration with counterpart organizations in India (state governments, local governments, research institutions, etc.) to promote investment through the application of Japanese products and technologies and innovative technologies.

Source: JICA India Office SDGs Brochure