Thematic Evaluation in 2019

Examination of Evaluation Methods

for Mobilization of Private Financing

Final Report

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1. Outline of the Study

1.1. Background and Purpose of the Study

The requirements of development financing in connection to diversifying development challenges can no longer be met by ODA alone, which is the existing fundamental tool for development financing. In particular, with the aim of achieving the SDGs adopted at the UN Summit in September 2015 by 2030, there is a huge requirement for development financing to the amount of an additional 2.5 trillion USD per year according to trial calculations from 2014 from the United Nations Conference on Trade and Development (UNCTAD). In order to cover this financial gap, the use of private financing is important, and it is expected that funds donated by donors will have the effect of mobilization and canalization in order to further promote the use of private finances for development.

Blended Finance (BF) is a mixture of development financing and commercial finance from donors and others with the aim of promoting private investment. As BF will increase in importance from now on, JICA must investigate appropriate evaluation approaches based on the characteristics and challenges of BF, but, as yet, there are no uniform evaluation approaches for BF. In contrast to existing ODA Projects, multiple agencies with varying legal positions participate in BF with different objectives, and so project evaluation is all the more difficult. In particular, the challenges that have been pointed out include the identification of a causal relationship between mobilized financing and donor intervention, and the measurement of development effectiveness manifested by means of mobilized financing and the evaluation in terms of relevance and effectiveness of donor intervention. Since major donor organizations that have established multiple projects using BF are implementing initiatives for project evaluation, it would be useful to compare and analyze their BF evaluation approaches, evaluation items, perspectives on evaluation, rating methods, etc., and to consider JICA's approach to evaluate BF projects based on the outcomes of the comparison and analysis.

In this study, based on the outcomes of a comparison and analysis of the BF project evaluation initiatives of major donor organizations in terms of their evaluation approaches, evaluation items, perspectives on evaluation, etc., the study team will conduct a study regarding draft BF evaluation approaches for JICA, perform a pilot evaluation of the project in a pilot country using the proposed approaches in order to finally develop a proposal for JICA’s draft BF evaluation approaches.

1.2. Methodology of the Study

The process of this study is summarized in the following Figure. This study can generally be divided into two stages, namely, (1) an investigation of the BF evaluation approaches of other donors, and (2) a study regarding draft BF evaluation approaches for JICA and the implementation of a pilot evaluation of the project in a pilot country.

KPMG Azusa LLC constructed the following team for the purpose of the implementation of this study.

Table 1: Study Team

Technical Field	Name (Affiliation)
Team Leader/ Project evaluation approaches/ Financial analysis (2)	Masaaki Hamada（KPMG Azusa LLC）
Financial analysis (1)	Teruaki Tanaka（Ditto）
Case study analysis/Project coordination	Daiki Oe（Ditto）

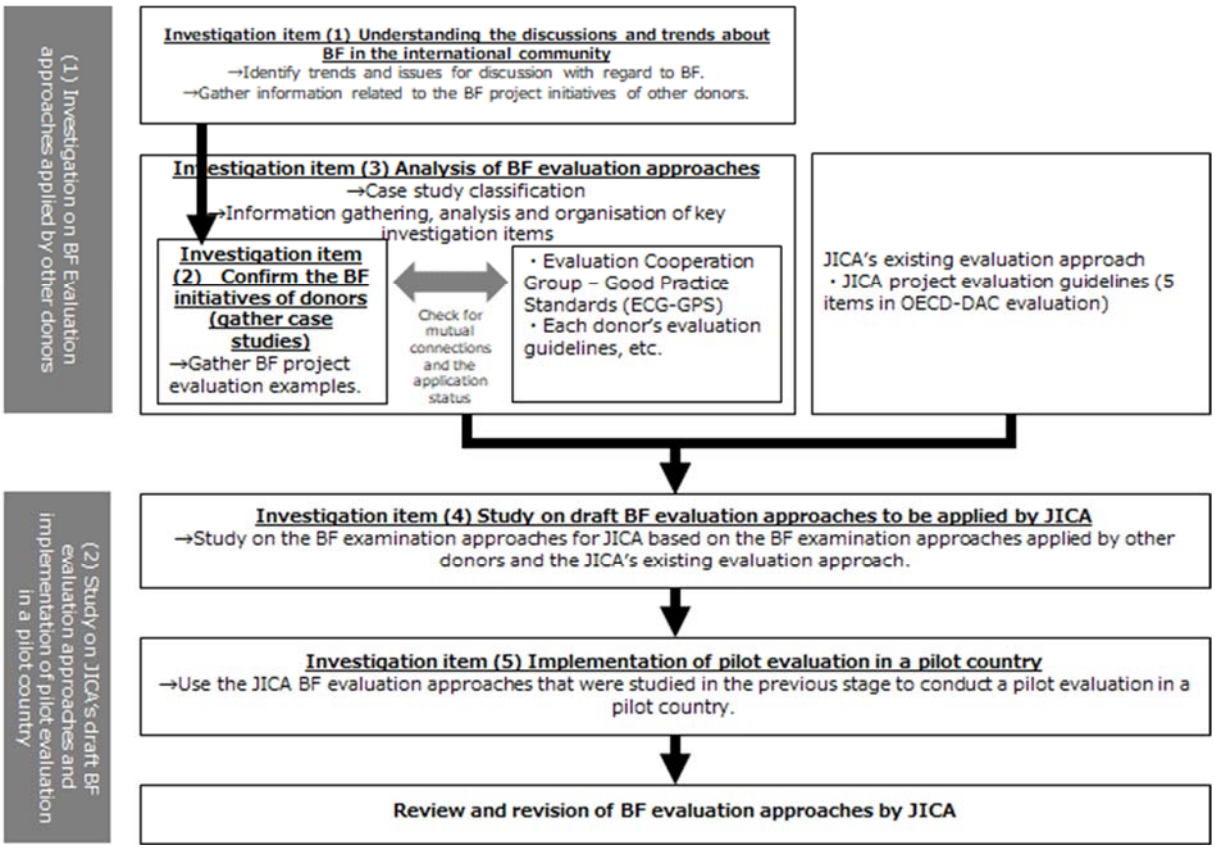


Figure 1: Flowchart of Study Implementation

2. General Investigation of BF and Mobilization of Private Financing

2.1. Definition of BF

Despite sharing a recognition of the importance of BF, generally speaking, there are two different perspectives on BF, namely, that of OECD-DAC and that of Development Financing Institutions (DFI).

While discussions of BF are closely related to discussions of private finance mobilization, mentioned later, the situation is that various discussions have become interconnected, and a convergence of these discussions has not been reached. Therefore, caution is needed, as the interpretation of BF and private finance mobilization and the definition of terms may vary in each discussion.

2.1.1. OECD-DAC

In OECD-DAC, BF is defined as "the strategic use of development financing for the mobilization of additional finance towards sustainable development in developing countries." The development financing referenced here refers to public development financing (including both concessional and non-concessional financing) and financing by private charitable organizations to generate development outcomes. The provision of additional finance is from commercial finance, regardless of whether it is a private body or a public body, and it has the objective of producing profits rather than development outcomes, such as public or private pension funds. Development financing is often provided as a concession, but, according to OECD-DAC, this is not always a prerequisite for BF. Also, "mobilization" refers to the mobilization of additional financing for individual projects, for example. A similar concept is the "canalization" effect (pump priming effect), but this refers to the expanded mobilization of commercial financing in the market itself, so the two concepts are distinct. Therefore, the effective operation of the canalization effect is measured by the expansion of commercial financing in the market as a whole over the passage of time and a decrease in development financing. However, there are no specific measurement methods at the present time for the canalization effect. OECD-DAC views BF from a wider political vantage point. For OECD-DAC, the prerequisite of BF is additionality from the perspective of the rationality of the use of BF, but, according to OECD-DAC, additionality is divided into financial additionality and development additionality, and the target of BF is the anticipation of both of these additionalities. OECD-DAC interprets financial additionality as being a situation where finance is mobilized and an investment is made that would not have materialized otherwise, and it interprets development additionality as being the outcome and impact of the investment that goes beyond what would have been achieved in the absence of additional finance (e.g. job creation, protected environment).

2.1.2. DFIs

DFIs have formed the DFI Working Group on Concessional Blended Finance to hold discussions and collect data on BF. This working group is composed of the African Development Bank (AfDB), Asian Development Bank (AsDB), Asian Infrastructure Investment Bank (AIIB), European Bank for Reconstruction and Development (EBRD), European Development Finance Institutions (EDFI), European Investment Bank (EIB), Inter-American Development Bank Group (IDBG), Islamic Corporation for the Development of the Private Sector (ICD), and International Finance Corporation (IFC).

DFIs define BF as "combining concessional finance from donors or third parties alongside DFIs' normal own account finance and/or commercial finance from other investors to develop private sector markets, address the Sustainable Development Goals (SDGs), and mobilize private resources." The requirement of concessionality is a difference from the definition of OECD-DAC. Also, for DFIs, in general, BF covers investment in the private sector.

In this investigation, a DFI is defined as a public development finance agency that supports the growth of the private sector in developing countries. It is assumed that the investment of finances by DFIs takes on various forms, but, basically, it is a loan according to commercial requirements and conditions. Therefore, DFIs view BF from the position of enabling DFIs to provide loans to projects that would otherwise be difficult to finance under normal DFI commercial requirements and conditions, through grants and concessional loans from donor agencies. The study team interprets the positions of OECD-DAC and DFIs with regard to BF as differing on this point. To put it another way, OECD-DAC basically has the position of providing concessional finance while DFIs basically have the position of using concessional finance.

Table 2: Comparison of Definitions of BF

	OECD-DAC	DFIs
Definition of BF	The strategic use of development finance for the mobilization of additional finance towards sustainable development in developing countries	Combining concessional finance from donors or third parties alongside DFIs' normal own account finance and/or commercial finance from other investors to develop private sector markets, address the Sustainable Development Goals (SDGs), and mobilize private resources
Nature of financing put to use	Development financing (development objectives)	Development financing (development objectives)
	Public finance/private finance	Public finance/private finance
	Concessionality is not a prerequisite	Concessionality is a prerequisite
	Includes grants	Does not include grants
Nature of mobilized financing	Commercial financing (commercial objectives)	DFI self-assessed financial and commercial financing (both development objectives and commercial objectives)
	Public finance/private finance	Public finance/private finance
Investment targets	Both public projects and private projects	Private projects

Definition of terms

Development finance:	Finance with the objective of development outcomes. Includes both public finance such as ODA and private finance from charitable organizations and others with development outcomes as the objective. Although it is often

	provided as a concession, concessionality is not necessarily a requirement for development finance according to the definition of OECD-DAC.
Commercial finance:	Finance with the objective of increasing profit rather than development outcomes. Includes both public finance (pension funds, etc.) and private finance.
Public finance:	Finance supplied by public agencies such as governments, donors and DFIs.
Private finance:	The finances to be used are assumed to come primarily from the finances supplied by NPOs and charitable organizations, etc., while the finances to be mobilized are assumed to come primarily from private companies.

Source: Produced by study team with reference to various documents

2.2. BF archetypes (financial mobilization structures)

BF is categorized into the seven archetypes below. A description of each category is provided hereafter.

1. Funded Risk Participation
2. Contingent (Unfunded) Risk Participation
3. Technical Assistance Support
4. Viability Gap Funding & Smart subsidies
5. Project Preparation & Design Funding
6. Results-Based Financing, Outcome Funding and Pay for Success
7. Currency Risk Mitigation

Funded Risk Participation

This is carried out using loans, mezzanine capital (a form of finances that is between loans and equity) and equity investment, etc. The application of a structure where the party that provides development financing takes a greater risk in return for a reduction in the distribution of the returns to the donor enables a reduction in the risk taken by the party providing commercial finance along with an increase in returns, which encourages the mobilization of commercial finance.

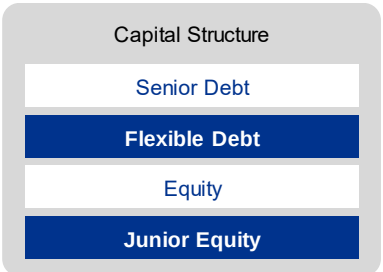


Figure 2: Funded Risk Participation

Source: CAFIID KNOWLEDGE EXCHANGE: BLENDED FINANCE AND INNOVATIVE FINANCE" (CAFIID, 2019)

Contingent (Unfunded) Risk Participation

This is carried out through the provision of guarantees and insurance, etc. For example, in the case that the project owner that received the guarantee is no longer able to repay the debt, or in the case that the project fails, the amount established for the guarantor must be paid to the investor, and so the party that provides commercial finance is protected from loss, which enables the application of financing with a sense of assurance.

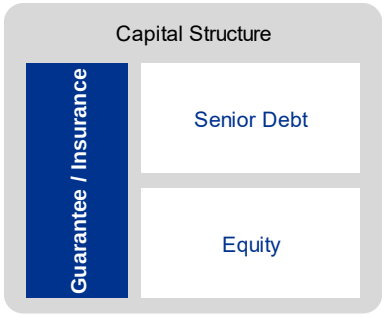


Figure 3: Contingent (Unfunded) Risk Participation

Source: CAFIID KNOWLEDGE EXCHANGE: BLENDED FINANCE AND INNOVATIVE FINANCE" (CAFIID, 2019)

Technical Assistance Support

The quality of the project is improved by providing the agency that receives development financing with a support package that includes finance-related technology, as a result of which technical cooperation is included in the category of BF through the promotion of commercial finance.

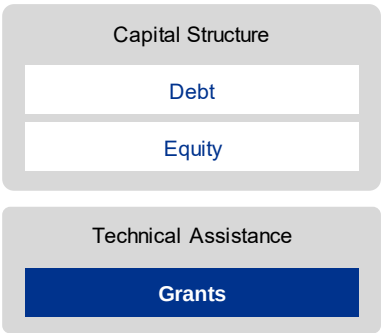


Figure 4: Technical Assistance Support

Source: CAFIID KNOWLEDGE EXCHANGE: BLENDED FINANCE AND INNOVATIVE FINANCE" (CAFIID, 2019)

Viability Gap Funding & Smart Subsidies

This is a method of supporting projects that in themselves are lacking profitability by providing advance investment financing for the project (subsidies, etc.). The financial risk of the project is reduced through such support, which is expected to encourage the mobilization of commercial finance.

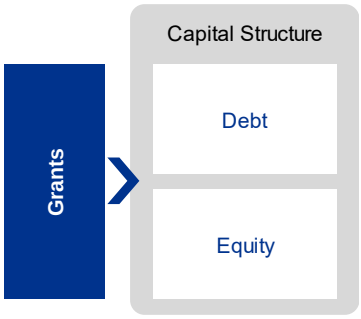


Figure 5: Viability Gap Funding & Smart Subsidies

Source: CAFIID KNOWLEDGE EXCHANGE: BLENDED FINANCE AND INNOVATIVE FINANCE" (CAFIID, 2019)

Project Preparation & Design Funding

This is a method in which grants are provided in the preparatory stage of a project in order to verify the technical feasibility and sustainability, etc. of the project through the provision of financing for F/S and proof-of-concept, etc. The quality of the project can be improved from the preparatory stage, which is expected to encourage the mobilization of commercial finance thereafter.

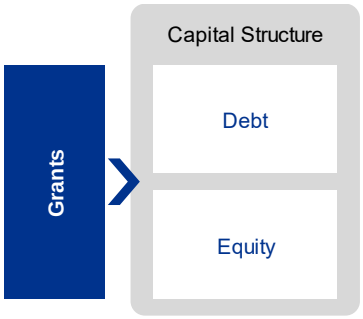


Figure 6: Project Preparation & Design Funding

Source: CAFIID KNOWLEDGE EXCHANGE: BLENDED FINANCE AND INNOVATIVE FINANCE" (CAFIID, 2019)

Results Based Financing, Outcome Funding and Pay for Success

This is a method of providing grants based on the project results. The party that provides commercial finance makes an upfront investment in the project, and, if the relevant project achieves the results and outcomes initially expected, the party that provides commercial finance receives finances from outcome payers such as donors. The prerequisite is that the project produces the results/outcomes, but there is a strong possibility that the party that provides commercial finance will recover the invested funds, and so it encourages the mobilization of commercial finance.

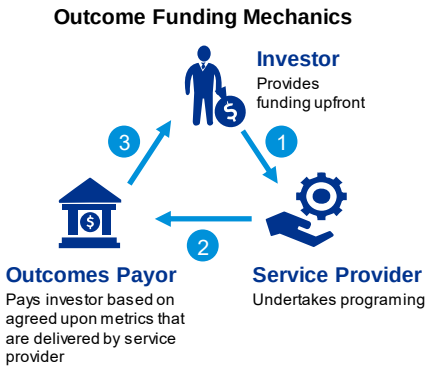


Figure 7: Result Based Financing, Outcome Funding and Pay for Success

Source: CAFIID KNOWLEDGE EXCHANGE: BLENDED FINANCE AND INNOVATIVE FINANCE" (CAFIID, 2019)

Currency Risk Mitigation

There is a currency exchange risk, as the income from projects carried out in developing countries is made in the local currency. By investing finances through a means of hedging, such as currency swap, the risk of fluctuating currency exchange rates is mitigated, which is expected to encourage the investment of commercial finances with a sense of assurance.

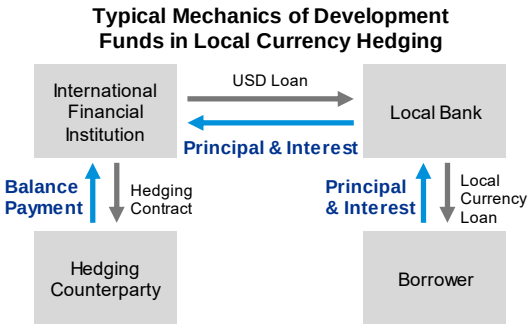


Figure 8: Currency Risk Mitigation

Source: CAFIID KNOWLEDGE EXCHANGE: BLENDED FINANCE AND INNOVATIVE FINANCE" (CAFIID, 2019)

2.3. Private Finance Mobilization Measurement Methodologies

The mobilization of private finances is becoming increasingly important for the achievement of development challenges, and MDBs such as donors and the World Bank are examining and publishing the methodologies to measure the mobilization of private capital through financing by various institutions. Below, an explanation is provided for the methodologies announced by OECD-DAC and MDBs. Here, the scope of finance is not necessarily the same as the BF described above. According to OECD-DAC, BF is defined as the "strategic use of development finance for the mobilization of additional finance," whereas it is defined by DFIs as "combining concessional finance from donors or third parties alongside DFIs' normal own account finance and/or commercial finance from other investors." To put it another way, although the two definitions are different, mobilized financing is not limited to private finance in either case. On the other hand, the mobilization of private finance is always included in the scope of the methodologies used by OECD-DAC and MDBs that are described below.

In the methodologies used by OECD-DAC and MDBs that are described below, it is assumed that the amount of private finance that is mobilized is known, including the co-financing by donors/MDBs and the private sector, and the guarantees by donors/ MDBs for loans from the private sector. Also, the amount of private financing mobilized is calculated either as a result of the contribution from a particular institution or as the degree of contribution among multiple institutions. In other words, in these methodologies, the amount of private finance that is mobilized is determined in advance, and no answer is given to the question of how much private finance is mobilized by donors/ MDBs (or whether the said private finance is actually mobilized by the donors/ MDBs).

2.3.1. OECD-DAC

OECD-DAC has demonstrated methodologies for measuring mobilized private finances in connection to five schemes, namely, guarantees, syndicate loans, CIVs, direct investment and credit lines ("DAC methodologies for measuring the amounts mobilized from the private sector by official development financing interventions" (2018)). DAC later demonstrated a methodology for calculating mobilized financing with regard to project financing by

means of simple coordinated financing (including technical cooperation) and SPVs ("Measuring and Reporting on Mobilization - Possible rationalization of reporting and inclusion of two additional leveraging mechanisms in the CRS" (2019)).

Guarantees

In the case that the project owner that received the guarantee is no longer able to repay the debt, or in the case that the project fails, the investors avoids any loss, as the guarantor must pay the investor the amount established in the guarantee agreement. Guarantees using public financing are expected to encourage the mobilization of private financing.

(Example)

The donors provide a guarantee covering 70% of a loan of 4 million USD made by Investor 1 (the amount of the guarantee is 2.8 million USD). In this case, according to the OECD-DAC measurement model, the entire face value of the loan (4 million USD, which goes beyond the guarantee of 2.8 million USD) is private financing mobilized by donors.

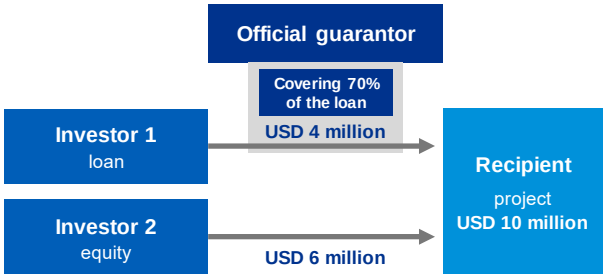


Figure 9: Guaranteed Mobilized Financing

Source: "DAC methodologies for measuring the amounts mobilized from the private sector by official development finance interventions" (2018)

Syndicate loan

A syndicate loan is a form of loan where a lender forms a group known as a syndicate to enter into an agreement with a borrower. Syndicate loans include A/B loans in which the donor acts as arranger of the syndicate and forms a syndicate alongside the parties that provide private finance. With this A/B loan, while the donor secures a certain part of the loan (referred to as the A loan), parties that provide private finance participate to secure the remainder (referred to as the B loan). The participation of private finance in the syndicate is facilitated by hedging the default risk of borrower with the donor.

(Example)

Consider an investment of 7 million USD into a syndicate loan made by a party that offers private finance (B loan). The relevant donors are the arranger that provides an A loan (10 million USD) and a DFI that provides a parallel loan (5 million USD). In this case, as there are differing degrees of contribution between the arranger and the basic participants, OECD-DAC presents the following measurement model.

- Private finance mobilized by arranger = P x 50% + O (Arranger) / O (total amount) x (P x 50%)
- Private finance mobilized by participants (DFI, in this example) = O (Participant) / O (total amount) x (P x 50%)

P: Total mobilized finances; O: Finances invested by donor

In this model, in the position of the arranger, it is assumed that a contribution of 50% of the mobilized financing will be made regardless of the finances invested. Specifically, in this example:

- Finances mobilized by arranger

＝7 million x 50% + 10 million / 15 million x (7 million x 50%) = USD 5.833 million

- Finances mobilized by a DFI

＝5 million / 15 million x (7 million x 50%) = USD 1.167 million

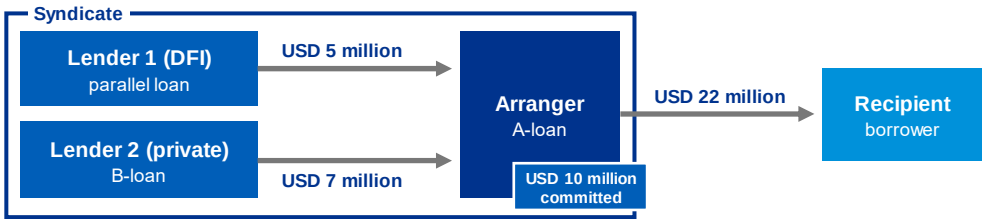


Figure 10: Syndicate Loan Mobilized Financing

Source: "DAC methodologies for measuring the amounts mobilized from the private sector by official development finance interventions"（2018）

CIVs

CIVs (Collective Investment Vehicles) are a form in which multiple investors pool their funds and jointly invest the pooled funds in a project, for example. When the structure of CIVs is broken down into multiple tranches, if a framework is adopted in which donors take a higher risk and, at the same time, the distribution of returns to donors diminishes, it is possible to increase returns while reducing the risk taken by those who provide private financing, which has the encourages the mobilization of private financing. Specifically, it is composed of the first tranche, which sustains the initial loss in order to reduce risk among those who provide private financing, followed by a mezzanine tranche and a final tranche, which is a senior part composed of those who provide private financing.

(Example)

Consider an investment of 8 million USD that was made by a private body in April 2013 in the following table. The donors involved are DFI1 and DFI2 (investments of 10 million USD and 4 million USD, respectively, in October 2008), which have the greatest risk, and DFI3 (investment of 12 million USD in January 2013), which invests in mezzanine capital. OECD-DAC assumes that the effect of the mobilization of funds by donors covers five years. According to the measurement model presented by OECD-DAC, 50% of the mobilized investment will be distributed equally to the donors with the greatest risk, and the rest will be distributed proportionally in accordance with the invested funds. The formulation is as follows.

- Mobilized finances from donors with greatest risk (DFI1 and DFI2, in this example)

= 1 / n x (P x 50%) + O (relevant donors) / O (total amount) x (P x 50%)

- Mobilized finances from donors that making investments with relatively low risk such as mezzanine capital (DFI3 in this example)

= O (relevant donors) / O (total amount) x (P x 50%)

n: Number of donors taking greatest risk, P: Total amount of mobilized finances, O: Finances invested by donors

In the case of this example,

- Mobilized finances from DFI1

＝1 / 2 x (8 million x 50%) + 10 million / 26 million x (8 million x 50%) = USD 3.539 million

- Mobilized finances from DFI2

＝1 / 2 x (8 million x 50%) + 4 million / 26 million x (8 million x 50%) = USD 2.615 million

- Mobilized finances from DFI3

＝12 million / 26 million x (8 million x 50%) = USD 1.846 million

Investors \ Investment year	October 2008	June 2012	January 2013	April 2013
DFI 1 – Riskiest tranche	10000			
DFI 2 – Riskiest tranche	4000			
DFI 3 – Mezzanine / senior tranche			12000	
Private investor 1		6000		
Private investor 2				8000
Total investments	**14000**	**6000**	**12000**	**8000**

Figure 11: CIVs Mobilized Finances

Source: “DAC methodologies for measuring the amounts mobilized from the private sector by official development finance interventions”（2018）

Direct investment in companies

The direct investment of public finances covers debts, equity investment, or mezzanine capital, which are components of total capital structure in corporate balance sheets. However, when the mobilization of private financing cannot be expected from the outset, as in the case of companies where investment risk is anticipated, the risk for those who provide private financing diminishes due to the investment in development in each of these components, which attracts additional financing.

(Example)

Consider an investment of 5 million USD of private financing in Financing round 2 in the following table. The donors involved are DFI2 (investment of 12 million USD) and DFI3 (investment of 8 million USD). OECD-DAC assumes that those who invest in equity have the greatest risk, and those who invest in debts and mezzanine have an equal level of risk, and, based on this assumption, the formula is as follows. As in the previous models, 50% of the mobilized finances will be distributed to the parties that take the greatest risk regardless of invested finances.

- Mobilized finances from donors who invest in equity

=1 / n x (P x 50%) + O (relevant public donor) / O (total amount) x (P x 50%)

- Mobilized finances from donors who invest in debts or mezzanine

=O (relevant donor) / O (total amount) x (P × 50%)

n: Number of donors who invest in equity, P: Total amount of mobilized finances, O: Invested finances from donors

In the case of this example:

- Mobilized finances from DFI2

＝1 / 1 x (5 million x 50%) + 12 million / 20 million x (5 million x 50%) = USD 4 million

- Mobilized finances from DFI3

＝8 million / 20 million x (5 million x 50%) = USD 1 million

		Financing round 1	Financing round 2	Financing round 3
Equity	DFI 1	10000		
	DFI 2	4000	12000	
	Private 1	6000		1000
Debt	DFI 3		8000	7000
Mezzanine	DFI 4			2000
	Private 2		5000	

Figure 12: Mobilized Finances from Direct Investment in Companies

Source: "DAC methodologies for measuring the amounts mobilized from the private sector by official development finance interventions"（2018）

Credit lines

A credit line is a structure in which donors provide certain amount of credit to local financial institutions in developing countries, and these institutions can withdraw the necessary amount for the purpose of financing local companies and other end-borrowers. This encourages the mobilization of private financing to companies that, in view of the risk of lending, etc., would not receive loans without the donor's credit lines.

(Example)

Finances that are mobilized by the provision of credit lines by donors are loans provided by the local financial institutions themselves and finances procured by end-borrowers. (This is determined by the amount of shares issued by the borrower for a single loan.) In addition, OECD-DAC has developed a model that divides local financial institutions into public or private. First, the revolving factor (RF) must be found as the common element in the two parties. The maturity of credit lines from the public sector is usually longer than the contract period set by local financial institutions with end-borrowers, and it is assumed that local financial institutions will repeatedly lend the same amount during the maturity of the credit lines. The RF is formulated as follows.

RF = (Credit line maturity + grace period) / (Average loan period by local financial institution + Average grace period by local financial institution) x Average use of credit line

*However, it is considered that RF = 1 if the information need to calculate the RF is not available, or if the maturity of the credit line is shorter than the loan period.

When measuring public finances mobilized by the public sector after obtaining the RF:

■ If the local financial institution is a private entity

• Finances mobilized by public sector

= CL (relevant public sector) / CL (total amount) x (LFI + B x RF)

■ If the local financial institution is a public entity

• Finances mobilized by public sector

=CL (relevant public sector) / CL (total amount + LFI) x (B x RF)

CL: Credit lines from donors B: Amount of borrower equity
LFI: Loans procured by local financial institutions themselves

If the local financial institution is a private entity

- DFI1 provides a 90 million USD credit line, and DFI2 provides a 10 million USD credit line. The maturity of the credit line is 20 years (with no grace period).
- The local financial institution itself raises 20 million USD.
- The average loan period for loans by local financial institutions to SMEs, etc. in developing countries is 5 years (with no grace period).
- The average use of the credit line is estimated to be 55%.
- Although the amount of shares issued by the borrower for a single loan is not known, this is replaced by the information on treasury stock, which is known (20% of the total loan).

・ RFI = 20 / 5 x 55% = 2.2

・ Average amount of shares issued for a single loan

= (90 million + 10 million + 20 million) x 20% = USD 24 million

・Mobilized finances from DFI1

＝90 million / (90 million + 10 million) x (20 million + 24 million x 2.2) = USD 65.5 million

・Mobilized finances from DFI2

＝10 million / (90 million + 10 million) x (20 million + 24million x 2.2) = USD 7.3 million

If the local financial institution is a public entity

The conditions are the same as when the local financial institution is a private entity, as described above.

・Mobilized finances from DFI1

= 90 million / (90 million + 10 million + 20 million) x (24 million x 2.2) = USD 39.6 million

・Mobilized finances from DFI2

＝10 million / (90 million + 10 million + 20 million) x (24 million x 2.2) = USD 4.4 million

・ Finances mobilized by local financial institution (public entity)

＝20 million / (90 million + 10 million + 20 million) x (24 million x 2.2) = USD 8.8 million

Simple co-financing

When donors and providers of private financing coordinate to finance a project, etc., funds that are financed by providers of private financing are mobilized by the donors. Naturally, the assumed additionality is that

private financing will not be mobilized without coordination by the donors. With this format, if it is effective to mobilize private financing, it may be possible to include technical assistance, such as capacity building and feasibility studies, as well as so-called financial loans. In this regard, donor countries including Japan and Switzerland seem to be suggesting that a deeper analysis is needed regarding the requirements for technical assistance with direct mobilization effects and the causal relationship between public finances and mobilized private financing. According to the OECD-DAC documents, currently, it is thought that a claim can be made for a direct mobilization effect when the connection between a donor contribution, such as technical cooperation, and the mobilization of public finances is clarified in documents or loan agreements. As for technical cooperation, etc., if there is a recognition of the mobilization effect, the entire amount of the private financing invested is calculated as mobilized finances, and it is not possible to understand the causal relationship in further detail, which is the same for other schemes.

The specific calculation method is based on the following formula.

Mobilized finances from donor A O (donor A) / O (total amount) x P O: Investment by donors　　P: Total amount of mobilized finances

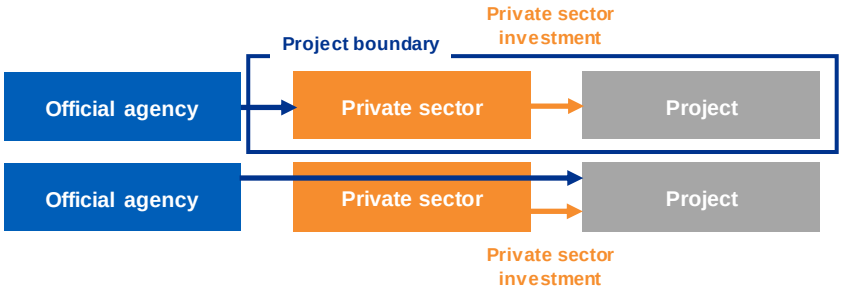


Figure 13: Mobilized Finances Using Simple Co-financing

Source: "Measuring and Reporting on Mobilization - Possible rationalization of reporting and inclusion of two additional leveraging mechanisms in the CRS"（2019）

SPVs

The attribution method for private financing mobilized by means of the intervention of donors through a special purpose vehicle (SPV) for project financing is as follows. Project financing in this case refers to non-recourse or limited recourse financing for a project via SPV, such as equity instruments, senior debt, and guarantees. Therefore, the participants in project financing are usually project entities (developers) that invest equity, development banks, development finance institutions, or commercial banks. Senior debt has priority over all other forms of finance in terms of repayment. Therefore, the repayment risk for senior lenders is lower than that of equity investors.

The following three key assumptions need to be considered.

1. The company that provides private financing will not invest in project financing (SPV) without the involvement of the donor (assumption of additionality).
2. With project financing, the relationship between public sector investment and private sector

investment is stronger than other formats such as general syndicated loans.

3. The scope of the project covers finances recorded on the balance sheet of the SPV and the conditions stipulated as items in the potential guarantee arrangement.

Attribution method

Private sector finance is attributed according to the following four main scenarios.

Key points in measurements

Finances mobilized from the private sector are measured when all agreements related to the project finance SPV and the required conditions (including financial commitments) have been concluded.

(Example)

Consider an SPV consisting of a syndicated loan and equity. For the syndicated loan, the lead arranger, MDBs, will provide an A loan of 150 million USD, DFI1 will provide a parallel loan of 350 million USD, and private banks will provide a B loan of 200 million USD. This B loan will have a guarantee of 70% from "Aid," a public assistance agency.

First, half of the mobilized finances is distributed to the group of loan providing institutions and the other half is distributed to the group of guarantor agencies. Therefore, in the case of this example:

Mobilized finances from MDBs + DFI1 = 200million x 50% = 100 million USD Mobilized finances from Aid = 200 million x = 100 million USD

Then, according to the above method of measuring the mobilized finances for syndicated loans and guarantees, the mobilized finances are distributed to each group. Since Aid is the only guarantee agency, the loan is considered as follows:

MDBs = (100million x 50%) + (100million x 50%) x 150million / (150million + 350million) = USD65million DFI1 = (100million x 50%) x 350million / (150million + 350million) = USD35million

Next, suppose DFI2 invested 50 million USD and the private sector invested 110 million USD as equity. The mobilized finances are distributed to DFI2, the loan provider MDBs, and DFI1. In line with the above-measurement method of direct investment in companies, and with consideration for the fact that the DFI2, which invests in equities, is the most exposed to risk, the method of measuring mobilized finances is as follows:

DFI2 = (110million x 50%) + (110million x 50%) x 50million / (50million + 150million + 350million) = USD60million MDB = (110 x 50%) x 150million / (50million + 150million + 350million) = USD15million DFI1 = (110×50%) x 350million / (50million + 150million + 350million) = USD35million

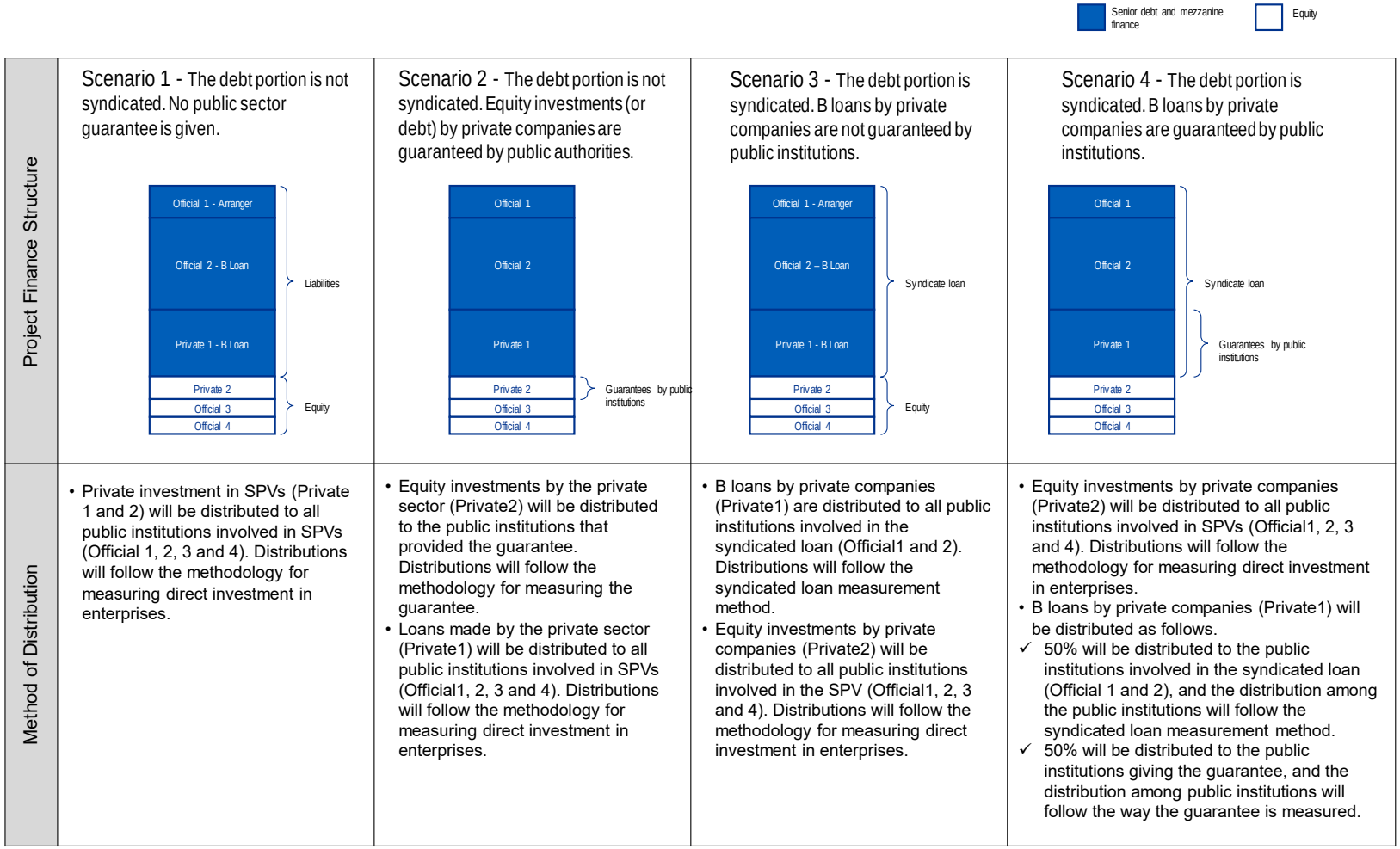


Figure 14: Financial Allocation Scenario in the Case of SPVs

Source: "Measuring and Reporting on Mobilization - Possible rationalization of reporting and inclusion of two additional leveraging mechanisms in the CRS" (2019)

2.3.2. MDBs

The mobilization of private finances is being measured applying a common approach by 13 Multilateral Development Banks (MDBs), and the results of this initiative were announced at the April 2017 World Bank IMF Spring Meeting. This measurement approach is intended only for the MDBs and is not intended to replace the OECD-DAC approach, but rather as a method for the MDBs to jointly report their performance. The major difference from the OECD-DAC approach is that the mobilization results are allotted to MDBs only. Also, the role of the lead arranger is emphasized (with OECD-DAC, results are allotted also to public agencies that participate in the same project but are not lead arrangers, despite the variation in the degree of contribution). The 13 MDBs include the Inter-American Investment Corporation (IIC), Islamic Development Bank (IsDB), Multilateral Investment Guarantee Agency (MIGA), New Development Bank (NDB) (also known as BRICs Bank), and World Bank (IBRD/IDA), in addition to the 9 DFIs participating in the DFI Working Group on Concessional Blended Finance, although EDFI is not included.

Scope of measurement

- Investments and loans from private entities on a commercial basis that are recognized as being mobilized either directly or indirectly through the intervention of MDBs.
- Private entities are corporate bodies that are established with commercial objectives and that are financially and administratively independent from central or regional government. The scope covers agencies that, despite being public agencies, carry out investments and loans on a commercial basis while being operated autonomously in terms of finances and administration (e.g. Sovereign wealth funds).
- Finances from non-MDB public agencies (bilateral assistance agencies, etc.) are not included in the scope of mobilization.
- Measurement is carried out for each project individually (the definition of a project conforms to the definition of the main client).

Definition of mobilization

Reported as either “direct mobilization” or “indirect mobilization.” The definition is as follows.

(1) Private Direct Mobilization (PDM)

- Cases in which, in a project with participation from MDBs, the finances of a private entity are drawn on a commercial basis through the active and direct involvement of MDBs.
- The decision about whether the case corresponds to “active and direct involvement” is determined by whether or not there is evidence of such involvement (e.g. a mandate letter or commission from a private entity proving the position as the lead arranger of a co-financing, etc.).
- Finance from sponsors are not counted (It is assumed that the sponsors will contribute funds with or without the involvement of MDBs, as they are the main operators in the project.).

(2) Private Indirect Mobilization (PIM)

- Cases in which, in a project with participation from MDBs, a private entity provides finances on a commercial basis, although not corresponding to (1), above.
- The amount of financing from a sponsor is counted as indirect mobilization in the case that the sponsor is a private entity.

Under this categorization, the finance mobilized by an MDB would be 100% direct mobilization plus a share of indirect mobilization based on the proportional contribution of the MDBs involved in the project (commitments). Also, as the party that invests private finances, while OECD-DAC does not differentiate between types of donor, MDBs cover only MDBs.

Target schemes

- (1) Loans (including credit lines), (2) Investment (CIVs: Collective Investment Vehicles), (3) Guarantees, (4) Trade financing, (5) Risk transfer (reinsurance, etc.), (6) Support for bond issuance by clients, (7) Advisory services.
- Classified into long-term (those with a term of 1 year or more) and short-term (less than 1 year) (the values in "2," above, are long-term totals).
- The measurement principles and key points for each scheme are described below.

«1» Loans

Counted as the direct mobilization of the entire amount of the loan from a private entity in the case that there is proof showing the active and direct involvement of MDBs as the lead arranger of a co-financing, etc. (Counted as indirect mobilization in the case that there is no proof showing active and direct involvement despite the participation of MDBs.)

«2» Investment

Counted as the direct mobilization of the entire amount of the investment from a private entity in the case that there is proof showing the active and direct involvement of MDBs, such as the establishment of an asset management company. (Counted as indirect mobilization in the case that there is no proof showing active and direct involvement despite the participation of MDBs.)

«3» Guarantees

For commercial risk insurance, the amount after the MDB guarantee amount is deducted from the loan amount from the private entity is counted as direct mobilization. For non-commercial risk guarantees (government risk guarantee, etc.), regardless of the ratio of the MDB guarantee, the entire loan amount of a private entity that is covered by the guarantee is counted as direct mobilization.

«4» Trade financing

Of the loans/guarantees from private entities, the amount that is not covered by an MDB loan/guarantee is counted as direct mobilization.

«5» Risk transfer

If MDBs transfer risk to the private sector, for example through the use of reinsurance, it can be counted as direct mobilization if certain conditions are met.

«6» Support for bond issuance by clients

In the case that an MDB supports a bond issuance by a client, the entire amount of the bond issuance is counted as direct mobilization. As with loans/investments, proof showing the active and direct involvement of MDBs is required.

«7» Advisory services

In the case that an MDB provides advisory services directly related to a client's fundraising, the entire amount of the relevant fundraising is counted as direct mobilization.

Table 3: Comparative Table of Approaches applied for Measuring Mobilized Finances

	OECD-DAC	MDBs
Target schemes	(1) Guarantees, (2) Syndicate loans, (3) CIVs, (4) Direct investment, (5) Credit lines, (6) Co-financing, (7) SPVs	(1) Loans, (2) Investments, (3) Guarantees, (4) Trade financing, (5) Risk transfer, (6) Support for bond issuance by clients, (7) Advisory services
Concept	Results are also distributed to agencies other than lead arrangers	Role of lead arranger is emphasized
Classification of finance mobilization	No classification of direct/indirect	Classification of direct/indirect
Party that is viewed as mobilizing the finances	All donors	MDBs only

Source: Produced by Survey Team

2.4. BF Implementation and Related Data

The following covers the different types of data that relates to BF from Convergence, OECD-DAC, and the DFI (DFI working group on blended concessional finance). The definition of BF by each institution is not exactly the same, and as such it should be noted that data handling and aggregation methods may differ.

2.4.1. Convergence

Convergence is focused on BF in developing countries, and defines BF as the, “use of catalytic capital from public or philanthropic sources to increase private sector investment in sustainable development.” Convergence works closely with OECD-DAC and DFIs, etc., but while OECD-DAC, DFIs, etc. define BF in a broader perspective that includes the use of development funds to mobilize public funds (e.g., funds from DFIs, etc.) based on commercial terms, Convergence focuses on BF to facilitate investment by private sector funds. Convergence has identified approximately 3,700 blended finance (BF) transactions from data through 2018, and according to these data, BF has mobilized a cumulative total of approximately USD 132 billion for sustainable development in developing countries.

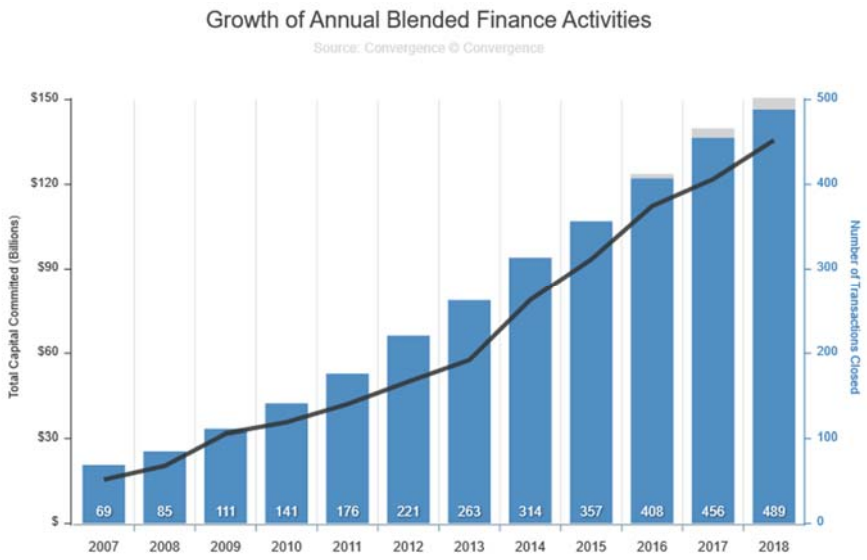


Figure 15: BF Transaction Volume Growth

Source: Convergence

Funds (e.g. equity funds, debt funds, and fund of funds) consistently account for the largest share of BF transactions. In recent years, however, transaction types have been diversifying.

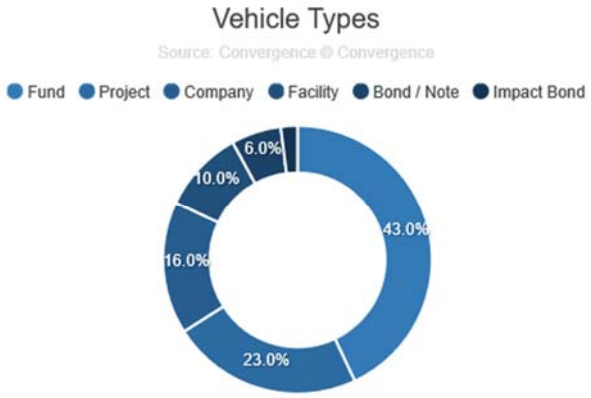


Figure 16: Share by Transaction Type (2007-2018)

Source: Convergence

Concessional loans or equity investments are the most common archetypes. These can take a variety of forms, including loans or equity investments that bear initial losses, subsidies at the investment stage, and loans or stocks that bear risks with financial returns that are below the market for mobilizing private sector investment. All forms of concessional loans, CIVs, guarantees, and risk insurance have increased in recent years.

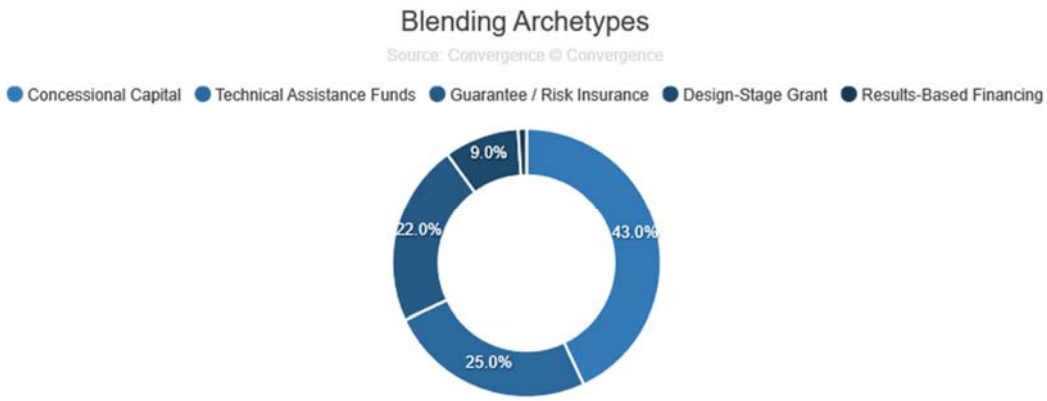


Figure 17: Share by Archetype (2007-2018)

Source: Convergence

Energy is the most frequently targeted sector in BF transactions. This is followed by the financial sector. It is also common to target multiple sectors.

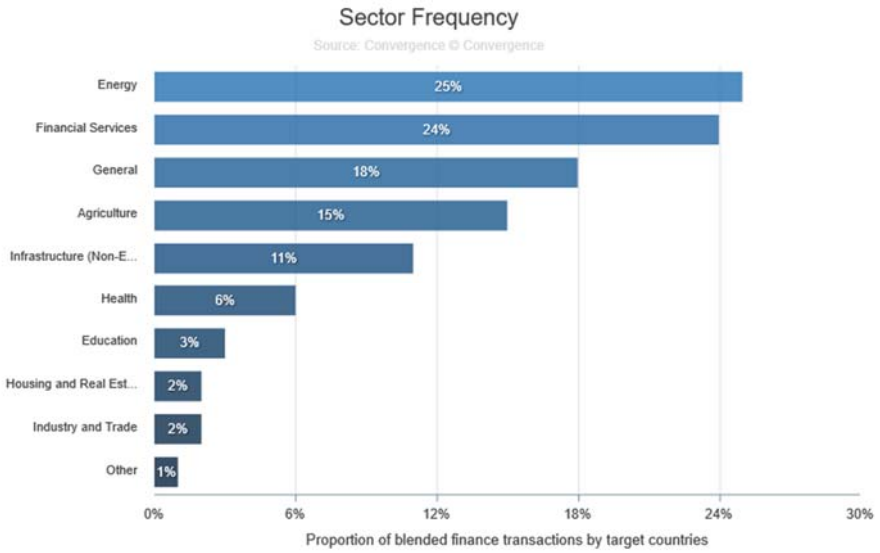


Figure 18: Share by Sector (2007-2018)

Source: Convergence

According to Convergence's database, more than 1,190 investors have made at least one BF transaction. More than 50% of investors are private, and public and charitable investors (Note: Philanthropic Investors are investors who make investments in the name of charity. Similar to OECD-DAC's definition, this refers to NPOs, private foundations, and corporate foundations.), and each has a consistent 25% share.

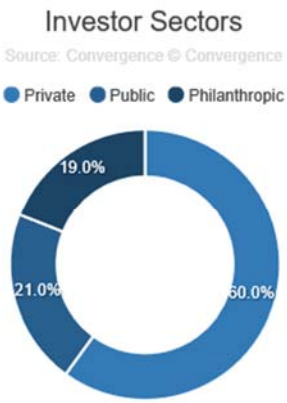


Figure 19: Share by Investor Type (2007-2018)

Source: Convergence

Active private investors include Calvert Impact Capital, Standard Chartered Bank (StanChart), Ceniarth LLC, Deutsche Bank Group, and Société Générale (SocGen).

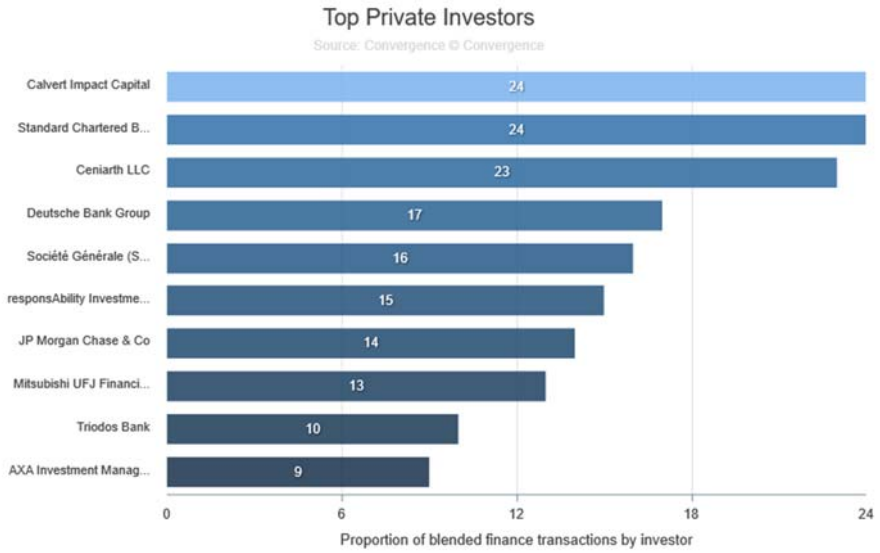


Figure 20: Top Private Investors (2007-2018)

Source: Convergence

Active public investors, that have the task to promote BF, include USAID (United States), BMZ (Germany) and DFID (United Kingdom).

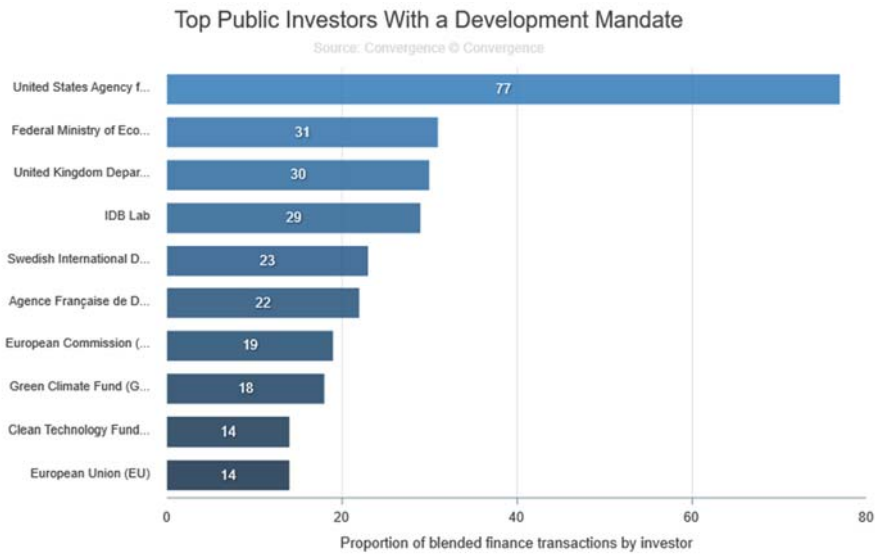


Figure 21: Top Public Investors (2007-2018)

Source: Convergence

Among public investors there are institutions that have the primary objective of commercial development (in other words, DFIs), and this includes development finance institutions such as IFC, FMO (Netherlands), EIB (EU), and OPIC (United States).

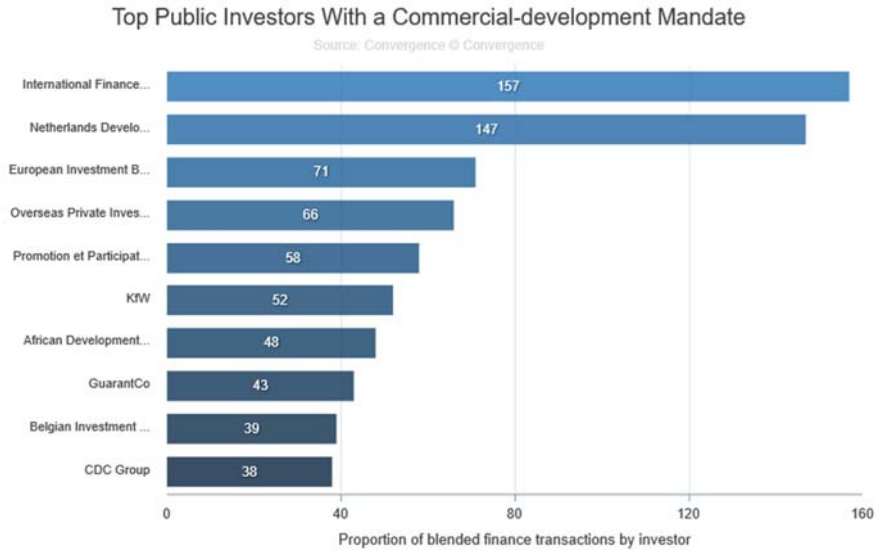


Figure 22: Top Public Investors (commercial development mandate) (2007-2018)

Source: Convergence

Active philanthropic investors include the Bill & Melinda Gates Foundation, Omidyar Network, Shell Foundation and Oikocredit.

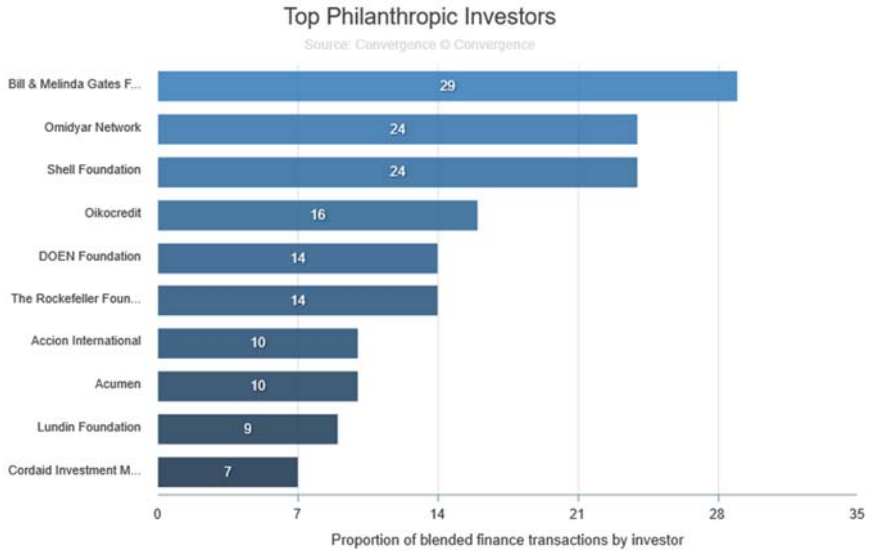


Figure 23: Top Philanthropic Investors (2007-2018)

Source: Convergence

2.4.2. OECD-DAC

The following data are from OECD-DAC's Amounts mobilized from the private sector by official development finance interventions in 2017-2018 (published February 2020).

The amount of mobilized private funds has been increasing year by year, and reached USD 48.4 billion in 2018. By scheme, guarantees accounted for 39% of the total and were the most common.

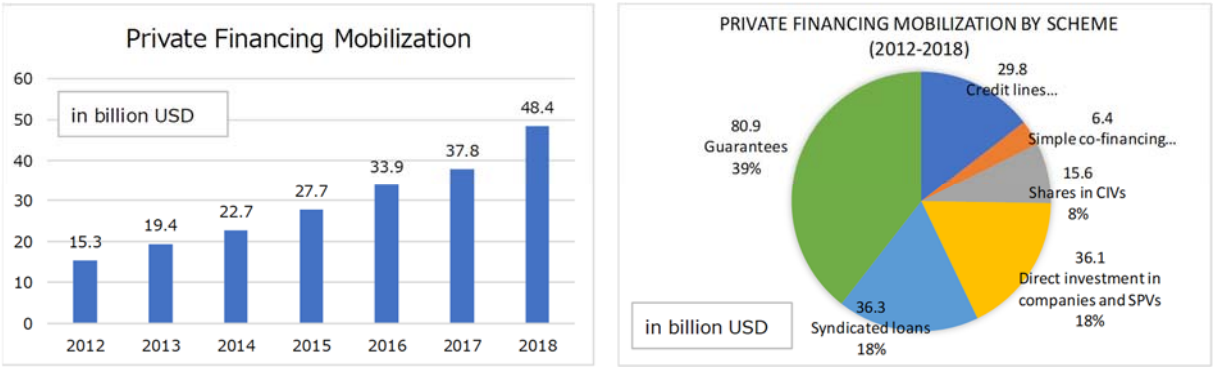


Figure 24: Total Mobilization Private Funds (fiscal year trends and by scheme)

Source: OECD-DAC

By sector, the largest share of mobilized private funds was energy followed by the financial sector, which accounted for 55.5% of the total.

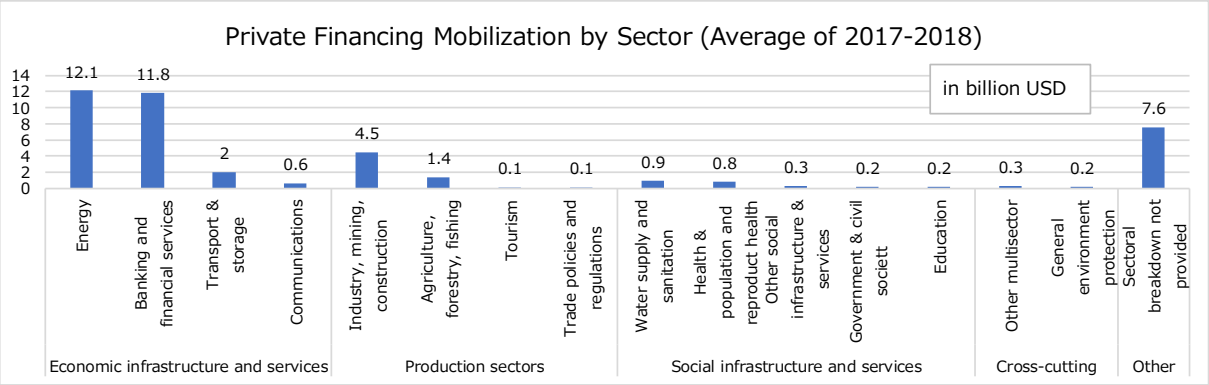


Figure 25: Mobilized Private Funds by Sector

Source: OECD-DAC

The total amount of mobilized private funds by institution was 75% for multilateral institutions and 25% by bilateral institutions.

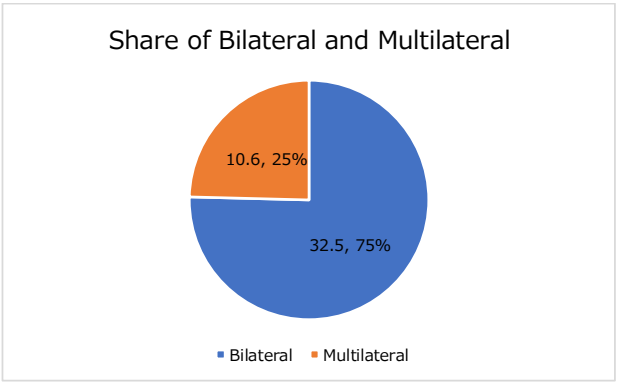


Figure 26: Mobilized Funds and Share by Multilateral and Bilateral Institutions

Source: OECD-DAC

Among bilateral institutions, the United States mobilized the largest amount of private funds, followed by France, the United Kingdom, Denmark, the Netherlands and Germany. IFC is the largest multilateral institution, followed by MIGA, the EU, the EBRD, and the World Bank (IDA and IBRD).

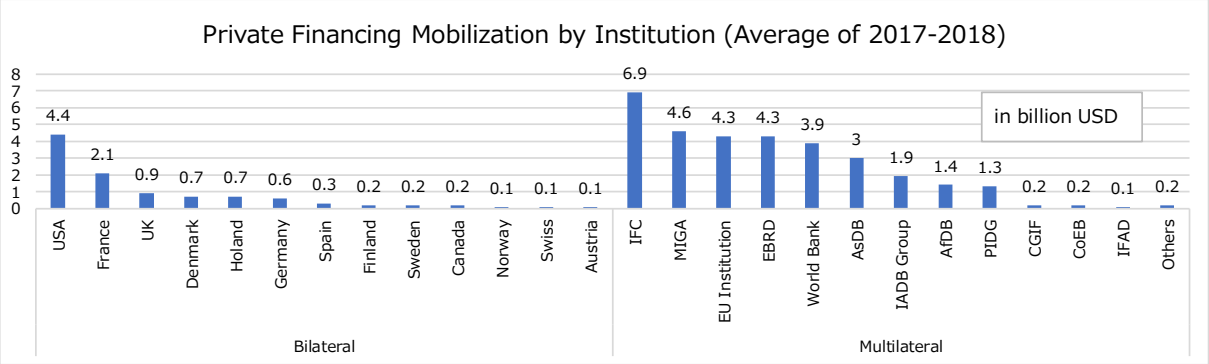


Figure 27: Private Fund Mobilization by Sector

Source: OECD-DAC

In regard to European development finance institutions, Proparco (France) was the largest on average from 2017 to 2018, followed by IFU (Denmark), FMO (Netherlands), and CDC (United Kingdom).

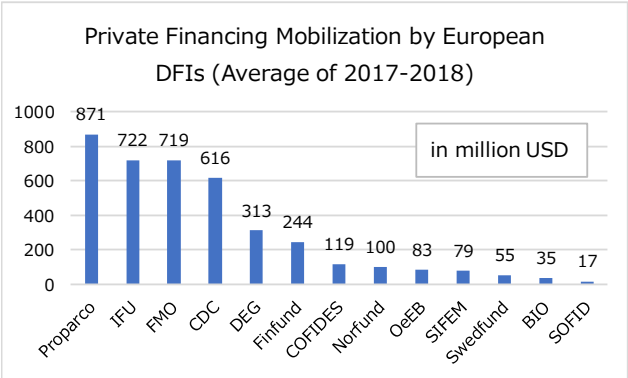


Figure 28: European DFI Private Fund Mobilization

Source: OECD-DAC

2.4.3. DFIs

The following data is from a Joint Report (October 2019) issued by the DFI Working Group on Blended Concessional Finance (DFI WG).

In 2018, DFI's total investments utilizing BF in projects exceeded USD 6 billion. Private sector funds mobilized for these projects amounted to approximately USD 1.7 billion, concessional funds delegated to them amounted to approximately USD 1.1 billion, and the DFI's own accounted investments in these projects amounted to approximately USD 2.4 billion.

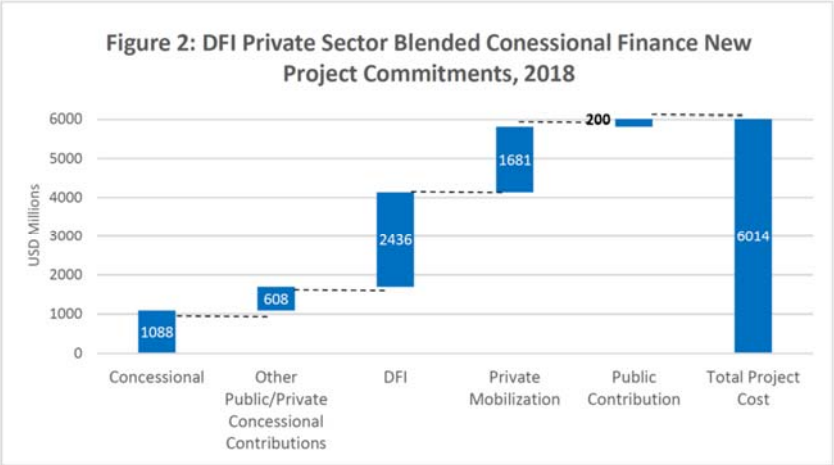


Figure 29: DFI's Commitments to BF (2018)

Source: DFI Working Group on Blended Concessional Finance

The aggregate results concerning mobilized private funds in 2017 according to DFI WG are shown below. While the amount of concessional funding provided by DFIs is almost the same, in 2018 the amount of mobilized funds from DFIs and the private sector was slightly lower, and the total amount provided by projects decreased.

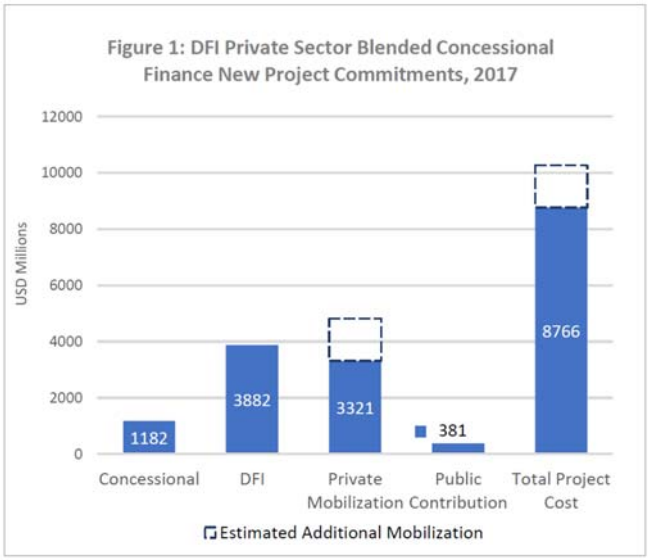


Figure 30: DFIs' Commitments to BF (2017)

Source: DFI Working Group on Blended Concessional Finance

By scheme, senior debt was the largest source of concessional funds in fiscal 2018, followed by equity investments.

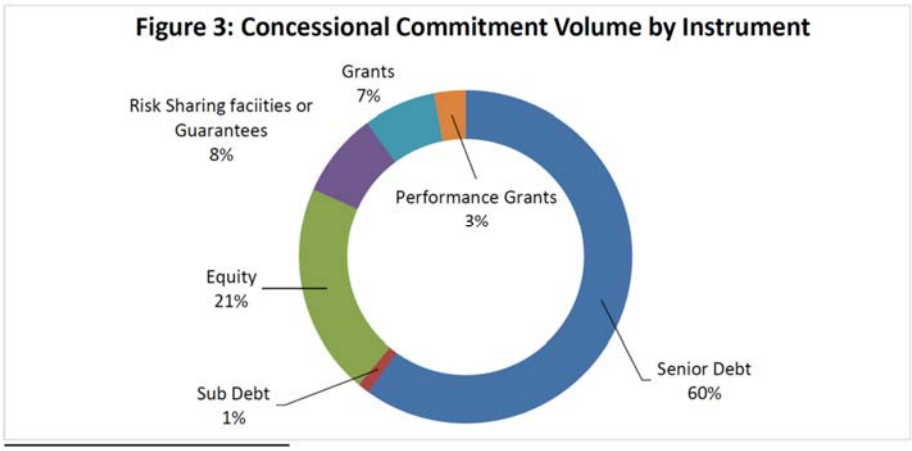


Figure 31: DFI Classification of BF by Scheme

Source: DFI Working Group on Blended Concessional Finance

By sector, the financial sector has the largest total project value, followed by the infrastructure sector. Comparatively high mobilization of private sector funds can be seen in the infrastructure sector.

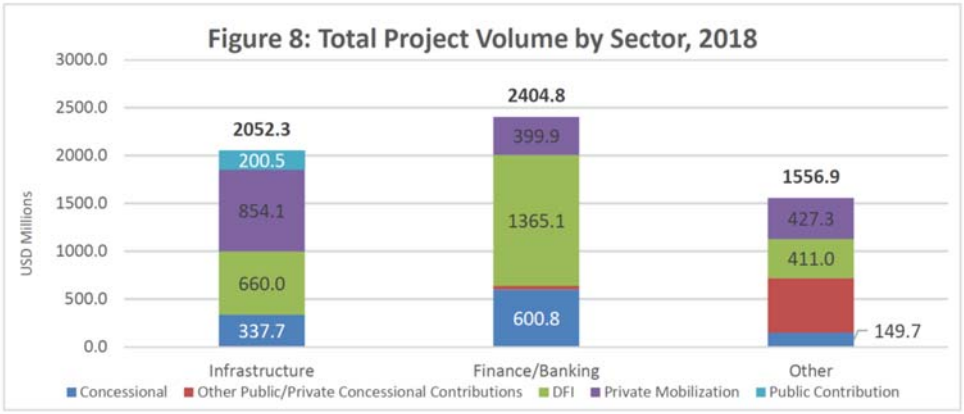


Figure 32: DFI Classification of BF by Sector

Source: DFI Working Group on Blended Concessional Finance

2.5. Concept of Catalyzation

Basically, the amount of mobilized private financing, including co-financing, is specified as being with the concept of mobilization. Mobilization does not include private investment that goes beyond the framework of the investment project or later additional private investment. On the other hand, the objective of MDB and donor activities may include "catalyzation" that covers a larger scope than private investment through, for example, technical cooperation with government agencies, support for policy reform, capacity building, and demonstration effects from projects implemented together with the governments of developing countries.

In the "Principles of MDBs' Strategy for Crowding-In Private Sector Finance for Growth and Sustainable Development" (April 2017) from the G20 International Financial Architecture Working Group, there is a

wider perception of MDB activities for the use of private finances for the achievement of development goals, and the effect of these activities is defined as "catalyzation."

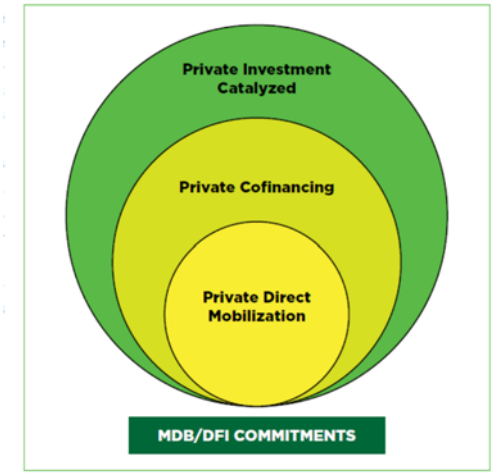


Figure 33: Catalytic Effect

Source: Mobilization of Private Finance by MDB and DFIs (2017)

An approach to the measurement of catalyzation effects has not yet been established in Japan or internationally, although an MDB taskforce is moving forward with discussions toward the construction of a common estimate framework in pursuit of such an approach. There are many cases in which it is difficult to specify the commitment of MDB in non-financial activities, such as policy reform and the capacity building of government agencies, and it is also difficult to prove the relationship between such activities and catalyzed private investment. On the other hand, in response to these challenges, the MDB taskforce has tried an approach for estimating the amount of catalyzed private investment by conducting case studies of MDB activities that are clearly assumed to have had a catalytic effect, and the results are presented in the report entitled "Mobilization of Private Finance by MDBs and DFIs (2017)." According to this report, activities to catalyze private investment include the following:

- Policy reform and advice to governments that affect private sector investment
- Public finance affecting private sector investment
- Activities to strengthen the effectiveness of environmental, social, and corporate governance practices that affect private sector investment.
- Activities for the improvement of industry-wide standards that affect private sector investment
- Development of projects
- Financial activities for the creation of financial markets

The objective of this investigation is to study an approach for evaluating the effects of the mobilization of private finances in development assistance implemented by JICA. JICA's development assistance includes a huge amount of grant aid and bilateral government loans (ODA loans) for technical cooperation, the promotion of private investment, and the resolution of development challenges with the objective of

enhancing the capacity of governments in developing countries. Therefore, reviewing MDB initiatives toward measuring catalytic effects, and the learnings from such experiences, will be significant to the study of an approach to evaluating the mobilization of private finances by JICA.

Below, from among the case studies shown in that report, a summary is provided of the cases that should provide lessons for JICA.

Catalyzation Case Study: PPP Implementation Promotion/ Capacity Building

Investment in infrastructure development in the public sector in the Philippines was insufficient, which was unable to cope with continuous population growth and increasing urbanization. Insufficient provision of infrastructure had been a major development challenge for the Philippines for many years. In order to respond to this challenge, the Philippines government planned to increase investment in infrastructure, and to promote PPP in recognition of the importance of the contribution of the private sector. The PPP Center was established as an agency of the National Economic Development Agency (NEDA), which is the central planning organization in the Philippines. In order for the PPP Center to effectively promote and implement PPP projects, greater technical capacity and stronger system foundations were required. In 2010, a joint investigative mission was implemented by donors to confirm the PPP situation in the Philippines. The following challenges were identified in the report produced by ADB

- Weak governance
- Insufficient framework for PPP policy and legal regulations
- Vulnerability of agencies and poor capacity within government for management of PPP
- Deficiency of bank systems and capacities for the development, preparation and provision of tradable PPP projects
- Government unable to provide financing for projects and heavy reliance on loans/grant aid for budgets

The joint investigate mission by ADB led to an agreement being made with the government regarding activities with the purpose of capacity building for the development and implementation of PPP projects, and ADB began a project for PPP promotion in 2010. This project was composed of the two major components below.

- Capacity building of PPP Center, including improving the environment for PPP implementation
- Provision of financing for bankable PPP project bidding preparation through Project Development and Monitoring Facility (PDMF)

PDMF is a project preparation facility that supports PPP project development and bidding. PDMF is managed by the PPP Center with support from the ADB T/A. PDMF provides finances for transaction advisory services from bidding through to finance close, as well as F/S and other necessary prior investment activities. In 2011, the PDMF board of directors approved the policies and guidelines for PDMF

implementation. Philippines PPP programs were dramatically improved by the T/A and other relevant initiatives. The initiatives that were implemented included the following.

- PPP framework modification
- Improvement of governance and institutional arrangements
- Increase of available financial resources
- Development of the capacity of human resources assigned to PPP programs
- Adoption of superior international examples of PPP projects

The PPP Center provides support by functioning as the central unit for the management of PPP projects, and these reforms have enhanced the processes of project selection, preparation and approval and risk distribution frameworks. The definition of a catalytic effect covers a huge area, such as advice, support for policy reform, capacity building of government agencies, demonstration effects, eliciting investment response from private investors, opening up new opportunities for private investment and other activities. With the provision of finances from the ADB T/A and co-financing partners (ADB, Australia and Canada), the PPP portfolio of the PPP Center went from about 11 projects in 2010 to 39 projects by the time of the 2017 MDB report, while the total investment amount reached approximately USD 8.2 billion, of which investments of USD 6.3 billion in 16 projects have already been awarded. Of the 16 projects, PDMF is supporting 10 projects, and private investment for these projects has exceeded USD 2.4 billion. PDMF has invested a total of approximately USD 58 million in order to support project preparatory costs.

Scope of catalyzed finances:	Total investment amount awarded to PPP projects by PDMF and the PPP Center that was enhanced in the project
Amount of catalyzed finances:	USD 6.3 billion

Catalyzation Case Study: Trade Finance Support

Financial organizations in Ghana were facing challenges in terms of accessing finance. The situation was particularly difficult for trade finance, which is short-term and high risk. UniBank Ghana Ltd. is a mid-scale bank in Ghana putting effort into providing finances to SMEs. The main customers of UniBank were SMEs and micro-enterprises with an annual revenue of less than USD 250,000, but these companies generally struggle to acquire loans from commercial banks, as they lack credit strength. In around 2013, UniBank had extremely limited access to medium-long term foreign exchange funding. This limited its capacity to provide foreign currency trade finance for SMEs. UniBank reinforced its efforts to secure lines of credit with many international banks in order to bolster trade finance, but the demand for trade finance exceeded the capacity of UniBank to secure lines of credit. As a result, UniBank was unable to respond to the demand of customers for letter of credit (L/C) transactions, and L/C transactions drastically diminished. UniBank was forced to cover the major part of trade finance in cash, which greatly damaged the liquidity and foreign currency position of UniBank. UniBank was supplying short-term finance at a high rate due to major refinancing costs.

With the international financial crisis at the beginning of 2009, AfDB established the Trade Finance Initiative (TFI), and assigned USD 1 billion for participation in short-term Trade Finance Lines of Credit (TFLOC) and the Global Trade Liquidity Program (GTLP) in cooperation with IFC. GTLP is a temporary crisis response initiative from DFIs and donors with the objective of supporting trade finance in developing countries, specifically in the following ways:

- Risk sharing by investing funds in local trade finance banks through international banks
- Establishment of credit lines for exclusive use by regional banks that cover the region

In October 2013, UniBank requested support from the AfDB via TFLOC. AfDB provided a line of credit of USD 15 million across three years in order to support the provision of funds for the import and export activities of SMEs in Ghana. In addition, EIB provided a 10 million Euro loan. TFLOC was used for various forms of trade finance, such as import and export, and for financing the supply chain and value chain in other ways. This support provided UniBank with liquidity and foreign currency funds, which enhanced its capacity to provide trade finance to SMEs. As of May 2017, the USD 15 million line of credit has been completely used. The beneficiaries of TFLOC have conducted business activities in various sectors, including power, telecommunications, construction, and manufacturing. UniBank achieved revenue of approximately USD 140 million in 2016, and corporation tax payments increased by approximately USD 6.4 million. With the intervention of TFLOC, jobs for 1035 people were created, of which 279 were women. To put it another way, TFLOC achieved development outcomes in terms of tax yields, job creation and female empowerment.

Calculation of amount of catalyzed finances

In the case of this project, the total private investment estimated as being catalyzed across the project period (three years) was USD 373.7 million. Of this, the contribution of AfDB was USD 199.35 million, with a private sector catalyzed multiplier effect of 13.29 times.

The amount of catalyzed finances is calculated using the formula "private direct mobilization ＋ private indirect mobilization ＋ additional financial catalyzation." The assumptions used in the calculation are as follows:

Private indirect mobilization:

- A line of credit of USD 18 million was made available to UniBank in 2015 with the intervention of MDB
- The trade finance portfolio was estimated to expand by USD 90 million, based on additional trade finance totaling USD 90 million from a line of revolving credit of USD 15 million across 3 years with an average repayment term of 6 months

Additional financial catalyzation:

- UniBank customers that received loans were estimated to invest an amount of self-financing equal to the loan amount (that is, 90 million dollars)
- The amount of catalyzed private investment due to the success of UniBank business was estimated

to be USD 1.35 million, as 50% of UniBank profit (dividend payout of 50%) was reinvested into the business with a 3% loan margin

Table 4: Calculation of Amount of Catalyzed Finances

Unit: USD (1000s)

Commitment from MDBs	28,120
Of which, commitment from AfDB	15,000
Commitments from other MDBs (10 million Euros from EIB)	13,120
Amount of catalyzed finances from AfDB commitment (A+B+C)	**199,350**
Private direct mobilization (A)	0
Private indirect mobilization (B)	108,000
Additional financial catalyzation (C＝D+E+F)	91,350
Of which, investment based on self-financing from companies that received loans	90,000
Demonstration effects in private sector (E)	0
UniBank business success (F)	1,350
AfDB catalyzation multiplier （＝199,350÷15,000）	13.29x
Amount of catalyzed finances from other MDBs (share from EIB; Calculated from AfDB catalyzation multiplier) （＝13,120×13.29）	**174,364.8**
Amount of catalyzed finances (AfDB＋EIB)	**373,714.8**

Source: Mobilization of Private Finance by MDB and DFIs (2017)

Catalyzation Case Study: Construction of Transmission and Distribution Network

Due to rapid economic growth, Tanzania has been unable to supply sufficient energy to support current economic development. Insufficient access to energy services is one of the main factors hindering the expansion of Tanzanian economic growth and job creation. In particular, in rural areas and the northern part of the country, electrification rate is lower than other regions, and, the power demand from the progress of industrialization in the future is expected to increase by 7.9% over 10 years. The power in the northern region is mostly supplied by the Nyakato diesel power plant, but it is highly likely that it will be unable to meet the expected future increase in power demand, and power shortages will pose a significant constraint on the region's economic development. In order to fulfil this power demand, the government is planning to increase Tanzania’s power generation capacity up to 10,000 megawatts by 2025, but power generation, transmission and distribution in Tanzania is highly dependent on the state-owned company Tanzania Electric Supply Company Limited (TANESCO), which accounts for approximately 98% of the country's electricity.

In order to enhance access to electricity in northern Tanzania, TANESCO constructed double bus transmission lines spanning 667 kilometers from Iringa to Shinyanga via Dodoma and Singida in a project of USD 228 million in cooperation with international financial institutions such as AfDB, EIB and IDA. Construction began in 2010 and was completed in 2016, and it began operating on January 1, 2017.

International financial institutions shared the various segments that made up the project, with AfDB and JICA involved in the construction of a 217-kilometer, 400-kilovolt double bus between Dodoma and Singida. The World Bank was involved in the construction of a 225-kilometer, 400-kilovolt double bus between Iringa and Dodoma. EIB was responsible for the construction of a 225-kilometer, 40-kilovolt double bus between Singida and Shinyanga. Also, the Export-Import Bank of Korea took the lead in the construction of substations in Iringa, Dodoma, Singida and Shinyanga. In this project, the World Bank was in charge of design and construction supervision, as well as consultancy services for the capacity development of TANESCO.

In the present project, the expected outcomes were the optimization of Tanzanian domestic power distribution, increased reliability of the electricity supply, and the enhancement of a stable electricity supply for the East Africa region, including countries around Tanzania. The specifics are as follows:

(i) To increase the transmission capacity from 200 megawatts to 1,200 megawatts, and to improve power access in the northern region by distributing electricity generated by the hydropower plants in southern Tanzania to the northwest and northern regions.

(ii) To increase the reliability of power by supplying stable electricity and reducing the frequency of power outages.

(iii) To integrate Tanzania with the regional electricity network as a backup for regional transmission corridors between Ethiopia, Kenya, Tanzania and Zambia. The construction of transmission lines creates not only local employment, but also jobs for the operation and maintenance of transmission lines as well as generates revenue. In addition, ancillary social benefits are created.

However, in general, it is difficult to quantify the impact of such indirect development. A consideration of the effect of four impacts, namely, integration, price, quality, and climate, is shown below.

- **Integration**

This project is part of an effort to integrate Tanzania into the regional power system. In the future, there may be a transmission link between the power network in South Africa and that of east Africa. Regional integration offers the potential to increase the resilience of the power system against large-scale power outages and to take advantage of cross-border pricing arbitrage opportunities.

- **Price**

This project augments the existing power generation capacity and makes an improvement to the gap in electricity consumption, which has the potential of leading to an overall reduction in power generation costs

- **Quality**

By improving the quality of the electricity supply, power outages are less frequent, and high-cost backup power generating facilities are used less. Frequent power outages that last a long time cause a negative impact on many industries in terms of production opportunity loss and the need for investment in expensive backup power. A more stable supply of electricity may diminish such losses, contribute to cost reduction and avoid the costs of backup power generation

- **Climate**

Due to the reduced usage of backup power generators, it is expected that there will be a positive impact on mitigating climate change.

The fours impacts described above may have a major influence on the economy of Tanzania, and contribute to the catalytic effect in the private sector. However, in the preliminary stage, the claim that the construction of transmission lines from Iringa to Shinyanga will affect the provision of transmission lines in the future, for example, is no more than conjecture, and the effect of "integration" is not certain, so it is impossible to quantify this logically. In the same way, in the case that there is no basis to the process of setting the "price," it cannot be considered that the reduction in transmission costs and the increase in the supply volume to the northern region will have an impact on electricity fees. As for the impact on the "climate," due to the increase in competitiveness and production, it is difficult to evaluate in advance the extent to which there will be an offsetting, despite the positive effect from the reduction in the use of diesel power generators. Therefore, in the econometric approach below, the focus is placed solely on "quality."

Econometric Approach

A statistical approach was applied in order to evaluate the extent to which reliability of electricity supply and corporate characteristics influence the decision-making about home power generation. Here, using dummy ownership of the backup power generator as the dependent variable, an evaluation was made of the impact of a qualitative improvement in electricity supply (measured as number of days of power outage) on power generator ownership.

As a result, it was found that a reduction in accumulated power outages from 7 days to 4 days led to a dramatic decrease in the ratio of companies that own backup power generators. In 2013, the ratio of home power generation comprised approximately 24% of the total electricity consumed in the north of Tanzania. By applying the estimate price per kWh purchased from the public grid in 2013 and the price of home power generation, and quantifying the reduction in corporate expenditure due to the improved reliability of power, the analysis found that companies would reduce costs by approximately 5% by relying more heavily on public electricity, which would save existing companies in the north of Tanzania 12 million dollars across 20 years. The economization of production costs may help to strengthen corporate competitiveness, expand industry, and create new industries.

Modelling and Multiplier Approach

In order to estimate the wider economic impact, and along with that, to estimate the catalysis in the private sector, it was necessary to find a simple derivative based on a modelling approach and some kind of multiplier. As it is impossible to track all the forward and backward linkages from a single project in the economy, existing models and studies were used. With this approach, the project cost was used as the input variable.

While recognizing the limitations of the methodology, the multiplier derived from relevant existing studies that focused on investment in power infrastructure in developing countries was found to be in the scope of 2.3 to 4.

(Reference)

Lower limit (2.3): Based on the multiplier developed by IFC in 2015 using the case study of a power plant construction project in Bangladesh. Added value (GDP) was calculated from the addition in annual electricity supply volume.

Upper limit (4): Based on a case study from Uganda. Based on an investigation of corporate production, productivity and power consumption, changes in power outages, and electricity pricing models, etc., this model quantifies the impact of changes in the duration of power outages and electricity pricing on added values and employment.

In view of the fact that the total cost of the Tanzania transmission and distribution network construction project was USD 228 million, the associated value added was estimated to be between USD 524 million (lower limit) and USD 912 million (upper limit). This was multiplied by the private investment share of value added in Tanzania, which is 20.8%, and the catalytic effect from this project was estimated to be between USD 108 million (lower limit) and USD 190 million (upper limit).

As stated previously it is very difficult to quantify the wider economic impact of the project, and there are limitations to the methodologies of obtaining information for the quantification. A consistent model that may be useful for estimating the economic effects of projects and country-specific situations is currently under development and discussions are now being held about the applicability and accuracy of such a model.

Scope of catalyzed finances:	Wider economic impact from the construction of a transmission and distribution network. Preliminary calculations were made using multipliers based on project costs and past case studies.
Amount of catalyzed finances:	USD 108 million

Catalyzation Case Study: SEZ Development

The waters off Mauritania's coast are among the world's richest fishing waters, with over 500 fish species, and exports related to marine products are surpassed only by minerals and metallic products. Fisheries represent 10 percent of GDP and 25 percent of exports, making it one of Mauritania's major industries. The waters off Mauritania's coast are among the world's richest fishing waters with over 500 fish species, only 100 of which are commercialized. In 2009 estimates, the maximum sustainable fishing capacity was 1.7 million tons per year, of which less than 1 million tons was caught. Of that amount, only approximately 150,000 tons were landed in Mauritania, while the majority balance was caught by foreign industrial boats and directly exported. The value of fishing in Mauritanian waters was estimated at approximately USD 3 billion in 2009. Despite its large share in Mauritania's economy, the fishing sector has not made a sufficient contribution to the domestic economy. Mauritania was only able to collect license fees from foreign operators with a strong orientation toward exports and who bring little value to the economy, so the challenges for fishing industry systems included diversification and economic contribution. While more than 25 percent of

Mauritanians are unemployed, the fishing industry, especially small-scale fishing and fish processing activities, was seen by public authorities as a solution to unemployment that highlighted the need for the reform of the fisheries industry.

In 2009, Mauritania decided to establish a Special Economic Zone (SEZ) with industrial, commercial, port and airport services in Nouadhibou, its second largest city. The main objective of the project was to build a profitable business environment in Mauritania by establishing a SEZ in Nouadhibou on the west coast of the country. Developing SEZs had the potential to develop Mauritania's fisheries in a sustainable manner, and the development of SEZs had the potential to reduce poverty and improve food security in the country, as well as enabling Mauritania to take a more active position in international trade. From the perspective of the geographic characteristics, history, and existing fishing activities, the Port of Nouadhibou was a prime candidate for the construction of such a Special Economic Zone. In 2010, the Mauritanian Government approached the Islamic Corporation for the Development of the Private Sector (ICD), which belongs to the Islamic Development Bank (IsDB) Group and requested its support to build a Special Economic Zone in Nouadhibou. The Nouadhibou Industrial Zone (NIZ) development plan prepared by ICD was designed to promote the development of environmentally-friendly industry through private public partnerships (PPP). This project had four major components.

1) Project Development

The Government of Mauritania and ICD enlisted the cooperation of government agencies, strategic partners, business associations, and DFIs to promote SEZ development. Specifically, a mixed-use SEZ was constructed comprising an Industrial Fishing Zone, in addition to the Nouadhibou Bay area. The tenant companies include those in fishing, commerce, mining, services, construction, and tourism. However, the project's main sector is the fishing sector and other related cluster activities.

2) Development of the Investment Climate

A regulatory environment for the zone suited to investment in the SEZ was developed for the central government, the local government, potential SEZ developers, SEZ operators, and SEZ tenant companies.

3) Implementation Support

The development and enhancement of the institutional and human capacity of the SEZ is central to the zone development strategy. The purpose of this support was to transfer best practice in organization design, human resources management, financial planning, performance evaluation, and revenue enhancement.

4) Financial Advisory

The fisheries sector was envisioned to be at the center of the Nouadhibou SEZ. A study conducted by ICD indicated that insufficient international-standard cold storage facilities was the weak point of the fisheries value chain, and so ICD assisted the Mauritanian Government in preparing a feasibility study for establishing a cold storage facility in the SEZ.

Catalyzation (quantitative effect):

Nouadhibou SEZ attracts domestic and overseas investors, and, as of the end of 2017, 155 companies were established in the SEZ. These companies created jobs for 1,734 people, and the ratio of women in the workforce was 30%.

Table 5: Nouadhibou SEZ Development Effects

Development Indicators	Before (2010)	End of 2017
Investments Catalyzed in the SEZ	No data	USD 268 million
Number of Firms established in the NFZ	26	155
Number of jobs	No data	1,734 direct jobs
Share of females (%) among the workforce in the SEZ	Less than 20%	30%
Price of goods. Example of Cement ($/Ton)	174	110
Client Days of Training Provided to SMEs in the SEZ	No data	450 days
Investment Climate Reforms Implemented	No data	4 reforms
Fresh Fish Exports from the SEZ (ton)	936 tons	1,274 tons in 2016 1.087 tons in 2017
Number of Training Days	No data	383 working days

Source: Mobilization of Private Finance by MDB and DFIs（2017）

Scope of catalyzed finances: Investment in SEZ
Amount of catalyzed finances: Approx. USD 268 million

Catalyzation Case Study: Financial Support for Private Sector Development

Since 2001, the World Bank has been holding policy discussions with the Government of Vietnam in a wide range of fields, and has implemented financial assistance and technical cooperation in order to promote system reform in Vietnam. Between 2001 and 2012, the World Bank provided Vietnam with more than USD 1.6 billion in financing through a financial support activity called "Poverty Reduction Support Credit." This covered four fields, namely, (1) private sector development (state-owned enterprises (SOE) reforms and trade reforms toward WTO participation), (2) social inclusion, (3) natural resource management, and (4) modernization of governance. ADB was also actively involved in numerous reforms in the field of private sector development, providing co-financing and technical support. Specifically, ADB provided financing for projects focusing on trade facilitation, and directly contributed to public-private partnerships and SOE reform.

The details of reforms for private sector development by means of PRSC and DFI support are as follows:

- Improvement of investment climate. Simplification and reduction of business registration process, promotion of investment by law, and reforms to promoting the development of SMEs, etc. brought about a great improvement to Vietnam's global competitive ranking.
- Trade reforms. Implemented in order to achieve the target of Vietnam joining WTO.
- Reform of State-owned Enterprises. Including restructuring State-owned Enterprises, strengthening

the governance mechanisms of State-owned Enterprises, performance management, improvement of the capacity for budget formulation, and constructing accounting systems.

- Banking sector reforms. Strengthened supervision of state-owned commercial banks, with an emphasis on bringing their operations in line with international standards or practices. Specifically, these included dealing with non-performing loans, making financial statements available to the public, opening up equity stakes to foreign investors, strengthening the central bank's credit profile, developing credit reporting agencies, and creating a stock exchange that complies with international rules.

GDP in Vietnam increased favorably. The real GDP grew by an average of 6.8% per year between 2001 and 2015. In the period between 2001 and 2007 prior to joining WTO, the real GDP growth rate rose to 7.7%. Between 2008 and 2015, despite the impact of the decline of the global economy due to the worldwide financial crisis, Vietnam achieved bullish growth. Economic growth in the private sector was remarkable.

- **Increase in Exports**

In the 15 years from 2001 and 2015, Vietnamese exports increased by approximately 1000%, especially in labor-intensive industries such as apparel production, and Vietnam's share of global import and export market increased by approximately 500%. The optimization of trade procedures, such as a reduction in the financial and time outlay related to customs clearance, led to a huge increase in the total trade handling volume. The increase in trade led to an increase in per capita income.

- **Increase in FDI**

Due to continuous reforms for the promotion of international trade, FDI in Vietnam rapidly increased. The direct investment amount increased from 3.8% of GDP in 2001 to 6.2% in 2015, and the average inflow of FDI between 2007 and 2015 reached 6.9% of GDP.

Catalyzation Estimates

(1) FDI: USD 6.8 billion

The process of joining WTO in Vietnam took 11 years (1995 to 2007), which is estimated to have been reduced by three years due to PRSC. The average FDI between 2000 and 2002 (prior to joining WTO and prior to PRSC) was 4.3% of GDP, whereas the average between 2007 and 2015 (after joining WTO) was 6.9%. If Vietnam had joined WTO in 2010 rather than 2007, when it actually joined, and it is estimated that the inflow of FDI in the three-year period of delay was the same average (in comparison to GDP) as prior to joining WTO, catalyzation is calculated as USD 6.8 billion.

(2) Domestic private investment: USD 7.5 billion

It was confirmed that production resources (both labor and capital) were redistributed to private companies due to the shift toward private sector development in Vietnam. According to World Bank data from 2016, private companies comprise 50% or more of GDP, and produce 60% or more of new jobs. The ratio of domestic private investment (excluding FDI) in GDP was an average of 8.4% between 2000 and 2002,

whereas this increased to an average of 13.9% between 2003 and 2015. Applying this difference, if it is estimated that reforms by PRSC caused an acceleration of three years, catalyzation is calculated as USD 7.5 billion.

(3) Total credit in private sector: USD 62.5 billion

Credit in the private sector jumped by about 250% between 2001 and 2015 (from USD 7.4 billion to USD 181.3 billion). Total credit in the private sector between 2000 and 2002 was an average of 22.9% of GDP, whereas the average rate from 2003 to 2015 was 68.0%. If it is estimated that the reforms by PRSC caused an acceleration of three years, catalyzation is calculated to be USD 62.5 billion. In the case that acceleration is estimated as being two years or one year, catalyzation is calculated as USD 38.5 billion and USD 17.9 billion, respectively.

Scope of catalyzed finances:	FDI and domestic private investment promoted through reforms to private sector development
Amount of catalyzed finances:	USD 6.8 billion ＋ USD 7.5 billion

3. Situation of DFIs and Donors

This Chapter describes the status of initiatives taken by DFIs and donors toward BF promotion and private finance mobilization and the evaluation systems and approaches used by each institution.

3.1. DFIs

3.1.1. International Finance Corporation (IFC)

(1) Status of initiatives toward BF and private finance mobilization

IFC, a member of the World Bank Group, was established in 1956. It provides investment support and technical support to the private sector in developing countries with the objectives of poverty reduction and lifestyle improvement. The activities of IFC are organized in tandem with the World Bank Group (IDA[1] and IBRD[2]), but it is legally and financially independent.

1) Financing Instruments and Schemes

IFC supports private sector development in developing countries through three main services, namely, investments and loans, provision of advice and asset management.

- **Investments and Loans**

IFC is managed on a commercial basis. IFC investments and loans cover projects with commercial objectives in developing countries, and the market interest rate is applied to those products and services. IFC investments and loans include loans, CIVs, trade financing, syndicate loans, securities products, risk management, blended finance, and loans in the local currencies of emerging markets. IFC loans are categorized as follows:

Loans (A loan): Loans financed by IFC.

Co-financing (B loan):

Loans with equal conditions from a syndicate coordinated by multiple financial institutions. IFC is the lender in name only, so the participating financial institutions can receive the same benefits as those of IFC as an international organization.

Managed co-lending portfolio program (MCPP):

A loan portfolio constructed for investors that reflects IFC's proprietary investments with similar characteristics to an index fund.

- **Advice**

[1] Supports the world's poorest countries. Provides loans and donations to the governments of developing countries. IDA financial assistance is given with concessional conditions (no interest, low interest rates or long-term repayments).

[2] Provision of loans and advisory services to governments of middle income countries and creditworthy poor countries. Whereas IDA financial assistance is given with concessional conditions, IBRD provides loans on a semicommercial basis.

IFC supports the setting of conditions required to attract maximum private capital through the provision of advice in order to promote private sector growth. Also, in cooperation with IDA and IBRD, IFC is providing advice on improving the investment environment.

- **Asset Management**

IFC Asset Management, LLC, is a wholly-owned subsidiary of IFC that is involved in business finance mobilization and management in the markets of developing countries and in frontier markets.

2) Policy for Private Finance Mobilization

In "IFC 3.0," which shows the medium-to-long term strategy, a cascade approach is introduced as a more systematic and organized approach to market creation through the expansion of business in regions where private finance mobilization is the most difficult, such as IDA-eligible countries and countries with fragile and conflict-affected situations.

Principles of Prioritizing Private Sector Solutions (Cascade Approach)

In order to create markets and maximize the use of limited development financing, the World Bank Group as a whole has taken up an approach that allows various organizations to cooperate more closely. The principle is to first of all apply solutions to development challenges using the private sector, and for public finances to only be used for projects where no other option is considered to be optimal.

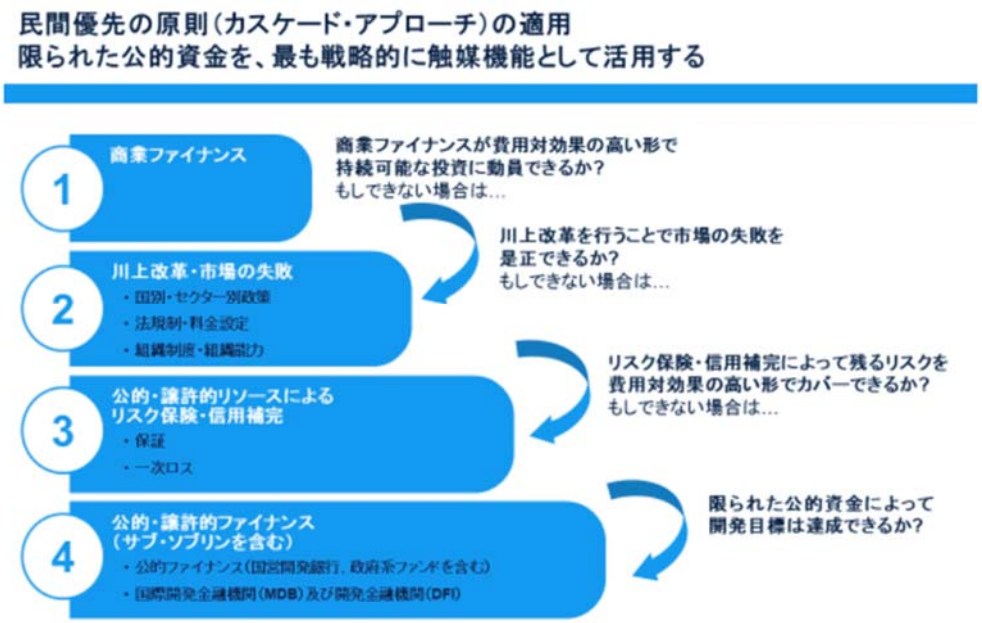


Figure 34: Principles of Prioritizing Private Sector Solutions (Cascade Approach)

Source: World Bank

IDA-Private Sector Window (PSW)

With IDA-PSW, the private sector is supported by mitigating the risk of projects in IDA eligible countries and fragile countries by means of four systems, namely, risk mitigation facilities, BF facilities, local currency facilities and MIGA guarantee facilities.

Table 6: Summary of the Four Facilities of IDA-PSW

	Risk mitigation facility	BF facility	MIGA guarantee facility	Local currency facility
Product	Provision of guarantees for individual projects in private sector transactions ordered or participated in by IFC without state compensation.	Loans, subordinated debt, capital stock, guarantees, and risk assumption (for the private sector)	MIGA government risk insurance products for the private sector	Local currency loans for private sector customers (financial intermediaries that make loans to SMEs, etc.) carrying out business in markets with insufficient currency hedging functions
Type of intervention	Infrastructure, public-private partnership	Trailblazing investments with major results	Investment in markets that have insufficient service by PRI and reinsurance companies	Investments with currency risk and major results
Sector	Infrastructure (electricity, waterworks, transport and distribution, local government infrastructure, communications and resource-related infrastructure), public-private partnerships (PPP)	Advance investment in various fields with a major impact (loans for SMEs, financial access, infrastructure, agribusiness and manufacturing industry, insurance and education, affordable housing, communications technology, climate change, and local government, etc.)	Infrastructure (electricity, waterworks, transport and distribution, local government infrastructure, communications and resource-related infrastructure), agribusiness, manufacturing and service industry, financial markets, PPP	Sectors linked to implemented loans
Stated allocation	USD 1 billion	USD 6 hundred million	USD 5 hundred million	USD 4 hundred million
Additionality	Increase investment in PSW-eligible countries that surpass IFC standards. Expand use of existing guarantee products	Increase investment in PSW-eligible countries that surpass IFC standards. Investment using BF for customers (new businesses and SMEs managed by women) in new sectors and with insufficient access to loan services Expand use of existing products (long-term loans, etc.)	Increase risk involvement and investment in assistance by MIGA for PSW-eligible countries that surpass MIGA standards	Local currency loans for customers in PSW-eligible countries (SMEs, etc.) in markets with insufficient currency hedging functions Development of financial instruments in local currency, risk reduction and capacity development

Source: World Bank

BF Facility

The IDA BF facility has the objective of mitigating various financial risks borne by investment in SMEs and agribusiness and advance cross-sector investment in order to open up new opportunities in private sectors for the promotion of innovation with a major impact on increased productivity and development. The BF facility is built and expands on existing IFC BF platforms, including the climate BF program and private sector windows for the international agriculture and food security program, and the SME financial facility. In addition, it supports influential new sectors.

BF facility clients can use existing IFC financial instruments such as senior loans, subordinate loans, capital (direct and funded), priority CIVs and guarantees (initial loss in shared risk facilities). The objectives of the BF facility are as follows:

(1) BF that enables IFC to support projects with a major impact on development that have strong potential for sustainability that cannot fully satisfy commercial loan conditions

(2) Enables IFC to carry out additional projects by mitigating risk through the provision of subordinate agreements, postponed repayment terms, initial loss and structural flexibility (longer-term maturity, etc.) so that IFC can support projects with greater risk

The BF facility has the objective of enabling the introduction of additional financing from IFC by means of the provision of a loan under the concessional conditions of IDA or by providing IDA loan risk mitigation in the case of a trailblazing project recognized as having major results that would normally struggle to get a commercial loan from IFC.

IFC Definition of Additionality

The following three points are the basic IFC operation principles that are the prerequisites of IFC additionality.

(i) IFC supports loans for the establishment, improvement and expansion of productive private companies that contribute to the development of the member nation by means of investments in cooperation with private investors. In the case that sufficient private capital is not available under reasonable conditions, there is no guarantee of repayment from the government of the relevant member country.

(ii) IFC integrates investment opportunities, domestic and international private capital, and a wealth of experience in business management.

(iii) IFC seeks to help facilitate and create the conditions for the flow of domestic and foreign private capital into productive investment in member countries.

IFC additionality is defined as the benefits and added value brought about by IFC. To put it another way, IFC additionality is a subset of the characteristic roles of IFC that produces benefits and added value that cannot be provided by clients and commercial financial institutions. The evaluation of additionality takes into consideration IFC project support and value propositions in the realization of IFC's management principles. In the evaluation, with reference to expected additionality, discussions are held as to whether or

not the claim of additionality by IFC is relevant with consideration for the status at the time of approval. In order to evaluate additionality, an evaluation is made as to the extent to which the targets in the following fields (where relevant) were achieved.

Table 7: IFC Additionality

Field	Explanation	Example
Financial Risk Mitigation	• Has IFC provided a financial instrument or service that cannot be easily obtained elsewhere? • Was IFC financing truly required? • To what extent has IFC uniquely responded to the client's need for financing?	(i) Long-term financing (agrees term/grace period) (ii) Financing in local currency (iii) Financial mobilization by means of syndication in which profit is obtained from the view of IFC priority-creditors (iv) Long-term partnerships by means of loans and stock investment (v) Innovative financing structure and other financial instruments
Non-Financial Risk Mitigation	• To what extent has the client evaluated the involvement of IFC? • How did the client use IFC?	(i) In addition to loans to IFC original accounts, intermediation with the client is possible with other financial institutions and investors. Serves as a catalyst in mobilizing additional resources, helping to enhance the client's image and credibility in the international financial markets. (ii) If there is a difficult investment environment, the client may be able to benefit from the IFC scope of compensation for political risk and country risk. As a World Bank Group member, IFC can access governmental authorities and policy-makers when necessary. (iii) In markets and sectors that are undergoing reform or privatization, IFC can act as an honest broker for the client in connection to the government, or fulfil a catalyst role in sectors undergoing reform.
Policy Setting	• How much benefit did the client receive due to the improvement of the investment climate in the country/sector based on advice given to the government by the World Bank and IFC?	Not stated in source document.
Knowledge and Innovation	• To what extent has technical and industry knowledge been acquired in addition to global knowledge?	(i) Was IFC useful in establishing the client business strategy and improving operations? (ii) Did IFC convey global specialist knowledge and sector knowledge to the client? (iii) Did IFC take the initiative to play the role of pioneering the products and services required by the client? (iv) Did IFC provide the client with added value services such as sustainable loans, region supply chain linkage, community development, gender programs

		and more?
Standard Setting	• (In the case that state or sector standards were insufficient) How much did the client value the specialist knowledge, etc. of IFC?	(i) Was IFC the unique provider of specialist knowledge for the environment and social standards? (ii) To what extent did IFC contribute to the introduction of additional improvements, such as client environment management, environmental risk specification and mitigation enhancement, carbon-trading, energy optimization, GHG emissions reduction, biodiversity programs, and advisory services for sub-projects? (iii) Was IFC useful to the client in establishing and improving procedures in major areas such as corporate governance?

Source: Instructions for Preparing an XPSR: Expanded Project Supervision Report (Final Version, Nov 2016)

3) BF Definition

According to the World Bank Independent Evaluation Group (IEG), the IFC definition of BF conforms to the DFI definition of BF. That is, BF is defined as a blend of finances from both sides (IFC and donor country), with IFC investment on its own account and on a commercial basis for the financial support of developing countries with concessionality by the government of the donor country. In contrast to the definition of BF by OECD-DAC, BF does not cover grants.

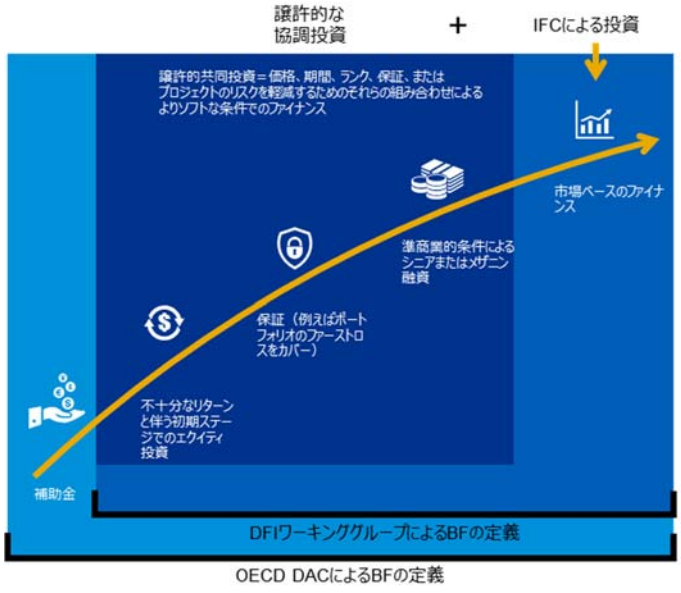


Figure 35: Scope of BF

Source: World Bank

According to the IFC, when explaining the legitimacy of leveraging BF with concessional funding, it is important to emphasize how the use of concessional funding enhances the impact on the development of private sector activities. is important (For example, create new markets that match development priorities in

the country, extend products and services to new consumers and end users, etc.). There are five main principles of IFC BF:

1. a sound economic rationale for the use of concessional funds,
2. crowding-in and minimum concessionality,
3. expectation of eventual commercial sustainability, that is, that use of concessional finance will be time-bound in a sector with the goal that market players will eventually provide commercial finance,
4. comprehensive approaches to reinforce markets, and
5. high standards with respect to governance, transparency, and environmental and social issues.

The figure below shows the rationality required for BF by IFC. In BF by IFC, it is necessary to satisfy all three rationality of development rationale, additionality rationale, and concessionality rationale.

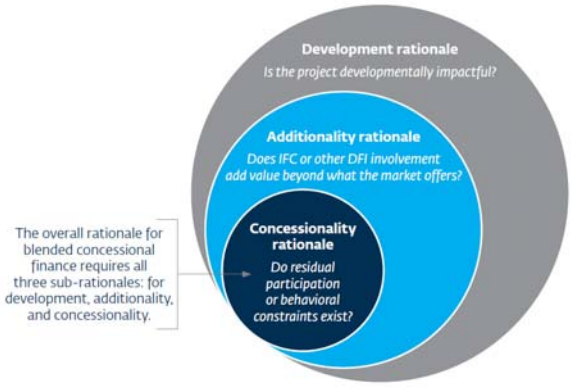


Figure 36: Rationale for BF

Source: IFC

(2) Evaluation System

The Independent Evaluation Group (IEG) evaluates the development outcomes of World Bank Group projects. IEG is independent from the management of World Bank Group and reports the evaluations results directly to the board of directors. IEG established the principles for the evaluation of World Bank Group in the "World Bank Group Evaluation Principles." In World Bank evaluations, the main objectives are accountability and learning. That is, the objective of evaluation is to provide evaluative proof that can be used to supply better services and results to World Bank Group customers by producing lessons based on past experiences of World Bank and accountability toward all shareholders and stakeholders. IEG evaluations include Independent-Evaluations conducted independently by IEG and Self-Evaluations conducted by World Bank staff. In the independent evaluations, the following evaluations are carried out:

- Country Program Evaluations (CPEs)
- Cluster Country Program Evaluations

- Validation of Completion and Learning Reviews (CLRRs)
- Implementation Completion and Results Report Reviews (ICRRs)
- Project Performance Assessment Reports (PPARs)

That is, country/program-based evaluations, project document inspection, and project evaluations by PPAR are the main evaluations implemented by IEG. Also, in the self-evaluation by IFC staff, an Expanded Project Supervision Report (XPSR) is produced. The scope of XPSR is determined by random sampling. All of the produced XPSRs are validated by IEG. Evaluations of IFC private investments and loans projects cover projects that have reached Early Operating Maturity (EOM). EOM indicates when a project is ready to be evaluated, depending on the type of investment and loan, etc. Therefore, IFC project evaluations are basically conducted as ex-post evaluations in all cases. The individual evaluation reports produced by IEG are not disclosed externally, and only general evaluation information is published by IEG.

(3) Evaluation Approaches

The approaches to private investment and loan project evaluations implemented by IFC conform to the Good Practice Standards of Evaluation Cooperation Group (ECG)3 that show the evaluation items and perspectives for private investment and loan projects. The IFC project evaluation approaches are explained in detail by IEG in the Instructions for Preparing an XPSR: Expanded Project Supervision Report (Final Version, Nov 2016) (the "Instructions" hereafter). The evaluation items and rating standards shown in the Instructions are shown in the following table. There are six stages in the combined rating of Development Outcomes, each of which is evaluated in four stages. The combined rating of Development Outcomes is determined by integrating the evaluation results for Project Business Performance, Economic Sustainability, Environmental and Social Effects, and Private Sector Development. The criteria for the rating is shown in the Instructions. However, the Instructions state that the combined rating is not a simple average but rather that the objective of the project is taken into consideration, and that it is necessary to conduct an examination as to whether or not a heavier weighting is to be given in specific items in line with project purposes.

[3] Formed in 1996 by five international development finance institutions to harmonize their evaluation approaches.

Table 8: IEG Evaluation Items for IFC Projects

Evaluation items			
Strategic Relevance		• Evaluate the appropriateness of the project at the time of approval and at the time of completion. • Confirm consistency between project target results, client and beneficiary needs, priority matters in partner country (consistency with country partnership framework) and sector strategy. • It is expected that the project contributes to wider IFC corporate goals (inclusion, shared prosperity, gender equality, poverty reduction, etc.).	Not subject to rating
IFC's Additionality		• Defined as the benefits and added value brought about by IFC. (See below for details)	Excellent / Satisfactory / Partly Satisfactory / Unsatisfactory
Development Outcome	(Overall)	•	Highly Successful / Successful / Mostly Successful / Mostly Unsuccessful / Unsuccessful / Highly Unsuccessful （Integrated rating of the four items below）
	Project Business Performance	• Confirm the impact on project owners and investors.	Excellent / Satisfactory / Partly Satisfactory / Unsatisfactory
	Economic Sustainability	• Evaluate the economic sustainability of the project (contribution to the growth of the project/project companies). • Evaluate the incremental effects on major economic stakeholder groups before and after the project in the case that the project is or is not implemented.	
	Environmental and Social Effects	• Confirm whether the project was implemented using methods that are environmentally and socially sustainable in relevant areas and that are environmentally and socially responsible. In the framework of stakeholders, those that are impacted by the project include the community and company employees based on labor, health and safety standards, etc.	
	Private Sector Development	• Evaluate whether project companies have had a positive or negative effect on corporate role models, and whether the project contributed to the purpose of IFC. • Confirm the spread of profits from the growth of productive private enterprises beyond the project companies and financial intermediaries.	
IFC's Investment	IFC's Investment Performance – Equity	・ Evaluate the investment outcomes in the scope of those implemented by IFC until now, and the expectation of the realization of returns (loan income/equity returns) over the remaining life of the investment that were	Excellent / Satisfactory / Partly Satisfactory / Unsatisfactory

Outcome Rating	IFC's Investment Performance - Loan / Guarantee	expected at the time of approval.	
IFC's Work Quality Rating	Screening, Appraisal and Structuring	• Confirm that the project conformed to the standards set out in IFC operating policies, procedures and credit notes as the appropriate professional standards for project deliverables.	Excellent / Satisfactory / Partly Satisfactory / Unsatisfactory
	Supervision and Administration		

Source: Instructions for Preparing an XPSR: Expanded Project Supervision Report (Final Version, Nov 2016)

Operational and Effectiveness Indicators: Anticipated Impact Measurement and Monitoring（AIMM）

According to the Instructions, with regard to important financial indicators and operation indicators, a comparison is made in IFC project evaluations between the project performance until the point of the ex-post evaluation and the estimates at the time of appraisal, and between the project performance until the point of the ex-post evaluation and the benchmark of relevant competitors /sectors in a particular business field. Reference is made to IFC DOTS (Development Outcome Tracking System)4 data and other information such as various project documents in order to set and analyze operation outcome indicators.

According to the Instruction, in the evaluation of IFC, regarding the important financial indicators and operational indicators, the project performance up to the time of ex-post evaluation are compared with the forecast at the time of appraisal and also the benchmarks of relevant competitor / sector benchmarks in a particular industry.

Since 2006, IFC has been using DOTS[5] to track development outcomes. DOTS was a framework for monitoring and assessing the performance of all IFC investment and lending clients.

In 2017, IFC developed the Anticipated Impact Measurement and Monitoring (AIMM) system. The purpose of AIMM is to properly define, measure and monitor the development impact of each project. The AIMM system actively incorporates the relevant elements of the DOTS system. AIMM provides the following operational frameworks to support the realization of the "IFC 3.0" strategy.

- Improves our ability to select and design projects that maximize our development impact
- Sets ambitious targets and the incentives to achieve them
- Strengthens our capacity to deliver an optimal mix of projects that generate both high development impact and solid financial returns
- Provides an “end-to-end” approach to results measurement by linking ex-ante assessments with the learning and accountability function

At IFC, AIMM is required to evaluate all investment projects. Recently, the evaluation of advisory services has also started. The AIMM system identifies priorities for private sector development, informs sector and national strategies, and pre-evaluates projects. Also, AIMM uses monitoring tools to track the progress of each project. As a final step, for learning and accountability, use self-assessment and independent assessment to identify learning outcomes and lessons learned.

AIMM process evaluates the project along two aspects:

[4] IFC established the DOTS framework in order to compare the performance of projects and investee companies. The indicators established in this framework are used in order to monitor and evaluate the contribution to IFC’s development goals in the project. DOTS regularly and mechanically tracks the indicators set at the start of the project (including time of achievement and level of achievement).

[5] IFC had established a DOTS framework to compare the performance of projects and investees. The indicators defined in the framework were used to monitor and evaluate IFC's contribution to development. DOTS regularly and mechanically tracks the indicators (including achievement time and achievement level) set at the beginning of the project.

I. At the project level, evaluate the development outcomes of the project for the sustainability of stakeholders, government, environment and society.
II. Evaluate the contribution of the project to market creation at the market level.

The AIMM evaluation and scoring process involves the following:

I. Evaluation of Project Outcome
   I-1. Development challenges or Gaps are identified.
   I-2. The Project Intensity is considered above and integrated into the potential Project Outcomes.
   I-3. Considering the likelihood adjustment factor is considered that reflects the project risk and the risk-adjusted score is identified.
II. Evaluation of Contribution to Market Creation
   II-1. Market Attributes and corresponding Channels are identified.
   II-2. The Market Movement is evaluated by considering the Market Attributes above.
   II-3. Considering the likelihood adjustment factor is considered that reflects the project risk and the risk-adjusted score is identified.
III. Conversion to Overall Score

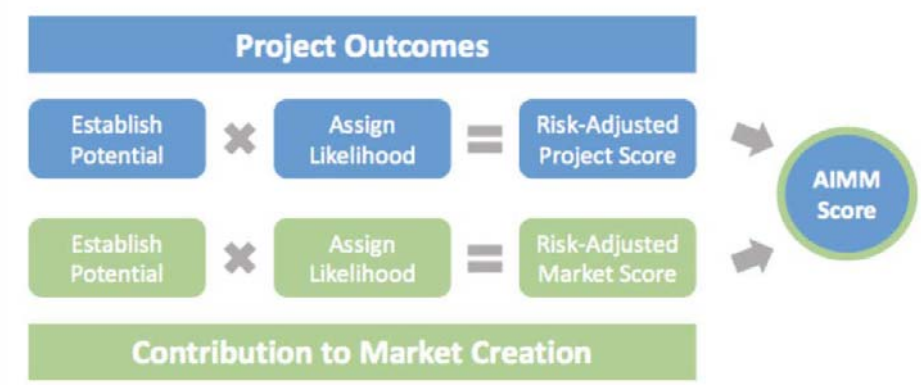


Figure 37: Evaluation Method in AIMM

Source: IFC

I. Evaluation of Project Outcomes

I-1. Development challenges or Gap to be addressed

AIMM first identifies key development challenges or "Gaps" to be addressed. Relevant market gap indicators are identified and ranked in all developing countries. Project outcomes include evaluation the direct impact of the project on stakeholders such as customers, government and employees, and also evaluating the indirect impact on the economy, environment and social welfare. AIMM evaluates project outcomes by mapping clear impacts on stakeholders and beneficiaries. The outcome of the project will be analyzed from the following aspects.

- Stakeholders Effects
- Economy-wide Effects
- Environmental Effects

I-2. Project Intensity

The potential impact of project outcomes is determined by evaluation how much the project expected to address the gap. In AIMM, this is called "Intensity". Intensity is normalized to the size of the project to achieve equivalence between projects of different sizes.

The identified gaps take into account the intensity of the project and are integrated into the evaluation of potential project outcomes.

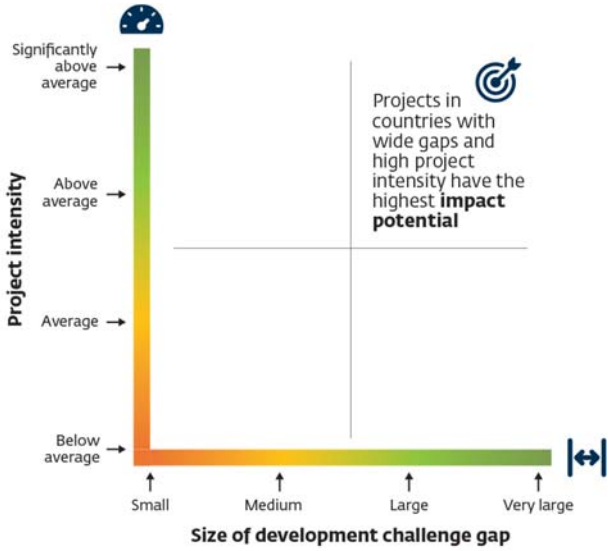


Figure 38: Image of Rating for the Potential Project Outcome

Source: IFC

I-3. Likelihood adjustment

Uncertainty factors are taken into account in the AIMM score. The likelihood adjustment factor is taken into account in evaluation of the outcomes of the projects to identify risk-adjusted scores. The following factors are considered in the likelihood adjustment.

- Operational Factors
  - Sponsor experience and track record
  - Corporate financial strength and technical / operational capabilities
  - Project design and new company participation, innovation, and other implementation risks
- Sector Factors
  - Sector specific institutional risk
  - Degree of collaboration and transmission channel among market participants
  - Risks related to other sectors (technical changes, etc.)

- Country/ Macroeconomic Factors
    - Macro financial risk factors (whether it is a cycle that leads to growth, etc.)
    - External risks (commodity cycle, credit cycle, etc.)
    - Institutional, governance, policy and other Doing Business related risks in the country

II. Evaluation of Market Creation Outcomes

II-1. Market Attributes and Channels

A project's contribution to market creation refers to market-catalyzed changes that go beyond the direct and indirect impacts of the project. In identifying specific contributions to market creation, the impact of the project on the market is defined and quantified as clearly as possible. AIMM evaluates the market creation outcomes based on the following five market attributes. The project's contribution to market creation is evaluated through its ability to provide up to two individual market attributes.

- Competitiveness
- Resilience
- Integration
- Inclusiveness
- Sustainability

Next, a channel for verifying whether the project may promote any of the above market attributes, i.e., what the project does to achieve each attribute for a particular market is identified. In AIMM, the following are shown as channels for market creation.

- demonstration and replication effects
- actions that contribute to promoting competition
- putting in place enabling frameworks
- building skills and capacity that open the market to new opportunities

Market Movement is evaluated based on the above market attributes and corresponding channels.

II-2. Market Typology

AIMM identifies market typology to identify the current state of the market in the target countries and regions, and the potential changes in the market that are produced by the catalytic effects of the project. Market typology is the various stages of development of a particular market (market gaps of a particular market attributes) in order to evaluate the project's contribution to market creation.

Market typologies are considered in the evaluation of market movements, and potential contributions to market creation are evaluated.

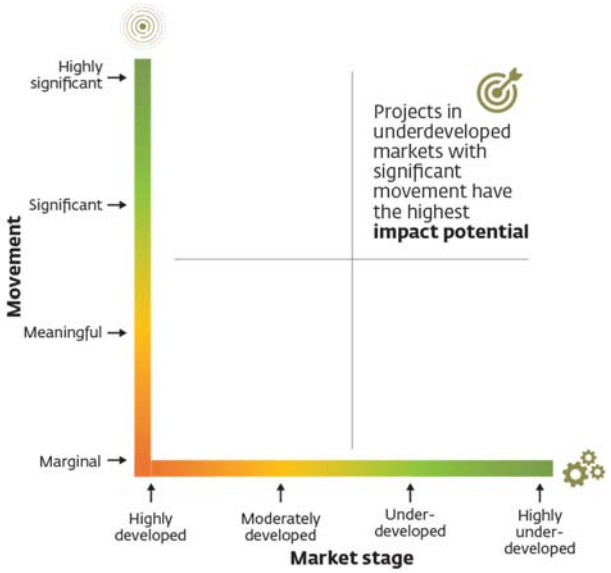


Figure 39: Image of Rating for the Potential Project Contribution to Market Creation

Source: IFC

II-3. Likelihood Adjustment

The following factors are considered in the likelihood adjustment.

- Sector/ Commercial Factors
    - Sector margin and sustainability
    - Sector adaptability level, ability to adapt
    - Barriers to entry favorable to existing companies
    - Exposure to international competition (import/ export) and spillover (trade links)
    - Sector precedent
    - Market conditions (infrastructure and governance)
- Macroeconomic Factors
    - Macro-financial factors of both domestic and foreign risk
    - Perceived country risk compared to other countries
    - Level of market integration (market connectivity/ reciprocity)
    - Current state of the world economy
    - Price trends
    - Market conditions
    - Import/ export conditions
- Policy Factors
    - Government openness to increase private sector participation in the market
    - Government capacity to enforce regulations and track record
    - Regulatory restrictions on capital mobilization (capital regulation, etc.)
    - Recent and upcoming changes in regulations and standards

III. Conversion to Overall Score

The AIMM score is a mechanical conversion of the qualitative evaluation, and it is recognized that it is very important to perform the qualitative evaluation and the likelihood evaluation correctly. The final potential outcome score is the sum of the project outcome and market creation contribution scores, individually rounded to the value closest to a multiple of 5. The table below shows the scores for project outcomes and contributions to market creation, likelihood adjustment, and conversions to overall AIMM scores.

Table 9: Conversion to AIMM Score

Potential Outcome Score		Likelihood Adjustment Factor		AIMM Score Rating	
Very Strong	75	High	0.90	Excellent	86-100
Strong	40	Medium	0.75	Good	51-85
Moderate	20	Low	0.60	Satisfactory	31-50
Minimal	0			Low	0-30

Source: IFC

Financial Analysis

In the Project Business Performance evaluation, a financial analysis is conducted. For example, in the case of real sector projects (considered to be anything other than support for the financial sector and funding), a calculation and comparative analysis of the FRR (Financial Rate of Return), ROIC (Return on Invested Capital) and WACC (Weighted Average Cost of Capital) is made. Also, in the evaluation of Economic Sustainability, an economic analysis is conducted. Here, a calculation and comparative analysis is made of the ERR (Economic Rate of Return), EROIC (Economic Return on Invested Capital) and WACC.

In the ex-post evaluation, the WACC at the time of appraisal is calculated by IEG, which is used as the ex-post evaluation WACC (not the WACC at the time of the ex-post evaluation). The WACC used in the ex-post evaluation is basically calculated as the IFC final loan spread + US Libor Swap Rate based on IFC internal information and market information. In other words, a method is applied where a calculation is made of the IFC fixed loan interest rate, which is used to interpret WACC substitute indicators. It is recommended that the FRR and ERR calculation method at the time of the ex-post evaluation is the same method as used in the appraisal, and the calculation is made using the results until the point of the ex-post evaluation and the expected values during the remaining period of calculation. However, in the case that the project status has changed, for example, a new calculation model may be constructed.

Analytical Approach in BF Evaluation: Analysis of Minimum Concessionality

In the case that donors and others provide concessional financing, the level of concessionality in BF must be minimal in order not to cause a strain in the market. IFC publishes the level of concessionality as a total project cost percentage for BF projects implemented by IFC. IFC implements the following three-stage internal reviews in order to achieve minimum concessionality.

- When the project team requests support from the BF facility implemented by IFC, an initial review is conducted by an independent department. The staff of the independent department review the project needs including relevant benchmarks such as the debt repayment coverage ratio, available bond coverage ratio, commercial market price setting, risk adjusted lender earnings, and sponsor expected earnings. This will provide the financial structure and pricing for co-investment, including BF concessional financing.
- The concessional financing conditions are reviewed by the manager of the independent department, and approved by the Blended Finance Committee which is a subcommittee of IFC's Senior Management.
- In the case of a project that uses an IDA private sector window, a representative from IDA participates in the decision-making process.

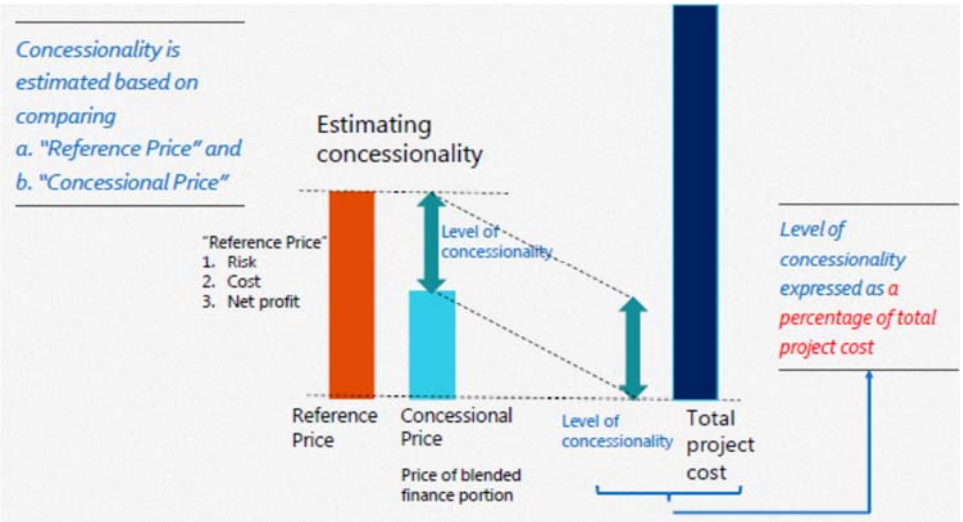


Figure 40: Concessionality Measurement Image

Source: IFC

IFC measures concessionality by means of the following approach.

- Reference Price (Corresponds to market price, set by projects risk + cost + gross profit, with no reference to concessionality at this point)
- Concessional Price
- Concessionality = Reference Price – Concessional Price

* Here, the level of concessionality is determined by the ratio of concessionality against total project cost.

- Level of concessionality = Concessionality / Total project cost （%）

In the case of an IDA Private Sector Window, the IFC normal loan price is the comparative price, and the IDA PSW price is the concessional price. Concessionality is calculated as the difference in comparison with the total project cost. The specific calculation involves calculating the difference in interest payments by first

preparing the comparative price and the loan repayment cash flow of the concessional price. In the case of IFC, cash flow is discounted from the figures. The interest spread (amount) calculated in this way is used in a comparison of the total project cost.

The average concessionality for IFC projects from 2010 to 2019 was 3.6%, and the average values based on each standard are as follows.

Table 10: Level of Concessionality (IFC projects)

Archetype	
Senior Debt	3.0%
Sub Debt	2.5%
Guarantee	4.5%
Equity	1.9%
Performance Incentive	2.0%
Local Currency	9.4%
Industry	
Manufacturing, Agriculture and Services	3.9%
Financial Institution Group	4.0%
Infrastructure and Natural Resources	3.0%
Disruptive Technology and Funds	0.8%
BF facility theme	
Agriculture	4.3%
Climate	3.0%
SME finance	1.9%
Gender finance	1.1%
Low income & fragile and conflict affected states	5.9%
IFC project total	3.6%

Source: IFC

BF Evaluation Study Review: "The International Finance Corporation's Blended Finance Operations - Findings from a Cluster of Project Performance Assessment Reports" (2020) Independent Evaluation Group, World Bank

IEG conducts evaluation studies with the objective of providing learning outcomes based on past IEG evaluation results with regard to the IFC approach to BF introduction. In these evaluation studies, the following two sources are used, and the evaluation results are integrated and analyzed. The focus of the analysis is placed on more recent projects. The DFI definition of BF is applied to the evaluation study. That is, BF is defined as IFC's own account co-financing for concessional funds. Grants are not included in the scope of BF.

(1) Initial experiences of BF by IFC. Results of evaluation conducted for 14 projects between 2010 and 2014.
(2) Five PPAR for projects approved between 2012 and 2016.

Learnings from initial experiences (14 projects approved between 2010-14)

Many BF projects cover financial intermediaries that make approaches to beneficiary companies (wholesale method) rather than targeting companies that are direct beneficiaries (retail method). Many of the projects evaluated met high standards in terms of environmental and social impact. Of course, these results are from investments made in parties that already satisfy high environmental and social standards, such as existing IFC clients. Based on the evaluation results from the initial projects, instead of the assumptions made at the point of appraisal, it was found that the financial and economic effects in many projects were minor. The challenges were identified as insufficient provision of T/A, and insufficient business cases and prior market assessments (for example, disruption to later project expansion due to delayed introduction of legal frameworks by the government).

Learnings from recent experiences (5 PPAR from projects approved between 2012-16)

All of the projects were evaluated as having commercial sustainability and producing economic benefits, and the analytical results showed that BF is effective for the realization of high-risk projects. Non-financial additionality is also important, and T/A raises the effect of BF while decreasing the risk of the project. On the other hand, in many projects, it was noteworthy that IFC's return on investment was insufficient, and the background to this was identified as being the subsidies taken on by IFC in connection to T/A (T/A in many cases is deemed to be separate from BF, and it is not included in the calculation of subsidies in BF (hidden subsidies)).

A summary of the conclusions derived from a review of past BF evaluation results is shown below.

- In the implementation of BF, it is necessary for projects to start out with an evaluation of markets and risks. BF projects must conform to the strategic profit of private investee entities.
- While financial additionality is necessary, that alone is insufficient. In order to reduce project risk, non-financial additionality is important.
- In the determination of BF investment, it is necessary to evaluate the commitment and capacity of private investee entities. Also, when preparing a project, it is necessary to evaluate the need for technical cooperation and the need for system reform. At the same time, private investee entities need to understand the support they need.
- Total project costs exceed project investment costs. This is because extra costs are needed for T/A and project preparation. In order to realize the target outcomes, it is necessary to estimate the total costs including T/A costs, etc. To increase transparency, BF-related costs must be shared by donors and IFC.

3.1.2. European Investment Bank (EIB)

EIB is a policy-driven financial institution that provides loans for projects that contribute to improving the international competitiveness of industries and SMEs in the EU, to environmental conservation, to the stable

supply of energy, and for projects in connection to infrastructure development that contribute to European integration. Support for SMEs in Europe mainly includes medium-to-long term loans, while risk capital and guarantees are managed by the European Investment Fund (EIF), which forms the EIB Group together with EIB. Even in areas outside the EU, development support and loans are provided to developing countries, and the scope of that extends not only to EU-non-member countries in Europe but also to Africa, Latin America, the Middle East, Asia and all over the world. The European Investment Bank has legal personality, and while there is CIV between EU member states and the European Investment Bank, it is financially independent from the EU.

(1) Status of Initiatives toward BF and Private Finance Mobilization

1) Financing Instruments and Schemes

EIB provides the following services according to the characteristics and needs of the client. Loans are provided to both the public sector and private sector. In many cases, the objective is financial support that attracts other investors.

- **Loans**
  - ✓ Public sector loans
  - ✓ Public sector frameworks/loans (Flexible loans for investment programs composed of small-scale projects. There are pre-defined objectives in combination with EIB priority matters.)
  - ✓ Private loans
  - ✓ Intermediary loans for mid-size businesses and SMEs.
- **CIVs**
  - ✓ Venture loans
  - ✓ Investment in mid-size businesses and SMEs (including investment in funding)
  - ✓ Investment in infrastructure and environmental funds
- **Guarantees**
  - ✓ Credit support for project financing
  - ✓ Other guarantees with the purpose of supporting mid-size businesses and SMEs
- **Advisory services**

Provision of technical and financial expert knowledge to clients in order to develop and implement investment projects and programs, and to improve system regulation frameworks.

- ✓ Strategy development
- ✓ Market development
- ✓ Project development

2) Policy for Private Finance Mobilization

EIB supports the preparation and implementation of projects with financing conditions that cannot be provided commercially. The difference between EIB's contribution and the commercial option is defined as "additionality."

For example, the role of EIB is not only to provide loans but also it includes BF from a combination of EIB loans and EU grants and advice, for example. Also, EIB loans can extend the project term and reduce the gap between the lifespan of assets and the maturity of the loan. Furthermore, EIB supports a reduction in customer currency exchange risk, as financing is offered in the local currency.

- **Financial support in line with project needs, including long-term loans**

EIB additionality includes five indicators, namely, the extension of the project term by means of long-term loans, which achieves a reduction of the gap against the asset lifespan, financing in the local currency, grants, and the provision of innovative financial instruments.

- **Technical contribution**

Contributes to the technical improvement of projects from the perspectives of business, development, society, environment and corporate governance.

- **Improvement of standards and resource mobilization**

EIB creates demonstration effects and improves project standards. This achieves the mobilization of other sources of finance.

3) BF Definition

EIB defines BF as a blend of EIB loans/financial instruments and grants with the purpose of supplying the financing required by a target project. Grants are provided by public bodies and charitable organizations through BF facilities. These facilities target specific sectors, regions and initiatives. The purpose of EIB's BF is to reduce overall project risk and to mobilize additional funding by means of a blend of loans/financial instruments and grants.

The following table is a list of BF implemented by EIB.

Table 11: BF by EIB

Name	Summary
InnovFin - EU Finance for innovators	Provides financing tools that are suited to research and innovative projects.
Donor Partnership	EIB activities by means of partnerships with donors in non-EU developing countries. All grants that are provided to EIB donor funds are viewed as being in the scope of ODA.
The European Structural and Investment Funds - Financial Instruments （ESIF）	EIB converts EU finances based on ESIF to financial instruments such as loans, guarantees, stocks, and other risk bearing mechanisms.
Mutual Reliance Initiative	Joint initiative by AFD (France) and KfW (Germany). Investment projects with CIVs from EU partner countries receive greater benefits in terms of project financing capacities through structured division of work.
Private Finance for Energy Efficiency (PF4EE)	Support for investment toward efficient energy use.
Natural Capital Financing Facility	Support for projects for biodiversity and climate adaptation.

Risk Capital Facility for the Southern Neighborhood	Provision of access to CIVs and loans for SMEs in the Mediterranean area.
EU Trade and Competitiveness Programme in Egypt, Jordan, Morocco and Tunisia	Providing SMEs with access to finance to promote trade and enhance competitiveness in Egypt, Jordan, Morocco, and Tunisia.
EU Blending facilities	EU-provided grants blended with loan funds for EIB projects outside the EU.
Connecting Europe Facility Debt Instrument	Risk-sharing facility that covers mainly transport and energy sectors.
Kulima Access to Finance Project	Support for small-medium agribusinesses in Malawi.
SME Access to Finance Initiative	Support for SMEs in European neighboring countries.
Neighborhood Investment Platform	Improved access to financing in the southern and eastern areas of the EU.
Asia Investment Facility	A regional blending facility supporting Asia's transition to a green economy.
Caribbean Investment Facility	Regional facility that promotes investment in the economy in the Caribbean region.
Africa Investment Platform	Regional facility that promotes the sustainable growth and investment in Sub-Saharan Africa.
Latin America Investment Facility	Regional facility that promotes the sustainable growth and investment in Latin America.

Source: EIB Website

EU Blending Facilities

EC is establishing BF facilities for each of several regions and themes in the framework of EU BF facilities. The corresponding framework covers a geographic scope of cooperation outside the EU, as well as major policy areas, thereby contributing to the strategic development of the EU and partner countries. EIB concludes agreements with the EC regarding operations under specific BF facilities. The principle of EC BF facilities is to combine long-term loans from eligible financial organizations such as EIB with grants from the EU and to attract other investment. EU grant donations take various forms in order to support projects.

- **Investment Grant**

Reduces the overall cost of total project finance needs and debt repayments by means of interest rate subsidies, etc.

- **Technical Assistance**

Technical assistance that ensures project quality, efficiency and sustainability.

- **Other Financial Instruments**

Risk capital investment (share/quasi-share investment). Reduces project risk and attracts additional finance and guarantees.

(2) Evaluation System

The Operations Evaluation Division (EV) placed under the EIB Inspector General evaluates EIB projects. The evaluation results are reported to the EIB President and Management Committee. EIB strives to make perpetual improvements in various aspects of performance in line with good governance. EV implements an independent ex-post evaluations with the following two objectives.

- **Accountability**

Are EIB activities consistent with EIB policy and the strategies derived therefrom? Are these activities being implemented as expected?

- **Acquisition of lessons learned**

Specifies areas of potential improvement that can be applied to Group activities in order to improve performance.

The operations evaluations are conducted mainly at the thematic level, such as sectors and financial instruments. Samples are selected by EV, but the samples normally cover multiple countries. In exceptional cases, evaluations of individual projects may be conducted for specific purposes. Evaluation by EV is to be conducted 3 years after the completion of the project. Before completing the EV evaluation report, a consultation process is implemented. The report includes recommendations and lessons derived from the evaluation, and EIB Management is obliged to provide a formal response to these recommendations and lessons learned.

Result Measurement Framework (ReM)

Development results are managed by EIB based on the results measurement framework (ReM). The ReM reviews development results at the time of appraisal, project completion (or at the completion of the investment and loans period) and three years after project completion (or at the completion of fund life), in line with the project cycle. That is, while the EV evaluation at EIB is basically on a theme level, the development results of individual projects in the project cycle are confirmed by ReM. The results of the ReM review of development results will also be used for evaluation by EV whenever possible.

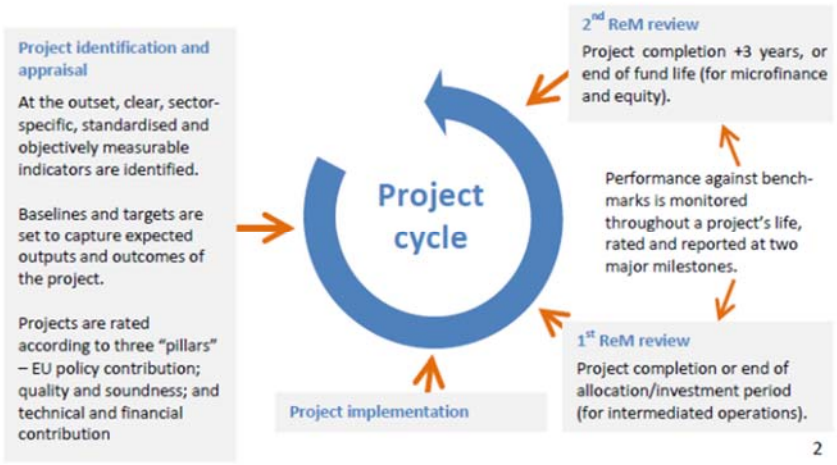


Figure 41: Image of ReM

Source: EIB

(3) Evaluation Approach

The EV evaluation analyses relevant policies and strategies of EIB and the portfolios of the relevant projects. In the evaluation process, interviews are conducted with stakeholders in and outside the EIB Group. In addition to uniform evaluation standards, evaluations and analyses specific to individual projects and supplementary investigations according to the theme are conducted. EV evaluation standards are shown in the table below, and they conform to the standards defined by the OECD-DAC development evaluation network. Evaluations are rated in four grades (4: Excellent, 3: Satisfactory, 2: Partially unsatisfactory, 1: Unsatisfactory). "EIB contribution" and "EIB project management" are evaluated separately from the other items, and this forms part of the evaluation.

Table 12: EV Evaluation Items

Evaluation items	Details
Relevance	Do the objectives of the project conform to basic policy and beneficiary needs?
Effectiveness	Have the objectives of the project been achieved?
Efficiency	Were the benefits of the project suited to the cost?
Sustainability	Does the project have sustainable and long-term benefits?
EIB Contribution	What were the EIB's financial and technical contributions to the project?
EIB management of the project	How was the project cycle managed?

Source: EIB

Review of EIB Project Results by ReM

As stated above, in addition to the evaluation by EV (mainly on the theme level), in the project cycle, EIB is using ReM to review the results of development projects. As shown in the Figure below, ReM covers three pillars, namely, (1) Consistency with and contribution to EIB mandate, EU priorities and country objectives, (2) EIB intervention results that contribute to SDGs and Indicators agreed upon with partner countries and

(3) additionalities when covering gaps in the market. The rating scale for the three pillars has four grades. The three pillars are graded individually, and the project is not given a combined grade. The consistency and quality of grading is ensured by means of an internal committee that regularly validates the indicators and the ReM grade. The components of the ReM review of development results are shown in the table below.

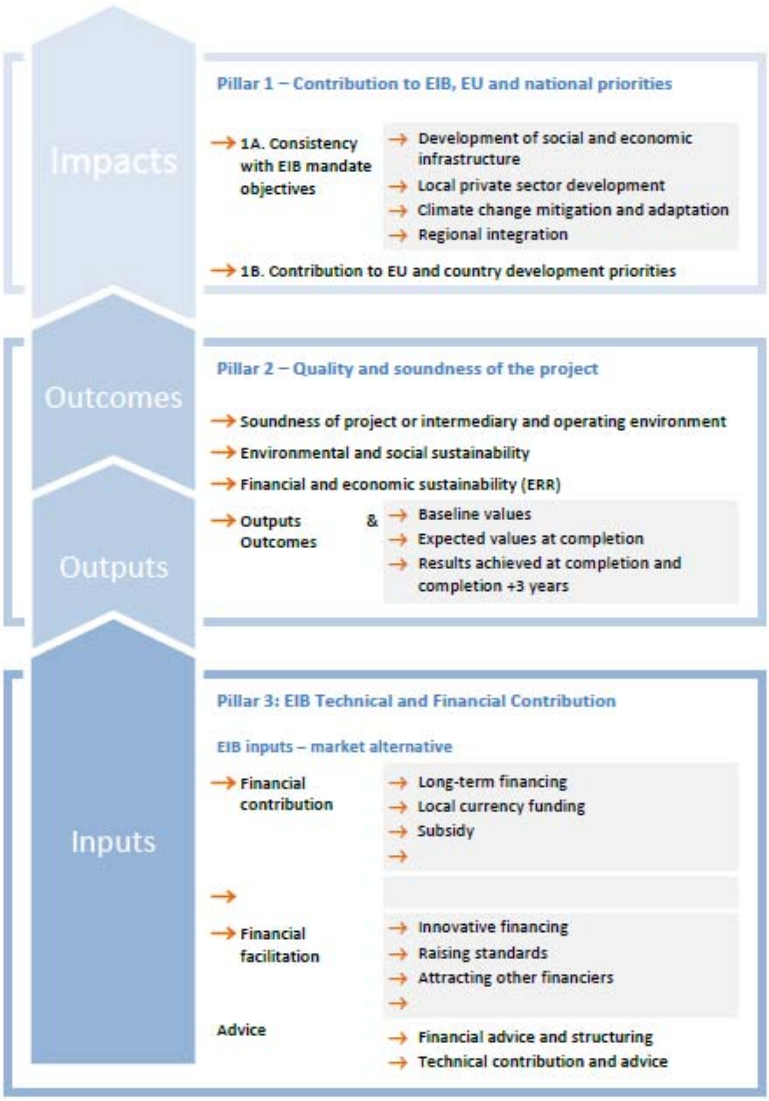


Figure 42: ReM Framework

Source: EIB

Table 13: ReM Framework

Pillar (1): Consistency with and contribution to EIB mandate, EU priorities and country objectives.		
Points of view	Is the project consistent with the objectives of the EIB mandate?	
	How well does the project contribute to EU priorities and country development objectives?	
Pillar (2): EIB intervention results that contribute to SDGs and Indicators agreed upon with partner countries		
Indicators	Core standard indicators:	To be measured, when possible and relevant, for all operations (e.g. employment generated, energy efficiency).
	Sector standard indicators:	To be measured for all projects of a given type in a given sector (e.g. “Reduction in power outages (hrs)” for energy transmission projects).
	Other relevant standard indicators:	To be measured for all projects with a given feature (“Households which could be supplied with the energy generated by the project” for credit lines or private equity funds aimed at renewable energy and energy efficiency projects)
	Custom indicators	Capture expected development outcomes that are specific to an operation and cannot be captured by a standard indicator (e.g. for a transport project with a regional dimension, “Time to connect two countries/economic centers (hrs)”).
Direct operation		
Points of view	Soundness of the project	Assesses the capabilities of the promoter based on indicators such as whether the project is delivered at cost and on time, and governance issues.
	Financial and economic sustainability	Based on the estimated economic rate of return (ERR), or equivalent, and the financial internal rate of return (FIRR).

	Environmental and social sustainability	Based on the EIB environmental safeguards and the social safeguards.
Financial sector		
Points of view	Expected outputs and outcomes	Evaluated based on the dimensions of increased access to finance (e.g. number, size and tenor of loans to final beneficiaries), jobs sustained, and financial market development, including increased financial sector competition.
	The soundness of the intermediary	Evaluated based on the considerations of the financial intermediary, governance and E&S standards.
	The quality of the operating environment	Evaluated on the basis of the macro-economic environment and the banking industry risk assessment.
Pillar (3): Additionalities when covering gaps in the market		
Points of view	Financial	Assessed in comparison with commercial alternatives on the basis of the tenor or maturity of the finance provided, the currency in which finance is provided, and the blending of loans with grant resources
	Technical	The technical contribution derives from the institutional framework and technical expertise and typically comprises services or technical assistance to support project preparation, the structuring of an operation or project implementation. The evaluation target can also include broader work to support the sector which will be of benefit to the project.
	Facilitation	As a multilateral financing institution, EIB can raise project standards relating to procurement, environmental and social standards, or governance. The involvement of EIB can also send credible signals about the quality of the project. Such contributions are assessed in terms of demonstration or signaling effects to other financiers and investors in terms of providing innovative financing and in terms of support for enhanced cooperation.

Source：EIB “The Results Measurement (ReM) framework methodology” (Sept 2017)

3.1.3. KfW Banking Group (*KfW Bankengruppe*, KfW)

The Federal Ministry for Economic Cooperation and Development (*Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung,* BMZ) established in 1962 has jurisdiction over the design and preparation of development support policies of the Federal Republic of Germany. The BMZ coordinates bilateral support (financial and technical cooperation) and support through international organizations. The German Corporation for International Cooperation (*Deutsche Gesellschaft für Internationale Zusammenarbeit,* GIZ), the KfW, and the German Development Institute (*Deutsches Institut für Entwicklungspolitik*, DIE) implement these support activities.

KfW is a public corporation owned by the government of the Federal Republic of Germany and the States of Germany. It was established under the Law Concerning KfW (*Gesetz über die Kreditanstalt für Wiederaufbau*) and it raises funds with borrowing from capital markets. The borrowing conditions of KfW are more favorable than those offered to commercial banks mainly because it uses bonds guaranteed by the Federal Government. KfW is exempted from corporate taxes due to its legal status as a public organization and because of unremunerated equities provided by its public shareholders. This exemption allows KfW to provide loans at lower rates than commercial banks for the purposes prescribed by the KfW Law. Although KfW is not allowed to compete with commercial banks, it promotes its business in the areas within its mandate.

(1) Status of Initiatives toward BF and Private Finance Mobilization

1) Financing Instruments and Schemes

The KfW Development Bank invests public funds provided by the Federal Government in development projects. It also raises capital from financial markets to invest in projects.

- **Development Support**

The bank provides funds to governmental organizations, public (state-owned) corporations, and commercial banks engaged in the microfinancing and promotion of small- and medium-sized enterprises (SMEs). The bank mainly uses the following financing instruments in the support it provides

(1) Grants without repayment obligations

The bank assists public organizations with funds without repayment obligations.

(2) Highly concessional loans using funds provided by the Federal Government

The bank raises funds with borrowing from capital markets. The borrowing conditions of the bank are more favorable than those offered to commercial banks mainly because it uses bonds guaranteed by the Federal Government. The bank provides loans from raised funds at interest rates lower than general market interest rates.

(3) Blended finance (mixing of public funds and funds raised from financial markets)

Blended finance is a mixed use of public funds and funds raised from financial markets. The

KfW Development Bank is involved in the creation of this low-interest financing scheme.

(4) Commercial loans raised from financial markets

Ordinary commercial loans

The KfW Bank decides on the type of development support finance to be used for a beneficiary country depending on that nation's economic conditions, which is mostly according to per capita GDP. The development support activities of KfW are referred to as "monetary assistance" and usually supplemented by the "technical cooperation" of GIZ and other German public organizations. This monetary cooperation is provided mainly in the sectors of "water resources and sanitation," "renewable energy and energy efficiency," and "financial sector development." KfW also assists with activities in the health, education, agriculture, forestry, and waste management sectors.

- **Assistance to SMEs**

KfW assists German SMEs, including individual entrepreneurs and start-ups. It provides them with equities and mezzanine finance, in addition to loans. KfW also provides loans to commercial banks in Europe to facilitate financing to SMEs, housing, and infrastructure development (so-called global loans).

- **Export Promotion and Project Finance**

KfW provides loans to private enterprises that invest in developing countries. It pursues a business model almost identical to that of the International Finance Corporation (IFC), a member of the World Bank Group. The assistance in this area is mainly provided to the banking, agribusiness, renewable energy, communications, and manufacturing industries.

- **Housing and Environment**

KfW focuses its financing on the promotion of the construction and renovation of energy-efficient houses. In terms of environmental conservation, it proactively finances photovoltaic power generation (batteries) projects that receive large amounts of indirect subsidies through fixed feed-in tariff schemes based on the Renewable Energy Sources Act (*Das Erneuerbare-Energien-Gesetz) 2000. It also invests in the development of public infrastructure, including public transport systems.*

- **Shareholding as an Organization of the Federal Republic of Germany**

KfW holds shares of various companies, including Deutsche Post, Deutsche Telekom, and Commerzbank.

2) Policy for Private Finance Mobilization

Achieving the SDGs requires methods and approaches for the provision of basic infrastructure around the world. However, as there is a huge gap between the funds which are needed and the funds which are available for achieving the SDGs, it is feared that many countries may fall short in realizing them. It is commonly recognized that the gap between the funds which are spent and the investments which are needed for infrastructure development in developing countries is much larger than the amount that existing financial

resources for development and locally available resources can raise. Funds that have not been used for development finance need to be diverted to address underinvestment in the development of basic infrastructure in developing countries. It is the mission of KfW to catalyze this fund diversion. KfW has spent up to EUR 7 to 8 billion every year on loans for infrastructure development.

Additionality is required to mobilize private finance for investments in infrastructure development in developing countries. KfW defines additionality as follows:

- **Financial Additionality**

Financial additionality is required for implementing projects that cannot be implemented with financing from commercial financial institutions alone. Additional investment is to be realized by such means as improving transaction conditions, including the conditions for financial mobilization and contribution rates, or implementing a policy to reduce the risks to be borne by private financial institutions.

- **Value Additionality**

Value additionality is an effect realized by adding non-monetary values, including social and environmental values, which the private sector has not provided, to a project or bringing monetary value to a beneficiary country with financial mixing based on the value of social equity or incorporation of social and environmental standards in the project.

- **Developmental additionality**

Developmental additionality is an effect on development that would not have been generated without joint intervention with the private sector or the intervention of other parties.

3) BF Definition

KfW does not have its own definition for blended finance (BF). It follows the definition of OECD-DAC, that is, BF is "the strategic use of development finance for the mobilization of additional finance toward sustainable development in developing countries." The basic logic for BF is based on the realization that there is always a shortage of finance for sustainable development, and there is a need to utilize various financial resources to increase the total amount of finance that can be used for investment in it. It is necessary to adjust the balance between risk and return derived from investments for the mobilization of additional finance by BF.

(2) Evaluation System

1) System for Implementation of Evaluation

KfW evaluates projects following the evaluation criteria of OECD-DAC. Projects are evaluated by staff members of an independent internal department for project evaluation, the FC Evaluation Department, and project managers of other departments who have not been involved in and do not have a conflict of interest with the projects to be evaluated. External evaluators may also be involved in the project evaluation.

The independence of these evaluators is an important precondition for bias-free fair and reliable evaluation. The results of evaluations are directly reported to the Board of Directors of KfW.

2) Purpose of Evaluation

The purpose of project evaluations is to learn lessons by having past projects assessed by evaluators who are independent of KfW.

KfW carries out ex-post evaluations of its projects three to five years after they complete. In this evaluation, the impact realized within the entire project cycle, from the stages of design and implementation to project/program completion, are identified. The evaluators conduct on-site interview surveys of the contents and background information of the project/program, and then with all relevant documents and reports available to them, they analyze the data and statistics obtained in the survey. In addition to the evaluation of individual projects, KfW also carries out analyses globally, or putting the focus on specific countries, regions, or sectors using a database that includes the results of all ex- post evaluations.

3) Evaluation System

The evaluation department of KfW assesses projects in which KfW was involved on a regular basis. The department also evaluates projects implemented with the financial instruments of KfW, *i.e.*, grants, highly concessional loans, and BF. Approx. 50% of such projects are selected arbitrarily and evaluated. Since 1990, KfW has evaluated 2,391 projects, including 231 BF projects (approx. 10%).

Figure 43:Financial Instruments at KfW

Grants	Highly Concessional Loans	Blended Finance	Loans from Market Funds
• From public funds	• Loans purely from public funds (highly concessional)	• Loans from market funds with rate subsidies from public funds • Other instruments like guarantees, fund structures etc. (not covered here)	• Loans from market funds (not subject to ex post evaluation)

Source: KfW

(3) Evaluation Approaches

The five evaluation items of DAC (relevance, effectiveness, efficiency, impact, and sustainability) are used in KfW project evaluations. Each project is evaluated on each criterion on a scale of one to six (with one being the most successful). After the evaluation of each criterion, the project is evaluated as a whole on a scale of 1 to 6. A project with an overall evaluation score between 1 and 3 is considered successful and that with a score between 4 and 6 is considered unsuccessful (failed).

Table 14: KfW Evaluation Items

Evaluation Items	Criteria
Relevance	The relevance of a project is measured as "the level of conformity of the purpose of development support provided by KfW to needs of a beneficiary country, demands of beneficiaries, global priorities, and donor's policy." A project is evaluated on whether its focus was put on an important developmental challenge (developmental priority) and whether there is a relevant causal relationship between the project and its developmental goal. The level of relevance of a project to development plans and the poverty reduction strategy of the recipient country, and the development policy and strategy of the counterpart organization, are measured.
Effectiveness	The effectiveness of a project is measured as "the level of achievement of development goals with the relative importance of the goals taken into consideration." Therefore, it is necessary to record and evaluate the effects that the project had. The outcome of the development is evaluated in relation to the project/program purpose. The evaluation of the effectiveness requires the measurement of the development outcome with concrete indicators. The measurement of the development outcome includes that of negative effects.
Efficiency	Efficiency is "a scale that shows how much the input of resources including funds, professional knowledge, and time, has been converted to the economic outcome." At first, a project is evaluated on whether goods and services produced in the project (output) have been produced at an appropriate cost (production efficiency). However, what is more important is allocative efficiency, or the relationship between the funds spent and outcome/effect created. To evaluate the allocative efficiency, the project has to be compared with an alternative that would realize the same outcome. A cost-benefit analysis is generally used for the comparison.
Impact	Over and above the project goals, there are comprehensive developmental goals, these are objectives that give the final justification of activities based on a development policy. For example, the main issue of a water supply project is not the amount of water consumed by a target group (direct benefit) but the improvement of their living conditions with a modernized water supply system, which reduces health risks. The impact of a project cannot always be measured accurately. However, there is a need to estimate the extent of the effect of the project on the achievement of comprehensive development goals which is based on circumstantial evidence to ensure the relevance of the project.
Sustainability	Sustainability is a term vaguely defined in the area of international development. If an assisted counterpart organization or a target group continues to implement project activities independently and is able to produce positive effects for an appropriate period after the completion of financial, organizational, or technical assistance to them, it is concluded that the sustainability of the project has been ensured. A risk that may affect the sustainability of a development project is evaluated based on the probability of its occurrence. While the four criteria mentioned above are evaluated according to the state at the time the evaluation is carried, this criterion (sustainability) is also affected by expectations for the future of a project. Therefore, the evaluation of sustainability depends on how to estimate the level of the effects and the risks that the project may have in the future.

Source: KfW

BF Evaluation Study Review: “Evaluation Update - Blended Finance - An investigation into its effect on the success of development interventions”（2019）KfW Development Bank

The financing structure of a development project may affect the outcome of the development. Therefore, this study aims to gain a better understanding of BF by comparing the evaluation results of projects involving KfW with those of projects consisting of a variety of financing instruments. Because of this aim, the study is focused on BF projects implemented with a mixture of public funds raised by KfW from financial markets with concessional conditions and private finance. KfW reports that the success rate of BF projects is higher than that of projects financed with grants or highly concessional loans. However, much more research needs to be done to understand "what" in the financing structure is important for development outcomes and the impact of the financing instruments on development projects.

The Figure below shows a breakdown of projects that have been evaluated since 1990 by financing means. Most of the 2,391 evaluated projects in the database were financed by grants, followed by those financed by highly concessional loans from public financial resources. BF projects accounted for approx. 10 % of all the evaluated projects.

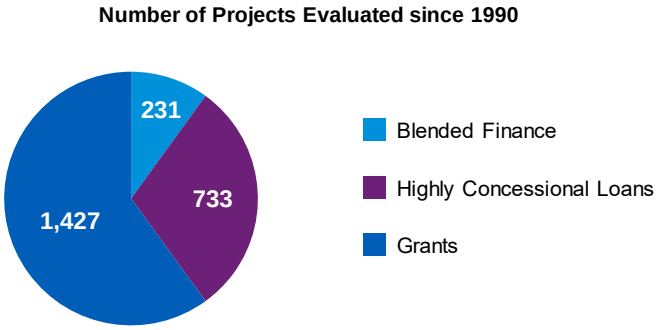


Figure 39: Evaluated Projects

Source: KfW

The Figure below shows the results of an analysis of the correlation between BF and the activity sector. The charts show that BF has been used frequently in sectors in which the development of social infrastructure is the main activity (health and education), and sectors, including energy and transport, in which projects generate certain revenue.

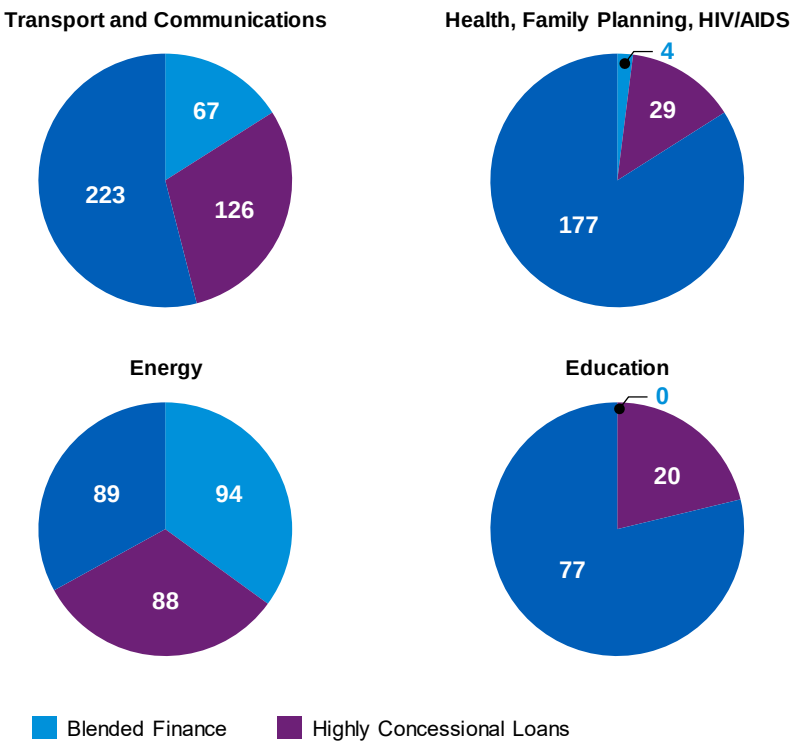


Figure 40: Financing Structure (Financing Instruments) by Sector

Source: KfW

KfW has implemented projects with different financing instruments in different geographic regions. The analysis by KfW reveals that the number of BF projects in Sub-Saharan Africa is extremely small. The results of the analysis of BF and its regional distribution are different from those shown by other data sources such as Convergence. This difference may be derived from the difference in the definition of BF by different sources.

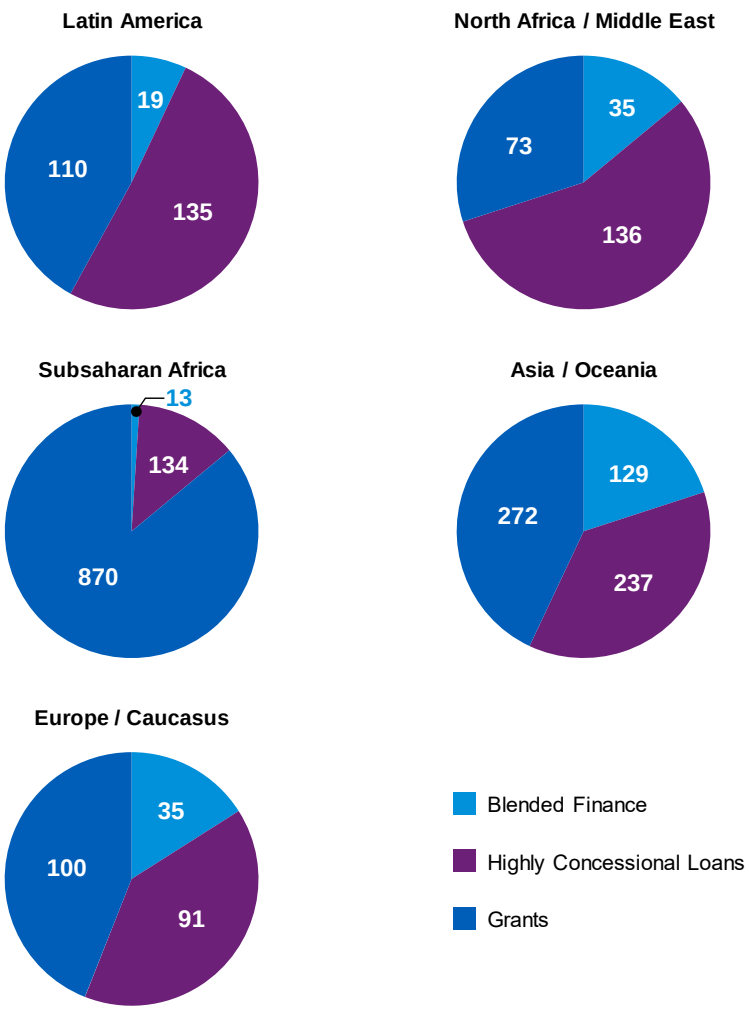


Figure 41: Financing Structure (Financing Instruments) by Region

Source: KfW

The KfW study concludes that the results of project evaluations with the five DAC criteria cannot necessarily be taken as a result of the evaluation of the financing structure itself. The BF used in a project evaluated as successful on the five DAC criteria is likely to be concluded as a successful financing instrument. On the other hand, if a project for constructing a school or the use of the constructed school is suspended due to a civil war, the impact of the project in terms of development and sustainability will be rated low. However, it is important to note that such a poor evaluation result does not necessarily mean that BF is not a good financing instrument or the assistance policy of KfW is not good.

KfW is actively collecting data on BF and studying in which sectors, countries, and regions BF is used frequently. However, as KfW has not evaluated the effect of the blended finance on the development outcome much, it hardly has any evidence to show what effect the BF financing instrument has on projects.

It is considered very difficult to study what effect BF has on the outcome of development projects. This is because the investors who participate in BF do not provide comprehensive information on the details of development projects or blending to researchers. In addition, because of the diversity of the parties involved in BF transactions, and the blending methods, it is difficult to standardize the evaluation of BF. For these

reasons, it is extremely difficult to establish a comprehensive causal relationship between the selection of the financing instrument (blending) and its effect on development projects.

3.1.4. Denmark's Investment Fund for Developing Countries (IFU)

(1) Status of Initiatives toward BF and Private Finance Mobilization

The Government of Denmark has recognized that the participation of private companies is essential for sustainable economic development in developing countries and established the Investment Fund for Developing Countries (IFU). Many private companies that have obtained loans from the IFU have invested loaned funds in developing countries. IFU is an independent fund owned by the government which provides advisory services and risk capital to companies that wish to do business in developing countries and emerging markets. IFU invests in the forms of stock finance and loans under commercial conditions. The purpose of investments by the IFU is to contribute to the economic and social development of investee countries. IFU also acts as the fund manager of the "SDG Investment Fund" and other investment funds.

1) Financing Instruments and Schemes

- **Investment and Lending (Provision of Risk Capital)**

IFU provides risk capital to companies that intend to do business in certain developing countries and emerging markets in Asia, Africa, Latin America, and Europe. IFU directly invests in companies established in investee countries. In other words, IFU shares financial risk with these companies. IFU invests in the form of contributions, mezzanine loans, loans, and bonds on a commercial basis, in principle. IFU investments can be used for all purposes, including the creation of new businesses, the business merger, and the acquisition of existing companies. In principle, IFU is a minority investor that accounts for approx. 30% of a total investment, and any additional funds needed are raised from non-IFU investors, such as regional development banks.

- **Advisory Services**

IFU provides clients with professional advice, from the phases of design and establishment of a new business until the business project becomes economically feasible. IFU's advisory services include the evaluation and financing of business plans, negotiation with partners on legal matters, approaches to local governments, and localization. IFU usually participates in the boards of directors of project companies established in investee countries. This participation enables IFU to continuously provide its knowledge and experience in business operations in developing countries to the companies it invests in. IFU also provides knowledge and advice on sustainability, which includes knowledge in environmental conservation, industrial relations, corruption, and supply chains, etc.

- **Grants**

IFU provides grants to private companies. For example, Danish micro-, small-, and medium-sized enterprises (MSMEs) can obtain financial assistance in order to prepare for the establishment of a business

or the start of a business project in a developing country or an emerging market. The IFU's Neighborhood Energy Investment Facility provides grants for the development of new projects that aim at improving energy efficiency and reducing greenhouse gas emissions to mitigate climate change.

SDG Investment Fund

The aim of the SDG Investment Fund (SDG Fund) is to contribute to the achievement of the Sustainable Development Goals (SDGs) of the United Nations through private sector investment. This fund provides advice, and risk capital, to projects that support the development of strategic sectors, including climate, agribusiness and food production, finance, water, manufacturing industries, and infrastructure, in developing countries. The fund has a capital commitment of DKK 5 billion, of which DKK 3 billion has been committed by pension funds and individual investors, and DKK 2 billion by the IFU. As this fund contributes to the mobilization of additional capital in developing countries, the total amount of investment is expected to reach up to DKK 30 billion if the fund is invested in full. As the fund manager of the SDG Fund, IFU takes full responsibility for all matters in the fund operation, including investment and monitoring. The SDG Fund is invested in accordance with the policy guidelines of the IFU.

DANIDA Sustainable Infrastructure Finance (DSIF) (formerly DANIDA Business Finance (DBF))

DSIF provides concessional loans to infrastructure development projects that contribute to sustainable development as stipulated in the SDGs. The maturity of the loans is usually 10 years and they are provided in USD or EUR. DSIF finances projects that will not be able to generate sufficient profit if they are financed with commercial loans.

2) Policy for Private Finance Mobilization

The overall goal of the 2017-2021 strategy of the Ministry of Foreign Affairs of Denmark (DMOFA) on IFU is to make the IFU contribute to the implementation of the development cooperation strategy of Denmark. The ministry provided a capital increase of DKK 200 million to the IFU to facilitate the achievement of this goal. The strategy emphasizes the following as strategically important sectors:

- To provide risk capital and knowledge that may contribute to the achievement of the SDGs to enterprises in developing countries,
- To ensure financial additionality and investment in poor developing countries based on a 50% criterion (which stipulates that 50% of IFU's investments shall be made in countries with a GNI per capita of less than 80% of the threshold for Low and Middle Income Countries (LMIC)),
- To extend public-private partnerships (PPP) for sustainable development by mobilizing private finance without risk and facilitating the use of knowledge of and investment from the private sector (SDG Investment Fund)
- To facilitate the measurement and reporting of development outcomes realized by investments,
- To increase opportunities for Danish companies to access new and difficult-to-access global markets,

- To focus more on the sustainability of its investments, including the application of the UN Guiding Principles on Business and Human Rights (UNGP),
- To emphasize openness and communication with interested parties,
- To strengthen cooperation with DMOFA (at the level of both embassies and head offices), and
- To invest in system development and human resource development so that IFU will remain an efficient and effective DFI.

Additionality

DMOFA defines additionality as an important principle for IFU investments in the IFU Strategy prepared in 2017. IFU defines additionality as follows:

- **Financial Additionality**

IFU will invest if the private sector cannot do what IFU can, or the private sector cannot provide funds on an appropriate scale or under reasonable conditions, or the IFU investment is expected to catalyze private investment in a way that other methods cannot. In other words, IFU should not crowd out the private sector by providing funds that the private sector is expected to provide.

- **Value Additionality**

IFU brings a non-monetary value, that the private sector does not provide for, to an investment and thereby increases its development effect.

3) BF Definition

The IFU Strategy mentions that DFIs, such as IFU, play an important role in the recently developed development finance architecture. The extension of PPP with private investment and BF is the most important method for the international community to assist developing countries. While conventional official development assistance (ODA) is still important for the poorest and most fragile countries, ODA funds are not sufficient for achieving the SDGs. It is important to attract private investment while using ODA. DFIs, such as IFU, are expected to play an important role in attracting private investment. They have played an important role in responding to market failures, or a lack of access to financial services, in developing countries. DFIs are catalytic by providing additionality to investments. For example, bringing sustainability and responsibility to the private sector is a major objective of DFIs and they have a comparative advantage on this point. They assist the improvement of project quality through a participatory process with partners that removes project risk and makes projects practical and feasible.

(2) Evaluation System

The Evaluation Department (EVAL), an independent unit of the Danish International Development Agency (DANIDA) which is specialized in project evaluation, is responsible for evaluation planning and implementation of development cooperation provided by Denmark. EVAL presented its policy and

methodology in the Evaluation Policy for Danish Development Cooperation (February 2016) and in the DANIDA Evaluation Guidelines (January 2012), respectively.

The following are the two objectives of evaluations by EVAL.

- To obtain knowledge on what works well and why it works well, and conduct studies to improve the quality and outcomes of development cooperation, and
- To fulfil its accountability by publishing reports that notify ordinary people in and outside of Denmark, including the parties concerned and beneficiaries, of the outcomes of development cooperation.

EVAL evaluates projects on policies, strategies, themes, and programs, and this is carried out by external experts, with reports being made public once the evaluation has completed. It basically conducts the following three types of evaluation.

- **Real-Time Evaluation：RTE**

Real-Time Evaluation (RTE) is an independent external evaluation process for ongoing programs. It allows the regular use of results from evaluations of ongoing programs for the achievement of their goals. RTE provides feedback for the overall evaluation conducted on a country-specific program in part or whole after the completion of the program cycles being evaluated. RTE is being implemented in three countries[6] on a trial basis.

- **Evaluation Study**

An evaluation study is a study on specific issues concerning the evaluation. It may take the form of a meta-evaluation or a composite evaluation of evaluation results created by DMOFA and other development partners. It may be conducted not only for its own purpose but also as part of preparations for a larger evaluation.

- **Evaluation Follow-up**

An evaluation follow-up is one that follows up on an evaluation immediately after its completion. Its purpose is to support activities to increase the evaluability of a strategy or the next phase of a program

EVAL evaluates all types of bilateral development cooperation within an appropriate program time frame of between five to seven years. Development cooperation in all beneficiary countries is evaluated via RTE, an evaluation of program elements, or a comprehensive evaluation of a country-specific program.

DMOFA prepares a two-year rolling evaluation program every year based on the following standards

Timing:

[6] The details of the RTE in the three countries was not known at first. The Survey Team confirmed with EVAL that EVAL was conducting RTE of country-specific programs in Kenya and Mali, the program to support sustainable coastal fishery in Myanmar, and the DANIDA Market Development Partnerships Program for market development in developing countries.

To ensure the usability of the evaluation results, the evaluation shall be conducted when its results can be used as feedback in the process of preparations for future strategies or programs.

Scope:

All bilateral assistance, including assistance of all modalities and assistance programs implemented in all beneficiary countries, in a 5 to 7-year program period are to be evaluated.

Innovative approaches and new themes:

Innovative approaches that enable quick learning are to be selected as program subjects.

(3) Evaluation Approaches

The most commonly used approach in the evaluation of EVAL is the theory-based approach. In most cases, as this approach assumes that Danish intervention aims at contributing to the achievement of overall goals, it is considered the best method to answer complex questions in an evaluation. This approach is used for the evaluation of the contribution in a path that starts from activities and ends with the overall goal. In the theory-based approach, various methods and both qualitative and quantitative data are used. Qualitative methodologies are complemented by quantitative methodologies as much as possible.

EVAL uses the OECD-DAC evaluation criteria, but it does not always use all the criteria equally in all evaluations. In the preparation process, EVAL selects the criteria to be used, and the evaluation approaches and methods to be used for data collection and analysis. The evaluation criteria shown in Table 14 are recognized as tools in the evaluation process that do not bind results. It is necessary to ensure that an evaluation addresses all important issues in order to answer essential questions contained therein.

Table 14: EVAL Evaluation Items

Evaluation Item	Criteria
Relevance	To what extent does the purpose of the intervention conform to the needs of presumed beneficiaries? Is it relevant to the strategic objectives sought by Denmark and the partner country/organization?
Effectiveness	The extent to which planned outcomes have been produced
Efficiency	The extent to which resources relevant to the outcomes were used
Sustainability	Actual or potential continuation of created benefits from initiatives taken after the completion of main development support activities
Impact	Positive/negative and direct/ indirect impacts generated by initiatives, whether intentional or unintentional
Other (Reference)	
Coherence/Coordination	Criteria other than the above-mentioned five are added when a special interest is expressed to the subject of evaluation, including intervention and humanitarian assistance to vulnerable populations, and validation of these items is required.

Source: DANIDA

Development Impact Model (DIM) of IFU

IFU has been improving methods and measurements for tracking the impact of investment in development, and has been using DIM since 2017 to measure specific effects in specific sectors and strategic indicators in the entire portfolio. The indicators include the numbers of employees in investee companies, and reported local corporate tax, etc., as well as indicators from the three most important sectors (agribusiness, renewable energy, and microfinance). An important investment parameter is the Environment, Society, and Corporate Governance (ESG), and IFU continuously monitors the compliance of investees with the standards of this parameter. IFU and investees agree to prepare action plans that project companies must implement if the need for such plans arises.

Table 15: DIM Indicators

Development outcomes	
1. General outcomes (tracked for all investments)	1.1 Direct employees
	1.2. female direct employees
	1.3. Youth direct employees
	1.4. Unskilled direct employees
	1.5. Tax contribution
2. Sector-specific outcomes	2.1 Climate (only tracked for applicable investments)
	2.1.1. Mitigated COS emissions during project lifetime
	2.2. Energy (only tracked for applicable investments)
	2.2.1. Installed energy capacity
	2.2.2. Annual energy produced
	2.2.3. Installed energy capacity (renewable energy sources only)
	2.2.4. Annual energy produced (renewable energy sources only)
	2.3. Agribusiness (only tracked for applicable investments)
	2.3.1. Annual turnover
	2.3.2. Cultivated land
	2.3.4. Smallholder farmer inclusion aspects
	2.3.5. Small holders supported
	2.4. Microfinance (only tracked for applicable investments)
	2.4.1. Leverage ratio
	2.3.2. Average loan size
	2.3.3. Loans to females
IFU strategic indicators and ratings	
3. Additionality	3.1. Greenfield investment
	3.2. Host country income group
	3.3. Host country income level is below 80% of UMIC level
	3.4. World class technology
	3.5. Employees training
	3.6. IFU's contribution to project development
	3.7. IFU is member of company board
4. Catalytic effect	4.1. Leverage ratio (IFU to other investors)
	4.2. IFU's participation important for obtaining 3rd party financing
	4.3. Funding from SME facility
5. Project sustainability	5.1. Project IRR
	5.2. IFU IRR
	5.3. Risk rating

	5.4. Equity balance ratio
	5.5. Environmental & social risk categorization
	5.6. Environmental & social score
	5.7. Corporate governance level
	5.8. Management quality and competence
	5.9. Funding from DANIDA Training Fund (environmental and social

Source: IFU

Analytical Approach in BF Evaluation: Evaluation of Additionality

EVAL evaluated the performance of the IFU in 2004 and 2017. The purposes of the evaluation in 2017 were;

- To evaluate IFU's contributions to the development and creation of commercial outcomes through investment in developing countries that is required of IFU, and
- To evaluate the strategy of IFU to evaluate whether its future roles and organization structure mentioned in the development support policy of Denmark is appropriate for the objectives of the strategy.

This part describes the evaluation of additionality analyzed in the IFU Evaluation Report 2017. The report mentions, as an assumption, that it is very difficult to evaluate additionality because of the lack of established ex-ante and ex-post evaluation approaches and the limited availability of relevant information.

IFU evaluated the additionality of DIM and the Success Criteria Model (SCM), a system used for measuring development effects before DIM was introduced (2003 – 2017). Table 16 shows the changes in the indicators used in the evaluation of additionality.

Table 16: Changes in Additionality Evaluation Indicators

SCM（2003-2005）	SCM（2005-2012）	SCM（2012-2017）	DIM（Since 2017）
Partner mobilization	Fund's additionality	Fund contribution	Additionality
Score: High / Medium / Low			Score: Exceeds / Meets / Below
Mobilization of Development Partners (DP prior activity with IFU, origin of project idea)	IFU's relative participation in the project (as % of total)	Is investment greenfield or brownfield	1) Greenfield investment 2) Host country income group 3) Host country income level below 80% UMIC 4) World class technology 5) Employee training
Additionality of IFU's participation	Additionality of IFU's participation (board representation, leveraging, importance to project implementation,	（As before）	

	contribution to project preparation)		6) IFU's contribution to project development 7) IFU is member of company board
Capital Mobilization	Capital mobilization (is Fund important for obtaining other external finance?)	(As before)	

Source: IFU

DIM has more indicators to measure elements of value additionality, including contributions to the preparation and development of projects and training of employees, than SCM. IFU defines its additionality in three aspects, advisory services, networking and local presence, and being a strategic partner. Although many substitute indicators, including financing methods (grace period, an extension of tenure or use of local currency) and the availability of innovative financing methods, have been used in international practices of the evaluation of financial additionality, IFU has used only the scores of indicators created in SCM and DIM in the evaluation of additionality in the preliminary (appraisal) stage and paid little attention to financial additionality. IFU has not reported financial additionality systematically.

The criteria for the evaluation of financial additionality and value additionality mentioned in the IFU Evaluation Report are described in the following section. The results of the evaluation of 50 cases with these criteria, and discussions on the results, are also described in the following section because they are expected to facilitate the understanding of the concept of the evaluation of additionality.

Financial Additionality

EVAL evaluated the financial additionality of IFU's financing using the criteria shown in Table 17. The average of the scores of all criteria was used as the overall evaluation score.

Table 17: Items and Criteria for Evaluation of Financial Additionality in Evaluation of IFU's Financing by EVAL

	High	Medium	Low
Main reason for the company to have IFU as investor	Project showed high risk profile or other indications that IFU funds were key for the project	Project with medium risk profile or indications other DFI funding was available or commercial funding against somewhat worse rates	Company had commercial possibilities available, corporate guarantees present, or IFU role limited to 'Crown & Flag'
Role of that IFU funds played in the overall funding of the company	IFU takes larger minority investor role or takes first loss	IFU takes smaller equity role together with multiple other investors	IFU provides debt with low margins, takes safer loss position or multiple investors already present
Type of other funders/investors	IFU plays cornerstone investor role and takes decisions together	Some other (public) investors already involved, but IFU still	Commercial investors already involved and

involved and their timing of involvement	with investee company, additional funding mobilized after IFU	before commercial investors	project already more matured
IFU's role in leveraging additional funding	Other DFIs or commercial investors have also invested after IFU	There is a decent outlook that other investors may join in the future	No evidence on follow-up investments by others and IFU made follow-on investments

Source: DANIDA

In many cases, the financial additionality of IFU's financing was rated high. It was concluded that the timely financing by IFU at appropriate places was the reason for this. For example, the additionality of IFU's investment in Ukraine at the time of the financial crisis was rated high because the chance for the investee companies to have other means of financing was low. Meanwhile, the additionality of IFU's investment in China was not rated so high because the passing of the time and economic development of China increased the financing from other sources. In many cases, investment in SMEs was rated high. However, these cases may include cases in which, although the SMEs could have used other financing instruments, they could not receive commercial finance because of insufficient planning for an overseas business expansion. In these cases, the additionality of IFU's financing is rated high as a rule. However, the high rating does not necessarily mean that this financing was the right choice. The additionality of IFU's financing to large-sized enterprises was rated relatively low because evidence was found that many of such enterprises could have used other means of financing. These companies prefer financing from the IFU, even if they can obtain commercial loans on the same lending conditions, because the financing from IFU gives them the backing of a governmental organization (the IFU) (so-called "crown and flag"). This backing effect is considered the value additionality of IFU's financing.

Value Additionality

IFU evaluates the value additionality of its financing using the criteria shown in Table 18. The average of the scores of all criteria was used as the overall evaluation score, just as in the evaluation of financial additionality.

Table 18: Items and Criteria for Evaluation of Value Additionality in Evaluation of IFU's financing by EVAL

	High	Medium	Low
Appreciation of IFU's non-financial role by the company or other stakeholders	IFU specifically chosen for expertise on local market and considered critical for success of entering new market	IFU chosen as investment partner for image reasons, bringing Crown & Flag' rubber stamp	No indication on appreciation of IFU's non-financial role/engaged with IFU purely as financial partner
Evidence on use IFU board sheet	IFU has board seat and has made a significant (positive) impact with it	IFU has board seat, but there is no evidence on significant contributions or impact	IFU has a board seat but contributions significantly below expectations or IFU

			has no board seat
Evidence on useful IFU advice before investment or at exit	There are concrete examples of evidence of particular IFU support provided before or after investment	Evidence that IFU support was generally appreciated, but no concrete examples of support were mentioned or found in documentation	No support provided by IFU before or after investment period or evidence on unmet expectations regarding IFU support
Evidence on useful IFU advice throughout investment	Evidence on specific follow-up during investment and/or active role IFU when problems arise	Evidence that IFU support was generally appreciated, but no concrete examples of support or advice given	Role of IFU during investment stage low and/ or little evidence on necessary follow-up when problems arise

Source: DANIDA

The evaluation revealed that the value additionality of the financing was rated lower than the financial additionality. The reason for this low rating is that many of the evaluated cases involved financing to large-sized enterprises and funds, and in many of these cases the investees already had sufficient knowledge. It was concluded that, in such cases, IFU did not have to add value to the financing or IFU did not have the knowledge to add value to the financing. (Therefore, IFU only provided loans to the investees in these cases.) IFU does not have a structured process for appointing directors of investees. Some other DFIs do not allow such appointments. The role of IFU in the boards of directors of investees is generally insignificant. In this aspect, the active contribution of IFU is small, and this fact also contributed to the low rating of value additionality. Investment in SMEs accounted for a large proportion of the cases with high value additionality. In these cases, IFU advised the investees actively in terms of the introduction of CSR and market penetration.

BF Evaluation Study Review: “Private Capital for Sustainable Development Concepts, Issues and Options for Engagement in Impact Investing and Innovative Finance”（2016）Evaluation Department, Ministry of Foreign Affairs of Denmark

The objective of the study was to provide a better base for the future involvement of DANIDA in impact investing and innovative financing approaches. To achieve the objective, the Evaluation Department analyzed the methods for achieving developmental goals using impact investing funds and innovative financing approaches, including BF. The following were the subjects of the study:

- Definition of impact investing and innovative financing approaches,
- Classification of funds using impact investing and innovative financing approaches,
- Risks of investors and strategies for risk mitigation,
- Requirement of additionality,
- Practice of and tools for the measurement of results,
- Challenges to maintaining full and complete pipelines of bankable projects, and
- Co-ordination and information sharing with impact investing funds and other stakeholders.

Demonstration of Additionality

Demonstrating additionality is a fundamental requirement for donor intervention in private sector development to prevent market distortions and ensure the value of an investment in the implementation of innovative financial approaches, including impact investing and BF. However, there is little clear evidence of such additionality. The following describes the possible explanations for the lack of evidence.

- Systematic ex-ante evaluation is not required for project implementation and ex-post evaluation of additionality is not commonly practiced. It is still too early to evaluate some of the funds comprehensively.
- DFIs rarely disclose detailed evaluation results, claiming confidentiality. This is mainly due to the psychological factor of wanting to report only successful numbers.
- The methodology applied to the evaluation of additionality has not been established. The evaluation is mostly based on qualitative explanations. Evidence to back up evaluation results is lacking.
- There is hardly any practical guidance applicable to the evaluation of additionality in the planning and evaluation of projects.

Measurement of Financial Additionality

The leverage effect of BF, or how many folds of private finance the commitment of public fund mobilized (financial leverage), is not only a strategically important core metric but also an important indicator for financial additionality. However, consensus and clarity are lacking in the various aspects mentioned below concerning measurements for financial leverage.

- Whether to include the cost of publicly funded catalyst pilot projects,
- Whether to count financing from public organizations and how to count them,
- A specific methodology for the measurement of leverage ratios per se,
- A method to specify the direction of the leverage effect; or whether private finance was mobilized with contributions from the public sector or whether the private sector utilized financing from the public sector.

3.2. Donors

3.2.1. European Commission (EC)

The European Union (EU) has various institutions, including the European Parliament, the European Council, the Council of the European Union, and the European Commission (EC), for its governance. The EC is the administrative and executive body of the EU. The European External Action Service (EEAS) prepares the overall diplomatic policies of the EU. The Directorate-General for International Cooperation and Development (DG DEVCO) prepares development policies that are consistent with the diplomatic policies of the EEAS. DG DEVCO takes overall responsibility for a series of processes in the implementation

of development support, from the identification and preparation of programs, the preparation of budgets, and the implementation and monitoring of projects, to ex-post evaluation. The Directorate-General for Neighborhood and Enlargement Negotiations (DG NEAR) is responsible for assisting actions in countries within the neighborhood of the EU.

(1) Status of Initiatives toward BF and Private Finance Mobilization

1) Financing Instruments and Schemes

The EC says that its development support activities are to promote good governance, develop human resources and the economy, and address global issues, including the conservation of natural resources and the fight against poverty and hunger. These activities correspond to the 5Ps of the SDGs, people, planet, prosperity, peace, and partnerships. The EC says that it intends to achieve the goals of the activities in cooperation with developing countries by strengthening relationships with EU member countries, establishing international partnerships, and making all interested parties involved in development activities.

Although DG DEVCO has not explicitly presented its assistance schemes in official documents, the Survey Team understands that the development support activities of the EC include both financial and technical cooperation at a global level. However, the EC does not directly make commercial investments or provide commercial loans. The EIB and other institutions are responsible for such commercial activities as the DFIs of the EC. According to DG DEVCO, its partners include EU institutions and bodies, EU member countries, international organizations, civil society, local organizations, and the private sector. The financial cooperation scheme of the EU includes the following instruments.

- **Budget Support**

The EC provides budget support to beneficiary countries engaging in "sustainable development reforms" through the direct transfer of funds to their treasuries.

- **Grant**

The EC will make financial contributions to institutions that lead projects and operations in line with the objectives of development cooperation.

- **Guarantees and Blending**

The EC facilitates private investment in development actions by using its own public funds to reduce project risk and to bear all costs, etc., required for the launching of projects.

- **Trust Funds**

The EC establishes trust funds to pool financing obtained from various sources. It may set up multi-donor trust funds for external development cooperation activities, in emergencies, post-emergencies, or for thematic.

2) Policy for Private Finance Mobilization

In the development cooperation of the EC in the past, it mostly used grants to promote the development of beneficiary countries. In recent years, it aims at mobilizing public finance from other organizations and private finance to supplement its development fund through guarantees and BF. The EC aims to share the

risks associated with investing in developing countries through guarantees, and to enable private investors and DFIs to finance entrepreneurs and development projects. If an investment records a loss, then the EC shall pay part of it. In BF, public funds are used to pay part of the cost of development projects, and other public and private investors finance the rest of the costs to implement the projects.

EU External Investment Plan

The EU External Investment Plan (EIP) is an initiative of the EU which started in 2017. It uses both guarantees and BF, and it is designed to increase investment from companies and private investors in neighboring countries to the EU, as well as Africa. It includes plans for the promotion of SMEs, the development of renewable energy, urban infrastructure, and agriculture, and improvements in access to digital services. The EU assists through the EIP with the creation of employment opportunities, the post-disaster reconstruction in vulnerable countries, and investment environment reforms in countries in Africa and the EU's neighborhood. The EIP is implemented via the following three forms:

- **Finance**

The European Fund for Sustainable Development (EFSD) covers the cost of financing for the EIP. It aims at the creation of up to EUR 47 billion of new investment from EUR 4.6 billion of public funds.

- **Professional knowledge (technical assistance)**

The EIP provides professional knowledge and technical assistance for the development of projects and the promotion of the growth of private companies.

- **Improvement of investment environment**

The EIP supports the governments of beneficiary countries in the implementation of reforms to attract more investors and facilitate business activities.

3) BF Definition

DG DEVCO prepared the "Guidelines on EU Blending Operation: DG DEVCO (2015)." The guidelines mention that the EC's grants are to be used with non-grant resources, including loans, equities, and guarantees, of development finance institutions, and commercial loans, and CIVs to realize leverage effects for development. The strategic use of limited grant elements enables the implementation of projects that have low financial profitability but large economic and social benefits. Tables 19 and 20 show the objectives and requirements, respectively, of the BF of the EC as described in the guidelines.

Table 19: Objectives of BF

Objective	Description
Financial Leverage	To mobilize public and private resources to increase the effect on development and implement many activities with fewer resources.
Non-financial Leverage	To improve project sustainability, the impact of development, quality, and innovation, and enable the quick launch of projects.
Political leverage	To support reforms consistent with the policies of the EU and partner countries.

Aid effectiveness	To strengthen cooperation between aid providers (*i.e.*, donors and financial institutions) in Europe and other regions.
Visibility	To enhance the visibility of the EU's development funds.

Source: DG DEVCO

Table 20: Requirements for Use of BF

Requirement	Description
Market failure	To respond to market failure in which sufficient funds have not been raised from markets for a project proven to be economically feasible and create investment opportunities.
Additionality	BF is not a replacement for the financial intervention of EU member countries, private finance, or other EU intervention.
Leverage effect	The aim is to mobilize global investment beyond the scale of the EU's contribution in line with the predetermined indicators.
Alignment of interest	To demonstrate common interests between the EC and entrusted entities in achieving goals stipulated in the policies that prescribe co-investment, risk sharing, and other financial requirements.
Ex-ante evaluation	To establish financial instruments based on the results of an ex-ante evaluation.
Reporting	The EC reports the activities concerning financial instruments to the European Parliament and European Council every year.
Entrusted entities	The commission discloses the notices sent to potential entrusted entities, including those on the selection and awarding criteria as stipulated in "Article 216 of the Rules of Application (No. 1268/2012)" and "Article 139 of EU Budget Financial Regulation (No. 966/2012)" to select entities to entrust the implementation of financial instruments. The entrusted entities should be European multilateral and/or bilateral financial institutions, such as the European Investment Bank (EIB) or the European Bank for Reconstruction and Development (EBRD), whenever possible.

Source: DG DEVCO

The additionality of the financing with BF from the EC is a requirement for the use of BF. The criteria in Table 21 are used for the confirmation of additionality.

Table 21: Additionality of BF by EC

Criterion	Indicator
Economic and financial	What are the economic advantages of the proposed BF? Why is it needed?
Project scale	How does the BF extend the scale of a project? Does it extend the project outcome? Does it increase the beneficiaries?
Project timing	What positive effect does the grant element financing have on the timing of project implementation or the benefits expected from the project?
Project quality and standards	How does the BF improve the quality of expected project outputs? How does it increase the probability of successful project

	implementation? How does it make it possible to achieve standards (including social and environmental standards) higher than can be achieved by other methods, and to increase practical social and global public benefits?
Innovation	What are the innovative aspects of a project that cannot be created by or in the target environment without the BF? Why is the proposed innovation important?
Policy and sustainability	Is the BF useful in supporting additional or parallel activities to ensure the continuation of benefit creation from the project after it has ended? For example, does it contribute to structural reform or support the modification of laws, regulations, and policies? Does it bring demonstration effects to other market participants?
Other benefits	Does BF have any important advantages other than the major objectives of the loan operation that may be brought by BF?

Source: DG DEVCO

The EU uses different financial instruments in BF for different types of projects. The EC provides grants in the forms of technical assistance, investment grant, interest rate subsidy, guarantees, risk capital, or combinations thereof. The EU's contribution to each project differs by project purpose, target country, sector, project profitability, and the type of required support. The main forms of the EU's support to BF projects between fiscal years 2007 and 2013 were investment grants (48%) and technical assistance (31%). Interest rate subsidies, which were used only in Africa, accounted for 11%, while guarantees and risk capital combined accounted for 10%.

The EC has established regional and thematic investment facilities grouped in the BF framework. This framework covers the entire geographic area of EC's external cooperation policy and major fields of intervention, and contributes to the achievement of strategic development goals of the EC and partner countries.

Table 22: BF Facilities of EC

Regional Facilities	AIF – Asia Investment Facility IFCA – Investment Facility for Central Asia LAIF – Latin America Investment Facility AIP – Africa Investment Platform, previously AfIF – Africa Investment Facility and EU-Africa Infrastructure Trust Fund (ITF) CIF – Caribbean Investment Facility IFP – Investment Facility for the Pacific NIP – Neighbourhood Investment Platform, previously NIF – Neighbourhood Investment Facility
Thematic Facilities	ElectriFI – Electrification financing initiative AgriFI – Agriculture Financing initiative Climate Finance Initiative

Source: DG DEVCO

(2) Evaluation System

An independent unit of DG DEVCO, the Evaluation Unit, is responsible for assessing development cooperation. The EC is strengthening the role and implementation of these evaluations in its activities to improve the basis of its interventions and policies, and to promote a culture of learning. The Evaluation Unit prepared "Evaluation Matters, The Evaluation Policy for European Union Development Co-operation" (2014) which sets down the following two purposes for evaluations by the EC:

- To increase the impact of international cooperation for development: Learning from past successes and failures helps improve aid strategies and methods for designing and implementing projects.
- To improve transparency and accountability to stakeholders and ordinary citizens: The actions of the EC are scrutinized by those who are influenced by them. Therefore, it is essential to monitor the performance of EU interventions and use of resources together with the project outcome and original objectives in order to evaluate both performance and use appropriately.

The EC's evaluations are broadly divided into strategic evaluations and project/program evaluations

- **Strategic Evaluation**

Strategic evaluation for the entire process, from conception to implementation of EC development support is analyzed at various levels, including at country, region, sector, and financial instrument level. Recommendations derived from the results of these evaluations are used as the basis for the development of new EC policies and programs. The lists of countries, regions, instruments, and sectors to be included are prepared and incorporated in a five-year rolling action program for evaluation. The reports, and follow-up reports, for EC strategic evaluations are undertaken by the Evaluation Unit and are available online.

- **Project/Program Evaluation**

Evaluation at the level of intervention will be used to assess performance, provide explanatory factors, and collect lessons learned. The evaluation of projects/programs is conducted at the field level or by the Operation Unit of the EU Headquarters, and it is supported and coordinated by the Evaluation Unit.

(3) Evaluation Approaches

DG DEVCO has fixed the evaluation standards following those of OECD-DAC. Table 23 shows the evaluation items and criteria used by DG DEVCO.

Table 23: EC's Evaluation Criteria

Evaluation Item	Criteria
Relevance	The extent to which the policies or the objectives of interventions are aligned with the needs of beneficiaries and the EU's policies and priority issues. Is the EU's strategy appropriate for the beneficiaries? Will it continue to be so? Is the maximum use of the EU's priority issues made?

Effectiveness	The extent to which the objectives of development intervention have been achieved or are expected to be achieved. At what level were the objectives achieved?
Efficiency	The extent to which resources and inputs (funds, professional knowledge, and time, etc.) have been converted into economic outcomes. Have the resources been provided appropriately and in the best way to achieve the objectives?
Sustainability	Continuation or probability of continuation of the benefits created in a development intervention after the completion of main development assistance activities. Is the favorable outcome of the EU's intervention likely to last after the completion of the intervention?
Impact	The positive and negative, primary and secondary long-term impact generated directly or indirectly and intentionally or unintentionally by a development intervention. How much positive and negative impact has the EU's cooperation generated? Or does it have no impact?
DG DEVCO Specific Criteria	
Coherence	The extent of the functional coordination between the EU's intervention and other interventions with similar objectives: The criteria on co-ordination and complementarity are closely related to the concept of coherence.
EU Added Value	The extent to which additional value is created by the development intervention.

Source: DG DEVCO

International Cooperation and Development Results Framework

DG DEVCO introduced the International Cooperation and Development Results Framework (EURF) of the EC in 2015 to fulfil EU's commitment of strengthening the monitoring and reporting of the results of EU assistance and improving accountability, transparency, and visibility. EURF is a tool to collect the assistance outcomes and evaluate them according to the achievement of the strategic goals. It has a three-tier structure and is organized based mainly on the relevance to the 17 SDGs.

- **Level 1: Progress of development in partner countries**

The tracking of mid- to long-term development impacts achieved with the partnership and collaboration of the development actors, including partner governments, donors, the private sector, and the civil society.

- **Level 2: Contribution of EU's intervention to development of partner countries**

Confirmation of results linked to decision-making, accountability, communication, and lessons and learning from the intervention.

- **Level 3: Mainstreaming of policy priorities**

The focus is placed on the mainstreaming of policy priorities that are measured by the amounts of budget committed to specific priority issues (*e.g.*, human resource development, gender issues, and nutrition).

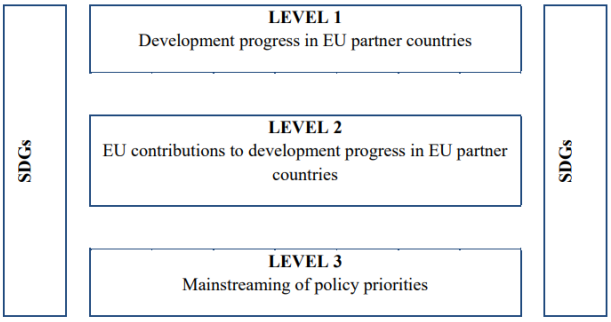


Figure 44: International Cooperation and Development Results Framework（EURF）

Source: DG DEVCO

A route of contribution from Level 3 to Level 1, input → output → outcome → impact, is identified. The funds that EU has put in each target area, the leverage impact realized by BF and guarantees, and the funds recognized as ODA, etc. are measured as indicators at Level 3. The indicators associated with the SDGs are measured at Levels 1 and 2. EURF is a tool to collect and integrate the results of interventions with major financial instruments,[7] but not at the project level. Therefore, it shows clear coherence between the objectives of EU-funded interventions (Level 2) and developmental challenges (Level 1). However, a direct and quantifiable causal relationship between Level 1 and Level 2 cannot always be envisaged. This is because data on the outcomes of interventions have very complex causal relationships and are aggregated from a variety of countries with different circumstances.

Analytical Approach in BF Evaluation: Evaluation of BF by EC

The EC assessed BF implemented by the EU and reported its results in "Evaluation of Blending" (2016). The EC conducted this in order to present a comprehensive and independent evaluation of the BF of the EU, and to identify any lessons that have been learned or recommendations which would be important for the improvement of the BF in the future. BF projects implemented between 2007 and 2014 with the seven investment facilities[8] were analyzed in the evaluation.

A method that conforms to DG DEVCO's methodological guidelines, which follow the approaches of OECD-DAC, was used in this evaluation.

Theory of Change (TOC)

[7] The European Development Fund (EDF), the Development Cooperation Instrument (DCI), the programmable part of the Instrument contributing to Stability and Peace (IcSP) under article 5, the European Instrument for Democracy and Human Rights (EIDHR), the Instrument for Nuclear Safety Cooperation, the Instrument for Greenland and the European Neighbourhood Instrument (ENI).

[8] EU-Africa Infrastructure Trust Fund (ITF), Neighbourhood Investment Facility (NIF), Latin American Investment Facility (LAIF), Caribbean Investment Facility (CIF), Investment Facility for Central Asia (IFCA), Asian Investment Facility (AIF), and Investment Facility for the Pacific (IFP)）

The EC evaluation is based on the theory of change (TOC). Under TOC, evaluation questions (EQs) were developed for the analysis of BF's contributions at each point in a project. Figure 43 shows a schematic diagram of TOC.

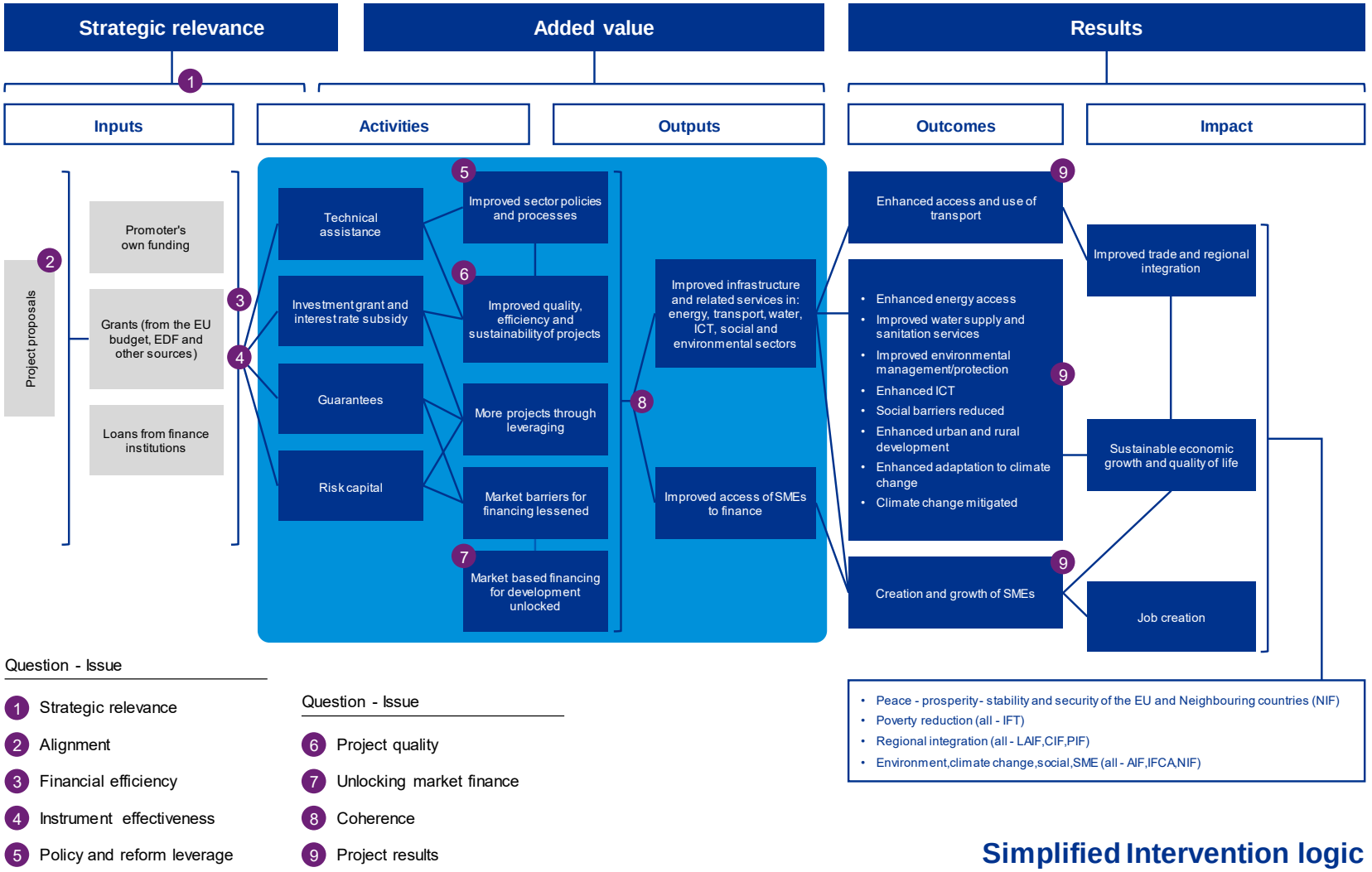


Figure 43: TOC shown in Evaluation of BF Projects by EC

Source: Evaluation of Blending Final Report Volume I （European Commission, 2016）

Evaluation Questions (EQs)

The following evaluation questions (EQs) were used in the evaluation of BF by the EC.

EQ 1: Strategic relevance (To what extent is blending strategically relevant and valuable?)

EQ 2: Project alignment (Has the EU pro-actively guided the pipeline of projects in order to align the portfolio with policy targets?)

EQ 3: Financial efficiency (Has blending used the right level of grants?)

EQ 4: Instruments (To what extent has the appropriate blending instrument or mix of instruments been selected?)

EQ 5: Policy reforms (To what extent have blended projects contributed to leverage policy reforms in beneficiary countries?)

EQ 6: Project quality (To what extent has blending delivered better quality projects in terms of relevance, efficiency and effectiveness?)

EQ 7: Finance barriers (To what extent has blending contributed to improving access to finance for MSMEs?)

EQ 8: Aid effectiveness and visibility (To what extent have blended projects promoted coordination between European aid actors, lowered aid transaction costs and enhanced visibility of EU aid?)

EQ 9: Results (To what extent have the projects funded through blending contributed to development outcomes in the infrastructure-related sectors, climate change and private sector development and in how far have they benefited the poor and disadvantaged groups?)

Judgement Criteria (JC) and Indicators

The EC has set the judgement criteria (JC) and indicators of each EQ for the evaluation of BF. Table 24 shows the JC and indicators used in the evaluation.

Table 24: Indicators of Each EQ

Judgement Criteria (JC)	Indicator	Notes
EQ 1. Strategic relevance (To what extent is blending strategically relevant and valuable?)		
JC 1-1. Extent to which blending has resolved specific strategic challenges	1. Distinction between overall project goals and BF-specific strategic goals. 2. Resolution of challenges by means of BF. 3. Policy objectives that will be achieved by the resolution of challenges	<Representative objectives> Improvement of information collection, risk mitigation, capacity development, system reform, correction of disparity, positive external effect, and provision of international public assets
JC 1-2. Extent to which blending has been strategically advantageous	1. Advantages of engaging in LMICs and MICs 2. Flow of resources to DSF (HIPC) countries boosted by BF 3. BF more beneficial than other options (may they be grant-only or loan-only)	
EQ 2. Alignment (Has the EU pro-actively guided the pipeline of projects in order to align the portfolio with policy targets?)		
JC 2-1. Existence and dissemination of clear strategy, guidelines, and transparent selection criteria for blending	1. Existence of a BF strategy and operational guidelines 2. Identifiable eligibility criteria: hard, soft, and policy alignment 3. Existence of project profiles 4. Existence and content of information interchange with IFIs at design stage 5. Training within EU and to third parties	
JC 2-2. Extent to which blending led to enhanced and amended project features during project processing	1. Changes in project design during process 2. Steps in screening process that introduced special BF features	
JC 2-3. blending portfolio alignment with national/regional and EU development policies reflecting transparent criteria	1. Alignment to the policy objectives of the facilities 2. Alignment to the priorities of beneficiary countries 3. Alignment to EU priorities at country level	
EQ 3. Financial efficiency (Has blending used the right level of grants?)		
JC 3-1. Existence and application of a calculation methodology for proposing the required grant size	1. Existence of a calculation formula. 2. Application of the calculation formula	Formula 1）Direct investment Has a target value (*e.g.*, 10 % reduction of) been achieved?

		2) Interest subsidies Evaluation by grant elements (an evaluation similar to that of concessionality of IFC) 3) Technical Assistance (TA) The cost required for TA is calculated via a bottom-up approach. (The required cost is calculated from the types of required support and required man-months.) 4) Risk Capital Financial ratios (*e.g.*, desirable debt-equity ratio) 5) Guarantees Guarantee ratio, and actuarial risk rate, etc. ※ The formulas are not used much in the decision-making process on the use of BF.
JC 3-2. Extent to which blending generated financial leverage	1. Levels of financial leverage for the sample of projects 2. Role of EU grants in leverage 3. Levels of financial leverage per instrument	
JC 3-3. Effects of blending on the EU development 'footprint'	1. Trends of EU development assistance without BF relative to key ODA donors 2. Trends of EU development assistance with BF relative to key ODA donors	
EQ 4. Instruments (To what extent has the appropriate blending instrument or mix of instruments been selected?)		
JC 4-1. TA was used in situations where there was a clearly identified need for it	1. Rationale and justification provided 2. TA was partner-owned, demand-led, and results-oriented 3. Benefits are evident in terms of quality	
JC 4-2: Interest rate subsidies and investment grants were used in situations where there was a clearly identified need for them	1. Rationale and justification provided 2. Benefits are evident in terms of quality 3. Benefits are evident in terms of addressing externalities	
JC 4-3. Guarantee and risk capital were used in situations where there was a clearly identified need for them	1. Rationale and justification provided 2. Benefits are evident in terms of addressing market failures.	

EQ 5. Policy reforms (To what extent have blended projects contributed to leverage policy reforms in beneficiary countries?)		
JC 5-1. Regulatory and institutional reforms have been implemented in the sectors supported by blended projects	1. Agreement by the authorities of relevant sector reforms 2. Effective implementation of relevant sector reforms	
JC 5-2. Extent to which the policy dialogue that took place through blending has been a contributory factor in promoting sector reforms in beneficiary countries	1. Types and contents of policy dialogue 2. Degree of alignment 3. Degree of coherence and coordination with other EU policy work 4. Linkage with observed policy changes 5. Importance of blending policy dialogue compared to other sources of influence in observed policy changes	
JC 5-3. Extent to which the TA provided through blending has been a contributory factor in promoting sector reforms in beneficiary countries	1. Useful regulatory and institutional reforms studies through EU-financed TA 2. Provision of TA to help develop legal and regulatory frameworks 3. Linkage between advisory and/or capacity building activities and observed policy changes 4. Importance of advisory and/or capacity building compared to other sources of influence in observed policy changes	
EQ 6. Quality (To what extent has blending delivered better quality projects in terms of relevance, efficiency and effectiveness?)		
JC 6-1. Robust feasibility studies ensured identification of beneficiary needs plus potential economic, environmental and social impacts (and, where appropriate, mitigation measures)	1. Measures of EIRR and/or other measures of viability 2. Projects target the most vulnerable 3. Baseline data has been collected 4. Environmental and social impact assessments (ESIAs) are prepared. 5. Credible operations and business plans for the completed assets 6. Degree of contribution of BF instruments to quality of feasibility studies	EIRR (or FRR) is calculated whenever the feasibility of BF projects (particularly those for infrastructure development) is evaluated.

JC 6-2. Detailed designs and specifications in accordance with international best practices produced practical, cost-effective, good quality outputs delivering specified and sustainable levels of service (including preparation of environmental and social management plans (ESMPs))	1. Timely procurement process followed national norms 2. Introduction of innovative practices/techniques 3. Technical and safety audits are part of the design process 4. Compliance with national regulation and international best practices 5. Degree of contribution of BF to quality of designs, specifications, ESIAs, and ESMPs	
JC 6-3. Effective QA and QC measures undertaken during the course of construction	1. Technical and safety audits are part of the construction process 2. Construction contracts are not subject to cost and time over-runs or claims 3. ESIAs implemented 4. Performance monitoring framework in place 5. Degree of contribution of BF instruments to effectiveness	
JC 6-4. Measures put in place to ensure effective operation and maintenance	1. Partner government's commitments scrutinized; contingencies identified 2. Assumptions and mitigation measures identified and validated 3. Review of institutional capacity and training needs assessments undertaken together with consideration of need for TA and implementation of training 4. Implementation of operations and business plans 5. Degree of contribution of BF instruments to effectiveness	
JC 6-5. Higher project quality can be attributed to blending	1. Comparison with similar projects funded by IFIs shows difference in quality 2. Actors involved confirm that quality would have been lower in the absence of the grant 3. Evidence of introduction of components contributing to project quality during selection of blended projects	
EQ 7: Finance barriers (To what extent has blending contributed to improving access to finance for MSMEs?		

JC 7-1. Blending has increased the capacity of financial intermediaries to provide financial services to MSMEs	1. Availability of a tailored risk management system to assess MSMEs 2. Availability of a guarantee scheme to substitute for lack of collateral of MSMEs 3. Value of outstanding loans to MSMEs 4. Value of deposits portfolio in financial intermediaries	
JC 7-2. Blending has improved the capacity of MSMEs to deal with financial intermediaries	1. Value of TA service 2. Number of micro and small businesses advised by TA service 3. Financial literacy indicators 4. Take-up rates of guarantees and collateral-substitute products	
JC 7-3. Each blending instrument has had a specific contribution to the improvement of MSMEs' access to finance	1. Contribution of investment grants 2. Contribution of interest rate subsidy 3. Contribution of TA 4. Contribution of risk capital 5. Contribution of guarantees	
EQ 8: Aid effectiveness and visibility (To what extent have blended projects promoted coordination between European aid actors, lowered aid transaction costs, and enhanced visibility of EU aid?)		
JC 8-1. Extent to which blended projects have enabled effective cooperation and coordination between EU actors, beneficiaries and IFIs	1. Full use of donors' comparative advantage at sector/country level 2. Coordination between EU actors and IFIs 3. Information sharing between IFIs, beneficiaries, and EUD during project implementation 4. Joint monitoring of the implementation of blended projects 5. Association of IFIs to EU policy dialogue 6. Coordination between IFIs and bilateral European financial institutions and EIB/EBRD at policy level	
JC 8-2. Extent to which blended projects have contributed to lower the transaction costs of providing aid to beneficiary countries	1. Reduction of administrative steps for beneficiary countries and streamlining of procedures between IFIs 2. Reduction of management and implementation costs	

	3. Transmission of the benefits received by IFIs to beneficiaries	
JC 8-3. Extent to which blended projects have increased visibility of EU development operations vis-à-vis other donor countries and development financial institutions, as well as beneficiary countries	1. Visibility clauses in contracts 2. Clear and effective communication strategies 3. Type of actions and magnitude of resources envisaged to ensure visibility 4. Effects of these actions on EU visibility	
EQ 9. Results (To what extent have the projects funded through blending contributed to development outcomes in the infrastructure-related sectors, climate change and private sector development and in how far have they benefited the poor and disadvantaged groups?)		
JC 9-1. Blended projects have been designed to enhance access and use of key socio-economic infrastructure JC 9-2. Blended projects have been designed to enhance adaptation and mitigation to climate change JC 9-3. Blended projects have been designed to foster the growth of SMEs	1. Assessment of the reliability of the expected transmission chain 2. Examination of the geographical area(s) targeted 3. Poor people among beneficiaries targeted 4. Inclusion of poverty-targeting objectives and actions	
JC 9-4. Infrastructure-related blended projects have been implemented as planned in the design phase JC 9-5. Climate change-related blended projects have been implemented as planned in the design phase JC 9-6. PSD-related blended projects have been implemented as planned in the design phase	1. Comparison of the actually completed activities with planned activities 2. Explanations of deviations 3. Comparison of the actually completed outputs with planned outputs 4. Other contributing factors to observed outputs	
JC 9-7. Infrastructure-related blended projects are likely to deliver development results JC 9-8. Climate change-related blended projects are likely to deliver development results JC 9-9. PSD-related blended projects are likely to deliver development results	1. Beneficiaries targeted have been reached. 2. Effective use, by the beneficiaries, of the knowledge and expertise transmitted 3. Effective use, by the beneficiaries, of the outputs achieved 4. Review of the results and their potential development impact 5. Review of other contributing factors to observed/potential development results	

Source: Produced by the Survey Team based on the Evaluation of Blending（European Commission, 2016））

Leverage Ratio

"The Guidelines on EU Blending Operations" (European Commission, 2015) stipulate that the application form for the preliminary approval of a BF project by the EC should include the figures of the investment leverage ratio, the total finance institution leverage ratio, and the private sector finance leverage ratio.

Investment leverage ratio
= Total project costs ÷ EU contributions including grants and TAs

Total finance institution leverage ratio
= Amount contributed by financial institutions regardless of concession and grant or non-concession ÷ Contribution by EU including grant and TA

Private sector finance leverage ration
= Contribution amount by the private sector excluding grants ÷ EU contributions including grants and TAs

* However, in each case, only funds directly mobilized by EU contributions are covered, and additional funds mobilized as a result of the implementation of the BF (Indirect mobilization funds) are not included.

Source: European Commission

Table 25 shows the average leverage ratio per type of grant instrument of 40 sample projects described in the "Evaluation of Blending." The average leverage ratio of all types of sample projects was 20.

Table 25: Average Leverage Ratio per Type of Grant

Grant instrument	Average leverage ratio	Number of projects	Example of projects
Guarantee	10,80	1	EBRD-13 SME Facility - EBRD / KfW window
IG	16,03	13	MD-02 Moldova Road Rehabilitation project
IRS	14,84	3	Mauritania Submarine Cable
Risk capital	14,73	1	KfW-03 Subscription and management on behalf of the European Commission of a participation in the European Neighbourhood Fund (ENBF) window of the European Fund for South East Europe (EFSE)
TA *TA without outliers*	102,81 *28,00*	14	EBRD-03 Ukrenergo Corporate Sustainable Development
TA/IG	26,33	6	MA-04 Programme National d'Assainissement (PNA-ONEP) - Phase I
TA/IRS	14,48	2	Port de Pointe Noire (PAPN)

Source: Evaluation of Blending Final Report Volume I（European Commission, 2016）

3.2.2. United States Agency for International Development (USAID)

(1) Status of Initiatives toward BF and Private Finance Mobilization

The United States Agency for International Development (USAID), established in 1961, plays a central role in bilateral aid, which accounts for 90% of official development assistance. USAID is an independent federal government agency that receives comprehensive guidance regarding foreign policy from the Secretary of State and provides economic assistance, development assistance and humanitarian assistance throughout the world in support of U.S. foreign policy goals. USAID assistance programs are planned in tandem with the State Department. In some cases, the implementation of assistance programs is entrusted to specialized agencies and ministries, but in general, there is a system of consultation and collaboration among the relevant departments of the State Department, USAID, and other relevant ministries and agencies for each country and challenge.

The Mission of USAID is to represent the American people in the construction of a free, peaceful and prosperous world by promoting democratic values in other countries. In order to support US foreign policy, USAID assists the progress of humankind by saving lives and reducing poverty through partnerships and investment, by enhancing democratic governance, and providing relief from humanitarian crises.

Traditionally, USAID has provided guarantees for loans from private financial institutions for projects that contribute to USAID development objectives through the Development Credit Authority (DCA), but, in December 2019, DCA merged with the Overseas Private Investment Corporation (OPIC) to establish the new United States International Development Finance Corporation (DFC).

1) Financing Instruments and Schemes

- **Financial Support**

USAID provides financial support that supplements the budgets of certain organizations in developing countries. USAID also provides financial support to local and international NGOs that offer technical assistance to developing countries. USAID used to provide loans, but it now provides all financial support in the form of grants that do not require repayment.

«1» Support for the Budget of Government Agencies

With regard to the objectives of recipient agencies in developing countries, USAID financial commitment amounts, specific expenditure provided on the basis of USAID grants and other contractual operative matters, USAID provides support for the budgets based on the agreement concluded between USAID and recipient agencies in developing countries. The USAID technical office assigns staff members (in the U.S. or locally) to audit progress in the recipient agency, but audits related to the proper use of funds under such intergovernmental financial assistance are usually conducted by an auditing organization in the recipient country.

«2» Grants for NGOs

As with government agencies, NGOs often have unique abilities that complement public programs. USAID technical office staff secure budgets and provide grants to NGOs with the objective of financially supporting programs. As with budget support for government agencies, projects are audited by members of the USAID technical office. External audits regarding the use of finances are requested from NGOs.

«3» Support for International NGOs with the Purpose of Technical Assistance

International NGOs have abilities to formulate and implement their own development projects. When USAID finds that the development goals can be more easily achieved if USAID supports an NGO project, but the capacity of the NGO in the target area is not sufficient, USAID's Technical Office provides technical assistance and financial support in order to make up for the area of deficiency.

- **Technical Assistance**

Technical assistance includes technical advice, training and bursaries. USAID contracts or recruits a local consultant to provide technical assistance services to the recipient agency. Regarding technical advisory services, USAID uses private sector experts, primarily those with expertise in the recipient country, and institutions with technical expertise. Normally, government agencies in developing countries provide services to beneficiaries (medical services, etc.), but there are cases where public agencies lack the finances to construct facilities or acquire equipment, or the capacity to plan the project or make evaluations. In addition, USAID provides support for services and technologies requested by developing countries, as government agencies in some cases do not have sufficient training equipment for their own staff or facilities for research.

2) Policy for Private Finance Mobilization

Having enacted the Private-Sector Engagement Policy (PSE Policy) in order to create more connections with the private sector, USAID is using a variety of resources in the open market to plan development programs and humanitarian programs in various fields in cooperation with the private sector. The role of the PSE Policy is to encourage the relevant ministries and agencies to take action. This policy defines the private sector as follows:

1) Commercial organizations and related organizations with commercial objectives
2) Financial institutions, investors, and intermediaries
3) Micro enterprises, SMEs and large corporations active in formal and informal sectors
4) Business entities in the U.S. and multinational businesses
5) A commercial approach to creating sustainable income (e.g.: Venture fund managed by NGO or social enterprise)

The approach to investment activities founded on market principles is adopted in the PSE Policy as a means of accelerating progress on the route to the independence of developing countries. In other words, USAID takes up a strategic approach to the construction of projects and programs that confront development challenges and that increase sustainable development outcomes by means of consultation and strategic cooperation with the private sector in order to coordinate the interests of both parties. The following items

regarding USAID and its partners must be investigated as the basic policy for collaborating with the private sector.

a) Is the private sector able to resolve this problem on its own?
b) Is there an approach founded on market principles for responding to this problem?
c) What are the roles of and benefits to the private sector in responding to this problem?
d) Are there any factors that inhibit the involvement and investment of the private sector in this problem?
e) Is USAID expected to mitigate or remove these factors?

By examining each of these items, USAID focuses on deriving sustainable outcomes that create profit for the private sector from the stage of project planning. In addition, USAID carries out investigative research as to how the private sector can become more interested in working together to address the problem, and the capacities and resources that can be supplied by each of the private sectors. Furthermore, the PSE Operational Policy published by USAID provides an understanding of the obstacles to making investments and opening up of markets, and actively investigates and researches the methods of responding to those obstacles together with the private sector.

PSE Operational Policy

«1» Engagement in the Initial Stages

USAID designs strategies and projects that have shared interests and values with a wide range of private sectors and other partner agencies, and, when implementing these strategies and projects, emphasis is placed on cooperating as partners.

«2» Encouraging and evaluating PSE from the planning stage through to the program preparation stage

In every stage of the USAID program cycle, integrating PSE is useful for understanding obstacles and capabilities in the private sector, and for constantly adapting to new evidence, opportunities and situations. In order to effectively institutionalize and encourage PSE, USAID applies performance evaluations to ensure the success of support from a financial and non-financial approach.

«3» Expansion of the USAID approach and tools to draw out latent abilities in the private sector

In this policy, it is necessary to give consideration to USAID's wide range of financial and non-financial resources, the procurement systems and PSE core competencies. Utilizing its capacity to attract investors and private companies, USAID engages with the private sector in various ways in order to realize the intended outcomes and to catalyze approaches founded on market principles as a provider of grants that undertakes the initial loss in the expansion of available and inexpensive healthcare to those in poverty.

«4» Establishment of an evidence-based evaluation system as to what is and is not implemented in PSE

As a basis for successful implementation of PSE activities, USAID works with partners to establish evaluation indicators to assess engagement that provides independence, that brings about greater sustainability, and that has deeper impacts.

USAID is developing the following tools in ongoing initiatives related to PSE.

- Issuance of business practice guidance including timetables in order to evaluate appropriate policy revisions and the results obtained from the introduction of policy
- Development of PSE training materials and skills development tools for USAID staff and partners
- Construction of HR systems to attract and secure personnel with superior and diverse skills in order to support PSE
- Preparation of systems for the measurement of success indicators and performance in order to establish incentives and remuneration systems for the adoption of financial and non-financial approaches in PSE
- Enhance existing government tools, advisory services, and resources to effectively analyze and evaluate market-based approaches to challenges and strategically involve the private sector
- By blending public and private funds, models that focus on both financial profit and development outcomes are developed and improved
- PSE is incorporated into USAID strategies and program design documents with the objectives of the independence of aid recipients and contributing to U.S. economic interests
- Solutions based on market principles are co-created in order to respond to development challenges and to attract private investment. Therefore, reforms are made to supply systems for the development of models that are flexible, creative and enable joint participation. The achievement of priority targets of government agencies in connection to procurement reforms in the US State Department and USAID is included in these reforms
- Conduct research and studies on PSE with donors and partners to gather evidence about what does and does not function in engaging the private sector to achieve development in developing countries and humanitarian development.

3) BF Definition

There are three required perspectives in BF that combine commercial profit and development benefits. The first is "additionality." Additionality provides evidence that blended financial instruments (e.g., catalytic capital, guarantees, technical assistance) create meaningful private sector participation that could not have been possible using any financial scheme other than BF. The second perspective is "impact." The impact shows how the investee or the investable project contributes to sustainable development in the developing country. The third perspective is the "return." The return shows that the financial transactions covered by the investment are expected to produce profit. The scale of return varies depending on whether the financing participants are primarily seeking commercial profit or development impact.

"Additionality" refers to the evidence that the intervention of donors produced meaningful private sector participation. Donors participate in BF transactions with the expectation that private funds will be used in the relevant transactions. Catalytic capital, guarantees, and technical support are often connected to BF transactions. If private funding had been invested in a developing country during the same period, under the same conditions and at the same amount but without donor involvement, there would be almost no additionality (or none at all). Additionality shows the basis for the pursuit of a BF financial strategy. That is,

if there is no evidence of additional finances having been secured or project development outcomes having been improved as a result of BF, there is the risk that the donor will lose the opportunity benefit gained from delivering resources such as financing and personnel in other substitute development projects. However, as for BF, because there are no substitute transactions that can quantify in monetary terms the projects that would have been procured without donor intervention, it is difficult to scientifically compare and contrast the effects of development interventions and prove the effectiveness of BF transactions. Equally, with regard to projects using BF, it is not possible to quantify how successful or unsuccessful a project would have been if additional private capital had not been mobilized.

USAID defines BF as a financial instrument that improves social and environmental results from the mobilization of private capital with the strategic use of development financing such as government assistance and financing from charitable organizations in target sectors including infrastructure, education, agriculture and healthcare. BF has the objective of encouraging private companies, investors and other private sector members to invest in activities and projects that can achieve both financial profits and social and environmental outcomes.

Investors always compare the weighting of the potential return (fruit to be acquired over time) with the risk (potential for economic loss instead of a return on the investment). BF is an attractive financial scheme for investors as it increases the potential return on investment and lowers the risk factor. To put it another way, risk-adjusted return is increased by means of a blend of financial instruments. Risk-adjusted return influences the decision-making of investors who might invest in projects, funds and entities. In the case that there are two investment opportunities that have the same term and the same expected earnings, the preference is for the investment with lower risk.

All investments have some level of risk. However, investments in developing countries and frontier markets have greater volatility in terms of the target country's macroeconomic, political, regulatory and institutional systems, currency and exchange rates, and information asymmetry, for example, making it more difficult to mitigate the risks than in the case of the markets of advanced nations. Developing countries often have attractive investment functions that advanced nations do not have, such as higher yields, rapid economic growth, and attenuated market price correlation, but private investors will not respond to an investment opportunity if the risk-adjusted return is less attractive than other market investment options. For this reason, by blending financial instruments, donors catalyze financially-motivated commercial investments in markets, sectors, projects and companies that were not previously investment targets of the private sector. The intention is ultimately to create a social and environmental impact by mobilizing finances from private funds that are additional to all public and charity financing used for development projects.

(2) Evaluation System

USAID evaluations are implemented on the basis of the Foreign Aid Transparency and Accountability Act (July 2016) as part of the program cycle shown in the Figure below. An average of about 200 project evaluations per year are implemented by the Bureau for Policy, Planning and Learning.

Great effort is being made to improve the quality of evaluations by implementing evaluation training to, so far, more than 3,000 USAID staff. After the completion of technical assistance or financial support, USAID conducts an ex-post evaluation. That is, an evaluation is made of the factors that promote and inhibit the continuation of USAID support and development outcomes with regard to whether or not USAID support and development outcomes are sustainable and how they are being sustained.

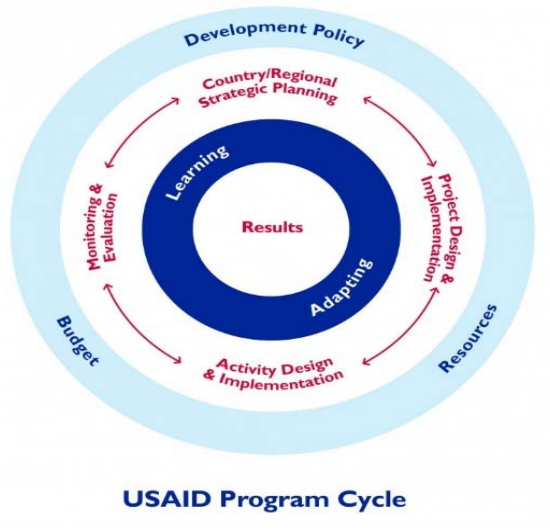


Figure 45: USAID Program Cycle

Source: USAID

(3) Evaluation Approaches

While numerous viewpoints are involved in evaluations, the typical viewpoints used by USAID in ex-post evaluations are categorized as follows.

Table 15: USAID Evaluation Objectives

Sustainability of support	In the ex-post evaluation, regardless of whether USAID has an approach to continuous support, or whether there is support that is similar or related, confirm whether the intended results were obtained after the conclusion of support where USAID financing was provided.
Sustainability of outcomes	Regardless of outside support, investigate whether or not the outcomes achieved in the closing stages of support are continuing. There are various kinds of outcomes that need to be investigated.
Individuals	In the case that one of the support objectives is to transform the behavior of individuals or to increase knowledge and skills, implement an evaluation as to whether or not the transformed behavior and improved knowledge and skills are being demonstrated continuously by the target group.

Organizations	In the case that one of the support objectives is to construct or support an organization that is responsible for producing the desired results, evaluate whether or not the organization is continuing to produce the desired results.
Systems	In the case that one of the support objectives is to introduce policies, rules, laws, infrastructure and processes to produce development outcomes, implement an evaluation as to whether or not the policies, rules, laws, infrastructure and processes are being maintained and continuously put into practice.
Development outcomes	In the case that one of the support objectives is to contribute to development outcomes, such as increasing literacy level of the population, in the ex-post evaluation, implement an evaluation as to whether or not the development outcomes are continuing or are improving.

Source: USAID

Initiatives toward the Evaluation of PSE

First, the goal for USAID is to establish indicators that enable a better linkage between its own PSE initiatives and the impact on development challenges. USAID PPP data is currently being gathered using factual information about the NextGen system shared by USAID and the State Department. That is, the approach adopted by USAID is to acquire information using the NextGen system, which is the common platform for understanding the contribution of PSE to development challenges. However, the purpose of this system is to gather information regarding resources used by the private sector, which makes it difficult to fully achieve the objective of measuring the impact of developments and investments where PSE was involved. For this reason, USAID is working to link the data related to the results and outcomes of development with the PPP report module in the current NextGen system, which includes the use of results and outcomes measured by the Standard Foreign Assistance Indicators.

Second, USAID is striving to gain a more adequate understanding of the respective scope of involvement by USAID and the private sector. In this regard, information resources are being expanded to cover the activities currently reported by the NextGen system PPP module. That is, a wide range of data is gathered, from the Global Development Alliance (GDA),[9] Development Credit Authority (DCA) loan guarantees and other PPP projects that are currently being captured. USAID believes that by expanding the information collected in this way, it will be possible to better understand the scope of PSE for USAID as a whole.

[9] USAID's private sector partnership program with private companies aiming at making improvements to socio-economic development challenges in developing countries. USAID provides their know-how, such as development assistance expertise and local networks, while the private companies provide their know-how for business activities that line up with financial and market condition backed up by business experience.

4. Evaluation Method of BF and Mobilization of Private Financing

4.1. Direction for the Examination of Evaluation Method

Evaluation methods for mobilization of private finance and BF have not been established. Although there are various discussions among donors or DFIs regarding the evaluation methods, there is no internationally agreed way. According to the OECD-DAC, this is also due to the diversity of institutions involved in BF. In other words, the mandate and nature of each institutions involved in BF vary, and this is an issue in determining the evaluation methods for BF. In addition, few institutions openly publish evaluation reports on private finance mobilization and BF, and the most of published reports are not centered on evaluation, but studies related to BF. Even if evaluation reports are accessible, there are some types of evaluation methods used for them, such as OECD-DAC methods and original ones.

The purpose of this study is to propose evaluation methods for BF and private fund mobilization applied to JICA's cooperation. The purpose of BF is to invest development funds for a certain project, thereby mobilizing additional funds or commercial funds which are not necessarily private ones. On the other hand, the target of mobilization of private funds is literally limited to private financing. That is, it should be noted that the two concepts are not equally the same. Furthermore, there are development projects or yen loans implemented by JICA, such as technical cooperation with the government of partner countries, which are not directly targeted at private investment but certainly can promote the private finance. The effects of these projects can be interpreted as catalyzation effects for promoting private investment.

In this survey, we have covered both BF and private fund mobilization and taken the following approaches when examining evaluation methods.

1. Present simple logic models (input → output → outcome → impact), considering the nature of JICA's development cooperation projects and the targets of this trial evaluation.
2. Present generalized evaluation questions at each point of the above logic models.
3. Preset the expected evaluation methods for the evaluation questions, referring to the survey results in previous chapters. Even if a concrete method cannot not be presented due to the lack of established methods, issues and points to be noted will be presented.

4.2. Logic Model and Evaluation Question

I. Technical Assistance (such as PPP-related policy reforms)

The following logic model can be applied to technical cooperation projects which are aimed to improve the investment environment and the capacity of government agencies in developing countries. Such projects cannot be defined as BF. The aim of these projects should be considered to catalyze private investment rather than directly mobilizing private funds because it is difficult to specify the range of private funds mobilized directly or indirectly by them. In order to quantitatively capture the catalyzation effect, it is necessary to clarify the path to the promotion of private investment, and then consider the rational range of the catalyzation effect and how to calculate it.

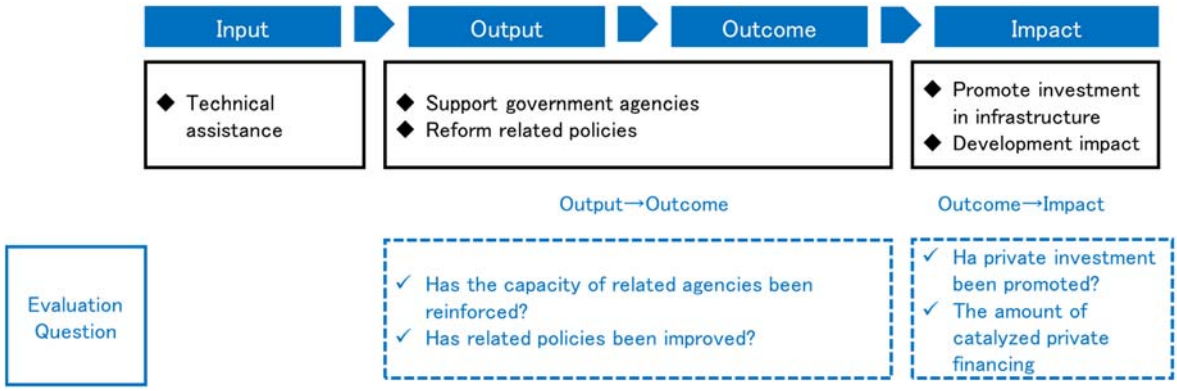


Figure 46: Logic Model

II. Yen Loan (such as two-step loan)

The following logic model can be applied to two-step loans that broadly provides funds to end beneficiaries through intermediary financial institutions. In this case, if the intermediary financial institution provides funds together with JICA and the provision would not have been mobilized without JICA's loans, this modality can be defined as BF because JICA has mobilized additional funds, regardless of public or private funds. Furthermore, it is expected that the final beneficiaries who have received loans from intermediary financial institutions will invest their own funds, which can be considered as indirect mobilization. When the amount of funds provided by the intermediary financial institutions and the private funds invested by the final beneficiaries can be rationally estimated, the effect of mobilizing private funds is quantitatively evaluated.

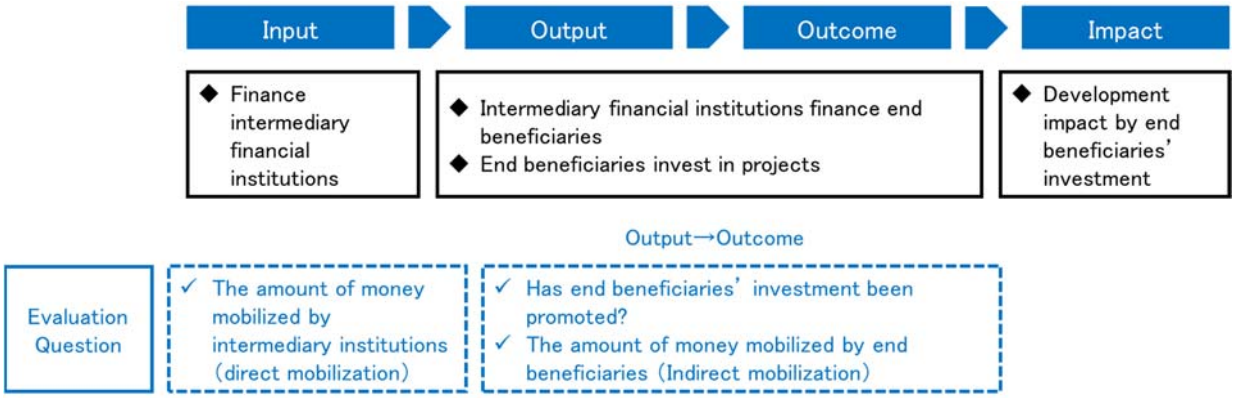


Figure 47: Logic Model

III. Overseas Investment (such as financing the private sector)

The following logic model can be applied to overseas investments which invest in and finance private businesses. It can be defined as BF if additional funds are mobilized for the businesses and the funds could not be mobilized without JICA funds. When the scope of the project and the structure of the finance are clear, it is possible to quantitatively evaluate the amount of additional funds mobilized by JICA. Since JICA invests in private businesses as a public financial institution, it is also necessary to verify and evaluate additionality

(for example, the effect of technical cooperation, etc.) and concessionality (for example, private finances are not crowded out, etc.) of the project.

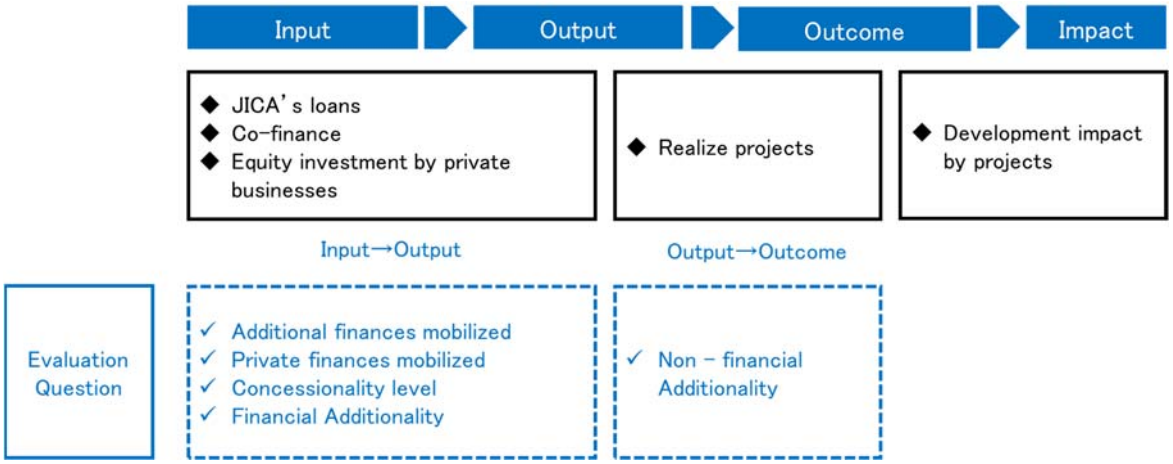


Figure 48: Logic Model

4.3. Examination of Evaluation Method in JICA

In this section, based on the survey results so far, the evaluation methods for the evaluation questions presented in the above logic model will be examined. Specifically, the evaluation method will be examined for the following contents.

- Evaluation of Catalyzation Effect
- Evaluation of Concessionality
- Evaluation of Additionality
  (1) Financial Additionality, (2) Non-financial Additionality
- Measurement of Private Financing Mobilization

The purpose of this study is to examine the evaluation method for the points peculiar to BF and private financing mobilization that were clarified in this study. Items to be evaluated in the existing JICA evaluation methods, such as policy relevance, realization status of development effects (effectiveness / impact), and sustainability of development effects, are also important in the evaluation of BF and private finance mobilization. Although such importance does not change, it is basically not included in the examination of the evaluation method and the trial evaluation in this study.

4.3.1. Evaluation of Catalyzation Effect

MDBs recognizes activities to utilize private investment to achieve development goals in a broader sense than "mobilization" and defines this as a catalyzation effect. Activities to catalyze private investment include the following.

- Policy reforms or advice to the government affecting private investment

- Public funds affecting private investment
- Activities to strengthen the effectiveness of environmental, social and corporate governance that affect private investment
- Industry standard improvement activities that affect private investment
- Project development
- Financial activities to create financial markets

The "catalyzation" effect refers to the effect of promoting private investment in the entire market. It is often difficult to reasonably calculate the amount of catalyzed investment and to prove the causal relationship between the project and the amount of catalyzed investment. In this study, the study team tried to evaluate the catalyzation effect by taking the following steps.

1. The ultimate objective of the project was defined as "promotion of private investment", and the logic model of the project up to that point was developed. In general, the output of a project can be defined as the capacity building of government agencies or the improvement of the investment environment, and the outcome can be defined as the promotion of private investment. However, the contents of outputs and outcomes must be examined concretely according to the context of the project.
2. The causal relationship in the logic model was verified in detail. It must be persuasively explained that the promotion of private investment, which is an outcome, is realized by the output. However, it is often difficult to prove a causal relationship, and basically it has to be a qualitative analysis. In order to supplement the persuasive explanation, interview surveys with private investors whom project tried to make the impact seemed to be useful.
3. The results of the project in output level were verified. This is basically not much different from the existent evaluation implemented by JICA. In this process, Qualitative/ quantitative indicators and their achievement status are confirmed.
4. As the outcome of the project, the scope of the catalyzed private investment was specified and the amount of catalyzed private investment was calculated. It is necessary to specify a reasonable scope of private investment to be analyzed based on the verification of the logic model. In order to evaluate the amount of investment catalyzed as the effect of the project, it is premised that the project has achieved its objective at the output level. Even if a certain amount of private investment is realized as a result of calculating the amount of catalyzed investment, if the achievement level of the output is low, it cannot be evaluated as the effect of the project. In addition, since it is difficult to conduct an analysis that excludes external factors that affect private investment other than projects, it is highly likely that the estimated amount of catalyzed investment will be overestimated.

MDBs recognize great importance to the role that public support plays as a catalyst for promoting private investment and is attempting a quantitative analysis of the scope and amount of catalyzed investment for several projects. The method of calculating the amount of catalyzed investment differs depending on the context of the project, and a uniform analysis method has not been developed. Specific analysis examples

are shown in the table below (see Chapter 2 of this report for details). These trial efforts can be very helpful in evaluating the catalyzation effect of JICA projects.

Table 16: Case Studies of Analysis on the Scope and Amount of Catalyzed Investment

Overview of the Project	Scope and Amount of Catalyzed Investment
PPP Implementation Promotion/ Capacity Building	Total investment awarded to PPP projects enhanced by the project and PPP projects realized by Project Development and Monitoring Facility.
Trade Finance Support	Expansion of trade finance portfolio In addition, private sector investment with own equity that received trade finance
Construction of Transmission and Distribution Network	Broad economic impact of grid construction. It was calculated using a multiplier based on the project cost and past case studies, using modeling approach.
SEZ Development	Investment in SEZ
Financial Support for Private Sector Development	FDI inflow and the amount of domestic private investment

Source: Study Team

However, the scope of catalyzed private investment and the method of measuring the amount of catalyzed private investment have not been developed at this time. In evaluating the catalyzation effect, it is necessary to perform analysis according to the context of the project.

4.3.2. Evaluation of Concessionality

In many cases, the development finance utilized in BF are provided as concessional finance. In principle (Minimum Concessionality), the level of concessionability is the minimum so that development finances do not cause market failure.

According to the IFC, concessionality is calculated using the following formula: Specifically, the difference between the interest burden is calculated by first preparing the loan repayment cash flow of the normal loan, which is the reference price, and the loan repayment cash flow, which is the concessional price. At IFC, the value obtained by discounting the cash flow to the present value is used for the analysis.

- Reference Price (which corresponds to the market price. It is calculated by “the risk related to the project plus cost plus gross profit, and concessionality is not considered at this point.)
- Concessional Price
  Concessionality = Reference Price – Concessional Price

Level of concessionality = Concessionality / Total project cost (%)

In the case of DFI such as IFC, which provides finances on commercial terms, it is possible to calculate the concessionality by comparing a regular loan with a BF loan. However, it is assumed that the calculation of concessionality is difficult without information on commercial conditions. It is also difficult to determine whether the concessionality is at an appropriate level. For example, in the case of IFC, the structure and price of BF loans are determined at the planning stage based on inside information such as debt repayment coverage ratio, commercial financial market pricing, and risk-adjusted expected rate of return. Without such internal information, it is difficult to objectively determine whether a BF loan has appropriate level of concessionality. At this time, this study cannot provide answers to these issues. Even though, comparison with the conditions of commercial finance and qualitative verification such as the occurrence of crowding out are considered necessary for evaluating BF.

4.3.3. Evaluation of Additionality

Although the need for additionality is widely recognized by DFIs and donors in providing development funding to private businesses, there is still no internationally defined definition and evaluation method. BF is required to have additionality. In the case of OECD-DAC, the additionality is divided into financial additionality and development additionality. Financial additionality are the contributions donors have made to mobilize funds and investments that would not have been mobilized without development funding, and development additionality are additional funding. It is perceived as a contribution to the realization of effects that would not have been achieved without it (for example, creation of new jobs, environmental protection, etc.).

Additionality can be seen as an input unique to public finance that cannot be provided by private finance. The effects of interventions with additionality should be evaluated by outcome and impact level, but in verifying the presence or absence of additionality, it was manifested because of the presence of additionality. It is also necessary to confirm the expression status of the wax effect at the outcome impact level.

In this survey, we organized the additionality into financial additionality and non-financial additionality. Financial additionality refers to financial conditions such as interest rates, terms, and innovative schemes, and non-financial additionality refers to technical cooperation provided in association with finance. Interpret as a non-financial contribution. When organized in this way, developmental additionality refers to both financial and non-financial additionality and are interpreted as those that have contributed to the development effect.

(1) Financial additionality

The table below shows the definitions of financial additionality defined by DFI and donors summarized in this survey.

Table 17: Financial additionality defined by DFI / Donor

IFC	Financial Risk Mitigation：

	Did the IFC offer financial products or services that are not readily available elsewhere? Did I really need IFC funding? How uniquely did the IFC respond to the client's funding needs?
EIB	Financial support tailored to project needs, including long-term financial support： ＜Indicator＞ • Extension of project deadline by long-term loan • Close the gap with asset life due to the above • Financing in local currency • Grant element • Providing innovative financial products
KfW	Financial Additionality： This refers to projects that are difficult to raise funds by commercial financial institutions alone, and in particular, improve trading conditions such as conditions for mobilizing funds and contribution ratios, or reduce the risks that private financial institutions should bear. By doing so, we will mobilize funds.
IFU	If the private sector cannot do the same thing as IFU, or if the private sector cannot fund at the right size or on reasonable terms, IFU investment will catalyze private investment that would not otherwise occur. If you make an investment. (The private sector must not be crowded out by providing funding that the private sector is likely to provide) ＜Indicator＞ • Main reason for the company to have IFU as investor • Role of that IFU funds played in the overall funding of the company • Type of other funders/investors involved and their timing of involvement • IFU's role in leveraging additional funding
EC	Economy and finance： What are the economic benefits of the proposed funds? Why do you need the proposed funds?
USAID	The donor participates in the BF transaction and expects private capital to participate in the transaction. Catalytic capital, guarantees, and technical assistance often lead to the closing of BF deals. If private capital participates in developing country investment at the same time, under the same conditions and with the same amount of investment funds, without the involvement of donors, there is little or no addiction.

Source：The study team based on DFI / donor materials.

Based on the above, the following are assumed as indicators and data for evaluating financial additionality.

Table 18: Indicators / data showing financial additionality

Level	Indicators/ Data
Input level	• Concessional conditions • Financial schemes provided
Output level	• Improvement of profitability • Extension of project period
Outcome/Impact level	• Mobilization of additional funds • Improving project sustainability by mobilizing additional funding

The effect of financial additionality is the financial analysis method for judging the profitability of a business such as the IRR of the business and the net present value (NPV), and the stability of investment such as the payback period method (discount payback period method). It is thought that it can be analyzed

by a financial analysis method that judges, but this alone is not a sufficient analysis. In order to verify financial additionality, it is necessary to analyze whether there is a causal relationship between the investment of development funds and the result of mobilization of additional funds (For example, if there were no additional funding mobilization, was the project formed? did the project period extend as a result of the development funding being provided? whether the investment risk of additional funds has been reduced and profitability has improved? etc.).

However, it is difficult to provide a clear analytical method for proof of causality, and even if there is a real causal relationship between the result of development funding and the mobilization of commercial funding, it is difficult to show the evidence of such causal relationship. The stronger (larger) the financial additionality, the greater the amount of commercial funding mobilized. However, since there is no analytical method that can show the amount of commercial funds mobilized without donor or DFI's intervention, it is difficult to scientifically prove the effect of commercial fund mobilization, compare and contrast it by some standard and evaluate the effect.

(2) Non-financial additionality

In evaluating the BF, in addition to the viewpoint of profitability, the viewpoint of whether or not the development effect was realized due to the mobilization of additional funds is important. This is the developmental additionality and is closely related to the non-financial additionality. The table below summarizes the definitions of non-financial additionality defined by DFI and donors as summarized in this study.

Table 19: Non-financial additionality defined by DFI / Donor

IFC	Non-financial Risk Mitigation： To what extent did the client evaluate IFC involvement? How did the client use IFC? Policy Setting： How much have the client benefited from the improved investment climate in the country / sector resulting from the World Bank and IFC's advice to the government? Knowledge and Innovation： To what extent did the client incorporate not only global knowledge but also technology and industry knowledge? Standard Setting： To what extent did the client evaluate IFC's expertise if national or sector standards were inadequate?
EIB	Technical contribution： Contribution to technical improvement of projects from the perspectives of business, development, society, environment, and corporate governance Improving standards and mobilizing resources： Provide demonstration effects and improve project standards. These will enable the mobilization of other sources of funding.
KfW	Developmental additionality：

	Co-intervention in the Blended Finance, or contribution to developmental impacts that would not have been formed without other participants. Value Additionality： Non-financial values such as social and environmental values that the private sector has not previously provided by financial fusion that considers the values of social equality, or by incorporating social and environmental standards. Mobilize value or invest monetary value in developing countries.
IFU	Non-financial value not provided by the private sector to increase development effectiveness. ＜Indicators＞ • Appreciation of IFU's non-financial role by the company or other stakeholders • Evidence on use IFU board sheet • Evidence on useful IFU advice before investment or at exit • Evidence on useful IFU advice throughout investment
EC	Quality and standards of the project： How does funding improve the quality of results expected from the business? How does funding improve the chances of a business succeeding? How does funding enable higher standards (including social and environmental) than otherwise possible and the promotion of more substantive social or global public interests? Innovation： What are the innovative aspects of the project that could not be generated by or within the target environment? Why is the proposed innovation important? Policy and sustainability： Will the funding help support further or parallel activities to ensure that profits continue beyond the life of the project? For example, do you contribute to structural reforms or support changes in laws, regulations and policies? Can it have a demo effect on other participants in the market?
USAID	Advisory service： Donors can improve BF's adjusted earnings by providing advisory services to the various risks associated with macroeconomic, political, regulatory, currency and information asymmetry in developing countries. Technical assistance： By using the technical expertise of USAID staff, you can reduce the risk of investment and attract private funds. In addition, USAID's technical assistance contributes to strengthening the capacity of SMEs and micro-enterprise to obtain loans.

Source：The study team based on DFI / donor materials

Based on the above, the following are assumed as indicators and data for evaluating non-financial additionality.

Table 20: Indicators / data showing non-financial additionality

Level	Indicators/ Data
Input level	• Excellent knowledge of JICA • Technical assistance for projects implemented by JICA

	• Acquisition and utilization of seats on the board of directors (Note: Assuming a case where a seat on the board of directors is obtained and advice is given directly to corporate management due to investment in a private company) • Advice to companies provided by JICA accompanying the Blended Finance • Advice to developing country governments provided by JICA in association with Blended Finance
Output level	• Realization of high-quality projects • Evaluation perspective: ➢ Project innovation ➢ Project sustainability ➢ Environmental and social level of the project compared to other projects
Outcome/Impact level	• Development effects resulting from the realization of high-quality projects • Improving corporate management by giving advice to companies • Market reform and environmental improvement through advice to the government • Benefits of private companies due to market reform and environmental improvement • Non-financial demonstration effect of the project (i.e. Did other projects of the same type and quality (level) occur?)

Source：The study team based on DFI / donor materials

DFIs and donors recognize the views of private sector clients and government agencies as stakeholders in identifying non-financial additionality as important. It is necessary to obtain opinions from such clients and the government through careful interview survey and give due consideration to evaluation decisions.

4.3.4. Measurement of Private Financing Mobilization

In this report, a model for measuring mobilized private funds by OECD-DAC and MDB is described (see Chapter 2 of this report for details). Although both models are different (for example, the MDB model distinguishes between direct and indirect mobilization but not the OECD-DAC, the MDB model is thought to have mobilized private funds only by lead arrangers, but in the case of OECD-DAC, mobilized private funds will be distributed to other participating donors by calculation, etc.) The amount of mobilized private funds is the total amount of private funds invested in the project. In other words, for both the OECD-DAC and MDB models, the total amount of mobilized private funds themselves is given, and when multiple donors / MDBs are involved in the project, the degree of contribution is analyzed. These method does not provides the answer to the questions how much is the factual and the counterfactual, that is, how much difference was there in the amount of mobilized private funds with and without the funds invested by the donor / MDB. This is a factor that makes it difficult to evaluate the effect of mobilizing private funds.

In evaluating the mobilization effect of private finance, the multiplier (leverage ratio) of the mobilized private finance is calculated for the funds invested by donors and MDBs, and this is analyzed as an indicator

of the mobilization effect of private finance. For example, Convergence calculates the average value of the leverage ratio for each sector from past project data.

Table 21: Average leverage ratio calculated by the Convergence

Microfinance	4.6
Capital Markets	4.4
Health Services	3.9
Renewable Energy	3.7
SME Finance	3.5
Agricultural Finance	3.3
Average	4.0

Source：Convergence

However, when using the leverage ratio for evaluation, it is necessary to keep the following points in mind. First, there is no universal methodology for calculating leverage ratios, so comparing leverage ratios that may have been produced in different ways is not an appropriate evaluation method. Second, the leverage ratio is a number that varies depending on the nature of each project and the region where it was implemented. In other words, even if the leverage ratio of one project was lower (higher) than the leverage ratio of another project, the effect of mobilizing private funds for that project cannot be evaluated as lower (higher) than that of other projects. I can't judge that. Third, even in the case of a project with a high leverage ratio, it is difficult to grasp the amount of private sector mobilization in the absence of funds invested by donors and MDBs. In other words, it is impossible to see that private funds were mobilized without the support of donors and MDBs, so even with a high leverage ratio, it cannot always be evaluated that the effect of mobilizing private funds for the project was high.

5. Trial Evaluation Study

In this study, the development cooperation projects conducted by JICA were evaluated on a trial basis by utilizing the evaluation method examined in this study. The projects subject to trial evaluation are as shown in the table below.

Table 22: Targeted Project for Trial Evaluation

Country	Scheme	Project	Overview	Archetype/ Scheme
1. Indonesia: Promotion of Geothermal Development				
Indonesia	Technical Cooperation Project	The project for capacity building for enhancement of the geothermal exploration technologies	Technical cooperation to enhance the capacity of the Geological Agency's Underground Resources Department to provide information on geothermal resources to both the government and geothermal power development companies.	Technical Cooperation to the Government
		Project to develop medium and long term geothermal development policy in Indonesia	Improve the feasibility of private sector geothermal development schemes by reviewing geothermal policies, sustaining the operation of exploration funds, and improving geothermal resource exploration capabilities.	
2. Indonesia: Promotion of PPP				
Indonesia	Technical Cooperation Project	The Project for PPP Network Enhancement	Technical cooperation for the establishment and operation of a government financial support mechanism for PPP / PFI projects, Capacity building of related organizations, Improvement of PPP / PFI business formation process, and consensus building on master plan and roadmap for PPP / PFI promotion	Technical Cooperation to the Government
		KPPIP Support Facility Project	Support the implementation of priority infrastructure projects through the operational support of the Priority Infrastructure Project Acceleration Committee (KPPIP). Also, support for the introduction and operation of the PPP / PFI system.	
3. Philippines: Environmental Development Project				
Philippines	ODA Loan	Environmental Development Project	Through the Development Bank of the Philippines, provide financing for private companies, municipalities, and government-owned companies throughout the Philippines with medium- and long-term funds necessary for capital investment for environmental improvement. * The project for the water sector is financed using the Philippines Water Supply and Sewerage Development Fund (PWRF), which is jointly established with USAID and the Philippine Development Bank. * In the case of financing to the water sector, USAID and the Local Government Guarantee Corporation provide guarantees to private financial institutions that provide cofinancing with the Philippine Development Bank for each project.	Funded Risk Participation / Direct Investment (Two step loan) * USAID and LGUGC are also recognized as BF because they guarantee individual projects and mobilize private funds.

Source: Study Team with reference to Ex-ante Evaluation, and so on.

5.1. Indonesia: The project for capacity building for enhancement of the geothermal exploration technologies/ Project to develop medium and long term geothermal development policy in Indonesia

5.1.1. Project Overview

Table 23: Project Overview (The project for capacity building for enhancement of the geothermal exploration technologies)

Country	Republic of Indonesia	
Project	The project for capacity building for enhancement of the geothermal exploration technologies	
Input	Japan side (1) Dispatch of experts (2) Acceptance of trainees (Japan / third country) (3) Equipment provision (4) Overseas business strengthening expenses, etc.	Counterpart side (1) Counterpart placement (2) Provision of facilities and bedding materials (3) Exploration and analysis equipment (4) Local costs, etc.
Amount of Cooperation	(Pre-evaluation) 360 million yen (Ex-post evaluation) 298 million yen	
Duration	2010 October to 2013 September	
C/P	GA, CGR, MEMR	
Objective	The objective of the project is to support both the government and companies engaged in geothermal power development to provide high-quality geothermal resource information, by increasing the capacity of CGR for geothermal resource development, thereby accelerating geothermal power development in Indonesia.	

Source：The Study Team with reference to Ex-ante Evaluation, and so on.

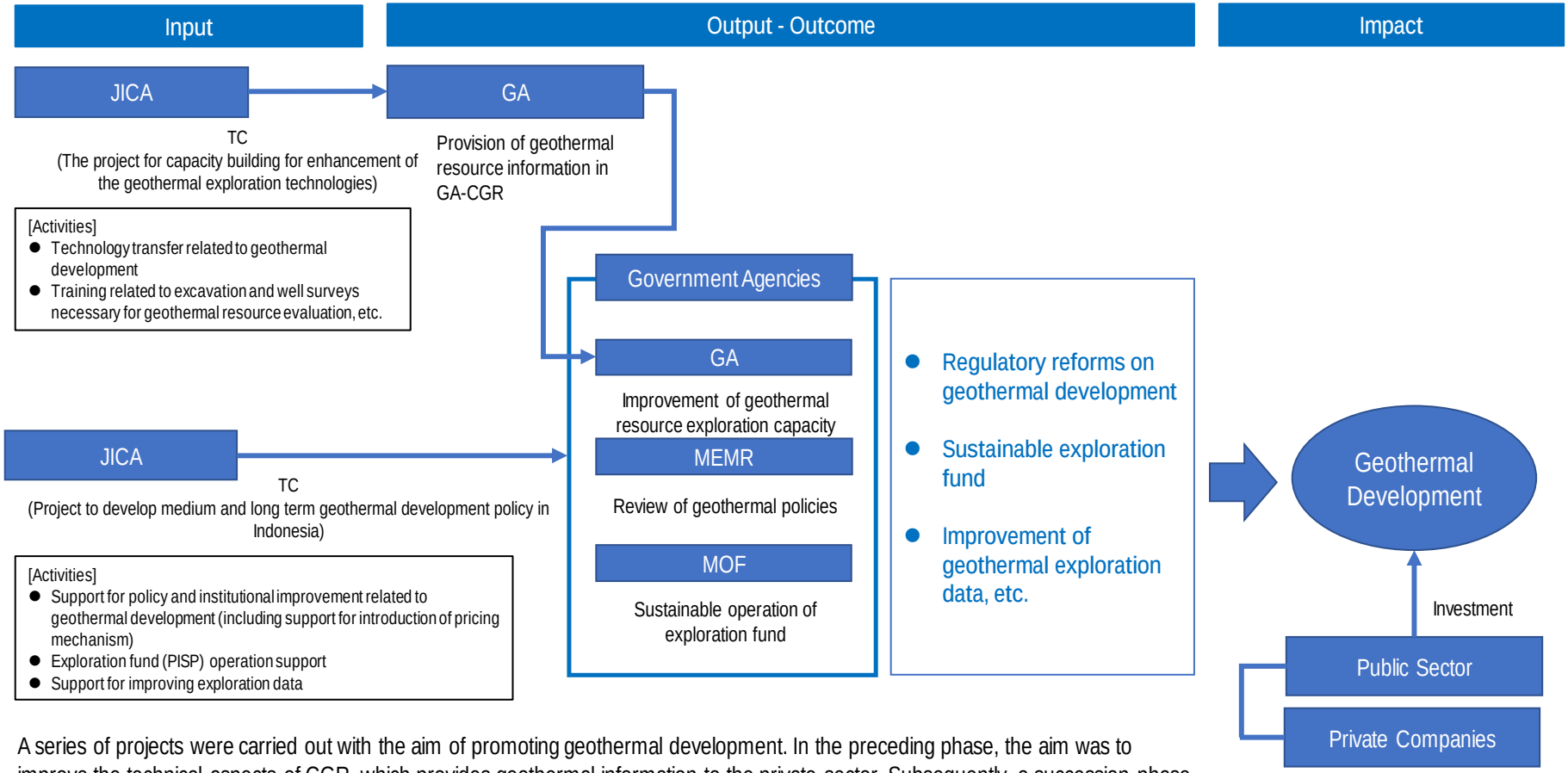
Table 24: Project Overview (Project to develop medium and long term geothermal development policy in Indonesia)

Country	Republic of Indonesia	
Project	Project to develop medium and long term geothermal development policy in Indonesia	
Input	Japan side (1) Dispatch of experts (2) Equipment (3) Training, etc.	Counterpart side (1) Counterpart placement (2) Office space, equipment, vehicles, spare parts, etc.
Amount of Cooperation	(Pre-evaluation) 610 million yen (Ex-post evaluation) 852 million yen	
Duration	2014 June to 2020 年 January	
C/P	MEMR, MOF, GA, CGR etc.	
Objective	The objective of the project is to enhance the feasibility of geothermal development schemes by the private sector, by reviewing geothermal-related policies and supporting the sustainable operation of exploratory funds, thereby contributing to the promotion of medium- to long-term geothermal development.	

Source：The Study Team with reference to Ex-ante Evaluation, and so on.

Indonesia has the world's leading development potential for geothermal power generation, and geothermal power generation is expected to play a role in coping with the increase in electricity demand accompanying economic growth and in reducing greenhouse gas emissions. On the other hand, geothermal development by private investment has not progressed, and it was decided to promote geothermal development with technical support from JICA.

The Geothermal Development Technical Cooperation Project is mainly technical support to the GA, and supports the improvement of the quality of geothermal resource information provided by CGR by improving the capacity of GA's CGR for geothermal resource surveys. In the medium- to long-term promotion system design support project for geothermal development that followed, geothermal development by private companies was promoted through a review of geothermal-related policies and support from the institutional aspects such as the sustainable management of exploration funds.



A series of projects were carried out with the aim of promoting geothermal development. In the preceding phase, the aim was to improve the technical aspects of CGR, which provides geothermal information to the private sector. Subsequently, a succession phase was implemented for relevant government agencies, including GA, to address institutional challenges.

Figure 49: Logic Model (The project for capacity building for enhancement of the geothermal exploration technologies/ Project to develop medium and long term geothermal development policy in Indonesia)

Source：The Study Team with reference to related documents.

5.1.2. Summary of Evaluation Judgement

The summary of the evaluation judgement of the trial evaluation for a series of technical cooperation projects for promoting geothermal development in Indonesia is as shown in the table below. In addition to referring to the data of the ex-post evaluation and the evaluation at the end of the implementation, this survey will focus on the promotion effect of private investment by a series of projects, and conduct interviews with technical assistance project consultants and private companies.

Table 25: Summary of Evaluation Judgement (Geothermal development technology improvement support project / Medium- to long-term promotion system design support project in geothermal development)

Expected Effect (Indicators)	Results of Study	Evaluation Analysis
I. Analysis on Catalyzation Effect (Outcome Level: Mitigation of Private Risk)		
I-1. Qualitative Effect		
• Establishing a management system for exploratory funds	• JICA supported the design of the PISP fund and the creation of SOPs, and these contents were reflected in the Ministry of Finance Ordinance promulgated in 2016. • JICA provided support to the Joint Coordinating Committee for exploratory schemes. This was to build an organizational platform for the sustainable operation of exploratory funds. • MEMR applied to the Ministry of Finance to utilize PISP for pre-bid exploration, and the Ministry of Finance officially approved four locations as PISP pilot projects.	• JICA has contributed to the improvement of the system and operation of the exploratory fund. In the future, it is expected that the concrete results of increasing private investment by utilizing exploratory funds will be realized.
• Review of geothermal policies	• The introduction of Pre-Transaction Agreement (PTA) / Heads of Agreement (HOA) is being promoted with the support of JICA, following the improvement of the price formation mechanism. • JICA makes recommendations for the introduction of subsidy schemes.	• JICA's activities for policy improvement are expected to have the effect of the implementation of bidding contributing to sustainable private businesses.
I-2. Quantitative Effect		
• Number of WKP set by GA and approved by MEMR and Estimated amount of geothermal resources	• By 2020, 64 WKPs have been approved. (Detailed data will be described later)	• The preparation of geothermal data is considered to be effective as a risk mitigation measure for private companies, and JICA has contributed to this through technical cooperation.
• Number of accesses to CGR data from	• There were 135 accesses in 2017. (Detailed data will be described later)	

private		
II. Analysis on Catalyzation Effect (Impact Level: Promotion of Geothermal Development by Private Sector)		
• Improving the risks faced by the private sector regarding geothermal development • Improving the geothermal development environment from the perspective of the private sector (especially from the perspective of regulatory and support policies) • Improving profitability in engaging in geothermal development	• According to the interview, private companies have not realized the improvement of the geothermal development environment. • Although the government is building a mechanism to cover certain risks for private exploration, it is recognized that the allocation of risks and returns is still insufficient. • It is expected that private investment will be promoted if attractive bidding opportunities increase due to the activation of government exploration.	• It will take some time before the results of technical cooperation will lead to an improvement in the investment environment for the private sector. • Overall, there are high expectations from the private sector for Indonesian geothermal development potential. • A series of cooperation by JICA contributes to risk mitigation of the private sector, and the direction of JICA's cooperation contributes to the promotion of private investment.
III. Measurement of Catalyzed Investment		
• Increase in private investment in geothermal development	• Private sector investment amount / transition for projects financed by exploratory funds → Private investment through exploratory funds has not been realized. • Changes in private investment in geothermal development regardless of the use of exploratory funds → No data has been obtained.	• At present, there is no record of private investment realized through exploratory funds. • Due to the catalyzation effect of JICA's cooperation, the amount of private investment in geothermal development is about to increase.

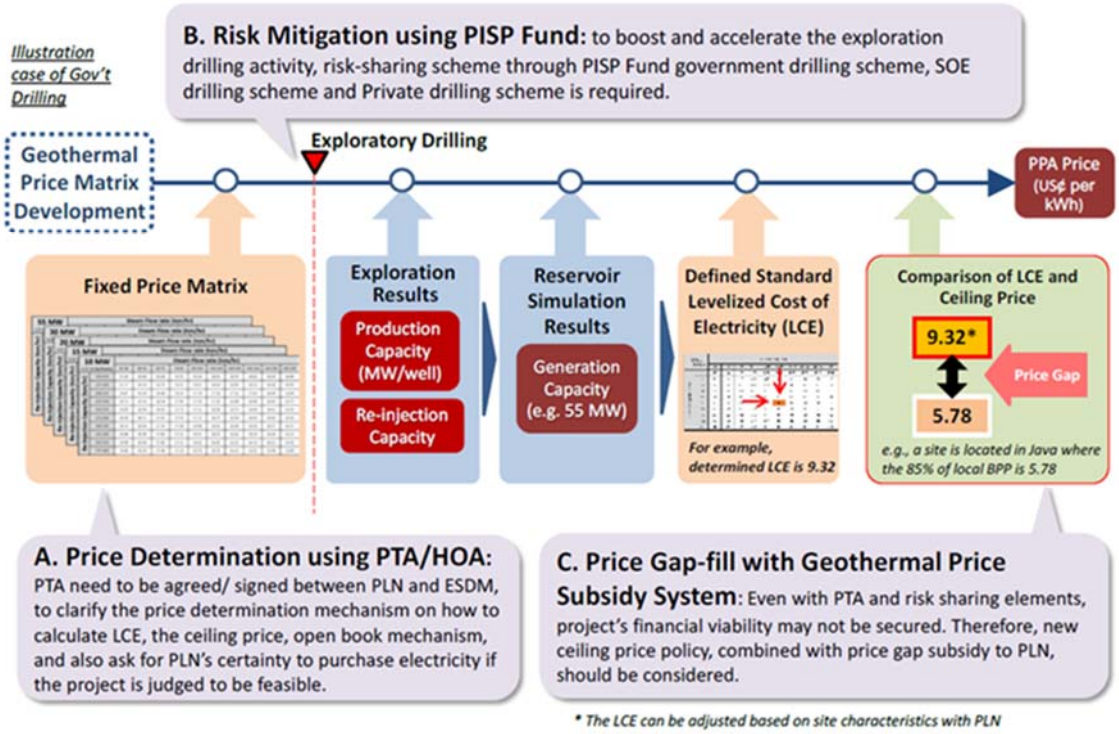
Source: Study Team

5.1.3. Evaluation Judgement

(1) Analysis on Catalyzation Effect (Outcome Level)

The risks of geothermal development in Indonesia for private businesses are broadly classified into (1) exploratory drilling risk (a huge investment is required for exploratory drilling and there is no guarantee that the required amount of steam can be secured even after exploratory drilling), and (2) policy risk (political and institutional risk, e.g. private businesses cannot secure profitability unless the electricity selling price is at a particularly necessary level). In this trial evaluation, the study team will examine how JICA's cooperation contributed to the above risk mitigation.

Figure 50: Tools for accelerating geothermal development



Source：Project completion report

1) Qualitative effect

Development status of the operation system of the exploration fund

PISP, which is the center of JICA's support, will finance exploratory drilling conducted by the government and SOE. If the number of promising bids increases due to government exploration, it is expected that the opportunities for private companies to enter geothermal development will increase as a result. JICA supported the design of the PISP fund and the creation of SOPs, and these contents were reflected in the Ministry of Finance Ordinance promulgated in 2016. JICA also provided support to the Joint Coordinating Committee for Exploration Schemes, chaired by the Ministry of Finance's Department of Budget and Risk Management (DJPPR) and the Ministry of Energy and Mineral Resources' New Department of Renewable Energy and Energy Conservation (EBTKE). The cooperation was to build an organizational platform for the sustainable operation of geothermal funds.

From 2018 to 2019, the Ministry of Energy and Mineral Resources' New Directorate General of Renewable Energy and Energy Conservation (EBTKE) applied to the Ministry of Finance to utilize PISP for pre-bid exploration, and the Ministry of Finance applied for 5 Four of the locations were officially approved as PISP pilot projects.

[Evaluation Analysis]

■ As described above, JICA has contributed to the improvement and improvement of the overall system and operation of exploratory funds in Indonesia through support for PISP. In the future, it is expected that the concrete results of increasing private investment by utilizing exploratory funds will come to

fruition.

Review of geothermal policies

I. Pricing mechanism

The ceiling price system introduced in 2019 was a major factor behind the slowdown in geothermal development in Indonesia in recent years. This is a price setting based on the MEMR Ordinance, and is calculated based on the average power production cost regardless of the energy source such as thermal power or geothermal power. Geothermal power generation, which has a high-power generation cost, has a low sealing price and is not profitable, which has been an obstacle to geothermal development. However, a presidential decree on renewable energy is promulgated in 2021, and the system is scheduled to be improved, and it is expected that geothermal development will proceed with this as an opportunity. In revising this Executive Order, JICA is providing input from a technical point of view.

In the past, when determining the price of geothermal power generation, it was necessary to set the selling price when the necessary data were not sufficiently available, which poses a profitable risk for private businesses. In addition, there was a problem that price negotiations were complicated. To address this issue, the introduction of Pre-Transaction Agreement (PTA) / Heads of Agreement (HOA) is being promoted with the support of JICA. It is expected that the labor required for pricing determination will be saved by applying the pricing mechanism in which the selling price is automatically determined using the matrix.

II. Subsidy scheme

Furthermore, JICA has been making recommendations for the introduction of a subsidy scheme from 2019 in order to ensure the profitability of geothermal power generation projects by private businesses. Specifically, JICA has proposed multiple subsidy scheme options using the financial model for geothermal development by providing dialogue and training with DJ PPR, etc. (However, the subsidy scheme has not been introduced yet).

[Evaluation Analysis]

- These activities for policy improvement by JICA are expected to have the effect of contributing to the implementation of bids by sustainable private businesses.

2) Quantitative effect

The study team will describe past evaluation reports and quantitative information based on the information newly obtained in this trial evaluation regarding the technical improvement of geothermal surveys and the utilization status of geothermal data based on the results of JICA's cooperation. In geothermal development, CGR will investigate promising geothermal sites, and based on the investigation, MEMR will approve the WKP, which will lead to a bid for geothermal development. In the project for capacity building for enhancement of the geothermal exploration, the capacity enhancement of CGR is focused on, geothermal resource survey, geothermal resource exploration for reservoir evaluation, training / seminar on geothermal resource exploration technology of geothermal wells, resource database development. According to the information obtained mainly from the ex-post evaluation, it can be said that until 2017, WKP was not

approved as planned in most cases, so it can be said that the improvement of CGR capacity was not linked to geothermal development. However, this was due to waiting for new provisions on feed-in tariffs for renewable energy to be enacted, rather than the quality of the survey data provided by CGR, which stopped bidding on geothermal development. According to the data obtained from CGR in this trial evaluation, 64 WKPs have been approved by 2020. Based on the ex-post evaluation data, the total number from 2013 to July 2017 is 14, so the number is increasing rapidly.

Table 26: Number of WKPs set by CGR and approved by MEMR

Year	2013	2014	2015	2016	2017（until Jul）	Aug 2017 to 2020
Plan	7	5	5	5	5	N/A
Actual	0	11	0	3	0	50

Note: The actual results from August 2017 to 2020 were calculated by subtracting the cumulative total up to July 2017 from the data of 64 cases obtained from CGR.

Source： Survey team with reference to the ex-post evaluation result sheet and materials provided by CGR

Access from private companies to geothermal exploration information provided by CGR is increasing. This is triggered by the fact that the "Geothermal Potential Profile" issued by MEMR has raised the interest of private businesses. However, according to the result of terminal evaluation, in order to reduce the exploratory risk faced by private companies, a level higher than the survey that CGR is supposed to carry out is required. Nonetheless, with 135 visits in 2017, the quality of the information provided by CGR can be considered a testament to the recognition of private sector companies.

Table 27: Number of access to CGR data by private companies

year	2013	2014	2015	2016	2017（until Jul）	Aug 2017 to 2020
No. of access	30	30	65	107	135	N/A

Source：Survey team with reference to the ex-post evaluation result sheet

According to the "Medium- to long-term promotion system design support for geothermal development" completion report, the project target for the transfer of surface exploration technology to GA was almost achieved. Regarding the drilling and surveying technology for exploratory wells, although the technology is improving, it is necessary to acquire and experience further technology for practical use.

[Evaluation Analysis]

- In the geothermal power generation business, whether or not the amount of underground resources that can generate the necessary power generation is reserved is a great risk for private businesses. The preparation of geothermal data is considered to be effective as a risk mitigation measure for private businesses, and JICA has contributed to this through technical assistance.

(2) Analysis on Catalyzation Effect (Impact Level)

As already mentioned, JICA's cooperative activities are in the process of reforming related systems and improving the capacity of government agencies. On the other hand, in order for private companies to promote geothermal development, it is necessary for private companies to realize the improvement of the geothermal development environment. In this regard, as far as we interviewed private companies this time, private companies have not yet realized the improvement of the geothermal development environment. However, the timing when the private business operator reached the contract for the geothermal power generation business and the financial closure was around 2014. Therefore it should be noted that such opinion may not necessarily reflect the improvement of investment environment as a result of JICA's efforts to improve the policy and system.

Geothermal power is inherently a high risk for private businesses. For the private sector, in addition to the risk of exploration, which requires a huge amount of cost, there is a risk of not knowing whether stable power generation is possible even after exploration. In addition, whether or not it is possible to secure a selling price that can secure profitability is also a big risk for private businesses.

Regarding exploration funds, although the government is establishing a mechanism to cover certain risks for private exploration, it was recognized that the allocation of risks and returns is still insufficient considering the huge risks that the private sector. On the other hand, there is an opinion that private investment will be promoted if there are more opportunities for attractive projects to be bid on due to the activation of government exploration.

The private sector operator whom the study team conducted the interview had entered geothermal development in Indonesia before the progress of technical assistance by JICA, and since there were no new projects in recent years, they had no experience of using the information provided by CGR. In addition, since JICA's cooperation on the pricing mechanism, etc. did not affect the investment decisions of the business operator. Therefore, it is difficult to consider the opinions of private business operators on these points in the evaluation.

[Evaluation Analysis]

- In order to analyze the opinions of private businesses in detail, it seems necessary to interview more companies, such as companies that have been involved in new geothermal development in recent years and companies that are currently considering investment. The private business operator has high expectations for Indonesia's potential for geothermal development, and a series of cooperation by JICA to improve policies and systems, develop exploration funds, and prepare geothermal data will help mitigate the risk of private business operators. In that respect, it is possible to evaluate that the direction of JICA's cooperation will contribute to the promotion of private investment in the future.

(3) Measuring the Amount of Catalyzed Investment

Regarding a series of geothermal development promotion projects, the focus is on technical assistance related to capacity building of government agencies, which is different in character from the form of assistance such as JICA providing cooperative financing with the private sector. Therefore, in this study will

evaluate the project from the viewpoint that JICA's technical assistance promotes the improvement of institutions and government capacity, and as a result, private sector investment is promoted, that is, private sector investment is promoted as a result of the catalyzation effect of JICA's technical assistance.

1) Promotion of private investment by exploratory funds

Since the purpose of JICA's support is to improve the management system of the exploration fund, this survey first considered the amount of private investment promoted through the exploration fund as the catalyzation effect of private investment by the project. The targets of exploratory funds are generally classified into the following three categories.

I. Government exploration
II. State-owned enterprise (SOE) exploration
III. Private exploration

In the case of private exploration, financial support will be provided when the private sector conducts exploration. Similarly, in the case of SOE, the fund will support exploratory drilling by SOE. In the case of government exploration, after the government conducts exploration and confirms the amount of steam required for power generation, it will be submitted to a bid for a private geothermal power generation company, so in this case as well, it will eventually promote private investment.

Exploratory funds are broadly divided into those supported by the IFI and those funded by the Indonesian government. More specifically, the former includes the GEUDP fund for government exploration and the GREM for SOE and private exploration with the support of the World Bank. The latter includes the PISP fund for government and SOE exploration. Of the above, JICA’s support mainly targets PISP funds by the Indonesian government, but PISP funds may be used in combination with IFI's GEUDP fund and GREM fund, and JICA has these funds. JICA provides support for the overall system and operation of the exploration fund. However, JICA is not injecting capital into the PISP fund itself.

In conclusion, some sites are planning concrete government exploration and SOE exploration, and although the Ministry of Finance has approved the exploration fund as a pilot project, the contract has not been reached. In addition, no concrete results have yet been achieved regarding private exploration by GREM supported by the World Bank.

[Evaluation Analysis]

- Therefore, the amount of private investment catalyzed through the exploratory fund is judged to be zero at the stage of this trial evaluation.
- However, considering the qualitative contribution of JICA, which has been verified in the analysis on catalyzation effect (outcome and impact level), it is considered to be underestimated. The above result that the amount of catalyzed funds was zero is due to the timing of this trial evaluation, and this result does not immediately deny JICA's contribution.

2) Private investment in geothermal development in Indonesia

JICA's cooperation covers institutional reforms to promote geothermal development in Indonesia and overall support for capacity building of government agencies. Given that JICA's technical assistance will improve institutions and government capabilities and, as a result, promote geothermal development by the private sector, the catalyzation effect can also be interpreted as a general private investment invested in geothermal development in Indonesia.

[Evaluation Analysis]

- However, data on general private investment in geothermal development in Indonesia was not available in this trial evaluation.

JICA has been carrying out various activities to promote geothermal development and private investment in Indonesia, including the establishment of a pilot fund system. If these results are qualitatively judged, the catalyzation effect of technical assistance will appear, and the amount of private funds invested in geothermal development will increase in the future. The study team believes that the catalyzation effect of a project should be evaluated by comprehensively judging not only the amount of funds that can be calculated, but also various quantitative and qualitative results as a result of project activities. In deriving the evaluation judgment, the qualitative contribution in the evaluation of the catalyzation effect (outcome level / impact level) should be taken into consideration.

5.2. Indonesia: The Project for PPP Network Enhancement/ KPPIP Support Facility

5.2.1. Project Overview

Table 28: Project Overview (PPP Network Enhancement)

Country	Indonesia	
Project	The Project for PPP Network Enhancement	
Input	Japan (1) Experts (2) Local consultants etc.	Indonesia (1) Counterparts (2) Facilities (3) Local costs etc.
Amount of Cooperation	（by ex-ante evaluation）513 million （actual）604 million	
Duration	March 2011-March 2014	
C/P	Badan Perencanaan dan Pembangunan Nasional（BAPPENAS）, the Ministry of Finance（MOF） etc.	
Objective	The objective of the project is to development bankable infrastructure projects by supporting PPP-related agencies, thereby improving related policies.	

Source：The Study Team with reference to Ex-ante Evaluation, and so on.

Table 29: Project Overview (KPPIP Support Facility)

Country	Indonesia	
Project	KPPIP Support Facility	
Input	Japan (1) Experts	Indonesia (1) Counterparts

	(2) Local consultants etc.	(2) Facilities etc.
Amount of Cooperation	(by Country Assistance Policy) 1,315 million	
Duration	May 2014 - May 2019	
C/P	Komite Percepatan Penyediaan Infrastruktur Prioritas（KPPIP）, the Ministry of Finance（MOF） etc.	
Objective	The objective of the project is to development nationally prioritized infrastructure projects by supporting KPPIP, thereby improving related policies.	

Source：The Study Team with reference to Ex-ante Evaluation, and so on.

Although the Indonesian government had formulated PPP-related laws and regulations to promote infrastructure development through private investment, there was a lack of appropriate government mechanisms to form bankable projects for private companies. Therefore, PPP Network Enhancement aimed to improve the capacity of PPP-related organizations to continuously form bankable PPP projects. In addition, KPPIP Support Facility mainly supported the Committee for Acceleration of Priority Infrastructure Delivery (KPPIP), which is responsible for developing PSN (nationally prioritized infrastructure projects).

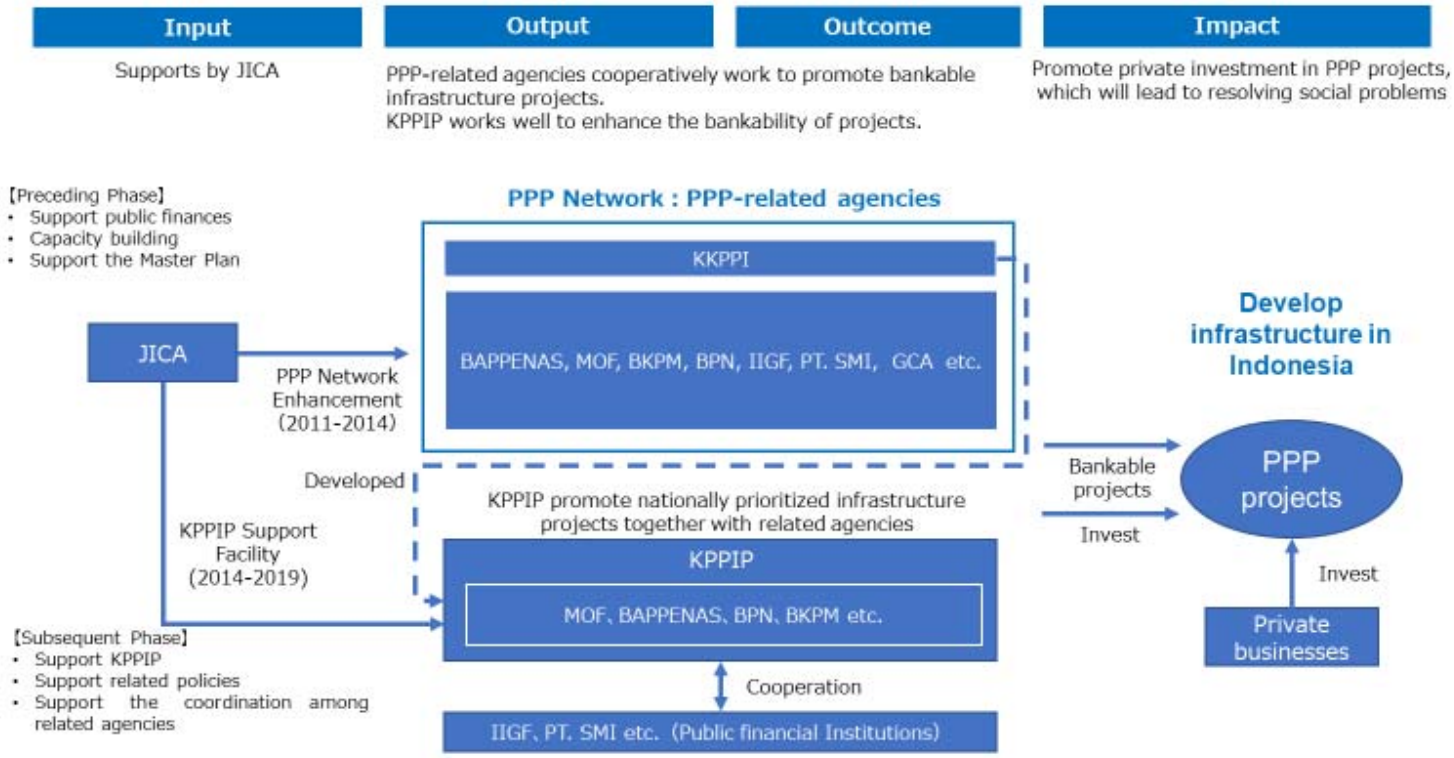


Figure 51: Logic Model (PPP Network Enhancement/ KPPIP Support Facility)

Source : The Study Team with reference to related documents.

5.2.2. Summary of Evaluation Judgement

Table 30: Summary of Evaluation Judgement (The Project for PPP Network Enhancement/ KPPIP Support Facility)

Expected Effect (Indicators)	Results of Study	Evaluation Analysis
I. Analysis on Catalyzation Effect (Outcome Level: Related System Reform)		
• Institutional improvement and capacity building of government agencies to promote private investment in infrastructure development	• The PPP Network Function Enhancement Project supported the revitalization of the Infrastructure Promotion Committee (KKPPI), which led to the developmental establishment of KPPIP. • JICA has made continuous efforts to improve the PPP investment environment, as illustrated below. ➢ Support for SOP formulation in KPPIP ➢ Support for the operation of new land acquisition laws for land acquisition problems ➢ Implementation of numerous trainings for related ministries and agencies	• By continuously supporting KPPIP, JICA contributed to the promotion of the formation of priority infrastructure projects. • JICA's support has contributed to eliminating bottlenecks in the formation of bankable projects.
• Financial status of institutions related to public finance, etc. and utilization status of public finance, etc.	• JICA has provided various support for the utilization of the public financial system. The public financial system in Indonesia is as follows. ➢ Public Guarantee by IIGF ➢ Viability Gap Funding ➢ Public finance system by PT. SMI and PT. IIF ➢ Availability Payments	• Indonesia has a public infrastructure financial support system. As the number of PPP infrastructure projects is expected to increase in the future, further expansion of the system is expected.
II. Analysis on Catalyzation Effect (Impact Level: Promotion of private investment for infrastructure development)		
II-1. Qualitative Effect		
• Improvement in the infrastructure investment environment from the perspective of private companies (especially from the perspective of regulatory and support policies)	• From the perspective of the private sector, KPPIP plays a coordinating function for priority infrastructure projects. • Private companies commented that they have not been particularly aware of institutional improvements in the last 10 years that would be of great benefit to the private sector (exchange risk, competition with local companies, etc.). • JICA has also begun to support the implementation of individual projects through the project development facility,	• Indonesia's PPP investment environment has not reached the point where the improvement can be felt, especially for FDIs such as Japanese companies, but the effects of JICA's technical support are steadily realizing. • In the future, further promotion of private investment can be expected in infrastructure development, that is, the catalyzation effect of JICA's technical support.

	and is attracting interest from FDI, including Japanese companies.	
II-2. Quantitative Effect		
• Improvement in profitability in infrastructure investment	• No quantitative information was available. • The biggest concern is the risk of foreign exchange fluctuations. Local currency lending provided by PT. SMI and PT. IIF has extended its duration, but has yet to hedge foreign exchange risk for longer-term infrastructure investments. • As a Japanese private business operator, they are also facing competition with local companies, and it is difficult to secure competitiveness in terms of price.	Indonesia's PPP investment environment has not reached the point where it can be felt the improvement, especially for FDIs such as Japanese companies. (However, since the recognition of the issue is considered to be peculiar to FDIs such as Japanese, it does not immediately deny the effect of the project.)
III. Measurement of Catalyzed Private Investment		
• Private investment in priority infrastructure projects	• The total amount of private investment by 2019 is 773 trillion IDR. (Detailed data will be described later)	• Private investment in priority infrastructure projects are increasing rapidly and are expected to increase in the future.
• Number of priority infrastructure projects for which construction has been completed	• By 2020, 104 priority infrastructure projects have been completed. (Detailed data will be described later)	

Source: Study Team

5.2.3. Evaluation Judgement

(1) Analysis on Catalyzation Effect (Outcome Level)

Policy Reform・Capacity Building

When we conducted an interview with KPPIP, they commented that JICA's cooperation worked effectively in institutional reforms. For instance, although the National Committee for the Acceleration of Infrastructure Provision Policy (KKPPI) had been established in Indonesia, it did not fully played their role and was revived by PPP Network Enhancement. The support provided by JICA led to the developmental establishment of KPPIP and JICA has continuously supported KPPIP through KPPIP Support Facility. JICA is believed to have contributed to promoting the formation of priority infrastructure projects. According to private companies we interviewed, private companies also highly value the role of KPPIP.

Through KPPIP Support Facility, JICA carried out the following activities:

Activity 1: Support for establishing KPPIP and its operation

Activity 2: Support for improving policies related to infrastructure development

Activity 3: Support for preliminary F/S and project development facility

Activity 4: Support for solving issues related to the formation and implementation of PSN

[Evaluation Analysis]

- These supports include support for the formulation of SOP in KPPIP, land acquisition methods and trainings for related government agencies, which have contributed to avoiding bottlenecks and improving the investment environment for PPP in Indonesia.

Public Finances

A public financial support system is also important to ensure bankability. In Indonesia, IIGF (Public Guarantee Agency), VGF, which provides financial support for projects, a public infrastructure investment corporation (PT.SMI), an infrastructure finance company (PT. IIF), and Availability Payment, which is paid for the quality of infrastructure services, are available. JICA has also provided operational support for these systems and support for the introduction of Availability Payment. As a side note, these financial supports can be used only for the projects implemented based on the Presidential Regulation, and for the projects implemented based on the regulations of each sector, such as the electric power sector and road sector, financial supports based on each sector's regulations can be applied.

I. IIGF

IIGF is a public guarantee agency wholly owned by the Ministry of Finance of Indonesia, which guarantees the performance of government contractors in PPP projects and provides financial compensation in the unlikely event that the government contractor defaults. This system also has the advantage of separating contingent debts from the government's balance sheet. According to the data obtained from the Ministry of Finance, the amount of capital injection from the Ministry of Finance is increasing year by year, and the amount of guarantee is also increasing as the number of PPP projects increases. In the past, private financial institutions were skeptical about IIGF's credibility, but now IIGF's guarantees alone can enhance the bankability of projects.

II. Viability Gap Funding

VGF is a financial support for PPP projects provided by the Ministry of Finance, and the Ministry of Finance supports a part of the construction cost for projects with large social benefits but low project profitability. In order to apply VGF, it is necessary to meet the specified requirements (economically feasible but not financially feasible, etc.). According to the data obtained from the Ministry of Finance, VGF is only applied to several cases a year, but it plays a role in supporting the development impact of infrastructure development.

III. PT. SMI and PT. IIF

PT. SMI and PT. IIF are public financial institutions, and PT. SMI is wholly owned by the Ministry of Finance, while PT. IIF is owned by institutions, such as PT. SMI, IFC, ADB and Sumitomo Mitsui Banking Corporation. PT. SMI has also provided advisory services for projects, and some of them was provided together with JICA. According to data obtained from the Ministry of Finance, the amount of capital injections from the Ministry of Finance into PT. SMI has been stable in recent years. All of Indonesia's PPP

infrastructure projects are basically denominated in local currency, and only the electric power sector is denominated in the local currency of the US dollar link. Foreign exchange risk is a burden for private businesses, and how to secure long-term loans denominated in local currency is a major issue. The expansion of public finance by PT. SMI and PT. IIF contributes to the interests of private businesses, and according to interviews, long-term loans, which were once difficult, are now gradually becoming available. JICA provided funds for small-scale infrastructure projects through PT.IIF as an overseas investment.

IV. Availability Payment

Availability Payment is a system in which a government contracting agency promises to pay a fixed amount to a private business operator when an infrastructure service are provided with a predetermined quality based on a PPP contract. If the contracting agency is the central government, it will be paid from the national annual budget. JICA has been supporting the introduction of the Availability Payment, and according to interviews, the budget of it is now year-marked on an annual budget, and therefore, the budget is automatically secured.

[Evaluation Analysis]

- As mentioned above, Indonesia has various public infrastructure financial support systems. From the data obtained from the Ministry of Finance, there were no signs of threatening the financial sustainability of these systems. As the number of PPP infrastructure projects is expected to increase in the future, further expansion of the utility of these systems is expected.

(2) Analysis on Catalyzation Effect (Impact Level)

Through an interview with Japanese private businesses, we confirmed how much the environment for infrastructure investment in Indonesia has improved due to JICA's technical cooperation project. Based on the results of the interview, various supports for KPPIP has been effective, and KPPIP is fulfilling the coordination function for infrastructure projects.

On the other hand, as shown below, they have not been aware of specific improvements in the last 10 years that could give them a strong advantage.

First, they mentioned that the biggest concern about investment in Indonesia was the risk of exchange fluctuations. Local currency lending provided by PT. SMI and PT. IIF seems to have extended their lending period (up to 15 years, according to an interview), but they have not hedged the risk of currency fluctuations on longer-term infrastructure investments. Furthermore, as a Japanese private business operator, it is facing competition with Indonesian local companies, and it is difficult to secure competitiveness in terms of price. The fact that the bid books are written in Indonesian is also a barrier to foreign capital.

Since these issues seem peculiar to foreign capitals such as Japanese companies, the effect of JICA’s supports cannot be denied immediately because the purpose of these supports is to promote private investments including local companies. On the other hand, these issues indicate that Indonesia's environment for infrastructure investment has not yet reached international standards. Currently, due to the revision of the regulation of the Ministry of Finance, bilateral donors such as JICA have become able to provide not only

overall institutional support but also direct support for specific projects, which can lead to infrastructure projects meeting international standards. JICA has supported individual projects through the project development facility, and foreign companies, including Japanese companies, are paying attention to such projects.

[Evaluation Analysis]

- Although the environment for infrastructure investment in Indonesia has not reached the point where private businesses, especially such as Japanese companies, can enjoy benefits, the catalyzation effect of JICA's technical supports is steadily appearing and expected to promote further private investment.

(3) Measuring the Amount of Catalyzed Investment

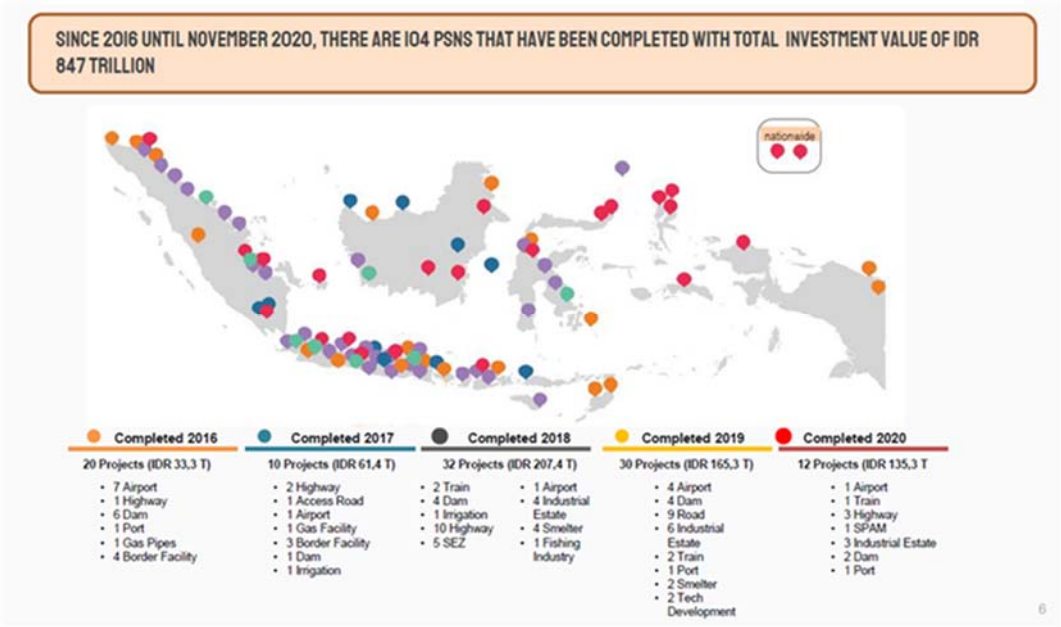
As with the geothermal development promotion projects in the previous section, the series of technical cooperation projects for promoting PPP infrastructure development is centered on technical support related to capacity building of government agencies. Therefore, as with the geothermal development promotion projects, we tried to measure the amount of private investment catalyzed by JICA's cooperation, not the amount of direct private fund mobilization. In this trial evaluation, we focused on the amount of private funds invested in PSN because KPPIP was the main target of the cooperation. The 2016 Presidential Regulation designated 225 projects and one program of PSN. After that, they were revised as 245 projects and 2 programs in 2017, and 223 projects and 3 programs in 2018. Currently, 201 projects and 10 programs are designated as PSN by the 2020 Presidential Decree. The total cost of the current 201 projects and 10 programs is 481.7 trillion IDR. According to KPPIP, 104 PSN will be completed between 2016 and 2020 (However, in 2020, the number decreased due to the influence of the new coronavirus), with a total investment of 847 trillion IDR.

Table 31: Completed PSNs

Year	2016	2017	2018	2019	2020 (to November)
Number of completed Projects	20	10	32	30	12

Source： KPPIP

Figure 52: Completed PSNs



Source: KPPIP

Private funds invested in PSN are steadily expanding with the progress of priority infrastructure projects, reaching 774 trillion IDR by 2019, and further expansion is expected in the future.

Table 32: The percentage of private finances invested in PSN

Year	Before 2016	2017	2018	2019	From 2020 (needed)	Total
Government	61,716	44,846	51,781	51,195	79,526	289,065
SOE	56,719	70,539	84,686	134,620	857,872	1,204,436
Private	168,207	154,160	184,461	267,050	2,550,365	3,324,243
Total	288,643	269,545	320,927	452,865	3,487,764	4,817,744
Percentage of private finances	58.68%	57.19%	57.47%	58.96%	73.12%	69.00%

(trillion IDR)

(*According to KPPIP, the total cost includes the cost of unfinished projects due to percentage completion basis, and therefore, the total cost exceeds 847 trillion IDR)

Source： KPPIP

[Evaluation Analysis]

■ The amount of private investment in the PPP project has been affected in various ways by other than the technical cooperation projects targeted for this trial evaluation. Therefore, it is not appropriate to consider all the amount of private investment mentioned above as the catalyzation effect of JICA's technical cooperation. However, as we will explain in more detail below, it can be concluded that JICA's continuous cooperation has resulted in the capacity building of government and the investment

environment improvement, which have led to increasing the private investment.

5.3. Philippines: Environmental Development Project

5.3.1. Project Overview

Table 33: Project Overview

Country	Philippines			
Project	Environmental Development Project			
Amount Approved	24,846 million yen		**Amount Disbursed**	24,814 million yen
L/A Date	30th September 2008		**Date of Completion**	October 2016 (Completion of sub-loan disbursement by DBP)
Borrower	Development Bank of the Philippines: DBP		**C/P**	Development Bank of the Philippines: DBP
Objective	This project aims to reduce emissions of environmental pollutants by providing local government units, private corporations, government owned and controlled corporations, water districts and cooperatives/associations with medium and long-term funds through DBP, thereby contributing to environmental protection and the improvement of living conditions.			
Related Project	**TC**	**Yen Loan**	**Grant**	**Others**
				Sub-projects in the water supply and water quality conservation sector will be financed using the Philippines Water Revolving Fund (PWRF), which is jointly established with USAID and DBP, based on the Japan-US Water Cooperation Initiative.

Source：The Study Team with reference to Ex-ante Evaluation, and so on.

JICA will provide ODA loan to the Development Bank of the Philippines (DBP), and the funds from the ODA loan will go to environmental development projects invested by end users through the DBP or Private Financial Institute (PFI). It was financed by end users who are planning to invest in. Loans to end users are classified into three types: wholesale method (direct loan from DBP), retail method (finance via PFI), and PWRF method.

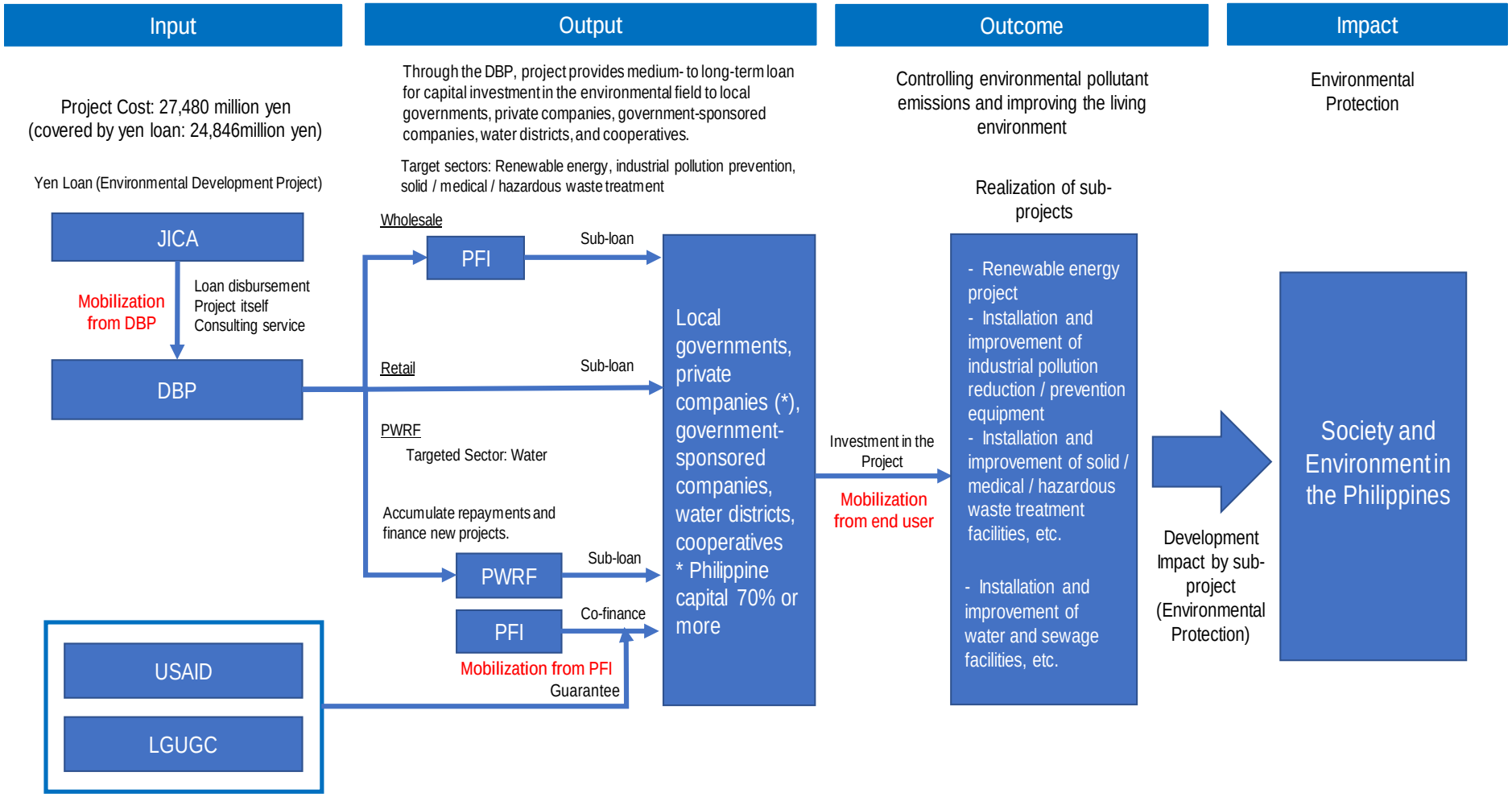


Figure 53: Logic Model

Source：The Study Team with reference to related documents.

In EDP, mobilization of finance from DBP, which received a ODA loan from JICA, mobilization of finance from PFI, which received a loan from DBP, and mobilization of private investment from end users who received a loan from DBP or PFI (investment with own equity) is expected. In the trial evaluation, the results of these mobilizations will be analyzed quantitatively. Study team also evaluate how JICA's ODA loan and related support contributed to the mobilization of finances from the Philippine Government (DBP) and the private sector (PFI and end users).

5.3.2. Summary of Evaluation Judgement

The table below summarizes the judgement of the trial evaluation of EDP. Since the formal ex-post evaluation by JICA had already been carried out for this project, the information obtained from the ex-post evaluation was utilized in this trial evaluation, and the analysis focused on the effect of mobilization of additional finances.

Table 34: Summary of Evaluation Judgement (EDP)

<table>
<tr><th>Expected Effect (Indicators)</th><th>Results of Study</th><th>Evaluation Analysis</th></tr>
<tr><td colspan="3">Output</td></tr>
<tr><td colspan="3">I. Wholesale and Retail Method</td></tr>
<tr><td>I-1. Number of Sub-loan
(Target at the time of planning have not been confirmed)</td><td>I-1. Number of Sub-loan
<table><tr><th></th><th>Sub-project</th><th>Sub-loan</th></tr><tr><td>Water</td><td>17</td><td>19</td></tr><tr><td>Renewable energy</td><td>15</td><td>15</td></tr><tr><td>Industrial pollution prevention</td><td>21</td><td>21</td></tr><tr><td>Solid / medical / hazardous waste treatment</td><td>20</td><td>23</td></tr><tr><td>Total</td><td>73</td><td>78</td></tr></table></td><td rowspan="2">・ The number of sub-loan, the plan, and the actual disbursement are as shown on the left.
・ The reason for the large difference between the plan and the actual disbursement of Category A (PWRF) is that the co-finance from PFI was not obtained as planned and the investment amount of DBP itself increased.</td></tr>
<tr><td>I-2. Amount of Sub-loan
<table><tr><th></th><th colspan="2">Plan</th></tr><tr><th></th><th>Total</th><th>Yen loan</th></tr><tr><td>Category A</td><td>1650</td><td>1500</td></tr><tr><td>Category B</td><td>25410</td><td>23100</td></tr><tr><td>Sub-loan Total</td><td>27060</td><td>24600</td></tr><tr><td>Category C</td><td>246</td><td>246</td></tr><tr><td>Commitment Charge</td><td>174</td><td>0</td></tr><tr><td>Total</td><td>27480</td><td>24846</td></tr></table>(in million yen)</td><td>I-1. Number of Sub-loan
<table><tr><th></th><th colspan="2">Actual</th></tr><tr><th></th><th>Total</th><th>Yen loan</th></tr><tr><td>Category A</td><td>8290</td><td>7600</td></tr><tr><td>Category B</td><td>19073</td><td>17000</td></tr><tr><td>Sub-loan Total</td><td>27364</td><td>24600</td></tr><tr><td>Category C</td><td>214</td><td>214</td></tr><tr><td>Commitment Charge</td><td>119</td><td>0</td></tr><tr><td>Total</td><td>27697</td><td>24814</td></tr></table>(in million yen)</td></tr>
</table>

Category A: Sub-loan in general condition (mainly for PWRF) Category B: Sub-loan with prioritized condition (except category A) Category C: Consulting service		
I-3. Conditions of Sub-loan	I-3. Conditions of Sub-loan <Sub-loan interest rate from DBP to PFI (wholesale method)> PDST-F (10-year Treasury Securities) rate <Sub-loan interest rate> PDST-F (10-year Treasury Securities) rate + 1-4% (wholesale method) PDST-F (10-year Treasury Securities) rate + 1-3% (retail method) Average loan interest rate: 7.93% (Interest rate distribution is 5.40% to 11.95%. Median is 7.86%) ・ In the approval year (FY2008), the loan interest rate of this project is almost the same as the interest rate of commercial banks. ・ The repayment period was medium- to long-term, and this is EDP's competitive concessional aspect. ・ During the implementation of the project, the loan interest rate became less advantageous than the interest rate level of commercial banks. ・ DBP has endeavored to minimize the gap with commercial banks by making DBP or PFI spreads as low as possible. <Sub-loan repayment period> Wholesale method and retail method: 3 years or more and 15 years or less (20 years or less depending on the repayment status) (Grace period: 5 years or less) PWRF method: within 20 years (Grace period: within 3 years)	・ The sub-loan conditions are as shown on the left. ・ EDP sub-loan had shown an advantage for long-term projects in the water and renewable energy sectors. ・ Prior to EDP, PFI was in a situation where it could not take the risk of projects in the environmental field and had almost no loan record. ・ There is no private crowding out due to EDP.
II. PWRF Method Based on the Japan-US Water Cooperation Initiative, USAID and LGUGC will work together to guarantee loans to the water supply and water quality conservation sector to PFIs that co-finance with DBP for each individual project.	II. PWRF Method ・ Regarding co-financing by PWRF and PFI, the number of subprojects was 3, and the total cost of the projects was 2.59 billion pesos. ・ Of these, PWRF provided a loan of 1.11 billion pesos, all of which was funded by JICA's ODA loan.	・ The performance of the PWRF method are as shown on the left.

	・A loan of 476 million pesos was provided by PFI.	
Input		
I. Project Cost Total cost: 27,480 million yen (24,846 million yen was covered by yen loan)	I. Project Cost Total cost: 27,697 million yen (24,814 million ten was covered by yen loan)	
II. Condition of yen loan	II. Condition of yen loan <Interest rate of yen loan> General condition (mainly for PWRF): 1.4% (Repayment period: 30 years, grace period: 10years) Prioritized condition: (except above): 0.65% (Repayment period: 40 years, grace period: 10 years)	
Mobilization of Finance		
I. Quantitative Effect		
I-1. Mobilization from DBP	I-1. Mobilization from DBP ・For the sub-loan disbursement, refer to the description of "Output". ・DBP provided “blending” of the loan for this project and low interest rate loan products with DBP's own funds. ・The difference between the total project amount and the actual ODA loan of 2,764 million yen was recognized as the mobilization of finance from DBP.	・The size of mobilization (direct mobilization) of additional finance from the DBP is not large. ・The scale of private finance mobilization (indirect mobilization) from PFI was small. Even if there is a risk burden by DBP, it depends on the result of PFI avoiding the risk. ・A relatively large amount of financing (indirect mobilization) was made by end users. ・When the leverage ratio is calculated for the yen loan of 24,600 million yen, it is 1.90. (However, since there is no comparison target or target setting in advance, it is not possible to derive an evaluation judgment based on the mobilization amount itself.)
I-2. Mobilization from PFI	I-2. Mobilization from PFI ・Based on the PWRF data obtained from DBP, 952 million yen was recognized as the mobilize finance from PFI. ・In the wholesale method, all sub-loans are funded by EDP, and PFI itself does not invest in funds.	
I-3. Mobilization from end users	I-3. Mobilization from end users ・The mobilization fund from end users is estimated to be 18,876 million yen.	
II. Qualitative Effect ・Expansion of loans to end users by PFI ・Increased investment in environmental project by end-users	II. Qualitative Effect ・According to the results of the interview, EDP expanded the loan from PFI to environmental projects. ・It was difficult for end users using new technologies in the environmental field to raise the necessary finance. The provision of EDP financing encouraged end	・It can be evaluated that the EDP has qualitatively realized the effect of mobilizing private financing.

	users to invest in environmental businesses.	
Additionality		
I. Financial ・ Did this project really need and play a role in complementing the private sector? ・ Did the sub-loan conditions contribute to reducing the risk and improving the feasibility of environmental projects implemented by end users?	I. Financial ・ In the water sector, PFI lending risk is mitigated in the form of co-financing between PWRF and PFI. However, as mentioned above, the loan from PFI was smaller than planned. ・ The PWRF was an innovation that blended ODA funds with those of private financial institutions through DBP. ・ EDP has been effective in forming long-term subprojects such as water and renewable energy. ・ Interest rates were at the same level as commercial banks at the beginning of the project. Many sub-projects are prepayment and refinancing in response to falling interest rates in the market. ・ EDP urged DBP to bear the risk that PFI could not bear when lending to a new project in the environmental field at the same interest rate level as commercial banks, and to encourage PFI to bear the risk as well.	・ Based on the survey results on the left, it can be evaluated that EDP had financial additionality.
II. Non-financial ・ Effects of the following consulting services implemented in conjunction with this project. ・ Public relations / dissemination / marketing support ・ Sub-project formation support ・ Sub-project management support (examination, implementation, supervision, evaluation) ・ Strengthening cooperation with related government agencies and related industries ・ Training for DBP / PFI / end users	II. Non-financial ・ Technical support was provided for marketing promotion, project formation, and project evaluation to each sector. ・ Manual guidelines for project evaluation have been developed for DBP staff. ・ Support was provided for project formation and project evaluation. ・ According to the results of the DBP interview, the consulting service was effective and meaningful. ・ The results of capacity building for DBP have also led to capacity building for PFI through the holding of workshops.	・ Based on the survey results on the left, it can be evaluated that EDP had non-financial additionality.

Source: Study Team

5.3.3. Evaluation Judgement

(1) Output

1) Performance of Sub-loan and Conditions

The number of sub-projects and sub-loans executed by EDP is as stated in the summary of evaluation judgement. 78 sub-loans were executed for a total of 73 sub-projects. The table below shows the plans and actual results of the sub-loans amount.

Table 35: Plan and Actual of Sub-loans

	Plan		Actual	
	Total	Covered by yen loan	Total	Covered by yen loan
Category A (PWRF)	1,650	1,500	8,290	7,600
Category B (EDP Non-Water)	25,410	23,100	19,073	17,000
Wholesale Method	N/A	N/A	3,414	N/A
Retail Method	N/A	N/A	15,659	N/A
Sub-loan Total	27,060	24,600	27,364	24,600
Category C	246	246	214	214
Commitment Charge	174	0	119	0
Togtal	27,480	24,846	27,697	24,814

(in million yen)

Source: ex-post evaluation and interview with DBP

According to the interview with DBP, the number of wholesale loans in Category B (EDP Non-Water) (projects other than the water sector) was 1.35 billion pesos. Three PFIs participated in this. The number of retail loans was 55, which was 6,195 million pesos (in the table above, the total amount of category B loans in yen is proportionally divided based on the interview results). The reason for the large difference between the planned amount and the actual amount of Category A (PWRF) (= project in the water sector utilizing PWRF) is that PFI could not take risks for the project. As a result, the investment amount of DBP itself has increased. The total investment by DBP in the entire EDP was about 1.4 billion pesos.

Based on the above results, the effect of mobilizing additional finances by EDP will be analyzed in this trial evaluation.

The conditions for sub-loans in EDP are as described in the summary of judgement. In recent years, the interest rate based in the market has fallen below the interest rate based on EDP. Therefore, in many projects, prepayments and refinancing from commercial financial institutions occur. In terms of interest rates, EDP sub-loans are not a favorable condition compared to market interest rates. EDP sub-loans can be long-term compared to loans from other financial institutions. Therefore, it showed an advantage in the case of projects in the water sector and renewable energy sector, where the project period is as long as 20 years.

Prior to EDP, PFI was in a situation where it could not take the risk of projects in the environmental field and had almost no loan record. The aim of this project is to utilize ODA funds and allow DBP to bear part of the risk. In addition, technical cooperation related to the examination and evaluation of projects in the

environmental field was provided to PFI, and financing from PFI to the environmental field was promoted. Therefore, there is no private crowding out by EDP.

2) Guarantee (PWRF Method)

The PWRF has the following modalities.

I. Co-financing by PWRF and PFI.

II. Provide a guarantee by LGUGC and USAID for the PFI loan portion.

III. Investment from the end user's own equity.

IV. DBP provides standby credit for the loan from PFI.

The actual number of loans from PWRF was 18 cases, totaling 4.2 billion pesos (8.29 billion yen in yen). In addition, according to interview with DBP, the number of cases where LGUGC and USAID guarantees were provided by co-financing of PWRF and PFI was 3, the loan amount from PWRF was 1,110 million pesos, and the loan amount by PFI's own funds was 476 million pesos, the total cost of the sub-project was 2.59 billion pesos. In the case of co-financing of PWRF and PFI, LGUGC guarantees 85% of the co-financing portion by PFI (that is, 404.6 million pesos). In addition, USAID guarantees 50% of LGUGC's guarantees (that is, 202.3 million pesos). Guarantee conditions (guarantee fees, etc.) were determined based on the creditworthiness of the end user and the standards of LGUGC and USAID, which provide guarantees.

(2) Input

The amount and conditions of the ODA loan provided by JICA are as described in the summary of judgement.

(3) Mobilization of Finance

1) Measurement of Amount of Mobilized Finance

In EDP, it is considered that the mobilization of additional finances was realized at the following three timings.

I. Mobilization of finances from DBP, which received ODA loan from JICA

In addition to the ODA loan from JICA, the amount of funds invested by DBP itself in EDP is measured as mobilization of finance from DBP (Direct Mobilization). The difference between the total project cost and the actual ODA loan of 2,764 million yen is recognized as the mobilization of finance from DBP.

II. Mobilization of finances from PFI

The amount of co-financing with PFI in the PWRF method is recognized as the mobilization of additional finances from PFI (Indirect Mobilization). Based on the PWRF data obtained from DBP, 476 million pesos (952 million yen if 1 peso is 2.0 yen) was mobilized from PFI. In the wholesale method, all funds for sub-loans are from EDP, and PFI itself did not invest funds.

III. Mobilization of investment by end users who received loans from DBP or PFI (investment with their own equities)

The amount invested in the project from the equity capital by the end user such as a local government or a private company who received the sub-loans is recognized as the mobilization of investment from the end user (Indirect Mobilization). According to the interview with DBP, it is a condition under the DBP policy that end users invest at least 10% of the total project cost from their equity capital (However, in the case of local governments, conditions vary depending on the project, such as 100% being allowed to be covered by loans.). Based on the DBP's comment that about 40% of the total project cost is invested from the end user's equity capital for the entire project targeted by EDP, the mobilization from the end user is estimated to be 18,876 million yen.

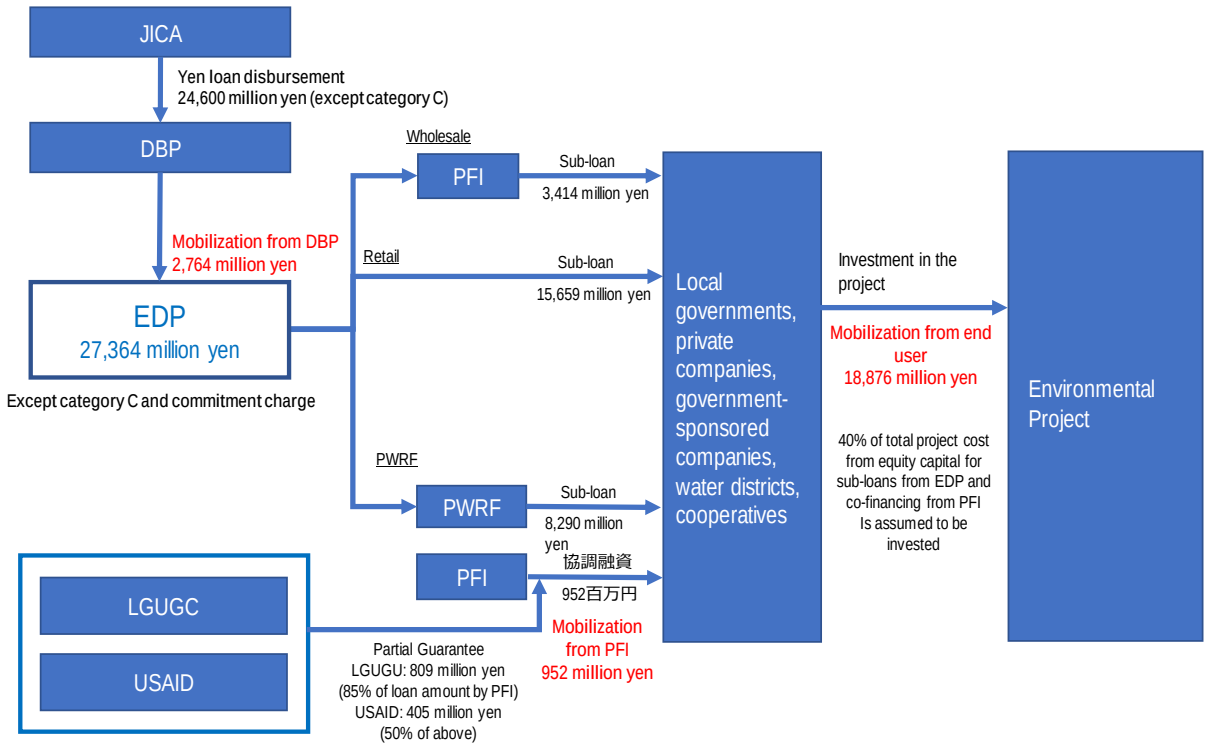


Figure 54: Image of Mobilization

Source：The Study Team with reference to related documents.

[Evaluation Analysis]

■ Based on the above results, if JICA's ODA loan is regarded as a BF that mobilizes additional finance from DBP, the amount of ODA loan is 24,600 million yen (Category C (excluding consulting services)). The mobilization (direct mobilization) of additional finance from DBP is 2,764 million yen, which is not large. Private finance mobilization (indirect mobilization) from PFI was 952 million yen, which was small. This was due to the fact that PFI had avoided risks to the environmental project in water sector, even if there was a risk burden from DBP, as mentioned above. On the other hand, as a result of sub-loans to various projects by EDP, it is considered that end users have invested approximately 18,876 million yen in their own equities (indirect mobilization). In other words, as a whole, the scale of

mobilization from DBP and PFI was not large, but it can be evaluated that a reasonably large scale of additional finance mobilization was realized, including the input of end users' own equities.

- If the leverage ratio is calculated from the sum of the above direct mobilization and indirect mobilization for the ODA loan amount of 24,600 million yen, it will be 1.90. However, since there is no comparison target or target setting in advance, it is not possible to derive an evaluation judgment based on the mobilization amount itself.

24,600 million yen (yen loan) + 2,764 million yen (mobilization of additional finance from DBP) + 952 million yen (mobilization of finance from PFI) + 18,876 million yen (mobilization of investment from end users) = 47,192 million yen
47,192 million yen ÷ 24,600 million yen = 1.92

2) Qualitative Effect

In this pilot evaluation, study team interviewed DBP, PFI, and end users. According to the results of the interviews, it is evaluated that EDP has expanded the loans from PFI to environmental projects. However, although the mobilization of finance from PFI in EDP has been realized as co-financing with PFI in the water sector utilizing PWRF, the amount of financing from PFI was smaller than planned.

In the Philippines, it was difficult for end users who are looking at the project using new technologies in the environmental field to procure the necessary finances. It can be evaluated that the EDP provided financing for such new projects, which encouraged end users to invest in environmental field.

[Evaluation Analysis]

- From the above, it can be evaluated that the EDP has qualitatively created the effect of mobilization of additional finances. Such effect is considered to be derived from the additionality described below.

(4) Additionality

1) Financial Additionality

The EDP was to utilize JICA's ODA loan and promote DBP and PFI financing for environmental projects. In the water sector, PFI lending risk is mitigated in the form of co-financing between PWRF and PFI. The PWRF was an innovative modality that blended ODA finance with those of private financial institutions through DBP. However, as mentioned above, in the PWRF method, co-financing from PFI is smaller than planned, which means that PFI cannot bear the risk of lending to the water sector even if there is risk reduction. The characteristic of EDP was that it was possible to provide long-term loans, which was particularly effective in forming long-term sub-projects such as in the water sector and renewable energy sector.

In terms of interest rates, EDP sub-loans did not offer any particularly favorable conditions. The interest rate setting for sub-loans is as described in the summary of evaluation judgement. According to the conducted ex-post evaluation data, the average loan interest rate for sub-loans was 7.93% (the loan interest rate distribution was 5.40% to 11.95%, and the median was 7.86%). This is almost the same level as the

interest rate of commercial banks at the beginning of the project implementation. Since sub-loans had a fixed interest rate, many sub-projects are prepayment and refinancing in response to the subsequent decline in interest rates.

According to the interview, DBP would like to continue to carry out the same kind of project by utilizing ODA loan to promote the lending of PFI to new fields. However, in the current interest rate status in the market, it is difficult to set interest rates that end users can borrow. However, the lack of interest rate advantage does not impair the additionality of EDP. Competing with other commercial banks at low interest rates may lead to crowding out. EDP was an interest rate level equivalent to that of commercial banks, but DBP beard the risk that PFI could not bear when lending to new projects in the environmental field, and at the same time, it encouraged PFI to bear the risk.

[Evaluation Analysis]

- From the above, it can be evaluated that EDP had financial additionality.

2) Non-financial Additionality

The consulting service accompanied with ODA loan provided technical support for marketing promotion, project formation, and project evaluation (performance indicators, etc.) to each sector. Within the technical assistance, a manual guideline for project evaluation was prepared for DBP staff. In addition, support was provided for project formation and project evaluation in the actual project implementation. According to the results of the DBP interview, DBP, which is a financial institution, has no technical expertise in the environmental field, and the above consulting service that filled the gap was effective and meaningful. The results of these capacity enhancements to DBP had also led to the capacity enhancement of PFI through the holding of workshops.

[Evaluation Analysis]

- From the above, it can be evaluated that EDP has demonstrated its non-financial additionality. However, according to interviews with end users in particular, at the project level, the study team could not obtain information that there was special support from JICA or DBP to improve the quality of the project in aspects other than finance.

6. Key Points and Considerations of the Results of Overall Study

In this chapter, the study team will organize and describe the key points of the study results and the consideration as the study team, keeping in mind that JICA will evaluate BF and private financing mobilization in the future.

6.1. Summary of General Investigation of BF and Mobilization of Private Financing

6.1.1. Issues and Points to be Noted

(1) Meaning of "BF" and "Mobilization of Private Financing"

“BF” is often understood as financing for mobilizing private financing. However, according to the definition of BF by the OECD-DAC and DFI, the purpose of BF is not limited to the mobilization of private financing. In other words, the finance mobilized by BF include public finance such as commercial finance by DFI. On the other hand, "private financing mobilization" means that the target of mobilization is limited to private financing.

The OECD-DAC and MDB are discussing how to account for private sector mobilization.

This discussion is to record the amount of investment from the private sector as mobilized finance for donors and MDBs in the case of co- financing with the private sector. It can be said that it focused on the "result" that private finances were mobilized.

On the other hand, the definition of BF requires that it has additionality and that it has minimal concessionality, and the principles for implementing BF are stipulated. In other words, it can be said that BF focuses on the "principles" and "processes" of mobilizing additional finance, not the result of mobilized finance itself.

(2) Definition of BF and its Archetype

In this study, the study team referred to the definition of BF by DFI and OECD-DAC. The definitions by both are not necessarily the same (See this report (Chapter 2) for details). The difference between the two is considered to be due to the difference in the organizational position of DFI and OECD-DAC.

DFI recognizes BF from the standpoint of realizing financing that is normally difficult to achieve by blending commercial finances from its own account with concessional finances from donors. In other words, in BF for DFI, DFI finances are mobilized by concessional finances.

On the other hand, the OECD-DAC definition recognizes BF from the standpoint of governments and donors.

In other words, in the BF as defined by the OECD-DAC, the governments of donor countries and donors provide public finances (often concessional finances, including grants), thereby mobilizing additional finances (often private finance, though including public finances in some cases, but commercial funds)).

There are various archetypes in BF (See this report (Chapter 2) for details). It can be said that financing for private projects or funds is BF whose effect is easy to measure. This is because the scope of specific projects targeted by BF is possible to be specified, and it is assumed that it will be easy to identify additional finances mobilized for the finances originally provided.

On the other hand, providing funds for technical cooperation or F/S implementation for private projects is also an archetype of BF. It is considered difficult to measure these effects compared to directly investing in private projects or companies. This is because it is assumed that the scope of F/S and technical cooperation and the additional finance amount affected by it will not be directly linked, hence it will be difficult to identify the additional finances. Furthermore, even if it is intentionally specified, it is assumed that it is difficult to establish a causal relationship between the finance provided (or F/S and technical cooperation implemented by this finance) and the additional finance mobilized.

(3) “Catalyzation” of Private Investment

The activities of donors and MDBs to promote private investment are not limited to co-financing with the private sector, which directly seeks to mobilize private finances. For example, activities aimed at improving policies and institutions in recipient countries will also contribute to the promotion of private investment in the long run. The MDB defines this as a "catalyzation" activity or effect of private investment. JICA has long been working on improving policies and institutions by strengthening the capacities of the governments of recipient countries through technical cooperation projects. In assessing JICA's contribution to recipient countries, special attention should be paid to these catalyzation activities (see this report (Chapter 2) for details).

6.1.2. Evaluation Method of BF and Private Financing Mobilization

Many donors, like JICA, utilize the evaluation criteria by OECD-DAC as an existing evaluation method. In DFI, whose role is mainly for private investment and financing, evaluation criteria based on Good Practice Standards established by the Evaluation Cooperation Group (ECG-GPS) are used. Based on these guidelines, each donor and DFI develop their own evaluation system and methods.

Evaluation of BF and mobilization of private financing is in the research and trial stage. There is not the established evaluation method shown by other donors or DFI. There is also no conspicuous move to develop a new evaluation method for BF and mobilization of private financing. The evaluation method is being studied based on the idea of how to reflect the viewpoint of BF and mobilization in the existing evaluation method.

In this study, the study team try to indicate the important points in examining the evaluation method of BF and mobilization. They are; the measurement method of private financing mobilized, catalyzation effect, concessionality of BF, and the additionality of BF (see this report (Chapter 4) for details). Considering that JICA evaluates these points in its projects, the views of the study team on how they can be applied to existing DAC evaluation criteria are described below.

Table 36: Correspondence Table of BF and private finance mobilization viewpoints and DAC Evaluation Criteria

Viewpoints of BF and mobilization	DAC evaluation criteria	Reason
Measurement of private financing mobilized	Effectiveness/ Impact	Since these are recognized as the "effects" of the project, they are evaluated in the "Effectiveness/ Impact".
Catalyzation Effect		
Concessionality of BF	Efficiency	Since “concessionality” is a viewpoint of whether the input is appropriate, it is evaluated in "Efficiency".
Additionality of BF	As independent item or Relevance	It will be an independent item based on JICA's existing ex-post evaluation reference. Or, since having an additionality is a prerequisite for project implementation, it is evaluated in "Relevance".

Source: Study Team

6.2. Summary of Trial Evaluation Study

6.2.1. Evaluation of Finance Project

(1) Evaluation of Factual and Counter Factual

In the case of direct financing for individual projects (for example, project finance for private project through PSIF), by identifying the scope of the project and confirming the capital structure of the target project, identifying additional finance toward JICA's input would be relatively easy. In some cases, such as a two-step loan that works with a fund or a financial institution in a recipient country (such as EDP in the Philippines in trial evaluation) to support a sub-projects of a final beneficiary, it is also considered that additional finance can also be identified by checking the portfolio composition of the target fund or a financial institution of the recipient country related to the target project.

With the growing awareness of the importance of the leverage effect of development finances, it is considered that the measurement of additional finances mobilized by JICA has a certain significance in explaining JICA's contribution. However, such analysis alone does not reveal how much of the additional finance were mobilized by JICA's contribution. In other words, these methods do not verify the difference between the amount of mobilized finance when funds are invested by donors and MDBs (Factual) and when they are not (Counter Factual). Originally, this difference is the contribution of donors and MDBs.

(2) Leverage Effect and Rational of BF

In view of the BF principles, the finances invested to mobilize additional finances need to have additionality. In addition, the level of concessionality should be minimized for the purpose of finally

crowding in private investment. In other words, it is meaningful for donors and MDBs to invest in projects where private investment is usually difficult.

Focusing only on the amount of finances mobilized with an emphasis on the leverage effect may be a trade-off with the principles of BF and the original role of donors and MDBs. In project formation with BF and private financing mobilization in mind, the basic idea is to provide finance in projects that can maximize the effect with the minimum investment. Careful verification is required at the planning and ex-ante evaluation stage. However, it can be imagined that it is difficult to carry out such verification precisely at the preliminary stage.

(3) Timing of Evaluation

In the case of project finance or two-step loans, the achievement of the purpose of mobilizing additional finance is incorporated into the project plan and prerequisite. When focusing on the result of the additional amount of finance mobilized, the effect of mobilization is expected to appear early. Regarding the timing of the evaluation, it is considered that there is no problem even if the standard of 3 years after the completion of the project is applied, as in the case of the ex-post evaluation normally conducted by JICA.

6.2.2. Evaluation of Technical Cooperation

(1) Clarification of Catalyzation Effect

JICA is implementing a number of technical cooperation projects aimed at strengthening the capacity of governments of recipient countries and improving policies and institutions. These, unlike the finance mentioned above, have a wide range of effects. Therefore, it is difficult to identify the additionally mobilized finance. Based on the above, it is considered appropriate to evaluate the effect of such projects as a catalyzation effect of private investment in a broader sense.

The analysis of quantitatively estimating the amount of catalyzed finance for the catalyzation effect is also of great significance in terms of quantitatively evaluating JICA's contribution. In order to carry out such an analysis, it is necessary to fully verify the logic model from the implementation of technical cooperation to the manifestation of the effect of promoting private investment. It is also necessary to convincingly identify the scope of finance to be catalyzed.

(2) Timing of Evaluation

In the case of the catalyzation effect of technical cooperation, the timing of the effect of promoting private investment depends on the purpose, content and nature of the project. It is inherently desirable that the evaluation be performed after the effect is realized (or after the realization is planned). Therefore, it is difficult to uniformly set the evaluation timing.

If the timeline from the implementation of the project to the realization of capacity building, policy/ institutional improvement, and promotion of private investment is shown at the planning stage, the timing of evaluation can be set accordingly. If it is difficult to clarify the timeline at the planning stage, it would be examined during the implementation phase of the project. If the effect of promoting private investment is

not realized at the time of the evaluation, JICA's contribution and the degree of achievement of the target at the evaluation stage will be confirmed based on the timeline. In that case, it is desirable that the evaluation verifies the prospect of promoting private investment in the future. In addition, it is desirable that follow-up evaluation be performed at the timing when the catalyzation effect realizes thereafter. Continuous monitoring is required to evaluate the catalyzation effect in medium- to long-term. However, it also can be imagined that this is difficult under JICA's current system, in which a third party conducts ex-post evaluation at a certain timing after the completion of the project.

(3) Influences of External Factors

The scope of catalyzation effect is very broad. Therefore, it is difficult to eliminate the influence of external factors in the evaluation. The trial evaluation conducted in this study also provided important lessons learned.

In Indonesia, it was confirmed that private investment in PPP projects is steadily increasing for technical cooperation projects aimed at strengthening the capacity of related organizations to strengthen PPP implementation capacity. However, it was also found that the increase in private investment was greatly affected by changes in the local financial environment such as foreign exchange risk and long-term financing, which are not included in the scope of JICA's direct cooperation. In addition to technical cooperation projects, JICA provides development policy loans and PSIF to local financial institutions with the promotion of PPP in mind. Contribution as JICA is not limited to technical cooperation projects that have been subject to trial evaluation. Furthermore, not only JICA but also other donors and the Indonesian government's own activities to promote PPP are naturally affecting the increase in private investment.

(4) Overestimation and Underestimation

In evaluating the catalyzing effect, the timing of evaluation and external factors have a great influence on the result. For this reason, there is a concern that the amount of funds will be overestimated or underestimated, especially when the quantitatively catalyzed amount of funds is estimated and analyzed.

In the case of the trial evaluation in this study, the amount of catalyzed finance was zero in the case of the technical cooperation project for promoting geothermal development in Indonesia. This is because, as a result of confirming the amount of private investment through the exploration fund in view of the project content of system development and operation support of the exploration fund, the actual result was zero. On the other hand, qualitatively, JICA's various contributions were confirmed toward the development of the exploration fund system. It will take some time for private investment to increase through exploratory funds. The result of zero private investment performance is due to the timing of evaluation, and it can be said that it is underestimated.

On the other hand, in the case of a technical cooperation project aimed at strengthening PPP implementation capacity in Indonesia, a steady increase in the amount of private investment in PPP projects was confirmed. However, as already mentioned, various external factors have influenced the increase in private investment. If all the increase in private investment is evaluated as the contribution of the technical cooperation project, it can be said that it is overestimated.

The possibility of such underestimation and overestimation is considered unavoidable due to the constraints of analysis. What is important here is to deepen the analysis of various factors that influence the effectiveness of private investment as a catalyst. Furthermore, even if it is qualitative, the analysis result should be taken into consideration in the evaluation judgment.

(5) Continuation of Analysis on Case Studies on Catalyzation Effect

The purpose, content, and nature of technical cooperation by JICA are diverse. The scope of catalyzation effects is very wide and it is necessary to analyze it according to the context of the project.

In order to deepen the analysis method, it is useful to learn from cases by other donors and MDBs. However, the number of such case analyzes is very limited to date. This point will be a constraint for JICA to analyze the catalyzation effect in the future. In other words, it is expected that JICA itself will analyze the catalyzation effect on a trial basis in various contexts using the cases of various technical cooperation projects implemented by JICA and accumulate the experience. This kind of effort is considered to be a very beneficial for evaluating JICA's contribution.

			Development Finance Institution				Donor	
			Multilateral		Bailateral		Multilateral	Bailateral
			IFC	EIB	KfW	IFU	EC	USAID
Mobilization of Private Financing and BF	Status of initiatives toward BF and private finance mobilization		Principles of Prioritizing Private Sector Solutions (Cascade Approach) · In order to create markets and maximize the use of limited development financing, the World Bank Group as a whole has taken up an approach that allows various organizations to cooperate more closely. The principle is to first of all apply solutions to development challenges using the private sector, and for public finances to only be used for projects where no other option is considered to be optimal. IDA-Private Sector Window (PSW) · With IDA-PSW, the private sector is supported by mitigating the risk of projects in IDA eligible countries and fragile countries by means of four systems, namely, risk mitigation facilities, BF facilities, local currency facilities and MIGA guarantee facilities.	· The EIB provides finance terms that cannot be provided by the market alone, and supports project preparation and implementation. The difference between the EIB's contribution and market options is defined as the additionality. ✓ Financial support in line with project needs, including long-term loans ✓ Technical contribution ✓ Improvement of standards and resource mobilization	· There is a large gap between the amount of finance required by the SDGs and the amount of finance that can be provided, and there is concern that many countries may not be able to reach the goals set by the SDGs. The way to tackle this underinvestment in basic infrastructure development in developing countries is to divert financing that were not previously directed to development finance to infrastructure investment in developing countries. KfW recognizes that it is KfW's mission to work on.	· To provide risk capital and knowledge that may contribute to the achievement of the SDGs to enterprises in developing countries, · To ensure financial additionality and investment in poor developing countries based on a 50% criterion (which stipulates that 50% of IFU's investments shall be made in countries with a GNI per capita of less than 80% of the threshold for Low and Middle Income Countries (LMIC)), · To extend public-private partnerships (PPP) for sustainable development by mobilizing private finance without risk and facilitating the use of knowledge of and investment from the private sector (SDG Investment Fund) · To facilitate the measurement and reporting of development outcomes realized by investments, · To increase opportunities for Danish companies to access new and difficult-to-access global markets, · To focus more on the sustainability of its investments, including the application of the UN Guiding Principles on Business and Human Rights (UNGP), · To emphasize openness and communication with interested parties, · To strengthen cooperation with DMOFA (at the level of both embassies and head offices), and To invest in system development and human resource development so that IFU will remain an efficient and effective DFI.	· Through guarantees and BF, EC aims to mobilize other public and private funds to supplement EC development funding. · The EC aims to share the risks associated with investing in and lending to developing countries through guarantees and enable private investors and DFIs to fund entrepreneurs and development projects. In the unlikely event of a loss, the EC will pay a portion of it. · At BF, public funds are used to cover part of the cost of development projects, with public and private investors raising the remaining funds to realize the project.	· USAID has adopted the approach of developing "Private-Sector Engagement Policy (PSE Policy)" and pursuing investment action in order to expand its involvement with the private sector. That is, a strategic approach in which USAID, in consultation with the private sector, coordinates the interests of both parties, tackles development challenges through strategic cooperation, and develops plans and programs to enhance sustainable development effectiveness.
	Financing Instruments and Schemes		· Investments and Loans IFC investments and loans include loans, CIVs, trade financing, syndicate loans, securities products, risk management, blended finance, and loans in the local currencies of emerging markets. IFC loans are categorized as follows: Loans (A loan): Loans financed by IFC. Co-financing (B loan): Loans with equal conditions from a syndicate coordinated by multiple financial institutions.E7 Managed co-lending portfolio program (MCPP): A loan portfolio constructed for investors that reflects IFC's proprietary investments with similar characteristics to an index fund. · Advice IFC supports the setting of conditions required to attract maximum private capital through the provision of advice in order to promote private sector growth. Also, in cooperation with IDA and IBRD, IFC is providing advice on improving the investment environment. · Asset Management	· Loans Public sector loans, Public sector frameworks/loans (Flexible loans for investment programs composed of small-scale projects. There are pre-defined objectives in combination with EIB priority matters.), Private loans, Intermediary loans for mid-size businesses and SMEs. · CIVs Venture loans, Investment in mid-size businesses and SMEs (including investment in funding), Investment in infrastructure and environmental funds · Guarantees Credit support for project financing, Other guarantees with the purpose of supporting mid-size businesses and SMEs · Advisory Service Strategy development, Market development, Project development	· Grants without repayment obligations The bank assists public organizations with funds without repayment obligations. · Highly concessional loans using funds provided by the Federal Government The bank raises funds with borrowing from capital markets. The borrowing conditions of the bank are more favorable than those offered to commercial banks mainly because it uses bonds guaranteed by the Federal Government. · Blended finance (mixing of public funds and funds raised from financial markets) Blended finance is a mixed use of public funds and funds raised from financial markets. The KfW Development Bank is involved in the creation of this low-interest financing scheme. · Commercial loans raised from financial markets Ordinary commercial loans	· Investment and Lending (Provision of Risk Capital) Basically provided on a commercial basis in the form of investment, mezzanine loan, loan, and guarantee. · Advisory Services · Grants	· Budget Support The EC provides budget support to beneficiary countries engaging in "sustainable development reforms" through the direct transfer of funds to their treasuries. · Grant The EC will make financial contributions to institutions that lead projects and operations in line with the objectives of development cooperation. · Guarantees and Blending The EC facilitates private investment in development actions by using its own public funds to reduce project risk and to bear all costs, etc., required for the launching of projects. · Trust Funds The EC establishes trust funds to pool financing obtained from various sources. It may set up multi-donor trust funds for external development cooperation activities, in emergencies, post-emergencies, or for thematic.	· Financial Support Support for the Budget of Government Agencies · Grants for NGOs · Support for International NGOs with the Purpose of · Technical Assistance · Technical Assistance (Former USAID (Currently DFC)) · Guarantee of loans to private financial institutions through the Development Credit Authority (DCA)
	Definition of Additionality	Financial	· Financial Risk Mitigation Has IFC provided a financial instrument or service that cannot be easily obtained elsewhere? Was IFC financing truly required? To what extent has IFC uniquely responded to the client's need for financing?	· Financial support in line with project needs, including long-term loans ✓ Extension of project period by long-term loan ✓ Fill up the gap with asset life due to the above ✓ Financing in local currency ✓ Grant element ✓ Providing innovative financial products	· Financial additionality is required for implementing projects that cannot be implemented with financing from commercial financial institutions alone. Additional investment is to be realized by such means as improving transaction conditions, including the conditions for financial mobilization and contribution rates, or implementing a policy to reduce the risks to be borne by private financial institutions.	· IFU will invest if the private sector cannot do what IFU can, or the private sector cannot provide funds on an appropriate scale or under reasonable conditions, or the IFU investment is expected to catalyze private investment in a way that other methods cannot. In other words, IFU should not crowd out the private sector by providing funds that the private sector is expected to provide. ✓ The main reasons private enterprise chose IFU as an investor ✓ The role that IFU funding played in the funding of the entire enterprise ✓ Types of other funders / investors and timing of intervention ✓ IFU's role in leveraging additional funds	· Economic and financial What are the economic advantages of the proposed BF?	· The donor participates in the BF transaction and expects private capital to participate in the transaction. Catalytic capital, guarantees, and technical assistance often lead to the closing of BF deals. If private capital participates in developing country investment at the same time, under the same conditions and with the same amount of investment funds, without the involvement of donors, there is little or no additionality.
		Non-financial	· Non-financial Risk Mitigation To what extent has the client evaluated the involvement of IFC? How did the client use IFC? · Policy Setting How much benefit did the client receive due to the improvement of the investment climate in the country/sector based on advice given to the government by the World Bank and IFC? · Knowledge and Innovation To what extent has technical and industry knowledge been acquired in addition to global knowledge? · Standard Setting (In the case that state or sector standards were insufficient) How much did the client value the specialist knowledge, etc. of IFC?	· Technical contribution Contributes to the technical improvement of projects from the perspectives of business, development, society, environment and corporate governance. · Improvement of standards and resource mobilization EIB creates demonstration effects and improves project standards. This achieves the mobilization of other sources of finance.	· Developmental additionality Developmental additionality is an effect on development that would not have been generated without joint intervention with the private sector or the intervention of other parties. · Value Additionality Value additionality is an effect realized by adding non-monetary values, including social and environmental values, which the private sector has not provided, to a project or bringing monetary value to a beneficiary country with financial mixing based on the value of social equity or incorporation of social and environmental standards in the project.	· Value Additionality: IFU brings a non-monetary value, that the private sector does not provide for, to an investment and thereby increases its development effect. ✓ Evaluation of IFU's non-financial role by enterprises and stakeholders ✓ Evidence of board seats ✓ Evidence of IFU's advice before investment and at the timing of exit ✓ Evidence of IFU's useful advice throughout the investment	· Project quality and standards How does the BF improve the quality of expected project outputs? How does it increase the probability of successful project implementation? How does it make it possible to achieve standards (including social and environmental standards) higher than can be achieved by other methods, and to increase practical social and global public benefits? · Innovation What are the innovative aspects of a project that cannot be created by or in the target environment without the BF? Why is the proposed innovation important? · Policy and sustainability Is the BF useful in supporting additional or parallel activities to ensure the continuation of benefit creation from the project after it has ended? For example, does it contribute to structural reform or support the modification of laws, regulations, and policies? Does it bring demonstration effects to other market participants?	· Advisory Services Donors may improve BF's profitability by providing advisory services to the various risks posed by developing countries' macroeconomic, political, regulatory, currency and information asymmetry. May be possible. · Technical Assistance By using the technical expertise of USAID, it is possible to reduce the risk of investment and attract private funds. In addition, USAID's technical assistance contributes to strengthening the capacity of SMEs and micro-enterprise to obtain finances.

		Development Finance Institution				Donor	
		Multilateral		Bailateral		Multilateral	Bailateral
		IFC	EIB	KfW	IFU	EC	USAID
	Definition of BF	· Follow the definition of BF by DFI. · BF is define as that IFC invests on its own account and on a commercial basis for financial support to developing countries that are concessional by the governments of donor countries, and that both funds are blended. · Grants are not included in the BF. · Five main principles of BF 1. a sound economic rationale for the use of concessional funds, 2. crowding-in and minimum concessionality, 3. expectation of eventual commercial sustainability, that is, that use of concessional finance will be time-bound in a sector with the goal that market players will eventually provide commercial finance, 4. comprehensive approaches to reinforce markets, and 5. high standards with respect to governance, transparency, and environmental and social issues. · Rationality of BF Development Rationality, Aditionality Rationality, Concessionality Rationality	· Blend of EIB loans/financial instruments and grants with the purpose of supplying the financing required by a target project · Reduce overall project risk and to mobilize additional funding by means of a blend of loans/financial instruments and grants.	· Adopted OECD definition. · BF is the strategic use of development finance to mobilize additional finance for sustainable development in developing countries.	· Expanding public-private partnerships through investment and BF is the most important way for the international community to support developing countries. · Traditional ODA remains important, especially in the poorest and most vulnerable countries, but these funds are not sufficient to achieve the SDGs. It is important to attract private investment while leveraging ODA, and DFIs like IFU play an important role in this process.	Combine EC grants with non-grants resources such as loans, equity and guarantees from development financial institutions, commercial loans and investments to achieve a leveraged development impact. Strategic use of limited grant elements enables projects with high economic and social benefits, even with low financial returns. Objective: Financial Leverage, Non-financial Leverage, Political leverage, Aid effectiveness, Visibility Requirement: Market failure (will not happen), Additionality, Leverage effect, Alignment of interest, Ex-ante evaluation, Reporting, Entrusted entities	· USAID defines BF as a financial instrument that improves social and environmental results from the mobilization of private capital with the strategic use of development financing such as government assistance and financing from charitable organizations in target sectors including infrastructure, education, agriculture and healthcare. BF has the objective of encouraging private companies, investors and other private sector members to invest in activities and projects that can achieve both financial profits and social and environmental outcomes.
Evaluation System	Evaluation System	Independent Evaluation Group: IEG	Operations Evaluation Division (EV) under Inspector General	FC Evaluation Department	The Evaluation Department (EVAL)	DG DEVCO Evaluation Unit	Bureau for Policy, Planning and Learning
	Objective	· Accountability · Learning	· Accountability · Acquisition of lessons learned	· Accountability · Learn Lessons	· To obtain knowledge on what works well and why it works well, and conduct studies to improve the quality and outcomes of development cooperation, and · To fulfil its accountability by publishing reports that notify ordinary people in and outside of Denmark, including the parties concerned and beneficiaries, of the outcomes of development cooperation.	· To increase the impact of international cooperation for development: Learning from past successes and failures helps improve aid strategies and methods for designing and implementing projects. · To improve transparency and accountability to stakeholders and ordinary citizens: The actions of the EC are scrutinized by those who are influenced by them. Therefore, it is essential to monitor the performance of EU interventions and use of resources together with the project outcome and original objectives in order to evaluate both performance and use appropriately.	· Accountability · Learn Lessons
	Type of Evaluation	[Independent Evaluation] · Country Program Evaluations (CPEs) · Cluster Country Program Evaluations · Validation of Completion and Learning Reviews (CLRRs) · Implementation Completion and Results Report Reviews (ICRRs) · Project Performance Assessment Reports (PPARs) [Self Evaluation] · Expanded Project Supervision Report（XPSR）	Mainly conducted by sector, by fincnial products, by theme,etc.	· Independent Evaluation KfW evaluates projects following the evaluation criteria of OECD-DAC. Projects are evaluated by staff members of an independent internal department for project evaluation, the FC Evaluation Department, and project managers of other departments who have not been involved in and do not have a conflict of interest with the projects to be evaluated. External evaluators may also be involved in the project evaluation.	EVAL evaluates projects on policies, strategies, themes, and programs, and this is carried out by external experts, with reports being made public once the evaluation has completed. It basically conducts the following three types of evaluation. · Real-Time Evaluation：RTE · Evaluation Study · Evaluation Follow-up	· Strategic Evaluation · Project/Program Evaluation	(without clear information)
	Evaluation Criteria	· Strategic Relevance · IFC's Additionality · Development Outcome ✓ Project Business Performance ✓ Economic Sustainability ✓ Environmental and Social Effects ✓ Private Sector Development · IFC's Investment Outcome Rating ✓ IFC's Investment Performance – Equity ✓ IFC's Investment Performance - Loan / Guarantee · IFC's Work Quality Rating ✓ Screening, Appraisal and Structuring ✓ Supervision and Administration	[Operations Evaluation] · Relevance · Effectiveness · Efficiency · Sustainability · EIB Contribution · EIB management of the project [ReM] · Contribution to the EIB's mission and EU development priorities and development goals of partner countries · Results of EIB interventions that contribute to the SDGs and indicators agreed with partner countries · Additionality when closing the market gap	· Relevance · Effectiveness · Efficiency · Impact · Sustainability	· Relevance · Effectiveness · Efficiency · Sustainability · Impact (Additional evaluation criteria) · Coherence · Coordination	· Relevance · Effectiveness · Efficiency · Sustainability · Impact (Based on DAC approach) (Additional evaluation criteria) · Coherence · EU Added Value	(without clear information)
	Rating Method	[Development Outcome] 6 scale evaluation (Highly Successful / Successful / Mostly Successful / Mostly Unsuccessful / Unsuccessful / Highly Unsuccessful) [4 Criteria of Development Outcomeの4項目] 4scale evaluation (Excellent / Satisfactory / Partly Satisfactory / Unsatisfactory) [Strategic Relevance] Not eligible for rating [Others] 4 scale evaluation (Excellent / Satisfactory / Partly Satisfactory / Unsatisfactory)	Rated in 4 scale (4: Excellent, 3: Satisfactory, 2: Partially unsatisfactory, 1: Unsatisfactory) EIB Contribution" and "Project EIB Management" are evaluated separately from other items, but form part of the evaluation.	After the evaluation of each criterion, the project is evaluated as a whole on a scale of 1 to 6. A project with an overall evaluation score between 1 and 3 is considered successful and that with a score between 4 and 6 is considered unsuccessful (failed).	(without clear information)	(without clear information)	(without clear information)

		Development Finance Institution				Donor	
		Multilateral		Bailateral		Multilateral	Bailateral
		IFC	EIB	KfW	IFU	EC	USAID
Evaluation Method	Operation and Effectiveness Indicators (Financial and Non-financial)	[DOTS Framework] (~2016) - Regularly and mechanically track the indicators (including achievement time and achievement level) set at the beginning of the project. - Comparison of project performance up to the time of ex-post evaluation and forecasts at the time of appraisal for important financial and operational indicators - Comparison of project performance up to the time of ex-post evaluation with benchmarks of related competitors / sectors in a particular industry [AIMM] (2017~) Properly define, measure and monitor the impact on project development. 1. Project Outcomes 1.1. Gap 1.2. Intensity 1.3. Likelihood Adjustment 2. Market Creation Outcomes 2.1. Market Attributes and Channels 2.2. Market Typology 2.3. Likelihood Adjustment 3. Conversion to Overall Score	[Operations Evaluation] (without clear information) [ReM] Pillar 2: The following indicators are confirmed in "Results of EIB interventions that contribute to the SDGs and indicators agreed with partner countries". ・Core standard indicators ・Sector standard indicators ・Other related standard indicators ・Custom indicators	(without clear information)	・IFU is continuously working on improving methods and measurements for tracking the impact of investment on development, and introduced DIM in 2017. Using DIM, IFU measures specific impacts and strategic indicators related to specific sectors throughout the portfolio. Development outcomes 1. General outcomes (tracked for all investments) 2. Sector-specific outcomes IFU strategic indicators and ratings 3. Additionality 4. Catalytic effect 5. Project sustainability	(without clear information)	(without clear information)
	Financial and Economic Analysis	[Project Business Performance] Calculation and comparative analysis of FRR, ROIC and WACC [Economic Sustainability] Calculation and comparative analysis of ERR, EROIC, and WACC	[Operations Evaluation] (without clear information) [ReM] Pillar 2: In "Results of EIB interventions that contribute to SDGs and indicators agreed with partner countries", in the case of direct operations by EIB, in order to confirm "Financial and economic sustainability", the internal rate of return (FRR) and the estimated rate of return (ERR) or equivalent is calculated.	Perform a cost-benefit analysis showing how resource inputs such as money, expertise, and time are economically translated into results.	(without clear information)	(without clear information)	(without clear information)
	Other related information	[Monitoring] Since 2006, IFC has been using DOTS to track development outcomes. DOTS was a framework for monitoring and assessing the performance of all IFC investment and lending clients. In 2017, IFC developed the Anticipated Impact Measurement and Monitoring (AIMM) system. The purpose of AIMM is to properly define, measure and monitor the development impact of each project. The AIMM system actively incorporates the relevant elements of the DOTS system. AIMM provides the following operational frameworks to support the realization of the "IFC 3.0" strategy.	[Monitoring] In the project cycle, ReM is used to review the development results of the project. Pillar 1: Consistency with and contribution to EIB mandate, EU priorities and country objectives. Pillar 2: EIB intervention results that contribute to SDGs and Indicators agreed upon with partner countries. Pillar 3: Additionalities when covering gaps in the market.	-	[Logic Model] The most commonly used approach in the evaluation of EVAL is the theory-based approach. Through a theory-based approach, the path of contribution between activity and overall goals is evaluated. Wherever possible, qualitative methods are supplemented by quantitative methods.	[Logic Model] Causal relationship analysis is done bye Theory of Change. [Monitoring] The International Cooperation and Development Results Framework (EURF) was introduced by DG DEVCO in 2015 in response to its commitment to strengthen monitoring and reporting of results and to increase accountability, transparency and visibility of EU aid. EURF is a tool used to collect and measure the results achieved against strategic goals. The EURF has a three-level structure and is organized around the relevance of the 17 SDGs development goals. Level 1: Progress of development in partner countries Level 2: Contribution of EU's intervention to development of partner countries Level 3: Mainstreaming of policy priorities	-