

FUNDING SOURCES TO SUPPORT INVESTMENTS IN ECO-INDUSTRIAL PARKS IN VIET NAM

ECO-INDUSTRIAL PARK INTERVENTION IN VIET NAM





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ACRONYMS AND ABBREVIATIONS

| | |
|----------|---|
| ABBANK | An Binh Commercial Joint Stock Bank |
| BIDV | Bank for Investment and Development of Vietnam |
| CIFs | Climate Investment Funds |
| EE | Energy Efficiency |
| EECP | Vietnam Energy Efficiency and Cleaner Production |
| EIB | European Investment Bank |
| EIP | Eco-Industrial Park |
| ESCO | Energy Service Companies |
| EU | European Union |
| GCF | Green Climate Fund |
| GCPF | Global Climate Partnership Fund |
| GDP | Gross Domestic Product |
| GEF | Global Environment Facility |
| GHG | Green House Gas |
| GIBs | Green Investment Banks |
| HANIF | Hanoi Investment Fund for Development |
| HCM City | Ho Chi Minh City |
| IDA | International Development Association |
| IEs | Industrial Enterprises |
| IFC | International Finance Corporation |
| IS | Industrial Symbiosis |
| JICA | Japan International Cooperation Agency |
| MPI | Ministry of Planning and Investment |
| MONRE | Ministry of Natural Resources and Environment |
| NATIF | National Technology Innovation Fund |
| ODA | Official Development Assistance |
| PFIs | Participating Financial Institutions |
| POPs | Persistent Organic Pollutants |
| PPP | Public-Private Partnership |
| RECP | Resource Efficiency, Cleaner Production |
| RSF | Risk Sharing Facility |
| SBV | State bank of Vietnam |
| SEF | Sustainable Energy Finance |
| SMEs | Small and Medium Enterprises |
| UNEP FI | UN Environment Finance Initiative |
| UNIDO | United Nations Industrial Development Organization |
| VDB | Vietnam Development Bank |
| VEEIE | The Vietnam Energy Efficiency for Industrial Enterprises |
| VEPF | Vietnam Environmental Protection Fund |
| VNCPC | Vietnam National Cleaner Production Centre |
| VND | Vietnamese Dong |
| VSUEE | Vietnam Scaling up Energy Efficiency for Industrial Enterprises Project |

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INTRODUCTION

Vietnam has attained remarkable economic achievements after nearly 30 years of innovation and opening policies. These achievements are greatly attributed to the nationwide establishment and development of economic and industrial zones, which were designed to create a favourable environment for manufacturers and entrepreneurs, both domestic and international. However, it is urgent that environmental issues and environmental management are addressed within the context of industry. Faced with these challenges, the Ministry of Planning and Investment (MPI) and the United Nations Industrial Development Organization (UNIDO), with support from the Government of Switzerland, have joined forces in the project “Eco-industrial Park Intervention in Vietnam - Perspective from Global Eco-Industrial Parks Programme” to demonstrate the viability and benefits of eco-industrial park approaches in scaling up resource productivity and improving economic, environmental and social performances of businesses and thereby contribute to an inclusive and sustainable industrial development in Vietnam.

Identifying and addressing financing needs is crucial for implementation of Industrial symbiosis projects^{1,2}. Own finance should be considered as a key source of finance for an IS development project to ensure financial independence. However, since own finance may not be sufficient to cover total capital expenditure of the IS project, external financing source may need to be considered and enterprises in eco-industrial parks (EIPs) are expected to be equipped with information about available green financial funds.

This report details the most relevant financial mechanisms which support the development and implementation of Industrial symbiosis projects and is intended to be used as a quick reference guide by enterprises looking to identify additional funding support for financing IS opportunities.

With regards to relevant funds available for supporting eco-industrial parks (EIPs), in May 2018, Decree No 82/2018/ND-CP was promulgated, regarding regulations on management of industrial zones and economic zones. This Decree includes a section on eco-industrial parks (Section 4, Chapter IV), and Article 43 is dedicated to incentives for developing EIP in Vietnam. It must be mentioned that while there is no fund or financial support mechanism having a specific mention to Industrial Symbiosis (IS) projects, it may be understood that an IS project is like any other project that which focuses on company’s resource efficiency improvement - with more than one company coming together for it. Thus, Industrial Symbiosis (IS) projects may benefit from financial mechanisms that support various types of resource efficiency cleaner production technology and measures to reduce hazardous waste, greenhouse gas (GHG) emissions, water pollutants, and better manage chemicals in industrial parks in Vietnam, and those that support overall EIP development.

The report also incorporates learnings from and further builds on the *HANDBOOK ON HOW TO ACCESS GREEN FINANCING IN VIETNAM* developed by UNIDO and MPI and published in 2018³.

¹ Kechichian, Etienne and Mi Hoon Jeong (2016). Mainstreaming Eco-Industrial Parks: Conclusions from the Eco-Industrial Park 2015 event in Seoul. World Bank Group.

² Sakr, D., L. Baas, S. El-Haggar and D. Huisingh (2011). "Critical success and limiting factors for eco-industrial parks: global trends and Egyptian context." *Journal of Cleaner Production* 19(11): 1158-1169.

³ Weblink: https://www.unido.org/sites/default/files/files/2019-01/2018_Green_Financing_in_Viet_Nam.pdf



METHODOLOGY

First, an exhaustive long-list of existing and potentially relevant financial mechanisms was created through desk-research and the experience and expertise of the Sofies' and VNCPCs' networks.

The financial mechanisms were then grouped depending on the institutions (national, international, and private funding), and the most relevant opportunities were reviewed further. The selected opportunities are further detailed in the following chapters, including a listing of the main types of projects/target clients that could be covered by the funding opportunities.

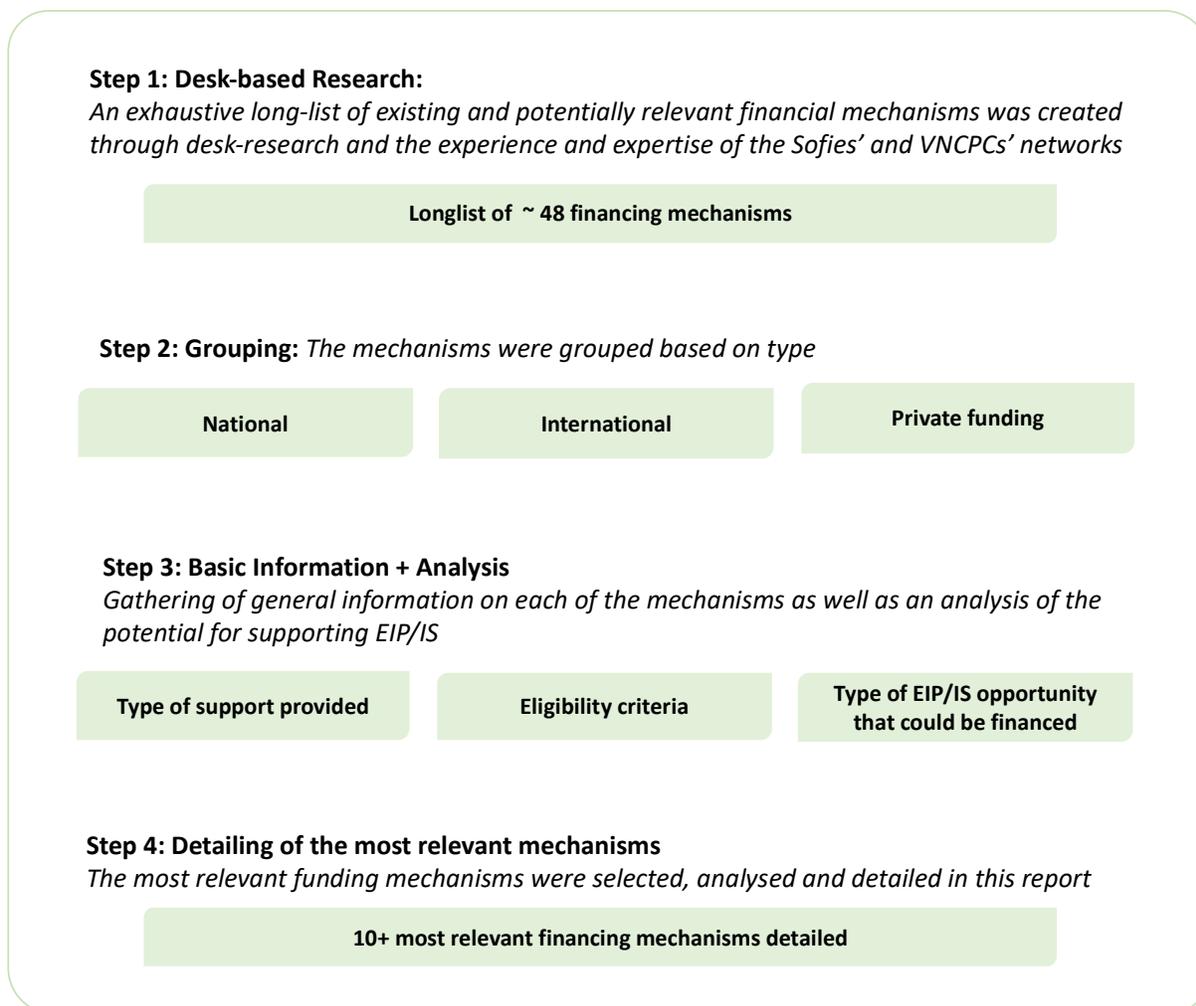
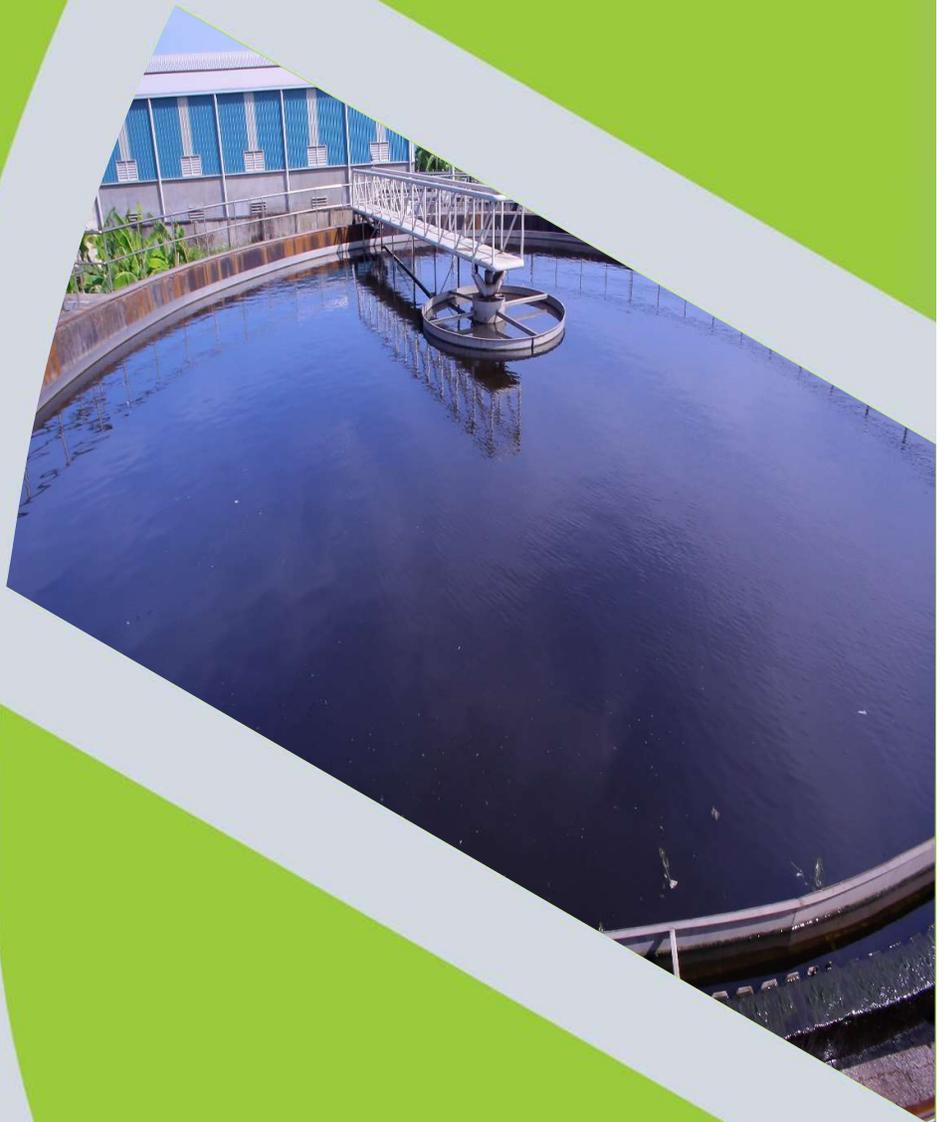


Figure 1. Methodology for identifying relevant financing mechanisms

National Green Mechanisms

1.





NATIONAL GREEN MECHANISMS

In May 2018, Decree No 82/2018/ND-CP was promulgated, regarding regulations on management of industrial zones and economic zones. This Decree includes a section on eco-industrial parks (Section 4, Chapter IV), and Article 43 about incentives for developing EIP in Vietnam. According to Item 3 of Article 43, industrial parks that meet the criteria of eco-industrial parks shall be given priority in borrowing preferential loans from the Vietnam Environment Protection Fund, the Vietnam Development Bank, financial institutions, and domestic and international donors, to build technical infrastructure, implement cleaner production methods, use resources effectively, and implement measures for industrial symbiosis.

1.1 VIETNAM ENVIRONMENTAL PROTECTION FUND (VEPF)

The VEPF is a state-owned financial organization established by the government, under management of MONRE. According to the Decision 78/2014/TTg dated 26 December 2014,⁴ VEPF holds a total chartered capital of VND 1 trillion in 3 years (2015 – 2017), including VND 727 billion provided by the state budget.

One of the main activities of the VEPF is to provide financial support for environmental protection, biodiversity projects, and activities at national, inter-sectoral and inter-regional levels on environmental pollution prevention and recovery or for mitigation of severe local environmental issues.



Activities of financial support provided to businesses include:

- loans at preferential interest rates, subsidized interest rate/loan guarantees
- project grants and co-grants.



TARGET CLIENTS The target clients are those with basic operations in the following areas:

- » cluster industrial wastewater treatment, or concentrated wastewater with a designed capacity of at least 2,500 m³ of wastewater per day applied to urban areas type IV or higher;
- » treatment of hazardous waste and concentrated industrial waste;
- » treatment of waste discharged from hospitals, factories, and craft villages;
- » treatment of domestic waste;
- » production of eco-friendly products or products from recycling/waste treatment activities
- » development of eco-friendly technology, cleaner production, energy saving, renewable energy production;
- » purchase of specialized equipment and means directly used in waste collection, transport and treatment, environment monitoring and analysis;
- » Other areas stipulated in Decree No. 19/2015/ND-CP dated 14/02/2015

⁴ <https://vepf.vn/en/introduction-vepfg4zv6.html>



OPPORTUNITY FOR IS/EIP

The broad category of IS/EIP projects which can be financed through this fund are as follows:

- » Broad and wide range of areas of EIP development - specifically mentioned as financial incentives for EIP development (Decree 82/2018/ND-CP)
- » Wastewater treatment facilities of IPs are given highest priority to receive soft loans
- » Park level Infrastructure: wastewater treatment, waste incinerator, hazardous waste treatment, central plant for recycling and treatment of industrial waste, waste-to-energy plant
- » Industrial equipment: pollution treatment systems

PREFERENTIAL LOANS

Typical preferential interest rates for soft loans do not exceed 50% of the commercial rate based on the ceiling interest rate announced by Ministry of Finance⁵. In 2020, the rates were as follows:

- 2.6% for projects in the following areas: (1) any type of guarantee methods for environmental protection technical infrastructure in industrial zones and clusters and craft villages; treatment and co-treatment of hazardous wastes; centralized municipal wastewater treatment plant ($\geq 2,500\text{m}^3/\text{day}$) in city of 4th level upwards; and normal solid wastes collecting, transportation and treatment; (2) other projects having bank's guarantee.
- 3.6% per year for other environmental protection projects (treatment and improvement of public areas, where suffer environmental pollution; production/importing of machineries directly used in wastes collection/transportation and treatment, environmental analysis and monitoring, renewable energy, environmental pollution treatment and response⁶).

Post-investment interest rates support for environmental protection projects in 2020 was 2.4% per year⁷.

By the end of 2018, the Fund has lent 294 soft loan projects with a total capital of 2,522 billion VND⁸. A list of projects can be found at the VEPF's website⁹.



APPLICATION PROCEDURE

Applicants should prepare a loan profile and submit all the corresponding documents to VEPF. The loan application procedure, prescribed in Circular No. 03/2017/TT-BTNMT dated 21/3/2017, includes:

- » Filling the loan application form;
- » Legal documents of the business;
- » Project file / plan for loan request;
- » Financial records;
- » Documents about collaterals;
- » Other documents as proposed by Vietnam Environment Protection Fund.

⁵ <https://vepf.vn/upload/texts/1580890639-vi-qd-11-hdql-1.pdf>

⁶ <https://vepf.vn/en/forms-of-services/soft-loan-vepfheskz5.html>

⁷ Article 24 of the Regulation document of VEPF <https://vepf.vn/upload/texts/1580893542-vi-no-14-qd-24-ban-hanh-quy-che-cho-vay-uu-dai-ho-tro-lai-suat-vay-tai-tro-va-dong-tai-tro-cua-qbvmtvn.pdf>

⁸ <https://vepf.vn/DATA/admin/downloads/2.%20Gioi%20thieu%20QBVM%20VN.pdf>

⁹ <https://vepf.vn/en/project-funding.html>



The overall procedure of providing loans at preferential interest rates is described in the figure below.

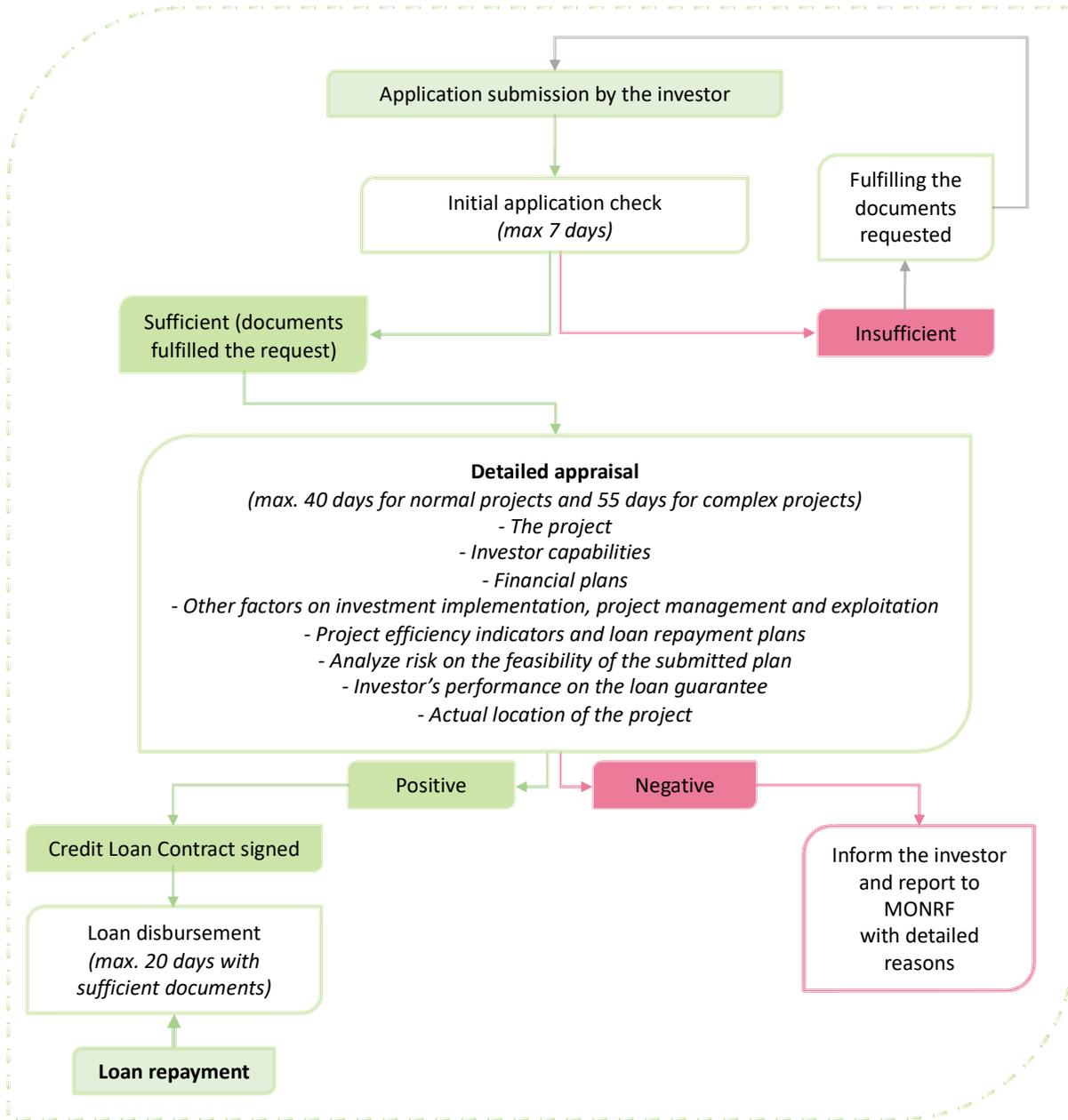


Figure 2. VEPF procedure for providing loans

PROJECT GRANTS AND CO-FINANCING

The mechanism for project grants is used for (i) the development and implementation of a project that mobilizes funding resources in order to perform tasks and activities related to environmental pollution, environmental disaster response and remediation; (ii) programs, plans and projects as decided by the Prime Minister; (iii) the administration of environmental awards and other commendations to honour organizations and individuals acting as role models of environmental protection in accordance



with the decision of the Minister of Natural Resources and Environment; and (iv) environmental protection projects as specified in VEPF’s organization and operation charter.

Eligible applicants for project grants are organizations and individuals with projects in environmental protection. These can include environmental education; community awareness raising; environmental prizes, response and handling of pollution, accidents and disasters; core and urgent environmental protection investment projects that lack government budget; development and duplication of the community-based environmental protection models; development of programmes and projects on mobilizing funding from both domestic and overseas sources; environment-friendly technology transfer and cleaner production; and measures to prevent, limit and remediate environmental incidents.

1.2 VIETNAM DEVELOPMENT BANK (VDB)

The Vietnam Development Bank (VDB)¹⁰ is a government policy bank operating for non-profit in a sustainable and effective manner, ensuring sufficient capacity to implement investment credit and credit policies. State export and other tasks assigned by the Government and the Prime Minister, contributing to the implementation of the country’s socio-economic development strategies and plans in each period.



At present, the VDB implements investment credit activities as follows:

- providing loans in compliance with the State’s credits policies pursuant to Decree 32/2017/ND-CP¹¹ on State’s investment credit; providing loans programs and projects assigned by the Government, the Prime Minister.
- on-lending foreign loan capital of the Government following the Decree 97/2018¹²;
- providing credit guarantees for small and medium-sized enterprises to borrow capital from commercial banks in accordance with regulations of the Prime Minister (however it has to be rescinded following the Prime Minister’s command since 2018)¹³; and
- providing short-term loans under the Prime Minister’s Decision on the principle that the State budget does not subsidize interest rate differences.



TARGET CLIENTS

VDB projects invested and implemented in Vietnam to mitigate climate change impacts, with a demonstrated ability to repay the loan, include¹⁴:

- » Projects invested in producing renewable energy, hydropower, wind power, solar power, geothermal, biomass energy;
- » Projects in industry:
 - exploitation and use of methane in coal mining;
 - exploitation and use of methane in oil extraction;
 - renovation;
 - investments to reduce gas losses;
 - projects that use energy converted from coal to gas;

¹⁰ <https://en.vdb.gov.vn/>

¹¹ <https://thuvienphapluat.vn/van-ban/Dau-tu/Nghi-dinh-32-2017-ND-CP-tin-dung-dau-tu-cua-Nha-nuoc-345087.aspx?tab=2>

¹² <https://thuvienphapluat.vn/van-ban/Tai-chinh-nha-nuoc/Nghi-dinh-97-2018-ND-CP-cho-vay-lai-von-vay-ODA-von-vay-uu-dai-nuoc-ngoai-369628.aspx>

¹³ VDB’s annual report 2018, https://vdb.gov.vn/Images/editor/files/BCTN/BAOCAO%20THUONGNIEN%202018-0110_final.pdf

¹⁴ <https://www.vdb.gov.vn/ThongTinKH.aspx?ID=8>



- use of alternative raw materials, increasing the use of additives, and recycled waste heat recovery in cement production;
- efficient use of energy in renovated projects, especially those in food, glass, steel and iron industries;
- » Agricultural projects:
 - exploitation and use of biogas;
 - collection of residential and commercial wastewater from landfills and agricultural product processing establishments;
 - exploitation and use of methane obtained from wastewater treatment or use in energy production;
- » Other projects:
 - investment in other forms of energy distribution that are more effective;
 - investment in energy-saving technologies used in residential areas or for commercial purposes (solar water heater, high voltage AC, lighting, etc.);
 - effective conversion of transportation types or upgrading of transport management;
 - investment in afforestation and reforestation.



OPPORTUNITY FOR IS/EIP The broad category of IS/EIP projects which can be financed through this fund are as follows:

- » Broad and wide range of areas of EIP development - specifically mentioned as financial incentives for EIP development (Decree 82/2018/ND-CP)
- » Investment projects for technology innovation toward clean technology in industrial sectors

LENDING PROCEDURE

VDB follows the Basel standards to make themselves safer and more efficient. The Basel II Standards have 17 principles for credit risk management. Banks can apply to the credit granting process by separation of customer relationship function, credit appraisal, approval, and by setting up different specialized divisions such as the customer relations department, risk management department, operations department (including credit management, accounting, treasury) among others¹⁵.

¹⁵ <https://vdb.gov.vn/tin-tuc/3782/van-dung-nguyen-tac-basel-ii-trong-guy-trinh-cap-tin-dung-tai-nhpt.aspx>

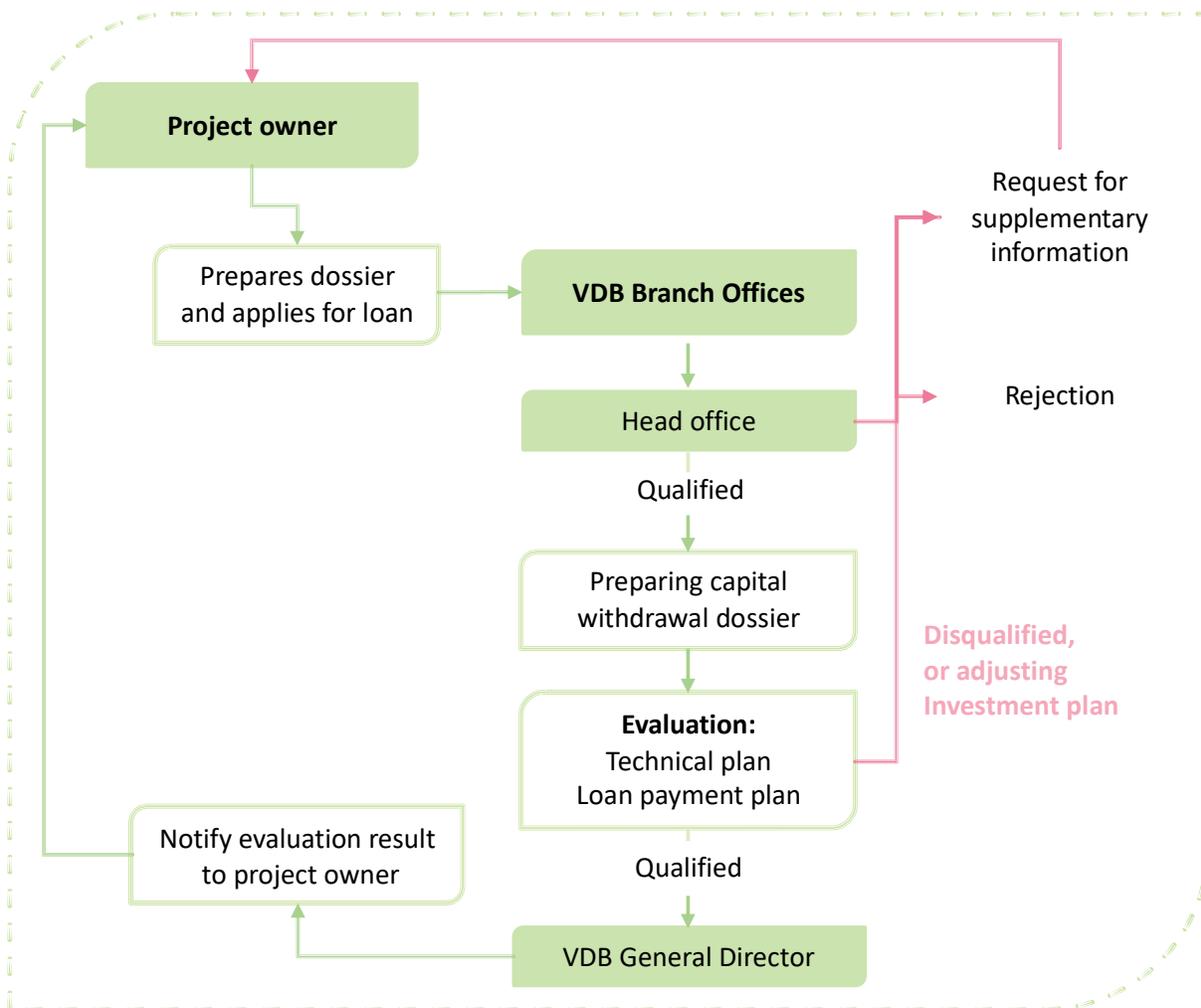


Figure 3. VDB process for lending

1.3 NATIONAL TECHNOLOGY INNOVATION FUND (NATIF)

National Technology Innovation Fund (NATIF)¹⁶ is a state financial, non-profit institution that provides grants, preferential loans, subsidized loan interest rates and loan guarantees, and financial support to organizations, individuals and businesses who carry out research, technology transfer and innovation.

The total charter capital is VND 1000 billion from the state budget for science and technology activities and is replenished each year to reach fund’s total charter capital. One-half of this state grant can be used for preferential loans, subsidized interest rates and the provision of loan guarantees.

The New Charter dated 29th January 2021 under the Decision Nr. 04/2021/QĐ-TTg¹⁷, works as the legal corridor for the Fund to continue operating after being suspended in early 2018. Industrial enterprises’

¹⁶ <https://natif.vn/>

¹⁷ http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&_page=1&mode=detail&document_id=202601



projects, which promote innovative production technologies in prioritized industrial products as stated in Decree 32/2017/ND-CP dated 31st May 2017¹⁸, are eligible for the fund.



Financial support activities of the Fund including:

- **Direct soft loan to enterprises**, who propose investment project in the area: technology transfer/innovation/improvement encouraged by the Law of Technology transfer (Article 9), which includes those in line with RECP intervention. The loan size is not over 80% total investment, loan rate is decided and issued by the Fund Management for different period of time.
- **Indirect loan to enterprises** (same types as in direct loan) **through some selected commercial banks**. Loan size is not higher than that of direct loan. Commercial bank has full right to loan proposal appraisal and approval decision.
- **Loan interest support to enterprises** (same types as in direct loan): The Fund provides interest rate support for investment projects that have been completed, put into use, partially or wholly refunded to credit institutions. The interest rate support level is determined by the positive interest rate difference between the interest rate that the investor must pay to the credit institution and the lending interest rate of the Fund at the same time.

The Fund has evaluated 184 projects and approved 27 projects for a total expenditure of 1,050 billion VND, in which the support from national budget is 268 billion VND and enterprises’ contribution is 782 billion VND¹⁹.

| | | |
|---|-------------------------------|---|
|  | TARGET CLIENTS | NATIF provides soft loans at subsidized interest rates and loan guarantees to eligible beneficiaries, focussed in the following key areas: |
| | | <ul style="list-style-type: none"> » Research on technology innovation » Technology transfer » High-tech project, with the development of new and advanced technology to improve environmental efficiency » New products and technology which improve quality and production efficiency |
|  | OPPORTUNITY FOR IS/EIP | The broad category of IS/EIP projects which can be financed through this fund are as follows: |
| | | <ul style="list-style-type: none"> » New and emerging technology to improve quality and production efficiency of the EIPs » High priority would be given to projects aimed at new and advanced technology as well as environment-friendly technology for the EIPs |

However, due to the lack of a circular guidance document for financial management for credit activities, the Fund has not been able to deploy credit support activities (soft loans, interest rate subsidies, guarantees for loans). The lack of synchronization between the State Budget Law and the Fund's mechanism specified in the Technology Transfer Law has significantly affected the operation of the Fund²⁰.

Direct soft loan application procedure (see detailed in the Decision Nr. 04/2021/QD-TTg):

¹⁸<https://thuvienphapluat.vn/van-ban/Dau-tu/Nghi-dinh-32-2017-ND-CP-tin-dung-dau-tu-cua-Nha-nuoc-345087.aspx?tab=2>

¹⁹ <https://natif.vn/2021/03/31/de-doanh-nghiep-tiep-can-hieu-qua-quy-doi-moi-cong-nghe-quoc-gia/>

²⁰ <https://natif.vn/2021/04/15/ky-vong-quy-doi-moi-cong-nghe-quoc-gia-som-di-vao-hoat-dong/>



- i. The enterprise applicant should prepare all loan profile and submit to NATIF. Loan application as prescribed in Decision 04/2021/QĐ-TTg dated 29/01/2021, including:
 - o Loan application form.
 - o Other documents to prove the legibility of enterprises and projects required by the Fund, such as Legal documents of the business, Project file / plan for loan, Financial records, Documents about collateral. etc.
- ii. NATIF receives and process the appraisal and provide appraisal results to the enterprise.
- iii. Lending agreement signed between NATIF and the enterprise

1.4 OTHER NATIONAL FINANCING MECHANISMS

1.4.1 Provincial Environmental Funds

There are 46 cities and provinces in Vietnam established environmental protection funds²¹ following the Law on Environmental Protection. In general, provincial Environmental Protection funds such as HANIF²² (<https://quydautuphattrien.hanoi.gov.vn/vi>) or Ho Chi Minh City environmental protection fund (<http://hepfu.vn>) have the function to provide financial support to enterprises, who have programs, projects, activities for environmental protection, nature and biodiversity conservation, waste separation at source, waste reduction/reuse/recycling, environmentally friendly products production, prevent/respond to/overcome environmental pollution/degradation/incidents.



Funding support types include the following:

- Prioritized loans with preferential interest rates for investment projects to build solid waste treatment works, wastewater, and exhaust gas of industrial production establishments.
- Support for loan interest rates, loan guarantees for environmental projects borrowed from credit institutions in accordance with the law.
- Co-lending for environmental protection projects in accordance with the Fund's criteria and functions with domestic and foreign financial institutions serving environmental protection activities in accordance with the law.

²¹ <http://www.monre.gov.vn/Pages/hoan-thien-mo-hinh-quy-bao-ve-moi-truong-cap-tinh.aspx>

²² Hanoi Investment Fund for Development (HANIF) was reorganized on 21 January 2017 to merge the Hanoi Investment and Development Fund, Hanoi Land Development Fund and Hanoi Environment Protection Fund (under the Department of Natural Resources and Environment of Hanoi City).



| | | |
|--|-------------------------------|---|
| | TARGET CLIENTS | Enterprises with programs, projects and activities focussed on environmental protection, and in the following key areas: |
| <ul style="list-style-type: none"> » Nature and biodiversity conservation » Waste separation at source; waste reduction/reuse/recycling, » Environmentally friendly products/production » Prevention/response/overcoming environmental pollution/degradation/incidents | | |
| | OPPORTUNITY FOR IS/EIP | The Decree for this funding mechanism has especially mentioned that it would provide support for EIP development. The broad category of projects that could benefit from these funds include: |
| <ul style="list-style-type: none"> » Park level Infrastructure such as wastewater treatment, waste incinerator, hazardous waste treatment, central plant for recycling and treatment of industrial waste, waste-to-energy plant » Company equipment such as pollution treatment systems | | |



Table 1. Examples of national provincial Investment Funds

| Name of mechanism | Support type | Eligibility criteria |  Types of EIP/IS opportunity that could be financed |
|---|---|--|--|
| Hanoi Investment Fund for Development | Green credit loans privileged interests | Project areas: <ul style="list-style-type: none"> » Environmental infrastructure: fresh water supplies, wastewater/wastes treatment, wastes recycling/reuse, production of environmentally friendly products. » solar and wind power. » industrial zone/cluster infrastructure. Enterprise eligibilities: <ul style="list-style-type: none"> » Completed investment procedures as prescribed by law. » Having a profitable business plan and a debt repayment guarantee plan. » There is a commitment to buy insurance for future assets that are subject to compulsory insurance at an insurance company licensed to operate in Vietnam. » Take measures to secure loans as prescribed by law. | <ul style="list-style-type: none"> » Park level Infrastructure: wastewater treatment, waste incinerator, hazardous waste treatment, central plant for recycling and treatment of industrial waste, waste-to-energy plant » Company equipment: pollution treatment system |
| Ho Chi Minh City Environmental Protection Fund | <ul style="list-style-type: none"> » Credit loans privileged interests » Loan duration: Not more than 05 years for a project; » Limit: maximum 70% of the total investment of the project; | Project areas: <ul style="list-style-type: none"> » Treatment of waste, exhaust gas and wastewater; » Manufacturing products from waste recycling, environmentally friendly products, investing in environmentally friendly production technologies; » Invest in equipment for environmental treatment such as: equipment for collection, transportation, treatment of waste, treatment of environmental pollution, etc.; » Recall and dispose of products after disposal in accordance with Decision No. 50/2013 / QD-TTg such as: batteries and batteries, | <ul style="list-style-type: none"> » Park level Infrastructure: wastewater treatment, waste incinerator, hazardous waste treatment, central plant for recycling and treatment of industrial waste, waste-to-energy plant » Company equipment: pollution treatment system |



NATIONAL GREEN MECHANISMS

| | | | |
|---|--|--|--|
| | | <p>electronic equipment, civil and industrial electricity, lubricants, lubricants, tires, chemicals, vehicles, etc.;</p> <ul style="list-style-type: none"> » Reduce, reuse and recycle waste such as: Plastic, paper, metal, glass, etc.; » Energy efficiency, cleaner production; » Nature conservation and biodiversity. <p>Enterprise eligibilities:</p> <ul style="list-style-type: none"> » Completed investment procedures as prescribed by law (if any); » Project investors must have financial capacity to ensure the implementation of at least 30% of the value of investment projects; » The entity receiving financial assistance must have collateral in the form of a third party pledge, mortgage or guarantee to receive financial support according to regulations. | |
| <p>Provincial Environmental Protection Funds</p> | <p>Green credit loans privileged interests</p> | <ul style="list-style-type: none"> » Environmental effectiveness » Financial feasibility and ability to repay » Applying advanced technologies » Related to environmental policies of corresponding provinces | <ul style="list-style-type: none"> » Park level Infrastructure: wastewater treatment, waste incinerator, hazardous waste treatment, central plant for recycling and treatment of industrial waste, waste-to-energy plant » Company equipment: pollution treatment system |



1.4.2 Small and Medium Enterprises Development Fund

Small and Medium Enterprise Development Fund (SMEDF) was established under the Decision Nr. 601/QĐ-TTg of the Prime Minister on 17th April 2013 to support small and medium-sized businesses improve their competitiveness, contribute to increase income, create jobs for workers.

The Fund is a state financial institution under the Ministry of Planning and Investment. The Fund has legal status²³, charter capital, its own balance sheet, seal, and may open accounts at the State Treasury or commercial banks. The Fund's charter capital allocated from the state budget is 2,000 (two thousand) billion VND. The increase in the charter capital of the Fund is decided by the Prime Minister based on the proposal of the Ministry of Planning and Investment after reaching an agreement with the Ministry of Finance.



The financial support activities of the fund include the following:

- Provide direct loans for start-ups, SMEs joining sectorial clusters, SMEs in the value chains.
- Provide indirect loans through selected commercial banks.
- Finance a part of capital for the project of building a factory, buying machinery and equipment, which make use of intellectual properties under the Law on intellectual properties or new technology under the Law on Technology Transfer, or new business model implemented by start-ups, SMEs joining sectorial clusters, SMEs in the value chains.
- Support for capacity building: workshops, communication, consultancy, training, investment, and trade promotion, ... for SMEs.²⁴

The loan amount towards each project or production-business plan must not exceed 70% of the total investment capital of each project or plan (excluding working capital), and also not exceed VND 30 billion. The maximum loan term is seven years. The lending interest rate does not exceed 90% of the commercial lending interest rate, applied uniformly to all SMEs in the Fund's priority sectors and subjects. The commercial lending interest rate is determined based on the average lending interest rate of five state-owned commercial banks in Hanoi city.

1.4.3 Credit Loan Guarantee Fund for SMEs (CLGF)

Decree 34/2018/ND-CP²⁵, which was issued on 8 March 2018, regulates the establishment, organization, and activities of CLGFs.

Born in 2001, by the end of 2019, there are 28 provinces and cities in the entire country having its CLGF with the total capital of 1,450.6 billion VND (nearly 90% is from the state budget). However, the accumulated guarantee amount provided by funds was estimated at about 4,346 billion VND, outstanding guarantee commitments of funds is estimated at 228 billion dong, debt repayment is estimated at about 36 billion VND.

On February 2020, the City People's Committee of Da Nang has issued Decision Nr 980/QĐ-UBND to dissolve the City's QBLTD. According to the report on the dissolution plan of the credit card, since its establishment up to now, the Fund has a total working capital of 64.5 billion VND. Mortgage value is 18.1 billion VND, equivalent to the average number of guarantees in 5 years is 3.6 billion VND per year. The activities of CLGFs of some other cities/provinces are even more languid.

²³ <https://thuvienphapluat.vn/van-ban/Doanh-nghiep/Quy-et-dinh-601-QD-TTg-Thanh-lap-Quy-Phat-trien-doanh-nghiep-nho-va-vua-182342.aspx>

²⁴ Decree 39/2019/ND-CP, which was issued on 10 May 2019, regulates on the organization and activities of SMEDF

²⁵ <https://luatvietnam.vn/tai-chinh/nghi-dinh-34-2018-nd-cp-thanh-lap-quy-bao-lanh-tin-dung-cho-doanh-nghiep-nho-va-vua-161247-d1.html>



1.4.4 Green investment banks

Governments are using GIBs to channel private investment, including from institutional investors, into low-carbon projects such as commercial and residential energy efficiency retrofits, large-scale onshore and offshore wind, rooftop solar photovoltaic systems and municipal-level, energy-efficient street lighting. Unlike grant-making public institutions, GIBs focus on financial sustainability, and some are required to be profitable. Through their interventions and investments, GIBs are demonstrating to private investors that commercially successful investments are possible and happening now.

In Vietnam, the State Bank of Vietnam (SBV) has issued Directive 03/2015 on promoting green credit growth and managing environmental and social risks in credit granting. At the beginning of 2017, the State Bank of Vietnam also promulgated Directive 01/2017 to further emphasize the implementation of the banking sector action plan to implement the national strategy on green growth to 2020. In fact, the banking system in Vietnam has adjusted the credit line to be more suitable for green growth. In the year 2015, VietinBank, BIDV and MB signed the principal contract for green tourism development for three projects in Kien Giang and Can Tho with the total loan capital of VND1,000 billion in ecotourism, construction of hotels, resorts. In addition, to contribute to the prevention of climate change, other banks have introduced green credit packages to implement the policy of the Vietnam's Government and SBV. By the end of 2016, Agribank has a "green credit" package that invests in clean agricultural production. Accordingly, Agribank will spend at least VND 50,000 billion to implement the preferential credit program for green and safe agriculture. This credit package provides preferential loans to corporate, cooperatives, farmers who are involved in the production chain of safe agricultural products. The lending interest rate is reduced from 1.5% to 0.5% per annum against the preferential interest rate for rural agriculture.

Recently, An Binh Commercial Joint Stock Bank (ABBANK) officially joined the UN Environment Finance Initiative (UNEP FI). ABBANK has integrated sustainability into its risk management and credit granting processes. It has established a team to supervise, manage, and evaluate the social environment system in which ABBANK operates and works with partners to raise awareness of the relevant environmental and social issues. The team will also build the capacities of staff on reorienting ABBANK to become a "green credit bank".



Table 2. Examples of Green investments banks

| Name of mechanism | Support type | Eligibility criteria |  Types of EIP/IS opportunity that could be financed |
|---|--|---|---|
| Nam A Bank (https://www.namabank.com.vn/) | Soft loans from Global Climate Partnership Fund (GCPF); Green credit loans Privileged interests | <ul style="list-style-type: none"> » Energy saving; » Reduce emissions to the environment | Company equipment and green buildings: less CO2 emission, less environmental impacts, environmentally friendly products manufacturing |
| Vietcombank (https://portal.vietcombank.com.vn/) | Green credit loans Privileged interests | <ul style="list-style-type: none"> » Green energy and environmental protection | Technology investment for green energy |
| BIDV green credit line (www.bidv.com.vn) | Green credit loans | <ul style="list-style-type: none"> » SMEs; » Renewable energy, clean energy and energy saving investment projects | Renewable energy, clean energy and energy saving investment projects |
| Sacombank (www.sacombank.com.vn) | Green credit loans Privileged interests, grace period up to 6 months | <ul style="list-style-type: none"> » SMEs; » Resource efficiency, environmental protection. | Solar electricity |
| VP bank (www.vpbank.com.vn) | Green credit loans Privileged interests | <ul style="list-style-type: none"> » SMEs; » Environmentally-friendly investment projects | Renewable energy; Energy Efficiency; Green Buildings; Green transportation; Waste treatment and Management; Reduce environmental pollution |
| VietInBank (www.vietinbank.vn) | Soft loans from JICA; Green credit loans Privileged interests | <ul style="list-style-type: none"> » Enterprises of all scales; » Solar rooftop investment projects » Environmental protection | Investment in environmentally friendly production equipment; consumer health protection; environment protection |
| TP Bank (www.tpb.vn/eng/v-e-tpbank) | Privileged interests (less 2% in comparison with current interest rate). Accept the installation as the guarantee (no other fixed asset required) | <ul style="list-style-type: none"> » Solar roof top projects of enterprises. | Solar electricity |
| | Green credit loans | <ul style="list-style-type: none"> » Other renewable energy investment projects: solar field, wind electricity | Renewable energy |



1.4.5 HDBank solar power programme

The HDBank introduced the “Financing for corporate customers to construct and install rooftop solar power” project to provide preferential loan options at the loan rate of 70% (loan term of 5 years) for enterprises investing in rooftop solar power projects²⁶. By joining this scheme, investors not only receive financing from the bank but are also able to obtain professional support from its partners in installing, building, and maintaining solar power systems. In the first half of 2019, HDBank has established 16 partner relationships with such companies around the country, successfully granting credit totalling \$8.6 million for roof-top solar power projects²⁷.

| | | |
|--|-------------------------------|--|
| | TARGET CLIENTS | Eligible clients for solar power loans must: |
| | | <ul style="list-style-type: none"> » Be investors of on-grid solar power projects that are listed in the master plan (solar power development master plans at provincial and national scales; approved solar power development master plans at provincial and national scales). » Be granted permits to operate in the power sector, abiding by the regulations of Circular No. 12/2017/TT-BCT dated 31/07/2017 by the Ministry of Industry and Trade. » Have surface area suitable for the installation of solar power (under Circular 18/2020/TT-BCT dated 17/07/2020), stating that long-term use land area should not be more than 1.2 ha per MWp). |
| | OPPORTUNITY FOR IS/EIP | The broad category of IS/EIP which could be financed through this funding mechanism includes: |
| | | <ul style="list-style-type: none"> » Projects aimed at technology investment on renewable energy (specifically solar energy) |

A new Law on Investment has taken effect from 1 January 2021. A new Decree providing instructions on the implementation of the Law, is soon expected to be issued to replace Decree No. 118/2015/ND-CP dated 12/11/2015. This decree may impact the conditions for enterprises benefiting from this programme.

1.4.6 Green bonds

Green bonds are financial instruments where the proceeds are invested exclusively (either by specifying the use of the proceeds, direct project exposure, or securitization) in green projects that generate climate or other environmental benefits, for example in renewable energy, energy efficiency, sustainable waste management, sustainable land use (forestry and agriculture), biodiversity, clean transportation, and clean water. Their structure, risk and returns are otherwise identical to those of traditional bonds. Usually, green bonds must undergo third-party verification/certification to establish that the proceeds are funding projects that generate environmental benefits (e.g., the Climate Bond Standard Board has established a procedure for certification, including the nomination of approved verifiers). Two categories of green bonds have emerged, i.e., green labelled bonds (i.e., certified as green) and unlabelled green bonds (issuances linked to projects that produce environmental benefits). Climate bonds are a sub-category where the proceeds are linked to projects that address climate change.

According to the National Strategy for Green Growth 2011-2020 and vision to 2050 (Decision 1393/QĐ-TTg of the Prime Minister dated 25/9/2012), green finance and green financial products can be used to mobilise

²⁶ <https://www.hdbank.com.vn/en/about/tin-tuc/tin-tuc/hdbank-dong-hanh-cung-dien-dan-kinh-te-tphcm-2019>

²⁷ <https://vneconomictimes.com/article/banking-finance/banks-now-keen-on-green-credit>



financial resources for green growth. In the roadmap for bond market development in 2017-2020, with a vision to 2030 (Decision 1191/QĐ-TTg of the Prime Minister dated 14/8/2017), green bond is aimed at raising fund for green projects. Vietnam has also been piloting green bonds since 2016, with HCM City authorities issuing 523 billion VND to finance 11 green projects and the Ba Ria - Vung Tau government issuing 80 billion VND of green bonds to fund for a project on water resources management. The Vietnam's bond market has developed with an average annual growth rate of 24% in 2011-2016 and reached 2 trillion VND in 2017, equivalent to 40% of GDP. With a target of 65% of GDP by 2030, there is clearly plenty of room for many kinds of bonds, including green bonds.

In August 2018, the Governor of the State Bank of Vietnam issued Decision No. 1604/QĐ-NHNN approving the Green Banking Development Project in Vietnam. One of the objectives of the project is to strive that by 2025, 100% of banks will conduct social and environmental risk assessment in credit granting activities; environmental standards will be applied to bank-financed projects; 60% of banks have access to green capital and deploy lending to green credit projects.

In particular, on 4 December 2018, the Government issued Decree 163/2018 / ND-CP on the issuance of corporate bonds, effective from February 1, 2019 (hereinafter referred to as Decree 163). Although there are not many separate standards for green bonds, this Decree has added the concepts, definitions, and some regulations on green corporate bonds. According to Article 4.3 of Decree 163, green corporate bonds are corporate bonds issued to invest in environmental protection projects in accordance with the Law on Environmental Protection. This is expected to create a potential channel to mobilize capital for green projects in the private sector, creating a platform for green derivative products trading in Vietnam; creating a legal framework to attract more investment from domestic and foreign investors interested in environmental projects in Vietnam.²⁸

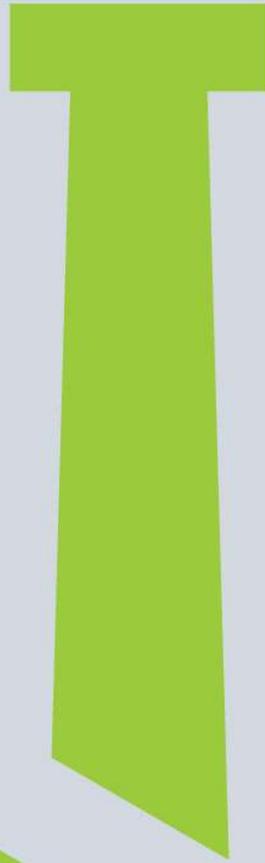
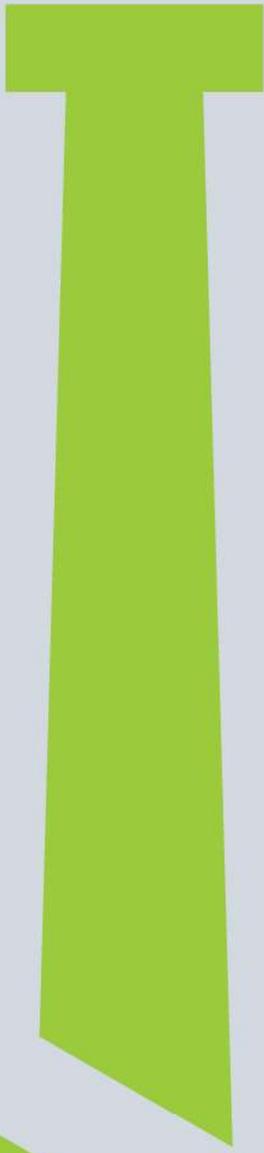


OPPORTUNITY FOR IS/EIP

The broad category of IS/EIP which could potentially be financed through this funding mechanism includes:

- » Projects aimed at renewable energy investments

²⁸ <http://tapchinganhang.gov.vn/trai-phiau-xanh-viet-nam-trong-no-luc-bat-nhip-voi-ky-nguyen-tai-chinh-xanh-toan-cau.htm>



International Financing Mechanisms

2.

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INTERNATIONAL FINANCING MECHANISMS

Given the complexity of the IS topic, international support (e.g., technical assistance, funding, on-lending borrowing) plays an important role in the implementation of IS in developing and transition countries. International funding can be provided in an indirect way via local agencies. In some cases, international financial institutions provide public funds to be used for public investments. Such financial support generally flows into related government counterparts' deposits as international grants or supports. The public funding is then channelled to local relevant recipients.

2.1 VIETNAM ENERGY EFFICIENCY FOR INDUSTRIAL ENTERPRISES (VEEIE) PROGRAMME OF THE WORLD BANK

The Vietnam Energy Efficiency for Industrial Enterprises (VEEIE) programme²⁹ funded by the World Bank extends loans to industrial enterprises (IEs) for energy efficiency (EE) investments.

The programme provides loans or tranches of loans through participating financial institutions (PFIs) so that IEs can implement their EE projects. The programme also provides technical assistance for PFIs during the investment period. It will support around 60 eligible EE projects by July 2022.

Total investment: USD 158 million consists of 2 components:

- **Component 1:** Loans for EE investment projects at USD 156.3 million (of which USD 100 million is from the WB, USD 25 million from PFIs and USD 31.3 million from IEs);
- **Component 2:** USD 1.7 million as a grant from the World Bank's International Development Association (IDA) for Technical Assistance.

Implementing time: July 2017 to July 2022.

The number of EE bankable projects developed is 13 (as updated on 30 October 2020), while the target is 60 by 31 July 2022.³⁰

²⁹ <https://veeie.vn/>

³⁰ <https://projects.worldbank.org/en/projects-operations/project-detail/P151086>



TARGET CLIENTS

The main beneficiaries of this loan are the production industries. The programme's beneficiaries are described below:

- » Eligible industrial enterprises (IEs):
 - IEs/ESCO registered and operated according to the prevailing laws of Vietnam; and
 - IEs that do not have cross ownership with PFIs with which they register for loans; and that meet PFI requirements on normal trade rules for similar loans.
- » Eligible energy efficiency (EE) sub-projects, that:
 - replace ineffective equipment and techniques with energy efficient and more effective equipment and techniques;
 - withdraw and make use of emissions, by-products, pressure;
 - install high--efficient electric and mechanical equipment including engines, lights, pumpers, waste heat recovery systems and ventilators, etc.;
 - optimize industrial systems to minimize energy utilization;
 - improve energy efficiency in industrial buildings; and
 - utilize industrial renewable energy and other projects accepted by the World Bank.

Sub-projects are limited to renovating and restoring the existing components and systems and the requirement for energy savings rate is at least 20 percent. A lower energy saving rate can be accepted with specific fields with modern energy technology.



OPPORTUNITY FOR IS/EIP

Listed below are the broad categories of IS/EIP opportunities that have been or could be financed through this fund:

- » Projects for substitution of obsolete equipment like boilers, kilns, heat exchange systems, etc) by energy saving ones.
- » Projects for recovering and reusing by-product gases and waste heat;
- » Projects including installation of industrial systems for reducing energy consumption;
- » Projects aimed at harnessing renewable energy for electricity fuel savings (e.g., co-generation, solar water heating , etc.)
- » Others projects with similar aims and objectives, especially those approved by WB.

LENDING PROCEDURE

Sub-projects are limited to renovating and restoring the existing components and systems and the requirement for energy savings rate is at least 20 percent. A lower energy saving rate can be accepted with specific fields with modern energy technology. The maximum payback period is 10 years. The internal rate of return must be at least 10 percent.³¹

The IEs will carry out screening against eligible criteria for participating in VEEIE. The eligible criteria include technical, social, and environmental criteria. If all eligible criteria are met, the IEs will prepare and submit loan application to the PFIs. If the investment cost of EE subproject to be submitted for financing under VEEIE is equal or less than US\$ 500 thousand, the subproject will be screened and appraised directly by PFIs, and and is subject to **the post review procedure**. If the investment cost value is greater than US\$ 500 thousand, the subproject is subject to the **prior review procedure** and must go through World Bank no objection process.

³¹ http://veeie.vn/Images/Upload/User/quantri/2018/11/om_veeies_revised_04april2017final-tc.pdf



Post Review Procedure

Step 1. IE prepares and submits a loan application:

The IE prepares and submits loan application to the PFIs.

Step 2. PFI approves and disburses fund

If the EE subproject meets all requirements, PFI can disburse the fund to the subproject and monitor subproject implementation in accordance with this OM.

Step 3. Post review by MOIT and WB

The MOIT and the World Bank will carry out post review procedure, twenty percent (20%) of total subprojects that have investment cost equal or less than US\$ 500 thousand will be reviewed to verify that all requirements are met and estimate energy saving performance is accurate. If any subproject that is not substantially meet the requirements, the disbursed amount must be returned to IBRD designated account.

Prior Review Procedure

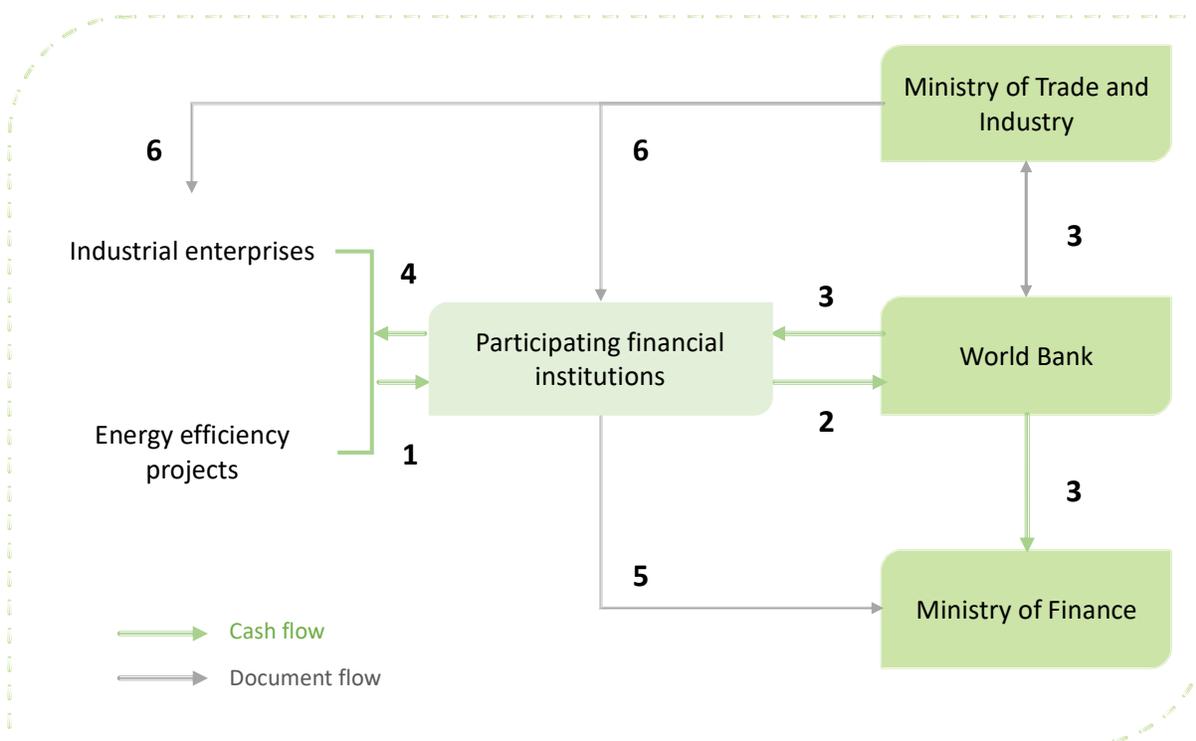


Figure 4. Lending procedure for VIEEI (adapted from Handbook on how to Access Green Financing In Viet Nam)

Step 1. IE prepares and submits a loan application

The IEs will prepare and submit loan application to the PFIs. Apart from standard requirements using commercial practices, the loan application will include feasibility study, technical design, energy saving calculation (and energy audit if required), procurement plan, economic and financial analysis, environmental and social safeguard documents (if required). The technical design and energy saving calculation need to be prepared by qualified engineering institution licensed by the relevant government agency. The project might



require an independent engineering firm to verify the project design and energy saving calculation of the sub-project.

PFI can obtain refinancing of loans for EE projects if these projects meet a set of refinancing requirements. The refinancing is limited to a maximum of 80% of total investment cost. If project meets all refinancing requirements, the PFI can prepare a Refinancing Application Package consisting of a Refinancing Request (standard letter), Refinancing Application Summary and all required attachments for review. The Refinancing Application Package can be submitted in electric form on a CD or DVD.

Step 2. PFI submits the complete package to WB

If the project for which the loan/refinancing application has been submitted meets all loan/refinancing requirements, the PFI will submit the complete package (in electronic form as far as possible) to the WB for a No-objection letter (NOL). The complete package consists of: (i) Request for No objection Letter from the PFI to the WB; (ii) Loan application/Refinancing Application Package; and (iii) PFI's Lending / Refinancing Requirements Checklist.

Step 3. WB reviews the application(s) submitted for No Objection

The WB will thoroughly review the application package submitted for No Objection. There are three possible outcomes:

1. The WB will issue a No objection letter (NOL);
2. The WB will issue a conditional No objection Letter;
3. The WB will inform the PFIs that it cannot issue the NOL and will state clearly the reasons why

For Outcome 2, the PFI will make sure that the conditions for No objection are met before approving the refinancing application. For Outcome 3, the PFI will assess what action can be taken to address WB's concerns. If these can be addressed the revised package can be resubmitted for WB review. If these cannot be addressed the PFI will inform IE/PFI accordingly.

The WB commits to review refinancing application package submitted by the PMB within 7 working days of receipt. In case the WB issue a NOL for financing an EE subproject, MOF and MOIT will be copied for information and loan implementation/supervision.

Step 4. PFIs inform IE of the loan approval/conditions

Once the NOL is received from the World Bank, the PFI will inform the IE that the EE subproject received approval to be refinanced from VEEIEs, and the IE will implement EE loan in accordance with loan agreement and VEEIE requirements. If the PFI receives a conditional NOL, the PFI will make sure that IE will fulfil conditions for NOL before approving of financing/refinancing application.

Step 5. PFI disburses fund

If a loan application received approval and given NOL by the WB, PFI can disburse the fund from designated account. Detail guideline for disbursement, process and procedures are given in Part B-Loan Implementation.

Step 6. MOIT supervises project implementation

During project implementation, MOIT will supervise implementation of all approved subprojects and ensure that IEs, PFIs implement EE investments in compliance with requirements of VEEIEs.



2.2 IFC'S ENERGY EFFICIENCY AND CLEANER PRODUCTION FINANCING PROGRAM

The funding programme for the project of Vietnam Energy Efficiency and Cleaner Production (EECP) runs within the framework of IFC's global Sustainable Energy Finance (SEF) Program. The programme cooperates with some commercial banks, assisting them in developing market strategies and financial products related to sustainable energy for production enterprises that wish to upgrade their production line and technology to achieve higher energy efficiency, save production costs, improve productivity and product quality, and reduce environmental impacts. To date in November 2018, IFC disbursed the committed loan (USD 63 million). IFC does not work directly with enterprises but through commercial banks such as Vietinbank and VP Bank, building capacity of those banks in appraisal and management of loans for enterprises. The loan procedures adhere to their prevailing regulations.

IFC cooperates with some commercial banks (Vietinbank and VP Bank), assisting them in developing market strategies and financial products related to sustainable energy for enterprises that wish to upgrade their production line and technology.

| | | |
|---|-------------------------------|---|
|  | TARGET CLIENTS | Listed below are some broad categories of the programme's beneficiaries and IS/EIP opportunities that have been or could be financed through this fund: |
|  | OPPORTUNITY FOR IS/EIP | |
| <p>» Upgrades to technology and production lines at enterprises that help achieve one of more of the following:</p> <ul style="list-style-type: none">- higher energy efficiency,- reduced production costs,- improve productivity and product quality- reduced environmental impacts. | | |

2.3 VIETNAM SCALING UP ENERGY EFFICIENCY FOR INDUSTRIAL ENTERPRISES PROJECT (VSUEE)

Vietnam Scaling up Energy Efficiency for Industrial Enterprises Project (VSUEE) is funded by the Green Climate Fund (GCF) through the World Bank, with a total funding of 86.3 million USD.

- **Component 1:** Total 78 million USD including 3 million USD for Technical Assistance (TA) and 75 million USD for Risk Sharing Facility (RSF), which is potentially accessible by the enterprises/IPs;
- **Component 2:** Total 10 million USD for TA including 1.7 million USD for TA for WB-VEEIE and 8.3 million USD for TA for VSUEE, to be used to provide technical assistance to improve the capacity of the parties involved in the project, building, and completing policy frameworks, guiding the implementation, supporting activities to save energy, reduce greenhouse gas emissions, and respond to climate change.

The Ministry of Industry and Trade - Project management agency is the unit in charge and is responsible for the overall project implementation results.

The project aims to promote economical and efficient use of energy in the industrial sector of Vietnam, contribute to achieving the national goals of energy saving, energy security, and implementation of tasks and targets to reduce greenhouse gas emissions and respond to climate change.



The project is planned to be implemented in 5 years, starting in June 2019, and expected to end in December 2024.³² Production industries are the major beneficiaries of the project.

| | |
|---|---|
|  | TARGET CLIENTS Given below is the list of direct beneficiaries of the project: |
| | <ul style="list-style-type: none">» Industrial enterprises implementing loan projects to invest and implement energy saving solutions for energy intensive industries of both public and private sectors.» Commercial banks participating in the project» The agencies / units directly involved in the project implementation, which include: central and local state management units for energy saving, project management units, commercial banks, energy service consulting companies, energy saving centres nationwide. |
|  | OPPORTUNITY FOR IS/EIP Listed below are the broad categories of IS/EIP opportunities that could be financed through this fund: |
| | <ul style="list-style-type: none">» Projects with aspects of energy efficiency and energy saving, and resultign in GHG reductions |

Indirect beneficiaries of the project include:

- The implemented energy-saving projects will create business opportunities for businesses, jobs for people, improve business efficiency of businesses through cutting energy costs, and reducing prices. into production, improve product quality.
- At the national level, the amount of energy saved reduces the need to invest in energy supplies, limiting the use of primary fuels from fossil fuels will bring many benefits to environmental protection. greenhouse gas emissions reduction.

³² <http://veeie.vn/gioi-thieu/c53/gioi-thieu.html>



2.4 OTHER INTERNATIONAL FINANCING MECHANISMS

The following table provides a summary of various international financial institutions that could support IS/EIP opportunities in Vietnam.

Table 3. Examples of International Funding opportunities: Development Banks

| Name of mechanism | Support type | Eligibility criteria |  Types of EIP/IS opportunity that could be financed |
|--|---|--|--|
| Asian Development Bank (ADB) www.adb.org | Concessional loans, grants, loan guarantee | Development of Asian countries | Funding for thematic development projects related to EIP development, e.g., energy efficiency, resource efficiency, renewable energy |
| FMO - Dutch development Bank – Bilateral www.fmo.nl | Commercial loans, equity (managed government funds of whom Access to Energy Fund)), loan guarantee | Sustainable private sector growth in developing and emerging markets by investing in ambitious companies | Financing long-term projects related to EIP development, e.g., energy efficiency, renewable energy |
| USAID (U.S. Agency for International Development)-Bilateral www.usaid.gov | Grants, Concessional loans | Developing countries / Official Development Assistance + Climate Change Mitigation | Grants and concessional loans for thematic development projects related to EIP development, e.g., renewable energy, EE, RECP |
| KFW Group: KFW- Entwicklungsbank (German Development Bank) / DEG (Society and development) -Bilateral www.kfw.de/kfw.de-2.html | Concessional loans, grants, loan guarantee, equity | International Development | Funding for thematic development projects related to EIP development, e.g., renewable energy, energy efficiency, resource efficiency, cleaner production |
| COPARCO (French Development bank for private sector) – Bilateral https://www.proparco.fr/en | Concessional loans, grants, loan guarantee, equity | International Development | Financing development projects related to EIP development, e.g., energy efficiency, renewable energy |
| SWEDFUND (Sweden owned risk capital company)-Bilateral www.swedfund.se/en/ | Equity, loans, expertise | State-owned risk capital company specialised in investments in emerging markets in Africa, Asia, Latin America, and East Europe | Financing development projects related to EIP development, e.g., energy efficiency, renewable energy |
| Finnfund (Finnish development finance company)-Bilateral www.finnfund.fi/en_GB/ | Co-investing with Finnish companies, financing of ventures using Finnish technology. Equity, mezzanine, LT loans. | Finnish development finance company that provides long-term risk capital for profitable projects in developing countries and Russia. Finance private projects that involve a Finnish interest. | Financing development projects related to EIP development, e.g., energy efficiency, renewable energy |



| | | | |
|--|---|--|--|
| Bio-Invest (Belgian Investing Company for developing countries) www.bio-invest.be/en/ | Equity, loans, expertise Its early-stage capital amounts to €5,000,000 and it makes investments using additional equity granted by the Ministry for Development Cooperation. | The Belgian Investment Company for Developing Countries (BIO) aims to support a strong private sector in developing and/or emerging countries, to enable them to gain access to growth and sustainable development with the aim to achieving the Millennium Development Goals. | Financing development projects related to EIP development, e.g., energy efficiency, renewable energy |
|--|---|--|--|

Table 4. Examples of International Funding opportunities: Thematic Funds

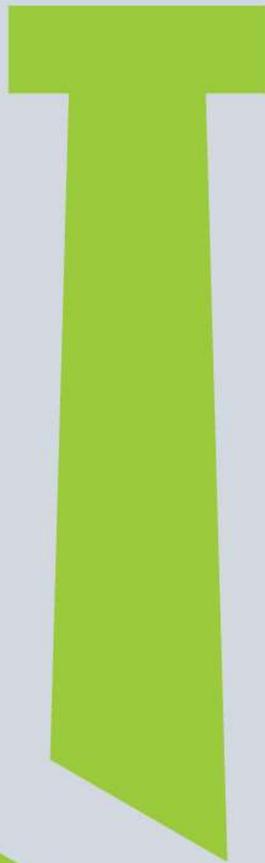
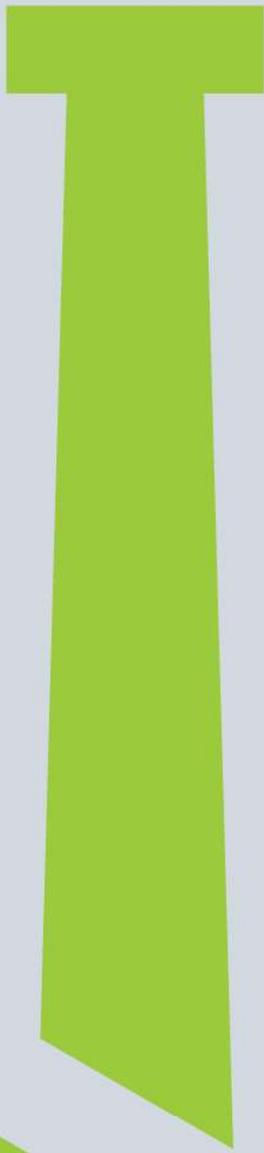
| Name of mechanism | Support type | Eligibility criteria |  Types of EIP/IS opportunity that could be financed |
|---|--|---|--|
| CLIMATE INVESTMENT FUNDS (CIFs) www.climateinvestmentfunds.org | Grants, concessional funds, loan guarantee | Developing countries / Clean Technology Fund, Pilot Program for Climate Resilience, Scaling Up Renewable Energy Program (SREP) | Financing thematic projects related to EIP development, e.g., energy efficiency, renewable energy |
| Global Environment Facility (GEF) www.thegef.org/ | Grants for projects | Global environmental issues, support of national sustainable development initiatives: projects related to biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants. | Financing thematic projects related to EIP development, e.g., energy efficiency, renewable energy, cleaner production |
| REPIC / An interdepartmental platform of the Swiss Federal Offices SECO, SDC, FOEN and SFOE http://www.repic.ch/repic-en/ | Grants for projects | Promotion of renewable energy and energy efficiency in developing and transition countries | Financing thematic projects related to EIP development, e.g., energy efficiency, renewable energy |
| SWITCH ASIA ("RECPnet like") www.switch-asia.eu | Grants, network facility, Policy support | Promote Sustainable Consumption and Production (SCP) among Small and Medium sized Enterprises (SMEs) and consumer groups in Asia | Financing thematic projects related to EIP development, e.g., energy efficiency, renewable energy, cleaner production |
| Green Climate Fund (GCF)³³ | Grant, technical assistance, risk sharing facility | See 2.3 | Financing thematic projects related to EIP development, e.g., energy efficiency, renewable energy |

³³ <https://www.greenclimate.fund/project/fp071#documents>



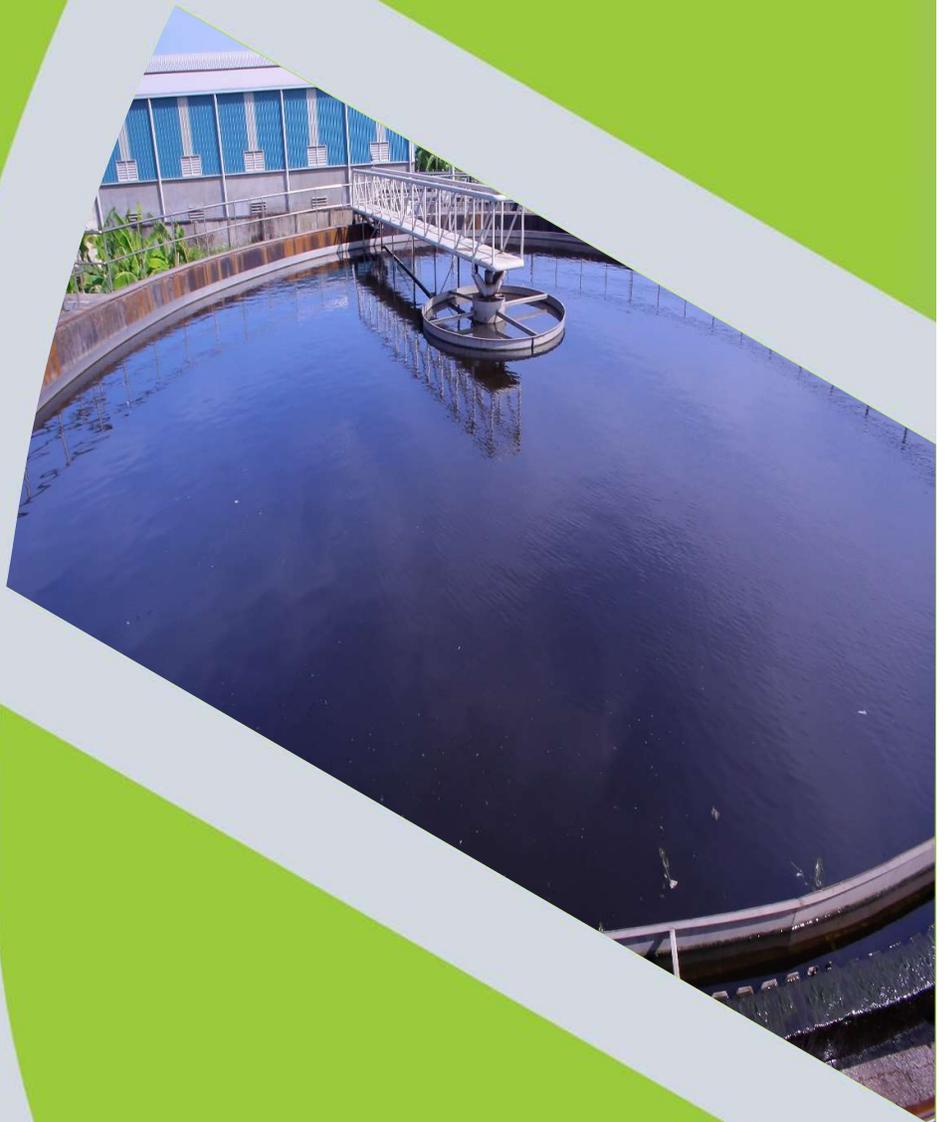
Table 5. Examples of International Funding opportunities: (Thematic) Private Equity Funds

| Name of mechanism | Support type | Eligibility criteria |  Types of EIP/IS opportunity that could be financed |
|---|---|---|---|
| Aloe Private Equity www.aloe-group.com/en/ | Private equity financing | Environment private equity fund. Develop hard asset-based companies, which provide proven technological solutions to environmental and social challenges, especially those experienced by the high growth markets of Asia. | Financing environmental projects and businesses related to EIP development, e.g., eco-friendly products, cleaner production |
| NORFUND (Norwegian Ministry of Foreign Affairs) www.norfund.no | Private equity financing mainly (but also loans) Norfund is mainly an equity investor (typically a share of about 20%) | Help developing countries fight poverty through supporting economic growth, employment, and technology transfer. Strategic focus on Eastern and Southern Africa, Central America, and South-East Asia. Renewable energy, financial services and agribusiness are the three main sectors in which Norfund invests. | Financing thematic projects related to EIP development, e.g., clean energy |
| Bio-Invest (Belgian Investing Company for developing countries) http://www.bio-invest.be/en/ | Equity, loans, expertise. Its early-stage capital amounts to €5,000,000 and it makes investments using additional equity granted by the Ministry for Development Cooperation. | The mission of the Belgian Investment Company for Developing Countries (BIO) is to support a strong private sector in developing and/or emerging countries, to enable them to gain access to growth and sustainable development with the aim to achieving the Millennium Development Goals. | Financing thematic projects related to EIP development, e.g., clean energy |
| ROBECOSAM (Asset management, headquarters Zurich & Rotterdam) www.robecosam.com | Equity, asset management, indices | The first asset manager focused exclusively on Sustainability Investing; SAM was acquired by Robeco Group in 2007 in-line with Robeco's strategic ambition to further develop into the thought leader in the field. | Financing thematic projects related to EIP development, e.g., clean energy, resource efficiency |
| SEAF (Small Enterprise Assistance Funds) http://seaf.com/ | expansion capital to promising SMEs (risk capital: equity, mezzanine, credit term) | SEAF is an investment management group that provides growth capital and business assistance to small and medium enterprises (SMEs) in emerging and transition markets underserved by traditional sources of capital | Financing thematic projects of SMEs related to EIP development, e.g., clean energy, resource efficiency |
| LGT Group (Liechtenstein / Princely family) www.lgt.com/en | Equity funds, bond funds, multi-assets funds, grants | On the basis of the concept of Sustainable Investing, we invest in companies, organizations and countries that stand out in terms of sustainability criteria (ESG criteria), ensure long-term financial value creation, and contribute sustainably to improvements in human well-being. | Financing thematic projects related to EIP development, e.g., clean energy, resource efficiency |



Private sector
Financing
Opportunities

3.





PRIVATE SECTOR FINANCING OPPORTUNITIES

3.1 BUSINESS RELATIONSHIP

Financial self-sustainability should be the basis of any IS project. While an IS project may request external funds for its initial set up and first years of functioning, its long-term plan should be economically sustainable. The companies need to ensure essential infrastructure is in place, along with appropriate risk, accident, and incident management.

In Vietnam, one model that has proven to work for company's resource efficiency improvement is the ESCO model. An energy service company (ESCO or ESCo: Energy Service Company) is a commercial enterprise that offers a comprehensive range of energy/water solutions including the design and implementation of energy/water efficiency projects, energy/water conservation, energy/water infrastructure leasing, power generation and power supply, and risk management. The ESCO will invest (either with its own finance or with financial support from banks or other funding sources) in the project and share the profit that the manufacturing company makes on the savings associated with the project. After the contract period, the ESCOs will cede ownership of the system to the manufacturing enterprise. Any manufacturing enterprise can make use of this type of ESCO model.



OPPORTUNITY FOR IS/EIP

Some IS solutions that could be potentially implemented with the ESCO model can be listed out as follows:

- » Shared boilers between companies having steam demand for production;
- » Waste to biogas/compost – organic waste digestion, steam or electricity generation;
- » Wastewater treatment symbiosis between companies and/or CETPs;
- » Waste-to-energy networks
- » Co-financing of resource efficient, cleaner production technology

Some other possible external sources of finance may be found through business relationships, e.g., **equipment suppliers, supply chain partners**. For example, when there is a need of new machinery or equipment procurement for an IS development project, vendor financing appears to be a financially feasible option. Vendor financing is preferred as it is not treated as debt and, therefore, does not count against borrowing capacity.³⁴ When the IS project developer has borrowing capacity, additional **commercial loans**

³⁴ Kechichian, Etienne and Mi Hoon Jeong (2016). Mainstreaming Eco-Industrial Parks: Conclusions from the Eco-Industrial Park 2015 event in Seoul. World Bank Group.



can be considered under the commercial financing regime. Any investment project for upgrading machinery and technology for improved efficiency of resource usage can be made use of this business relationships patterns if enterprises and partners can come to an agreement.

3.2 PUBLIC-PRIVATE PARTNERSHIPS (PPPs)

In general, PPPs are an option for government infrastructure investments where the government falls short of expertise and would like to tap into the private sector's experience. In a similar manner, PPP appears to be an option for financing IS investments. PPP arrangements between the public and private sectors are viable where shared investments bring mutual benefits.³⁵

PPP projects as regulated by the Law on PPP investment³⁶ (approved by the National Assembly on 18th June 2020 and valid from 1st January 2021), are categorized under the following focus areas:

- » Transportation;
- » Power plants and power transmission lines, except hydropower plants and monopoly cases of the State under the Law on Electricity;
- » Irrigation works, clean water supply, water drainage and wastewater treatment, and waste treatment;
- » Healthcare, education and training; and,
- » Information technology infrastructure.

The PPP Law sets out the following steps, including detailed guidance in relation to each, for the implementation of a PPP project:

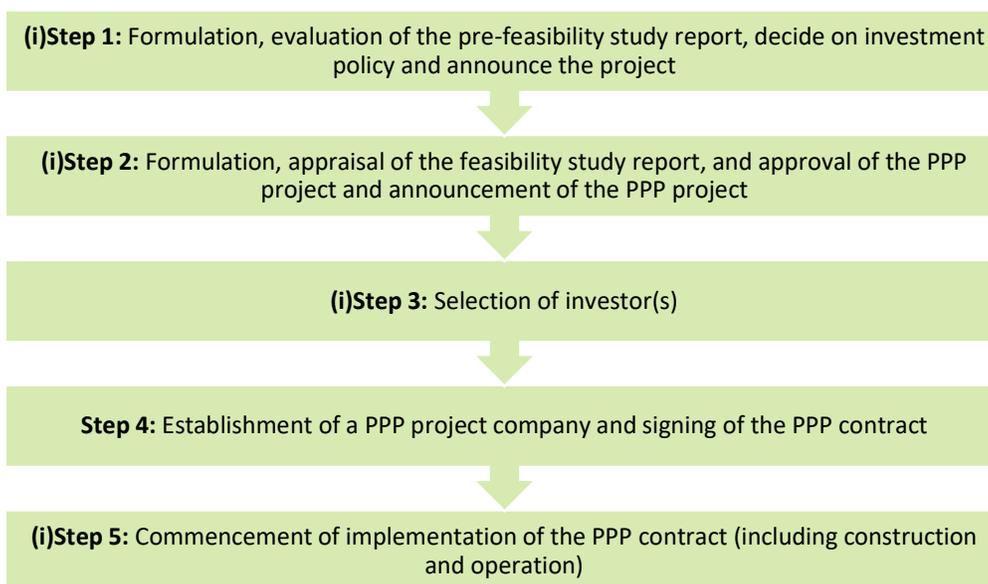


Figure 5. Steps for implementing a PPP project

³⁵ Kechichian, Etienne and Mi Hoon Jeong (2016). Mainstreaming Eco-Industrial Parks: Conclusions from the Eco-Industrial Park 2015 event in Seoul. World Bank Group.

³⁶ <https://thuvienphapluat.vn/van-ban/Dau-tu/Luat-Dau-tu-theo-hinh-thuc-doi-tac-cong-tu-so-64-2020-QH14-374160.aspx>



OPPORTUNITY FOR IS/EIP

PPPs are ideal for long-term investments such as infrastructure in industrial parks and the surrounding areas. Such projects may include common effluent treatment plants, water treatment plants and waste treatment plants, that could be accomplished by tapping into PPPs.

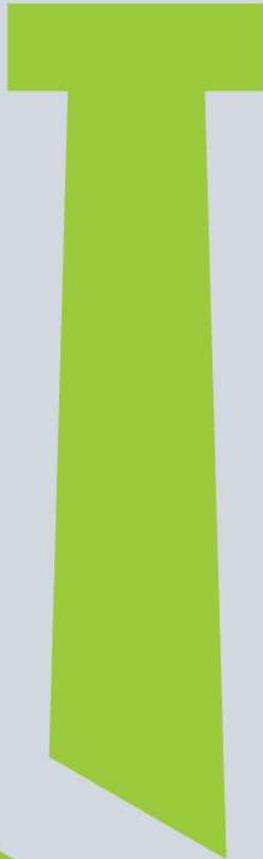
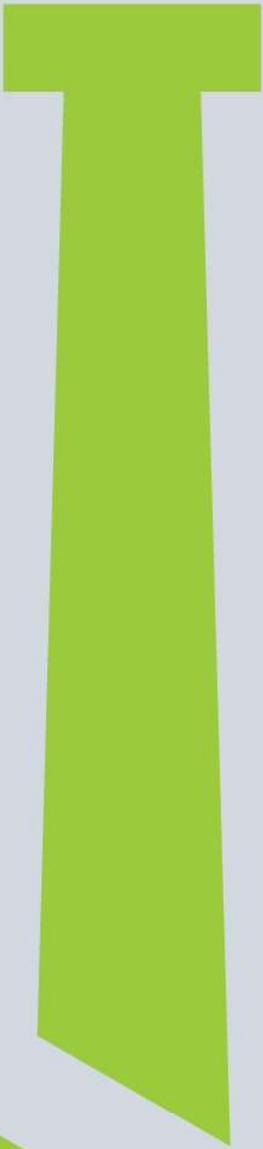
For example, the private partner in a PPP opportunity may be the industrial park developer, who looks for the upgrading or establishment of a centralized effluent treatment plant for enabling the recycling and reusing of wastewater for the purpose of meeting the tenants' requirements or providing them with shared utilities.

An example of a successful PPP arrangement can be seen in the microbiological wastewater treatment plant (WTP) set up at the Song Than II Industrial Park (IP).

It must be noted that the PPP Law is newly issued and there will be additional legislation documents such as decrees, circulars, etc. that will provide details and guidance towards the implementation of the law.

Future potential:

- » The Dai Nam JSC committed to the replication of the Song Than II WTP in 100 IPs across Vietnam, following the success of the plant in increasing the water use efficiency of the IP and ensuring reduced environmental damage to its surroundings.
- » Considering there are about 300 IPs in the country, engagement and support from the State and the Bank to replicate the model becomes extremely important and necessary.
- » Accessing loans through some of the financing opportunities mentioned above would help in availing the necessary capital for this venture. Such a venture would have significant water savings in the water-scarce scenario of Vietnam.



Annex

4.

ANNEX

Provided below are details for the 48 relevant financial mechanisms identified. They are split into three tables - National, International and Private mechanisms.

Table 6. National Funding Opportunities

| No. | Name of mechanism | Support type | Eligibility criteria | Type of EIP/IS opportunity that could be financed | Advantages related to EIP/IS development | Challenges related to EIP/IS development |
|-----|---|---|--|--|--|---|
| 1 | Vietnam Environment Protection Fund (VEPF) | Green credit loans privileged interests | <ul style="list-style-type: none"> » Environmental effectiveness and emergency » Financial feasibility and ability to repay » Scale effects » Replicability » Applying advanced technologies » Relating to environmental policies of Vietnam | <ul style="list-style-type: none"> » Park level Infrastructure: wastewater treatment, waste incinerator, hazardous waste treatment, central plant for recycling and treatment of industrial waste, waste-to-energy plant » Company equipment: pollution treatment system | <ul style="list-style-type: none"> » Specifically mentioned as financial incentives for EIP development (Decree 82/2018/ND-CP) » Wastewater treatment facilities of IPs are given highest priority | <ul style="list-style-type: none"> » Limited funding availability » Bureaucratic procedure |
| 2 | Vietnam Development Bank (VDB) | Green credit loans privileged interests | <ul style="list-style-type: none"> » Financial feasibility and ability to repay » Investors have at least 20% of equity participation in project » Investors shall provide loan security complied with the related regulations/laws | Investment projects for technology innovation toward clean technology in industrial sectors. | Specifically mentioned as financial incentives for EIP development (Decree 82/2018/ND-CP) | Small and medium enterprises may be difficult to access soft loans, since investors must undertake loan security measures |

| No. | Name of mechanism | Support type | Eligibility criteria | Type of EIP/IS opportunity that could be financed | Advantages related to EIP/IS development | Challenges related to EIP/IS development |
|-----|---|---|--|--|---|---|
| 3 | Hanoi Investment Fund for Development | Green credit loans privileged interests | <ul style="list-style-type: none"> » Environmental effectiveness » Financial feasibility and ability to repay » Applying advanced technologies » Related to environmental policies of Hanoi | <ul style="list-style-type: none"> » Park level Infrastructure: WWT, waste incinerator, hazardous waste treatment, central plant for recycling and treatment of industrial waste, waste-to-energy » Company equipment: pollution treatment system | Specifically mentioned as financial incentives for EIP development (Decree 82/2018/ND-CP) | <ul style="list-style-type: none"> » Limited funding availability » Bureaucratic procedure |
| 4 | Ho Chi Minh City Environmental Protection Fund | Green credit loans privileged interests | <ul style="list-style-type: none"> » Environmental effectiveness » Financial feasibility and ability to repay » Applying advanced technologies » Relating to environmental policies of Ho Chi Minh City | <ul style="list-style-type: none"> » Park level Infrastructure: wastewater treatment, waste incinerator, hazardous waste treatment, central plant for recycling and treatment of industrial waste, waste-to-energy plant » Company equipment: pollution treatment system | Specifically mentioned as financial incentives for EIP development (Decree 82/2018/ND-CP) | <ul style="list-style-type: none"> » Limited funding availability » Bureaucratic procedure |
| 5 | Provincial Environmental Protection Funds | Green credit loans privileged interests | <ul style="list-style-type: none"> » Environmental effectiveness » Financial feasibility and ability to repay » Applying advanced technologies » Related to environmental policies of corresponding province | | Specifically mentioned as financial incentives for EIP development (Decree 82/2018/ND-CP) | <ul style="list-style-type: none"> » Limited funding availability » Bureaucratic procedure |
| 7 | National Technology Innovation Fund (NATIF) | Soft loans Subsidized loan interests Loan guarantees | Research on technology innovation, technology transfer, high-tech project, new products, new services | | New and emerging technology to improve quality, production efficiency | - High priority on new and advanced and environment-friendly technology |
| 8 | Fiscal incentives | Policy instruments: Tax incentives, TA Risk management instruments: credit guarantee | Relating to development policies | Promotion of specific policy objectives: RECP-specific, wastewater reuse, but also SME, climate, export, sectors, etc. | Concessional / Enhance project feasibility / Help leverage other sources, e.g., following Decree Nr.38/2015/ND-CP | <ul style="list-style-type: none"> » Subject to public budget dynamics » Accessibility: cumbersome, restrictive |

| No. | Name of mechanism | Support type | Eligibility criteria | Type of EIP/IS opportunity that could be financed |
|-----|--|--|--|---|
| 9 | HDBank rooftop solar power and power payment for SMEs | Green credit loans privileged interests | Renewable energy, high tech agriculture | Technology investment on renewable energy |
| 10 | Nam A Bank | Soft loans from Global Climate Partnership Fund (GCPF); Green credit loans privileged interests | High-tech agriculture; Energy saving; Reduce emissions to the environment | Company equipment and green buildings: less CO2 emission, less environmental impacts, environmentally friendly products manufacturing |
| 11 | Vietcombank | Green credit loans privileged interests | Green energy and environmental protection | Technology investment for green energy |
| | BIDV green credit line | Green credit loans | SMEs; Renewable energy, clean energy and energy saving investment projects | Renewable energy, clean energy and energy saving investment projects |
| 12 | Sacombank | Green credit loans privileged interests, grace period up to 6 months | | Solar electricity |
| 13 | VP bank | Green credit loans privileged interests | SMEs; Environmentally friendly investment projects | Renewable energy; Energy Efficiency; Green Buildings; Green transportation; Waste treatment and Management; Reduce environmental pollution |
| 14 | VietInBank | Soft loans from JICA; Green credit loans privileged interests | Enterprises of all scales; Solar rooftop investment projects; Environmental protection | Investment in environmentally friendly production equipment; consumer health protection; environment protection |
| 15 | Government's green bonds | | Renewable energy investment projects | Renewable energy investments |
| 16 | Small and Medium Enterprise Development Fund (SMEDF) | Direct loans for start-ups, SMEs; Indirect loans through selected commercial banks. | SMEs; | Support SMEs with new technology; Support for capacity building, training, investment, and trade promotion |
| 17 | Credit Loan Guarantee Fund for SMEs (CLGF) | Green credit loans | SMEs; | |

Table 7. International Funding opportunities

| No. | International Financial Partner | Financial mechanisms possible with this partner | Targets of this partner / investment presence | Relevance to EIP development and implementation in Vietnam |
|--------------------------|---|--|--|---|
| Development banks | | | | |
| 1 | IFC, IBRD / WORLD BANK GROUP - Multilateral | World Bank launched the Vietnam Energy Efficiency for Industrial Enterprises – VEEIE: Soft loan from IBRD (International Bank for Reconstruction and Development) through WB, hosted by MOIT; loan rate for enterprises based on commercial negotiation between BIDV or VCB and borrower enterprises. | Sustainable, private sector-led development around the world | Funding for thematic development projects related to EIP development, e.g., energy efficiency, resource efficiency, renewable energy Project to support the application of energy-efficiency technologies and practices in industrial enterprises in Vietnam in 2017-2022. Under this project, industrial enterprises can access a new line of credit via participating local banks. |
| 2 | | IFC’s Energy Efficiency and Cleaner Production Financing Program: IFC cooperates with some commercial banks (Viettinbank and VP Bank,), assisting them in developing market strategies and financial products related to sustainable energy for enterprises. | Sustainable, private sector-led development around the world | Funding for thematic development projects related to EIP development. Enterprises to upgrade their production line and technology to achieve higher energy efficiency, save production costs, improve productivity and product quality, and reduce environmental impacts. |
| 3 | | Vietnam Scaling up Energy Efficiency for Industrial Enterprises project (VSUEE): Soft loan from Green Climate Fund through WB, hosted by MOIT | Vietnam - Industrial enterprises; ESCO | Investment projects for energy saving |
| 4 | Asian Development Bank (ADB) www.adb.org | Concessional loans, grants, loan guarantee | Development of Asian countries | Funding for thematic development projects related to EIP development, e.g., energy efficiency, resource efficiency, renewable energy |

| No. | International Financial Partner | Financial mechanisms possible with this partner | Targets of this partner / investment presence | Relevance to EIP development and implementation in Vietnam |
|-----|---|---|--|---|
| 5 | FMO - Dutch development Bank – Bilateral www.fmo.nl | Commercial loans, equity (managed government funds of whom Access to Energy Fund)), loan guarantee | Sustainable private sector growth in developing and emerging markets by investing in ambitious companies | Financing long-term projects related to EIP development, e.g., energy efficiency, renewable energy |
| 6 | USAID (U.S. Agency for International Development)-Bilateral. www.usaid.gov | Grants, Concessional loans | Developing countries / Official Development Assistance + Climate Change Mitigation | Thematic development projects related to EIP development, e.g., renewable energy, energy efficiency, RECP |
| 7 | KFW Group: KFW- Entwicklungsbank (German Development Bank) / DEG (Society and development) - Bilateral www.kfw.de/kfw.de-2.html | Concessional loans, grants, loan guarantee, equity | International Development | Funding for thematic development projects related to EIP development, e.g., renewable energy, energy efficiency, RECP |
| 8 | COPARCO (French Development bank for private sector) – Bilateral www.proparco.fr/en | Concessional loans, grants, loan guarantee, equity | International Development | Financing development projects related to EIP development, e.g., energy efficiency, RE |
| 9 | SWEDFUND (Sweden owned risk capital company)-Bilateral www.swedfund.se/en/ | Equity, loans, expertise | Specialized in investments in emerging markets in Africa, Asia, Latin America, and Eastern Europe | Financing development projects related to EIP development, e.g., energy efficiency, renewable energy |
| 10 | Finnfund (Finnish development finance company)-Bilateral www.finnfund.fi/en_GB/ | Co-investing with Finnish companies, financing of ventures using Finnish technology. Equity, mezzanine, LT loans. | Provides long-term risk capital for profitable projects in developing countries and Russia. We finance private projects that involve a Finnish interest. | Financing development projects related to EIP development, e.g., energy efficiency, renewable energy |
| 11 | Bio-Invest (Belgian Investing Company for developing countries) www.bio-invest.be/en/ | Equity, loans, expertise. Its early-stage capital amounts to €5,000,000 | Support a strong private sector in developing and/or emerging countries, to enable them to achieve the Millennium Development Goals. | Financing development projects related to EIP development, e.g., energy efficiency, renewable energy |

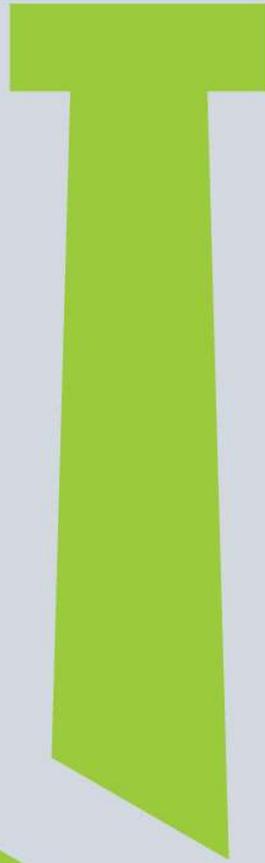
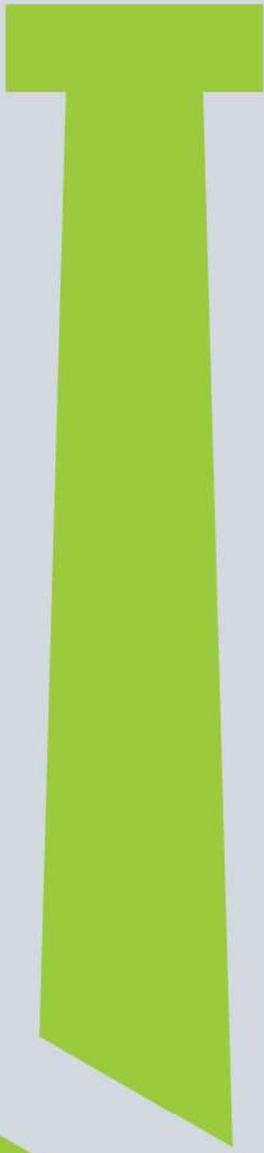
| No. | International Financial Partner | Financial mechanisms possible with this partner | Targets of this partner / investment presence | Relevance to EIP development and implementation in Vietnam |
|-----------------------|---|---|---|--|
| Thematic funds | | | | |
| 12 | CLIMATE INVESTMENT FUNDS (CIFs) www.climateinvestmentfunds.org | Grants, concessional funds, loan guarantee | Developing countries / Clean Technology Fund, Pilot Program for Climate Resilience, Scaling Up Renewable Energy Program (SREP) | Financing thematic projects related to EIP development, e.g., energy efficiency, renewable energy |
| 13 | Global Environment Facility (GEF) www.thegef.org/ | Grants for projects | Global environmental issues, support of national sustainable development initiatives: projects related to biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants. | Financing thematic projects related to EIP development, e.g., energy efficiency, renewable energy, cleaner production |
| 14 | REPIC / An interdepartmental platform of the Swiss Federal Offices SECO, SDC, FOEN and SFOE http://www.repic.ch/repic-en/ | Grants for projects | Promotion of renewable energy and energy efficiency in developing and transition countries | Financing thematic projects related to EIP development, e.g., energy efficiency, renewable energy |
| 15 | SWITCH ASIA ("RECPnet like") www.switch-asia.eu | Grants, network facility, Policy support | Promote Sustainable Consumption and Production (SCP) among Small and Medium sized Enterprises (SMEs) and consumer groups in Asia | Financing thematic projects related to EIP development, e.g., energy efficiency, renewable energy, cleaner production |
| 16 | Fundsforngos www.fundsforngos.org | NGO Grants - Resources, list of major actors in the world + list of NGO oriented funds WW | List of major international grant making foundations, bilateral organizations and multilateral agencies offering regular grant schemes for NGOs around the world...[more] | Funding for development projects related to EIP development, e.g., environmental protection, resource efficiency, renewable energy |

| No. | International Financial Partner | Financial mechanisms possible with this partner | Targets of this partner / investment presence | Relevance to EIP development and implementation in Vietnam |
|--|---|--|---|---|
| (Thematic) private equity funds | | | | |
| 17 | Aloe Private Equity www.aloe-group.com/en/ | Private equity financing | Environment private equity fund. Develop hard asset-based companies, which provide proven technological solutions to environmental and social challenges, especially those experienced by the high growth markets of Asia. | Financing environmental projects and businesses related to EIP development, e.g., eco-friendly products, cleaner production |
| 18 | NORFUND (Norwegian Ministry of Foreign Affairs) www.norfund.no | Private equity financing mainly (but also loans) Norfund is mainly an equity investor (typically a share of about 20%) | Help developing countries fight poverty through supporting economic growth, employment, and technology transfer. Strategic focus on Eastern and Southern Africa, Central America, and South-East Asia. Renewable energy, financial services and agribusiness are the three main sectors in which Norfund invests. | Financing thematic projects related to EIP development, e.g., clean energy |
| 19 | Bio-Invest (Belgian Investing Company for developing countries) http://www.bio-invest.be/en/ | Equity, loans, expertise. Its early-stage capital amounts to €5,000,000 additional equity granted by the Ministry for Development Cooperation. | The mission of the Belgian Investment Company for Developing Countries (BIO) is to support a strong private sector in developing and/or emerging countries, to enable them to gain access to growth and sustainable development with the aim to achieving the Millennium Development Goals. | Financing thematic projects related to EIP development, e.g., clean energy |
| 20 | ROBECOSAM (Asset management, headquarters Zurich & Rotterdam) www.robecosam.com | Equity, asset management, indices | The first asset manager focused exclusively on Sustainability Investing; SAM was acquired by Robeco Group in 2007 in-line with Robeco's strategic ambition to further develop into the thought leader in the field. | Financing thematic projects related to EIP development, e.g., clean energy, resource efficiency |
| 21 | SEAF (Small Enterprise Assistance Funds) http://seaf.com/ | Expansion capital to promising SMEs (risk capital: equity, mezzanine, credit term) | SEAF is an investment management group that provides growth capital and business assistance to small and medium enterprises (SMEs) in emerging and transition markets underserved by traditional sources of capital | Financing thematic projects of SMEs related to EIP development, e.g., clean energy, resource efficiency |
| 22 | LGT Group (Liechtenstein / Princely family) www.lgt.com/en | Equity funds, bond funds, multi-assets funds, grants | Sustainable investing in companies, organizations and countries that stand out in terms of sustainability criteria (ESG criteria), ensure long-term financial value creation. | Financing thematic projects related to EIP development, e.g., clean energy, resource efficiency |

Table 8. Private Sector Financing for EIP Development in Vietnam

| No. | Name of mechanism | Support type and amount | Eligibility criteria | Type of EIP opportunity that could be financed | Advantages related to EIP development | Challenges related to EIP development |
|-----|--|--|--|---|---|---|
| 1 | Own finance | Ratio of self-financing is usually between 20% to 40% of the total Capital Expenditure required. | <ul style="list-style-type: none"> » Profitability » Financial self-sustainability | <ul style="list-style-type: none"> » Park-level Infrastructure » Company equipment » Feasibility studies | Allows to leverage other external financing sources | Limited own funds |
| 2 | Equipment supplier | Vendor financing | <ul style="list-style-type: none"> » Profitability » Financial self-sustainability | Equipment innovation | It is preferred in situations where the project developer has limited borrowing capacity | It is limited to only a few recognized vendors who launch vendor finance programs |
| 3 | Chemical leasing | Collaborate with a chemicals supplier that sells chemical “results” rather than “products volume”. | Profitability | Chemical materials, e.g., water treatment, cooling and heating operations, cleaning, and purification. | Win-win partnership from an economic and environmental perspective, as the essence of the model is to use the chemicals more efficiently. | |
| 4 | Energy efficiency service provider (ESCO) | Collaborate with a professional energy company that delivers services in exchange of a fee proportional to the energy savings. | Profitability | Energy efficiency | Win-win partnership from an economic and environmental perspective, as the essence of the business model is to increase energy efficiency | Often requiring own finance and loans from commercial banks |
| 5 | Supply chain partner (supplier or costumer) | Collaborate with supply chain partners and increase end-product quality. e.g., Nestlé providing efficient equipment to cocoa farmers | Profitability | Production efficiency | Win-win partnership from an economic and environmental perspective. | Issues related to risk sharing, company’s independency, confidence on other company viability |

| | | | | | | |
|---|---|--|---|---|---|--|
| 6 | Commercial loans | Commercial debt and equity instruments: debt instruments (loans), equity instruments, leasing, others (factoring/forfeiting) | Profitability | | <ul style="list-style-type: none"> • Efficient, ubiquitous, well-established • Competition in the banking sector fosters the development of products for SMEs and RECP-relevant themes. | <ul style="list-style-type: none"> » Risk averse, profit-driven » Expensive » Often inaccessible to SMEs or for small amounts (transaction costs, perceived risks, lack of information) |
| 7 | (Private) Equity funds | Equity instruments | Profitability Financing companies' growth and benefiting from it with an exit strategy | | Efficiency | <ul style="list-style-type: none"> » Risk averse, profit-driven » Expensive » Often inaccessible to SMEs or for small amounts (transaction costs, perceived risks, lack of information) |
| 8 | Public-private partnerships (PPPs) | PPP arrangements between the public and private sectors are viable where shared investments bring mutual benefits | Financial self-sustainability | Park level Infrastructure | PPPs are ideal for long-term investments such as infrastructure of industrial parks and the surrounding areas | Long-term risk |
| 9 | Enterprise's green bonds | Capital mobilization from domestic and foreign investors | | Investment in environment protection projects following Law on Environmental Protection | | |



The image features a white background with several large, abstract geometric shapes. Two tall, blue, T-shaped structures are positioned on the left and center. A large blue triangle is at the bottom left, and a vertical green bar is on the right side. The text is located in the bottom right area, overlaid on the blue triangle.

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