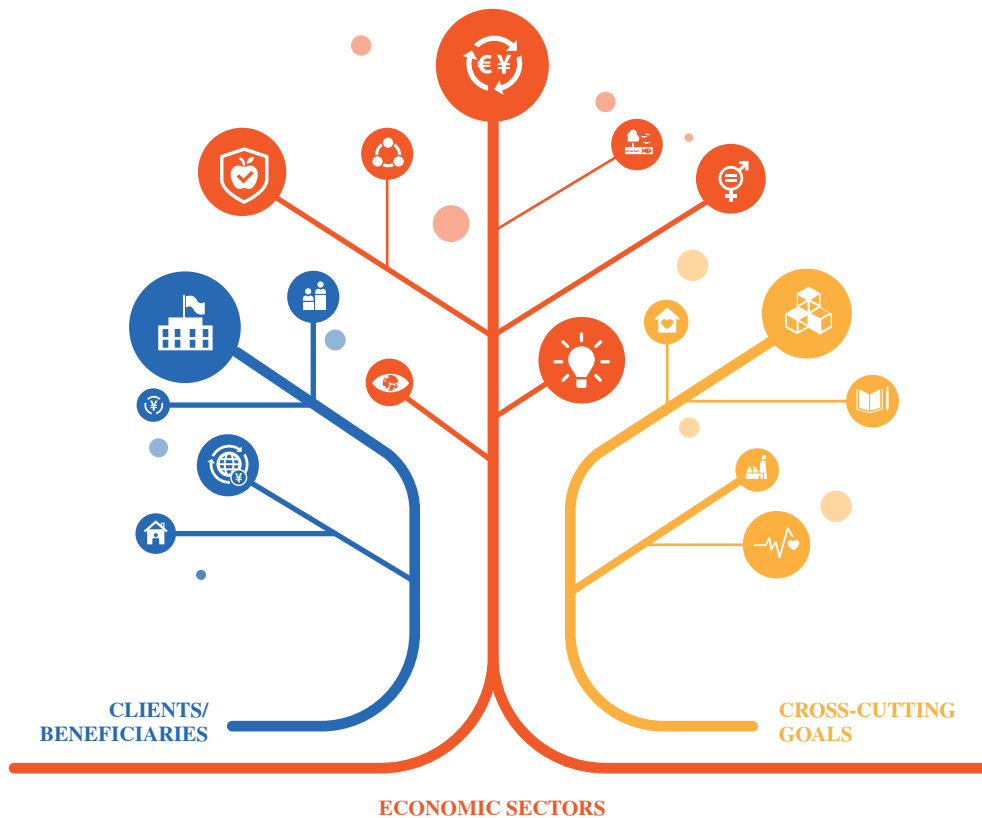




Art in the Doing

Public Development Banks Serving Public Policies

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Institute of New Structural Economics at Peking University
Agence Française de Développement
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The New Structural Economics Development Financing Research Paper Series aims to build the first comprehensive database of worldwide development financing institutions (DFIs) and foster original research on the rationales, operations, performance, and impact of DFIs to improve understanding of these important institutions and achieve better development outcomes.

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Abbreviations

AFD	Agence Française de Développement
AfDB	African Development Bank
CEB	Development Bank of the Council of Europe
CNY	Chinese Yuan
DEG	Deutsche Investitions- und Entwicklungsgesellschaft
DFIs	Development financing institutions
EAFRD	European Agricultural Fund for Rural Development
EIB	European Investment Bank
ERDF	European Regional Development Fund
EXIM	Export-Import Bank
FAO	Food and Agriculture Organization
FMO	Dutch Entrepreneurial Development Bank
GDP	Gross domestic product
GHG	Greenhouse gas
HIC	High-income country

IDFC	International Development Finance Club
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
INSE	Institute of New Structural Economics
ISD	Industrial sector development
JICA	Japan International Cooperation Agency
KfW	Kreditanstalt für Wiederaufbau
LIC	Low-income country
LMIC	Lower-middle income country
MDB	Multilateral development bank
MFI s	Microfinance institutions
MSME s	Micro, small, medium-sized enterprises
NDB	National Development Bank
ODA	Official development assistance
PDB s	Public development banks
PPA	Public policy area
Proparco	Promotion and Participation Company for Economic Cooperation
RA s	Research assistants
SDG s	Sustainable development goals
SME s	Small- and medium-sized enterprises
SOE s	State-owned enterprises
SPV s	Special purpose vehicles
TSKB	Industrial Development Bank of Turkey
UMIC	Upper-middle income country
USD	US dollars

Executive Summary

Our previous joint flagship database report titled “Mapping 500+ Development Banks: Qualification Criteria, Stylized Facts, and Development Trends” has identified eight official mandates of public development banks and development financing institutions (PDBs/DFIs) worldwide, but little is known about what the specific public policy areas (PPAs) engaged or pursued by PDBs/DFIs with a flexible mandate are and whether PDBs/DFIs with a single official mandate engage in public policy areas other than their mandates. Building on firsthand data collection, this report aims to fill this gap by systematically identifying public policy areas that are actively pursued by PDBs/DFIs in practice. To gain additional insights, this report further investigates the frequency of public policy areas pursued by PDBs/DFIs and what types of PDBs/DFIs are more likely to engage in a specific public policy area.

Building on firsthand data collection of 350 PDBs/DFIs worldwide where sufficient data is available, we have identified seventeen+ PPAs in this report: (1) rural smallholders, (2) small- and medium-sized enterprises, (3) financial inclusion, (4) local government, (5) international development financing, (6) infrastructure, (7) health, (8) education, (9) social housing, (10) industrial sector development, (11) trade finance, (12) gender equality, (13) climate, (14) biodiversity, (15) food security, (16) innovation, and (17) regional integration. The first five PPAs are classified into one group and

labeled as “clients/beneficiaries,” denoting that each of the public policy areas from this group serves a specific type of client who is also the beneficiary of the policy pursued by the PDBs/DFIs. The second group covers policy areas from (6) to (10) and is labeled “economic sectors,” denoting that each of these areas pursued by the PDBs/DFIs belongs to a certain economic sector. The last seven policy areas are classified into one and are labeled “cross-cutting goals,” denoting that public policy areas pursued by the PDBs/DFIs are aimed at contributing to social, economic, or environmental development, and the goals can be achieved through various channels by serving a specific client and/or investing in a certain economic sector. Although we aim to be as comprehensive as possible, the PPAs listed above are by no means exhaustive. Hence, we use “seventeen+” to denote the number of PPAs.

Among those seventeen PPAs identified in this report, we have systematically identified whether a PDB/DFI is engaged in a given PPA. We find that SME is the most prevalent policy area pursued by PDBs/DFIs, followed by infrastructure and industrial sector development. Climate action has also gained increasing importance; over half of the PDBs/DFIs covered in this study are actively engaged in combating climate change. By contrast, less than one-fifth of the PDBs/DFIs are found to be active in the area of biodiversity protection, which is the least frequent public policy pursued by the PDBs/

DFIs. Moreover, the likelihood of engaging in a given public policy area varies significantly across PDBs/DFIs. For instance, PDBs/DFIs from high-income countries are much more likely to engage in international development financing, trade finance, and innovation, whereas PDBs/DFIs from low-income countries (LICs) tend to focus more on industrial sector development. These findings suggest that PDBs/DFIs are potentially potent instruments at the disposal of the government in serving public policies worldwide and are adapting their roles to meet changing financing demands at different stages of development.

Moving forward, the research team will continue to identify additional public policy areas that are actively pursued by PDBs/DFIs worldwide and update the list of PPAs accordingly. Meanwhile, albeit the sample of institutions covered in this study can be considered representative of all PDBs/DFIs worldwide in terms of ownership structure and asset size, geographical

representation is biased toward those from high-income and upper-middle-income countries, leaving PDBs/DFIs from LICs underrepresented due to limited data availability. Future endeavors may focus on collecting credible information on those institutions by on-site visits or targeted surveys. Regarding the future research agenda, it is important for the government to justify the niche of PDBs/DFIs in addressing specific public policy areas to maximize their development effectiveness. It is also crucial to adapt the role and focus of PDBs/DFIs to changing development needs as the country climbs the income ladder. Moreover, the data collected in this report is a binary variable, indicating whether the institution is engaged in a certain public policy area. The degree to which the institution is engaged in a particular area is unknown and is left for future research. We hope that our persistent effort to build and expand the scope of the database will lay a solid foundation for rigorous academic and policy research in the future.

I. Introduction

The objective of the present report is to collect firsthand data to investigate what the public policy areas (PPAs) are and where public development banks and development financing institutions (PDBs/DFIs) operate in practice.

The objective of the present report is to collect firsthand data to investigate what the public policy areas (PPAs) are and where public development banks and development financing institutions (PDBs/DFIs) operate in practice. DFIs are public financial institutions created and steered by governments to achieve public policy objectives, whereas PDBs are a major category of DFIs (Xu et al. 2021).¹ According to the latest database on PDBs/DFIs worldwide initiated by the Institute of New Structural Economics (INSE) at Peking University and then co-constructed in collaboration with French Development Agency (AFD), about one-third of PDBs/DFIs have a de jure flexible mandate (i.e., not confining their official mandate to a specific mission). Yet, less is known about the specific public policy areas (PPAs) to which PDBs/DFIs dedicate their efforts. PDBs/DFIs with

a specific de jure official mandate may engage in PPAs other than their mandates. Hence, mapping out PPAs where PDBs/DFIs actually operate is a core contribution that this database report aims to make. This will help identify the de facto mandates pursued by PDBs/DFIs in practice. It will lay the foundation for the following (but not limited to) meaningful research on how PDBs/DFIs adapt their role in meeting changing financing needs at different stages of development, whether and why PDBs/DFIs may venture into new PPAs that go beyond the original de jure official mandates and whether the activities by PDBs/DFIs address market imperfections.

Identifying PPAs engaged by PDBs/DFIs entails an analysis of the justification of state intervention in financial systems (Stiglitz 1993) and the rationale for the creation, continuation, or growth of PDBs (Gong et al. 2023; Hu et al. 2022; Jiang et al. 2023; Marodon 2022; Griffith-Jones & Ocampo 2018; Ocampo & Ortega 2022; Schclarek et al. 2022). Economic theory uses the generic term “market failures” or “market imperfections” to cover all the mechanisms or conditions that deviate economic actors away from the optimal state. For instance, a commonly mentioned market failure is externalities. Market actors, blind to the

¹ A set of five qualification criteria that should be met simultaneously to qualify an entity as a PDB or DFI includes the following: (1) being a stand-alone entity; (2) using the fund-reflow-seeking financial instruments as the main products and services; (3) funding sources going beyond the periodic budgetary transfers; (4) a proactive public policy orientation; and (5) government steering of their corporate strategy (Xu et al., 2021).

collective, social, or environmental interest of their investments, seek to maximize their own benefits that present the best risk and profitability (or quality and price) ratio. The “market price” does not capture all of its externalities. For instance, prices indicate that it is rational to invest in a coal-fired power plant to produce energy at a low cost for the benefit of consumers and the local factory. However, market prices do not factor in the long-term economic and financial costs of climate change, exacerbated by CO₂ emissions. The markets may also give biased signals that do not reflect the real situation, or there might be misperceived risks in uncharted regions or industrial sectors. Furthermore, in addition to market failures, there is either no market or the market is far from being mature, partly because of the market’s strong preference for short-termism and risk aversion (Mazzucato 2013).² Consequently, these market imperfections generate inefficiency, lost opportunities, or hidden costs.

Whenever a market imperfection is perceived or a public priority has emerged for which governments need concrete actions, it may entail a public financing arm to implement public policies. PDBs, initiated by governments with the official mandate to fulfill public policy objectives, are well positioned to mobilize resources to address market imperfections or incubate markets.

Whenever a market imperfection is perceived or a public priority has emerged for which governments need concrete actions, it may entail a public financing arm to implement public policies.

Our report aims to map out PPAs where PDBs/DFIs operate. However, the identification of these PPAs does not imply that PDBs/DFIs are best positioned to implement these public policies compared with alternative means of state intervention. Exploring the niche of PDBs/DFIs in addressing market imperfections compared with alternative means of public intervention is an important question in its own right, which goes beyond the scope of this report.³ The core contribution of this report is to identify de facto PPAs in which PDBs/DFIs are engaged in practice.

The rest of the report proceeds as follows: In Section 2, we provide an analytical framework for classifying PPAs where DFIs/PDBs operate. In Section 3, we introduce the methodology of data collection and quality control. Section 4 presents stylized facts and offers potential explanations. We conclude with key findings and avenues for future research in Section 5.

² For more information on Kyoto Protocol, please visit https://unfccc.int/kyoto_protocol.

³ In addition, PDBs/DFIs may also engage in activities that may risk crowding out private financial institutions. But due to data limitation, we cannot distinguish public policy areas where the role of PDBs/DFIs is needed from those where their roles are redundant.

II. An Analytical Framework for Classifying Public Policy Areas

Through a systematic review of the official mandates and operational activities that PDBs conduct, we have identified a set of seventeen+ PPAs that are classified into three broad categories.

Through a systematic review of the official mandates and operational activities that PDBs conduct, we have identified a set of seventeen+ PPAs that are classified into three broad categories.

The first category is labeled “clients/beneficiaries,” denoting that each of the PPAs from this category serves a specific type of client who is also the beneficiary of the policy pursued by the PDBs/DFIs. As can be seen in Figure 1, five PPAs have been classified into this category, namely, rural smallholders, small- and medium-sized enterprises (SMEs), financial inclusion, local governments, and international development financing. Because this category is client centric, a key feature of the PPAs included is that a formal financing contract or any other legally binding agreement will be signed between the clients and the PDBs/DFIs and the financing or support must land in the hands of the clients or beneficiaries.

The second category is labeled “economic sectors,” denoting that PPAs pursued by the PDBs/DFIs belong

to a certain economic sector. As shown in Figure 1, five different economic sectors have been identified. It is interesting to note that among these five economic sectors, four can be seen as public sectors where the government has an important role to play (i.e., education, health, infrastructure, and social housing). Whereas for the development of the industrial sector, enterprises are the key market players, and the government is expected to play a facilitating role in promoting industrial upgrading and speeding the industrialization process.

The third category is labeled “cross-cutting goals,” denoting that PPAs pursued by the PDBs/DFIs are aimed at contributing to social, economic, or environmental development. It is cross-cutting in the sense that they can be achieved through various channels by serving specific clients or investing in certain economic sectors. For instance, to achieve the goal of food security, one approach is to provide financial support to smallholder farmers, and another approach is to finance irrigation projects.

The first category is labeled “clients/beneficiaries,” denoting that each of the PPAs from this category serves a specific type of client who is also the beneficiary of the policy pursued by the PDBs/DFIs.

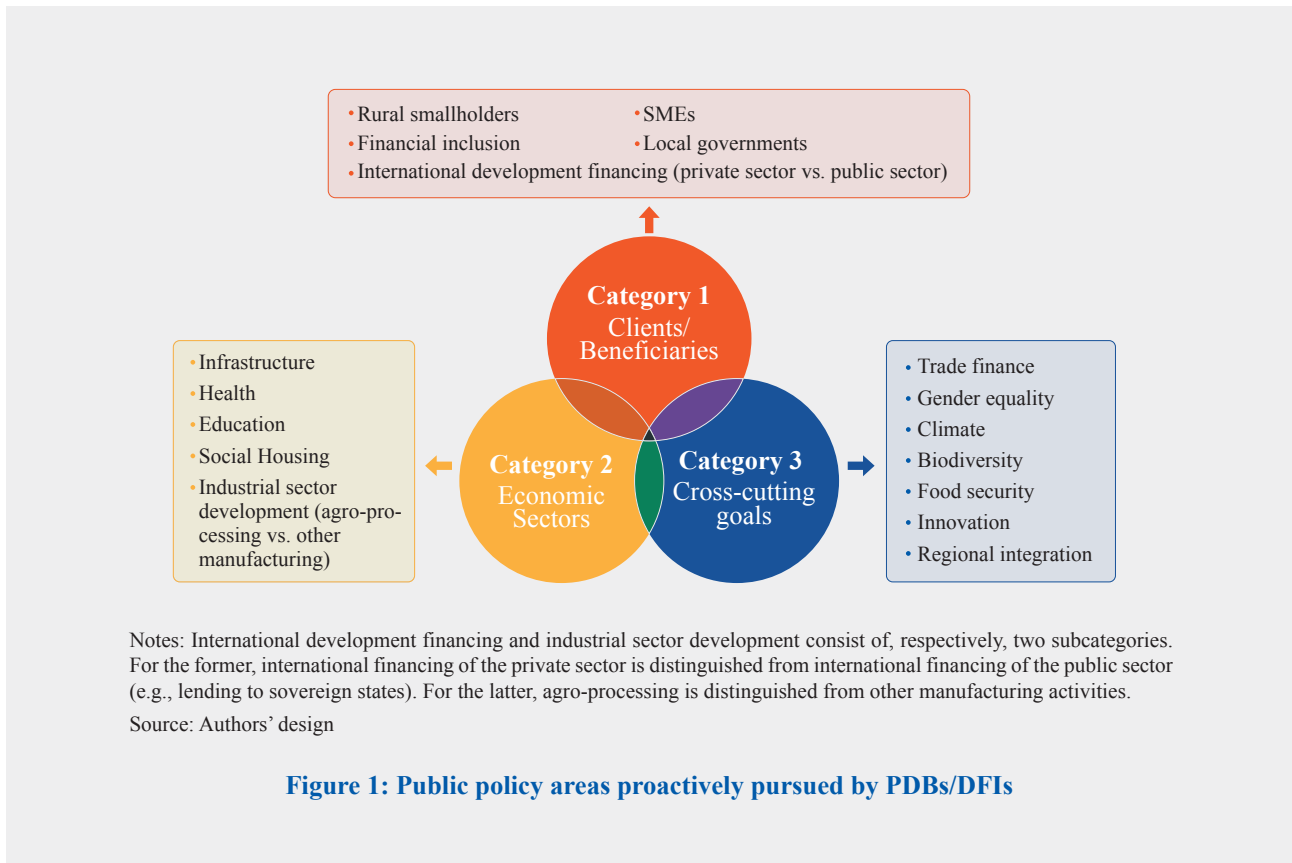


Figure 1: Public policy areas proactively pursued by PDBs/DFIs

The second category is labeled “economic sectors,” denoting that PPAs pursued by the PDBs/DFIs belong to a certain economic sector.

As shown in Figure 1, those three broad categories represented by the circles can overlap, whereas each of these PPAs within the category is mutually exclusive. This means that one activity pursued by PDBs may simultaneously achieve two public policy objectives. For instance, PDBs/DFIs may provide financial support for SMEs in the sector of renewable energies to achieve industrial upgrading in an effort to tackle climate change. This activity falls into three PPAs, namely, SMEs, industrial sector development, and climate.

The above categorization of PPAs comes with two caveats. First, it may not be an exhaustive list. Even though we try to be as comprehensive as possible, PPAs are evolving to tackle new challenges. Hence, we use “seventeen+” to denote the number of PPAs. Second, we exclude overarching goals that would probably be pursued by most PDBs/DFIs. For instance, we did not include countercyclical financing as one PPA, even though it is listed as a key rationale for the establishment of PDBs/DFIs in the literature (Léon 2022; Xu et al. 2019; Griffith-Jones and Ocampo 2018).

The third category is labeled “cross-cutting goals,” denoting that PPAs pursued by the PDBs/DFIs are aimed at contributing to social, economic, or environmental development.

III. Methodology and Quality Control

In this section, we describe data sources, the data collection strategy, and the quality control methods undertaken in this research. The aim is to ensure academic rigor throughout the entire data collection and verification processes such that the data collected can be verified and are as transparent and rigorous as possible.

■ 3.1 The sampling frame and data sources

Based on the world's first comprehensive database on PDBs/DFIs, we take the sample of 522 PDBs/DFIs jointly released by INSE and AFD in July 2022 as the starting point.⁴ Given the seventeen+ PPAs identified in the prior section, the objective of our data collection effort is to collect data on those 522 institutions across seventeen+ PPAs, of which international development financing and industrial sector development are further split into two subcategories to capture the disaggregated data if available (see Figure 1).

To ensure that the data collected are credible and verifiable, we have relied on three main sources: (1)

the official website of the institution and/or official documents disclosed by the institution (e.g., annual report, activity report, and sustainability report); (2) the official website of a country's governmental organization where the institution is located and/or the official account of the institution on major social media (e.g., Twitter and LinkedIn); (3) information from a well-known data provider and/or reliable public news media (e.g., BankFocus, Bloomberg, and Financial Times).⁵

For PDBs/DFIs with no information available regarding their activities from any of the abovementioned sources, these institutions are noted as “n.i.”, denoting that no information can be found and are, therefore, removed from the final sample (see Appendix Table B1 for the list of eighteen institutions that are removed from the final sample due to the lack of credible information).

Even though we have tried our best to collect the publicly available information, the result of data collection may be biased by the lack of transparency of some PDBs/DFIs or lags in the update of official websites due to human resource constraints. The lack of information does not necessarily mean the negation of information. Although the publicly available data can be complemented with the

⁴ For the complete list of 522 DFI/PDBs, please visit <https://www.nse.pku.edu.cn/dfidatabase/datadownloading/index.htm>.

⁵ To assure full transparency and traceability, information that is publicly available is a necessary but not sufficient condition to be considered credible. Moreover, the vast majority of the data collected are from the official website of the institution and/or its annual reports.

survey data with PDBs/DFIs, it is challenging to verify the self-reporting data. Hence, the present database report primarily relies on the publicly available information for analysis.

■ 3.2 Data collection strategy

We implemented a parallel data collection strategy. Two separate teams collected data on PPAs simultaneously—one team was based in France (comprising a principal investigator, a research director, and a group of locally recruited research assistants), and the INSE team was based in China with an identical structure of team composition. Both independent teams were tasked with collecting the same data. We deliberately chose this strategy to increase data quality and to facilitate cross-checks, because results can be compared and contrasted, thus helping us spot and check on dubious data points. Generally speaking, the data collection strategy comprised the following three steps:

To be precise, the definition of each PPA provided in the codebook was not only motivated by academic literature but also pretested on a sample of twenty selected representative institutions to assure that the definition of each PPA was as clear and operational as possible.

(1) Developing a codebook for data collection. To ensure the quality of data collection by research assistants (RAs), the provision of a clear and hands-on codebook is indispensable. Before handing it out to RAs, there were thorough discussions among principal investigators and research directors on both theoretical and practical fronts during the development of the codebook. To be precise, the definition of each PPA provided in the codebook

was not only motivated by academic literature but also pretested on a sample of twenty selected representative institutions to assure that the definition of each PPA was as clear and operational as possible. In addition to designing the codebook, a data collection template file was developed such that each data point collected by RAs was accompanied by rigorous supporting evidence that could be traced and verified, and all the evidence was documented in a consistent and standardized format.

(2) Training the RAs. Before starting the collection of data, both teams held a training session independently for those locally recruited RAs. During the training session, principal investigators and research directors explained the objective of this research initiative as well as every single detail outlined in the codebook. The aim was to ensure that RAs had a thorough understanding of the codebook and would be fully prepared for data collection. The training sessions were held independently for the AFD and INSE teams, and the same training materials were used; answers to the questions raised by RAs in the training sessions were standardized. A log was created to document all the questions raised by the RAs and the answers throughout the entire data collection process. By doing so, we tried to maximize the consistency of data collection between the AFD and INSE teams.

(3) Starting data collection. Both the AFD and INSE teams started collecting data on the same day, and the process lasted four weeks. During this period, research directors from AFD and INSE monitored the progress as well as the quality of data collection to the best of their capacities, making sure that each data point collected was accompanied by supporting evidence, which could be traced, verified, and cross-checked.

■ 3.3 Data quality control

The virtue of having two teams collecting the same data simultaneously is that it facilitates quality control

because we could directly compare the results of data collection between the two. For data points documented with different values (i.e., one team finds evidence and notes the associated PPA as one, whereas the other fails to find evidence and notes it as zero), they warranted extra attention and further checks. Although data points documented with the same values imply “consistency”, there is no guarantee that the data collected are fully accurate because it could be that both teams have made the same mistake in finding invalid evidence (i.e., erroneously recording certain PPA as one) or in overlooking relevant evidence (i.e., erroneously recording certain PPA as zero).

The virtue of having two teams collecting the same data simultaneously is that it facilitates quality control because we could directly compare the results of data collection between the two.

Upon the completion of data collection, the first thorough check of quality control was comparing the data results between two teams and identifying all the discrepancy cases (i.e., data points with different values). Once identified, research directors checked on those discrepancy cases one at a time and collectively determined whether there was relevant supporting evidence to justify that a given PDB was engaged in a given PPA. For the second step, we used “frequency

counts” of keywords as a tool to help us identify the cases that needed to be further checked. For each PPA identified in the report, we identified a list of fifteen keywords that are highly relevant to the PPA and then used programming tools to search and count aforementioned keywords from their annual reports. The rationale for conducting this quality check is that if the PDBs are active in certain PPAs, it is unlikely that they do not mention it in their annual reports from the last five years. In other words, the higher the number of frequency counts for the PPA investigated, the more likely the bank is engaged in this PPA. Two scenarios call for extra attention and cross-check. The first occurs when cumulated frequency counts for a PPA equal to zero while the policy area was recorded with the value one by the analysts. In this case, it is possible that the value one is recorded by mistake or the evidence collected is not valid or sufficient.⁶ The second scenario is that frequency counts show a large value, but the corresponding PPA is recorded with a value of zero. This scenario points to the possibility that research assistants may have overlooked valid evidence during data collection and recorded a certain PPA with the value of zero, whereas frequency counts based on keywords would suggest otherwise.

For the second step, we used “frequency counts” of keywords as a tool to help us identify the cases that needed to be further checked.

⁶ Note, it may happen that frequency count is simply zero, but the value of one is supported by sound evidence, because frequency count is based only on annual reports, but data were collected using both reports and bank websites. Although information may overlap, it is generally the case that information provided in an annual report differs from what is presented on the website.

IV. Stylized Facts and Potential Explanations

After outlining the background and identifying the main area of intervention of PDBs in support of public policies, this section delves deeper into each PPA and relies on the firsthand data collection to present stylized facts and explore potential explanations.

■ 4.1 Public Development Banks serving public policies: Overall results

4.1.1. Sample composition

Our paper offers the first-ever comprehensive mapping of public policies pursued by PDBs/DFIs. Our final sample covers 350 institutions, or 67 percent of all PDBs worldwide, accounting for 97 percent of the population's total assets.⁷ The composition of the sample derives from the methodological choices to collect and cross-check the data. To ensure data consistency and quality, we keep only the institutions for which we could verify

the supporting evidence (see Section 3.3). Eventually, the final sample comprises institutions with robust data on PPAs as well as collected data regarding their main financial indicators.

Our final sample covers 350 institutions, or 67 percent of all PDBs worldwide, accounting for 97 percent of the population's total assets.

Figure 2 provides preliminary information on the sample composition. It is worth noting that small-sized national institutions are the largest group among all the categories identified in the figure—accounting for greater than 37 percent of the full sample—followed by micro-sized national banks—accounting for nearly 20 percent of the sample. Moreover, following the classification of Xu et al. (2021), among the 350 institutions included in this study, three are equity funds and eleven are guarantee funds (for the complete list, see Appendix Table B2 and Table B3).

⁷ To ensure the accuracy of data collection, we have deleted 148 PDBs/DFIs with no frequency counts. After deleting six PDBs/DFIs with no data on total assets, we arrive at the final sample size of 350 PDB/DFIs for the analysis in Chapter 4.

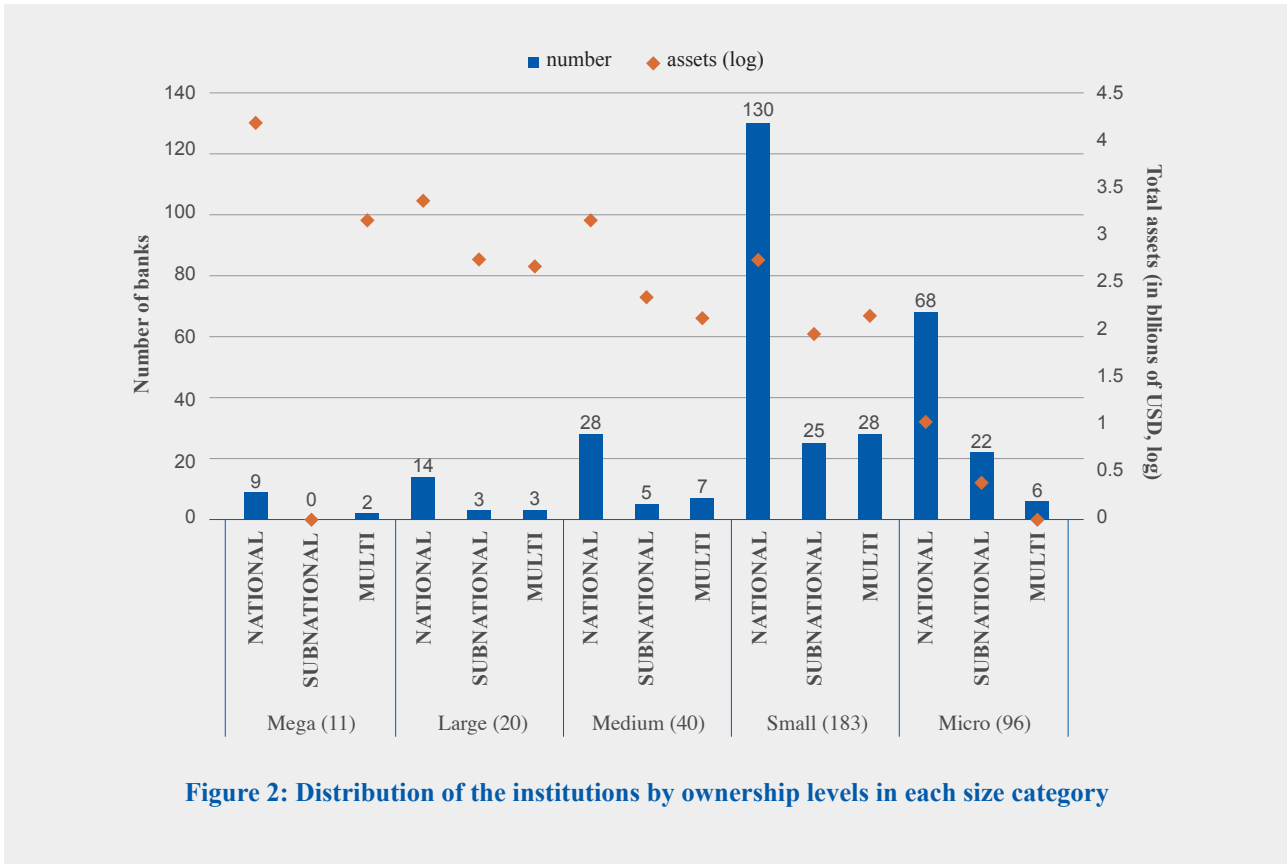


Figure 2: Distribution of the institutions by ownership levels in each size category

Building on the typology defined by Xu et al. (2021), Table 1 presents the distribution of the sample across DFIs’ main characteristics. From a geographical perspective, it can be seen that Africa is slightly underrepresented, whereas American and European institutions are slightly overrepresented. Similarly, our sample includes relatively more institutions from high-income and middle-income countries than lower-income countries. However, the ownership structure is representative, and our study provides data for 84 percent of all multilateral development banks (MDBs). Moreover, we cover more than 90 percent of the sample of mega, large, medium, and small PDBs/DFIs, but micro institutions are largely underrepresented. This stems from the lack of available data for micro institutions that do not publicize their information nor have a website. Eventually, among PDBs with different characteristics,

the mandate is likely to be the most correlated variable with the pursued public policy areas. Table 1 highlights the strong consistency of our sample with the PDBs’ mandate distribution. Despite the fact that our study is not exhaustive, it is reasonable to argue that our results are representative enough of the PPAs engaged by DFIs/PDBs.

Table 1 highlights the strong consistency of our sample with the PDBs’ mandate distribution. Despite the fact that our study is not exhaustive, it is reasonable to argue that our results are representative enough of the PPAs engaged by DFIs/PDBs.

Table 1: The distribution of the sample by DFIs' main characteristics

		PDBs/DFIs' total population		Sample		Sample representation
		Number of PDBs/DFIs	%	Number of PDBs/DFIs (denominators used in Section 4.2.)	%	% of sampled PDBs/DFIs in total population
World		522 ^a	100%	350 ^a	100%	67%
Continent	Africa	102	20%	57	16%	56%
	America	118	23%	88	25%	75%
	Asia	148	28%	94	27%	64%
	Europe	126	24%	93	27%	74%
	Oceania	20	4%	12	3%	60%
	World	8	1%	6	2%	75%
Income group	HIC	175	34%	129	37%	74%
	UMIC	134	26%	101	29%	75%
	LMIC	137	26%	67	19%	49%
	LIC	21	4%	7	2%	33%
Ownership	MULTI	55	11%	46	13%	84%
	NATIONAL	356	68%	249	71%	70%
	SUBNATIONAL	111	21%	55	16%	50%
Asset size^b	Mega	11	2%	11	3%	100%
	Large	20	4%	20	6%	100%
	Medium	43	8%	40	11%	93%
	Small	201	39%	183	52%	91%
	Micro	186	37%	96	27%	52%
Mandate^c	AGRI	35	7%	21	6%	60%
	EXIM	54	10%	43	12%	80%
	FLEX	181	35%	118	34%	65%
	HOUS	37	7%	28	8%	76%
	INFRA	31	6%	19	5%	61%
	INTL	30	6%	28	8%	93%
	LOCAL	17	3%	10	3%	59%
	MSME	137	26%	83	24%	61%

^a Due to the lack of data on asset size and the fact that multilateral development banks cannot be classified by income groups, the distribution of DFIs in each typology may not add up to a total of 522 or 350.

^b According to the absolute size of total assets, we classify PDBs and DFIs into five size categories: mega (more than \$500 billion), large (between \$100 billion and \$500 billion), medium (between \$20 billion and \$100 billion), small (from \$500 million to \$20 billion), and micro (less than \$500 million).

^c We classify official mandates as whether they are flexible or not. Flexible (FLEX) means that official mandates are not confined to a specific mission. If they are not flexible, we further classify them into seven categories by specific sectors or clients, including rural and agricultural development (AGRI), promoting exports and foreign trade (EXIM), social housing (HOUS), infrastructure (INFRA), international financing of private sector development (INTL), local government (LOCAL), and micro-, small-, and medium-sized enterprises (MSME).

4.1.2. Overall results

PDBs mainly intervene in the productive sectors.

Our analysis shown in Figure 3 highlights contrasting results, which demonstrate the diversity of PDBs/DFIs' activities. First, it appears that PDBs mainly intervene in the productive sectors. Thus, 81 percent of them contribute to the financing of SMEs and nearly two-thirds of the finance infrastructure and industrial sector development. These results are consistent with the analysis of Jacouton, Marodon, and Laulanié (2022), who pointed out that the strategic narrative of PDBs is largely dominated by the so-called productivist SDGs, such as SDG 8 (Decent Work and Economic Growth) and SDG 9 (Industry, Innovation and Infrastructure). Indeed, financing the productive sector is a historical mandate for these institutions. In fact, the modern PDB ecosystem developed in the aftermath of the Great Depression to support economic activity in the countries affected by the crisis (Ocampo & Ortega 2022). During the twentieth century, many countries set up PDBs to finance essential infrastructure to promote economic development. For example, China Development Bank contributes to the growth of the Chinese economy by financing major infrastructure projects such as the Three Gorges Dam. Furthermore, PDBs' economic model is intended to go beyond periodic budgetary transfers from governments. This financial constraint requires financing for productive activities in sectors and with financially sound counterparties capable of servicing the debt resulting from their borrowing. Yet, this may run the risk of crowding out private financing, which can be especially problematic in areas where markets are mature. Studying the potential crowding-out effect of PDBs and its extent is an avenue for future research.

Interestingly, climate stands as an important public policy

area, with more than 50 percent of PDBs/DFIs that show evidence contributing to mitigation and adaptation to climate change. However, Section 4.2.13 shows that this relatively high number masks important disparities across PDB typologies. The most evident is the apparent positive relationship between asset size as shown on the balance sheet and contributions to the fight against climate change. At the other end of the spectrum, our results highlight that biodiversity is the least considered public policy objective. Unlike climate, which has benefitted from growing attention from citizens and decision-makers over the recent years and the adoption of the 2015 Paris Agreement, biodiversity protection and conservation are still perceived as an unusual mandate for most PDBs. This result is consistent with the analysis of World Wide Fund for Nature (WWF 2021).

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The remaining results show that human development, exemplified by health and education and social cohesion (e.g., financial inclusion and gender equality) appears to be moderately frequent PPAs pursued by PDBs and DFIs. Other PPAs, such as social housing, international development financing, or local governments, generally correspond well to the specific mandates.

Unlike climate, which has benefitted from growing attention from citizens and decision-makers over the recent years and the adoption of the 2015 Paris Agreement, biodiversity protection and conservation are still perceived as an unusual mandate for most PDBs.

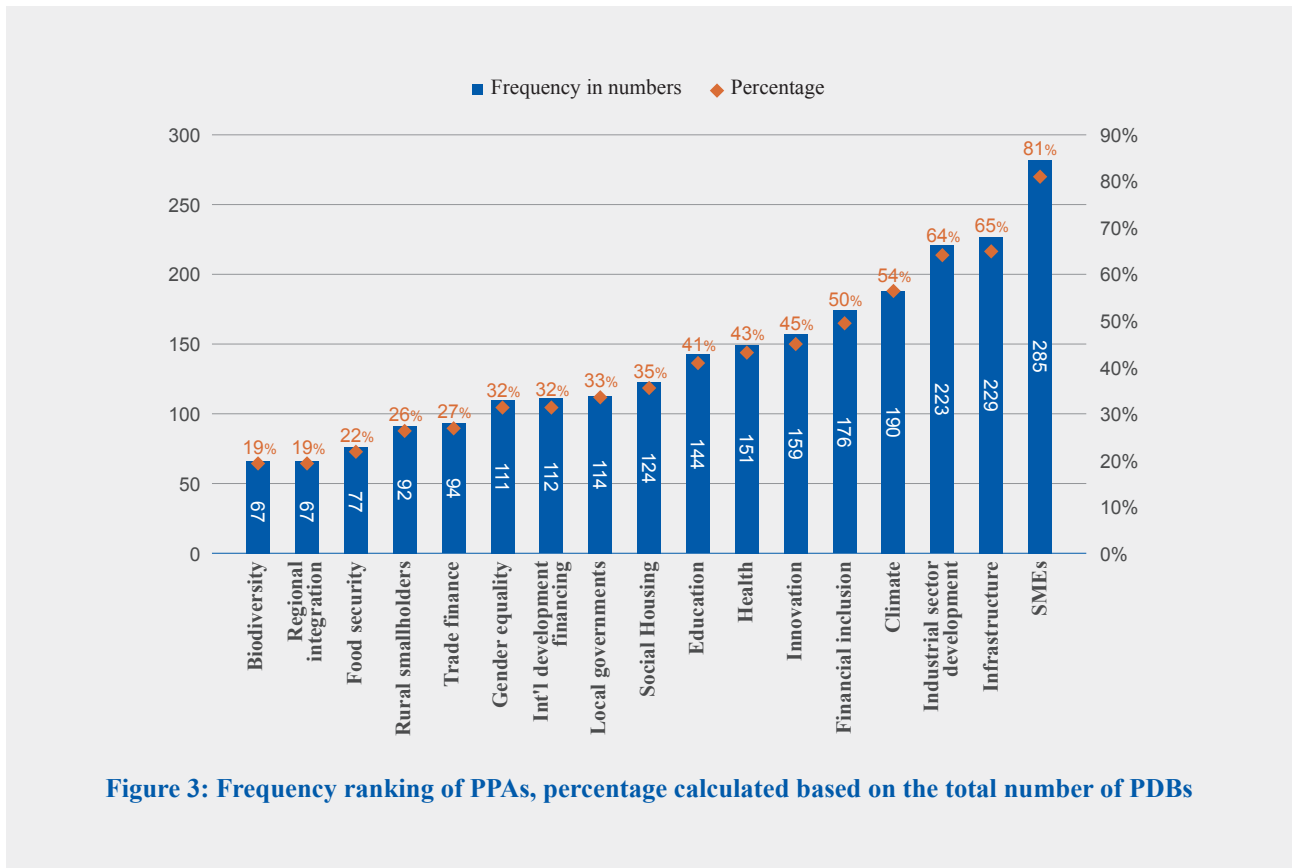


Figure 3: Frequency ranking of PPAs, percentage calculated based on the total number of PDBs

On average, each PDB is engaged in about seven public policy areas.

On average, each PDB is engaged in about seven public policy areas. Table 2 highlights the differences or similarities observed from one typology to another. In terms of geographical scope of intervention, there are no significant differences in the diversity of activities from one region to another. Nevertheless, it can be observed that banks that operate across the globe, like the World Bank, cover a greater number of public policies. The same pattern can be found when comparing the ownership structure of PDBs. Thus, MDBs serve almost twice as many public policies as national or subnational banks. This finding can be explained in part by the fact that MDBs take greater account of the challenges of global public goods, such as environmental protection.

It is also interesting to note that there is a positive correlation between the size of PDBs’ balance sheet (measured by total assets) and the number of PPAs they serve. These results suggest that the larger the size of the bank, the more it is asked to diversify its financing outside the productive sector. Conversely, smaller PDBs have fewer resources to diversify their activities besides their core mandate. Investment in certain activities, such as climate change adaptation, can require a long-time horizon and associate with more risks than short-term investments in productive sectors. It is likely that the risks for smaller banks’ portfolio justify their greater difficulties in diversifying their activities.

There is a positive correlation between the size of PDBs’ balance sheet (measured by total assets) and the number of PPAs they serve.

Table 2: Descriptive statistics of PDBs/DFIs' average frequency of PPAs by typology

		Min	Mean	Max	S.D.
Full sample		1	6.90	17	3.60
Continent	Africa	1	7.25	17	3.37
	America	1	6.77	17	3.56
	Asia	1	6.18	17	3.50
	Europe	1	7.54	17	3.58
	Oceania	1	4.58	11	3.15
	World	8	11.50	17	3.94
Income group	HIC	1	6.67	17	3.50
	UMIC	1	6.80	15	2.98
	LMIC	1	5.09	12	2.46
	LIC	1	6.43	11	3.55
Ownership structure	MULTI	1	10.48	17	4.18
	NATIONAL	1	6.39	17	3.26
	SUBNATIONAL	1	6.24	13	2.82
Asset size	Mega	2	11.36	17	5.63
	Large	2	10.05	17	4.51
	Medium	1	7.8	17	3.57
	Small	1	6.92	16	3.26
	Micro	1	5.32	12	2.73
Mandate	AGRI	2	7.38	12	2.42
	EXIM	1	5.33	12	2.78
	FLEX	1	8.36	17	4.00
	HOUS	1	3.07	7	1.56
	INFRA	1	5.74	11	2.51
	INTL	2	10.50	17	3.48
	LOCAL	3	5.70	9	1.77
	MSME	2	6.01	13	2.32

Finally, the analysis reveals institutions with specialized mandates, such as the financing of social housing or international trade, tend to cover a lower number of PPAs (three and five respectively, see Table 2). Conversely, other PDBs show that despite their main mandate, they contribute to the financing of a diversified range of activities. Thus, a significant number of agricultural banks contribute to financial inclusion because in many countries small peasantries are excluded from the traditional banking system. By financing the entire agricultural value chains, these institutions also

contribute to the structuring of the industrial ecosystem. These results underline the leverage effect that PDBs may have—while concentrating their activities on a particular sector, their financing has significant side benefits and generate positive impacts at the macroeconomic level.

Institutions with specialized mandates, such as the financing of social housing or international trade, tend to cover a lower number of PPAs.

■ 4.2 Results by each public policy area

To complete our analysis, we have drawn a typology of the PDBs/DFIs supporting each of the seventeen public policy areas. Each time, we provide a thorough discussion on the definition and connotation of each PPA and then discuss our results by ownership levels, size categories, income levels, and geo-scope of operation classified by ownership levels, as presented below. To obtain the percentage of engagement in each category, we have divided the sum of all the institutions active in a given PPA by the total number of institutions belonging to that category. Thus, the denominator used for analysis is the same across all PPAs.

4.2.1 Rural smallholders

Although there is no universally accepted definition (Barrett et al. 2012), rural smallholders or small-scale farmers play a significant role in many countries, especially in reducing poverty, inequality, and hunger in underdeveloped countries where the agricultural sector employs a large share of the population (Lowder, Scoet, and Raney 2016). According to a recent study by Lowder, Sánchez, and Bertini (2021), there are more than 608 million farms in the world, among which small farmers (those working on an area of less than two hectares) account for 84% of all farms worldwide (ca. 510 million farms). In terms of output produced by all the farmers, the estimates suggest that small farmers produce between 70 percent and 80 percent of the world's food (Ricciardi et al. 2018; FAO 2014).

There is a variety of reasons why smallholders are underfinanced. First, people in rural areas typically lack financial literacy and formal financial institutions have avoided or failed to provide sufficient and sustainable financial services in rural areas. Second, rural smallholders are generally small in size with limited collateral, which makes commercial banks less inclined or simply not willing to lend to smallholders. Third,

rural smallholders are mostly informally structured with no proper record of financial or production information, which would disqualify them from submitting loan applications at formal financial institutions. It is, therefore, important that specific financing mechanisms must be designed to benefit these small producers. This is the mandate given to many development banks to make up for the lack of service from private banks.

PDBs with an official mandate to finance and support agricultural and rural development will be the main actors in pursuing this public policy, especially in LICs and lower-middle-income countries (LMICs), such as the Banque Nationale de Développement Agricole in Mali, the Agricultural Development Bank of China, and International Fund for Agricultural Development. Although to a lower degree, PDBs with a flexible mandate are also likely to be important players in supporting rural smallholders as they are the dominant force of global food supply and the backbone of food security.

As shown in Figure 4, a significant proportion of MDBs (i.e., 75 percent) show their support to rural smallholders. Most of the large MDBs like the World Bank or banks with cross-border activities, such as the AfDB or EIB, do not have the capacity to manage a multitude of small loans for small agricultural producers. Thus, they mobilize funding for the benefit of small farmers through the intermediation of local banks or cooperative banks. By contrast, national development banks (NDBs) perform the function of first-level lender, such as the National Bank for Agricultural Development in Mali, the Agricultural Bank of Zimbabwe, or the Tanzania Agricultural Development Bank.

At first glance, it appears counterintuitive that some mega and large banks support rural smallholders. A close look at the data reveals that they primarily work with local partners to provide technical assistance to strengthen the capacity of rural smallholders. For instance, European Investment Bank has developed an ACP Smallholder Financing Program that provides technical assistance to

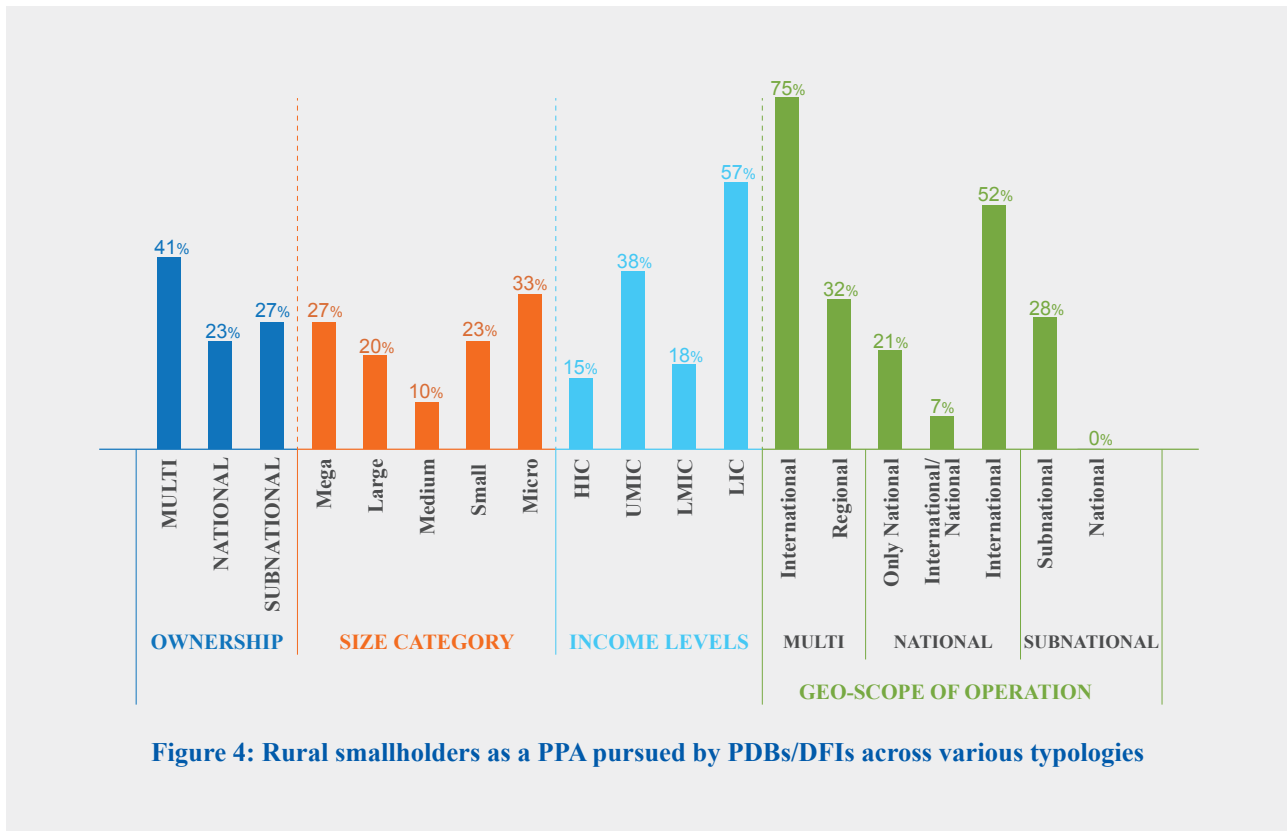


Figure 4: Rural smallholders as a PPA pursued by PDBs/DFIs across various typologies

enhance the access of smallholder farmers to credit. For the other three (more) sizable asset categories, it shows that the smaller the size of the bank, the more likely for the bank to support rural smallholders. The rationale is that small banks are better positioned to provide financing to smallholder farmers than large banks because they often possess more soft information about smallholder farmers than large banks.

At first glance, it appears counterintuitive that some mega and large banks support rural smallholders. A close look at the data reveals that they primarily work with local partners to provide technical assistance to strengthen the capacity of rural smallholders.

Regarding income levels, more than half of the banks from LICs provide support to rural smallholders. This can be explained by the fact that the primary sector often occupies a higher share of LIC's GDP than in richer countries, with rural smallholders constituting the majority of the agricultural sector. However, this result is also influenced by the low number of observations for this category.

4.2.2 SMEs

Like rural smallholders, a definition on SMEs also varies significantly across countries or even within countries across financial institutions (Beck 2013). Generally speaking, criteria or indicators used to differentiate small, medium-sized, and large enterprises include employees, asset size, and sales and turnover. For instance, in the

European Union, SMEs refer to those with the number of full-time employees between 10 and 250 and a turnover between 2 million and 50 million Euros.⁸ In China, the classification of SMEs depends on the industry to which the firm belongs. For example, for the primary sector (i.e., agriculture, forestry fisheries, and husbandry), SMEs refer to those with no requirement on the number of full-time employees, but the turnover must be between half a million and 200 million Chinese Yuan (CNY). For the industrial sector (e.g., manufacturing enterprises), however, Chinese SMEs refer to those with a number of full-time employees between twenty and one thousand as well as a turnover ranging from 3 million to 400 million CNY. Due to the lack of a universal definition, we define SMEs according to the official definitions in their respective economy.

The economic and social weight of SMEs gives them a fundamental place in development strategies everywhere. According to the World Bank, SMEs account for nearly 90 percent of all businesses and employ nearly 50 percent of the private sector workforce. The International Finance Corporation (IFC 2017) estimates that there are 162 million in the formal sector alone. The difficulties that SMEs face in obtaining financing are well documented and fairly universal (Beck et al. 2005; Beck et al. 2006; Beck et al. 2008). These include a lack of collaterals (European Commission, 2019). This is also the case for the difficulty of offering reliable guarantees to secure the lender. The criteria for granting financing by commercial banks, which are themselves constrained by a strict regulatory system, turn into difficulties in accessing credit, at least for the smallest and most fragile ones. In addition, SMEs face higher financing obstacles than large enterprises due to higher transaction costs induced by greater information asymmetry. SMEs have diverse characteristics, and their relative opaqueness significantly increases the assessment and monitoring costs required from lending institutions (Beck 2007). As a result, traditional banking that requires collateral or

transparent (financial) information may be reluctant to provide financing to SMEs, leaving them underfinanced in the market.

As can be seen in Figure 5, as the most important contributor to economic growth and labor employment, it comes as little surprise that the amount of support provided to SMEs does not differ drastically from one typology to another and is consistently high across different groups (generally greater than 70 percent within each group or category). Most SMEs are first financed by NDBs. The Banque Publique d'Investissement (France), the German LandesBank, and the US Small Business Administration are typical examples. This PPA is also supported in many emerging or developing countries. We thus note the leading role of CDG Capital in Morocco, the development bank of Nigeria, or the Small Industries Development Bank of India. These banks also draw part of their funding from large multilateral banks or DFIs that provide cross-border funding.

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4.2.3 Financial inclusion

In many countries, either an entire region or a large segment of society does not have access to any banking services. According to the latest estimates based on the Global Findex Database compiled by the World Bank (Demirgüç-Kunt et al. 2018), there are about 1.7 billion adults worldwide who remain unbanked (i.e., those without a bank account at a formal financial institution).

⁸ For more information, please see https://ec.europa.eu/growth/smes/sme-definition_en.

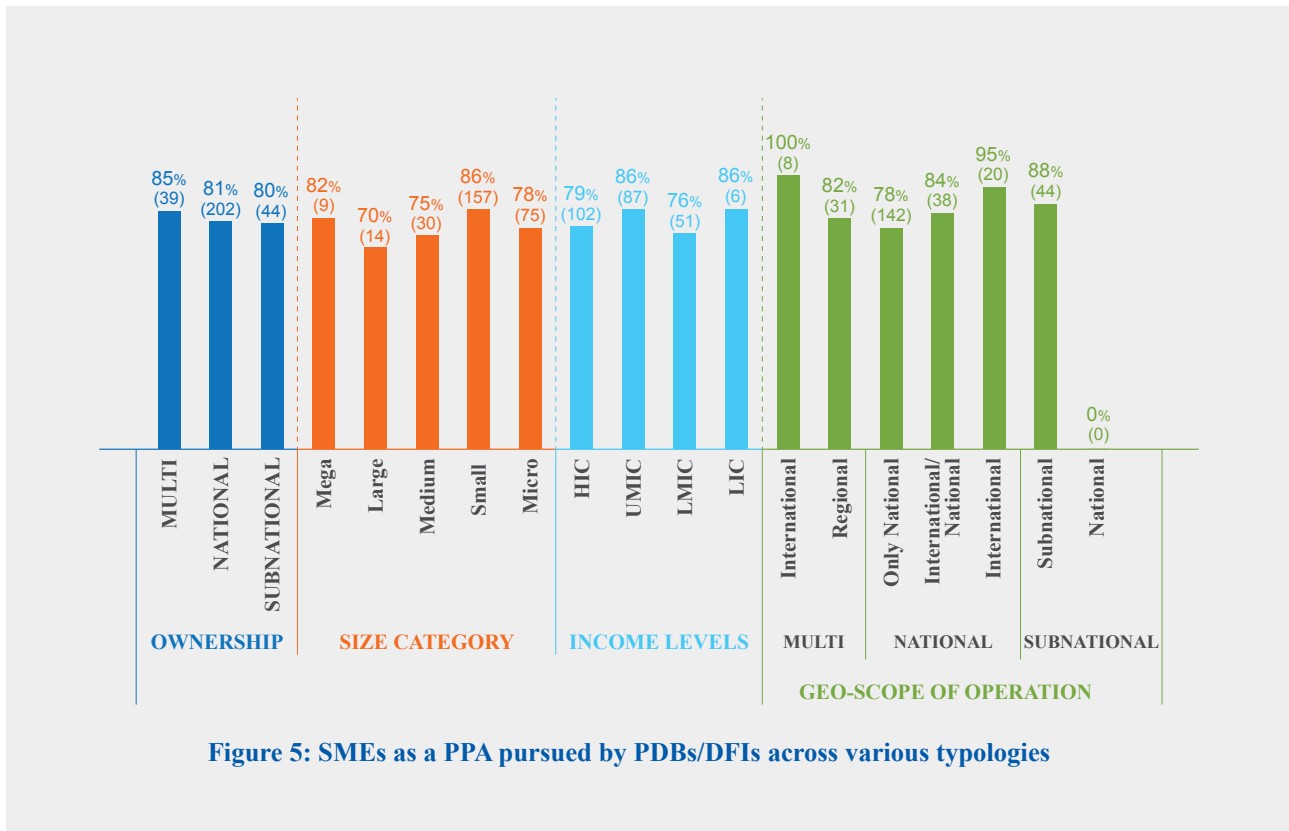


Figure 5: SMEs as a PPA pursued by PDBs/DFIs across various typologies

It should not come as a surprise that the distribution of the unbanked population is extremely skewed with the vast majority living in developing countries (Demirgüç-Kunt et al. 2018).

There is a multitude of reasons why so many people remain unbanked or financially excluded: first and foremost, the lack of money is the most commonly cited barrier. According to Demirgüç-Kunt et al. (2018), close to two-thirds of adults reported having too little money to use, followed by a lack of financial literacy (30 percent) and too high cost of having a bank account with formal financial institutions (26 percent). Apart from these three key causes, other reasons include the distance required to travel to financial institutions and documentation requirements by the banks as well as the lack of trust between the bank and the people.

As shown in Figure 6, the likelihood of support provided to financial inclusion is also quite high across different groups within each category. This is largely induced by the support provided to micro-enterprises, which is an operational indicator for financial inclusion during data collection. As with SMEs, the issue of inclusion is addressed significantly by PDBs, regardless of their levels of ownership. Most banks from the poorest countries integrate the issue of financial inclusion into their activities because many LICs suffer from weak development of their financial markets.

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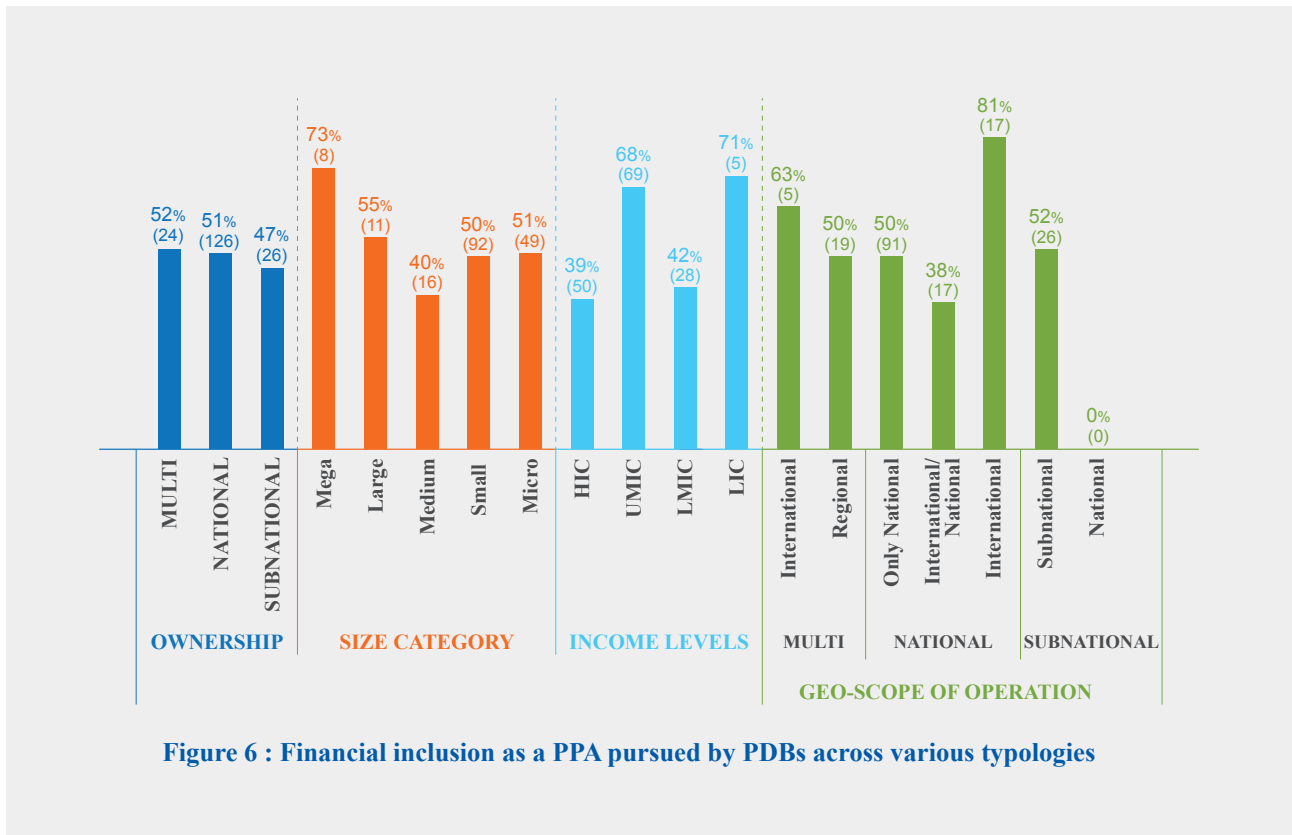


Figure 6 : Financial inclusion as a PPA pursued by PDBs across various typologies

A typical case is constituted by the Brazilian state development agencies (e.g., Amapa Development Agency and Mato Grosso State Development Agency), which are among the smallest PDBs in terms of balance sheet but which play an important role with their clients, who benefit from inclusive funding.

4.2.4 Local government

An important part of the challenges of sustainable development is the direct responsibility of cities and territories. In the aftermath of the 1992 Earth Summit, the Local Agenda 21 were still considered a simple declination of national agendas. Today, the networks of “territories in transition” or “learning territories” have become the spearhead of the transition itself, and the waves of decentralization give local government primary responsibility for the cities, regions, or states for which they are responsible.

In most cities in poor or emerging countries, many challenges persist: access to essential services, limiting transport congestion, adapting to the effects of climate change, economic attractiveness, job creation, access to financing for infrastructure, and improving local capacities and governance to promote sustainability. These issues may seem less urgent in developed countries, but in reality, challenges related to infrastructure, waste management, noise and air pollution, access to housing, and clean mobility are universal. A growing number of cities’ local and regional governments are publishing voluntary local reviews to assess their needs and challenges for SDG financing.

The need is huge. The world is urbanizing at an unprecedented rate. Half of humanity (3.5 billion people) now lives in cities or in megalopolis structures, with increasingly extensive urban peripheries. This proportion will be 60 percent in 2030 and 70 percent in

2050. UN-Habitat (2020) estimates, for example, that if nothing is done, the population of slums could double (from 1 to 2 billion) by 2030. Globally, it is estimated that an investment of between \$4.5 and \$5.4 trillion per year would be required to build a resilient urban infrastructure.

There is therefore a paradox: although studies agree that cities and territories are a fundamental driver for a successful transition to a more sustainable world, they are struggling to find financing. The financial market, regardless of the level of income of the countries, does not apprehend properly the economic model of local governments. In terms of covering risks, local governments invest in public utilities, which are inalienable by nature and therefore cannot be used as collateral. But unlike private actors who can simply file for bankruptcy and be liquidated, the continuousness of “sub-sovereign” entities is guaranteed.

There is a vast variation in the ability to meet financing needs across local governments. Compared with small ones in developing countries, the largest cities, regions, and states, particularly in HICs, are well integrated into financial networks. For heavy infrastructure in the merchant sector, particularly transport, energy, and a few others provided for a tariff, more or less sophisticated arrangements combined with private financing, using Special Purpose Vehicles (SPVs), and a separation between management and assets. However, for social or non-profitable investments (roads, public lighting, sports facilities, sanitation, and education, among other things), the private sector is less willing to commit, especially for smaller communities, even though these investments are essential. Their financing needs are therefore not covered, and the deficit in serving the population is often the result of this underinvestment. Moreover, unlike national governments, local governments usually face more challenges in meeting their own financing needs because they are much more constrained in mobilizing sources internationally. Thus, in addition to the financing gap on the demand side (e.g., projects such as infrastructure

require large amounts of capital), there is also a large financing gap on the supply side due to its limited ability to raise funds in the international capital market.

It is therefore necessary that the government directly intervene if it has the capacity to do so. Given the nature of risks and opportunities to be analyzed, which also relates to the financial balances of the local budget and its repayment capacity, it requires an approach of a banking nature. This explains why some PDBs are being mandated to finance local governments.

As shown in Figure 7, regardless of the considered typology, the financing of local governments seems relatively low. Although mega and large banks seem to devote part of their activities to it, this is less the case for national banks as well as small and medium-sized banks. However, we note that it is more likely that banks belonging to subnational entities provide financing for local authorities.

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Despite their importance in the transition, only about one-third of PDBs/DFIs provide financial support for local governments as shown in aforementioned Figure 3. The financing of local governments and their investments are a conventional mandate for PDBs, particularly in Northern Europe. For instance, KommuneKredit in Denmark is one of the oldest PDBs in the world established in 1898. We also note the historical activity of institutions such as Kommuninvest in Sweden, the Municipal Bank of Netherlands, and the Norwegian Agency for local governments. Yet, this type of specialized institution is probably lacking in a certain number of emerging or low-income countries to strengthen the local economic ecosystem and to mainstream the green and just transitions in local dynamics.

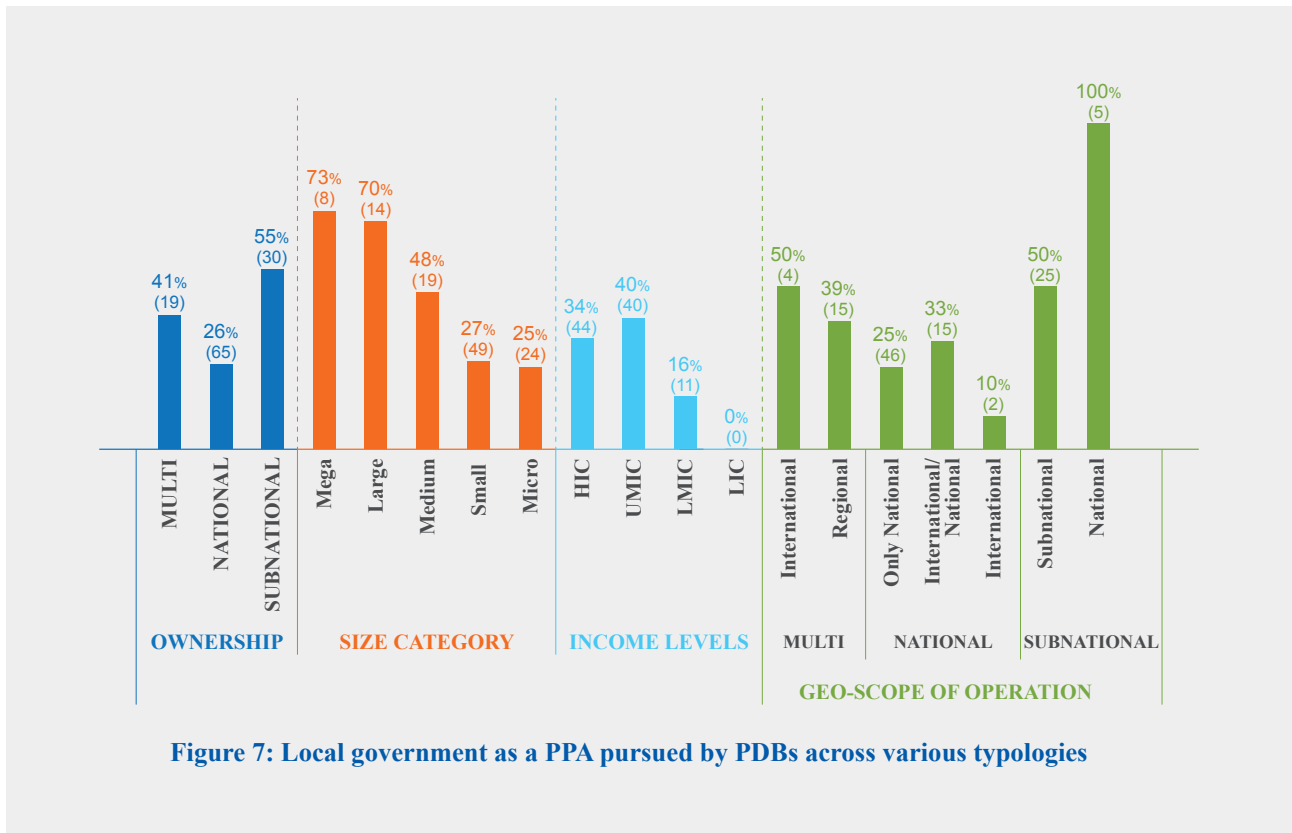


Figure 7: Local government as a PPA pursued by PDBs across various typologies

Despite their importance in the transition, only about one-third of PDBs/DFIs provide financial support for local governments as shown in aforementioned Figure 3.

4.2.5 International development financing

The savings deficit of developing countries and the lack of financing possibilities through market mechanisms have historically been a primary economic justification for development financing. These financial transfers from abroad feed the capital balance and contribute to the balance of payments equilibrium. With the adoption of the SDG agenda, the external financing strategy has

evolved significantly. Although poverty alleviation and economic growth have long been central to the mandate, sustainability is now one of main objectives.

In addition to official development assistance from aid agencies, financing from DFIs is another major source of international development financing of the public sector with the sovereign state as the main target or client. Each country has its own institutional system for managing such financing, which may be the primary mandate of certain PDBs, such as the French Agence Française de Développement (AFD), the German Deutsche Investitions- und Entwicklungsgesellschaft of Kreditanstalt für Wiederaufbau (KfW-DEG), and the Japanese Japan International Cooperation Agency (JICA). Recently, development banks from China and other emerging economies have engaged in financing developing country governments to foster bilateral trade and investment by financing infrastructure. In addition to

bilateral DFIs, many MDBs accomplish the same mission and finance similar types of operations. The World Bank, established in 1944 to finance postwar reconstruction, is the most emblematic of these institutions.

In addition to public sectors, international financing of private sector development is the other subcategory identified under international development financing. This subcategory is dedicated exclusively to supporting private investment. The initial objective is to finance the investment projects of private companies that the local financial system cannot support either with equity or debt. For some institutions, it is also a matter of supporting their own national companies operating or investing in another country because it might prove difficult for them to secure financing from local banks given that their main interest and assets are located abroad. The IFC is the private sector financing arm of the World Bank Group.

International development financing landscape is dominated by MDBs, large institutions, and NDBs from HICs and upper-middle-income countries (UMICs), whereas the contributions of subnational institutions are relatively small.

As can be seen from Figure 8, the international development financing landscape is dominated by MDBs, large institutions, and NDBs from HICs and upper-middle-income countries (UMICs), whereas the contributions of subnational institutions are relatively small. The objective of financing international development is significant in the PDB ecosystem from HICs; it has a dedicated association (i.e., EDFI) that brings together emblematic banks such as Promotion and Participation Company for Economic Cooperation

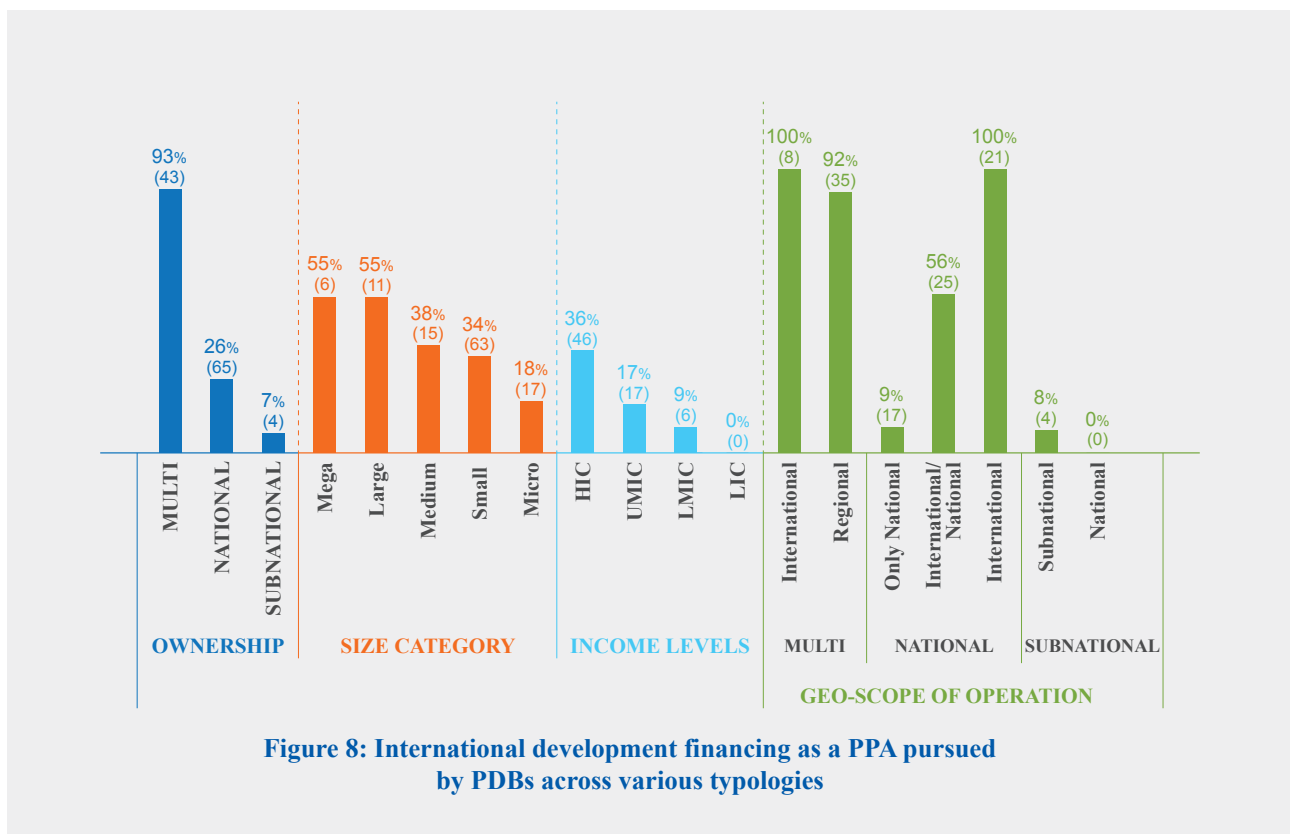


Figure 8: International development financing as a PPA pursued by PDBs across various typologies

(Proparco) (France), the Dutch Entrepreneurial Development Bank (FMO) (Netherlands), and the DEG (Germany). At the national level, we find Export-Import Banks (EXIMs) with specific export financing missions are likely to provide international development financing. Some institutions, such as the Export-Import Bank of China, can combine both export credits and financing associated with total official support for development.

4.2.6 Infrastructure

Infrastructure is a generic term and can be broadly split into soft and hard infrastructure. The former generally refers to the business environment and the quality of governance of an economy, whereas the latter refers to roads, bridges, power supply, water, and communications. To keep the mapping of infrastructure consistent with the classification of industries of an economy (e.g.,

International Standards Industry Classification), the infrastructure discussed in this study refers only to hard infrastructure, which can be mapped into the economic sectors. Infrastructure is a basic necessity to meet people’s essential needs and the implementation of economic activities, such as lighting, heating, transportation, production, and trade. The importance of infrastructure cannot be overstated, and there is extensive evidence showing that infrastructure is a significant determinant of productivity and economic growth (e.g., Aschauer 1989; Easterly and Rebelo 1993). Moreover, according to NSE, the third wave of development economics pioneered by Justin Yifu Lin, the government has a significant role to play in providing both hard and soft infrastructure to turn latent comparative advantages into competitive advantages in developing countries (Lin 2012).

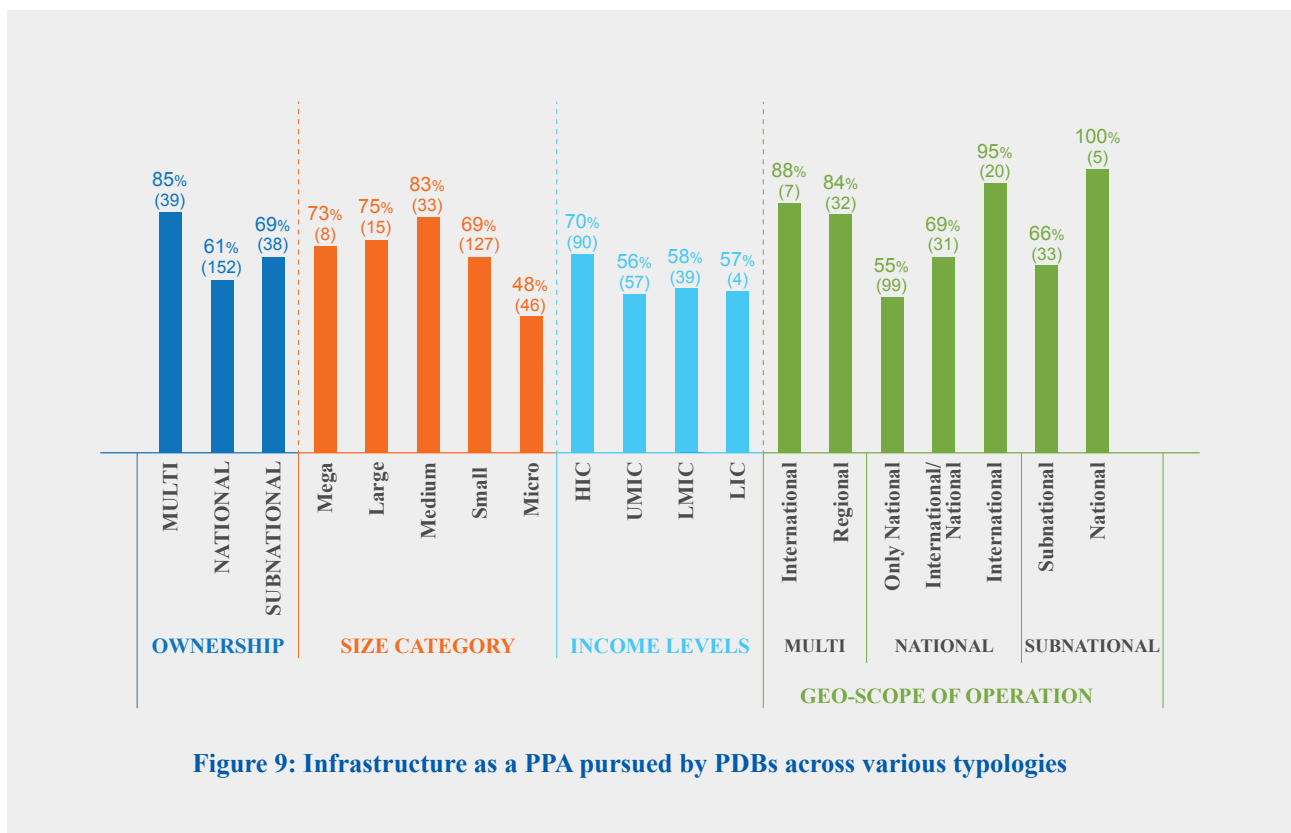


Figure 9: Infrastructure as a PPA pursued by PDBs across various typologies

As shown in Figure 9, as an enabler for economic growth and development, infrastructure is generally supported by most PDBs/DFIs. However, one notable difference is that small and micro-sized banks provide less support to infrastructure, which is expected because infrastructure generally requires a large amount of financing and smaller-sized banks are less capable of providing such products.

As an enabler for economic growth and development, infrastructure is generally supported by most PDBs/DFIs. However, one notable difference is that small and micro-sized banks provide less support to infrastructure, which is expected because infrastructure generally requires a large amount of financing and smaller-sized banks are less capable of providing such products.

As for SMEs, infrastructure financing is one of the essential and historical mandates of PDBs. Through emblematic projects such as the financing of the new Silk Roads, or the Three Gorges Dam in China, the China Development Bank is an example in terms of financing major infrastructure projects. There are also reference institutions in many geographies. This is the case of the BNDES in Brazil or InfraCo Africa, which operates across the entire African continent.

4.2.7 Health

Living in good health remains a fundamental and legitimate demand for every human being, and the fight against maternal and infant mortality as well as the fight against infectious diseases are still the priorities of the poorest countries. We are also witnessing the emergence of chronic diseases, which now concern all of humanity, due to aging populations and changes in lifestyle. The

outbreak of the COVID-19 pandemic has also revealed the interdependence between health systems and the need for concerted global action to anticipate future pandemics.

In most developing countries, especially in sub-Saharan Africa, the health sector is still severely underfunded. It is difficult to see how the private sector could take over because the demand for the health of the majority of these populations is not solvent. This is therefore a typical case of market failure because, in the long term, health generates strong, positive externalities for the whole society. In addition, as an integral part of public health, the importance of access to essential and affordable medicines cannot be overemphasized. Because pharmaceutical companies are profit driven, if the provision and pricing of medicines are left to the market alone, the costs of medicines and medical equipment may not be affordable for the mass population, compromising people's health and social welfare as a whole (Sorato et al. 2020).

These are issues that justify public intervention in the eyes of governments. The PDBs offer to finance poor countries and carry out this type of mission to compensate for the lack of alternatives. In more advanced countries, education and health infrastructures are primarily a public responsibility, but part of the investments can be financed by borrowing because budgetary constraints can be an issue. PDBs are then logically called upon to mobilize long-term financing, sometimes at subsidized interest rates, particularly in poor countries.

As shown in Figure 10, health issues occupy a relatively important position in the mandates of PDBs. This observation is reinforced in light of the COVID-19 crisis, during which many PDBs at all levels contributed to the emergency financing of health equipment and to strengthening countries' care capacities (McDonald et al. 2020).

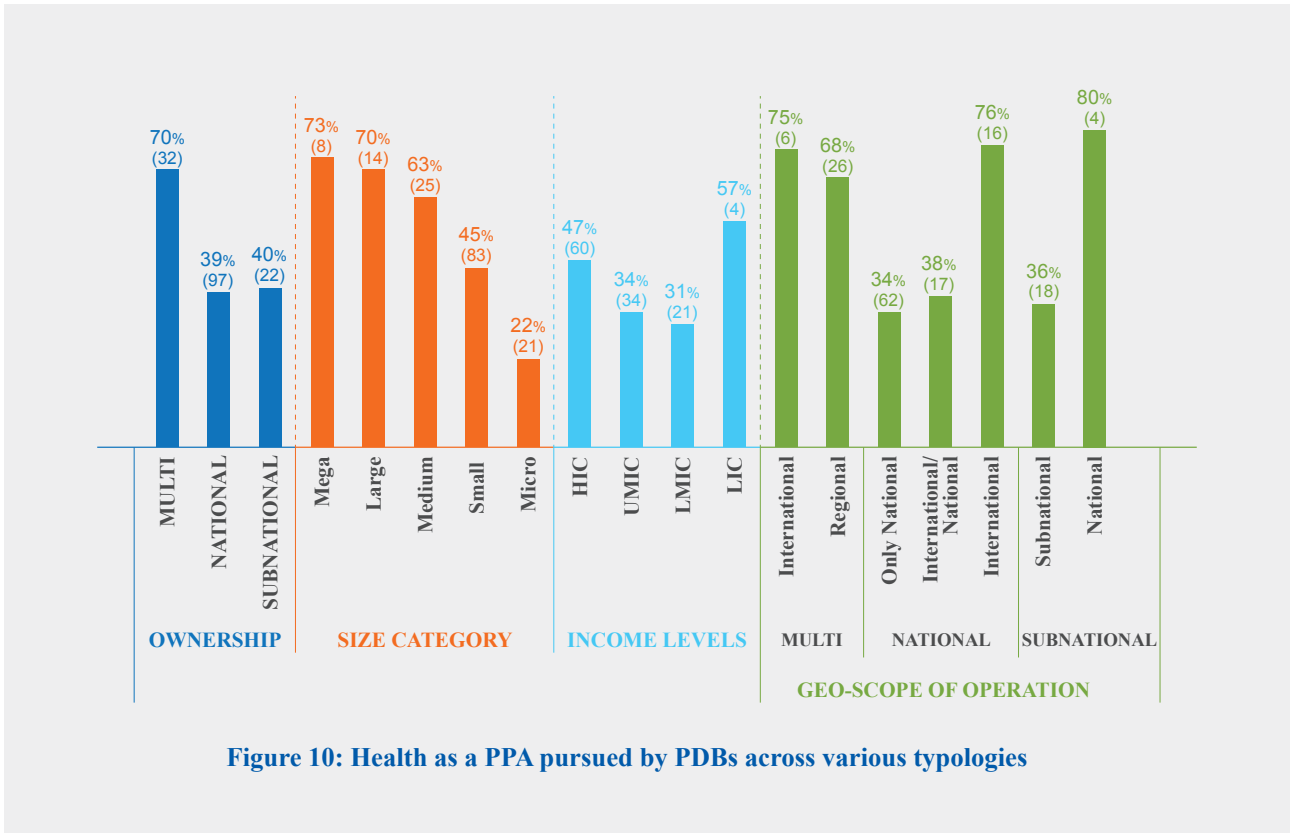


Figure 10: Health as a PPA pursued by PDBs across various typologies

Health issues occupy a relatively important position in the mandates of PDBs. This observation is reinforced in light of the COVID-19 crisis, during which many PDBs at all levels contributed to the emergency financing of health equipment and to strengthening countries' care capacities.

In the health sector, we note the strong consideration by MDBs, such as the African Development Bank, which invests heavily in African health systems. The continent has the highest disease burden in the world. The share of institutions involved in the health sector seems proportional to the size of the banks. Thus, large institutions like the German KfW also invest in this public policy objective. With 2.87 billion euros invested

in forty-one countries, KfW is an important player in the financing of health systems, specifically for the fight against chronic and infectious diseases and the promotion of sexual and reproductive health.

Banks from low-income countries (LICs) seem to place more attention on health matters than banks from other income levels. Yet, this result should be interpreted cautiously because of the low number of institutions in this category.

4.2.8 Education

Education is key to sustainable economic and social development. It is also a powerful factor of change. It is crucial for each country to train and develop its human capital, according to its culture and income level, because it is one of the most important investments for its future. Education, vocational training, higher education, and

employment are inseparable; they not only condition the economic and social development of countries, but they also determine the promise for an improvement in the living conditions of populations, which is the guarantee of the feasibility of transitions toward a more sustainable world.

The government has a central role in defining quality education and training paths. The universalization of access to basic education, in particular to secondary school, and the improvement of the quality of teaching in the least developed countries, is still ahead of us. The priorities have remained unchanged for decades: to encourage the enrolment of girls and the most vulnerable populations, to professionalize teachers, and to ensure sufficient budgets for education systems.

Note that although health and education are two different sectors, years of experience from practitioners suggest

that it is often the case that the support provided to health and education goes in tandem. If the PDB is active in pursuing health activity, it is likely that the PDB is also active in supporting education activities.

MDBs are found to be more engaged in financing health than national and subnational banks, and some PDBs are specialized in the fulfillment of social mandates.

As can be seen from Figure 11, the results for education are quite similar to that for health. MDBs are found to be more engaged in financing health than national and subnational banks, and some PDBs are specialized in the fulfillment of social mandates. In Europe, the Development Bank of the Council of Europe (CEB)

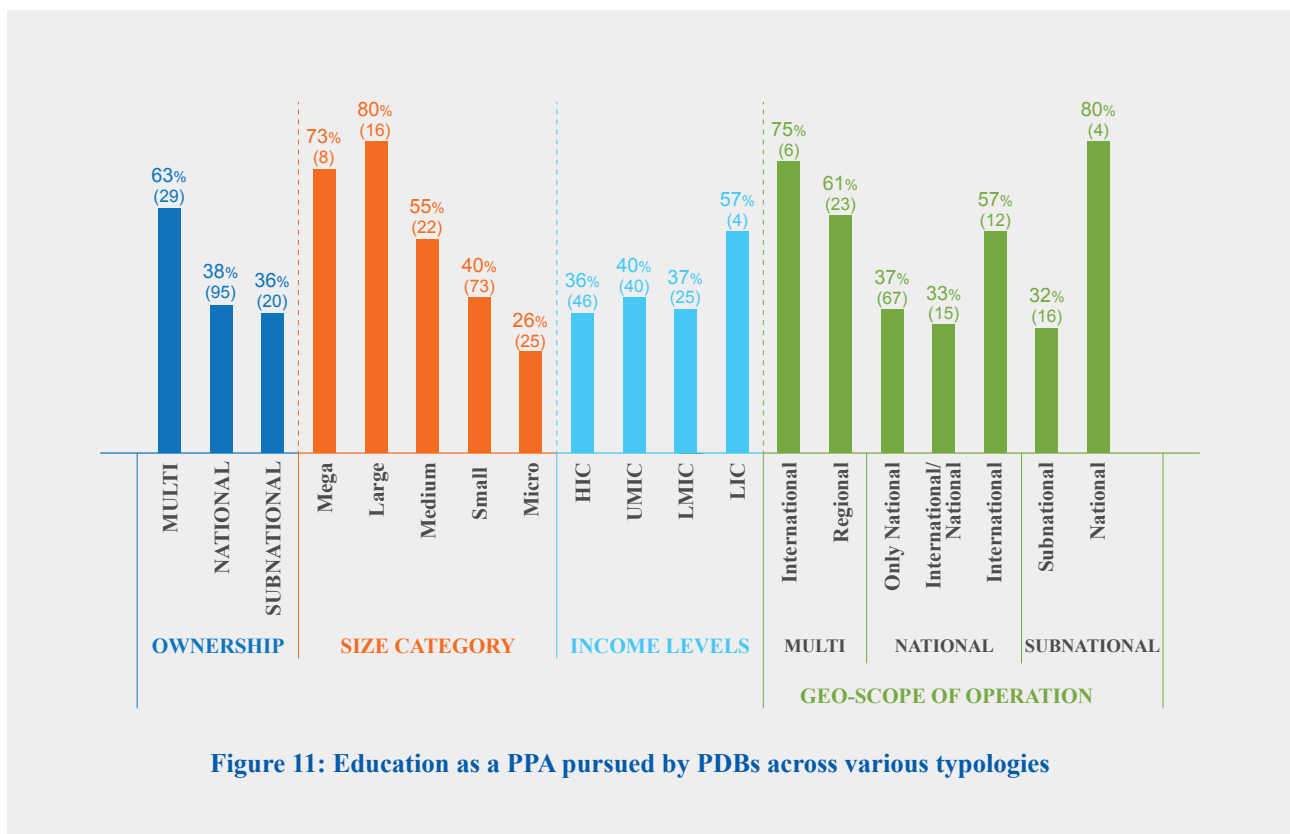


Figure 11: Education as a PPA pursued by PDBs across various typologies

is a well-known provider of funding for education, particularly in Eastern Europe.

Banks from LICs seem to place more attention on education than banks from other income levels, because the literacy rate in LICs, especially among least-developed countries, is much lower and requires much more attention. However, this result should be interpreted cautiously because of the low number of institutions in this category.

4.2.9 Social housing

The objective of the social housing policy should be that everyone is well housed at a price compatible with their income. The housing market, whose functioning and fragmentation are complex, rarely succeeds in achieving this objective. In terms of housing, the government bases public policy on the social objective of housing

individuals or families whose resources are too low to do so in the private sector. Supported by public subsidies, PDBs and DFIs build and then manage or sell social housing for people with resources below a social ceiling established by the authorities.

Many countries believe that this support for social housing is fully justified, whether for rental investment or home ownership and, more generally, wish to encourage everything that promotes an abundant, diversified, and financially accessible housing supply. To act on the flows (e.g., building, improving, and facilitating access to housing, among other things), specific financing for construction companies or buyers is often entrusted to PDBs.

Akin to infrastructure, housing projects generally require large upfront financing. Thus, besides those with an official mandate to support social housing activity,

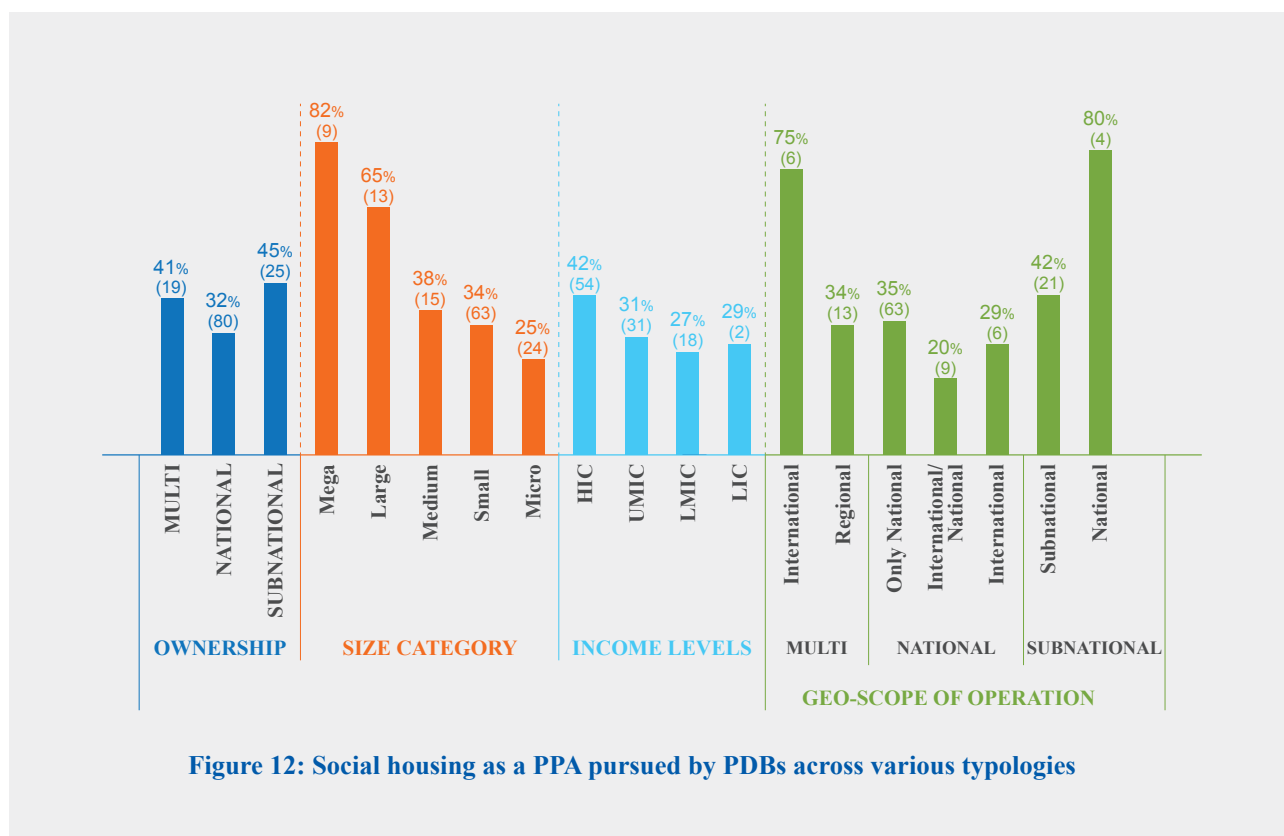


Figure 12: Social housing as a PPA pursued by PDBs across various typologies

PDBs/DFIs that are large in size (as measured by total assets) are more likely to pursue social housing activities, whereas smaller DFIs/PDBs may not be financially solvent to be active in this policy area.

The objective of financing social housing is a specific mandate in itself, mostly managed by specialized institutions.

The objective of financing social housing is a specific mandate in itself, mostly managed by specialized institutions. It is shown in Table 2 (Section 4.1.2) that banks with a mandate to finance social housing cover on average three public policy objectives compared to almost seven on average for the entire sample. The ecosystem of public development banks thus includes emblematic institutions such as Fannie Mae and Freddie Mac, the two American mortgage banks that constitute the two largest PDBs in the world in terms of balance sheet size with all mandates combined. As with social sectors, the size of the bank determines its ability to engage in a sector where investments are capital intensive. As shown in Figure 12, the share of banks supporting social housing declines in tandem as the size of the bank declines.

Nonetheless, smaller multilateral or national institutions may also play an important role in countries subject to increasing urbanization and the need to access social housing, which are more necessary than ever. This is the case for example of Shelter Africa, the Mortgage Bank of Mali, and the Fonnavipo Fondo Nacional de Vivienda Popular in El Salvador.

4.2.10 Industrial sector development

Industrialization, as it began in England at the end of the eighteenth century, remains for many countries synonymous with national power and economic growth. In its report “Industrializing Africa,” the

African Development Bank considers industrialization a central element of its strategy in 2018. It is key to kick-start structural transformation and economic growth sustainably as well as to get rid of overdependence on raw materials and natural resources.

In addition to industrialization and continuous upgrading to capital-intensive high-tech manufacturing industries, agro-processing is another subcategory of industrial sector development. To be specific, it refers to the manufacture of beverages, tobacco products, and food products per the International Standard Industrial Classification Revision 4. Private companies often encounter the first-mover challenge in the process of industrial upgrading because they would bear the cost of failure alone. Yet, if they succeed, benefits would be spread among followers. Hence, governments need to play a facilitating role in promoting industrial upgrading.

As shown in Figure 13, the likelihood of support provided to ISD as an important constituent of the economy, both for developed and developing economies, is generally high across different groups within each category. With the share exceeding 70 percent, ISD seems to be a particularly popular public policy area pursued by PDBs/DFIs from LMICs and LICs.

Relatively speaking, PDBs/DFIs from lower income levels tend to be more active in supporting ISD than banks from higher income levels. This may stem from the higher investments required to speed the industrialization process in emerging and developing countries.

The development of the industrial sector is one of the core businesses of PDBs. The results reveal that this is a universal public policy objective that corresponds well to what is expected from PDBs/DFIs by their governments. Relatively speaking, PDBs/DFIs from lower income levels tend to be more active in supporting ISD than

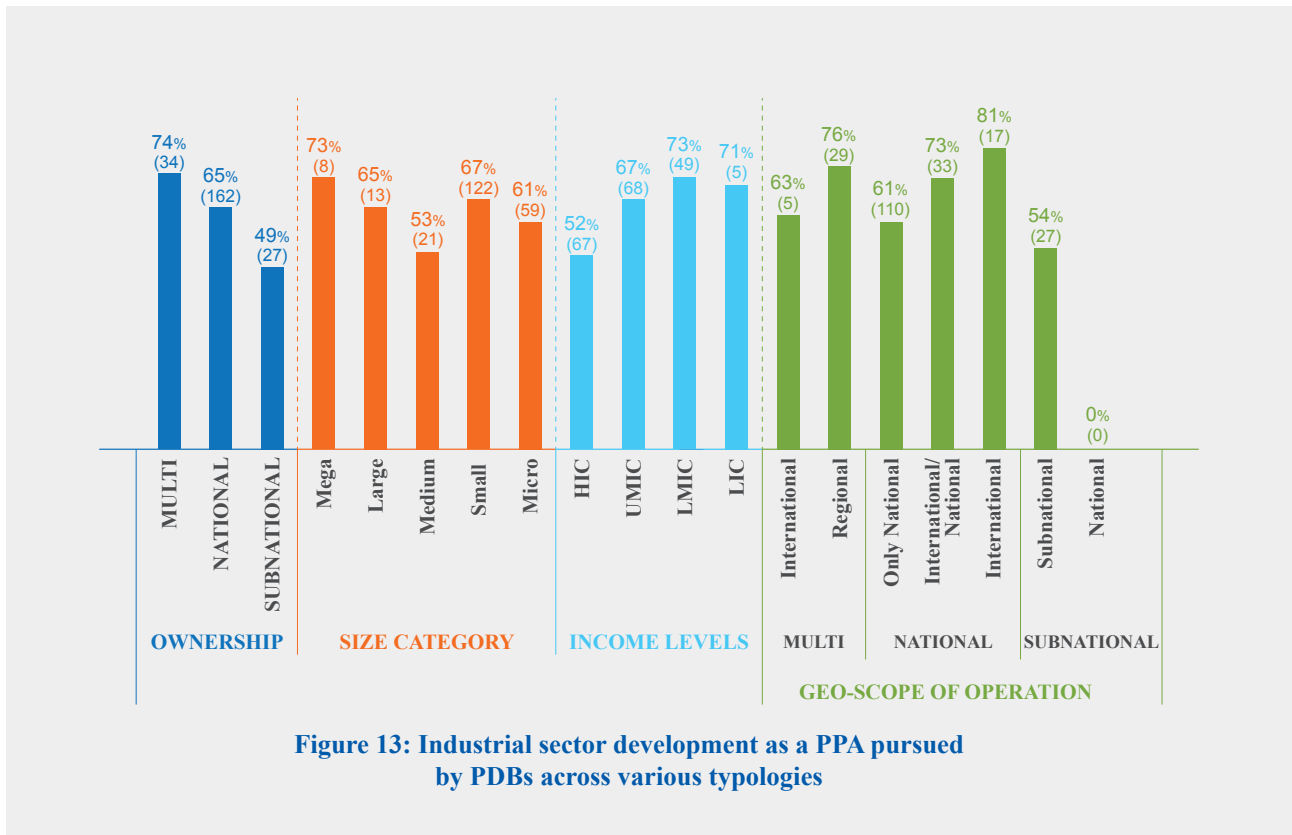


Figure 13: Industrial sector development as a PPA pursued by PDBs across various typologies

banks from higher income levels. This may stem from the higher investments required to speed the industrialization process in emerging and developing countries.

4.2.11 Trade Finance

The creation of banks specialized in import-export financing aims to promote national exports and address market failures of misperceived risks. These banks most often mobilize rather short-term technical instruments, such as documentary credits, but also participation in infrastructure projects to support a national supplier of equipment. The latter activity gives them a responsibility similar to that of other PDBs in terms of project evaluation and social and environmental requirements. These “Exim banks” or “Export Credit Agencies” are numerous, and governments, depending on the country, consider their role to be crucial. In particular, they

believe that the costs would be too high and the service less well provided if these financial services were left to the private sector only and to open competition.

As can be seen from Figure 14, trade promotion, and more specifically export credit financing, is the subject of a specific mandate. The OECD lists a large number of export credit agencies, such as UK Export Finance, Export Finance Australia, and Credendo (Belgium).⁹ Some Ex-Im Banks such as the Export-Import Bank of China or the Export-Import Bank of the United States are among the largest DFIs in the world.

Beyond specialized institutions of export-import banks, a significant proportion of multilateral and national banks offer trade finance tools.

⁹ Please see <https://www.oecd.org/trade/topics/export-credits/documents/links-of-official-export-credit-agencies.pdf>.

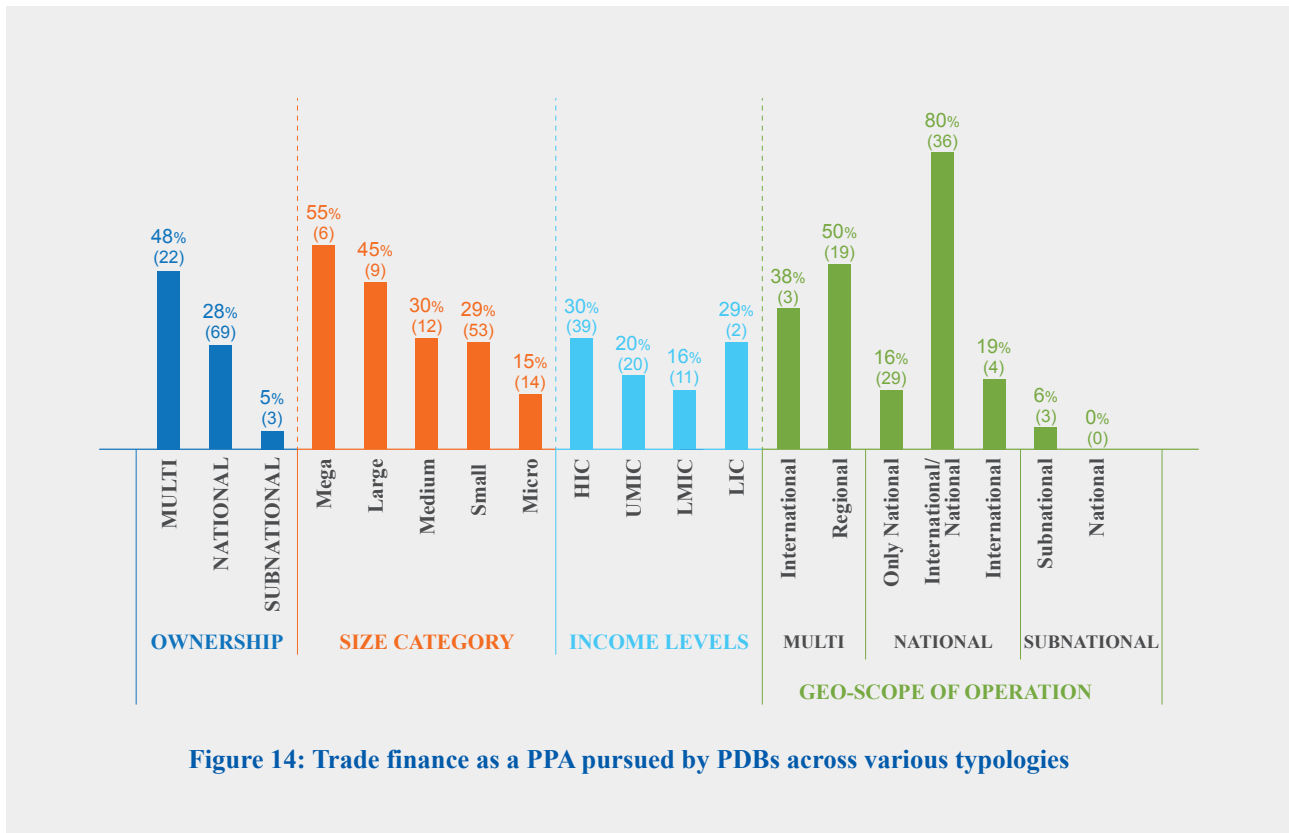


Figure 14: Trade finance as a PPA pursued by PDBs across various typologies

Beyond specialized institutions of export-import banks, a significant proportion of multilateral and national banks offer trade finance tools. The latter (i.e., national banks) are usually small in size but are specialized trade finance institutions. However, few are active in trade finance at the subnational level.

4.2.12 Gender equality

Gender is a cultural and normative issue, and there is no reason for markets to spontaneously promote gender equality. Gender is more of conditionality attached to loans by PDBs. It is normative in nature, which implies the desirable goals in the eyes of creditors. Gender equality is not only a basic human right but also a necessary foundation for a peaceful, prosperous, and sustainable world, all of which are only indirectly connected with market price formation systems. Progress

has been made in recent decades: more girls are going to school, fewer girls are being forced into early marriage, more women are serving in parliaments and leadership positions, and laws are being reformed in many countries to advance gender equality. The impact of these advances is not only societal but also improves all areas of a person's life.

Multilateral and large banks are much more active in supporting gender equality.

As shown in Figure 15, multilateral and large banks are much more active in supporting gender equality. This is intuitive because multilateral banks are likely to have employees from diverse backgrounds and are more aware of and attentive to the issue of gender equality. Still, one would expect the larger and multilateral banks

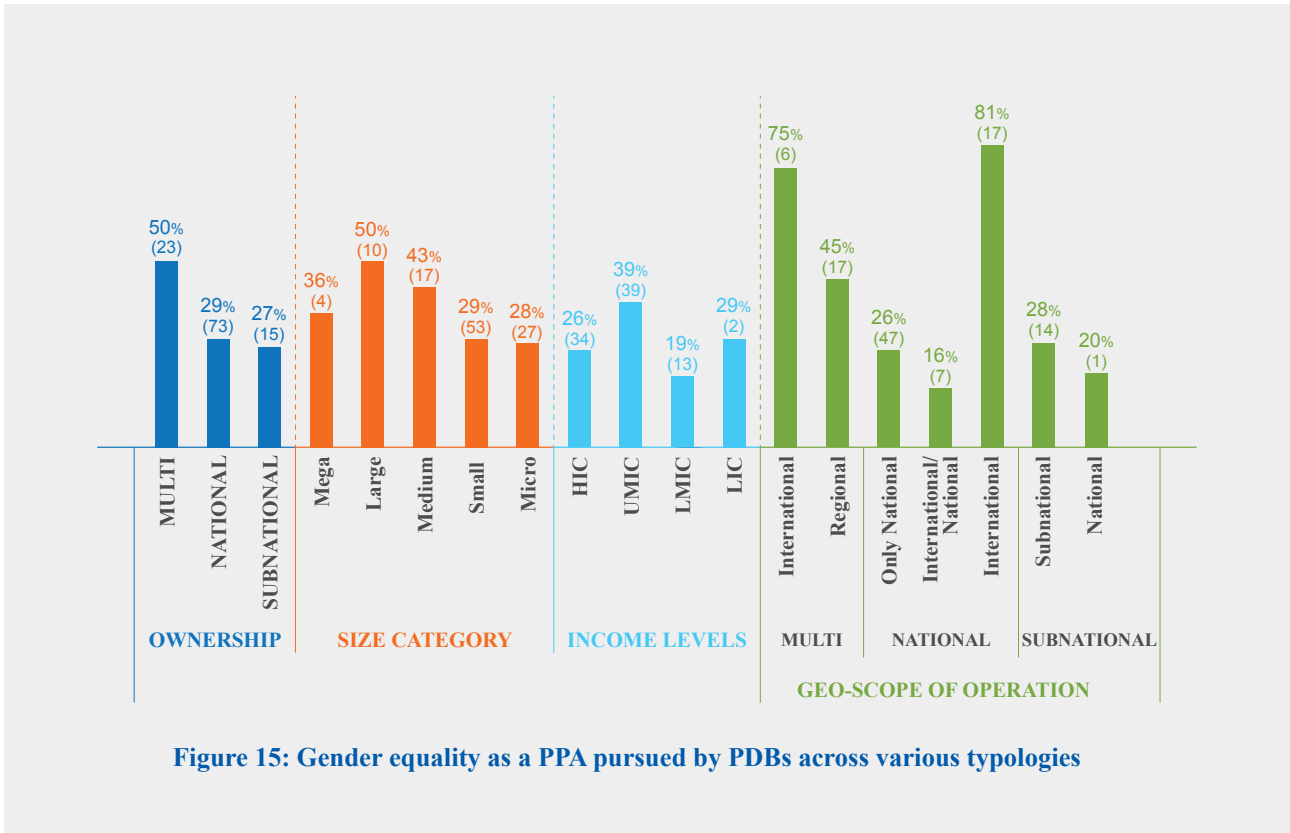


Figure 15: Gender equality as a PPA pursued by PDBs across various typologies

to have a higher degree of alignment on gender because it is a subject of broad international consensus. Yet, half of the banks do not mention it in the performance of their activities. By comparison, about one-third of smaller banks and national banks include this public policy objective in their strategies. It is worth noting that the issue of gender equality is gaining more importance in PDBs’ strategies. For instance, the International Development Finance Club notably has a dedicated working group chaired by Industrial Development Bank of Turkey (TSKB) (Turkey). Significantly, the Zimbabwe Microfinance Bank is a PDB solely dedicated to the financing of projects led by women. Finally, the Development Finance Institute (Canada) is one of the first PDBs to display a 100 percent gender-aligned development policy.

4.2.13 Climate

Climate change was initially perceived and analyzed by economists, at least until recently, as a classic environmental problem of addressing negative externality (Pigou 1932) more or less manageable like other pollutions. The traditional solution has been to charge for the cost of pollution through a carbon tax. For example, in the case of greenhouse gases, the price of the goods generating that pollution should rise with a double incentive—to develop fewer polluting technologies and products for producers and to look for less expensive substitutes for consumers. In theory, therefore, the externality can be controlled, and it is a matter of incorporating it in the price to send the proper market signal. Calls for the creation of a carbon tax or a carbon market are ultimately based on this assumption.

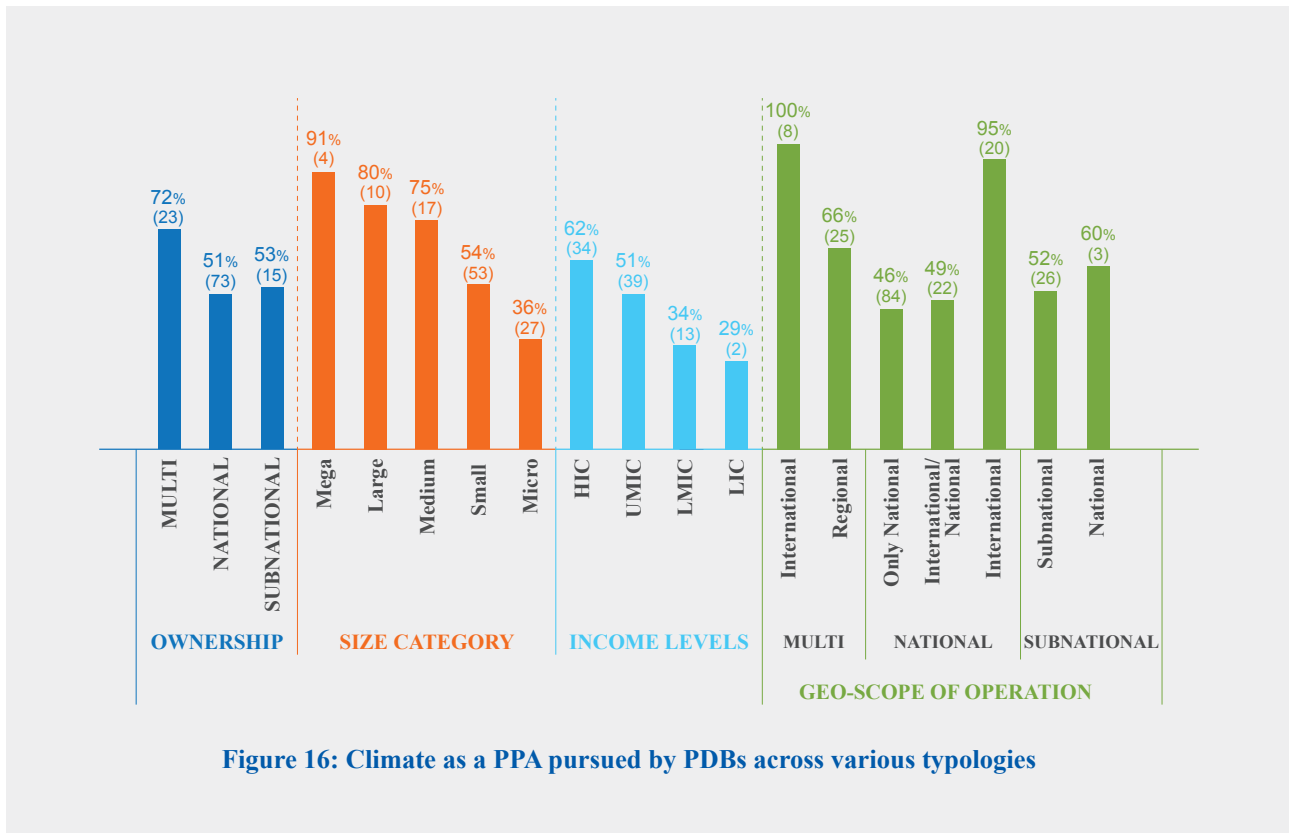


Figure 16: Climate as a PPA pursued by PDBs across various typologies

PDBs are expected to participate in the invention of the economic and social models of low-carbon growth in the future. By relying on their dual function as public financiers and as a force for mobilizing private finance, PDBs are well positioned to equip themselves with tools that enable them to select and support low-carbon operations. The investments that lead to these transition processes are neither the least risky nor the most profitable. They sometimes include the need to finance the operations that are most useful for the transition with subsidized funds or even with donations, notwithstanding their low financial profitability.

Big banks are seizing this public policy objective with rates of more than 80 percent, whereas the small and micro banks present significantly lower figures.

As seen from Figure 16, big banks are seizing this public policy objective with rates of more than 80 percent, whereas the small and micro banks present significantly lower figures. This seems to indicate that the size of the bank is an important determinant of PDBs/DFIs' engagement in combating climate change. Meanwhile, it is found that PDBs/DFIs from more advanced economies are more likely to combat climate change. This result is consistent with other work carried out elsewhere (Jacouton, Marodon, and Laulanié 2022; WWF 2021), which shows that the larger their balance sheet size, the more likely institutions tend to integrate environmental issues into their activities. A growing body of literature aims at quantifying PDBs' climate commitments, whereas institutions themselves, such as IDFC members, disclose more information on their climate financing. As such, IDFC is the largest provider of climate finance with \$150 billion allocated every year.

4.2.14 Biodiversity

The relationship between humans and the environment and natural resources has been theorized by considering nature as a provider of free services, such as natural areas used for recreation purposes. Viewing from this perspective, economists have long considered nature as a form of capital and attempted to price it or even regulate it by the market. However, in the absence of a track record for using nature-based solutions on a large scale, and given the shared responsibility of economic actors in the decision-making, production, and consumption

cycles, it is difficult to imagine the market spontaneously organizing itself around these issues.

Again, the PDBs can be expected to take the lead to address these shortcomings and implement procedures that pave the way for nature to be considered in their financing. This role in promoting normative advances is still weak, and not to the scale of their responsibility, but new techniques of green accounting, green finance, or nature-based solutions (Global Canopy 2021) may accelerate the process.

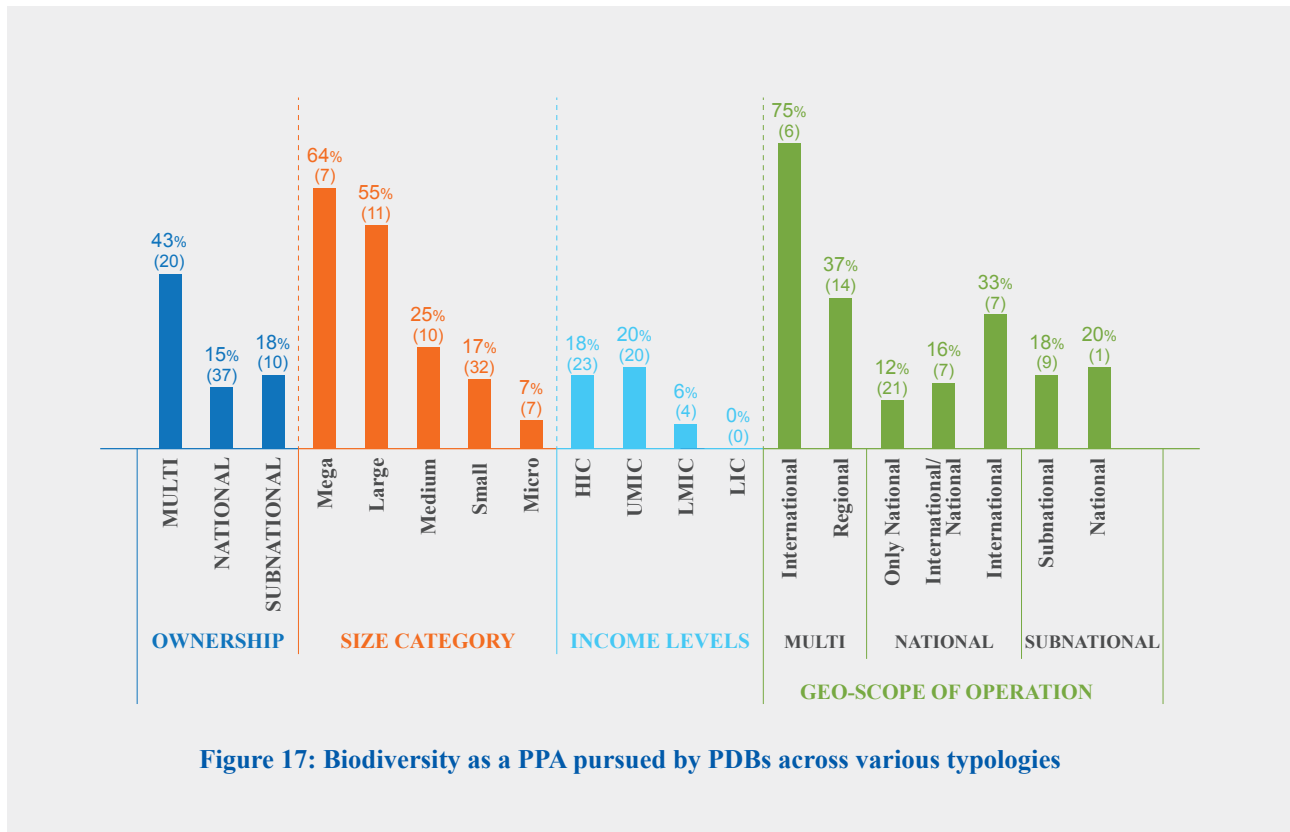


Figure 17: Biodiversity as a PPA pursued by PDBs across various typologies

As shown in Figure 17, despite the importance of the subject and the intensity of the negotiations on biodiversity, the number of PDBs that take it into account is significantly lower than what is observed for the climate objective, whatever the typology considered.

Among numerous national banks, only 15 percent explicitly integrates biodiversity into their activities. This result is consistent with WWF (2021), which indicates that 17 percent of national PDBs takes biodiversity into account. Even though banks from HICs and UMICs are

more involved in biodiversity than banks from LMICs and LICs, only 18 percent displays this public policy objective clearly.

Despite the importance of the subject and the intensity of the negotiations on biodiversity, the number of PDBs that take it into account is significantly lower than what is observed for the climate objective, whatever the typology considered.

For many banks that have a policy in favor of biodiversity, it is most often a risk-based approach and/or compliance with certain safeguards to limit the negative impacts of their projects. The most proactive institutions are essentially large banks that support the creation of nature reserves and/or regional parks. The Zimbabwe Environment Fund is, however, an example of a fund specialized in financing the protection of biodiversity and the fight against climate change.

4.2.15 Food security

The importance of food needs no further explanation because it is the most fundamental need for human survival. According to the Food and Agriculture Organization (FAO) of the UN, food security is defined as “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.” Whereas hunger and undernourishment no longer seem to be an issue for HICs, a starkly different picture can be found in other parts of the world, especially among the world’s least-developed countries. According to the latest estimates of the FAO et al. (2021), between 720 million and 811 million people faced hunger in 2020, and the outbreak of the COVID-19 pandemic obstructed nearly 2.37 billion people’s access to adequate food in 2020. Although Asia accounts for the

largest share of people facing food insecurity due to a larger population size, the issue is more severe in Africa, which is the continent with the most least-developed countries.

Whereas the outbreak of the COVID-19 pandemic may be seen as a one-time event and its impact will gradually and eventually fade away as the world finds its way to contain the virus, the long-standing issue of climate change poses severe threats to food security (Schmidhuber & Tubiello 2007), especially among the most vulnerable countries and populations, including in arid and semi-arid areas, landlocked countries, and small island developing states. Given its multidimensionality involving different players and economic sectors (e.g., agriculture and infrastructure), the government needs to play a leading role in addressing food security. Some PDBs/DFIs have an official mandate of promoting agricultural and rural development, thus it is expected that those PDBs/DFIs are more likely to be active in pursuing this public policy, followed by the PDBs/DFIs with a flexible mandate.

Multilateral and mega banks appear more likely to engage in food security than national and subnational banks.

As shown in Figure 18, multilateral and mega banks appear more likely to engage in food security than national and subnational banks. A typical example is the role of the International Fund for Agricultural Development (IFAD), the only multilateral development bank with a dedicated mandate to agricultural development. The 2021 edition of the Finance in Common Summit marked the launch of the Sustainable Food Systems Platform, which aims to improve the financing of sustainable agriculture and food systems and contribute to food security. Food security can be addressed through various channels, such as providing support to rural smallholders, establishing irrigation

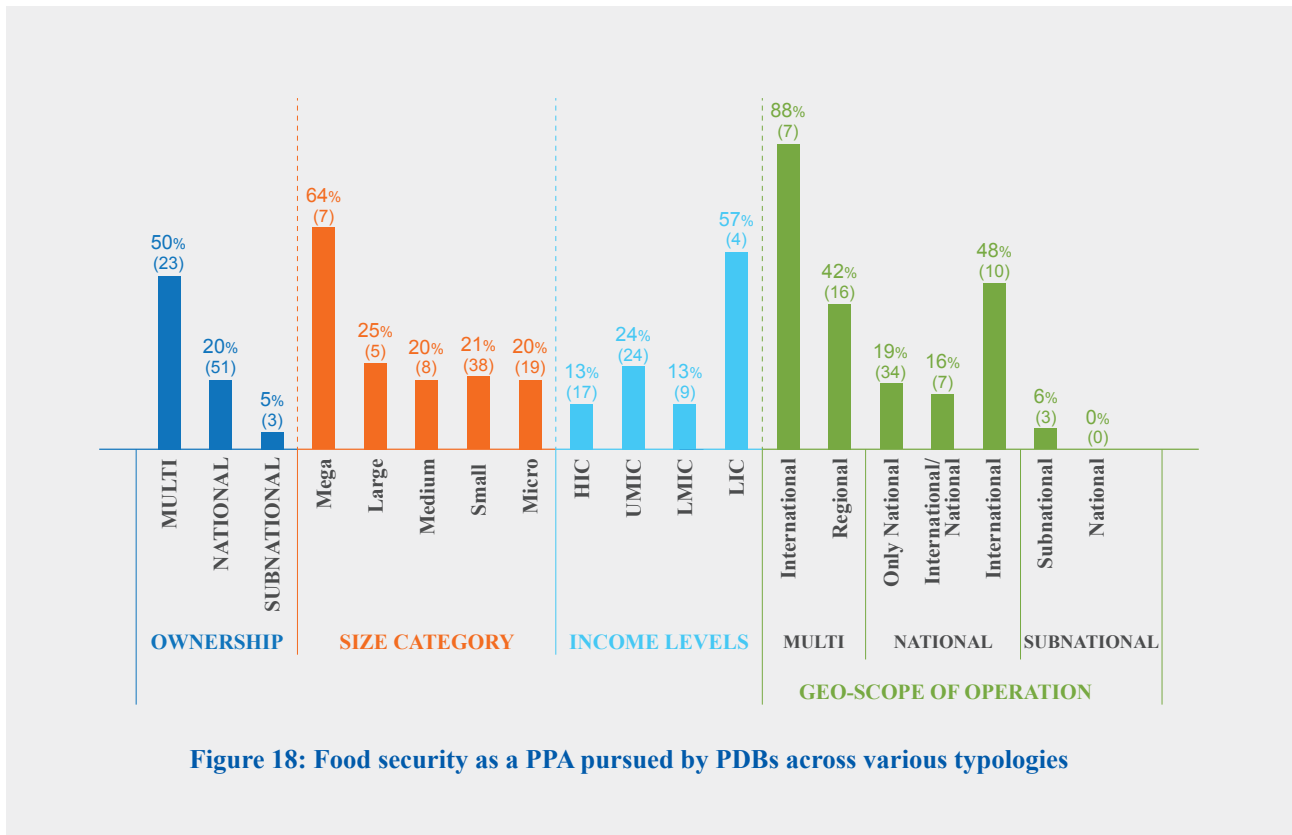


Figure 18: Food security as a PPA pursued by PDBs across various typologies

systems to help with agricultural production, or constructing resilient infrastructure. Nonetheless, a large number of PDBs that support food security only mentions that food security is a key strategy pursued by the bank without spelling out the exact means.

4.2.16 Innovation

Innovation is at the core of modern economic growth. Whereas different schools of thought or different countries or firms may define innovation differently, the essence is the same—innovation refers to the invention, development, and diffusion of new goods, services, technologies, or production processes (Bryan & Williams 2021). Thus, innovation is not always about inventing something new or improving an existing product or service, which is common to see among developed countries that are near or at the technology frontier.

For underdeveloped countries, innovation is more like a diffusion process of learning new technologies from abroad and importing goods and services that are new to the country. As argued by Ayyagari, Demirgüç-Kunt, and Maksimovic (2011), this type of innovation is more relevant for developing countries that are far away from the technology frontier than the development of globally new technologies or ideas.

Strong externalities resulting from the wedge between gross social return and gross private return of innovation is the chief cause of underinvestment in innovation. It is well researched and documented in the economics literature that the gross social returns of innovation activities (e.g., research and development) are much higher than gross private returns, leading to significant underinvestment in innovation. According to Bloom, Schankerman, and Van Reenen (2013), this wedge is

large, and social returns are at least twice as high as the private returns. To reduce the wedge and bring the level of investment back to the socially optimal level, active government interventions are needed, such as the provision of subsidies for research and development investment and tax rebates for innovative firms.

Another reason that is worth mentioning is that innovation activity is generally associated with a high degree of risk and uncertainty. The higher the risk or uncertainty, the higher the cost of financing such activities, and the less likely the private sector would be willing to provide financing, and hence the greater the need for the government to intervene in innovation. This point is best exemplified by Mazzucato’s (2013) work on *The Entrepreneurial State: Debunking Public vs. Private Sector Myths*. In a series of case studies discussed in the book, Mazzucato has shown that the private sector finds the courage to invest in innovation only after an

entrepreneurial state has made the high-risk investments. In the case of Apple’s flagship product, iPhone, Mazzucato (2013, 88) revealed that “every technology that makes the iPhone so ‘smart’ was government funded: the Internet, GPS, its touch-screen display and the voice-activated Siri.”

As can be seen from Figure 19, whereas innovation is defined in a broad sense including “new-to-firm” innovation (importing technologies that are new to the firm or country), it has been found that larger-sized banks are more likely to be active in innovation activities than smaller-sized PDBs/DFIs. The same pattern holds true for income levels. PDBs/DFIs are more likely to support innovation as their economies move to more advanced stages of development. This finding can be explained by the fact that innovation generally requires a large amount of financing and is accompanied by significant financial risks.

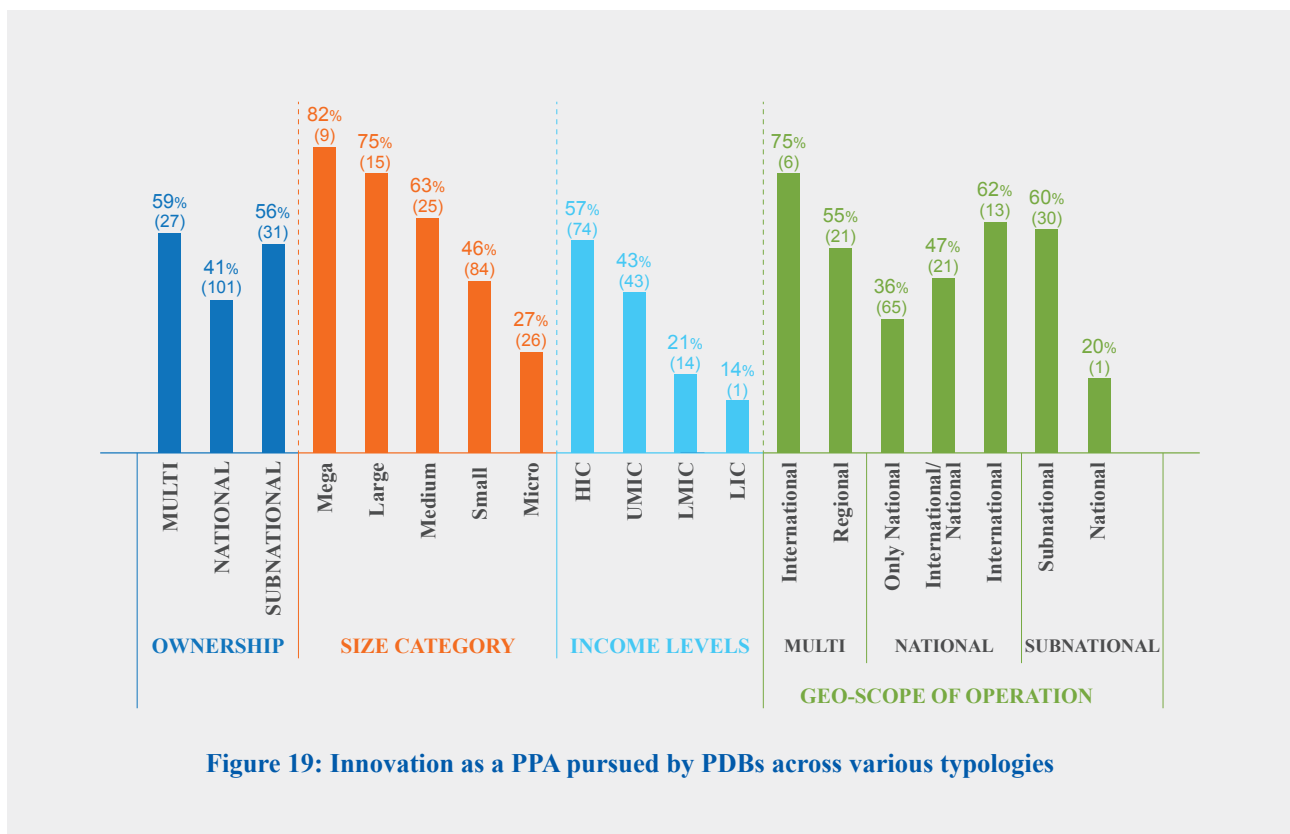


Figure 19: Innovation as a PPA pursued by PDBs across various typologies

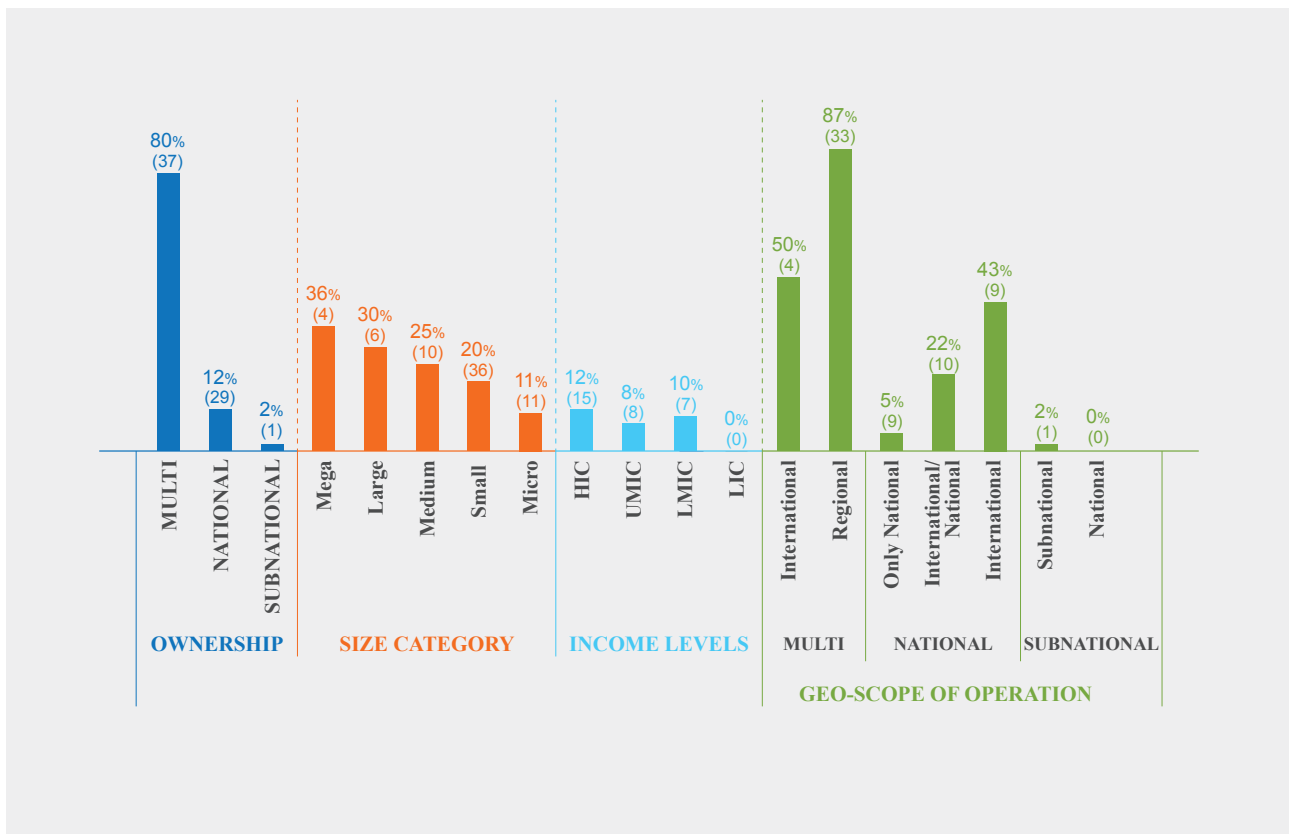
PDBs/DFIs are more likely to support innovation as their economies move to more advanced stages of development. This finding can be explained by the fact that innovation generally requires a large amount of financing and is accompanied by significant financial risks.

4.2.17 Regional integration

Regional integration can be defined as the process of overcoming political, physical, economic, and social

barriers between neighboring countries by mutual agreement. It is about working together to manage shared resources and regional commons and sometimes even to bring them into existence where they do not exist. To meet these challenges, there must be a political will, which needs to be backed up by appropriate financial instruments. Europe has developed a certain number of these instruments, such as the European Regional Development Fund (ERDF), European Agricultural Fund for Rural Development (EAFRD), and Interreg¹⁰.

As shown in Figure 20, regional integration is an area that is mainly addressed by MDBs and in particular by those banks that are tied to a specific region such as the



¹⁰ Interreg is one of the key instruments of the European Union supporting cooperation across borders through project funding.

Asian Development Bank, the African Development Bank, and the Islamic Development Bank. This result is consistent with our expectations. Larger-sized banks are more likely to be active in regional integration than smaller-sized banks. This mainly derives from the fact that regional multilateral institutions are among the largest PDBs in the world.

Regional integration is an area that is mainly addressed by MDBs and in particular by those banks that are tied to a specific region such as the Asian Development Bank, the African Development Bank, and the Islamic Development Bank.

V. Conclusion and Future Research Directions

Building on firsthand data collection, this report has identified seventeen PPAs that are actively pursued by PDBs and DFIs in practice. Among those seventeen PPAs, SMEs are found to be the most prevalent policy area pursued by PDBs and DFIs followed by infrastructure and industrial sector development. With more than half of the PDBs and DFIs covered in the sample are actively engaged in combating climate change, it is evident that climate is also gaining increasing importance. In contrast, less than one-fifth of the PDBs and DFIs are found to be active in the area of protecting biodiversity. Moreover, the likelihood of engaging in a given public policy area varies significantly across different PDBs. For instance, PDBs from HICs are much more likely to engage in international development financing, trade finance, and innovation, whereas PDBs from LICs tend to focus more on industrial sector development.

PDBs and DFIs are potentially powerful instruments at the disposal of the government in serving public policies worldwide.

These findings suggest that PDBs and DFIs are

potentially powerful instruments at the disposal of the government in serving public policies worldwide. It is important for the government to justify the niche of PDBs in addressing specific public policy areas to maximize their development effectiveness. Meanwhile, it is also crucial for the government to adapt the role and focus of PDBs to changing development needs as the country climbs the income ladder.

Moving forward, the research team will continuously identify additional public policy areas that are actively pursued by PDBs and DFIs worldwide and update the list of PPAs accordingly.

Moving forward, the research team will continuously identify additional public policy areas that are actively pursued by PDBs and DFIs worldwide and update the list of PPAs accordingly. Meanwhile, albeit the sample of institutions covered in this study can be considered representative of all PDBs and DFIs worldwide in terms of ownership structure and asset size, geographical representation is biased toward those from high-income and upper-middle-income economies, leaving PDBs and DFIs from LICs underrepresented. Future endeavors

may focus on collecting credible information on those institutions through on-site visits or targeted surveys. Moreover, the data collected in this report is a binary variable, indicating whether the institution is engaged in a certain public policy area. The degree to which the institution is engaged in a particular area is unknown

and would be an important direction to take for future research. We hope that our persistent effort to build and expand the scope of the database will lay a solid foundation for rigorous academic and policy research in the future.

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Appendix A—Operational indicators for each PPA

Rural smallholders

With little or no collateral, rural smallholders are generally underfinanced by commercial banks. The term “rural smallholders” has no universally accepted definition. In fact, what is considered a “smallholder” may vary significantly from one country to another. To keep things simple and operational, the DFI under investigation is engaged in rural smallholder activities if it fits with one of the following operational indicators (OIs):

OI-1: It supports activities that involve rural smallholders (e.g., working on an area less than ten hectares per the definition of the FAO), and there is clear evidence describing such projects or activities.

OI-2: It supports activities that involve rural smallholders as long as the keywords “rural smallholders”, “smallholder farmers”, “small-scale food producers” or other expressions of a similar kind are part of the project or activity description.

OI-3: It supports agricultural development through the supply of small agricultural machinery or equipment, especially when this takes place in low-income countries.

OI-4: It supports activities that contribute to the achievement of target 2.3 of SDG 2.

SMEs

SMEs are non-subsidiary, independent firms that employ fewer than a given number of employees (e.g., < 250 employees) and the turnover is less than a certain threshold (e.g., < 50 million euros). However, these criteria vary significantly across countries. To keep things simple and operational, the DFI under investigation is engaged in SMEs’ activities if it fits with one of the following OIs:

OI-1: It provides financial (e.g., lines of credit and subsidies) or nonfinancial supports (e.g., personnel training and the sharing of better management practices) to enterprises so long as the DFI considers them as medium or small firms.

OI-2: It provides financing to other (e.g., local) organizations that are engaged in supporting SMEs.

OI-3: It supports the development of startups.

OI-4: It supports activities that contribute to the achievement of target 8.3 of SDG 8 and target 9.3 of SDG 9.

Financial inclusion

Financial inclusion refers to the provision of financial services to those individuals without prior access. According to the World Bank, being able to have access to a transaction account is the first step toward broader financial inclusion because a transaction account allows people to store money and send and receive payments. Thus, banking the unbanked population (i.e., individuals without access to bank accounts or loans) is the most important feature of financial inclusion. The DFI under investigation is engaged in financial inclusion activities if it fits with one of the following OIs:

OI-1: It helps individuals without a bank account open a bank account.

OI-2: It enables people (who previously did not have access) to have access to financial products and/or services. Note that the provision of educational loans for students is often seen as financial inclusion.

OI-3: The activity description includes the keywords “financial inclusion,” “universal financial access,” “financial access for all,” “helping unbanked,” or other expressions of a similar kind.

OI-4: It supports micro-sized firms and/or provides microcredit or microfinance to its clients.

OI-5: It supports activities that contribute to the achievement of target 1.4 of SDG 1 in terms of access to financial services.

Local governments

Given the limited ability to mobilize sources internationally, local governments usually face more

challenges compared with central governments in financing key sectors such as education and municipal utilities. As a result, local government is often a major client or target served by the PDBs and DFIs. The DFI under investigation is engaged in local government activities if the serving target is local governments or local authorities and if it fits with one of the following OIs:

OI-1: It facilitates regions and municipalities to borrow securely and at the lowest costs.

OI-2: It finances the local regions in sectors such as housing, schools, homes for the elderly, infrastructure (e.g., roads, public lights, and sports facilities), and tourism.

OI-3: It strengthens the technical, managerial, and financial capability of municipalities to identify, implement, and evaluate urban development projects, including the promotion of institutions working for urban development.

OI-4: It supports activities that contribute to the achievement of target 11.a of SDG 11 only when the target or beneficiary of the activity is the local government.

International development financing

International development financing refers to cross-border financing, and it has two subcategories: international financing of private sector development (non-sovereign) and international financing of the public sector (sovereign states). The former refers to the support provided to companies in developing countries, and the latter refers to the support provided to sovereign states. The DFI under investigation is engaged in each of these two subcategories if it fits with one of the following OIs:

For international financing of the private sector:

OI-1: It provides cross-border financing to companies. These companies generally come from (but are not limited to) the least developed countries (LDCs), landlocked developing countries (LLDCs), small island developing states (SIDS), and emerging and/or LICs.

OI-2: It provides cross-border emergency financing to economic agents from the private sector.

For international financing of the public sector:

OI-3: It supports capacity building of the state in LDCs, LLDCs, and SIDS as well as other emerging and/or LICs.

OI-4: It provides official development assistance or other official flows.

OI-5: It supports activities that contribute to the achievement of target 17.2 and 17.4 of SDG 17.

Infrastructure

As an iconic public good, infrastructure is an area actively intervened by PDBs and DFIs. The DFI under investigation is engaged in infrastructure activities if the activity is not targeted in social housing (which is identified as a separate activity area in this codebook) and if it fits with one of the following OIs:

OI-1: It develops connectivity within or between regions by financing roads, railways, ports, or bridges. These projects can be regarded as “transport infrastructure.”

OI-2: It supports digital and technological infrastructure, such as information and communication technologies, broadband networks, data centers, and satellite connectivity. These projects can be regarded as “communication infrastructure.”

OI-3: It supports the establishment or improvement of power plants, public power grid, dams, and public lighting. These projects can be regarded as “energy infrastructure.”

OI-4: It finances projects related to water supply, water waste disposal facilities, or sanitation. These projects can be regarded as “water and sanitation infrastructure.”

OI-5: It supports other infrastructural activities, such as public amenities (e.g., parks).

OI-6: It supports activities that contribute to the achievement of targets 9.1, 9.4, and 9.a of SDG 9.

Health

As health features the properties of public goods, this is an area frequently targeted by PDBs and DFIs. The DFI under investigation is engaged in health activities if it fits with one of the following OIs:

OI-1: It improves maternal, newborn, and child health (e.g., by reducing stunting and improving nutrition for infants and children or by promoting sexual and reproductive health rights).

OI-2: It helps end epidemics of AIDs, tuberculosis, malaria, and neglected tropical diseases as well as combat hepatitis and other communicable diseases.

OI-3: It reduces premature mortality from noncommunicable diseases and strengthens the prevention and treatment of substance abuse (e.g., drug abuse or harmful use of alcohol).

OI-4: It promotes universal health coverage (i.e., ensuring that all people have access to the health services they need and when and where they need them without financial hardship).

OI-5: It reduces the number of deaths and/or injuries from traffic accidents, hazardous chemicals and air, and water and soil pollution and contamination.

OI-6: It supports activities that contribute to the achievement of targets 3.a, 3.b, 3.c, and 3.d of SDG 3.

Education

Education is one of the most important components of human development. The more individuals are educated, the more they gain access to economic opportunities. At all stages, access to quality education yields tremendous positive externalities for society as a whole. The DFI under investigation is engaged in education activities if it fits with one of the following OIs:

OI-1: It supports equitable access to high-quality basic education (such as early childhood development, primary, and secondary education), and/or higher education and research, as well as promotes vocational training, apprenticeships, and education through life.

OI-2: It helps improve the quality of teaching, including the promotion of digital and innovative technologies used in the education sector.

OI-3: It improves the literacy and numeracy of the people.

OI-4: It supports activities that contribute to the achievement of targets 4.a and 4.b of SDG 4.

Social housing

Social housing generally refers to the financing of buildings or affordable housing for the underprivileged population. The DFI under investigation is engaged in social housing activities if it fits with one of the following OIs:

OI-1: It ensures that everyone has access to quality and affordable housing, in particular among low-income households and vulnerable groups (e.g., the disabled and the elderly).

OI-2: It facilitates access to homeownership and provides tenant protection (e.g., protection from eviction solely for not being able to pay rent)

OI-3: It finances public housing or public housing agencies.

OI-4: It provides emergency renting assistance for people in need.

OI-5: It supports the renovation or improves the living conditions of shantytown areas, shack settlements, and dilapidated housing.

OI-6: It supports activities that contribute to the achievement of target 11.1 of SDG 11.

Industrial sector development

Industrial sector development refers to all the activities that contribute to the development of the industrial sector, especially in the early phase of a country's industrialization process. Industrial sector development is further classified into two major categories: agro-processing activities and other manufacturing activities. The DFI under investigation is engaged in each of these two subcategories if it fits with one of the following OIs:

For agro-processing activities:

OI-1: It supports the manufacture of food products, beverage, and tobacco products (see ISIC Revision 4, Sector C, Division 10–12 for more details).

OI-2: The activity description includes the keywords “agro-processing” or “agri-business” explicitly. Note that finding the keywords is not enough, and understanding the context to make sure if it qualifies for agro-process activities is important.

For other manufacturing activities:

OI-3: It supports activities that are conducive to the industrialization of a country, such as the expansion of labor-intensive manufacturing production in LDCs (see Appendix A for the list of LDCs) or the development of high-tech capital-intensive manufacturing industries,

such as manufacture of automotive, computer, and electronics industries.

OI-4: It supports activities that contribute to the achievement of target 8.2 of SDG 8.

OI-5: It supports activities that contribute to the achievement of target 9.5 of SDG 9, which does not specify if the support targets the agro-processing or other manufacturing. In this case, document the data under the general subcategory in the data collection file.

Trade finance

Trade finance mainly refers to the financing provided to companies or governments that facilitates international trade flows. The DFI under investigation is engaged in trade finance activities if it fits with one of the following OIs:

OI-1: It supports projects or activities that strengthen trade ties between two or more countries, such as building a pathway that is explicitly aimed at promoting the movements of goods across countries.

OI-2: It supports projects or activities that facilitate the export and import promotion of a country or company.

OI-3: It supports trade companies.

OI-4: It supports activities that contribute to the achievement of target 8.a of SDG 8 and targets 17.11 and 17.12 of SDG 17.

Gender equality

Gender equality refers to equal rights, responsibilities, and opportunities for women, men, girls, and boys. Within the 2030 Agenda, SDG 5 is a full-fledged goal dedicated to gender equality. The DFI under investigation is engaged in gender equality activities if it fits with one of the following OIs:

OI-1: It helps end all forms of discrimination as well as eliminate all forms of violence against all women and girls.

OI-2: It empowers women and increases their participation as well as position in political, economic, cultural, and social life. Empowerment may come through the use of enabling technology, such as information and communication technology.

OI-3: It helps eliminate all harmful practices, such as child, early, and forced marriage and female genital mutilation.

OI-4: Gender equality is fundamental in the project's design. The project would not have been undertaken without this gender equality objective (OECD gender marker).

OI-5: It recognizes and values unpaid care and domestic work through of provision of public services.

OI-6: Fifty-one percent of the investment in entrepreneurship are owned by women or were founded by women.

Climate

According to the UN, climate change generally refers to long-term shifts in temperatures and weather patterns. Within the 2030 Agenda, SDG 13 is a full-fledged goal dedicated to the fight against climate change. To keep things simple and operational, the DFI under investigation is engaged in climate activities if it fits with one of the following OIs:

OI-1: It defines national and local low-emission and resilient economic pathways or integrates climate change measures into national policies, strategies, and plans.

OI-2: It supports projects that are aimed at limiting or reducing greenhouse gas emissions. This may include

reforestation, the development of renewable energy (e.g., wind, hydro, and solar panels), and sustainable transport (e.g., metros, tramways, and rail). Note that the activity or project description of renewable energy must explicitly state that it is aimed at reducing greenhouse gas emissions.

OI-3: It improves awareness and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.

OI-4: It is accredited by the Green Climate Fund (see Appendix A for website access).

OI-5: Climate is fundamental in the project's design, and the project would not have been undertaken without this climate-oriented objective.

OI-6: The DFI supports activities that contribute to the achievement of targets 13.a and 13.b of SDG 13.

Biodiversity

Biodiversity refers to the variety of life on earth at all levels, from genes to ecosystems, and the Kunming Declaration goal of moving toward the full realization of the 2050 Vision of “living in harmony with nature.” To keep things simple and operational, the DFI under investigation is engaged in biodiversity activities if it fits with one of the following OIs:

OI-1: It supports activities that protect, restore, and promote sustainable use of terrestrial ecosystems.

OI-2: It supports activities that sustainably manage forests (e.g., reforestation), combat desertification, and halt and reverse land degradation and biodiversity loss.

OI-3: It supports projects or activities that conserve and sustainably use the oceans, seas, and marine resources for sustainable development.

OI-4: It supports projects or activities that help protect endangered species.

OI-5: It supports activities that contribute to the achievement of all the targets specified under SDG 14 and SDG 15.

Food security

According to the UN Committee on World Food Security, food security means that “all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life.” Given this definition, the DFI under investigation is engaged with food security activities if it fits with one of the following OIs:

OI-1: It creates or strengthens the safety nets to ensure that vulnerable families have access to food and water as well as money in their pockets to make vital purchases.

OI-2: The activity the DFI conducts is part of or is associated with the World Bank's Global Agriculture and Food Security Program (GAFSP).

OI-3: It enhances the resilience of communities and the sustainability of food production and livelihood systems for the purpose of improving food security.

OI-4: It contributes to the stability of agricultural output (e.g., grain and edible oil) for the purpose of protecting farmers from market volatility.

OI-5: It satisfies the basic needs of purchase and storage of main agricultural products, such as grain, cotton, and edible oil.

OI-6: It supports activities that contribute to the achievement of targets 2.1 and 2.c of SDG 2.

Innovation

In economic terms, innovation generally refers to the development and application of ideas and technologies that improve goods and services or make their production more efficient. The DFI under investigation is engaged in innovation activities if it fits with one of the following OIs:

OI-1: It imports or applies technologies, products, or services that are new to the country or to the firm.

OI-2: It supports activities that lead to a new product or service, a new technology, or an upgrade to an existing product or service.

OI-3: It supports activities that lead to a patent (e.g., research and development activities) or basic research carried out by universities or research institutes.

OI-4: It has a dedicated fund to promote innovation activities.

OI-5: It supports activities that contribute to the achievement of targets 8.2 and 8.3 of SDG 8, targets 9.5 and 9.b of SDG 9, or target 17.6 of SDG 17 only when the activities relate to innovation.

Regional integration

Regional integration is a multifaceted process, whereby sovereign nation-states aim to overcome divisions that impede the flow of goods, services, capital, and people. These divisions are a constraint to economic growth, especially in developing countries. Given these key characteristics, the DFI under investigation is engaged in regional integration activities if the project or activity covers two or more countries and if it fits with one of the following OI:

OI-1: It supports infrastructure that helps reduce the barriers to the free movement of goods, people, and capital across national borders.

OI-2: It supports activities or projects that promote prosperity and development between two or more countries in the region.

OI-3: It supports activities that explicitly mention the keywords “regional integration,” “integrated development of the region,” or other expressions of a similar connotation.

OI-4: It supports activities that contribute to the achievement of target 9.1 of SDG 9.

Appendix B—Tables and figures

Table B1: List of institutions removed from the sample due to lack of information

Country	Code	Name in English	Name in Original Language
Burundi	BI19891	Urban Housing Promotion Fund	Fonds de Promotion de l'Habitat Urbain
Egypt	EG19471	The Egyptian Industrial Development and Workers Bank	يرصملا لامعلاو ةيعانصرلا ةيمنتلا لكتب
Eritrea	ER19961	Eritrean Investment and Development Bank	Eritrean Investment and Development Bank
Guinea	GN20181	National Investment Bank of Guinea	Banque Nationale d'Investissement de Guinée
Equatorial Guinea	GQ20101	Autonomous Amortization Fund for Public Debt	Caja Autónoma de Amortización de la Deuda Pública
Iran	IR19391	Bank Maskan – Housing Bank	نكسم كئاب تياس
Malaysia	MY19631	Haji Savings Institution	Lembaga Tabung Haji
Niger	NE19731	Deposit and Consignment Fund of Niger	Caisse des Dépôts et Consignations du Niger
Pakistan	PK19612	Industrial Development Bank	ناتسكاپ ، كنب یتاوی قرت یتعنص
Vietnam	VN20072	Thanh Hao Development and Investment Fund	Thanh Hao Development and Investment Fund
Vietnam	VN20092	Dong Nai Development and Investment Fund	Dong Nai Development and Investment Fund
Vietnam	VN20101	Dan Nang Development and Investment Fund	Dan Nang Development and Investment Fund
Vietnam	VN20111	Long An Development and Investment Fund	Long An Development and Investment Fund
Vietnam	VN20112	Lam Dong Development and Investment Fund	Lam Dong Development and Investment Fund
Vietnam	VN20113	Can Tho Development and Investment Fund	Can Tho Development and Investment Fund

Country	Code	Name in English	Name in Original Language
Vietnam	VN20115	Khanh Hoa Development and Investment Fund	Khanh Hoa Development and Investment Fund
Vietnam	VN20133	Ha Tinh Development and Investment Fund	Ha Tinh Development and Investment Fund
Zambia	ZM19721	Development Bank of Zambia	Development Bank of Zambia

Table B2: List of equity funds included in the final sample

Code	Name
CA19651	Deposits and Investment Fund of Quebec
MB19991	Islamic Corporation for the Development of Private Sector
NZ20021	New Zealand Growth Capital Partners

Table B3 : List of guarantee funds included in the final sample

Code	Name
SE19331	The Swedish Export Credit Agency
KR19891	Korea Technology Finance Corporation
MB19881	Multilateral Investment Guarantee Agency – World Bank Group
ID19811	PT Credit Guarantee Indonesia
PH19981	Philippine Guarantee Corporation
JO19941	Jordan Loan Guarantee Corporation
TH19911	Thai Credit Guarantee Corporation
IR19731	Export Guarantee Fund of Iran
MB19762	African Solidarity Fund
MB19772	African Guarantee and Economic Cooperation Fund
ML20001	Mali Mortgage Guarantee Fund



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