

Ex-ante Evaluation (for Japanese ODA Loan)

South Asia I, South Asia Division Department

Japan International Cooperation Agency

1. Name of the Project

- (1) Country : India
- (2) Project: Tamil Nadu Investment Promotion Program (Phase 3)
- (3) Project Site/Target Area: State of Tamil Nadu (Total Population: about 72.14 million (2011))

Loan Agreement: March 27, 2025

2. Background and Necessity of the Project

(1) Current State and Issues of the Investment Environment Improvement and the Positioning of this Project in India

The Indian economy has been performing well, with the exception of the period of the COVID-19 pandemic, and has continued to grow at an average annual rate of over 7% since 2000 (World Bank). One of the factors behind this economic growth is the increase in the amount of Foreign Direct Investment (FDI) resulting from improvement of investment environment. The total amount of FDI inflows, which was 45.15 billion dollars in FY2014, increased to 76.3 billion dollars in FY2021, placing India in 5th place in the world (Invest India, 2023). In particular, FDI in renewable energy has increased significantly, from 410 million dollars in FY2014 to 1.6 billion dollars in FY2022 (Invest India, 2023). On the other hand, Japanese companies expanding into India have pointed out issues such as a fragile infrastructure, unclear legal application, a complex tax collection system, and unstable public security and social conditions, and in order to continue to increase FDI in the future, it is necessary to further improve the business environment (Japan Bank for International Cooperation, 2022).

The state of Tamil Nadu in southeastern India is located on the sea lanes to Southeast Asia, and as a state covered by the Chennai-Bengaluru Industrial Corridor (CBIC), for which the Japanese and Indian governments agreed on a comprehensive regional development vision plan in July 2015, it is positioned as an important region for India's economic development. The state is known as a manufacturing hub due to its abundant labor force and consistent policy of attracting foreign investment. Looking at the gross value added (GVA) by industry sector, the manufacturing industry's share of the total for India as a whole was only 17% as of FY2019, whereas in Tamil Nadu it was as high as 25% (JETRO, 2019). In addition to selling to the domestic market, the state has multiple large

ports suitable for import and export, and many Japanese companies have also set up operations there (as of April 2024, the Japanese Chamber of Commerce & Industry, Chennai had 199 member companies (JETRO, 2024), and according to the Japanese Embassy in India, as of October 2022, there were 579 Japanese business locations in Tamil Nadu, making it the second most populous state in the country.) There are also several integrated industrial estates for Japanese companies, and interest from Japanese companies is high.

The “Tamil Nadu Industrial Policy 2021” (February 2021) formulated by the state aims to increase the annual growth rate of the manufacturing industry in the state to 15% by 2025 (the annual growth rate in 2022 was 11.8%). The state also aims to attract 10 trillion rupees of FDI by the same year, and is implementing policies to promote growth in various industries and improve the business environment, including incentives for FDI.

The state is committed to reducing greenhouse gas (GHG) emissions in industry and promoting environmentally friendly (green) industry, and is focusing on the spread of renewable energy and the greening of industrial estates. With regard to renewable energy, Tamil Nadu has a power generation capacity of approximately 18,000 MW, accounting for approximately 21% of the state's total power generation. The state is calling for private sector investment to generate 50% of the state's total power generation from renewable energy by 2030 (Energy Department of Government of Tamil Nadu, 2023). The state's electricity demand in 2020 was approximately 120 TWh. It is expected to reach approximately 200 TWh by 2030 (National Renewable Energy Laboratory, 2021). In addition, regarding the greening of industrial estates, the state is working to establish rules related to environmental considerations, such as requiring public industrial estates to install wastewater treatment and solar panels.

On the other hand, the investment attraction measures set out in the “Tamil Nadu Industrial Policy 2021” are still in the process of being implemented. With regard to infrastructure development, Japanese companies operating in the state have continuously raised the issue that the development of the road network and water supply and drainage networks is still insufficient, and the state government also recognizes the need to promote infrastructure development. With regard to the labor force in the state, Japanese companies have raised the issue that there are not enough human resources with sufficient knowledge and skills related to manufacturing equipment, language skills, etc., and the state government itself is also aware of the gap between the needs from industry and the supply from

educational institutions in the state. Furthermore, the state government's efforts to promote energy saving, GHG reduction, and the introduction of renewable energy in public industrial estates, as well as investment in environmental-related fields, incentive measures for companies, and measures to promote financing from the market, are still in the developmental stage.

In the past, the Tamil Nadu government has implemented policies to promote the growth of various industries and improve the business environment through the “Tamil Nadu Investment Promotion Program” (hereinafter referred to as “Phase 1”) (L/A signed in March 2012, completed) and the “Tamil Nadu Investment Promotion Program (Phase 2)” (hereinafter referred to as “Phase 2”) (L/A signed in March 2017, completed). These previous phases have achieved results such as the development of small-scale infrastructure around industrial estates, the development of vocational training schools to foster industrial human resources, and the simplification of investment procedures. The Project will further pursue these results while addressing the new issues mentioned above.

The “Tamil Nadu Investment Promotion Program (Phase 3)” (hereinafter referred to as the “Project”) is intended to further promote private investment in the state and support the greening of industry through the popularization and development of renewable energy, and is positioned as a response to the key issues set out in the “Tamil Nadu Industrial Policy 2021.” In addition, from the perspective of contributing to the greening of industry and the spread of renewable energy, this Project is consistent with the goals of the country's “Nationally Determined Contribution (NDC)” under the Paris Agreement, which is to expand non-fossil fuel power sources.

(2) Japan's and JICA's Cooperation Policy and Operations in the field of Investment Environment Improvement

Japan's Country Development Cooperation Policy for India (November 2023) stipulates that support will be provided to contribute to the development of industry, including the improvement of the investment environment, and this Project is consistent with the priority area of “Strengthening the Development of Industry through Co-Creation”. The JICA Country Analysis Paper on India (March 2018) also identifies the development of productive industries as one of the main development issues, and calls for the improvement of an investment environment in terms of both physical (“hard”) and non-physical (“soft”) infrastructure, as well as industrial human resource development. In addition, the JICA Global Agenda for Private Sector Development emphasizes attracting FDI from Japanese and

other developed country companies through initiatives to improve the business environment, and this Project is in line with these policies and analyses. From the perspective of supporting the improvement of the investment environment, this Project is positioned as a pillar of the “Addressing Challenges in an Indo-Pacific Way” initiative in the “New Plan for a Free and Open Indo-Pacific (FOIP)”.

This Project is expected to contribute to the achievement of the following SDGs: Goal 8 “Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”, Goal 9 “Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation”, and Goal 17 “Revitalize the global partnership for sustainable development”.

(3) Other Donors’ Activities

In its Country Partnership Framework (FY2018-FY2023), the World Bank (WB) has set “Competitiveness and Jobs” as one of its focus areas, indicating the need for investment in industrial promotion and human resource development. In addition, the WB is currently implementing the Chennai City Partnership: Sustainable Urban Services Program (approved in September 2021), which is supporting improvements to the investment environment through measures such as improving the water supply, drainage, mobility, and waste disposal capacity of the Chennai metropolitan area, and investing in housing development projects for low-income earners run by the Tamil Nadu Infrastructure Fund Management Corporation.

3. Project Description

(1) Project Objective

The objective of the Program is to improve the investment climate in Tamil Nadu state by strengthening policy framework, improving infrastructure, skill development, promoting emerging sectors, green industry and startup economy, thereby contributing to attract more investments into the state including foreign investments in an inclusive and sustainable manner.

(2) Project Site/Target Area:

State of Tamil Nadu

(3) Project Beneficiaries (Target Group)

Local companies and foreign companies including Japanese companies that conduct business activities in the state of Tamil Nadu and their employees.

(4) Project Components

Based on project planning by the relevant departments of the state

government to improve the investment environment and requests from the private sector, policy actions to be achieved each year are organized as a policy matrix, and both the state government and JICA monitor the progress of these actions to promote the achievement of policy actions.

This will contribute to improving policies and systems in the following areas as set out in the “Tamil Nadu Industrial Policy 2021”: (1) promoting the greening of industry, (2) supporting start-ups and micro, small and medium enterprises (MSMEs), (3) improving infrastructure such as roads, electricity, and water supply and sewage systems that contribute to improving the investment environment, and (4) improving the human resource development system and entrepreneurial environment that contribute to attracting investment.

Policy Item	Policy Actions
(1) Promotion of Green Industry /Circular Economy	<ul style="list-style-type: none"> ● 【Tamil Nadu Green Climate Fund (TNGCF)】 The Tamil Nadu government will establish an impact investment fund for green and climate change-conscious projects. This will allow them to attract investment from various investors in and outside the country who are interested in impact investment, and to support environmentally conscious projects, as well as to serve as a platform for attracting further private investment. ● 【Eco-friendly Industrial Estates】 An eco-friendly industrial estates will be constructed and developed as a model for other industrial estates in the state, and initiatives will be taken on the premises to reduce CO2 and other environmental impacts. ● 【Tamil Nadu Circular Economy Policy】 A policy will be formulated and implemented that sets out guidelines to encourage companies to take action such as reuse, recycling, reprocessing, and waste reduction. The aim is to achieve sustainable manufacturing and services. ● 【Incentives for industries and MSME for energy conservation & CO2 emission reduction】 A incentives will be established to encourage large enterprises as well as MSMEs to adopt energy-saving technologies such as high-efficiency equipment. An “Advisory Desk” will be established within the state government to provide support for the introduction of eligible equipment and applications to the system. Through

Policy Item	Policy Actions
	<p>this, the state government aims to create awareness and disseminate existing energy audit and sustainability certification schemes offered by the central government of India for small and medium manufacturing companies and achieve sustainable production and services.</p>
<p>(2) Support for Start-ups and MSMEs in Emerging Sectors of Industrial Economy</p>	<ul style="list-style-type: none"> ● 【Tamil Nadu Emerging Sector Seed Fund (TNESSF)】 The fund will be established as a source of funding for seed ventures with innovative technologies in emerging sectors, including the semiconductor industry. This will improve the financial credibility of the investee companies and promote gradual growth of the corporate stage, while serving as a catalyst for attracting further private investment. ● 【Knowledge Park】 A knowledge park will be established where universities, academic institutions, and companies can collaborate in research and development. It will be equipped with manufacturing facilities and advanced software for design, and will also have a start-up support function to provide design and business planning support. The aim is to create industry-academia collaboration and growth industries in the state. ● 【Industrial Information Database】 A comprehensive industry database will be established, integrating data on large companies and MSMEs in the state, including economic statistics and administrative licensing systems. This will allow for simpler and faster administrative procedures by enterprises in the state, and will also facilitate investment considerations from within and outside the state. <p>(*Achievement targets at the time of Phase 2)</p> <ul style="list-style-type: none"> ● The single window online investment application system will be developed to streamline the investment application process, including strengthening the capacity of the competent authorities (the Industries, Investment Promotion and Commerce Department). ● A framework and materials will be developed to improve access to investment-related information, such as a single window portal for MSMEs and an

Policy Item	Policy Actions
	<p>investment guidebook, and to simplify the application process.</p> <ul style="list-style-type: none"> ● The time required to obtain investment approval will be shortened by streamlining the investment application process.
(3) Improve investment attractiveness	<ul style="list-style-type: none"> ● 【Industrial Ecosystem Fund】 The state government establishes and invests in the fund to develop infrastructure around the industrial estates. This improves the local business environment and promotes investment in the state by companies. <p>(*Achievement targets at the time of Phase 2)</p> <ul style="list-style-type: none"> ● The Tamil Nadu Infrastructure Fund Management Company (TNIFMC) will establish the Tamil Nadu Infrastructure Fund (TNIF) by mobilizing public and private funds to implement large-scale social infrastructure projects. ● The TNIF and TNIFMC will secure funding for large-scale social infrastructure projects with high priority. ● Small Infrastructure Project Empowered Committee (SIPEC) will select the priority projects and allocate budget properly. The administrative departments and executing agencies will appropriately monitor and facilitate the priority projects.
(4) Skill Development for industries	<ul style="list-style-type: none"> ● 【Industry relevant Skilling & Soft skills training – Short Term Training for colleges】 Educational institutions (universities, vocational training centers, technical colleges, etc.) provide unemployed young people and students who have dropped out with training in problem-solving skills, leadership and other “soft skills,” as well as language skills training. ● 【Factory Skill Schools】 In partnership with companies, the program provides factory training for unemployed youth and school dropouts, as well as employment support based on the needs of the companies. ● 【Tamil Nadu World Innovation and Skill Training Hub (TNWISH)】 A skill training facility will be established to train teachers at engineering colleges and technical colleges, with the aim of developing highly skilled personnel, mainly in the manufacturing industry. ● 【Polytechnic Colleges Modernisation】 Modernize

Policy Item	Policy Actions
	<p>technical colleges' facilities for practical training and research to meet the needs of modern industry, revise the curriculum, and train teachers to strengthen the ability to cultivate high-level human resources. Also provide employment support programs for students.</p> <p>(*Achievement targets at the time of Phase 2)</p> <ul style="list-style-type: none"> ● The employment rate of graduates from higher education institutions, technical universities and vocational training centers will improve by providing short-term training courses to acquire the skills required by industry. ● The quality of vocational training institutions throughout the state will be improved by establishing a central vocational training school that will train training instructors.
(5) Promotion of investments by Japanese companies	<ul style="list-style-type: none"> ● 【Promotion of Japanese investment】 Strengthen the system of the Japan Desk in Tamil Nadu, and conduct activities to promote investment from Japan in collaboration with the Invest India Office, which is a body for investment and financing established by the Embassy of India in Japan and the Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry of India.

(5) Estimated Project Cost

36,114 million yen (Japanese ODA loans: 36,114 million yen)

(6) Schedule

Starting point of the financial support for this Project is April 2023. The loans will be provided in three tranches, with the first tranche covering policy actions from FY2023 to the end of FY2024, with the loans scheduled to be provided in April 2025. The second and third tranches will cover policy actions during FY2025 and FY2026, respectively, and loans are scheduled to be disbursed in April 2026 and April 2027. Loans will be disbursed after confirming the achievement of policy actions in each fiscal year at the following year's Plan Monitoring Committee. The Project will be completed with the final loan disbursement (April 2027).

(7) Project Implementation Structure

- 1) Borrower: President of India
- 2) Guarantor: N/A
- 3) Executng Agency: Industries, Investment Promotion and Commerce Department, Government of Tamil Nadu
- 4) Operation and Maintenance System: N/A

(8) Collaboration and Sharing of Roles with Other Donors

- 1) Japan's Activity: None in particular
- 2) Other Donors' Activity : None in particular

(9) Environmental and Social Consideration, Cross-Sectoral Issues, and Gender Category

1) Environmental and Social Consideration

① Category: C

② Reason for Categorization: The negative impact on the environment from the Project is considered negligible under the “JICA Guidelines for Environmental and Social Considerations” (promulgated in January 2010).

2) Cross-Sectoral Issues: The introduction of a subsidy program to encourage the implementation of CO2 emission reduction technology is expected to reduce GHG emissions, thereby contributing to the mitigation of climate change.

3) Gender Category: GI(S) Gender Informed (Significant)

<Details of Activities/ Reason for Categorization>

Through discussions with the counterpart government during the appraisal process, it was confirmed that there are gender issues in Tamil Nadu, such as the fact that the female labor participation rate in 2021-2022 was 44.4%, about half compared to that of the male labor participation rate of 84.1%, and that there was a need to promote female employment in the state. Therefore, among the human resources development policies, it was agreed that the target for providing vocational training for unemployed youth and school dropouts would be set at more than half female participants and the number of female participants would be monitored. In addition, half of the members of the Program Implementation Unit established within the executing agency to promote the Project would also be female. For these reasons, the Project is classified as a “gender activity integration project”.

(1 0) Other Important Issues:

Through the policy item “Promotion of Green Industry /Circular Economy”, it is hoped that there will be collaboration with Japanese companies that have strengths in technologies that contribute to energy conservation and CO2 emissions reduction for companies and industrial estates. In addition, the policy item “Improve investment attractiveness” is being promoted in collaboration with the JETRO Chennai office, the Japanese Chamber of Commerce & Industry, Chennai and the Ministry of Economy, Trade and Industry, and based on the needs of Japanese companies that have already expanded into the region, the state government has agreed to review and promote infrastructure development projects that are particularly in high demand. It has also been agreed that the list of infrastructure projects will be checked every year in the implementation of the policy action “Industrial Ecosystem Fund”.

4. Targeted Outcomes

(1) Quantitative Effects

1) Outcomes (Operation and Effect Indicators)

Indicator	Baseline (Actual value in April 2023)	Target (April 2027) (At the time of Project completion)
Investments in technologies and initiatives that contribute to the greening of industry in the state by the Tamil Nadu Green Climate (TNGCF). (Number of projects)	0	4
Investment amount by Tamil Nadu Emerging Sector Seed Fund (TNESSF) in companies with innovative technology, such as startups in the state. 【Note: in Indian rupees】	0	2,000,000,000
Implementation of infrastructure support projects around industrial estates by the Industrial Ecosystem Fund. (Number of projects)	0	12
Number of workers (persons) who participated in training newly developed through this Project at vocational training schools, technical colleges, and training facilities.	0	1,500,000

Note: As noted in the policy matrix, 20 investments are scheduled to be made during the program implementation period.

(2) Qualitative Effects

Improvement in business satisfaction among foreign companies including Japanese companies through an improved investment environment, job creation, and an increase in FDI in Tamil Nadu (particularly in the greening of industry and FDI in startups in the state).

(3) Internal Rate of Return

The internal rate of return is not calculated, as it is a ProgramType ODA loan project.

5. External Factors and Risk Control

(1) Preconditions: None in particular

(2) External Factors: None in particular

6. Lessons Learned from Past Projects

The ex-post evaluation results of the “Development Policy Support Program (III) for the Republic of the Philippines” (evaluation year: 2011) confirmed that reforms such as simplifying administrative procedures and unifying the import permit counter at ports had been achieved, but that there was a lack of awareness of these achievements among Japanese companies operating in the Philippines. It has been suggested that in order to actually link various system improvements and measures to business development, it is important to disseminate and share information with Japanese companies that have expanded into the region. In this Project, we will consider disseminating the progress of policy actions identified through the quarterly Plan Monitoring Committee to Japanese companies operating in the country, etc.

In addition, in ODA loans to India, the “Tamil Nadu Investment Promotion Program” (evaluation year: 2017), policy monitoring and coordination among stakeholders, including Japanese companies, were carried out through technical assistance under the Finance and Investment Account, which enabled smooth progress monitoring and implementation promotion of policy actions. For this reason, this Project will also confirm the necessary systems for smoothly implementing and monitoring a wide range of policy actions, sharing information with relevant parties, etc., and will consider the need for technical support to speed up the project and improve its effectiveness.

7. Evaluation Results

This Project is consistent with the development issues and policies of the country, as well as the cooperation policies and analysis of Japan and JICA, and contributes to the improvement of policies and systems related to the promotion

of private investment and industrial development in Tamil Nadu, as well as to the development of infrastructure and human resources development that contributes to the greening of industry and corporate activities, thereby contributing to the improvement of the investment environment and inclusive job creation in the state. In addition, it is considered that this Project will contribute to the achievement of the SDGs, specifically Goal 8 (promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all), Goal 9 (build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation) and Goal 17 (revitalize the global partnership for sustainable development), and therefore there is a high need to support the implementation of this Project.

8. Plan for Future Evaluation

(1) Indicators to be Used

As indicated in Section 4.

(2) Future Evaluation Schedule

Upon completion of the Project

END