



Water Finance
Coalition

PUBLIC DEVELOPMENT BANKS' INVESTMENTS IN WATER 2021-2023

An analysis of a sample of Public Development
Banks identified by the Water Finance Coalition

Catarina Fonseca - Daniel de Paula

Public Development Banks' investments in water 2021-2023

An analysis of a sample of Public Development Banks identified by the
Water Finance Coalition

Catarina Fonseca (IRC) and Daniel De Paula (AFD), on behalf
of the Water Finance Coalition

January, 2025

About the Water Finance Coalition

The Water Finance Coalition gathers national and international public development banks aiming to improve the financing of the water and sanitation sector to achieve Sustainable Development Goal 6, the Paris Agreement objectives and to enhance biodiversity protection.

About this publication

Authored by: Catarina Fonseca and Daniel De Paula

All Water Finance Coalition publications are accessible through the Water Finance Coalition's website for free download.

Cite this publication as follows:

Fonseca, C., De Paula, D., 2025. *Public Development Banks' investments in water 2021-2023; An analysis of a sample of Public Development Banks identified by the Water Finance Coalition*. Paris: Water Finance Coalition.

For more information

Catarina Fonseca

IRC

fonseca@ircwash.org

www.waterfinancecoalition.org

Contents

List of Figures.....	5
List of tables.....	6
ACKNOWLEDGEMENTS.....	7
LIST OF ACRONYMS.....	8
EXECUTIVE SUMMARY	9
INTRODUCTION	11
Background	11
Objectives	11
METHODOLOGY.....	11
Sample of PDBs used in the report.....	11
Definitions and limitations.....	14
Currencies	15
FINDINGS.....	15
PDBs investments in water 2021-23	15
Water investments per type of PDB.....	17
Water investments per subsector	18
PDBs investments in climate finance for water 2021-23.....	18
CONCLUSIONS AND RECOMMENDATIONS.....	22
REFERENCES	23
ANNEX 1:EXISTING DATASETS AND THEIR LIMITATIONS.....	24
Overview	24
Description of the datasets	25

List of Figures

Figure 1 Location of the PDBs in the sample	12
Figure 2 Geographic scope of ownership of PDBs in the sample	12
Figure 3 Type of mandate of PDBs in the sample	13
Figure 4 Economic level of the countries represented by the PDBs in the sample	13
Figure 5 Investments reported in the water sector 2021-23, top PDBs (% of total reported).....	15
Figure 6 Climate investments reported in the water sector 2021-23, top PDBs (% of total reported).....	20
Figure 7 Number of mentions on SDG6, reports from PDBs 2020-2022 (Source: AFD, internal dataset)	26

List of Tables

Table 1 PDBs Investments reported in the water sector 2021-23	15
Table 2 Average PDB 2021-23 water investments per type of PDB	17
Table 3 Average PDB 2021-23 water investments per country location	18
Table 4 Climate investments reported in the water sector 2021-23 per PDB.....	18
Table 5 Climate investments as a share of reported investments in the water sector 2021-23.....	19
Table 6 Climate investments reported in the water sector 2021-23	20
Table 7 Average PDB 2021-23 water investments tagged as climate per geographical scope of ownership PDB	21
Table 8 Average PDB 2021-23 water investments tagged as climate per country location	21
Table 9 Existing public datasets with information on PDBs	24
Table 10 Water sector extracted from IDFC reports (in million USD)	25
Table 11 Climate Policy Initiative: climate urban climate finance for water and wastewater 2019-2022	25
Table 12 List of PDBs that mention water or SDG6 in their reports 2019-2022 (excluding those in this survey).....	26

Acknowledgements

The authors would like to thank the time and input from the colleagues from : African Development Bank, Agence Française de Développement, Agência de Fomento de Santa Catarina, Asian Development Bank, Banco de Desenvolvimento de Minas Gerais, Banco Nacional Costa Rica, Banco Nacional de Desenvolvimento Econômico e Social Brazil, Banco Nacional de Obras y Servicios Públicos, Banque Ouest Africaine de Developpement , Cassa Depositi e Prestiti Italy, Development Bank of Latin America, Development Bank of Rwanda, European Investment Bank, Findeter Banca de Desarrollo Territorial Colombia, FONPLATA Development Bank, ILLER BANKASI Turkey, Instituto de Crédito Oficial Spain, International Finance Corporation, KfW Development Bank, National Bank for Agriculture and Rural Development, National Financiera Mexico, Nederlandse Waterschapsbank N.V. , North American Development Bank, PT Sarana Multi Infrastruktur Indonesia, The Council of Europe Development Bank, Vietnam Development Bank and the World Bank.

List of acronyms

PDB	Public Development Bank
SDGs	Sustainable Development Goals
WASH	water, sanitation and hygiene
WFC	Water Finance Coalition

Executive summary

The Water Finance Coalition (WFC) was formed after the 2020 Finance in Common Summit to unite public development banks (PDBs) in enhancing financing for water and sanitation sectors, contributing to Sustainable Development Goal 6 (SDG6), the Paris Agreement and the protection of biodiversity. Over the past three years, the coalition has expanded involving over 70 PDBs, fostering knowledge sharing, and providing tools and coaching to increase investments in water and sanitation.

This report is based on water investments reported by 37 PDBs either through a survey or through data found in their annual reports and other institutional publications. Water investments refer to water and sewerage investments, stormwater and drainage, flood protection, water resources conservation, treatment, distribution, water security and coastal protection. Policy, institutional and capacity building investments in the sector are also included when these investments were disaggregated and reported. With a few exceptions, most investments in the sector were reported as a lumpsum under a “water supply and sanitation” tag.

Only annual investments that could be identified as taking place between 2021 and 2023 were analysed. It is recognised that many PDBs are investing in the sector and in climate finance, but the investments in water and sanitation are not enough identified or disaggregated to be included in the analysis of this report.

The sample of 37 PDBs represent 7% of the PDBs in the World (a total of 536) but represent 29% of the total assets reported in 2022 of all the PDBs. This is equivalent to 6.4 trillion USD (out of a total of 22 trillion USD in 2022).

In terms of geographic location, 32% of the PDBs in the sample are located in the Americas (12) followed by Asia (9), Europe (9), Africa (5) and World (2). In terms of geographic scope of ownership, 57% (21) are national PDBs and 43% (16) are multinational PDBs. Multinational PDBs are those initiated and owned by entities from more than two countries while national PDBs have been created and owned by a central government (or national public entities).

The findings highlight that between 2021-23, 37 major PDBs reported over USD 108 billion in water sector investments (including China Development Bank - and USD 63 billion excluding CDB). The growth rates (excluding CDB) point to a 7% growth rate from 2021 to 2022 and a 33% growth rate from 2022 to 2023 by both multinational as well as national PDBs.

Water Investments	Sample	2021	2022	2023	Total
Including China Development Bank	37 PDBs	18.119	47.099	43.130	108.348
Excluding China Development Bank	36 PDBs	18.119	19.432	25.809	63.360

USD million, official exchange rates, current prices

The key findings regarding water investments are:

- Total water investments (2021-23): USD 108 billion with an increase from 2022 by some of the largest banks in the sample: The World Bank. The European Investment Bank, Agence Française de Développement, Caixa and Banco Nacional, both from Brazil, and Iller Banski in Turkey.

- In the 2021-23 period, from the PDBs dataset available, the China Development Bank has reported most investments in the sector, accounting for 42% of the investments, followed by the World Bank (12%) and the European Investment Bank (8%).
- Excluding China Development Bank, which accounts for 42% of the investments, the total water investments amounts to USD 63 billion.
- Subsector investments vary widely among PDBs, with a lack of consistent data disaggregation to provide a relevant analysis.

Based on a smaller sample of 17 PDBs, climate finance, specifically targeting water-related projects, accounted for USD about 21 billion, with climate adaptation finance being 2.5 times higher than climate mitigation efforts. The USD 21 billion represent 74% of these 17 PDBs water investments.

	Sample	2021	2022	2023	Total
Water investments tagged as climate finance	17 PDBs	5.121	6.769	9.097	20.987

USD million, official exchange rates, current prices

The key findings with respect to climate investments in water are:

- From the 37 PDBs, 46% (17) have tagged part of their water investments as climate ones. Of these, 11 PDBs are multinational and 6 national PDBs.
- Climate finance for water (2021-23): USD 21 billion, with a significant focus on climate adaptation (USD 9.4 billion) over mitigation (USD 4.2 billion). Hybrid climate finance accounts for the remaining USD 7.4 billion.
- In the 2021-23 period, from the PDBs dataset available, the European Investment Bank has reported the highest climate related water sector investments, followed by the Agence Française de Développement and KfW Development Bank.
- Most banks have been increasing their water investments tagged as climate finance. Namely the European Investment Bank, AFD, the Asian Development Bank and the Development Bank of Latin America.
- Based on the limited sample, most PDBs reporting water investments tagged as climate are multinational and multicountry PDBs.

From the sample of PDBs in this report, investments in water are modestly on the rise, or at least are being reported as such, pointing to a growing role for PDBs in financing the sector. With an estimated USD 140.8 billion annual spending gap in water and sanitation (World Bank, 2024) and with 37 PDBs spending USD 43 billion in 2023 alone, the potential for PDBs to become an even more important player in the sector cannot be understated. With 360 national, 121 subnational and 55 multinational PDBs identified worldwide as of September 2024, totalling USD 22 trillion total assets in 2022, the potential for raising additional finance for the sector is enormous.

The analysis of the data for this report has shown that there are many PDBs not tracking their water investments even although SDG6 features prominently in their annual reports. From those that have either answered the survey or shared the data through the annual reports, several data limitation need to be overcome. Agreements on standardised coding/tagging for i) water investments sub-sectors and ii) climate investments in water would be an important measure to be undertaken by the participants of the Water Finance Coalition. These can be developed based on existing typologies.

The Water Finance Coalition will continue to collect and gather relevant data and knowledge to incentivise a growing portfolio of water and climate investments in the PDBs.

Introduction

Background

The Water Finance Coalition (WFC) was established in the aftermath of the Finance in Common Summit in late 2020. Its primary goal is to bring together international and domestic public development banks (PDBs) to enhance financing for water and sanitation, ultimately contributing to the achievement of Sustainable Development Goal 6 (SDG6), the Paris Agreement goals, and biodiversity protection.

Over the past four years, the WFC has experienced steady growth, involving more than 70 PDBs. It has served as a platform for knowledge sharing, created practical tools for banks (Water Finance Coalition, 2022), and provided technical assistance to some of its active participants to expand their portfolio in the water and sanitation sector.

Over the past three years, various efforts have been made to develop quantitative estimates of financing for Public Development Banks (PDBs) in general, and Water Finance Coalition (WFC) participants specifically, in relation to water-related investments (Water Finance Coalition, 2021). In 2023, a survey was conducted among coalition participants; however, the response rate was low. Aligned with Outcome 2.1 of the WFC's Action Plan—"to monitor total funding for Water Security and ensure results are regularly communicated"—this report presents an overview of the current state of financing in the water and sanitation sector, focusing on a selected sample of PDBs, many of which are part of the WFC.

Objectives

The main objective of the analysis was to create a baseline dataset for the Water Finance Coalition to take stock of selected PDB's financing of the water sector and be able to track it on an annual basis. Specific objectives included the analysis of trends in water finance for the past years, namely: amounts of finance to the sector, climate finance and the end use of the finance in different subsectors.

Methodology

Sample of PDBs used in the report

There are at present, 73 Public Development Banks that contributed to the activities of the Water Finance Coalition. A survey was shared with these PDBs in June 2024, achieving a 37% response rate. The analysis was complemented by analysing the annual reports and other institutional publications of a selected number of PDBs.

This report presents the data of 37 PDBs that constitute only 7% of the PDBs in the World (in 2024 a total of 536 was reported) but represent 29% of the total assets reported in 2022 of all the PDBs, equivalent to USD 6.4 trillion (out of a total of USD 22 trillion in 2022). The official names, mandates,

location and geographical scope of ownership of the PDBS were taken from the AFD/Peking University PDB dataset¹.

The majority of the PDBs in the sample are located in the Americas (12), Asia (9), Europe (9), Africa (5) and World (2) as shown in Figure 1. The majority of the PDBs in the sample are national (21) or multinational (16) according to the geographic scope of ownership illustrated by Figure 2. Multinational PDBs are those initiated and owned by entities from more than two countries while national PDBs have been created and owned by a central government (or national public entities). There are also subnational PDBs, owned by local governments – but there is none in this sample. These definitions are from the extensive work of Xu et al, 2021.

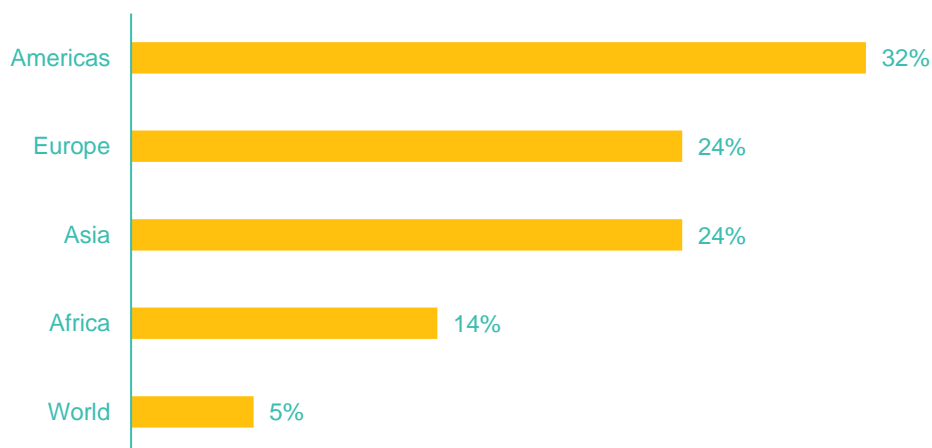


Figure 1 Location of the PDBs in the sample

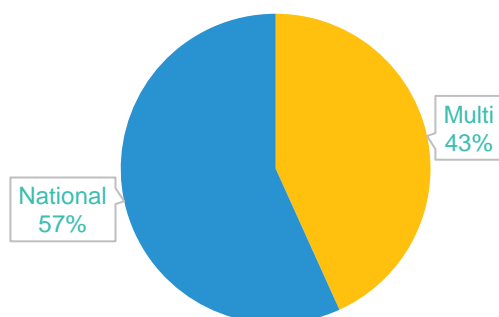


Figure 2 Geographic scope of ownership of PDBs in the sample

¹ <http://www.dfidatabase.pku.edu.cn/DataDownloading/index.htm>

The PDBs in the sample have mostly a general development mandate² (22 PDBs) as shown in Figure 3. In terms of economic level of the countries they are based in, 16 are multicountry PDBs, 12 upper middle income PDBs, 5 high income countries and 4 lower middle-income countries (Figure 4).

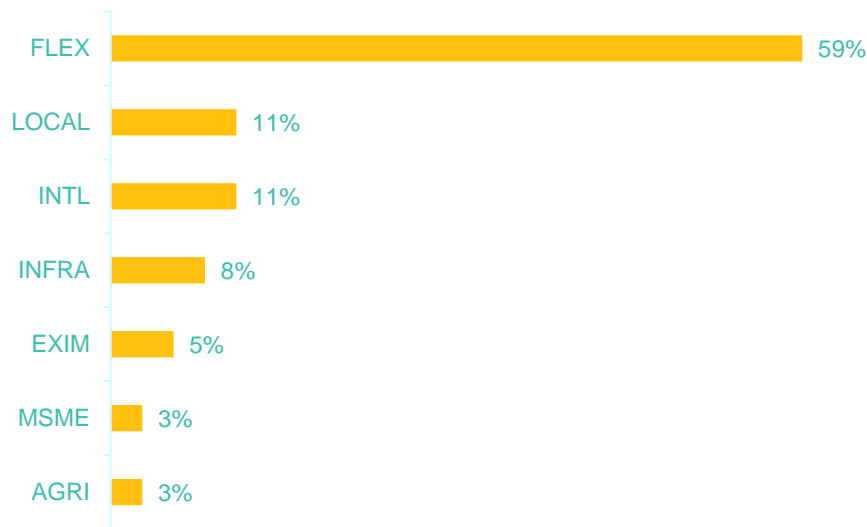


Figure 3 Type of mandate of PDBs in the sample

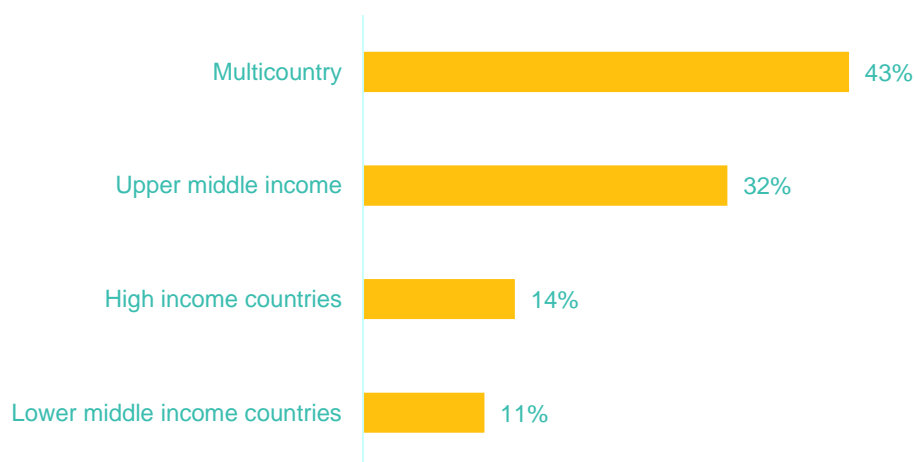


Figure 4 Economic level of the countries represented by the PDBs in the sample

An overview of eight PDB mandates (Xu et al, 2021):

- General Development (FLEX): flexible development mandate to support social, economic, and environmental development;
- Local Government (LOCAL): PDBs that serve local governments;

² See Xu et al. 2021 for different classifications of PDBs

- International Financing of Private Sector Development (INTL): This group of PDBs specializes in financing private or public companies (commercially managed), rather than providing financial support to sovereign governments;
- Infrastructure (INFRA): Infrastructure financing is often characterized by long-term, large-scale, and high-uncertainty projects. These are specialized PDBs established to fill the infrastructure deficit;
- Promoting Exports and Foreign Trade (EXIM): banks use financial facilities to promote trade;
- Micro, Small, and Medium-sized Enterprises (MSME): This group of PDBs is devoted to financing micro, small, and medium-sized enterprises.
- Rural and Agricultural Development (AGRI): specific mandate to support the agricultural industry and small-scale family farming;
- Social Housing (HOUS): financing buildings or housing, most often for underprivileged populations; (not in the PDB sample)

An analysis was also conducted on existing reports and datasets from the remaining PDBs that did not respond to the survey. However, due to variations in indicators and data disaggregation across these reports, the information was not directly comparable. Annex 1 provides an overview of these datasets, detailing the available data and their limitations..

Definitions and limitations

The definition of what is considered “water finance” is very dependent on the coding available in each of the datasets and each of the PDBs. Few PDBs disaggregate water sector investments. Overall, all water and sewerage investments, stormwater and drainage, flood protection, water resources conservation, treatment, distribution, water security and coastal protection were considered. Policy, institutional and capacity building investments in the sector were also included. Efforts were made to exclude investments that were specifically tagged under irrigation/agriculture and solid waste management, but in many cases, there was not enough disaggregation to be able to understand if these investments were being reported in the data received.

Climate finance is understood as finance that is aimed at reducing greenhouse gas emissions, reducing vulnerability and increasing the resilience of human and ecological systems to cope with negative climate change impacts (UNFCCC³).

The financial resources are then used to fund actions that mitigate and adapt to the impacts of climate change. Climate mitigation covers activities contributing to reducing or avoiding GHG emissions, while climate adaptation covers activities that aim at maintaining or increasing the adaptive capacity and resilience (of services in the case of the water sector), in response to climate-related risks. When climate finance is considered hybrid, it means that it is not possible to separate between climate finance for adaptation or for mitigation.

The existing data does not allow us to be 100% accurate. One possible limitation of the data is that there might be instances of double counting of investments in the sector. When, for instance, an international or regional PDB provides a funding stream to another regional or national PDB which then also reports the investment targeted to the water sector. Another limitation is that some PDBs do not

³ <https://unfccc.int/topics/introduction-to-climate-finance#:~:text=What%20is%20climate%20finance%3F,that%20will%20address%20climate%20change.>

clear distinguish between approved investments, realised projects and disbursements in their annual reports. Some PDBs include full list of projects which allow for manual extraction of the data per sector while the majority does not. PDBs also often include water as a share of a portfolio in the reports but do not disclose the amounts invested per year.

Currencies

Sector investments are reported in different years and in several currencies. These nominal costs, as reported in each of the years were kept in constant prices. Official exchange rates were used from the World Bank dataset (indicator PA.NUS.FCRF).

Findings

PDBs investments in water 2021-23

Between 2021 and 2023, 37 PDBs have reported more than USD 108 billion of investments in the water sector. In 2023, reported investments reached USD 43 billion (Table 1).

In total, China Development Bank accounts for 42% of the investments and data from 2021 is missing from its annual report. Accordingly, the total is presented in the table both with and without CDB investments. The other larger PDB investors are the World Bank and the European Investment Bank (Figure 5).

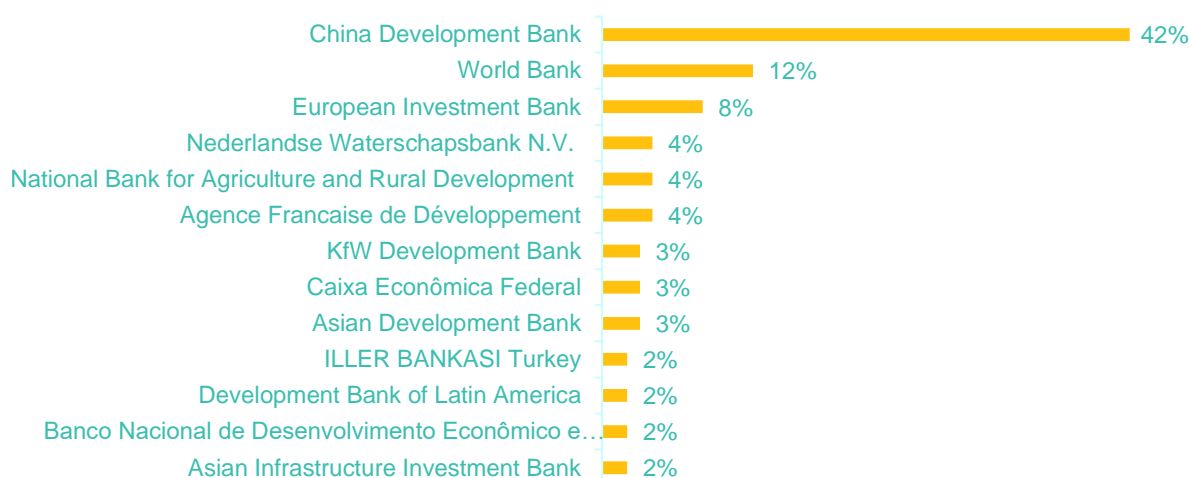


Figure 5 Investments reported in the water sector 2021-23, top PDBs (% of total reported)

Several other PDBs that are investing in the water sector or have dedicated funds to the sector have been identified through their annual reports or their dashboards. However, their reports do not provide data specifying the amounts invested in the specific years of 2021-23.

These PDBs include: Abu Dhabi Commercial Ban (UAE), Banco de Desenvolvimento de Minas Gerais (Brazil), Banco Nacional (Costa Rica), Caisse des Dépôts et Consignations (Tunisia), Development Bank of Zambia, Trust Funds for Rural Development FIRA (Mexico) and the National Housing Bank (India). For instance, DBSA annual reports mention several municipal investments in the sector and India Exim Bank reports individual projects in the sector in several countries.

Table 1 PDBs Investments reported in the water sector 2021-23

Public Development Bank	2021	2022	2023	Total
African Development Bank	461	236	893	1.590
Agence Française de Développement	1.242	1.276	1.916	4.435
Asian Development Bank	1.222	866	1.266	3.355
Asian Infrastructure Investment Bank	1.125	509	0	1.634
Banco Centroamericano de Integración Económica (CABEI/BCIE)	162	80	338	580
Banco de Desenvolvimento do Espírito Santo, Brazil	1	1	na	2
Banco do Nordeste do Brazil	40	319	899	1.258
Banco Nacional de Desenvolvimento Econômico e Social, Brazil	75	210	1.863	2.149
Banco Nacional de Obras y Servicios Públicos (Banobras), México	202	0	934	1.136
Banco Regional de Desenvolvimento do Extremo Sul, Brazil	38	1	16	55
Banque Ouest Africaine de Développement	na	44	56	100
Caixa Econômica Federal, Brazil	1.197	631	1.830	3.658
Cassa Depositi e Prestiti, Italy	na	71	94	165
China Development Bank (CDB)	na	27.667	17.321	44.988
Development Bank of Latin America (CAF)	447	796	798	2.041
Development Bank of Southern Africa (DBSA)	na	99	47	146
ECOWAS Bank for Investment and Development (EBID)	56	0	0	56
El Banco de Desarrollo del Ecuador B.P. (BDE)	122	136	125	382
European Bank for Reconstruction and Development	210	159	375	744
European Investment Bank	1.948	2.291	4.311	8.550
Export-Import Bank of India	na	1.575	na	1.575
Findeter Banca de Desarrollo Territorial, Colombia	45	34	171	250
Fonds d'Equipement Communal, Morocco	4	9	206	219
FONPLATA Development Bank	91	134	122	347
ILLER BANKASI, Turkey	359	510	1.007	1.876
Instituto de Crédito Oficial, Spain	52	12	26	90
Inter-American Development Bank	127	976	254	1.357

International Finance Corporation (IFC)	208	378	384	970
Islamic Development Bank	na	56	57	113
KfW Development Bank, Germany	946	1.215	585	2.746
National Bank for Agriculture and Rural Development (NABARD), India	1.572	1.365	1.228	4.165
Nederlandse Waterschapsbank N.V., The Netherlands	1.728	1.192	968	3.888
North American Development Bank	70	17	188	275
PT Sarana Multi Infrastruktur, Indonesia	79	87	175	341
The Council of Europe Development Bank (COEB)	9	0	71	80
Vietnam Development Bank	25	8	na	33
World Bank	4.256	4.139	4.606	13.001
Grand Total with CDB	18.119	47.099	43.130	108.348
Grand Total without CDB	18.119	19.432	25.809	63.360

USD million, official exchange rate, current prices

Na = not available, but there are indications that investments have been made in the sector

Water investments per type of PDB

Removing the China Development Bank from the sample, the average of the investments made by multinational PDBs is around USD 2.1 billion while the national PDBs average is USD 1.4 billion (Table 2).

Table 2 Average PDB 2021-23 water investments per type of PDB

	Without CDB	With CDB
Multinational PDB (N=16)	2.175	2.175
National PDB (N=21)	(N=20) 1.428	3.503

USD million, official exchange rate, current prices

An analysis of the average PDB investments per country location has also been conducted, but there are two challenges: the sample is not representative of the different locations and the China Development Bank skews the data.

Table 3 shows the average investment per PDB in upper middle-income countries is USD 1.023 million per PDB while in multicountry PDBs it is double at USD 2.175 million.

Table 3 Average PDB 2021-23 water investments per country location

	Without CDB	With CDB
Multicountry (N=16)	2.175	2.175
High income countries (N=5)	2.265	2.265
Upper middle income (N=12)	(N=11) 1.023	4.687
Low middle income countries (N= 4)	1.498	1.498

USD million, official exchange rate, current prices

Water investments per subsector

PDBs mostly do not classify their water investments in sub sectors and, therefore, it is not possible to make an analysis per subsector. Some PDBs did mention the following sub-sectors: water supply, policy and institutional capacity, sanitation and sewerage, watershed and river management and coastal, flood, and drainage management.

PDBs investments in climate finance for water 2021-23

From the 37 PDBs, 46% (17) have tagged water investments as climate finance. Of these, 11 PDBs are multinational and 6 national, of which 4 European, 1 from Latin America and 1 from Asia.

For the period 2021-23, USD 21 billion has been tagged specifically as climate finance for the water sector (Table 4). In the 2021-23 period, from the PDBs dataset available, the European Investment Bank has reported the highest climate related water sector investments, followed by the Agence Française de Développement and KfW Development Bank.

The investments tagged as climate finance are not disaggregated per subsector; therefore, that analysis is not possible.

Table 4 Climate investments reported in the water sector 2021-23 per PDB

Public Development Banks	2021	2022	2023	Total
African Development Bank	461	236	893	1590
Agence Francaise de Développement	1067	1064	1708	3839
Asian Development Bank	527	406	1358	2290
Asian Infrastructure Investment Bank	406	311	na	717
Banque Ouest Africaine de Développement	0	44	56	100
Cassa Depositi e Prestiti Italy	0	0	26	26
Development Bank of Latin America	439	655	722	1816

European Bank for Reconstruction and Development	149	56	355	560
European Investment Bank	683	1419	2327	4428
Findeter Banca de Desarrollo Territorial Colombia	17	26	44	87
Instituto de Crédito Oficial Spain	16	9	20	45
Inter-American Development Bank	127	976	254	1357
International Finance Corporation	179	268	348	795
KfW Development Bank	891	1195	587	2673
North American Development Bank	70	17	188	275
PT Sarana Multi Infrastruktur Indonesia	80	87	175	343
The Council of Europe Development Bank	9	0	36	45
Grand Total	5121	6769	9097	20987

USD million, official exchange rate, current prices

Na = not available, but there are indications that investments have been made in the sector

The climate investments of the 17 PDBs, represented between 2021-23 16% to 100% of the PDBs water investments. The average water investments of the 17 PDBs that were tagged as climate investments was 74% (Table 5).

From the sample, it appears that national PDBs account less for climate finance in the water sector. If 74% of the water investments made by the 37 PDBs in this sample were classified or tagged as climate finance, the total for the three years could potentially reach USD 80 billion in climate finance between 2021 and 2023. However, this remains a hypothetical calculation.

Table 5 Climate investments as a share of reported investments in the water sector 2021-23

	Total 21-23 Water Investments	Total 21-23 Water- Climate Investments	Climate as % of water investments
African Development Bank	1.590.300.000	1.590.300.000	100%
Inter-American Development Bank	1.356.900.000	1.356.900.000	100%
PT Sarana Multi Infrastruktur Indonesia	341.078.214	342.600.717	100%
North American Development Bank	274.600.000	274.600.000	100%
Banque Ouest Africaine de Développement	100.025.143	100.025.143	100%
KfW Development Bank	2.746.376.704	2.672.942.522	97%
Development Bank of Latin America	2.041.000.000	1.816.000.000	89%
Agence Francaise de Développement	4.434.530.626	3.839.222.325	87%
International Finance Corporation	970.000.000	795.400.000	82%
European Bank for Reconstruction and Development	744.183.049	560.248.714	75%

Asian Development Bank	3.354.520.000	2.290.470.000	68%
The Council of Europe Development Bank	79.693.647	45.093.051	57%
European Investment Bank	8.549.621.013	4.428.387.273	52%
Instituto de Crédito Oficial Spain	89.738.386	45.462.615	51%
Asian Infrastructure Investment Bank	1.634.339.935	716.700.000	44%
Findeter Banca de Desarrollo Territorial Colombia	250.158.873	86.724.641	35%
Cassa Depositi e Prestiti Italy	164.832.417	25.950.447	16%
Average of the 17 PDBs			74%

Climate finance for water (2021-23) had a significant focus on climate adaptation (USD 9.4 billion) over mitigation (USD 4.2 billion). Hybrid climate finance accounts for the remaining USD 7.4 billion. (Table 6).

Table 6 Climate investments reported in the water sector 2021-23

	2021	2022	2023	Grand Total	Percentage
Climate adaptation	2.144	3.334	3.932	9.410	45%
Climate mitigation	799	1.610	1.788	4.197	20%
Climate hybrid	2.178	1.825	3.377	7.380	35%
Total	5.121	6.769	9.097	20.987	100%

USD million, official exchange rate, current prices

In the 2021-23 period, from the 17 respondent PDBs, the European Investment Bank has invested the most in climate related water sector investments, accounting for 21% of the investments. Followed by the Agence Francaise de Développement and the KfW Development Bank (Figure 6).

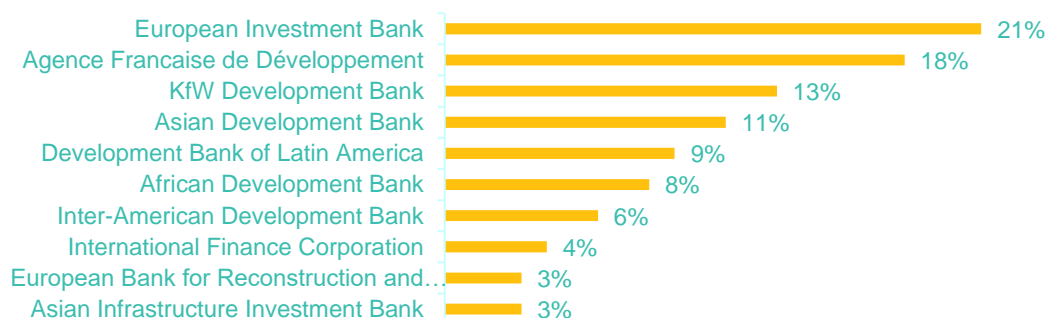


Figure 6 Climate investments reported in the water sector 2021-23, top PDBs (% of total reported)

However, in terms of growth rates, the PDBs are not the same as the top investors water related climate finance. The PDBs that have been increasing their expenditure in water which is considered a climate investment are the EIB, AFD, the Asian Development Bank and the African Development Bank. Based on the limited sample, it appears that most of the PDBs that report on water tagged as climate are multinational (Table 7) and multicountry PDBs (Table 8).

Table 7 Average PDB 2021-23 water investments tagged as climate per geographical scope of ownership PDB

	Average investment per PDB
Multinational PDB (N=11)	1.270
National PDB (N=6)	1.169

USD million, official exchange rate, current prices

Table 8 Average PDB 2021-23 water investments tagged as climate per country location

	Average investment per PDB
Multicountry (N=11)	1.270
High income countries (N=4)	1.646
Upper middle income (N=2)	215

USD million, official exchange rate, current prices

Conclusions and recommendations

The total water investments by 37 Public Development Banks (PDBs) between 2021 and 2023 were USD 108 billion. Excluding China Development Bank, which represents 42% of the investments in the sample, then the water investments total USD 63 billion.

With an estimated USD 140.8 billion annual spending gap in water and sanitation (World Bank. 2024), and with 37 PDBs spending USD 43 billion in 2023 alone, the potential for PDBs to become an even more important player in the sector cannot be understated. With 360 national, 121 subnational and 55 multinational PDBs identified worldwide as of September 2024, totalling USD 22 trillion total assets in 2022, the potential for raising additional finance for the sector is enormous.

From the sample of PDBs in this report, investments in water by PDBs are modestly on the rise, or at least are being reported as such, pointing to a growing role for PDBs in financing the sector. The growth rates (excluding CDB) point to a 7% growth rate from 2021 to 2022 and a 33% growth rate from 2022 to 2023. With an increase from 2021 to 2022-2023 by both multinational as well as national PDBs. The increase from 2022 can be explained by some of the largest banks in the sample: The World Bank, The European Investment Bank, Agence Francaise de Développement, Caixa and Banco Nacional both from Brazil and Iller Banski in Turkey.

In the sample, 17 PDBs have classified water investments as climate finance, totalling close to USD 21 billion which represent on average 74% of these PDBs total finance for water. Notably, climate finance directed towards adaptation efforts significantly exceeded that for mitigation. The Water Climate Finance Toolkit, which was developed in 2022 elaborates on the links between water and sanitation sector and climate change, outlines how public development banks can leverage the climate finance potential of their activities, and details activities and PBD case studies of mitigation and adaptation from around the world.

The analysis of the data for this report has shown that there are many PDBs not tracking their water investments even although SDG6 features prominently in their annual reports. From those that have either answered the survey or shared the data through the annual reports, there are several data limitations that need to be overcome. Agreements on standardised coding/tagging for i) water investments sub-sectors and ii) climate investments in water would be an important measure to be undertaken by the participants of the Water Finance Coalition. These can be developed based on existing typologies.

The Water Finance Coalition will continue to collect and gather relevant data and knowledge to incentivise a growing portfolio of water and climate investments in the PDBs.

References

- Allibert, L., A. Colson, O. Crespi-Reghizzi, B. Reyssset. 2022. *Water Climate Finance Toolkit For Public Development Banks (PDBs)*. Water Finance Coalition.
https://www.waterfinancecoalition.org/_files/ugd/396d29_b1bf117678ca4dd1892c68c845252f8f.pdf
- Asian Development Bank. 2023. *Decarbonising the water sector in Asia and the Pacific: Best Practices, Challenges and Opportunities for practitioners*. November 2023.
- Climate Bond Initiative. 2019. *Climate Resilience Principles: A framework for assessing climate resilience investments*. Climate Bonds Initiative. <https://www.climatebonds.net/files/page/files/climate-resilience-principles-climate-bonds-initiative-20190917-.pdf>
- European Investment Bank. 2023. *Joint Report on multilateral development banks' climate finance*.
- International Development Finance Club. 2021. 2022 and 2023 *IDFC Green Finance Mapping Report 2021. 2022 and 2023*
- OECD. 2013. *Comparing definitions and methods to estimate mobilised climate finance*. Climate Change Expert Group. Paper N. 2013 (2)
- OECD. 2023. *Climate Finance Provided and Mobilised by Developed Countries in 2013-2021: Aggregate Trends and Opportunities for Scaling Up Adaptation and Mobilised Private Finance, Climate Finance and the USD 100 Billion Goal*, OECD Publishing, Paris,
<https://doi.org/10.1787/e20d2bc7-en>
- Press-Williams, Jessie et al. 2024. State of Cities Climate Finance Report.
<https://citiesclimatefinance.org/publications/2024-state-of-cities-climate-finance>
- Water Finance Coalition. 2021. The Role of National Public Development Banks in Financing the Water and Sanitation SDG 6, The Water Related Goals of the Paris Agreement and Biodiversity Protection.
https://www.waterfinancecoalition.org/_files/ugd/396d29_82a666dbe76e42b7ba5bc65ee3413e2f.pdf?index=true
- Water Finance Coalition. 2022. Water Climate Finance Toolkit for Public Development Banks. Available at: https://www.waterfinancecoalition.org/_files/ugd/396d29_b1bf117678ca4dd1892c68c845252f8f.pdf
- World Bank. 2024. Funding a Water-Secure Future: An Assessment of Public Spending.. Available at: <https://www.worldbank.org/en/topic/water/publication/funding-a-water-secure-future>
- Xu, Jianjun et al. 2021. What are public development banks and development financing institutions? —qualification criteria, stylized facts and development trends. In *China Economic Quarterly International* 1 271-294 Available at: <https://www.nse.pku.edu.cn/docs/2021-10/20211025102148259508.pdf>

Annex 1: Existing datasets and their limitations

Overview

There are several datasets where information on financial investments of PDBs is available, but the PDBs and the indicators collected are not comparable. The major limitation is access to existing datasets and the disaggregation of reported investments. Even if the reports on water investments have been published (IDFC) the data set is not made available which impairs the analyses (Table 9).

Table 9 Existing public datasets with information on PDBs

Name	Data available	Limitations
AFD/Peking University PDB dataset ⁴	Official names of PDBs, codes of PDBs, location and total assets. Information available for 57 participants of the WFC	No sectoral data available
IDFC database	26 PDBs investments in the water sector 2019-2023, 16 of which participants of the WFC Good breakdown per sub-sector and climate investments	Dataset not available except for totals for climate investments in the report
OECD explorer ODA ⁵	Only ODA for the water sector 2019-2022 Data for water from 4 PDBs which are not in the other datasets	Water sector not disaggregated
Climate Policy Initiative	Includes part of the IDFC dataset and the OECD DAC	Only reports on climate finance for urban areas
AFD/Peking University SDG prospector ⁶	AI analysis of SDG6 related reports and corresponding PDB – done on request 2019-2022	No financial data AI only checks documents in English ⁷

⁴ <http://www.dfidatabase.pku.edu.cn/DataDownloading/index.htm>

⁵ [https://data-explorer.oecd.org/?fs\[0\]=Topic%2C1%7CDevelopment%23DEV%23%7COfficial%20Development%20Assistance%20%28ODA%29%23DEV_ODA%23&fs\[1\]=Sector%2C3%7CAll%20sectors%231000%23%7CSector%20allocable%23450%23%7CSocial%20infrastructure%20and%20services%23100%23%7CWater%20supply%20%26%20sanitation%23140%23&pg=0&fc=Sector&snb=2](https://data-explorer.oecd.org/?fs[0]=Topic%2C1%7CDevelopment%23DEV%23%7COfficial%20Development%20Assistance%20%28ODA%29%23DEV_ODA%23&fs[1]=Sector%2C3%7CAll%20sectors%231000%23%7CSector%20allocable%23450%23%7CSocial%20infrastructure%20and%20services%23100%23%7CWater%20supply%20%26%20sanitation%23140%23&pg=0&fc=Sector&snb=2)

⁶ <https://sdgprospector.org>

⁷ Note: there are other SDG tracking tools, by UNDESA (<https://sustainabledevelopment.un.org/LinkedSDGs/about>) and UNDP (<https://osdg.ai/>) but they are key word search and require uploading documents one by one therefore not as useful.

Description of the datasets

The IDFC green mapping database includes data to the level of disaggregation needed for the analysis. However, the data for the individual PDBs has been shared at aggregate level. This is a conservative extraction as there is an additional category “Total commitments with elements of both mitigation and adaptation project activities” which may include some water projects but detailed data on this is not available. There might also be some double counting between the climate accounting, the water accounting and the biodiversity component (Table 10).

Table 10 Water sector extracted from IDFC reports (in million USD)

Sub sectors	2020	2021	2022
Green energy and mitigation GHG emissions			
Water supply, waste and wastewater	1.600	16.000	13.100
Adaptation to climate change			
Water preservation	14.000	12.500	25.100
Coastal protection	50	160	130
Total	15.650	28.660	38.330
Biodiversity (double counted and non-double counted)			
Water preservation	3.400	2.900	7.300
Water supply	1.600	1.900	2.000
Wastewater treatment	2.300	4.900	4.000
Support to national, regional or local policy (all biodiversity)	300	350	30
Total	7.600	10.050	13.330

Source: IDFC, 2021, 2022, 2023

The new OECD explorer includes 11 PDBs part of the WFC and their investments in water 2019-2022. However, it lacks disaggregation per climate objectives.

The CPI 2024 report for the years 2021/22 a total of 2.470 million USD was reported for urban climate finance for water. This data comes from a sample of bilateral, multilateral and national DFIs and PDBs that report to OECD and the IFC (Table 11).

Table 11 Climate Policy Initiative: climate urban climate finance for water and wastewater 2019-2022

TOTAL URBAN CLIMATE FINANCE (USD million)					
Annual Average		2019/2020		2021/2022	
	\$	9.592	100%	\$	8.856 100%

Institution Type					
Private	\$	3.403	35%	\$	5.240 59%
Commercial FI	\$	232	2%	\$	1.180 13%
Corporations	\$	982	10%	\$	758 9%
Funds	\$	183	2%	\$	8 0%
Households/Individuals	\$	-	0%	\$	- 0%
Institutional investors	\$	333	3%	\$	1 0%
Unknown	\$	1.673	17%	\$	3.293 37%
Public	\$	5.933	62%	\$	3.183 36%
Bilateral DFI	\$	1.549	16%	\$	591 7%
Export Credit Agency (ECA)	\$	334	3%	\$	140 2%
Government	\$	922	10%	\$	534 6%
Multilateral Climate Funds	\$	24	0%	\$	16 0%
Multilateral DFI	\$	2.706	28%	\$	1.877 21%
National DFI	\$	-	0%	\$	2 0%
Public Fund	\$	241	3%	\$	- 0%
SOE	\$	157	2%	\$	24 0%
State-owned FI	\$	-	0%	\$	- 0%
Unknown	\$	-	0%	\$	- 0%
Unknown	\$	256	3%	\$	434 5%

Source: Press-Williams et al., 2024

The list of **PDBs referenced by the AFD AI** includes references to 3452 reports that are identified with the SDG6. There has also been an increase per year on the number of mentions identified with the water and sanitation sector (Figure 7).



Figure 7 Number of mentions on SDG6, reports from PDBs 2020-2022 (Source: AFD, internal dataset)

The table below (Table 12) showcases all the PDBs that have ten or more references to water and/or SDG6 in their respective reports. Highlighted are the PDBs already part of the sample in this report. This list provided an opportunity to expand the analysis in the present report and reach out to new participants of the Water Finance Coalition.

Table 12 List of PDBs that mention water or SDG6 in their reports 2019-2022 (excluding those in this survey)

PDBs	2019	2020	2021	2022	Grand Total
Arab Fund for Social and Economic Development	39		14	42	95
Territorial Development Finance of Colombia			38	50	88
The Norwegian Agency for Local Governments	4		43	38	85
Infrastructure Development Company Limited	16	16	17	23	72
Abu Dhabi Fund For Development	25	11	16	14	66

Promotion and Participation Company for Economic Cooperation	2	4	4	49	59
OPEC Fund for International Development	14		7	34	55
Rural Electrification Corporation	19		19	15	53
Promotional Bank of North Rhine-Westphalia	18		18	16	52
Infrastructure Development Bank of Zimbabwe	15	10	15	8	48
Japan International Cooperation Agency	26		12	10	48
British International Investment	3	7	10	27	47
KfW Ipex bank	8		13	25	46
Rhode Island Infrastructure Bank			18	27	45
Bank of National Economy of Poland	6	5	25		36
Private Infrastructure Development Group	9		9	18	36
The Investment Fund for Developing Countries	2	6	9	17	34
New Development Bank	20		12		32
PT Credit Guarantee Indonesia	4	5	16	5	30
Nordic Investment Bank	14		11	3	28
InfraCo Asia Development			9	18	27
Power Finance Corporation Limited	5		9	13	27
Kuwait Fund for Arab Economic Development	24				24
Uganda Development Bank	6	4	6	8	24
Agricultural Development Bank of China				22	22
California Infrastructure and Economic Development Bank	13	5		4	22
Caribbean Development Bank	8		8	5	21
Dutch Entrepreneurial Development Bank	11		5	5	21
Bank for Agriculture and Agriculture Cooperatives	5		9	5	19
Deposits and Loans Fund			3	16	19
Swedfund International AB	1	6	3	8	18
Industrial Development Bank of Turkey	5		10	2	17
Development Bank of Minas Gerais S.A.			11	4	15
Norwegian Investment Fund for Developing Countries				14	14

Public Investment Development Agency	8		6		14
Saudi Bangladesh Industrial & Agricultural Investment Bank		6	6	2	14
UK Infrastructure Bank			1	13	14
Bank of North Dakota	5		4	4	13
Export Import Bank of Korea	6		1	6	13
German Investment and Development Company				13	13
Industrial Development Corporation			5	6	11
Madani National Capital	2		4	5	11
National Development Bank Czech Republic	5			6	11
New Nigeria Development Company			11		11
Export Credit Bank of Turkey			6	4	10
Export-Import Bank of Malaysia Berhad	2		1	7	10