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SUPPLEMENTARY INFORMATION

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A quantitative analysis of 10 multilateral development banks' investment in conventional and renewable power-generation technologies from 2006 to 2015

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Supplementary Information

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Supplementary Note 1: Data availability in OECD DAC databases.

As part of the Organisation for Economic Co-operation and Development (OECD), the international Development Assistance Committee (DAC) collects data on commitments and disbursement of development aid from donors (including MDBs) in two datasets: The DAC5 dataset reports annual amounts by donor and sector (one of which is 'energy'), which are too aggregated to assess MDB's role in power generation. The Creditor Reporting System (CRS) database in principle collects activity level data based on a questionnaire – however, for the period under study (2006–2015) there are major coverage gaps for power generation, as the data provided by MDBs is often not compatible with the CRS level of detail. [1,2] The responsible DAC working party strives at increasing data coverage and consistency, cf. the converged reporting directives from May 2018[3] (see also the discussion in the last paragraph of the main text).

Supplementary Table 1: Overview previous publications on power-generation finance by multilateral development banks.

		MDBs covered								Technologies covered					Details	
Publications	**Years covered**	World Bank Group	AfDB	AsDB	CAF	EBRD	EIB	IADB	IsDB	Energy sector or power generation aggregated	Renewables power generation aggregated	Renewables power generation by technology	Non-renewables power generation aggregated	Non-renewables power generation by technology	Split by country/region	Split by branch (public/private)
From international organizations																
IRENA (report jointly with CPI)[4]	2013–2016	*Sum MDBs, precise scope not given*								-	X	-	-	-	-	-
MDB joint report on climate finance[5–11]	2011–2017	*Sum MDBs, all except CAF/IsDB*								-	X	-	-	-	(X)[a]	-
OECD DAC report/databases[12]	2005–2016	*Report: Sum MDBs for energy sector aggregated. CRS database: project-level data [incomplete].*														
From non-governmental organizations																
Center for Strategic & Internat. Studies[13]	2016	X	X	X	-	-	-	-	-	X	X	-	X	-	-	-
E3G Think Tank[1,14]	2013–2016	X	X	X	-	X	X	X	-	X	(X)[b]	-	-	-	-	-
National Resources Defense Council[15]	2013–2016	X	X	X	-	X	X	X	-	-	X	-	-	-	X	-
Oil Change International[16,17]	2008–2016	X	X	X	-	X	X	X	-	X	(X)[c]	-	-	-	-	-
World Resources Institute[18]	2015–2016	X	-	X	-	-	-	-	-	X	X	X	X	X	-	-
Scholarly articles																
Delina 2011[19]	2000–2009	-	-	X	-	-	-	-	-	X	X	-	X	-	(X)[d]	(X)[d]
Martinot 2001[20]	1992–1999	X	-	-	-	-	-	-	-	-	X	X	-	-	X	X
Tirpak & Adams 2008[21]	1997–2005	X	-	X	-	X	-	X	-	X	X	-	-	-	-	-
This article	2006–2015	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Notes:
[a] Regional split of finance for renewable energy since 2015
[b] Differentiates between "energy-related climate finance" (mainly renewables), "fossil finance" (incl. power generation, but also oil & gas upstream, etc.)
[c] Differentiates between "clean" (mainly renewables), "fossil fuel finance" (incl. power generation, but also oil & gas upstream etc.), "other"
[d] Split by country and by branch (public/private) only for energy sector aggregated

Supplementary Table 2: Financial commitments to power-generation projects by multilateral development banks (2006–2015).

Acronym	Full Name	Commitments 2006–2015 (USD_{2015} billion)				
		Non-renewable	**Hydro**	**Renewable excl. hydro**	**Mixed or unspecified**	**Total**
AfDB	African Development Bank	4.8	0.6	1.4	0.1	**6.8**
AsDB	Asian Development Bank	5.8	3.8	3.5	-	**13.1**
CAF	Development Bank of Latin America	1.5	2.1	0.5	1.5	**5.6**
EBRD	European Bank for Reconstruction and Development	3.5	1.2	3.6	0.9	**9.1**
EIB	European Investment Bank	3.9	2.3	7.5	1.6	**15.4**
IADB	Inter-American Development Bank	0.6	3.1	1.3	-	**5.0**
IFC	International Finance Corporation	3.3	2.5	3.8	0.9	**10.4**
IsDB	Islamic Development Bank	4.2	1.2	1.0	0.1	**6.5**
WB	World Bank (includes IBRD and IDA)	7.4	6.1	7.0	0.2	**20.7**
Total		**34.9**	**23.0**	**29.6**	**5.2**	**92.7**

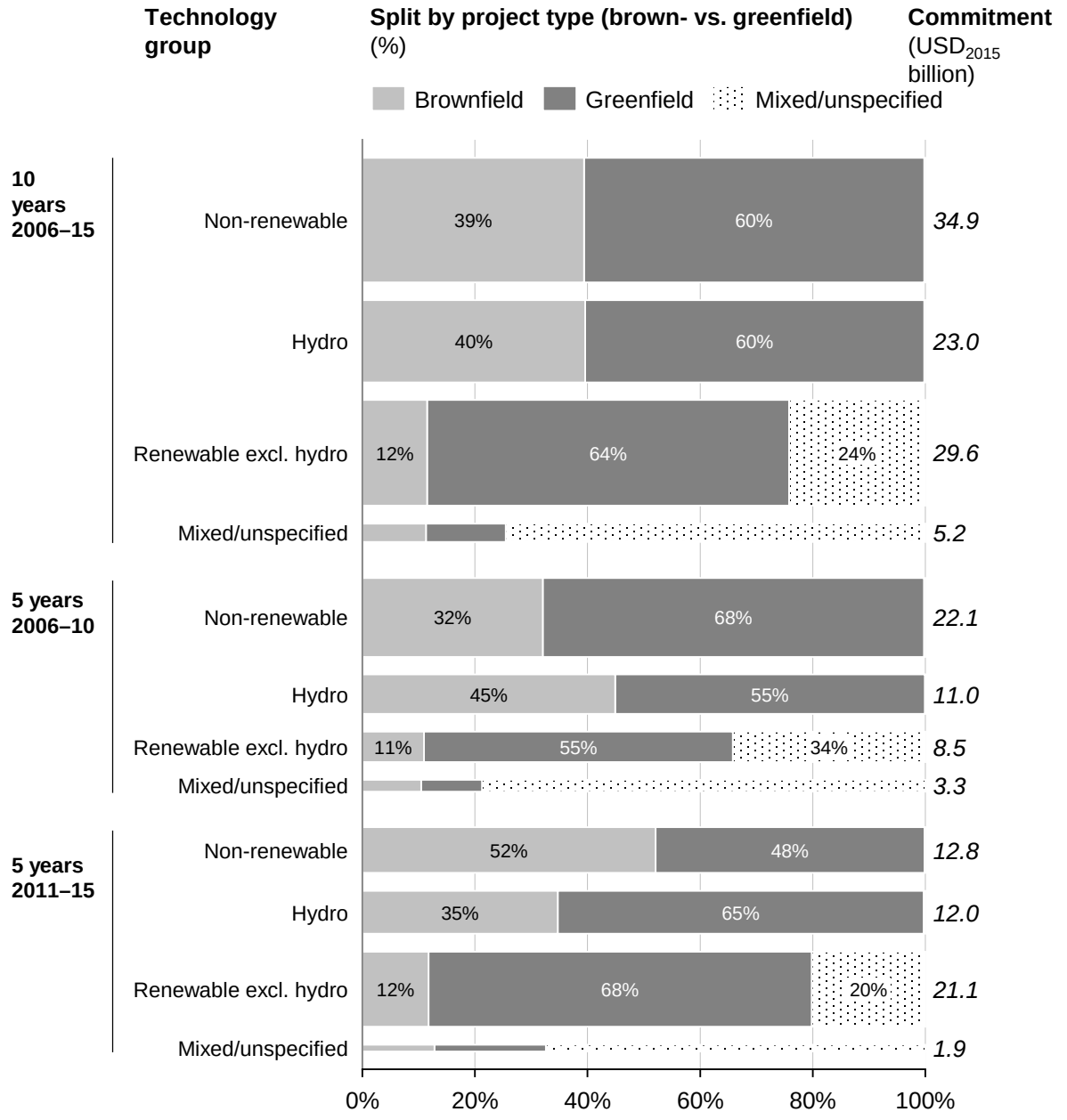
Note: Commitments include all types of financial instruments except for guarantees. Numbers partly do not add up due to rounding

Supplementary Table 3: Overview of participants in the expert interviews.

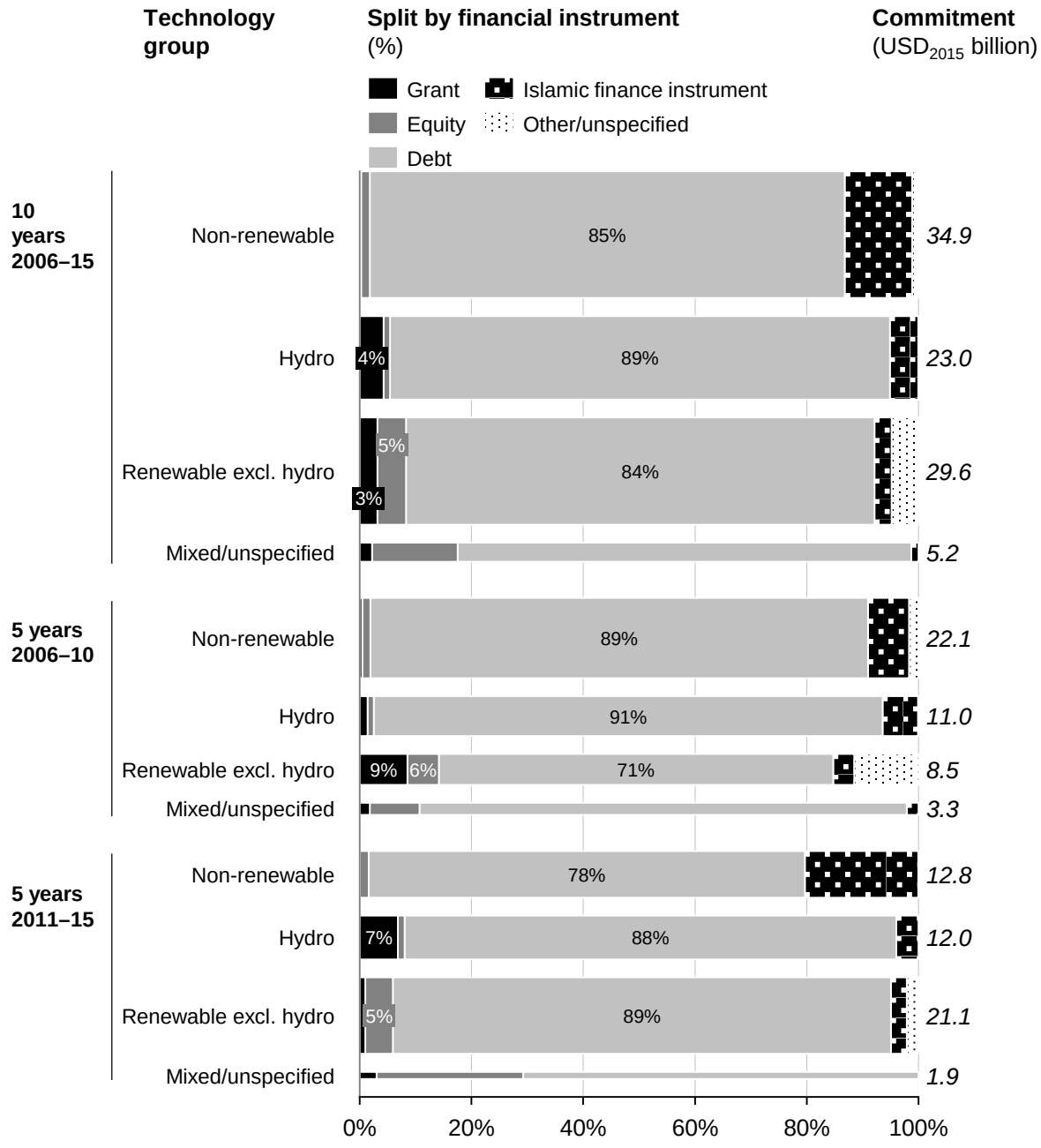
Interviewee no.	Job title/role
1	Energy Specialist
2	Head of Renewable Energy Division
3	Investment Officer
4	Investment Officer
5	Lead Energy Specialist
6	Manager, Energy Division
7	Press Officer (energy sector)
8	Principal Energy Officer
9	Private Sector Specialist
10	Regional Director
11	Sector Manager
12	Senior Energy Specialist

Note: The interviewees represent six different MDBs (see Methods).

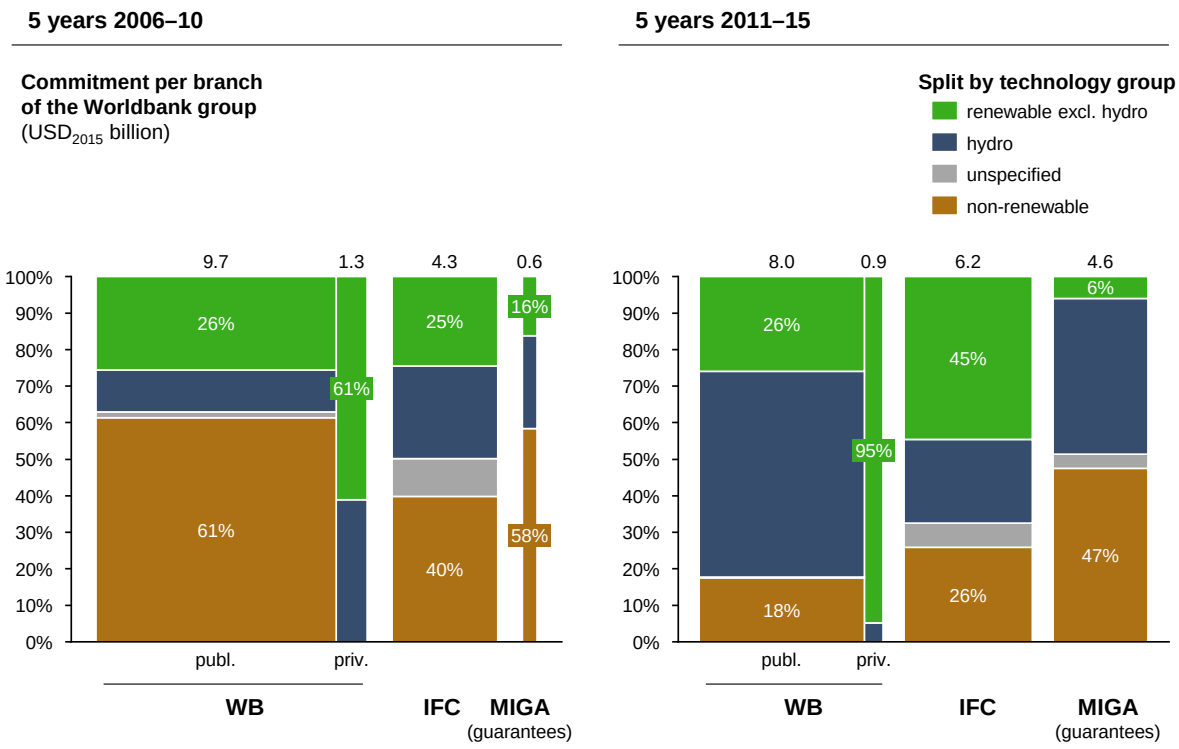
Supplementary Figure 1: Comparison between brownfield and greenfield power-generation projects financed by multilateral development banks. The height of each row and the numbers at the right denote the commitments of MDBs by technology. The shades and the percentages represent the greenfield and brownfield projects. Commitments include all types of financial instruments, except for guarantees. The large proportion of renewable projects that are 'mixed/unspecified' is explained by the prevalence of portfolio/framework commitments in which the exact location of the project (hence, whether it is greenfield or brownfield) is not yet determined.



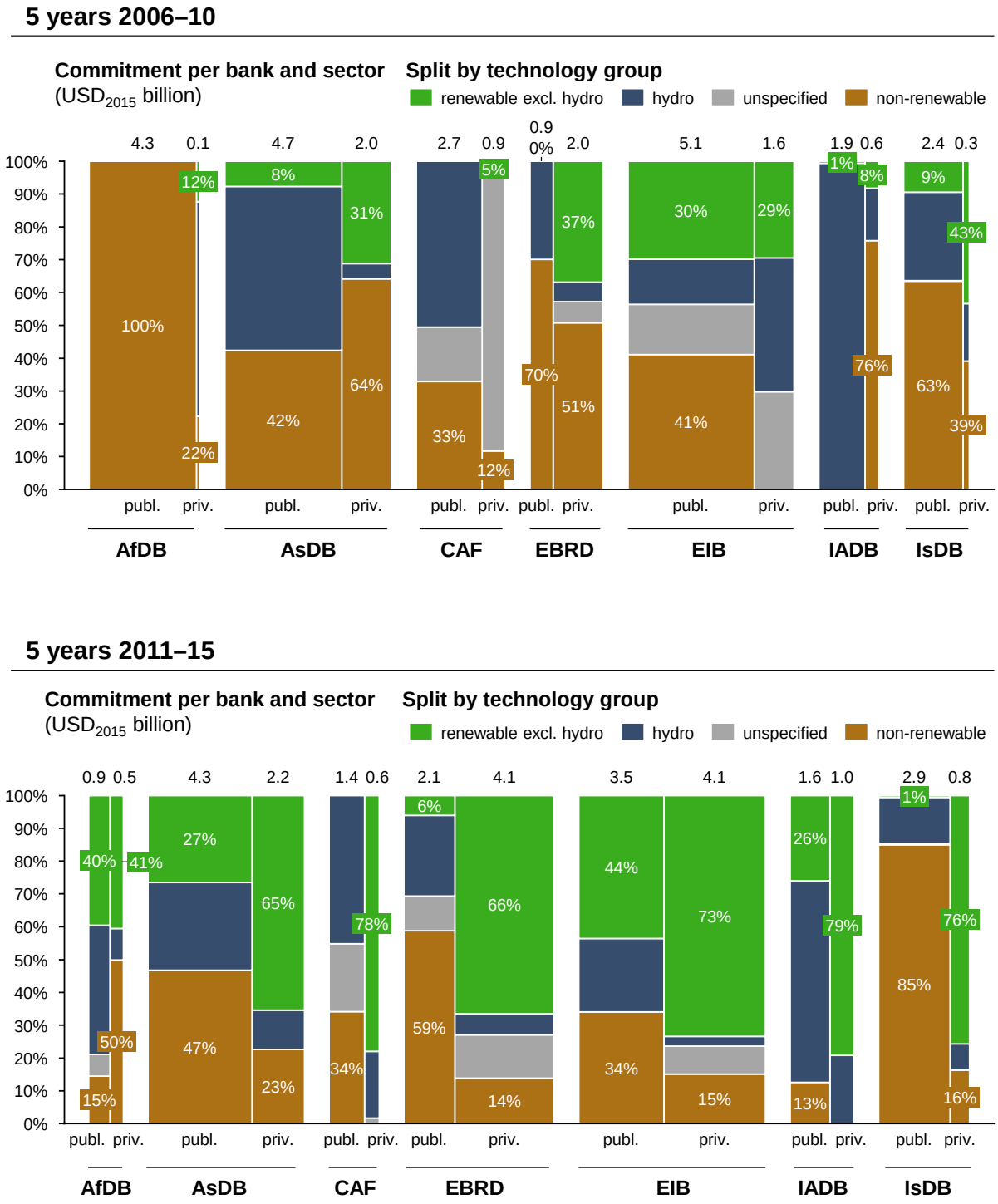
Supplementary Figure 2: Comparison between financial instruments in power-generation financing by MBDs. The height of each row and the numbers at the right denote the commitments of MBDs by technology. The shades represent the different financial instruments. Commitments include all types of financial instruments, except for guarantees.



Supplementary Figure 3: Financial commitments to power-generation technologies by branches of the World Bank group over two five-year periods. The width of each column and the numbers at the top of each graph denote the commitments of MDBs by sector, which are differentiated between public and private borrowers for the WB (the IFC and the MIGA only deal with private borrowers). The shades and the percentages represent the different technologies. For the WB and the IFC, commitments include all types of financial instruments, except for guarantees. For the MIGA, all commitments are guarantees. Note: Excludes projects that do not clearly belong to one sector (mainly public–private partnerships).



Supplementary Figure 4: Financial commitments to power-generation technologies by branches of regional MDBs over two five-year periods. The width of each column and the numbers at the top of each graph denote the commitments of MDBs by sector (public vs private borrowers). The shades and the percentages represent the different technologies. Commitments include all types of financial instruments, except for guarantees. Note: Excludes projects that do not clearly belong to one sector (mainly public–private partnerships).



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