Independent evaluation of the relevance and effectiveness of the Green Climate Fund's investments in the Least Developed Countries

Final Report
Volume II

January 2022

GREEN CLIMATE FUND | Independent Evaluation Unit

TRUSTED **EVIDENCE.**
INFORMED **POLICIES.**
HIGH **IMPACT.**

Independent evaluation of the relevance and effectiveness of the Green Climate Fund's investments in the Least Developed Countries

ANNEXES TO THE FINAL REPORT

01/2022

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ABBREVIATIONS

AE	Accredited Entity
AF	Adaptation Fund
AP	Adaptation Planning
APR	Annual Performance Report
CIF	Climate Investment Funds
CP	Country Programme
CSO	Civil Society Organization
DAE	Direct Access Entity
DEMATEL	Decision Making Trial and Evaluation Laboratory
ESS	Environmental and Social Safeguards
FAA	Funded Activity Agreement
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GNI	Gross National Income
IAE	International Accredited Entity
IEU	Independent Evaluation Unit
IIED	International Institute for Environment and Development
IPMS	Information Programme Management System
LDC	Least Developed Country
LDCF	Least Developed Countries Fund
LEG	Least Developed Countries Expert Group
LM	Logical Model
LORTA	Learning-Oriented Real-Time Assessment
MSME	Micro, Small, and Medium Enterprises
NAP	National Adaptation Plan
NAPA	National Adaptation Plans of Action
NDA	National Designated Authorities
NDC	Nationally Determined Contribution
PAP	Project Approval Process
PPF	Project Preparation Facility
PSF	Private Sector Facility
RPSP	Readiness and Preparatory Support Programme
SBI	Subsidiary Body for Implementation

SCCF	Special Climate Change Fund
SIDS	Small Island Developing States
SLEM	Sustainable Landscapes for Eastern Madagascar
SREP	Scaling Up Renewable Energy Programme
tCO2	Tons of carbon dioxide
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
USP	Updated Strategic Plan
WB	World Bank

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Annex 1. ADDITIONAL FIGURES AND GRAPHICS

Figure A - 1. *ND-GAIN vulnerability and readiness indices for LDCs*
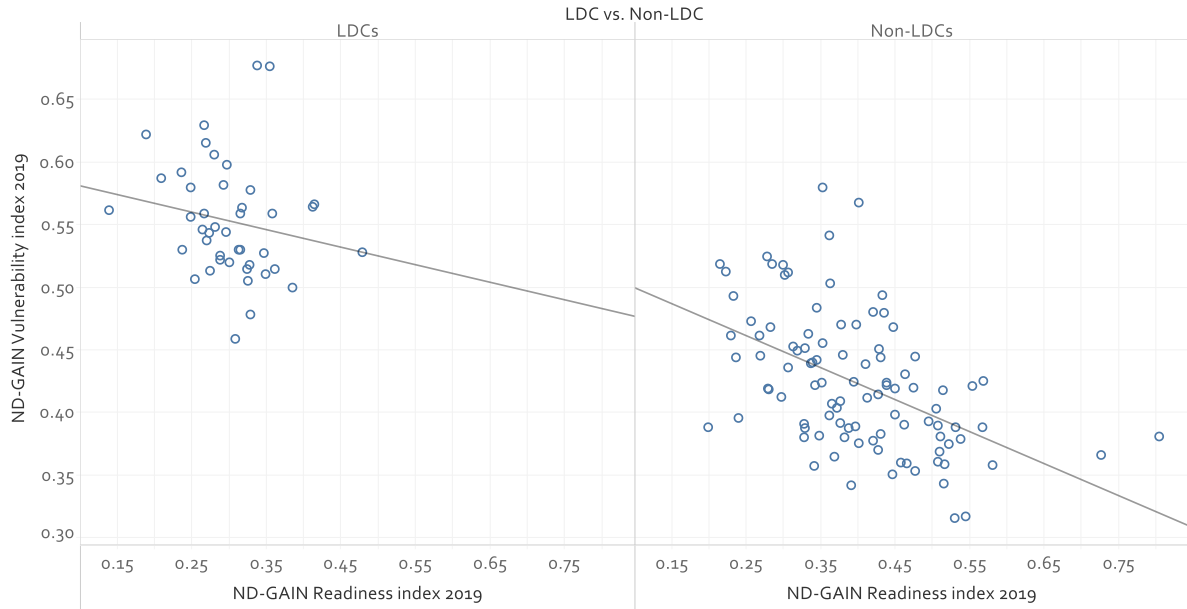
Source: ND-GAIN Country Index (2019)
Note: Three LDCs and nine non-LDCs are not shown due to missing information.

Figure A - 2. *GCF financing approved by financial instrument group*

Country group	Country focus	Equity	Grants	Guarantees	Loans	Results-Based Payment	Grand Total
LDCs	Single-country		1,134.7M	13.3M	723.2M		1,871.2M
	Multi-country	152.0M	395.0M	48.6M	481.4M		1,077.0M
	Total	152.0M	1,529.7M	61.8M	1,204.6M		2,948.2M
SIDS or African States (excl. LDCs)	Single-country		836.6M		269.1M		1,105.7M
	Multi-country	217.0M	339.1M	72.9M	704.9M		1,333.8M
	Total	217.0M	1,175.7M	72.9M	974.0M		2,439.5M
Others	Single-country	197.2M	1,133.1M	75.0M	1,202.5M	496.7M	3,104.5M
	Multi-country	199.9M	336.2M	30.1M	970.9M		1,537.1M
	Total	397.1M	1,469.3M	105.1M	2,173.4M	496.7M	4,641.6M

Source: GCF IPMS and Tableau Online data (October 8, 2021)

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Figure A - 3.   Number of projects approved at the GCF

Country focus	Country group	Number of projects approved
Single-country	LDCs	52
	SIDS or African States (excl. LDCs)	39
	Others	62
	Total	153
Multi-country	LDCs	25
	SIDS or African States (excl. LDCs)	30
	Others	19
	Total	37
Grand Total		190
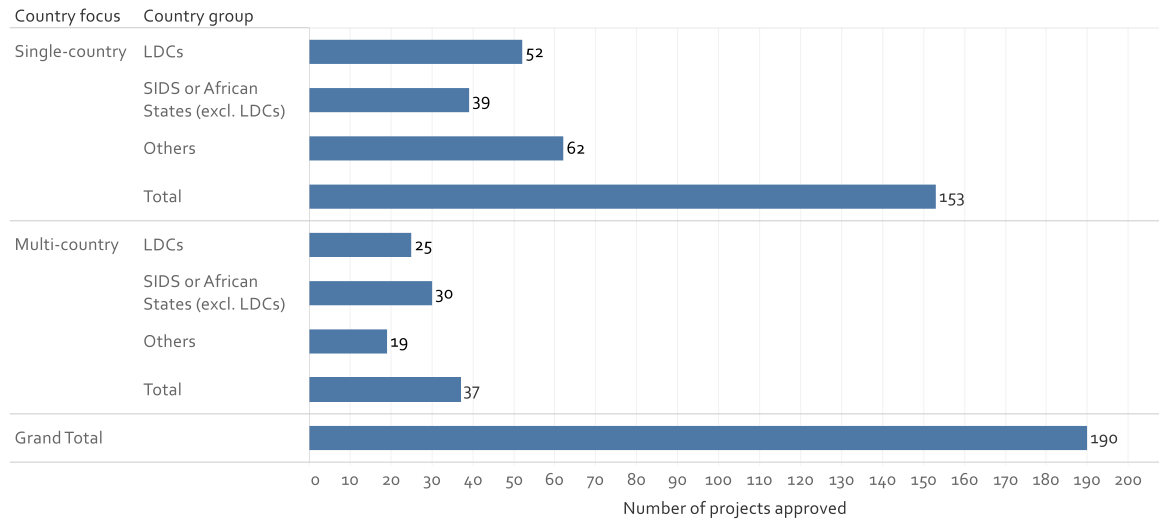
Source: GCF IPMS projects data (October 8, 2021)
Note: In this graphic the country groups for multi-country projects are not mutually exclusive. If a multi-country project targets countries in more than one country group, all country groups are indicated. The total refers to the total number of multi-country projects.

Figure A - 4.   Number of projects approved for LDCs at the GCF by ESS category and project size

Project ESS

Country focus	Project Size	Category A	Intermediation 1	Category B	Intermediation 2	Category C	Intermediation 3
Single-country	Large			1	1		
	Medium	3		14	1		
	Small			16		11	
	Micro					5	
Multi-country	Large	2	3		6		
	Medium	2		2	3		3
	Small			1	1	2	

Number of projects approved for the LDCs

Source: GCF IPMS and Tableau Online data (October 8, 2021)

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Figure A - 5.   *Country coverage of LDCs by GCF projects approved*

GCF projects' country coverage

Has a single-country project	Has a multi-country project but no single-country project	Has no project
Afghanistan		
Bangladesh		
Benin		
Bhutan		
Burkina Faso		
Burundi		
Cambodia		
Comoros (the)		
Democratic Republic of the Congo (the)		
Ethiopia		
Gambia		
Haiti		
Kiribati		
Lao People's Democratic Republic (the)		
Liberia		
Madagascar		
Malawi		
Mali		
Mozambique	Central African Republic (the)	
Nepal	Chad	
Niger (the)	Djibouti	
Rwanda	Guinea	
Senegal	Guinea-Bissau	
Solomon Islands	Lesotho	
Sudan	Mauritania	
Tanzania	Myanmar	
Timor-Leste	Sao Tome and Principe	Angola
Tuvalu	Sierra Leone	Eritrea
Uganda	Somalia	South Sudan
Zambia	Togo	Yemen

Number of LDCs (y-axis: 1 to 31)

Source: GCF IPMS projects data (October 8, 2021)

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Figure A - 6. ***GCF project financing approved for LDCs (cumulative) by result area theme in nominal (top) and in grant equivalence (bottom)*** [1]
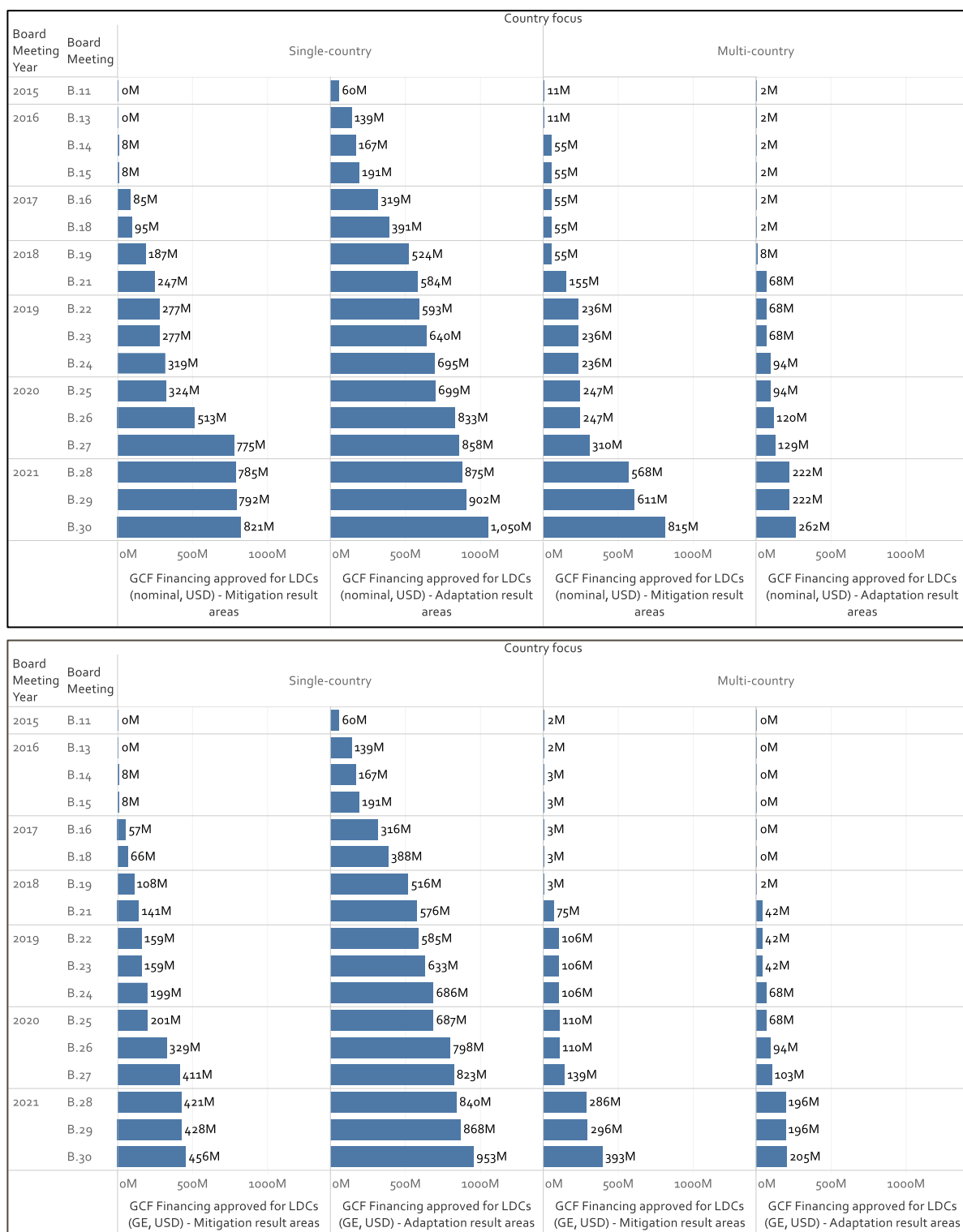
Source: GCF IPMS and Tableau Online projects data (October 8, 2021)

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[1] Here, it is assumed that, within the same multi-country project, each targeted country has the same share of the project's total funding. Hence, the multi-country project funding shown here is only an estimation and not a representation of an actual financing plan. Cross-cutting project funding is also included here.

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Figure A - 7. Approved GCF funding in LDCs per type of AE

LDC vs. Non-LDC	AE type	Country focus	DMA	PSF	Grand Total
LDC	International	Single-country	1,143.6M 38.8%	101.9M 3.5%	1,245.5M 42.2%
		Multi-country	534.5M 18.1%	435.6M 14.8%	970.1M 32.9%
		Total	1,678.2M 56.9%	537.5M 18.2%	2,215.7M 75.2%
	Regional	Single-country	153.0M 5.2%		153.0M 5.2%
		Multi-country		106.8M 3.6%	106.8M 3.6%
		Total	153.0M 5.2%	106.8M 3.6%	259.8M 8.8%
	National	Single-country	116.2M 3.9%	356.5M 12.1%	472.7M 16.0%
		Total	116.2M 3.9%	356.5M 12.1%	472.7M 16.0%
	Total		1,947.4M 66.1%	1,000.8M 33.9%	2,948.2M 100.0%
Non-LDC	International	Single-country	2,834.1M 40.0%	481.7M 6.8%	3,315.8M 46.8%
		Multi-country	1,041.5M 14.7%	1,418.9M 20.0%	2,460.4M 34.7%
		Total	3,875.6M 54.7%	1,900.6M 26.8%	5,776.2M 81.6%
	Regional	Single-country	406.3M 5.7%	139.0M 2.0%	545.3M 7.7%
		Multi-country	174.3M 2.5%	216.2M 3.1%	390.5M 5.5%
		Total	580.6M 8.2%	355.2M 5.0%	935.8M 13.2%
	National	Single-country	178.8M 2.5%	170.3M 2.4%	349.1M 4.9%
		Multi-country	20.0M 0.3%		20.0M 0.3%
		Total	198.8M 2.8%	170.3M 2.4%	369.1M 5.2%
	Total		4,655.0M 65.7%	2,426.1M 34.3%	7,081.1M 100.0%

Division

GCF Financing approved (USD)

Source: GCF IPMS and Tableau Online Projects data (October 8, 2021)

Figure A - 8. Number of countries with a project in the pipeline

Status

Country group	Active	Inactive
LDCs	45	31
SIDS or African States (excl. LDCs)	46	36
Others	40	32

Number of countries with a project in pipeline
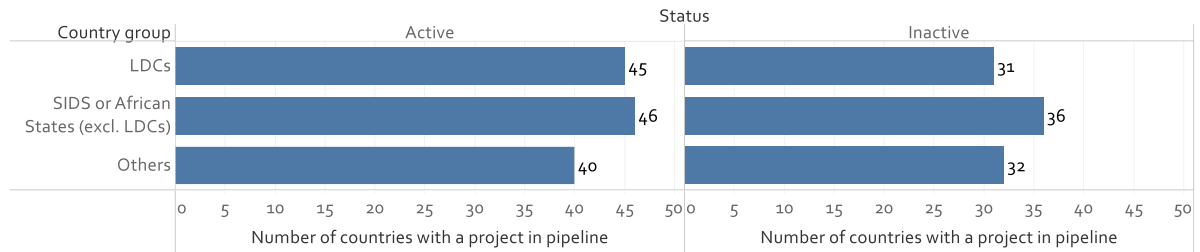
Source: GCF IPMS Pipeline projects data (October 8, 2021)
Note: Inactive projects are projects whose developers have not had interactions with the GC for a long time.

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Figure A - 9.   Number of projects in the pipeline targeting LDCs
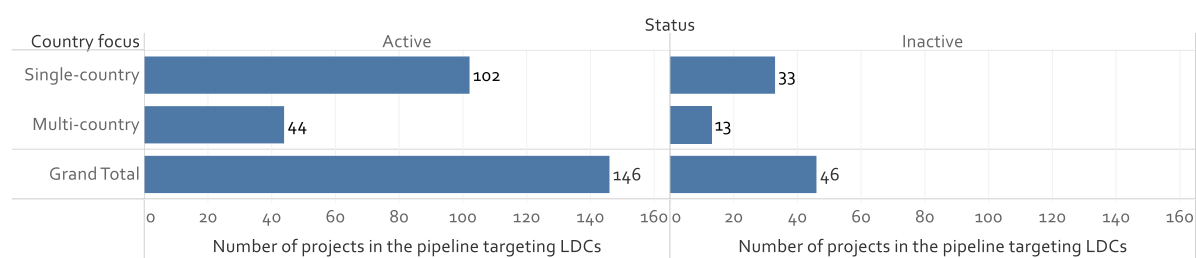
Source: GCF IPMS Pipeline projects data (October 8, 2021)

Table A - 1.   Project funding requested in the pipeline (USD million)

Theme	Country focus	ACTIVE		INACTIVE	
		GCF financing	Co-financing	GCF financing	Co-financing
Mitigation	Single-country	478.1	1,493.7	106.5	516.5
	Multi-country	729.1	2,156.0	140.0	2,640.0
	Total	1,207.2	3,649.7	246.5	3,156.5
Cross-cutting	Single-country	1,845.5	1,827.3	621.3	1,100.3
	Multi-country	2,965.7	8,053.6	149.0	240.4
	Total	4,811.2	9,880.9	770.3	1,340.7
Adaptation	Single-country	852.5	405.0	399.0	246.2
	Multi-country	889.0	1,586.4	158.0	673.2
	Total	1,741.5	1,991.4	557.0	919.4
Grand Total		**7,759.9**	**15,521.9**	**1,573.8**	**5,416.6**

Source: GCF IPMS Pipeline projects data (October 8, 2021)
Note: The project funding requested for the pipeline projects are estimates and could change as the projects keep being updated in the pipeline.

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Figure A - 10. *Number of projects for LDCs (top) and for all GCF-eligible countries (bottom) interacting with other climate funds by approval year (cumulative)*
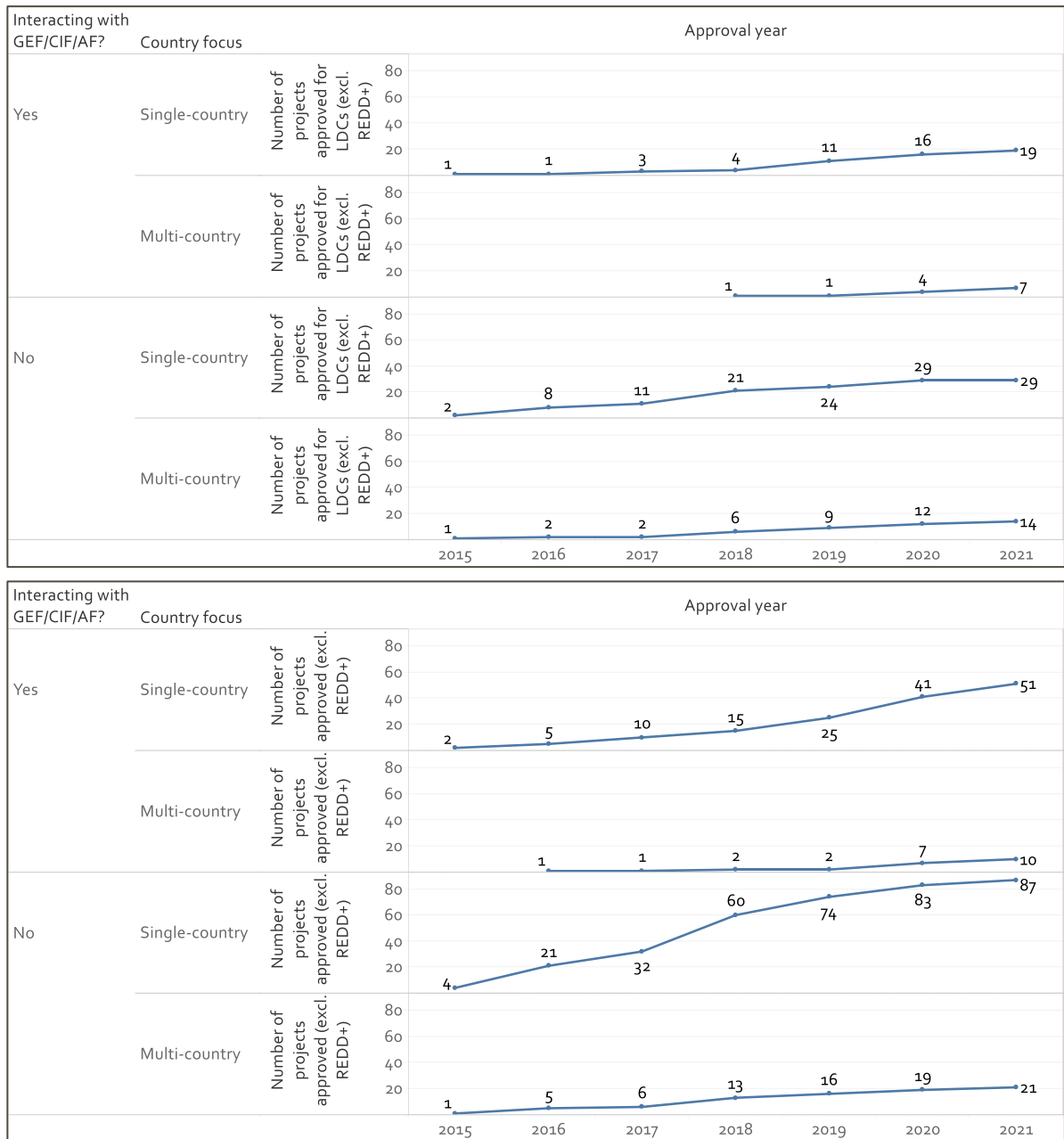
Source: IEU DataLab's extractions from funding proposals (October 8, 2021)

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Figure A - 11. **Number of projects approved over the years**
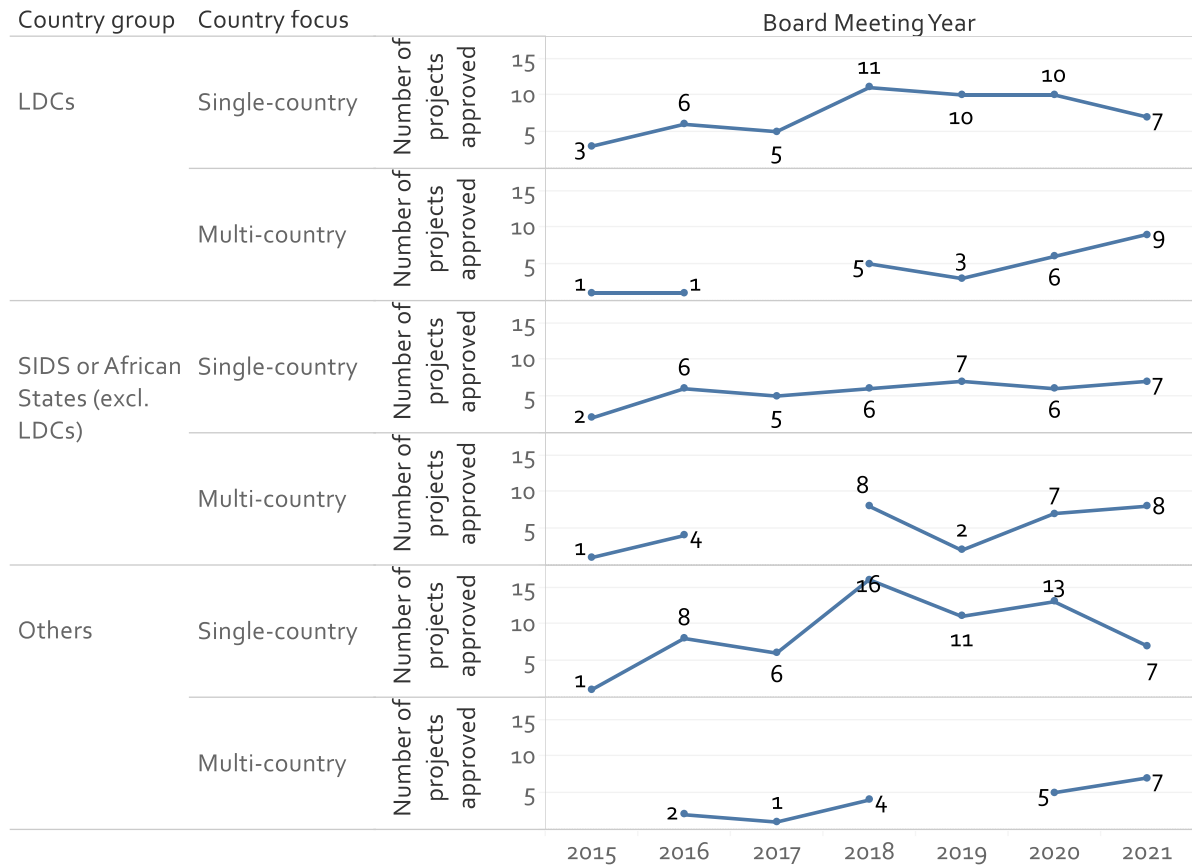
Source: GCF IPMS and Tableau Online Projects data (October 8, 2021)

Figure A - 12. **GCF financing approved for LDCs across the GCF's result areas in nominal (left) and in grant equivalence (right)**

Source: GCF IPMS and Tableau Online Projects data (October 8, 2021)
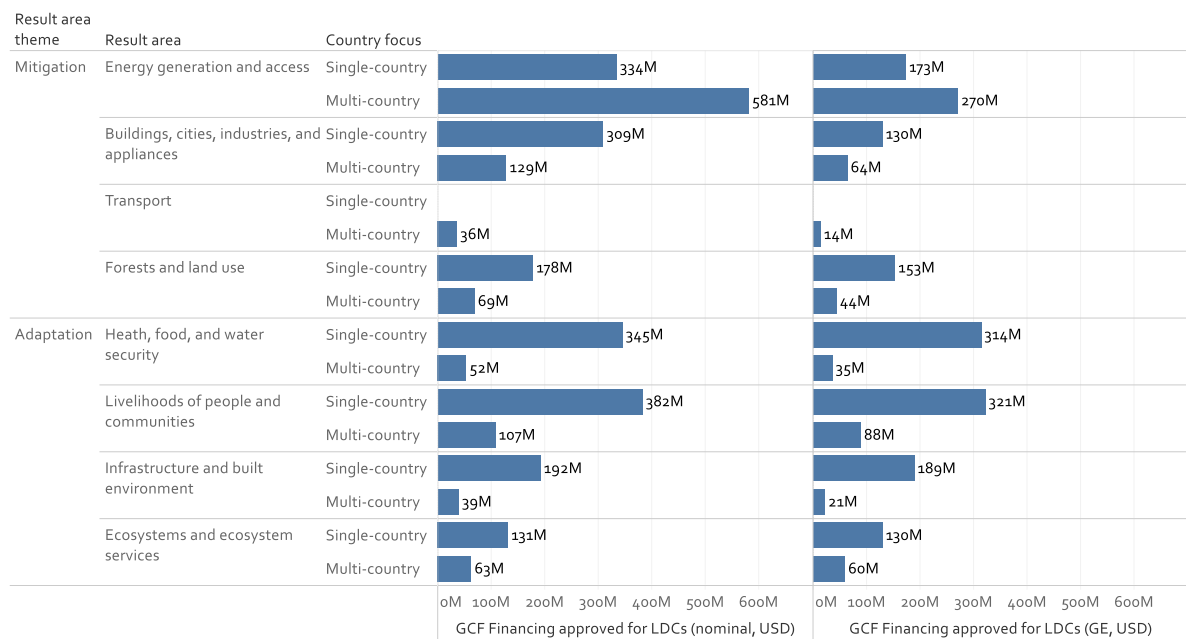
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Figure A - 13. *Country coverage of GCF projects by sectoral priority in mitigation as described in the NDCs*
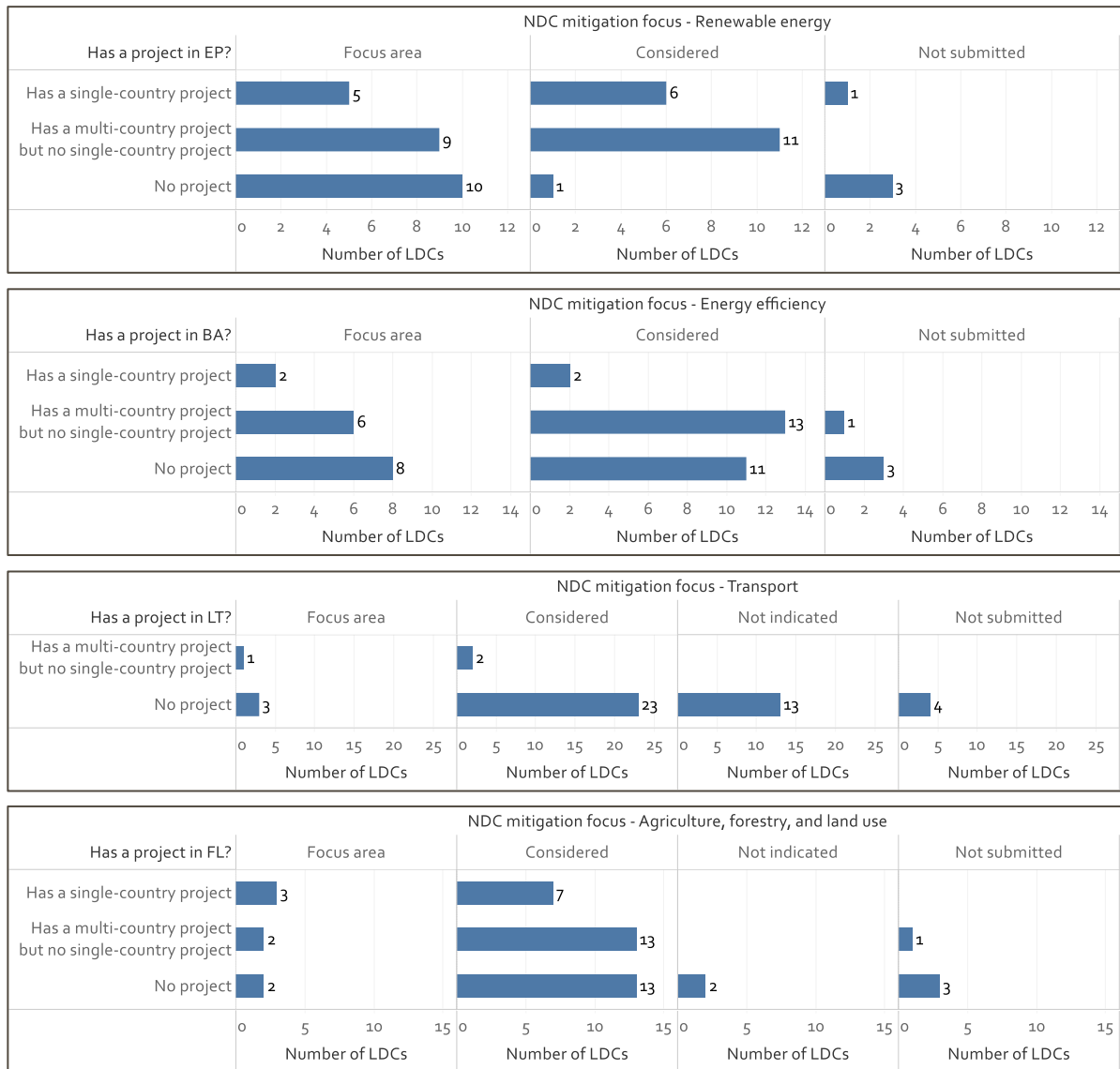
Source: GCF IPMS Projects data (October 8, 2021) and NDC Explorer (March 18, 2020) as analysed by the IEU DataLab [2]

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[2] EP stands for "Energy generation and (power) access"; BA for "Buildings, cities, industries, and appliances"; LT for "(Low-emission) transport"; and FL for "Forestry and land use." Since BA's central theme is energy efficiency in many different aspects of human lives, it's been mapped to the priority sector of energy efficiency in the NDCs.

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Figure A - 14. Country coverage of GCF projects per country's sector priority in adaptation as described in the NDCs
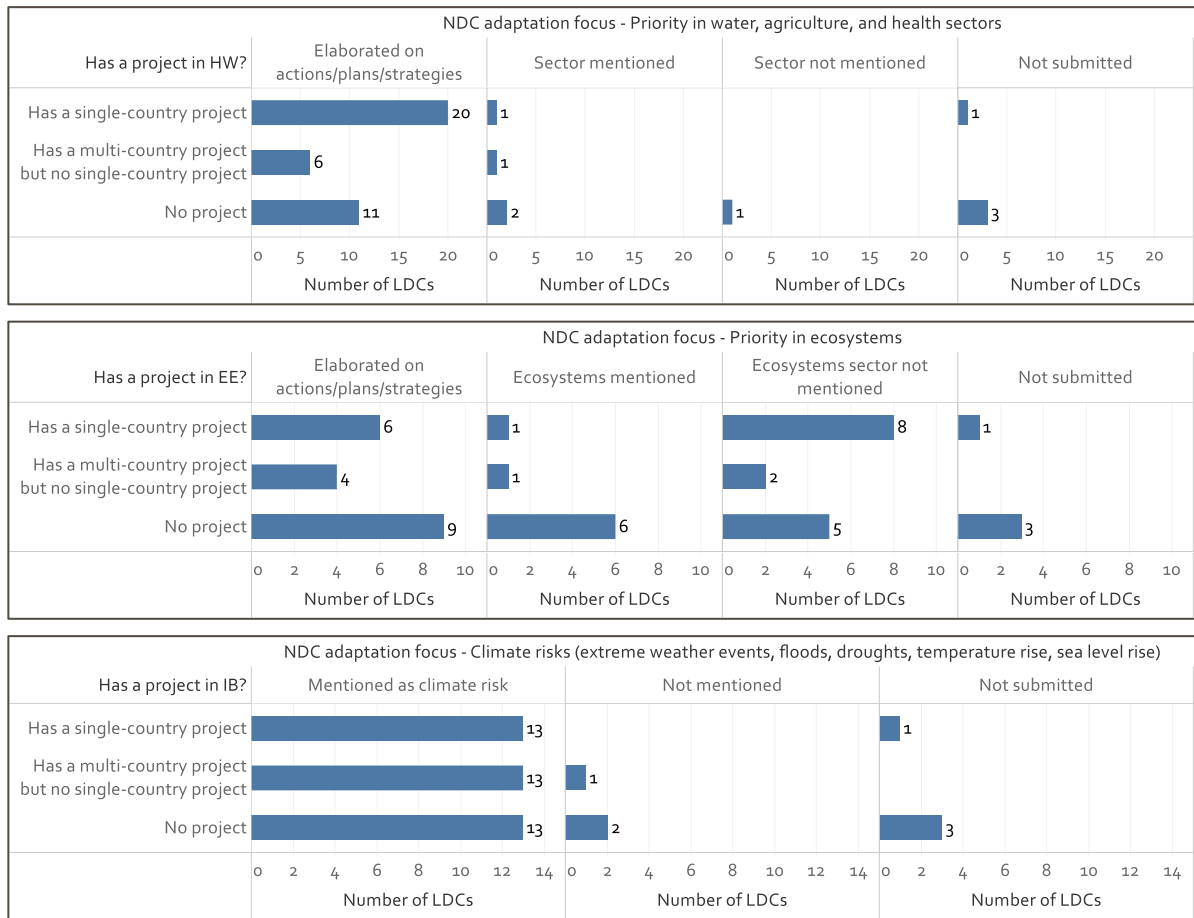
Source: GCF IPMS Projects data (October 8, 2021) and NDC Explorer (March 18, 2020), as analysed by the IEU DataLab.[3]

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[3] HW stands for "Health, food, and water security"; EE for "Ecosystems and ecosystem services"; and IB for "Infrastructure and built environment." Since IB is primarily considered to be an adaptation response to physical impacts of climate change, it's been mapped to climate risks described in the NDCs.

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Figure A - 15.   **Number of countries with a national Direct Access Entity (DAE) by country group**

Country group

	LDCs	SIDS or African States (excl. LDCs)	Others
	Bangladesh		Argentina
	Benin	Antigua and Barbuda	Armenia
	Bhutan	Belize	Brazil
	Cambodia	Cook Islands	Chile
	Ethiopia	Fiji	China
	Nepal	Ghana	Colombia
	Rwanda	Kenya	Georgia
	Senegal	Morocco	India
	Tanzania	Namibia	Indonesia
	Uganda	South Africa	Mexico
	Zambia	Zimbabwe	Mongolia
			Pakistan
			Peru
			Philippines (the)
			Republic of Korea (the)
			Viet Nam

Number of countries with an nDAE — (y-axis: 0, 2, 4, 6, 8, 10, 12, 14, 16)

Source: GCF IPMS Entities data (October 8, 2021)

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Figure A - 16.   GCF financing and co-financing approved per AE

LDC vs. Non-LDC	Accredited Entities	Source		
		GCF	Co-Financing	Grand Total
LDC	Acumen	30.3M	61.3M	91.7M
	ADB	188.6M	1,484.5M	1,673.1M
	AEPC	21.1M	28.0M	49.2M
	AFD	137.5M	197.5M	335.0M
	AfDB	348.1M	1,309.9M	1,658.0M
	BOAD	223.9M	241.8M	465.7M
	CI	18.5M	0.8M	19.3M
	CRDB	100.0M	100.0M	200.0M
	CSE	7.6M	0.5M	8.2M
	DBSA	5.6M	11.5M	17.1M
	DeutscheBank	44.0M	121.9M	165.9M
	FAO	49.3M	8.0M	57.3M
	FMO	44.4M	320.6M	365.1M
	GIZ	27.2M	61.9M	89.1M
	IDCOL	256.5M	84.0M	340.5M
	IFAD	102.7M	85.7M	188.4M
	IUCN	66.9M	24.1M	91.0M
	JICA	10.0M	5.4M	15.4M
	KfW	185.6M	142.2M	327.8M
	MOE_Rwanda	32.8M	0.4M	33.2M
	MoFEC	45.0M	5.0M	50.0M
	MUFG_Bank	10.7M	75.0M	85.7M
	NEFCO	9.9M	35.8M	45.7M
	PCA	71.1M	259.7M	330.8M
	PKSF	9.7M	3.6M	13.3M
	UNDP	279.1M	256.9M	536.1M
	UNEP	70.0M	8.7M	78.7M
	WFP	19.2M	0.8M	20.0M
	WorldBank	506.2M	1,189.6M	1,695.8M
	WWF	26.6M	91.7M	118.3M
Non-LDC	Acumen	50.7M	83.7M	134.3M
	ADA_Morocco	39.3M	9.9M	49.2M
	ADB	758.9M	5,317.4M	6,076.2M
	AFD	300.6M	467.2M	767.8M
	AfDB	172.3M	648.0M	820.3M
	CABEI	525.2M	1,761.1M	2,286.3M
	CAF	139.0M	192.2M	331.2M
	CCCCC	27.6M	17.6M	45.2M
	CI	36.8M	60.9M	97.6M
	DBSA	150.0M	540.4M	690.5M
	DeutscheBank	36.0M	99.7M	135.7M
	DOE_ATG	52.7M	16.0M	68.7M
	EBRD	1,089.1M	3,546.7M	4,635.8M
	EIF	37.7M	1.4M	39.1M
	FAO	441.7M	344.6M	786.3M
	FDB	5.0M	5.0M	10.0M
	FMCN	9.0M	1.0M	10.0M
	FMO	192.6M	1,208.4M	1,400.9M
	GIZ	88.8M	176.2M	264.9M
	IDB	561.7M	714.4M	1,276.1M
	IFAD	107.5M	115.0M	222.5M
	IUCN	97.7M	42.8M	140.5M
	JICA	25.1M	40.9M	66.0M
	KfW	8.7M	7.3M	16.0M
	Landbank	10.0M	10.2M	20.2M
	MCT	8.6M	0.8M	9.4M
	MUFG_Bank	74.3M	1,134.0M	1,208.3M
	NABARD	134.4M	281.9M	416.3M
	NEMA	9.5M	0.5M	10.0M
	PCA	303.9M	1,015.3M	1,319.2M
	Profonanpe	6.2M	2.9M	9.1M
	SPC	16.6M	3.1M	19.7M
	SPREP	18.1M	3.7M	21.8M
	UNDP	886.0M	1,029.5M	1,915.5M
	UNEP	90.2M	2.0M	92.3M
	WFP	26.7M	2.9M	29.6M
	WorldBank	477.6M	1,940.9M	2,418.5M
	XacBank	65.3M	83.4M	148.7M

0B 1B 2B 3B 4B 5B 6B 7B 8B	0B 1B 2B 3B 4B 5B 6B 7B 8B	0B 1B 2B 3B 4B 5B 6B 7B 8B
Project funding approved for LDCs (USD)	Project funding approved for LDCs (USD)	Project funding approved for LDCs (USD)

Source: GCF IPMS and Tableau Online Projects data (October 8, 2021)

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Figure A - 17.   Climate-related development finance as reported to the OECD to all countries by country group (top) and to LDCs cumulative over the years (bottom)

Provider category	Recipient category					
	LDCs	SIDS or African States (excl. LDCs)	Other GCF-eligible countries	Non-GCF-eligible countries	Countries not specified	Grand Total
Bilateral	35,523M 21.9%	16,866M 10.4%	62,133M 38.3%	5,418M 3.3%	42,087M 26.0%	162,027M 100.0%
Multilateral development bank	23,213M 16.0%	18,485M 12.7%	77,203M 53.2%	11,928M 8.2%	14,301M 9.9%	145,130M 100.0%
GCF	1,255M 16.7%	1,142M 15.2%	2,807M 37.4%		2,297M 30.6%	7,500M 100.0%
Other multilateral	3,659M 31.8%	1,711M 14.9%	3,903M 33.9%	292M 2.5%	1,944M 16.9%	11,508M 100.0%
Private donor	255M 11.8%	60M 2.8%	481M 22.3%	2M 0.1%	1,362M 63.0%	2,161M 100.0%
Grand Total	63,905M 19.5%	38,264M 11.7%	146,527M 44.6%	17,640M 5.4%	61,990M 18.9%	328,326M 100.0%
	0B 200B 400B 600B Finance - Current USD	0B 200B 400B 600B Finance - Current USD	0B 200B 400B 600B Finance - Current USD	0B 200B 400B 600B Finance - Current USD	0B 200B 400B 600B Finance - Current USD	0B 200B 400B 600B Finance - Current USD

Year	Provider category					
	Bilateral	Multilateral development bank	GCF	Other multilateral	Private donor	Grand Total
2015	6,102M 63.26%	2,750M 28.51%	60M 0.62%	734M 7.60%	1M 0.01%	9,646M 100.00%
2016	14,037M 67.90%	5,146M 24.89%	233M 1.13%	1,252M 6.06%	5M 0.02%	20,673M 100.00%
2017	20,297M 60.92%	10,389M 31.18%	517M 1.55%	2,063M 6.19%	51M 0.15%	33,316M 100.00%
2018	27,505M 57.68%	16,405M 34.40%	1,074M 2.25%	2,531M 5.31%	168M 0.35%	47,683M 100.00%
2019	35,523M 55.59%	23,213M 36.32%	1,255M 1.96%	3,659M 5.73%	255M 0.40%	63,905M 100.00%
	0B 50B 100B Climate finance to LDCs (single-country, USD)	0B 50B 100B Climate finance to LDCs (single-country, USD)	0B 50B 100B Climate finance to LDCs (single-country, USD)	0B 50B 100B Climate finance to LDCs (single-country, USD)	0B 50B 100B Climate finance to LDCs (single-country, USD)	0B 50B 100B Climate finance to LDCs (single-country, USD)

Source: OECD climate-related development finance (2015-2019, retrieved on October 8, 2021), as analysed by the IEU DataLab

Note: The bottom chart concerns only the project financing that is targeted to single countries (as opposed to multiple countries).

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Figure A - 18.   Private sector mobilization sub-outcomes and delivery partner
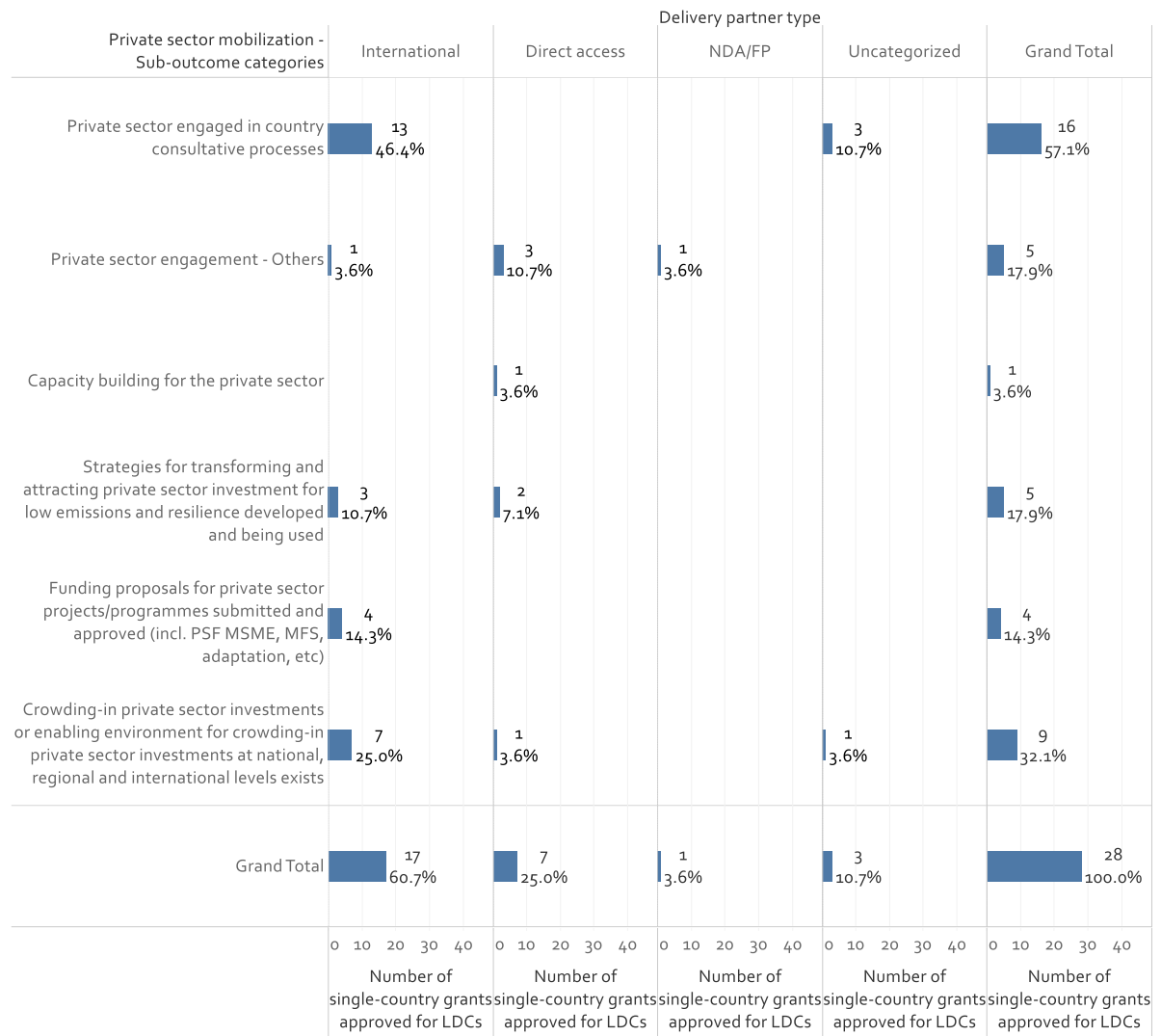
Source: GCF IPMS and Fluxx Readiness data (October 8, 2021), IEU extractions from RPSP proposals
(October 8, 2021)[4]

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[4] Note: Multi-country grants are excluded. "Private sector engagement – Others" indicates sub-outcomes that state private
sector engagement in a very general sense or in a very specific sense such that it does not merit its own category.

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Figure A - 19.   GCF project alignment to national policies, strategies and plans
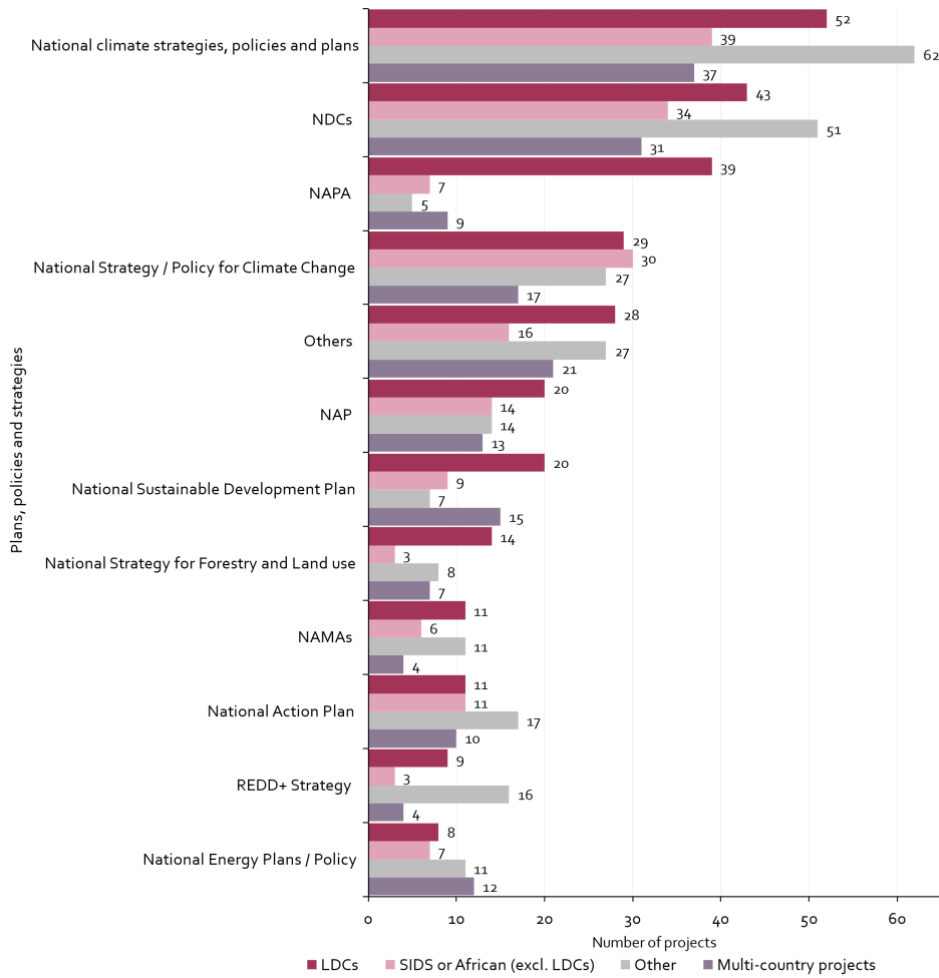
Source: IEU extractions from funding proposals (October 8, 2021)

Figure A - 20.   Readiness funding approved by country group

Source: GCF IPMS and Fluxx Readiness data (October 8, 2021)
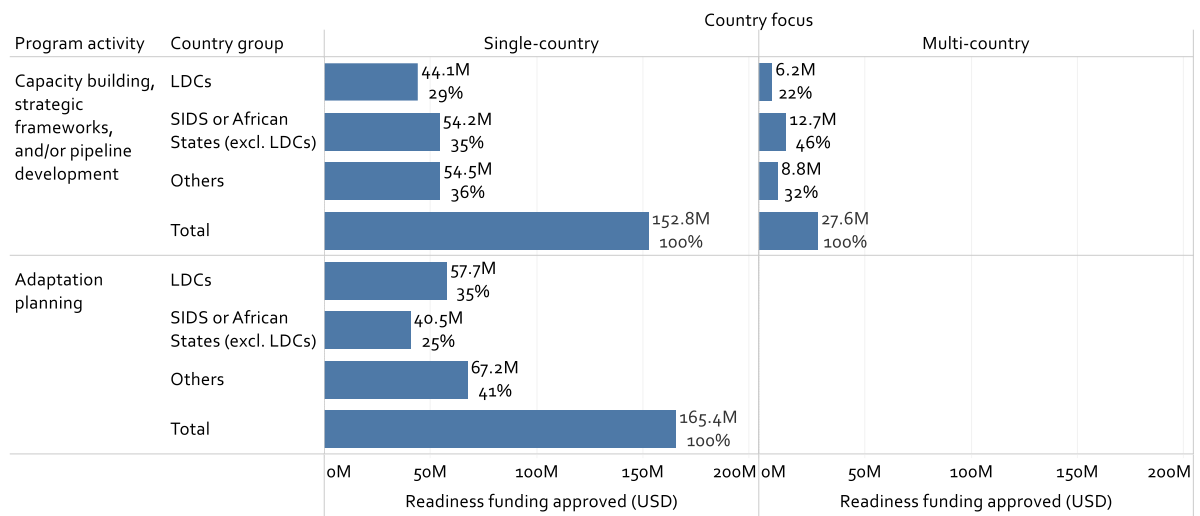
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Figure A - 21. **Number of single-country readiness grants approved for LDCs by outcome and delivery partner**

Program activity	RPSP outcomes	Delivery partner type				
		International	Direct access	NDA/FP	Uncategorized	Grand Total
Capacity building, strategic frameworks, and/or pipeline development	Country and institutional capacity established/strengthened, including but not limited to NDA	42 35.9%	17 14.5%	5 4.3%	8 6.8%	72 61.5%
	Strategic framework for engagement with the Fund developed, including but not limited to stakeholders engagement in consultative processes and country programming	49 41.9%	13 11.1%	6 5.1%	8 6.8%	76 65.0%
	Access to finance, climate finance strategies, and/or pipeline development	43 36.8%	9 7.7%	3 2.6%	6 5.1%	61 52.1%
	Direct access realized	17 14.5%	8 6.8%	1 0.9%	4 3.4%	30 25.6%
	Private sector mobilization	17 14.5%	7 6.0%	1 0.9%	3 2.6%	28 23.9%
	Knowledge sharing and learning	1 0.9%	1 0.9%	1 0.9%	1 0.9%	4 3.4%
	Adaptation planning			1 0.9%		1 0.9%
	<Missing information>	9 7.7%	2 1.7%	1 0.9%	2 1.7%	14 12.0%
	Total	73 62.4%	23 19.7%	7 6.0%	14 12.0%	117 100.0%
Adaptation planning	Adaptation planning	20 83.3%	2 8.3%			22 91.7%
	<Missing information>	2 8.3%				2 8.3%
	Total	22 91.7%	2 8.3%			24 100.0%
		0 100 200 Number of single-country grants approved for LDCs	0 100 200 Number of single-country grants approved for LDCs	0 100 200 Number of single-country grants approved for LDCs	0 100 200 Number of single-country grants approved for LDCs	0 100 200 Number of single-country grants approved for LDCs

Source: GCF IPMS and Fluxx Readiness data (October 8, 2021), IEU DataLab's extractions from readiness
proposals (October 8, 2021)

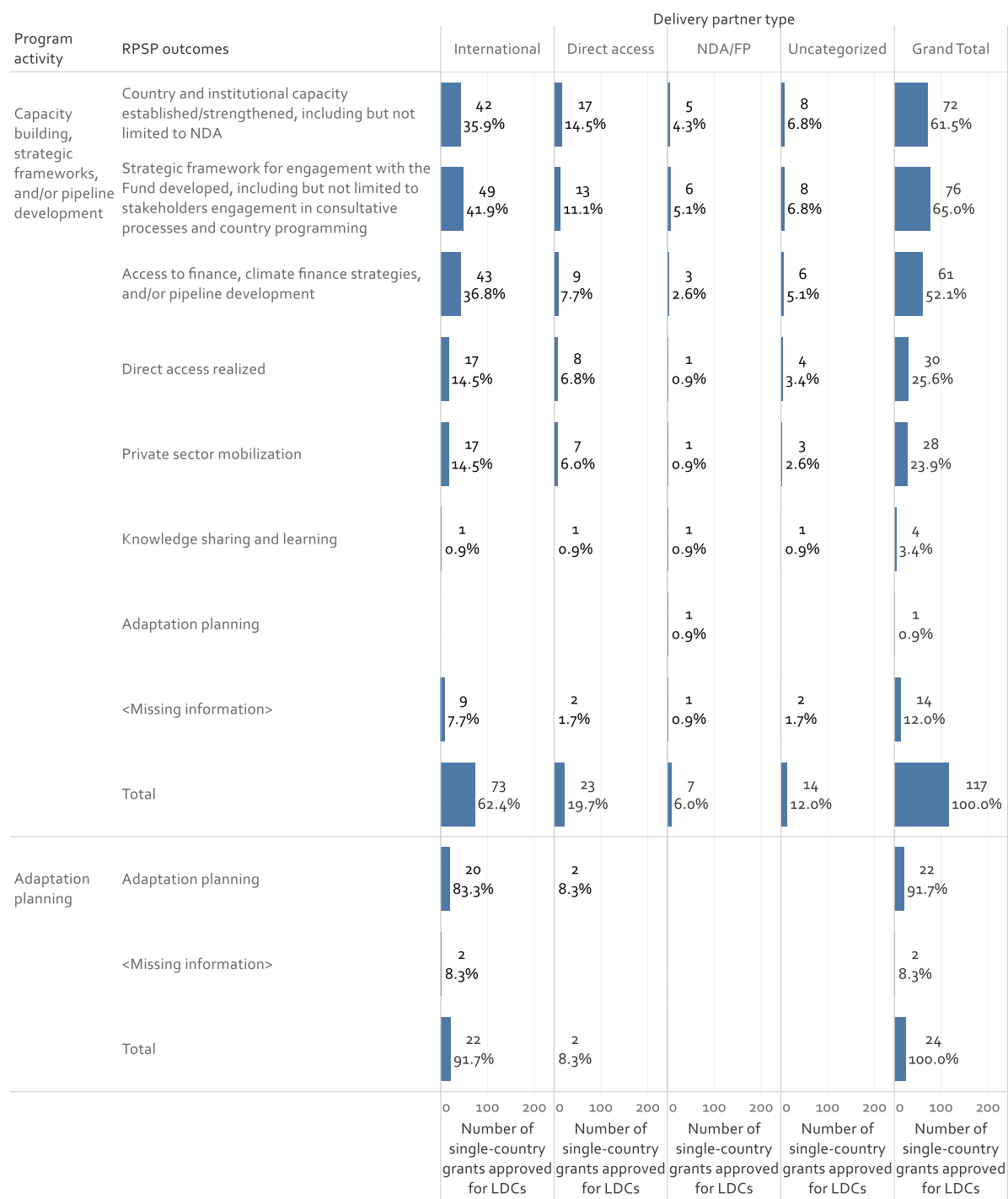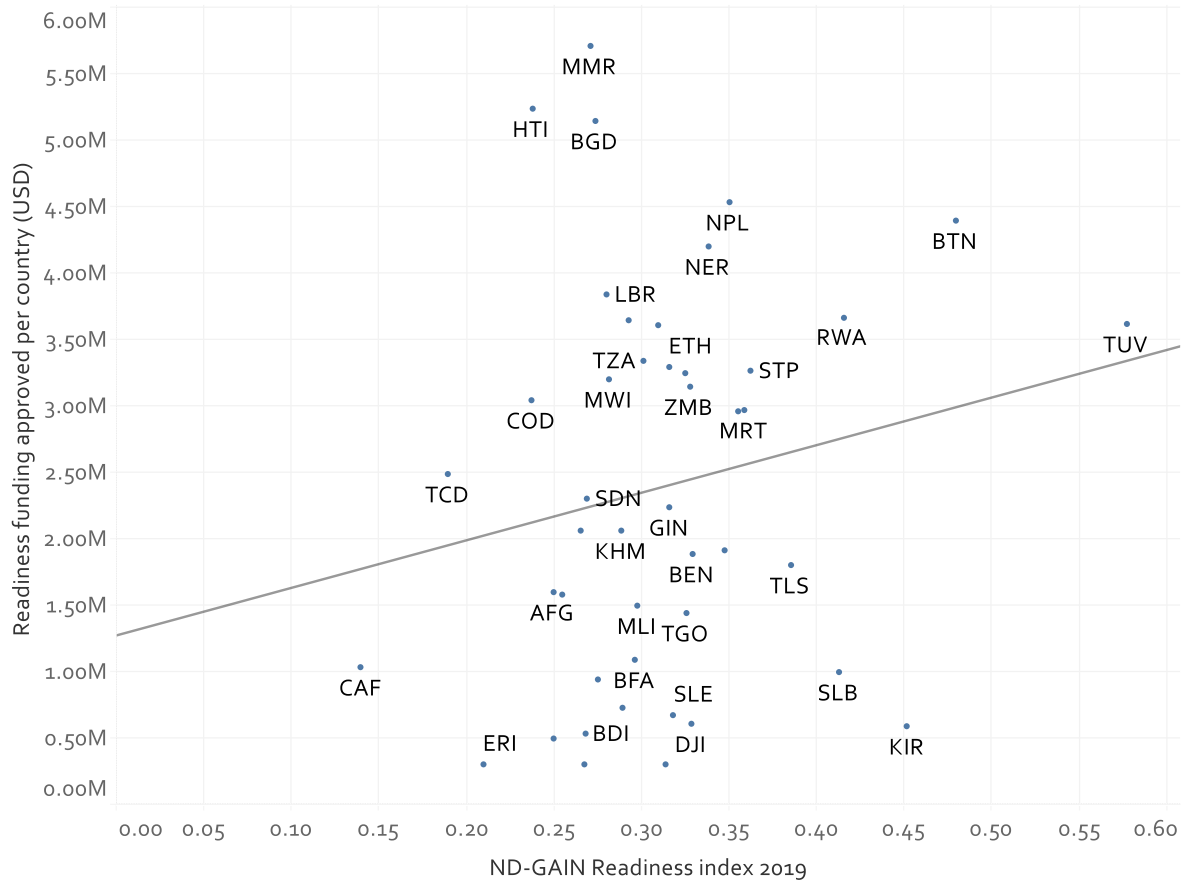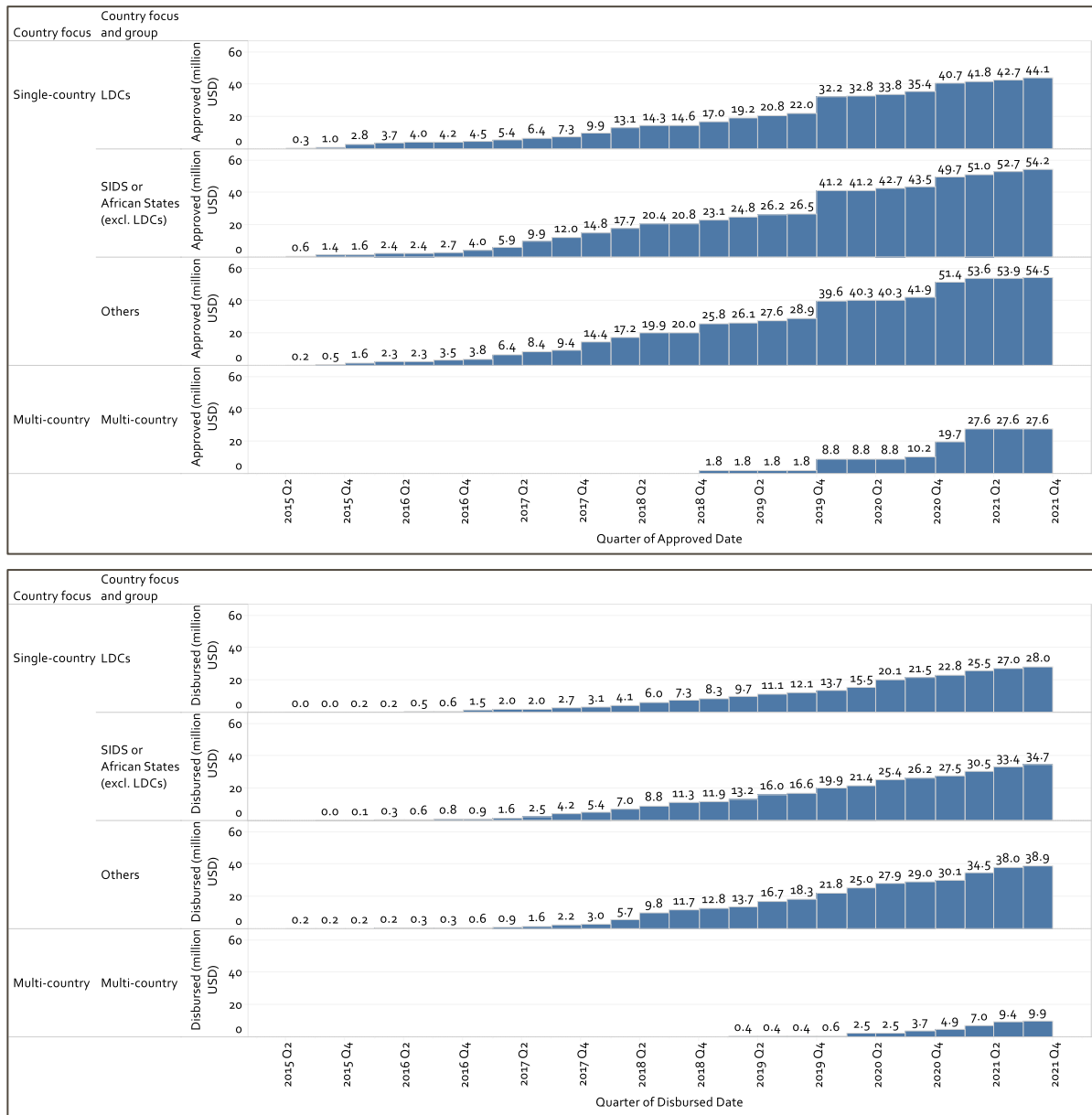Independent evaluation of the relevance and effectiveness of the Green Climate Fund's
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Figure A - 22.   Readiness funding approved vs. ND-GAIN readiness index

Source: GCF IPMS and Fluxx Readiness data (October 8, 2021); ND-GAIN Country Index (2019)

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*Figure A - 23.   Readiness funding approved (top) and disbursed (bottom) for capacity building,
strategic frameworks and/or pipeline development (cumulative)*

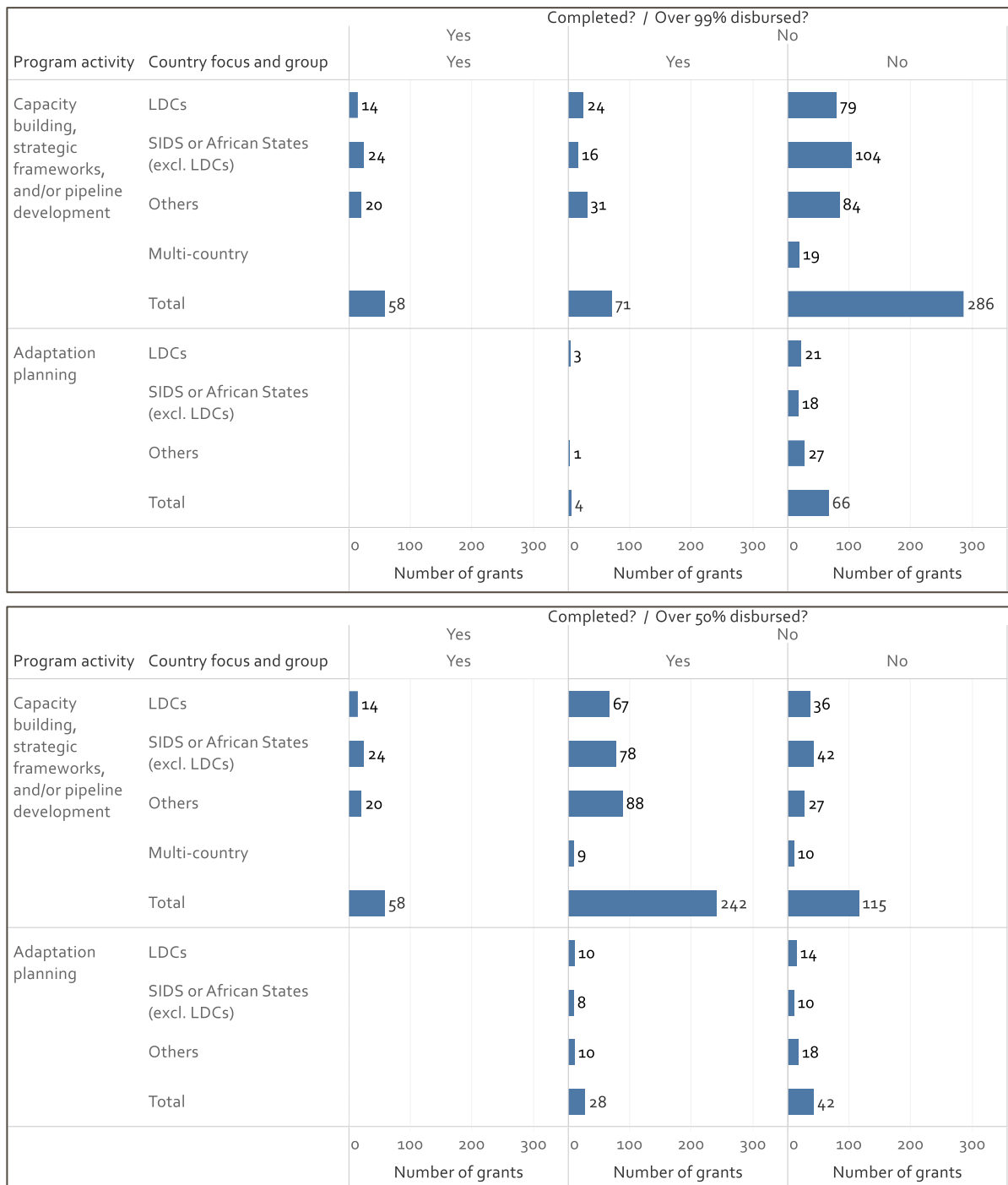Source: GCF IPMS and Fluxx Readiness data (October 8, 2021)

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Figure A - 24. Readiness funding approved (top) and disbursed (bottom) for adaptation planning (cumulative)
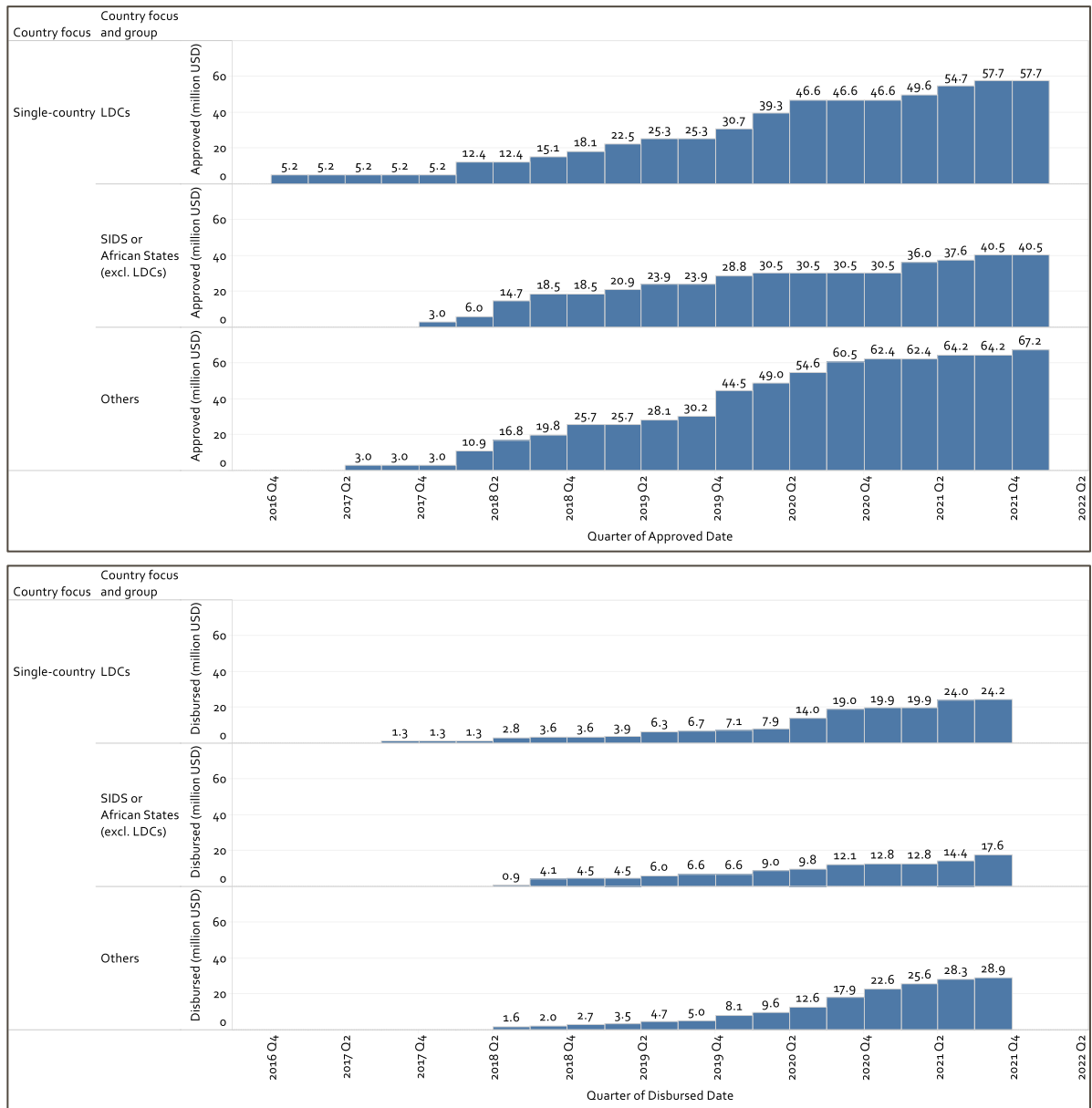
Source: GCF IPMS and Fluxx Readiness data (October 8, 2021)
Note: The cumulative disbursement for 2021 Q4 is not shown as there was no disbursement in this period before the data reference date of October 8 2021.

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Figure A - 25. Number of grants completed and/or over 99% disbursed (top) and over 50% disbursed (bottom)

Source: GCF IPMS and Fluxx Readiness data (October 8, 2021)

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Figure A - 26. *Percentage disbursed vs. percentage of implementation duration passed for each
GCF project (top) and the number of projects not shown due to the FAA not
being effective yet (bottom)*

		Theme		
Country focus	Project country group	Mitigation	Cross-cutting	Adaptation	Grand Total
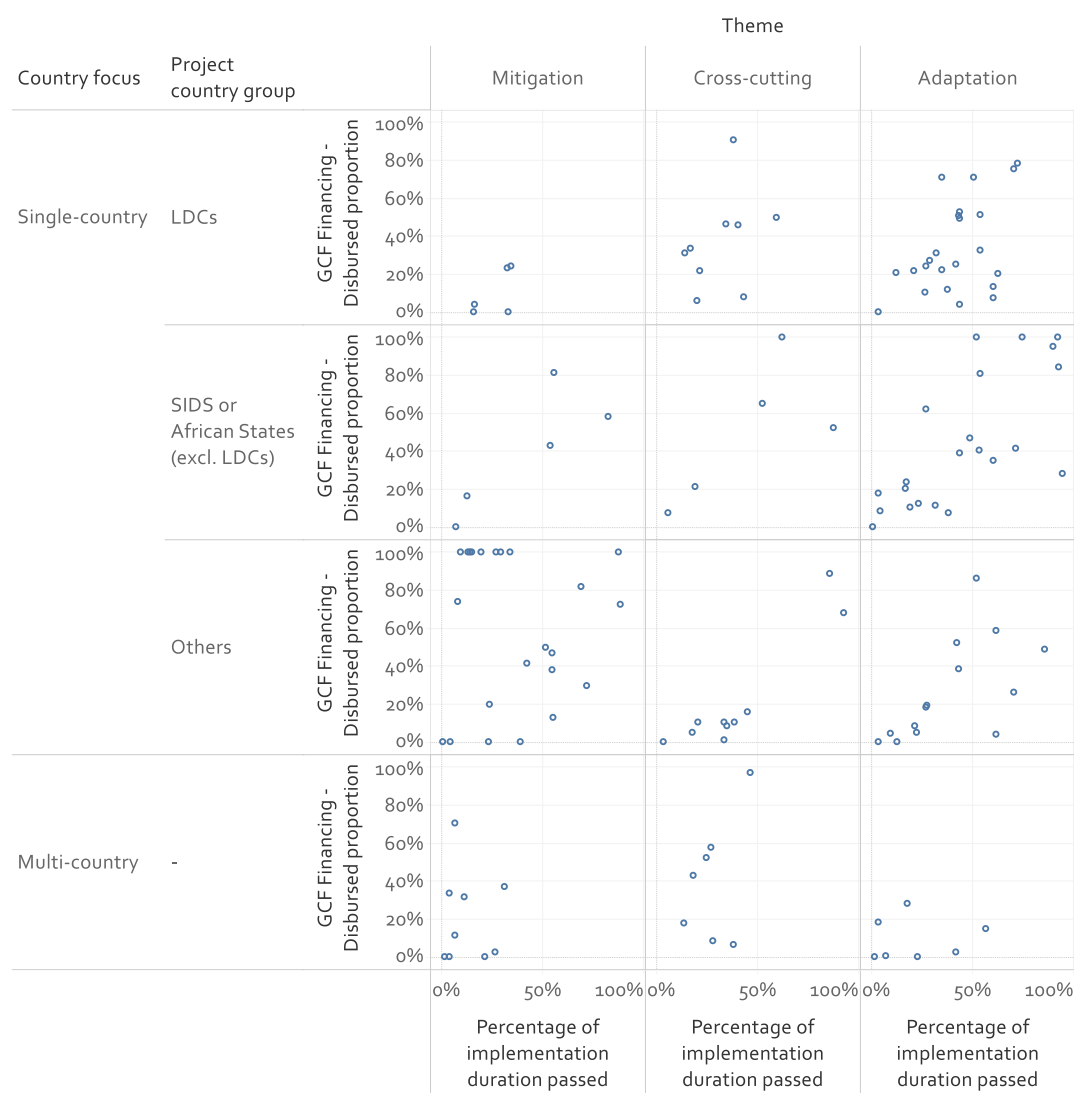
NUMBER OF PROJECTS EXCLUDED FROM THE ABOVE GRAPH

Country focus	Project country group	Mitigation	Cross-cutting	Adaptation	Grand Total
Single-country	LDCs	5	6	4	15
	SIDS or African States (excl. LDCs)	2	2	3	7
	Others	5	5	5	15
Multi-country	-	6	4	4	14
Grand Total		**18**	**17**	**16**	**51**

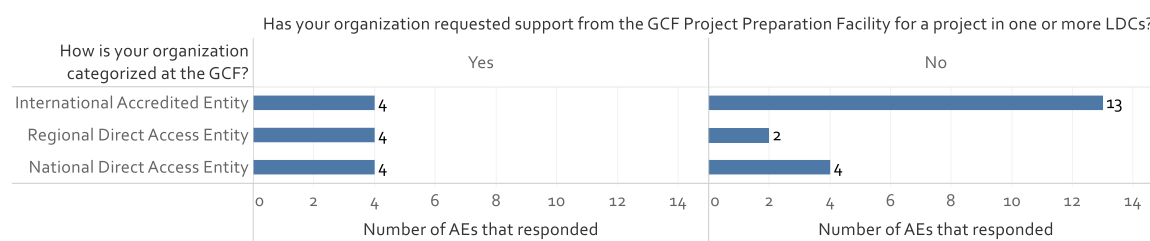Source: GCF IPMS Projects and Project disbursements data (October 8, 2021)
Note: Percentage of implementation duration passed is calculated by dividing the number of days between
the data reference date (October 8, 2021) and the FAA effectiveness date by the implementation
duration of the project. The top graph, therefore, does not show projects that are yet to be FAA
effective.

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Table A - 2.   ***Disbursements by financial instrument***

	INSTRUMENT GROUP	INSTRUMENT	SINGLE-COUNTRY			MULTI-COUNTRY
			LDCs	SIDS or African States (excl. LDCs)	Others	
GCF financing approved (USD mi.)	Equity	Equity			197.2	568.9
	Grants	Grants	1,134.7	836.6	1,043.1	884.2
		Reimbursable grants			90.0	186.0
	Guarantees	Guarantees	13.3		75.0	151.5
	Loans	Senior loans	714.8	169.1	1,187.5	1,946.5
		Subordinated loans	8.4	100.0	15.0	210.8
	RBP	RBP			496.7	
	Grand Total		1,871.2	1,105.7	3,104.5	3,947.9
GCF financing disbursed (USD mi.)	Equity	Equity			6.2	87.4
	Grants	Grants	251.0	329.9	202.1	70.1
		Reimbursable grants			90.0	31.7
	Guarantees	Guarantees				1.0
	Loans	Senior loans	71.0	87.9	260.2	218.5
		Subordinated loans				3.0
	RBP	RBP			386.5	
	Grand Total		321.9	417.8	945.0	411.7
% disbursed	Equity	Equity	-	-	3.1%	15.4%
	Grants	Grants	22.1%	39.4%	19.4%	7.9%
		Reimbursable grants	-	-	100.0%	17.1%
	Guarantees	Guarantees	0.0%	-	0.0%	0.7%
	Loans	Senior loans	9.9%	52.0%	21.9%	11.2%
		Subordinated loans	0.0%	0.0%	0.0%	1.4%
	RBP	RBP	-	-	77.8%	-
	Grand Total		17.2%	37.8%	30.4%	10.4%

Source: GCF IPMS and Tableau Online Projects and Project disbursements data (October 8, 2021)

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Figure A - 27. **Has your organization requested support from the GCF project preparation facility for a project in one or more LDCs?**
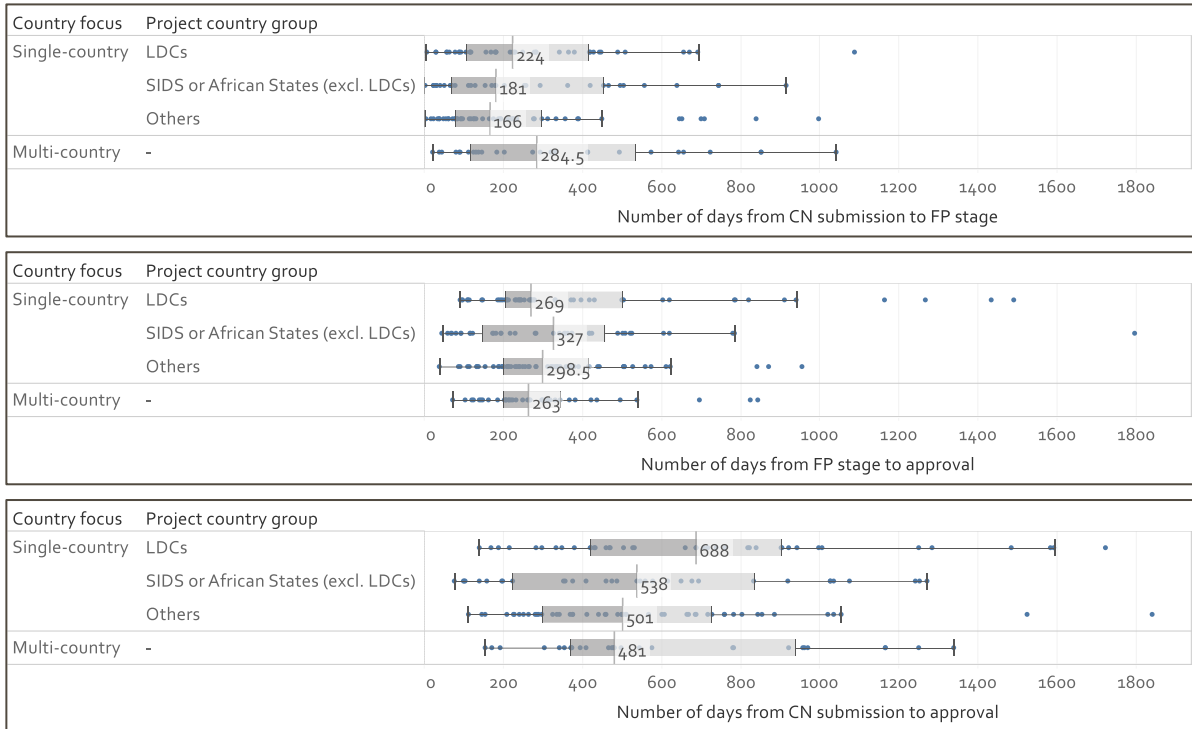
Has your organization requested support from the GCF Project Preparation Facility for a project in one or more LDCs?

How is your organization categorized at the GCF?	Yes	No
International Accredited Entity	4	13
Regional Direct Access Entity	4	2
National Direct Access Entity	4	4

Number of AEs that responded   Number of AEs that responded

Source: IEU survey to AEs (August 25, 2021)

Table A - 3. **If you haven't requested support for PPF, what are the reasons?**

1. My organization does not need support.
2. The support offered does not match my organization's needs.
3. Lack of time or capacity.
4. Not eligible at this stage.
5. The process to access support funds is too long and cumbersome and would slow down submission even further.
6. My organization is supported by other bilateral institutions to develop concept notes and full proposals.
7. In the process to request support from PPF.
8. (1) The project ideas are not moving beyond concept note stage and (2) the GCF requirements for a concept note has shifted to needing a project design and this is adding significant time onto any concept note and subsequent approval for a PPF and the request.
9. We expect to request support but have not yet done so.
10.   Challenges in coordinating/engaging with NDA for prep facility.
11.   Concept note under formulation.
12.   Complexity and conditionality of this support.

Source: IEU survey to AEs (August 25, 2021)

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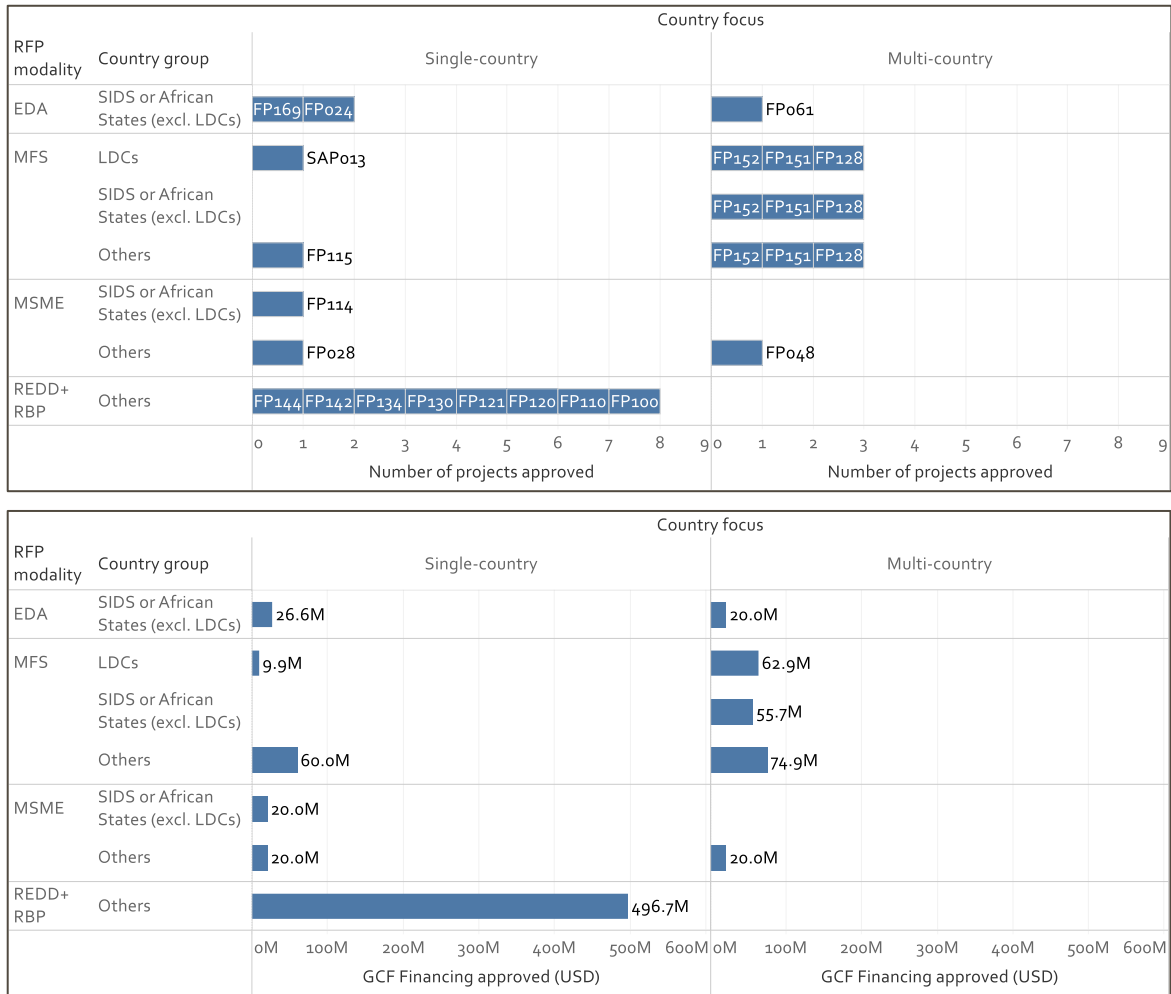Annexes to the final report - Annex 1

Figure A - 28.   Number of days taken for the project approval process

Source: GCF IPMS Projects data (October 8, 2021)
Note: Some projects are not shown due to missing information.

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Figure A - 29.   Number of RfP projects approved (top) and GCF financing approved (bottom)

Source: GCF IPMS Projects data (October 8, 2021)

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Figure A - 30. *Number of days from concept note submission to funding proposal stage, for all projects approved (top) and for single-country LDC projects (bottom)*
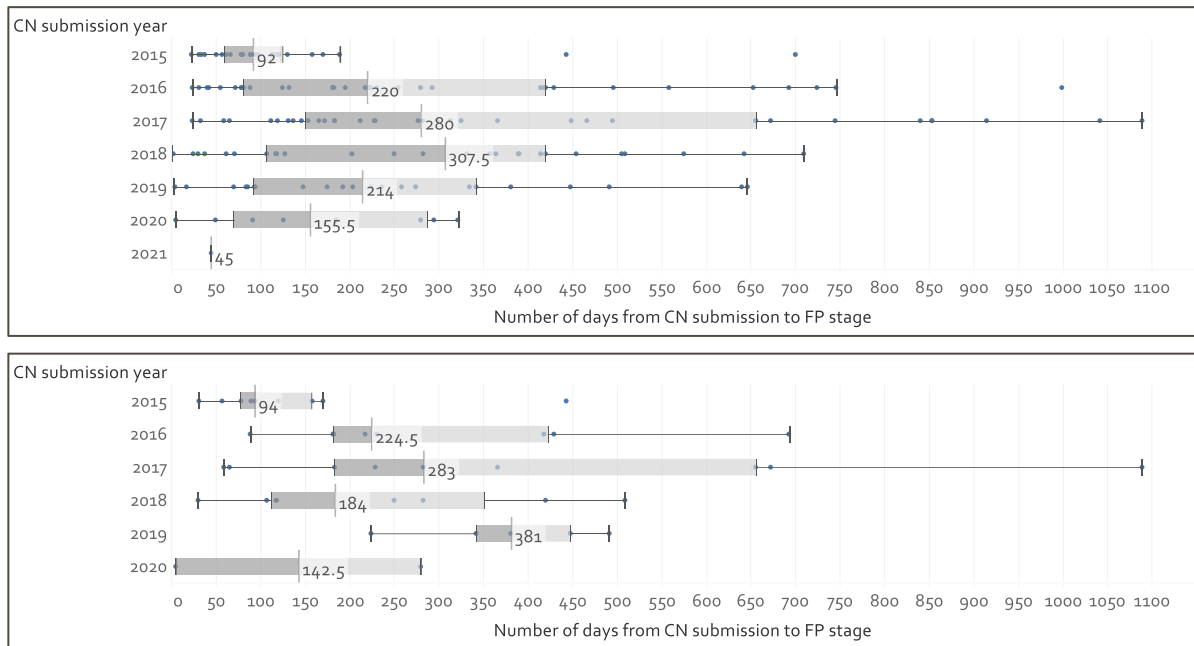
Source: GCF IPMS Projects data (October 8, 2021)

Figure A - 31. *What additional capacities or support would your organization require for the design, implementation, and monitoring of the GCF projects in LDCs?*

What additional capacities or support would your organization require for the design, implementation, and monitoring of the GCF projects in LDCs?	Additional staff	Collaboration and knowledge exchange with other organizations	Funding for institutional operation	In-house expertise	Support for communication with the GCF	Support to understand GCF requirements
Rank 1	8	5	10	10		8
Rank 2	11	4	7	10	4	5
Rank 3	8	14	7	5	3	4
Rank 4	5	6	9	5	5	11
Rank 5	4	7		6	16	8
Rank 6	5	5	8	5	13	5
Total score	**163**	**143**	**158**	**162**	**92**	**143**

Source: IEU survey to AEs (August 25, 2021)
Note: Total number of respondents here is 41 AEs.

Figure A - 32. Number of projects by post-approval stage

Country focus	Project country group	Theme	Approved	FAA executed	FAA effective	After 1st disbursement	Grand Total
Single-country	LDCs	Mitigation	3	2	2	3	10
		Cross-cutting	1	5		9	15
		Adaptation	2	2	1	22	27
		Total	6	9	3	34	52
	SIDS or African States (excl. LDCs)	Mitigation	1	1	1	4	7
		Cross-cutting	1	1		5	7
		Adaptation	1	2	1	21	25
		Total	3	4	2	30	39
	Others	Mitigation	3	2	4	19	28
		Cross-cutting	2	3	1	9	15
		Adaptation	3	2	2	12	19
		Total	8	7	7	40	62
	Total		17	20	12	104	153
Multi-country	-	Mitigation	5	1	3	6	15
		Cross-cutting	3	1		7	11
		Adaptation	3	1	2	5	11
		Total	11	3	5	18	37
	Total		11	3	5	18	37

Number of projects approved (0 50 100 150)

Source: GCF IPMS Projects and Project disbursements data (October 8, 2021)

Figure A - 33. GCF financing approved (cumulative)

Board Meeting Year	Board Meeting	LDCs Single-country	LDCs Multi-country	SIDS or African States (excl. LDCs) Single-country	SIDS or African States (excl. LDCs) Multi-country	Others Single-country	Others Multi-country
2015	B.11	60M	13M	55M	13M	6M	
2016	B.13	139M	13M	55M	13M	155M	19M
	B.14	175M	57M	113M	340M	233M	185M
	B.15	199M	57M	218M	357M	253M	185M
2017	B.16	405M	57M	433M	357M	337M	185M
	B.18	486M	57M	491M	357M	512M	205M
2018	B.19	711M	63M	594M	397M	1,035M	205M
	B.21	831M	224M	626M	692M	1,304M	369M
2019	B.22	870M	304M	743M	702M	1,401M	369M
	B.23	918M	304M	814M	702M	1,549M	369M
	B.24	1,013M	330M	814M	710M	1,830M	369M
2020	B.25	1,023M	341M	878M	714M	1,900M	379M
	B.26	1,347M	366M	956M	791M	2,080M	573M
	B.27	1,633M	439M	956M	900M	2,460M	737M
2021	B.28	1,660M	790M	1,054M	1,045M	2,816M	957M
	B.29	1,694M	833M	1,080M	1,173M	3,087M	957M
	B.30	1,871M	1,077M	1,106M	1,334M	3,105M	1,537M

GCF Financing approved (USD) (0B 1B 2B 3B 4B)

Source: GCF IPMS and Tableau Online Projects data (October 8, 2021)

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Figure A - 34.   GCF financing approved for LDCs across WB fragility classifications and GCF result areas

Result area theme	Result area	WB Fragility classifications			
		Conflict-affected	High institutional and social fragility	Fragility not indicated	Grand Total
Mitigation	EP	403.0M	122.4M	389.8M	915.2M
	LT		18.0M	18.4M	36.4M
	BA	22.2M	27.2M	388.6M	437.9M
	FL	24.4M	43.5M	178.6M	246.5M
	Total	449.6M	211.1M	975.4M	1,636.0M
Adaptation	HW	45.6M	67.2M	284.1M	396.9M
	VC	85.2M	113.4M	291.3M	490.0M
	IB	11.7M	72.8M	147.0M	231.5M
	EE	22.2M	39.8M	131.8M	193.8M
	Total	164.7M	293.3M	854.2M	1,312.2M
Grand Total		614.3M	504.3M	1,829.6M	2,948.2M
		0B 1B 2B 3B 4B	0B 1B 2B 3B 4B	0B 1B 2B 3B 4B	0B 1B 2B 3B 4B
		GCF Financing approved for LDCs (USD)	GCF Financing approved for LDCs (USD)	GCF Financing approved for LDCs (USD)	GCF Financing approved for LDCs (USD)

Source: GCF IPMS and Tableau Online Projects data (October 8, 2018); WB Classification of Fragile and Conflict-Affected Situations (FY21)

Figure A - 35.   Number of projects that report percentage of female beneficiaries (top) and the reported percentages (bottom)

Country focus	Project country group	Female beneficiaries % reported?	
		Yes	No
Single-country	LDCs	36	16
	SIDS or African States (excl. LDCs)	28	11
	Others	35	27
Multi-country	-	21	16
		0 5 10 15 20 25 30 35 40 Number of projects approved	0 5 10 15 20 25 30 35 40 Number of projects approved

Country focus	Project country group	Female Beneficiaries %
Single-country	LDCs	49.48
	SIDS or African States (excl. LDCs)	49.51
	Others	50.05
Multi-country	-	49.00

Source: GCF IPMS Projects data (October 8, 2021)

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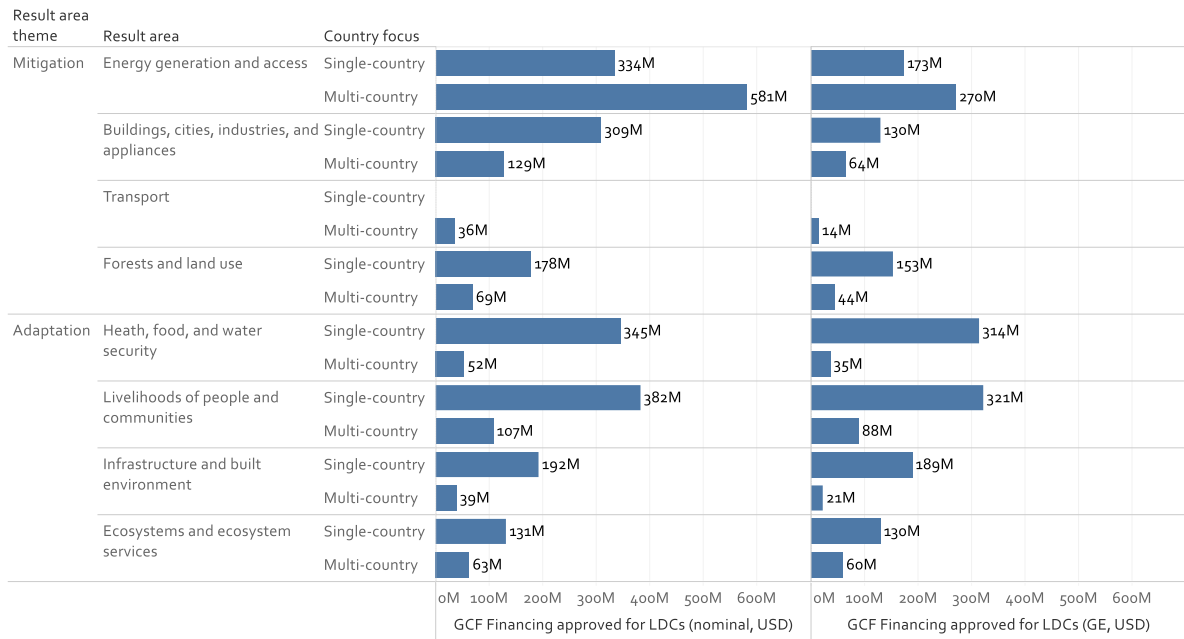*Figure A - 36. COVID-19 impacts on projects across different country groups*
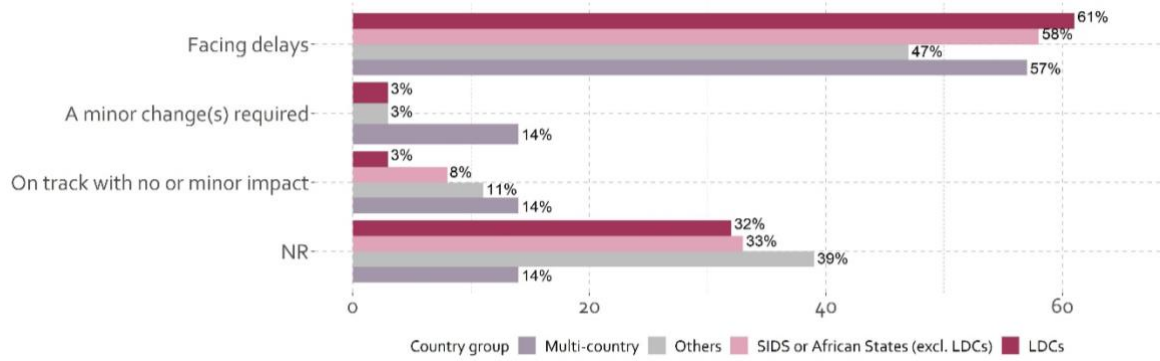
Source: IEU extractions from APRs (March 2021), as analysed by the IEU DataLab

*Figure A - 37. Project funding approved at the GCF, in nominal (left) and grant equivalence
(right)*

Source	Country group	Country focus	Project funding approved (nominal, USD)	Project funding approved (GE, USD)
GCF	LDCs	Single-country	1,871M	1,410M
		Multi-country	1,077M	598M
		Total	2,948M	2,008M
	SIDS or African States (excl. LDCs)	Single-country	1,106M	898M
		Multi-country	1,334M	592M
		Total	2,440M	1,489M
	Others	Single-country	3,105M	2,161M
		Multi-country	1,537M	669M
		Total	4,642M	2,829M
	Total		10,029M	6,327M
Co-Financing	LDCs	Single-country	1,743M	721M
		Multi-country	4,474M	1,028M
		Total	6,217M	1,750M
	SIDS or African States (excl. LDCs)	Single-country	2,640M	627M
		Multi-country	3,551M	424M
		Total	6,192M	1,051M
	Others	Single-country	9,523M	1,248M
		Multi-country	5,214M	1,097M
		Total	14,737M	2,345M
	Total		27,146M	5,146M
Grand Total			37,175M	11,473M

Source: GCF IPMS and Tableau Online data (October 8, 2021)

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Figure A - 38. **GCF financing approved for LDCs across the GCF's result areas in nominal (left) and in grant equivalence (right)**

Source: GCF IPMS and Tableau Online (October 8, 2021)

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**Figure A - 39.   LDC criteria (top three) and Economic and environmental vulnerability index
sub-indices (bottom four) from 2002 to 2021**

Country group
■ LDCs
■ SIDS or African States (excl. LDCs)
■ Others
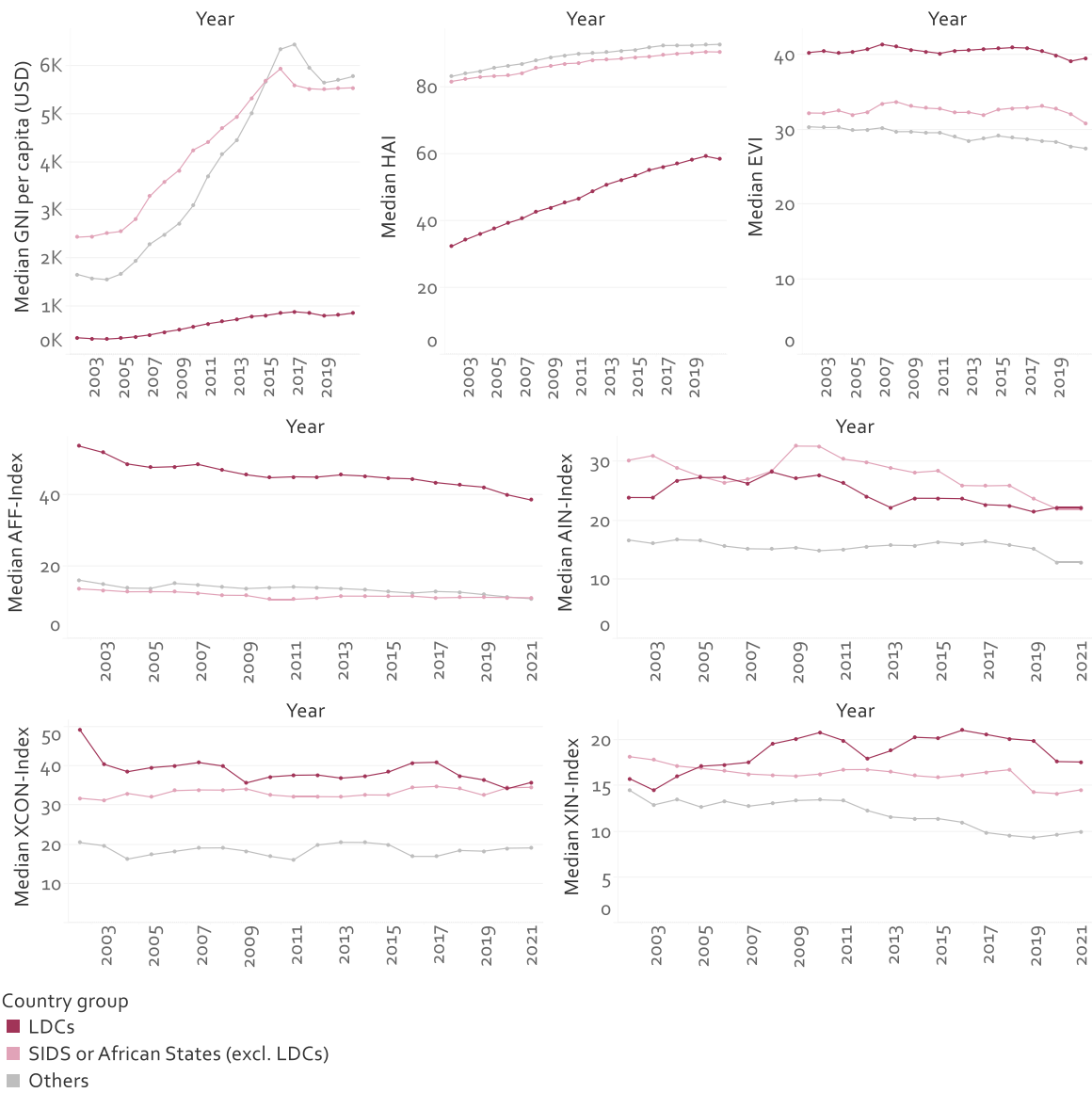
Source: UNDESA LDC data – Time series estimates dataset (2002-2021). All data are current as of 12 April
2021, unless noted otherwise.

Note: Only the GCF-eligible countries are considered here.
AFF stands for Share of agriculture, fisheries and forestry in GDP, AIN for Agricultural instability,
XCON for Export concentration, and XIN for Export instability.

Annex 2. EVALUATION MATRIX

IEU EVALUATION CRITERIA	KEY QUESTION	SUB-QUESTIONS	METHODS AND TOOLS	SUPPORT FROM IEU	DATA ANALYSIS (DATALAB)
Relevance	1. Is the GCF relevant to the specific needs and urgency of climate action of LDCs?	2. To what extent is the GCF responsive to the guidance of the UNFCCC and Paris Agreement in terms of meeting the urgency of climate action in LDCs?	• Desk review • Literature review	• Provision of UNFCCC guidelines and GCF Board decisions	• Not applicable
		2.1. What are the key climate change needs and challenges for LDCs and what are the conditions to address these needs?	• Desk review • Literature review • Synthesis of GCF evaluations • Data analysis	• Access to the IEU DataLab • Coordination of GCF staff • Interviews • Participation in country case studies	• LDC criteria (GNI per capita, human assets index and environmental economic vulnerability index) • NDC Explorer • ND-GAIN indices and subindices • Germanwatch Climate risk index • WB CO_2 emission data
		2.2. To what extent and how has GCF finance been relevant to addressing the main climate needs and challenges in LDCs?	• Desk review • Literature review (climate funds reports) • Interviews w/ GCF • Stakeholders • Portfolio analysis	• Access to the IEU DataLab • Coordination of GCF staff interviews • Participation in country case studies	• GCF IPMS and Tableau Online data on readiness and project funding
		2.3. To what extent and how has the Fund supported LDCs in establishing projects and programmes with regards to climate change policies,	• Portfolio analysis • Synthesis of GCF evaluations	• Access to the IEU DataLab • Coordination of GCF staff interviews	• GCF IPMS and Tableau Online data on pipeline and approved projects • NDC Explorer

IEU EVALUATION CRITERIA	KEY QUESTION	SUB-QUESTIONS	METHODS AND TOOLS	SUPPORT FROM IEU	DATA ANALYSIS (DATALAB)
		strategies, plans, NAPAs, NAPs and other related activities?		• Country profiles for case study countries • Participation in country case studies	
		2.4. To what extent do GCF's policies, guidelines, funding parameters and funding modalities respond to the specific needs and circumstances of LDCs?	• Desk review • Literature review • Interviews w/ GCF stakeholders • Country case studies	• Coordination of GCF staff interviews • Participation in country case studies	• Not applicable
Country ownership	3. To what extent and how has the GCF ensured that countries own investments and are using country systems, including national budget, accounting or procurement systems?	3.1. To what extent do GCF projects integrate stakeholder participation (including local government) at all stages, including design, implementation and monitoring?	• Interviews w/ GCF stakeholders • Desk review • Country case studies • Portfolio analysis	• Access to the IEU DataLab • Coordination of GCF staff interviews • Participation in country case studies	• IEU data on funding proposals • Country ownership
		3.2. To what extent have local communities, local knowledge and heritage been taken into account in the GCF's support and investments in LDCs?	• Interviews w/ GCF stakeholders • Desk review with emphasis on community-based adaptation • Country case studies • Portfolio analysis	• Access to the IEU DataLab • Coordination of GCF staff interviews • Participation in country case studies	• IEU data on funding proposals • Country ownership

IEU EVALUATION CRITERIA	KEY QUESTION	SUB-QUESTIONS	METHODS AND TOOLS	SUPPORT FROM IEU	DATA ANALYSIS (DataLab)
		3.3. To what extent does the portfolio include considerations of gender and indigenous peoples' equality and empowerment in the design and implementation of projects in LDCs?	• Interviews w/ GCF stakeholders • Desk review • Country case studies • Portfolio analysis	• Access to the IEU DataLab • Coordination of GCF staff interviews • Participation in country case studies	• IEU data on project design-gender and indigenous issues
Performance (Efficiency and effectiveness)	4. To what extent does the GCF's business model and processes meet the specific needs and urgency of climate action in LDCs?	4.1. How efficient is the GCF in bringing LDC projects for approval?	• Interviews w/ GCF stakeholders • Desk review • Portfolio analysis • Synthesis of GCF evaluations • Country case studies • Surveys to AEs and NDAs	• Access to the IEU DataLab • Coordination of GCF staff interviews • Participation in country case studies • List of contact data for surveys	• GCF policies, frameworks and modalities • GCF IPMS, Fluxx and Tableau Online data on RPSP, SAP and project pipeline
		4.2. To what extent does the GCF's accreditation correspond to the needs and challenges of LDCs?	• Interviews w/ GCF stakeholders • Desk review • Portfolio analysis • Country case studies • Surveys to AEs and NDAs	• Access to the IEU DataLab • Coordination of interviews with GCF staff • List of contact data for surveys	• GCF IPMS and Tableau Online data on accreditation • IEU data on accreditation

IEU EVALUATION CRITERIA	KEY QUESTION	SUB-QUESTIONS	METHODS AND TOOLS	SUPPORT FROM IEU	DATA ANALYSIS (DATALAB)
		4.3. What have been the most important factors enabling or constraining the effectiveness of LDCs project approvals?	• Portfolio analysis • Interviews with GCF stakeholders • Surveys to AEs and NDAs	• Access to IEU Data Lab • List of contact data for surveys	• GCF IPMS and Tableau Online data on pipeline and approved projects • IEU data on pipeline and approved projects • GCF criteria for grants (SAP, EDA, PPA)
Results and Impact (both expected and unexpected), impact and sustainability	5. Is GCF support effective in delivering results and impacts through the implementation of GCF funded projects and programmes to reduce the (long-term) vulnerability of local communities and their local livelihoods to the effects of climate change?	5.1. To what extent is GCF support helping LDCs put in place the conditions that will reduce vulnerability of local communities? Is the funding going towards a paradigm shift (where it is most needed)?	• Interview w/ GCF stakeholders • TOC analysis • Portfolio analysis • Country case studies • Interviews with GCF stakeholders	• Access to the IEU DataLab • Coordination of GCF staff interviews	• IEU data on APRs • IEU data on transformational change • IEU data on some measures of innovation/ sustainability/ replicability/ scalability of projects • IEU data on investments in physical infrastructure and knowledge • IEU data on behavioural change
		5.2. What have been the local impacts of GCF projects so far? How do these vary across gender and cultural, social and ethnic groups?	• Interview w/ GCF stakeholders, especially UNFCCC informants • Analysis of LORTA data	• Access to the IEU DataLab	• LORTA data for specific cases

IEU EVALUATION CRITERIA	KEY QUESTION	SUB-QUESTIONS	METHODS AND TOOLS	SUPPORT FROM IEU	DATA ANALYSIS (DataLab)
Coherence, complementarity replication and scalability	6. Is GCF climate finance complementary and coherent with other climate finance delivery channels, and how is this supporting replication and scale?	6.1. To what extent is GCF funding in LDCs complementary to the support received by countries, and how is it perceived in terms of role/position/power within LDCs?	• Interview w/ GCF stakeholders, especially UNFCCC informants • Desk review	• Identification of stakeholders from other funds • Coverage of GCF projects in LDCs	• Not applicable
		6.2. What are the comparative advantages of the different climate funds with regard to LDCs?	• Interview w/ GCF stakeholders, especially UNFCCC informants • Portfolio analysis • Desk review • Synthesis of GCF evaluations	• Participation in country case studies • Access to the IEU DataLab	• GCF, LDCF, SCCF and AF project portfolio data

Annex 3.   LEAST DEVELOPED COUNTRIES AND VANUATU

Long Country Name	GCF Region	International Region	LDC	SIDS	Non Annex I	UNFCCC Member	Number of single-country projects approved	Number of multi-country projects approved	GCF financing approved for single-country projects ($ mi.)	GCF financing approved for multi-country projects ($ mi.)
Islamic Republic of Afghanistan	Asia-Pacific	Asia	Yes	No	Yes	Yes	1	0	17.2	0
Republic of Angola	Africa	Africa	Yes	No	Yes	Yes	0	0	0	0
Republic of Burundi	Africa	Africa	Yes	No	Yes	Yes	1	1	10	5.6
Republic of Benin	Africa	Africa	Yes	No	Yes	Yes	1	4	9	25.1
Burkina Faso	Africa	Africa	Yes	No	Yes	Yes	2	7	50.8	73.7
People's Republic of Bangladesh	Asia-Pacific	Asia	Yes	No	Yes	Yes	5	1	351.1	17.4
Kingdom of Bhutan	Asia-Pacific	Asia	Yes	No	Yes	Yes	2	0	51.9	0
Central African Republic	Africa	Africa	Yes	No	Yes	Yes	0	1	0	40
Democratic Republic of the Congo	Africa	Africa	Yes	No	Yes	Yes	1	4	21	44.8
Union of the Comoros	Africa	Africa	Yes	Yes	Yes	Yes	1	3	41.9	24.8
Republic of Djibouti	Africa	Africa	Yes	No	Yes	Yes	0	1	0	5.6

Long Country Name	GCF Region	International Region	LDC	SIDS	Non Annex I	UNFCCC Member	Number of single-country projects approved	Number of multi-country projects approved	GCF financing approved for single-country projects ($ mi.)	GCF financing approved for multi-country projects ($ mi.)
State of Eritrea	Africa	Africa	Yes	No	Yes	Yes	0	0	0	0
Federal Democratic Republic of Ethiopia	Africa	Africa	Yes	No	Yes	Yes	2	4	210.2	55.2
Republic of Guinea	Africa	Africa	Yes	No	Yes	Yes	0	4	0	20.2
Republic of The Gambia	Africa	Africa	Yes	No	Yes	Yes	1	1	20.5	11.8
Republic of Guinea-Bissau	Africa	Africa	Yes	Yes	Yes	Yes	0	1	0	11.8
Republic of Haiti	Latin America and the Caribbean	The Caribbean	Yes	Yes	Yes	Yes	1	2	9.9	4
Kingdom of Cambodia	Asia-Pacific	Asia	Yes	No	Yes	Yes	1	3	40	64
Republic of Kiribati	Asia-Pacific	Oceania	Yes	Yes	Yes	Yes	1	0	28.6	0
Lao People's Democratic Republic	Asia-Pacific	Asia	Yes	No	Yes	Yes	2	1	27.6	60
Republic of Liberia	Africa	Africa	Yes	No	Yes	Yes	2	0	27.3	0

Long Country Name	GCF Region	International Region	LDC	SIDS	Non Annex I	UNFCCC Member	Number of single-country projects approved	Number of multi-country projects approved	GCF financing approved for single-country projects ($ mi.)	GCF financing approved for multi-country projects ($ mi.)
Kingdom of Lesotho	Africa	Africa	Yes	No	Yes	Yes	0	1	0	5.6
Republic of Madagascar	Africa	Africa	Yes	No	Yes	Yes	1	5	18.5	50.8
Republic of Mali	Africa	Africa	Yes	No	Yes	Yes	2	7	52.9	113.9
Republic of the Union of Myanmar	Asia-Pacific	Asia	Yes	No	Yes	Yes	0	2	0	4
Republic of Mozambique	Africa	Africa	Yes	No	Yes	Yes	1	5	9.3	18.2
Islamic Republic of Mauritania	Africa	Africa	Yes	No	Yes	Yes	0	4	0	37.9
Republic of Malawi	Africa	Africa	Yes	No	Yes	Yes	1	2	12.3	23
Republic of Niger	Africa	Africa	Yes	No	Yes	No	2	4	44.9	53.5
Federal Democratic Republic of Nepal	Asia-Pacific	Asia	Yes	No	Yes	Yes	3	0	87.8	0
Republic of Rwanda	Africa	Africa	Yes	No	Yes	Yes	2	5	66.6	34.6
Republic of the Sudan	Africa	Africa	Yes	No	Yes	Yes	2	0	35.6	0

Long Country Name	GCF Region	International Region	LDC	SIDS	Non Annex I	UNFCCC Member	Number of single-country projects approved	Number of multi-country projects approved	GCF financing approved for single-country projects ($ mi.)	GCF financing approved for multi-country projects ($ mi.)
Republic of Senegal	Africa	Africa	Yes	No	Yes	Yes	4	7	122.8	35.9
Solomon Islands	Asia-Pacific	Oceania	Yes	Yes	Yes	Yes	1	0	86	0
Republic of Sierra Leone	Africa	Africa	Yes	No	Yes	Yes	0	2	0	5
Somali Republic	Africa	Africa	Yes	No	Yes	Yes	0	1	0	17.4
Republic of South Sudan	Africa	Africa	Yes	No	Yes	Yes	0	0	0	0
Democratic Republic of São Tomé and Príncipe	Africa	Africa	Yes	Yes	Yes	Yes	0	1	0	17.4
Republic of Chad	Africa	Africa	Yes	No	Yes	Yes	0	3	0	52.7
Togolese Republic	Africa	Africa	Yes	No	Yes	Yes	0	4	0	33.7
Democratic Republic of Timor-Leste	Asia-Pacific	Oceania	Yes	Yes	Yes	Yes	3	0	53.3	0
Tuvalu	Asia-Pacific	Oceania	Yes	Yes	Yes	Yes	1	1	36	9.5
United Republic of Tanzania	Africa	Africa	Yes	No	Yes	Yes	2	3	219.4	44.1
Republic of Uganda	Africa	Africa	Yes	No	Yes	Yes	1	8	24.1	49.1

Long Country Name	GCF Region	International Region	LDC	SIDS	Non Annex I	UNFCCC Member	Number of single-country projects approved	Number of multi-country projects approved	GCF financing approved for single-country projects ($ Ml.)	GCF financing approved for multi-country projects ($ Ml.)
Republic of Yemen	Asia-Pacific	Middle East	Yes	No	Yes	Yes	0	0	0	0
Republic of Zambia	Africa	Africa	Yes	No	Yes	Yes	2	2	84.5	6.7
Republic of Vanuatu*	Asia-Pacific	Oceania	No	Yes	Yes	Yes	1	0	18.1	0

Source: GCF IPMS Countries and Projects data (October 8, 2021)
Note: *Vanuatu graduated from the list of LDCs in December 2020.

Annex 4. OPERATIONAL ISSUES IDENTIFIED IN PREVIOUS IEU EVALUATIONS

Since 2018, the IEU has conducted a range of evaluations that provide key information for the present evaluation including the Forward-Looking Performance Review (FPR) (GCF IEU, 2019a) and evaluations on the RPSP (GCF IEU, 2019a), the country ownership (GCF IEU, 2019b), ESS (Annandale and others, 2020) SIDS (GCF IEU, 2020c), the Adaptation portfolio and approach (Binet et al, 2021), RFPs (GCF IEU, 2021a) and the recently completed private sector evaluation (GCF IEU, 2021c). These evaluations include both substantive analysis and country case studies that highlight key operational issues, challenges and assumptions that provide important context for this evaluation. The following bullets include recurring findings about the GCF's business model, polices and operations which are relevant to the present evaluation. These bullets also summarize findings from previous evaluations carried out by other key funds on their engagement and investments in LDCs. Since its establishment in 2001, the Least Developed Countries Fund has undertaken several evaluations assessing support in LDCs. In 2020, the GEF also evaluated the support provided to LDCs and to countries with fragile and conflict-affected situations (which include 25 out of 46 LDCs in 2021, see Table II-1, volume I of this report). These evaluations provide relevant findings regarding access to funds, project implementation and sustainability in LDCs, which are relevant to this evaluation.

- **Processes are in place to support country ownership and readiness, but limited capacity is a constraint.** The GCF's approach assumes that each LDC country has the capacity to provide a functional and stable NDA and that each LDC has a range of functional Accredited Entities (AEs). However, previous evaluations have found that national DAEs have limited capacity to deliver concept notes and funding proposals that are in line with country and GCF expectations. Whilst both RPSP grants and PPF resources are aimed at addressing this constraint, IEU evaluations (FPR, ESS, COA) have found that this does not necessarily translate into country owned proposals. The country ownership evaluation found that the new RPSP strategy reiterates the emphasis on providing support to countries with the least capacity, which has translated into a concentration of RPSP projects in SIDS and LDCs. The RPSP evaluation found that RPSP grants were aiming to strengthen efforts to meaningfully consult with stakeholders in the preparation of CPs in most countries but were hindered by weak capacity or high staff turnover in the NDA/FPs in several countries.

- **Institutional and human capacity is low**. An early evaluation of the operation of the LDCF (COWI & IIED, 2009) identified bottlenecks in project preparation related to limited technical and human resource capacity, while an evaluation of the UNDP's work with LDCF and SCCF resources (2009) stressed the long time and great amount of work needed to move from NAPAs to project identification and preparation. Over a decade later, the latest evaluation of the LDCF (GEF, 2020) still identifies insufficient capacity of the project team, staff turnover and delays in recruitment, weak project design and weak project management as key operational barriers. Good practices identified by the GEF to enhance institutional capacity have included capacity-building for planning and programming, as well as effective stakeholder engagement and coordination.

- **Working through IAEs may deliver funding faster, but does not respond to countries' interest in direct, country-led projects.** The country ownership evaluation pointed to the tension between capacity constraints of some DAEs and the urgency of climate needs, which

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leaves governments in a bind, where there is a trade-off between building up national capacity and projects versus working with and through any partner (including IAEs) so long as they are efficient, straightforward and deliver smooth, predictable and efficient funding streams.

- **The GCF's templates, policies and requirements are viewed as burdensome, disconnected from on-the-ground reality and contribute to a cumbersome, circular and, on occasion, tedious process.** Case studies from the FPR, SIDS and Adaptation evaluations point to the complexity of GCF processes and the lack of contextual understanding of country conditions. These previous IEU evaluations have highlighted that the predictability and scope of the GCF resource envelope as well as fast and reliable access to these funds are not delivered consistently.

- **High transaction costs, financial sustainability and private sector participation are particularly challenging in LDCs**. As highlighted in the IEU private sector evaluation (2021), private sector investment in LDCs requires a specific approach on small- and medium-sized enterprises which is not highlighted in the USP. In addition to the unpredictability of resources, which has limited the effectiveness of the LDCF and SCCF over time, common financial challenges identified include high transaction costs, limited post-completion financing to sustain benefits and very limited involvement of the private sector in project implementation (for example, as a delivery partner or investor), due to less developed banking and private sectors in LDCs and difficulties in attracting investment in adaptation-focused work. As highlighted by the IEU's Adaptation evaluation, both market-related and agency-specific play key roles in increasing private sector investments in adaptation interventions. This is in line with the findings of the evaluation of UNDP support for climate change adaptation (2020), which reports limited engagement with the private sector for adaptation in the agricultural sector, which translated into limited market access.[5] The Adaptation evaluation reported that the PSF's ability to deliver approved proposals has stalled since B.21, illustrating the challenges of return-generating adaptation interventions. Climate change interventions that focus on improving livelihoods are more likely to be effective and sustainable in LDCs, especially if they are market oriented and provide alternative sources of income and food security.[6]

- **Fragility and conflict have affected the timeliness, effectiveness and sustainability of support in some LDCs**. Although the IEU evaluations have not specifically focused on fragility or countries in conflict situations, the IEU SIDS evaluation and the Adaptation evaluation point to the challenges of gaining accreditation or support in countries with weak governance. Many DAEs, particularly in SIDS and LDCs, require sustained support to navigate and fully benefit from the accreditation process. Many of the countries with higher vulnerability and lower readiness are located in Africa and some face fragile or conflict-affected situations in their territories.[7] Moreover, over 22.5 million internally displaced people live within LDCs, a figure that has doubled over the past ten years.[8] The Evaluation of GEF Support in Fragile and Conflict-Affected Situations (2020) found that a country's fragility classification is associated with a negative and statistically significant impact on project outcomes, sustainability, M&E, implementation quality and execution quality. Among the factors that affect projects are physical insecurity, social conflict (especially regarding land tenure), economic drivers, political fragility, weak governance and changes in natural resources

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[5] GEF IEO, 2020a; GEF IEO, 2020b; COWI & IIED, 2009.
[6] GEF IEO, 2020b; UNDP IEO, 2020.
[7] According to the 2021 World Bank classification.
[8] UNHCR Global Trends, 2020.

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driven by coping strategies. As Table II-1, volume I of this report highlights, around half of the
LDCs can be seen to contain a fragile or conflict-affected situation. While these differences
among LDCs should not affect access to funding, they are important considerations in project
design and implementation so that projects are tailored to country contexts and needs. The GEF
evaluation concluded that, while environmental interventions can be negatively affected by
conflict and fragility (and even inadvertently worsen them), those interventions may help
address the drivers, dynamics and impacts of conflict and build peace, particularly if designed
to be conflict sensitive. To address these issues, strategies, policies and toolkits for conflict
sensitive project design and risk management have been developed at the project and agency
level.

- **Complementarities between climate funds can leverage the support provided to LDCs.**
  The IEU FPR (2019) highlighted the importance of improving complementarity and coherence
  in the climate finance landscape to reach countries more effectively. The IEU's Adaptation
  evaluation highlighted the greater role and contribution of the GCF within adaptation compared
  to mitigation and the unique role it can play not only in providing scaled project finance but
  leveraging its convening power to ensure greater complementarity and coherence with other
  actors.[9]

- **Too early to assess impact.** Given the relative youth of the GCF LDC portfolio, with many
  projects operational for under three years, previous evaluations have not been able to provide
  an assessment of impact of projects.

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[9] GEF IEO, 2020a; GEF IEO, 2018; COWI & IIED, 2009.

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Annex 5.   EXAMPLES OF EXPECTED GENDER OUTPUTS FROM LDC PROJECTS

	AE	THEME	EXAMPLES OF EXPECTED GENDER OUTPUTS
Ethiopia 058	MoFEC	Adaptation	• Conducting community-based gender analysis of the roles, responsibilities, vulnerabilities and resilience of men and women impacted by climate change • Awareness raising for community members on gender differential roles and the benefits of gender approaches to climate resilience for community representatives and local leaders • Familiarization of the gender sensitive planning and budgeting tools • Leadership training and skills building for women community leaders, cooperatives, farmers associations and government agents at local levels
Bangladesh FP150	Infrastructure Development Company Limited	Mitigation	• Women entrepreneurs engaged in programmes to encourage loan application • Encouraging women's participation by providing employment opportunities and similar wages to men and women • Women's participation in management aspects of the programmes
FO076 Cambodia	Asian Development Bank	Cross-cutting	• Ensure women benefit from jobs created by the project related to infrastructure construction/rehabilitation as well as operation and maintenance • Involve women farmers (and the women farmers network) actively in the selection and multiplication of climate resilient crops varieties and build on their local knowledge in this area • Institutionalize gender mainstreaming in the climate friendly agribusiness value chains sector
FP002	UNDP	Adaptation	• Promote operations and maintenance employment for women as well as men • Ensure dissemination systems and communication channels are established in a way that is gender responsive and socially inclusive
SAP013	NEFCO	Cross-cutting	• Feminist electrification: Gender related engagement in electrification process through infrastructure planning (increasing women's roles in planning, ensuring that women's' priorities are registered) • Training and employment: Increase women's capacity in the workforce, demonstrating women's' professional opportunities as capable technicians • Support for small and medium enterprises: Increasing women's income and income earning opportunities through MSME development • Domestic energy use: Improving women's health by decreasing exposure to kerosene, offering alternatives to cooking with charcoal

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	AE	THEME	EXAMPLES OF EXPECTED GENDER OUTPUTS
			• Community resource availability: Improving women's health by making electric light and tools in child birthing rooms available, improving women's safety by powering electric streetlights

Source: Compiled by the LDC Evaluation Team based upon project gender assessments and funding proposals

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Annex 6. UNFCCC RELATED DECISIONS AS GUIDANCE TO THE GCF ON LDCs

BODY AND/OR COP DECISION	MATTERS RELATED TO LDCs AND NAPs
SB 51 2019	The Subsidiary Body for Implementation (SBI) invited delivery partners of the GCF RPSP for the formulation of NAPs to strengthen efforts to support LDCs with the goal of expediting the submission of readiness proposals to the GCF.
SB 49 2018	The SBI noted the progress made in the process to formulate and implement NAPs and the work of the LEG on considering the challenges faced by LDCs in the process to formulate and implement NAPs and noted the need for further progress in accessing funding from the GCF.
SB 47 2017	The SBI recognized that many developing country Parties continue to face challenges in accessing funding from the GCF for the formulation and implementation of NAPs.
SB 46 2017	The SBI noted with appreciation the efforts of the LEG on providing technical guidance and advice to LDCs on accessing funding from the GCF for the formulation of NAPs and on the subsequent implementation of the policies, projects and programmes identified by LDCs, including the successful collaboration with the GCF Secretariat.
SB 45 2016	The SBI welcomed the decision of the GCF Board on expediting support for developing countries for the formulation of NAPs, consistent with decisions 1/CP.16, 5/CP.17 and 1/CP.21, paragraph 46, and looks forward to how the GCF will support the subsequent implementation of the policies, projects and programmes of developing country Parties as requested in decision 1/CP.21, paragraph 46.
	The SBI noted the progress of the provision of financial support for the formulation of NAPs through the GCF. It requested the LEG, in collaboration with the GCF Secretariat and relevant partner organizations, to continue considering ways to further enhance the provision of support to LDCs for accessing funding from the GCF for the process to formulate and implement NAPs and to include information thereon in its report for consideration at SBI 46.
	The SBI requested the LEG to continue providing technical support to the LDC Parties for accessing funding for the formulation of NAPs and for the subsequent implementation of the policies, project and programmes identified in the NAPs under the GCF, and to facilitate the provision of scientific support to the LDC Parties, in collaboration with relevant United Nations agencies and GCF implementing partners.
SB 44 2016	SBI looks forward to the further engagement of the LEG and the Adaptation Committee with the GCF, and it requested them to include information on that engagement in their reports.
SB 42 2015	The SBI also noted with appreciation the collaboration between the LEG and the GCF on the process to formulate and implement NAPs and encouraged the LEG to continue to collaborate with the GCF on addressing issues related to access to the GCF by the LDCs.
1/CP.21 para. 46	The SBI requests the GCF to expedite support for LDCs and other developing country Parties for the formulation of NAPs, consistent with decisions 1/CP.16 and 5/CP.17, and for the subsequent implementation of policies, projects and programmes identified by them.
1/CP.21 para. 64	The SBI urges the institutions serving the Agreement to enhance the coordination and delivery of resources to support country-driven strategies through simplified and efficient application and approval procedures, and through continued readiness support to developing country Parties, including LDCs and SIDS, as appropriate.

Source: LDCs evaluation team

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Annex 7. SYSTEMS MODELING METHODOLOGY TO ASSESS GCF TARGETING OF CONDITIONS LIKELY TO CONTRIBUTE TO A PARADIGM SHIFT IN THE LDCs

INTRODUCTION

This methodological annex presents the steps that were followed to develop the logical model (LM) used by the independent evaluation of the relevance and effectiveness of the GCF's investments in the Least Developed Countries to assess the system change contributions of the GCF to a low-carbon climate resilient development in LDCs. The LM is a heuristic model to help clarify the links between project activities and long-term objectives. As few projects under implementation have developed LMs, evaluators typically develop a LM that is verified and amended during interviews with key project staff and stakeholders (Chen, 1990; Mayne, 2008). Human social interactions and the interactions with the environment (the social-ecological system) are complex and difficult to predict (Folke and others, 2002; Levin, 2003). For this reason, LMs are best approached as models consisting of a set of propositions (or a set of hypotheses) that are to be tested and adjusted in light of the evidence obtained during implementation. The use of a LM in an evaluation does not mean that the project will be held accountable for having achieved systemic change or a paradigm shift; such changes take time and rarely take place during the duration of a project.

This LM adopts a systems perspective that assumes:

- Systems are composed by interrelated parts. Systems also have boundaries pertaining to the geographical, temporal and other domains in the relevant objectives or the problem addressed. Domains are areas of knowledge or activity characterized by a set of concepts and terminology (Couture 2007). Examples of domains are social, ecological, economic, cultural, political, administrative or scientific. System boundaries also encompass different scales and levels at which systems can be observed. Scales have spatial dimensions such as ecological systems or political-administrative systems. Scales also have temporal dimensions such as short term, medium term and long term (Cumming, Cumming, and Redman, 2006; Feeny and Mccay, 1990).[10]

- Because relevant enabling conditions take place at different levels and scales (in space and time) the relevant phenomena are linked across micro, meso and macro levels and the effects in the possibility of effects at the short term and the long-term, as well as non-linearity in causes and effects (Snderberg, Stefan and Olsson, Lennart, 2010).

- Interactions among domains, conditions, agents and scales (and levels) contribute to system complexity and unpredictability, and result in the systems development trajectory (Ramalingam and others, 2008; Ostrom, 2009; Gladwell, 2002).

The LM was formulated with the participation of an expert group consisting of eight members of the evaluation team that performed the LDC GCF Evaluation. The evaluation team was well suited to carry out this analysis as its members include a mix of individuals that have in-depth knowledge on LDCs and sustainable development, and also include different disciplines and backgrounds relevant to LDCs and climate change.

This annex followed a methodology developed by Zazueta and others, (2021), which consists of the following steps:

1) Definition of the long-term goal to guide shifts in the development trajectory. In the case of the GCF, the long-term objective of its operations is the paradigm shift to a low-carbon climate resilient development trajectory.

2) Identification of the conditions enabling the desired paradigm shift. This was done through a review of existing scientific, technical and evaluative literature.

3) Mapping the influence between enabling conditions. This step includes the identification of interactions among enabling conditions that affect the trajectory of the system.

4) Assess the extent to which the GCF is targeting the enabling conditions as to steer the system in the trajectory to a low-carbon climate resilient development.

Given the data limitations available for modelling, this analysis is presented as indicative, not definitive, of the conditions and capacities to a paradigm shift addressed by the GCF portfolio. One of the key factors that limited the analysis is that the GCF LDC portfolio is young: Many projects have been under operation for two or three years, and it is unlikely that results or impacts are yet apparent. Another limiting factor is that the information available from the IEU DataLab did not fully match the evidence parameters of the model. The application of the model went around these limitations by assessing the extent to which GCF projects' support targets key enabling conditions. In other words, by analysing the intentions of GCF projects. When information was available the evaluation team assessed the extent to which there is evidence that GCF support is having an effect on such enabling conditions.

A. DEFINITION OF THE LONG-TERM OBJECTIVES

The long-term goal of the GCF is to build developing countries' capacities to respond to the challenges of climate change by shifting towards a low emission and climate resilient development trajectory. A key point widely documented in the technical and evaluative evidence is that climate change is particularly challenging for LDCs because they must build the capacities to respond to climate change while they address urgent structural development needs. "The special needs and circumstances of LDCs relate to the structural challenges to sustainable development and are characterized by low levels of income, low levels of human assets and vulnerability to economic and environmental shocks" (Bernardo et al., 2020).

B. IDENTIFICATION OF THE CONDITIONS ENABLING THE DESIRED PARADIGM SHIFT

For this evaluation and in the development of the present LM, the evaluation team conducted a literature review that asked the question: *"What are the enabling conditions conducive to behavioral change and low emission climate resilient development in LDCs?"* The exercise yielded 18 enabling conditions loosely grouped and interrelated under the six (6) domains (**Error! Reference source not found.**) that previously determined which were identified based on the key barriers to climate action in LDCs and based on previous evaluative evidence and the existing evaluative, technical and scientific literature (Zazueta, 2017).

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Table A - 4.   *Enabling conditions per domain*

Domain	Conditions
E. Economic and financial	E1 - Diversified, expanding and distributive economy
	E2 – Access to well-paid and formal jobs
	E3 – Funding for social protection
V. Vulnerability to natural disasters	V1 – Mechanisms for a rapid localized response to climate change
G. Governance	G1 – Integrating and long-term climate planning
	G2 – Low/no fragility or conflict
	G3 – Inter-ministerial and sectional governments coordination
	G4 – Policy Frameworks/incentives for engaging the private sector
H. Human and institutional	H1 – Competent institutions to support climate change planning and implementation
	H2 – Decentralized institutions
	H3 – Robust professional civil service core
	H4 – Presence of collaborative platforms
S. Science and technology	S1 – Reliable and relevant data systems
	S2 – Technology transfer
	S3 – Information sharing mechanisms
C. Social and cultural	C1 – Inclusion of most vulnerable groups in decision-making
	C2 – Citizens engaged in climate action
	C3 – Civil society engaged in climate action

The domains and conditions resulting from the literature review are as follows:

Economic and financial domain

The exercise yielded three closely connected enabling conditions, of which first and foremost is the presence of a "diversified and resilient and redistributive economy.[11]" Under the LDC criteria for the level of vulnerability, LDCs are by default categorized by their high vulnerability against economic shock. With economies that rely highly on tourism,[12] export demands and stable (or increasing) commodity prices the LDCs are in an extremely vulnerable position during a global economic downturn. This level of vulnerability has been evident during the present global COVID-19 pandemic. As reported by the United Nations Conference on Trade and Development (UNCTAD 2020)[13] LDC economies experienced their worst economic shocks in decades with forecasted economic growth dropping from 5 per cent to -0.4 per cent between October 2019 and October 2020, which would result in a decrease in GDP per capita of 2.6 per cent. A more diversified economy spread across more sectors would inadvertently help safeguard such drops as other economic sectors would balance out the economy while some are experiencing a downturn. Furthermore, previous evaluations carried out on LDCs have revealed that unstable and strained

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[11] Raworth, K. (2017). Doughnut Economics
[12] Tourism is considered a key sector of the economy in 42 out of 47 LDCs, and when travel restrictions set in, this sector crumbled showing a decrease in international arrivals in LDCs of 71 per cent (UNCDP, 2021).
[13] UNCTAD (2020). Least Developed Countries Report.

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economies limit private sector engagement in climate action (for example, as delivery partner or investor), due to less developed banking and private sectors in LDCs and difficulties to attract investment.[14] This links closely with the domain **governance** and the enabling need for a "policy framework and initiatives that engage the private sector" which could support the development of micro and medium sized enterprises across more sectors.

Closely related in this enabling environment are the conditions for access to "funding for social protection" and "well-paid, formal jobs," both of which would add to household economic safety during wider economic (or natural) shocks. Social protection programmes are crucial to provide income to vulnerable groups during a crisis,[15] whether economic or climate induced. For example, as reported by the United Nations (2021) "while large companies are expected to rebound once the COVID-19 pandemic fades, many others have gone bankrupt or face costly access to credit to stay afloat, preventing a full return to pre-crisis supply level. This is even more pronounced for small businesses operating in the informal sector, which is a reality in many LDCs."[16] Reversely, a strong social sector would yield higher tax incomes for countries, which could support more social protection. Moreover, the poor have the least access to finance while facing increasingly steep economic losses. On top of that, climate change and natural events are contributing to major population displacements affecting those who are most vulnerable.[17]

Vulnerability to natural events

According to the same United Nations report on Covid-19 impacts on LDCs,[18] the agricultural sector – another key sector in LDCs – was not as hard hit. However, this sector is most vulnerable to environmental shocks such as climate change, which correlates with the identified domain on **Vulnerability to Natural Events**. Having a climate resilient economy — one that can withstand or recover quickly from climate impacts in the short and long term — is essential to a community's long-term well-being. However, as reported by Omari-Motsumi, Barnett, and Shalatek (2019) public climate finance flows for adaptation are slow to rise, and account for only 20-25 per cent of actual needs with too little reaching the poorest and mostly vulnerable populations at the local level where impacts are mostly felt.[19] As such climate action calls for enhancement of the enabling environment that has "mechanisms for rapid localized response to climatic events" in place.

Governance

Five enabling conditions are identified under the domain of **governance**. For LDCs to achieve low-carbon, climate resilient development, having an "integrated and long-term vision" that has high level political support is crucial.[20] As reported by IIED (2020), LDC strategies governing climate change action must address vulnerability to economic and environmental shocks while confronting inherent structural barriers to sustainable development. A shortfall in many LDC policy and strategy frameworks for climate change is a lack of robust, long-term climate resilient systems and overall

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[14] GEF IEO, 2020a; GEF IEO, 2020b; COWI & IIED, 2009.

[15] Poverty Action Lab (2020). "Designing a social protection program during COVID-19." Available at *https://www.povertyactionlab.org/case-study/designing-social-protection-program-during-covid-19*.

[16] UN Committee for Development Policy (April 2021). "Comprehensive Study on the Impact of COVID-19 on the LDC Category." Available at *https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/CDP_Comprehensive_Study_2021.pdf*.

[17] In 2019, weather-related hazards triggered some 24.9 million displacements in 140 countries around the world. Available at *https://www.unhcr.org/en-us/news/stories/2020/12/5fc74f754/climate-change-multiplying-risks-displacement.html*.

[18] UN Committee for Development Policy (April 2021).

[19] Omari-Motsumi, Kulthoum, Mandy Barnett, and Liane Shalatek, 2019. "Broken Connections and Systematic Barriers: Overcoming the Challenge of the 'Missing Middle' in Adaptation Finance." Global Commission on Adaptation Background Paper.

[20] See *https://www.dlprog.org/publications/research-papers/inside-the-black-box-of-political-will-10-years-of-findings-from-the-developmental-leadership-program.*

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integration of poverty, climate change and household vulnerability, etc.[21] Long-term strategies offer greater certainty for support and investment, showing commitment and creating clear investment roadmaps that fuse with LDCs' own development priorities.

This connects closely with the enabling condition for a "diversified, expanding and distributive economy," and as such indications of strong climate action is the kind of action that is integrated across sectors to help build the economy and wider social protection. Similarly, it aligns with the enabling criteria to ensure "inter-ministerial and sectional coordination." Previous research shows that there are significant cross-sectoral gaps in climate planning and that climate change planning was not aligned with local and national priorities; particularly NDC and planning by National Adaptation Programmes of Action in LDCs. According to IIED (2019), fewer than half of the NDCs contain health, infrastructure or energy interventions, while education, social protection and industry are largely unrepresented. Similarly, Holler et al. (2019) found that of the 44 NAPAs reviewed, 38 countries consider rapid population growth a root cause of vulnerability to climate change through mechanisms of ecosystem degradation, food insecurity and migration. However, less than half of the 44 propose any public health projects; only 11 clearly integrate national development planning with NAPA; and just two integrate reproductive health into adaptation plans to address the root cause of rapid population growth. [22] Clearly, several cross-sectoral links exist calling for more integrated long-term planning across ministries and agencies within government. One enabling condition that particularly could enhance and support these three other keys enabling factors is the establishment of "collaborative platforms": whether it is through south-south collaboration or national provincial learning and collaboration. Overall, collaborative platforms can enhance experience and knowledge sharing to promote better policy design and highlight opportunities and challenges as LDCs prepare long-term strategies.[23]

The level of "fragility and conflict" within a country also plays a large role in the presence of a suitable environment for climate action. Any government within a conflict zone will have a difficult time focusing on climate action during prolonged internal conflict and strife. More than 22.5 million internally displaced people live within LDCs, a figure that has doubled in the past ten years. A previous GEF evaluation (2020) found that a country's fragility classification is associated with a negative and statistically significant impact on project outcomes, sustainability, M&E, implementation quality and execution quality. Among the factors that affect projects are physical insecurity, social conflict (especially regarding land tenure), economic drivers, political fragility, weak governance and changes in natural resources driven by coping strategies. To address these issues, strategies, policies and toolkits for conflict sensitive project design and risk management are needed at the project and agency level.[24] During the past decade, substantial research has also gone into the subject ensuring anti-corruption to better enable climate change finance.[25]

Corruption and political capture can severely hamper climate policy, limiting the quality of inspections, design and implementation of policies, and monitoring of climate action.[26] One report points out that the largest recipients of climate-related official development assistance are notorious for having systematic corruption. Overall, nearly 42 per cent of all climate finance is directed towards some of the countries that are the riskiest places in the world for corruption, including a

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[21] IIED (2020). "What is Effective Climate Change Adaptation: Case Studies from LDCs."

[22] Holler et al., 2020.

[23] IIED (2020).

[24] GEF (2020). Evaluation of GEF Support in Fragile and Conflict Situations.

[25] Transparency international (2011), Povitkina (2018), Forsyth (2019), Nest, Mullard and Wathne (2021), to name a few.

[26] Forsyth, Leslie (2019). Climate Change and Corruption. Green Economy Coalition.

https://www.greeneconomycoalition.org/news-and-resources/climate-change-and-corruption.

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large fraction of LDCs. The same report points towards a clear linkage between a high level of
climate change vulnerability and high levels of corruption, which indicates that the countries that
need climate finance the most, are also countries with high risks of corruption.[27] Corruption and
political capture significantly undermine both mitigation and adaptation efforts,[28] while free and
open governments are better able to implement climate action given involvement in international
treaties, engaged and powerful civil societies, awareness through free media, etc.[29]

Human and institutional capacities

This is the domain with the biggest shortfalls within the enabling conditions for accessing and
managing climate finance in LDCs. Under this domain, the ET identified four (4) enabling
conditions. First and foremost is the need for strong, "competent institutions to support climate
planning and implementation." Several evaluations and development research indicate the need for
capacity building in LDCs to ensure a proper enabling environment for climate finance. For
example, it has been noted that almost two-thirds of LDCs express a need for capacity building and
knowledge transfer to be able to implement their NDC objectives, especially in knowledge and skills
development at the institutional level.[30] In 2009, Cowi and IIED found that in countries with limited
technical and human resource capacity, bottlenecks occur in project preparation. When government
tries to short-cut this constraint, often by employing consultants to do the work without proper
engagement of government staff and capacity development, it can lead to a lack of national
ownership.[31] Over a decade later, the latest evaluation of the LDCF (GEF, 2020) still identifies
insufficient capacity of the project team, staff turnover and delays in recruitment, weak project
design, and weak project management as key operational barriers.[32] Closely related with this
enabling factor is the need for "robust professional civil service core." Experience has shown that
through rotation in the ministries technical capacity was often lost after the trainings. This becomes
relevant for NDAs; particularly when team capacity building includes different levels of seniority
within institutions, so institutional memory is built and maintained.[33]

With specific regard to "decentralized and local institutional capacity," the World Resources
Institute has assessed that GCF DAEs are not capacitated sufficiently to undertake actual project
proposal development and implementation.[34] Furthermore, Omari-Motsumi, Barnett, and Shalatek
(2019) found that while national processes provide policy and strategic direction at the national
level, they are not able to incorporate local climate variability and differences in local capacities and
capabilities, and by design, are not guided by bottom-up response strategies that are informed by
local and indigenous knowledge and the will of local people. This is where local institutions will
need to step in to close the bottom-up loop. They further went on to note that recognizing, enabling
and harnessing the involvement of subnational actors so that international financing is
complementary to an ultimately in support of subnational processes and subnational actors are

[27] Nest, Mullard and Wathne (2020). "Corruption and Climate Finance: Implications for climate change interventions. U4
Anti-Corruption Resource Centre. Christian Michelsen Institute.
[28] Nest, Mullard and Wathne (2020).
[29] Povitkina, Marina. (2018). The Limits of Democracy in Tackling Climate Change. *Taylor and Francis Online.*
https://www.tandfonline.com/doi/full/10.1080/09644016.2018.1444723.
[30] IMPACT: Science Based Implementation of 1.5*C Compatible Climate Action for LDC and SIDS. 2020. "Synthesis of
LDCs' NDCs Analysis."
[31] COWI & IIED, 2009.
[32] GEF (2020).
[33] GCF (2020) Independent Evaluation of Adaptation Portfolio and Approach.
[34] Caldwell, Molly, and Gaia Larsen, 2021. "Improving Access to the GCF: How the Fund can better support developing
country institutions." World Resources Institute (WRI).

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empowered and strengthened to be the central actors in delivering maximum benefits at the local level.[35]

Another highly limiting factor in LDCs to ensure development and proper implementation of climate change projects and programmes is the lack of sufficient and high-quality **scientific data and access to innovative technology**. About 45 per cent of LDCs (21 countries) mention that "technology transfer" is crucial to allow for execution of both mitigation and adaptation as set forward in, for example, the NDCs;[36] as countries prepare long-term strategies, this becomes even more relevant. Furthermore, a lack of "reliable and relevant data" hampers LDC's abilities to access the full extent of their vulnerabilities. IIED (2020) reports that there is little LDC-specific scientific climate change impact data available to help guide domestic policymaking. That is, "LDCs need reliable data series that are consistent over time and equivalent across research fields to improve the visibility of their vulnerabilities."

Inclusion and equity have during the past 5 years become a key topic within the scope of climate change, with most climate finance attaching stringent requirements for social inclusion in project and programme design and implementation. However, the presence of **Social and Cultural** norms often hampers the level at which inclusiveness can be fully achieved within LDCs. Deeply entrenched social institutions and norms may indeed influence which group members will be able to have a voice and ultimately exercise rights.[37] Omari-Motsumi, Barnett and Shalatek notes that subnational processes, if designed well, can be more inclusive and participatory, and can be sensitive to the nuances that are critical for local planning and delivery. They state that "it is widely recognized that for climate change responses to be relevant, effective and sustained, they must be conceptualized and supported by those who are envisaged as local partners and beneficiaries, including population groups, such as women, that in many developing countries have often not systematically been included in determining needs and responses to address climate change. As such, this calls for a need to have "citizenry," as well as "civil society," and the most "vulnerable groups" engaged in climate action and decision-making.[38]

C. MAPPING INFLUENCE BETWEEN CONDITIONS

The third step has three stages, namely the identification of direct influence between conditions, the evaluation of the strength of direct influences between conditions and the identification of the most influential conditions. In order to complete these three stages, two surveys were held and the DEMATEL model was used.[39]

Identification of direct influence between conditions

The evaluation team members were engaged to identify direct influence links between the conditions. To do so, a survey was organized where each member of the evaluation team was asked to analyse and assess per enabling condition which other enabling conditions had a direct influence on this condition. Consequently, each team member indicated its assessment in a matrix (0 = no

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[35] Omari-Motsumi, Barnett, and Shalatek (2019).
[36] IMPACT (2020).
[37] Sovacool and others (2017). Political Economy, Poverty, and Polycentrism in the GEF LDCF for Climate Change Adaptation.
[38] Here the report differs between citizenry (People awareness: individual action such as voting, consumer patterns, etc.) and civil society (more organized action be it formal or quasi-formal, such as CSOs, academia, neighborhood groups, etc.).
[39] This analysis used the process in (Si and others, 2018) described for a classic DEMATEL technique and adapted by (Zazueta and others, 2021).

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direct link, 1 = direct link). Seven out of eight team members completed this task. The answers within these seven matrices were compared and direct links were concluded in all cases where:

- All team members agreed on a direct link.
- All team members but one agreed on a direct link.
- Five out of seven team members agreed and within these five are two country case experts who have the most experience regarding LDCs.

Using this method 107 direct links were identified between the 19 enabling conditions. The result of this first stage is represented by a network map (Figure VII-6, volume I of this report).

Evaluation of the strength of direct influences between enabling conditions

Once the direct influence links were mapped, the next stage was to evaluate the strength of each direct influence (0=no influence (already identified in previous stage), 1=weak, 2=medium, 3=strong, 4=very strong). Therefore, an online survey was created using Qualtrics and distributed to all the team members of the evaluation team who were asked to give their assessment for each of the 107 identified direct links. In addition to the eight team members, the survey was also distributed to several development consultants who were collaborating with the case country experts of the evaluation team. The definition of strength levels was considered subjective, meaning that each respondent could understand and use terms such as "weak," "medium," "strong" and "very strong" differently. Each respondent was asked to apply the criteria within their own responses throughout the survey and not to worry about consistency of definitions across respondents. Ten respondents completed the survey which resulted in ten matrices of influence between the conditions of the Theory of Change.

Identification of the most influential conditions

The third stage of the third step consisted in identifying the most influential conditions. Therefore, the team used the DEMATEL technique, a method that can be used for the identification of cause-effect chain components of complex systems. More precisely, it is a structural modelling approach that translates the interdependency relationships between conditions of a complex system into cause-and-effect groups. As such, it determines whether a condition is a driver or cause of change or a result or effect of other conditions. In addition, DEMATEL identifies the most important conditions of a complex system with the help of an impact relation diagram by calculating the total routes (direct and indirect) through which a condition influences other conditions and the system as a whole (Shafiee, Lofti, and Saleh, 2014).

Box A - 1.   From individual direct-influence matrices to the total influence matrix

Each individual direct influence matrix is made up out of 19 rows and 19 columns, representing the 361 possible interactions between the enabling conditions. For the 107 identified direct links an assessment of the strength of the influence is given (a score between 1, meaning low influence, and 4, meaning very strong influence). For all other interactions a 0 is given, meaning no influence. This assessment is represented by X_{ij} which indicates the degree to which the respondent believes condition i affects condition j. For i = j, the diagonal elements are set to zero. For each respondent, an n-by-n non-negative matrix can be established as:

$$X^k = \begin{bmatrix} x_{11} & \cdots & x_{1n} \\ \vdots & \ddots & \vdots \\ x_{n1} & \cdots & x_{nn} \end{bmatrix},$$

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Where "k" is the number of respondents with $1 \le k \le m$, and n is the number of conditions. Thus, X_1, X_2, … X_m are individual direct influence matrices from m respondents, where in this case m = 10. In other words, 10 individual direct influence matrices were developed. As a next step all opinions from all respondents are incorporated by computing the average matrix as:

$$x_{ij} = \frac{\sum_{k=1}^{n} x_{ij}^{k}}{m}$$

Consequently, the average matrix X is normalized: D=X.S, where:

$$S = \frac{1}{\max_{1 \le h \le n} \sum_{j=1}^{n} X_{ij}}$$

and D is the normalized average matrix.

Finally, the total relation matrix "T" is defined as $T = D(I-D)^{-1}$, where "I" is the identity matrix.

The ten matrices of influence of the former stage were collected into an aggregate direct influence matrix. and then a total influence matrix was elaborated (see Box A - 1). The total influence matrix shows all the direct and indirect influences from each condition on all other conditions in the system (see **Error! Reference source not found.**). We then define R and C, representing respectively the sum of rows and sum of columns of the total relation matrix. In other words, for each of the 18 conditions, R is the sum of all direct and indirect effects that a condition has on other conditions in the system (sum of rows of total influence matrix). Similarly, C is the sum of all direct and indirect effects on a condition of all other conditions in the system (sum of columns of the total relation matrix). Through R and C two indicators can be calculated that give us insights on the importance of an enabling condition:

- Prominence (R+C). Prominence of an enabling condition is an indicator that represents all the influences that a condition has on other conditions in the system and all the influences that other conditions have on the enabling condition in question. The prominence indicator gives an indication of how central an enabling condition is in the system, following the logic: the higher the prominence indicator (which is always positive) the more central the role of the condition in the system.

- Relation (R-C). Relation of an enabling condition is the net effect of an enabling condition on the system. If an enabling condition's influence on the whole system is bigger than the total influence it receives from other enabling conditions, it is categorized as a cause. Enabling conditions which are categorized as a cause are interesting as they can be seen as drivers of change within the system: any development of these enabling conditions will strongly influence the whole system. Enabling conditions that influence other conditions less than they are being influenced by other conditions are categorized as effects.

For our total relation matrix, the values of the prominence (R+C) and relation (R-C) of the enabling conditions are listed in **Error! Reference source not found.**. **Error! Reference source not found.** also indicates whether a condition is an effect or a cause. The process as described until now was repeated, yet without enabling condition G2, leading to the results in **Error! Reference source not found.**.

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Table A - 5.   *Prominence and relation*

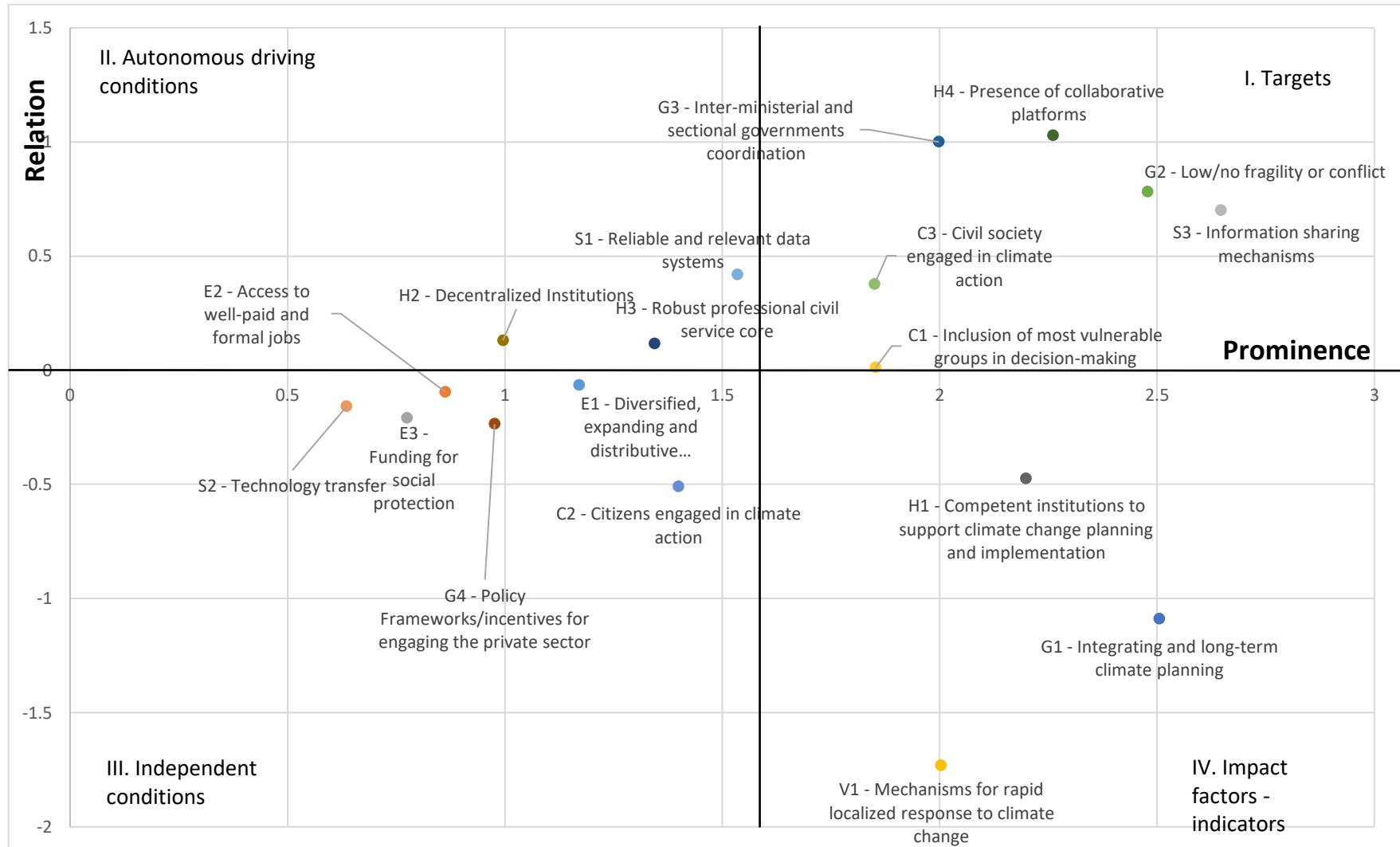| Condition	Ri	Ci	R+C	Ri-Ci	Cause or effect	influence based on average
E1 - Diversified, expanding and distributive eco	0,55254	0,617799	1,170339	-0,06526	EFFECT	Medium effect
E2 - Access to well-paid and formal jobs	0,384213	0,479036	0,863249	-0,09482	EFFECT	Medium effect
E3 - Funding for social protection	0,282734	0,492064	0,774797	-0,20933	EFFECT	Medium effect
V1 - Mechanisms for rapid localized response t	0,136628	1,866794	2,003422	-1,73017	EFFECT	High effect
G1 - Integrating and long-term climate planning	0,707847	1,797623	2,50547	-1,08978	EFFECT	High effect
G2 - Low/no fragility or conflict	1,629839	0,848493	2,478331	0,781346	CAUSE	High Cause
G3 - Inter-ministerial and sectional government	1,499204	0,499044	1,998247	1,00016	CAUSE	High Cause
G4 - Policy Frameworks/incentives for engaging	0,370313	0,606173	0,976486	-0,23586	EFFECT	Medium effect
H1 - Competent institutions to support climate	0,862384	1,336609	2,198994	-0,47423	EFFECT	Medium effect
H2 - Decentralized Institutions	0,563296	0,432434	0,99573	0,130862	CAUSE	Medium cause
H3 - Robust professional civil service core	0,73022	0,614453	1,344672	0,115767	CAUSE	Medium cause
H4 - Presence of collaborative platforms	1,64518	0,616348	2,261528	1,028831	CAUSE	High Cause
S1 - Reliable and relevant data systems	0,977648	0,557952	1,5356	0,419695	CAUSE	Medium cause
S2 - Technology transfer	0,238605	0,397416	0,636021	-0,15881	EFFECT	Medium effect
S3 - Information sharing mechanisms	1,67427	0,973354	2,647624	0,700916	CAUSE	High Cause
C1 - Inclusion of most vulnerable groups in dec	0,932428	0,920734	1,853161	0,011694	CAUSE	Medium cause
C2 - Citizens engaged in climate action	0,445388	0,954232	1,39962	-0,50884	EFFECT	High effect
C3 - Civil society engaged in climate action	1,114185	0,736361	1,850546	0,377824	CAUSE	Medium cause

Table A - 6.   *Total influence matrix*

	E1	E2	E3	V1	G1	G3	G4	G5	H1	H2	H3	H4	S1	S2	S3	C1	C2	C3		R
E1	0,0309	0,1212	0,1019	0,021	0,014	0,093	0,003	0,016	0,0117	0,0085	0,0022	0,0093	0,0015	0,0872	0,0031	0,012	0,0119	0,0034		0,55254
E2	0,1163	0,0229	0,0211	0,016	0,015	0,1	0,003	0,011	0,0125	0,0091	0,0023	0,01	0,0015	0,0107	0,0033	0,0128	0,0128	0,0037		0,384213
E3	0,0104	0,0095	0,0096	0,084	0,018	0,081	0,003	0,009	0,0108	0,0074	0,0023	0,0081	0,0014	0,0017	0,0028	0,0104	0,0104	0,003		0,282734
V1	0,0009	0,0007	0,0002	0,011	0,084	5E-04	0,007	0,007	0,009	0,0008	0,0068	0,0011	0,0014	0,0008	0,0025	0,0006	0,001	0,0012		0,136628
G1	0,0112	0,0089	0,0022	0,134	0,05	0,006	0,089	0,089	0,1128	0,0099	0,0854	0,0141	0,0181	0,0101	0,0316	0,0075	0,0125	0,0145		0,707847
G2	0,1349	0,1234	0,1244	0,165	0,156	0,052	0,03	0,107	0,1316	0,0957	0,0241	0,1046	0,0163	0,0217	0,0344	0,135	0,1342	0,0385		1,629839
G3	0,0151	0,0118	0,007	0,182	0,204	0,022	0,037	0,102	0,1577	0,0942	0,1213	0,1327	0,1119	0,019	0,1567	0,0401	0,0401	0,0448		1,499204
G4	0,119	0,0953	0,0125	0,004	0,003	0,018	5E-04	0,01	0,0023	0,0016	0,0004	0,0018	0,0003	0,0969	0,0006	0,0023	0,0023	0,0007		0,370313
H1	0,0046	0,004	0,0054	0,172	0,168	0,022	0,017	0,016	0,0411	0,0126	0,0252	0,0159	0,0146	0,003	0,1173	0,032	0,0891	0,1022		0,862384
H2	0,0031	0,0027	0,0102	0,047	0,037	0,017	0,069	0,01	0,0906	0,0084	0,0109	0,0113	0,0088	0,0018	0,0203	0,0932	0,1011	0,0203		0,563296
H3	0,0038	0,0028	0,003	0,059	0,148	0,013	0,015	0,014	0,1269	0,0115	0,0238	0,0205	0,1039	0,0099	0,1157	0,0169	0,0168	0,025		0,73022
H4	0,0091	0,0073	0,016	0,128	0,203	0,041	0,131	0,031	0,1676	0,028	0,1153	0,0427	0,1248	0,0134	0,1805	0,1273	0,1328	0,1466		1,64518
S1	0,0113	0,0045	0,0046	0,162	0,169	0,015	0,024	0,023	0,1321	0,0128	0,0308	0,0814	0,0216	0,0846	0,1209	0,0238	0,024	0,0326		0,977648
S2	0,0952	0,0177	0,0095	0,002	0,001	0,009	3E-04	0,082	0,0012	0,0008	0,0002	0,0009	0,0001	0,015	0,0003	0,0012	0,0012	0,0003		0,238605
S3	0,0159	0,0137	0,0228	0,201	0,212	0,101	0,037	0,029	0,1701	0,0968	0,125	0,1221	0,1129	0,0129	0,0658	0,1313	0,0667	0,1383		1,67427
C1	0,0145	0,0131	0,1038	0,163	0,123	0,105	0,012	0,02	0,0337	0,0113	0,0121	0,0128	0,0044	0,0033	0,0162	0,0368	0,134	0,114		0,932428
C2	0,0089	0,0082	0,0168	0,127	0,029	0,068	0,004	0,009	0,0114	0,0065	0,0032	0,0071	0,0015	0,0016	0,0037	0,1064	0,0203	0,0131		0,445388
C3	0,0125	0,0112	0,021	0,188	0,161	0,086	0,017	0,021	0,1134	0,0165	0,0232	0,0198	0,0131	0,0039	0,0978	0,1311	0,1431	0,0341		1,114185
C	0,6178	0,479	0,4921	1,867	1,798	0,848	0,499	0,606	1,3366	0,4324	0,6145	0,6163	0,558	0,3974	0,9734	0,9207	0,9542	0,7364		

Based on the relation indicator, enabling conditions can be divided into causes and effects. The causes and effects were further divided into two categories, being medium or high causes/effects. This division happened by using the average relation score as a demarcation line. As a result, the conditions G3 Low/no fragility or conflict, G4 inter-ministerial and sectional governments coordination, H4 presence of collaborative platforms and S3 information sharing mechanisms are categorized as high causal enabling conditions, while V1 mechanisms for rapid localized response to climate change, G1 integrating and implementing long-term climate planning and C2 citizens engaged in climate action are high effectual enabling conditions.

When also taking into account the prominence score of each enabling condition, the conditions can be shown on a two-dimensional graph where the x-axis represents prominence and the y-axis relation. This graph is known as the influence relation map of the system (see **Error! Reference source not found.**). The point where the x-axis and y-axis intercept has the average prominence value of all enabling conditions and a 0-relation value. Based on the x and y-axis the map is divided into four quadrants where each quadrant represents a certain category of enabling conditions. The following classification of Si et al. (2018) is used:

- Conditions in quadrant I have a high prominence and a positive relation and can therefore be regarded as **most important** enabling conditions in the system. They are connected to a lot of other enabling conditions and the development of one of these conditions will foster change in other enabling conditions (as they have a positive net influence on the system). For the purpose of the intervention design, these are conditions that the project should target to have the greatest influence on the trajectory of the system.

- Conditions in quadrant II are identified as **autonomous driving conditions** because they have low prominence but a positive relation. These conditions have a strong causal effect in the model, but they are less connected in the system as the enabling conditions of the first quadrant. Their relation value is positive because they have a strong influence on the conditions they directly influence.

- Conditions in quadrant III are **independent conditions** that are relatively disconnected from the system because they have low prominence and low and negative relation. Although these conditions are relatively disconnected, they are relevant because they are considered necessary to achieve the long-term goal of sustainable development, namely the reason that they were incorporated in the system (see above).

- Conditions in quadrant IV have high prominence but a negative relation. These are referred to as **impact factors**. Other conditions strongly influence them. These conditions are indicators of the extent to which long-term impact is being achieved.

Figure A - 40. Influence map

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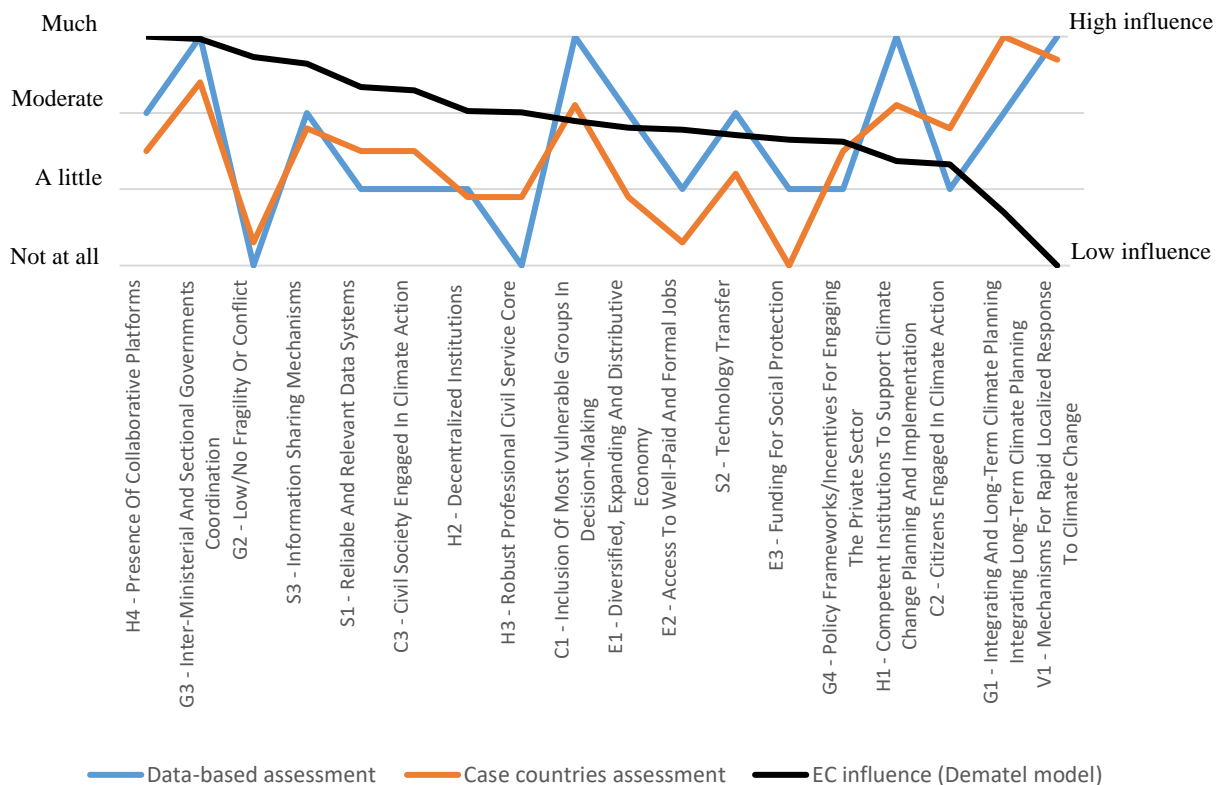Annexes to the final report - Annex 7

D. Methodology

The fourth step of the process is an attempt to assess whether the GCF is targeting the most important influential enabling conditions in its efforts to foster a paradigm shift in developing countries. In other words, the fourth step aims at answering the question: "Is the GCF support to LDCs likely to contribute to the desired paradigm shift?" To measure where the GCF is allocating its efforts a proxy was used: the members of the evaluation team were asked to assess whether the GCF is addressing each of the 18 enabling conditions and, if yes, to which extent. To collect the assessments of the evaluation team another survey was developed using Qualtrics. The survey provided four options for each assessment of the GCF's efforts regarding an enabling condition, namely "not at all," "a little," "moderate" or "much."

The five country case study experts gave their assessments based on their findings in the country they analysed. The average of these five assessments was calculated and represents the assessment of the country case study experts or "case countries assessment." The core team of the LDC evaluation gave their assessment in consultation with one another and based on the result areas addressed by approved projects and readiness grants in LDCs, according to DataLab portfolio information. This assessment is referred to as the "data-based assessment." The two assessments and the influence of each enabling condition, corresponding to its relation value, were normalized in order to be able to compare them (see **Error! Reference source not found.**). The enabling conditions are organized from most to least influential. Regarding the assessments, the bottom line represents the "not at all" assessment and the upper line "much."

Figure A - 41. *Assessment of the GCF's action related to each enabling condition*

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Box A - 2.   Normalization of (negative) data values

Because of the presence of negative values in the dataset relating to the influence (relation value) of each
enabling condition, the absolute of the most negative value was added up to the data values. Consequently,
the data was divided by the highest value which brought all data values on a 0 to 1 scale.

The assessments, which did not contain any negative data values, were normalized by deducting the lowest
value from each of the data and dividing by the deduction of the highest value minus the lowest value:
$normalized\ x = \frac{(x-lowest)}{(highest-lowest)}$. This brought the two assessments also on a 0 to 1 scale, where 0
represents "not at all," 0.33 "a little," 0.66 "moderate" and 1 "much."

E. DISCUSSION OF RESULTS

In the following section, the assessment of each enabling condition will be discussed, starting from
the most influential, by presenting the reasoning behind the values given. It is important to note that
both the influence of enabling conditions as the assessments of the GCF's efforts are based on
expert assessments which are then further elaborated (see Box 1 and Box 2). The experts based their
assessments on a mix of methods such as evidence from the DataLab, interviews and country case
studies.

Highly influential conditions

Error! Reference source not found. shows that the enabling condition "Presence of collaborative
platforms," which was assessed as the most influential condition taking into account all direct and
indirect influences of the system (DEMATEL technique), is addressed moderately according to both
the data-based assessment and the case country assessment. This enabling condition has an
intergovernmental character, and the data-based assessments were mainly based on the efforts of the
GCF to share knowledge across countries and its efforts regarding replicating and scaling up
projects, which is included in more than 75 per cent of the LDC projects.

The second most influential enabling condition is "Inter-ministerial and sectoral government
coordination" which was assessed as being addressed much by both assessments. Among others the
readiness programme of the GCF supported structured dialogues and the projects put a strong
emphasis on stakeholder engagement which implies, especially at the national and regional level,
inter-ministerial and sectional coordination by governments.

The assessment levels change completely for the "Low/no fragility or conflict" enabling condition
which is in both cases assessed as not being addressed by the GCF. While the GCF is present in 25
LDCs facing situations of fragility or conflict, it does not have a tailored approach to address these
situations and their interactions with climate change vulnerability and readiness, nor have AEs who
are specialized in working in these environments. Moreover, the conflict and fragility-affected
countries received the least GCF approved funding per capita when comparing with other country
categories.

The fourth most influential enabling condition, "Information sharing mechanisms," has again a
similar assessment by the data-based and country case assessments, which both argue the condition
is being moderately addressed by the GCF. Each project of the GCF contains a knowledge sharing
component where mechanisms are being set up or provided support, yet this effort is being nuanced
by the limited evidence of results and impacts by activities under this component.

The "Reliable and relevant data systems" is assessed as being addressed a little by the country case experts and by the data-based assessment. This assessment is based on the fact that a lot of LDCs struggle to provide the necessary climate data in their funding proposals, as they lack (historic) data systems. GCF support to enhance this situation is limited. The same assessment stands for the next enabling condition which is "Civil society engaged in climate action." The GCF does focus some of its efforts on increasing knowledge on climate change and climate change adaptation but does not frequently support civil society engagement directly.

"Decentralized institutions" is assessed by both teams as being only a little addressed by the GCF. The fact that most of the efforts of the Readiness and Preparation Support Programme focus on providing strategic guidance to the national level provided by the GCF focuses on the national level and low support to enhance institutional capacities of the local level, served as main factors behind this choice. This assessment holds for "Robust and professional civil service core" for the country case assessment, yet the data-based assessment drops further to not at all. Similar reasons can clarify these assessments: GCF support focuses more on strategic guidance for countries directly related to climate action rather than strengthening institutional capacities. The difficulties of LDCs to get an accredited entity and the low-quality funding proposals serve as examples. All enabling conditions until now are relatively important when compared to the other enabling conditions in the system.

Moderately influential conditions

The enabling condition "Inclusion of most vulnerable groups in decision-making" is, according to the data-based assessment, being addressed strongly by the GCF, while the country case assessment gave it a moderate score. The data-based assessment mostly guided the efforts of the GCF regarding stakeholder engagement in the design and implementation phase. The data analysis confirms that stakeholder participation is high yet especially at project design and for the highest administrative levels. The lower involvement of local communities and women's groups and the low involvement at project implementation level may act as reasons why the country case experts have a lower assessment.

The data-based assessment and country case assessment indicate that the GCF addresses the enabling condition "Diversified, expanding and distributive economy" respectively moderately and a little. The proportion of GCF projects with expected sustainable development impacts related to market creation for the private sector is 15 per cent which does indicate that the GCF is actively supporting LDC economies, yet also that efforts can be further scaled up. The proportion of expected sustainable development impacts related to job creation is lower (8 per cent) and consequently the assessments of "Access to well-paid and formal jobs" is also lower, respectively a little for the data-based assessment and not at all for the country case assessment.

The enabling condition "Technology transfer" is, according to the data-based assessment, being addressed moderately by the GCF, and a little by the country case assessment, given the limited number of approved projects or readiness grants related with technology transfer in the LDC portfolio. The low number of LDC projects contributing to the improvement of agricultural productivity (8 per cent) served as an indicator.

On the other hand, the country case assessment of "Funding for social protection" argues that this enabling condition is not at all addressed by the GCF, while the data-based assessment indicates that it is addressed a little by the GCF. Around 10 per cent of GCF projects in LDCs have an expected sustainable development related impact that relates to poverty reduction, yet the assessments by the evaluation team argued that this relates more to an increase in resilience of persons living in LDCs than providing social protection.

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The enabling condition "Policy frameworks and incentives for engaging the private sector" was assessed as being addressed to a little based on data or as moderately by the country case assessment. While the GCF has made some efforts to engage the private sector through readiness support and projects with the PSF, private sector engagement remains limited in LDCs. This seems to indicate that the GCF approach has not been able to address the specificities of the private sector in these countries, such as the prevalence of small and medium enterprises. For now, the proportion of GCF funding direct to LDCs through the PSF (31 per cent) is far more limited than the proportion going through DMA.

Assessments regarding "Competent institutions to support climate change planning and implementation" are high, either much by the data-based assessment and moderate by the country case assessment. A large number of GCF projects, around 19 per cent, are expected to improve government revenue and furthermore, the Readiness and Preparation Support Programme of the GCF explicitly aims at supporting governments to capacitate them to make climate change adaptation plans. The data-based assessment remains at the moderate level as many LDCs still struggle with low capacities, despite GCF efforts.

The last moderately influential enabling condition is "Citizens engaged in climate action," which the GCF addresses a little according to the data-based assessment and moderately according to the country case assessment, since stakeholder engagement seems to have focused more on organized civil society than individual citizens.

Least influential conditions

The two least influential enabling conditions that were incorporated in this system are "Integrating long-term climate planning" and "Mechanisms for rapid localized response to climate change." The first one is being addressed moderately according to the data-based assessment and much according to the country case assessment, which is the highest assessment by the country case experts. This condition is addressed by the Readiness and Preparation Support Programme by supporting AP and country programming. The least influential enabling condition, "Mechanisms for rapid localized response to climate change" is assessed as being much addressed by the GCF by both the data-based assessment and the country case experts. The fact that around 20 per cent of LDC single-country projects indicate that the GCF allocates a decent part of its efforts on this enabling condition, serves as an indicator.

Analysis

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Figure A - 42.   Assessment of GCF action regarding the most influential conditions

Data-based assessment   Case countries assessment   EC influence (Dematel model)
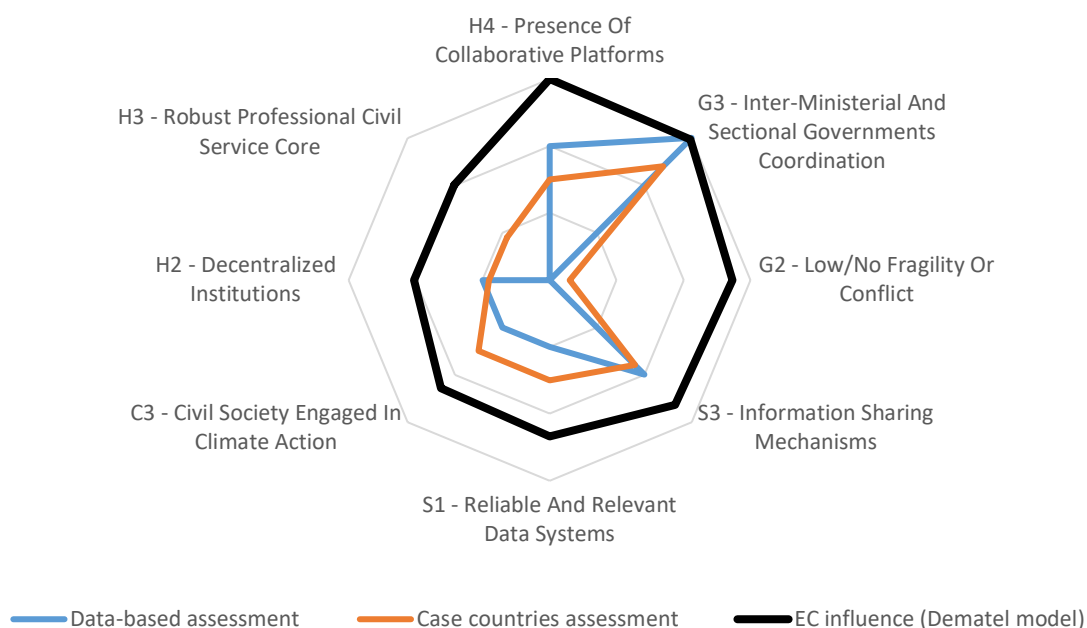
Error! Reference source not found. represents the eight most influential conditions, of which the
evaluation team assessed three as being addressed by the GCF, among which the two most
influential conditions.[40] These are H4 Presence of collaborative platforms, G4 Inter-ministerial and
sectional government coordination and S3 Information sharing mechanisms. Four other enabling
conditions are assessed as being only addressed a little and one condition as being not addressed,
namely G2 – Low/No fragility or conflict. Of the 12 other conditions remaining, the GCF is
addressing four of them. In other words, the GCF could improve its targets to focus on those
conditions that are likely to contribute the most to a paradigm shift.

F. CONCLUDING REMARKS

It is to be noted that the results of this analysis should be approached with caution. Firstly, a limited
group of persons participated and completed this exercise. Though the team has expertise on the
matter, a higher number of participants would increase the legitimacy of the exercise as it remains
an expert opinion-based assessment. Secondly, the data used as to incorporate an evidence-based
assessment to the exercise was not designed for the purpose of the exercise. In order to provide in a
data-based assessment the team used data that is collected by the DataLab for other means, such as
for example the expected sustainable development impacts regarding poverty reduction used for the
condition 'Funding for social protection' or the stakeholder engagement rate for 'Inclusion of most
vulnerable groups in decision making'. The use of country-level indicators to monitor the progress
regarding enabling conditions and the extent to which changes in enabling conditions are leading to
the expected behaviours and results trade-offs would allow to further develop this evaluation method
to its full potential. This would be for example data on the creation and maintenance of social
protection frameworks/systems and the respective impact of GCF projects on such a
framework/system. Regarding the 'Inclusion of most vulnerable groups in decision making', the

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[40] Either much or moderately addressed.

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data could be a dataset similar to the Ibrahim index that exists for African countries, and in particular for the 'participation' aspect of this index.

Yet, a cautionary message clearly emerges from this analysis. The USP has not defined paradigm shift as a specific outcome of GCF support recognizing that paradigm shifts are complex. Yet, the long-term goal of the GCF is clear: Build developing countries capacities to respond to the challenges of climate change by shifting towards low emission climate resilient development trajectory. While acknowledging that achieving this long-term goal is complex and is likely to take a long time and engage multiple factors and actors, the GCF also identified scalability and replicability as two factors supporting paradigm shift (GCF 2020). The broad message that emerges from this analysis is that the GCF projects only partially address the LDC conditions likely to lead to paradigm shift. Projects focus mostly on conditions closely related to climate action and overlooking conditions which are critical to achieve systemic changes. Absence of fragility or conflict, a robust professional civil service core, and social protection mechanisms are not explicitly addressed in GCF interventions but present critical barriers to LDC's to paradigm shift. To construct durable and effective mechanisms for rapid localized response to climate change and to ensure the effective engagement of Citizens in climate action it is important to have effective interministerial and sectional governments coordination, which the GCF projects support. But to ensure durability of effective local climate action other conditions need to be in place, such as effective collaborative platforms, effective information sharing mechanisms, reliable and relevant data systems and civil society engagement in climate action all of which seem to be getting significantly less attention by the GCF LDC portfolio. Replicability and scalability are unlikely to take place or to lead to paradigm shift if the conditions leading to system change are not methodologically considered. While the GCF cannot be expected to fully resolve all the challenges of LDCs, to ensure that its project outcomes contribute to the paradigm shift, the GCF will need to work closely with other partner institutions that can help address the enabling conditions it does not fully engage in its projects. The specific configuration of enabling conditions is likely to change from case to case. An important step in this direction is from the GCF to adopt a systems approach to paradigm change that can be used as a framework to identify the enabling conditions, actors and potential partners to ensure durable systemic change. The absence of a framework that can help identify, track and affect the conditions enabling systemic change is likely to curtail the extent to which GCF support contributes to a low-carbon and carbon resilient development trajectories.

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Annex 8.   COMPARISON BETWEEN PROJECT BENEFICIARIES AND AVERAGE HOUSEHOLD CHARACTERISTICS WHERE PROJECTS ARE BEING IMPLEMENTED

Table A - 7.   Comparison between GCF target beneficiaries in Rwanda and secondary datasets

	(1) BASELINE DATA 2020 *- TARGET BENEFICIARIES -*	(2) INTEGRATED HOUSEHOLD LIVING CONDITIONS SURVEY (EICV) DATA 2017 *- GICUMBI DISTRICT -*
Household head demographic characteristics		
Gender		
Male	0.80	0.78
	(0.40)	(0.42)
Female	0.20	0.22
	(0.40)	(0.42)
Age	47	47
	(14.32)	(16.09)
Literacy		
Illiterate	0.48	0.40
	(0.50)	(0.49)
Can read and write	0.52	0.60
	(0.50)	(0.50)
Marital status		
Single	0.02	0.04
	(0.12)	(0.20)

	(1) BASELINE DATA 2020 - *TARGET BENEFICIARIES* -	(2) INTEGRATED HOUSEHOLD LIVING CONDITIONS SURVEY (EICV) DATA 2017 - *GICUMBI DISTRICT* -
Monogamous marriage	0.80	0.76
	(0.40)	(0.43)
Polygamous marriage	0.01	0.02
	(0.08)	(0.13)
Divorced	0.02	0.00
	(0.13)	(0.06)
Separated	0.02	0.01
	(0.14)	(0.10)
Widower	0.14	0.15
	(0.34)	(0.36)
Other	-	0.02
		(0.12)
Human capital		
Number of permanent household members	5	5
	(1.95)	(2.06)
Dependency ratio	0.78	0.90
	(0.72)	(0.77)
Dependent members	2	2
	(1.39)	(1.35)
Natural capital		

	(1) BASELINE DATA 2020 - *TARGET BENEFICIARIES* -	(2) INTEGRATED HOUSEHOLD LIVING CONDITIONS SURVEY (EICV) DATA 2017 - *GICUMBI DISTRICT* -
At least one household member owns land	0.88	0.95
	(0.33)	(0.22)
Owns any livestock	0.97	0.99
	(0.19)	(0.11)
Physical capital		
Household structure (walls)		
Baked bricks	0.01	0.01
	(0.11)	(0.12)
Mud bricks	0.93	0.43
	(0.25)	(0.50)
Others	0.056	0.55
	(0.23)	(0.50)
Type of roofing material		
Metal sheets	0.97	0.88
	(0.14)	(0.32)
Clay tiles	0.02	0.12
	(0.14)	(0.32)
Total	**651**	**480**

The table presents the mean and standard deviation (in parentheses) of each indicator using the sample of target beneficiaries from the Strengthening Climate Resilience of Rural Communities in Northern Rwanda baseline data collected in 2020 (column 1) and Integrated Household Living Conditions Survey (EICV) district level representative data for the Gicumbi district collected in 2017 (column 2). In column 2, the sampling weights available in the EICV were used. Standard deviation informs how much responses or outcome values vary within the population; this value is therefore only interpretable for continuous variables. All variables except for age, number

(1) Baseline data 2020 - Target beneficiaries -	(2) Integrated Household Living Conditions Survey (EICV) data 2017 - Gicumbi district -

of permanent household members and number of dependent members are binary variables. The mean for binary variables is equivalent to the proportion of the sample for which the corresponding indicator applies. The total sample size of the beneficiaries of the Gicumbi project is 651 except for the physical capital indicators for which the sample is 628 due to missing entries.

Source: LORTA Rwanda baseline data as of 13.10.2020, analysed by the C4ED

Table A - 8.   Comparison between GCF target beneficiaries in Madagascar and secondary datasets

	(1) Baseline data 2019 - Target beneficiaries -	(2) MIS* 2016 - Regions of SLEM -	(3) Afrobarometer 2018 - Regions of SLEM -
Household head demographic characteristics			
Gender			
Male	0.90	0.74	0.80
	(0.30)	(0.44)	(0.40)
Female	0.10	0.26	0.20
	(0.30)	(0.44)	(0.40)
Age	44	42	-
	(14)	(15)	
Ethnic group			
Betsileo	0.33	-	0.30
	(0.47)		(0.46)
Betsimisaraka	0.14	-	0.27

	(1) BASELINE DATA 2019 - *TARGET BENEFICIARIES* -	(2) MIS* 2016 - *REGIONS OF SLEM* -	(3) AFROBAROMETER 2018 - *REGIONS OF SLEM* -
	(0.34)		(0.45)
Tanala	0.22	-	0.02
	(0.42)		(0.15)
Other	0.33	-	0.41
	(0.47)		(0.49)
Literacy			
Not literate	0.28	0.29	-
	(0.45)	(0.45)	
Highest level of education			
No education	0.19	0.21	-
	(0.39)	(0.41)	
Primary	0.65	0.40	-
	(0.48)	(0.49)	
Above	0.17	0.38	-
	(0.38)	(0.48)	
Human capital			
Number of permanent household members	6	5	-
	(2.93)	(2.30)	
Natural capital			
At least one household member owns land	0.96	0.73**	-

	(1) BASELINE DATA 2019 - *Target beneficiaries* -	(2) MIS* 2016 - *Regions of SLEM* -	(3) AFROBAROMETER 2018 - *Regions of SLEM* -
	(0.21)	(0.45)	
Physical capital			
Household structure (walls)			
Low value added	0.38	0.57	
	(0.48)	(0.49)	
Higher value walls	0.62	0.43	
	(0.48)	(0.49)	
Type of roofing material			
Thatch and grass	0.66	0.58	0.50
	(0.48)	(0.49)	(0.50)
Higher value roofing	0.34	0.43	0.50
	(0.48)	(0.49)	(0.50)
Total	**1822**	**3491**	**368**

The table presents the mean and standard deviation (in parentheses) of each indicator using the sample of target beneficiaries from the SLEM baseline data collected in 2019 (column 1), MIS* (stands for Malaria Indicator Survey 2016, also referred to as *Enquête sur les Indicateurs du Paludisme - EIPM*) regional level representative data for the seven regions of intervention of the SLEM project collected in 2016 (column 2), and Afrobarometer data for the seven regions (not representative at the regional level) of intervention of the SLEM project collected in 2018 (column 3). Sampling weights were used. Standard deviation informs how much responses or outcome values vary within the population; this value is therefore only interpretable for continuous variables. All variables except for age and number of permanent household members are binary variables. The mean for binary variables is, therefore, equivalent to the proportion of the sample for which the corresponding indicator applies.

 **In the MIS survey, households are asked about any land *usable* for agriculture, while in the SLEM survey, households are asked about any land.

Source: LORTA Madagascar baseline data, as of 29.04.2020, analysed by the C4ED

Table A - 9.   Comparison between GCF target beneficiaries in Bangladesh and census data

	(1) TARGETED HOUSEHOLDS	(2) NON-TARGETED HOUSEHOLDS	(1-2) MEAN DIFFERENCE
Household head demographic characteristics			
Gender of household head			
Male	0.917 (0.005)	0.922 (0.005)	-0.005
Age (in years) of household head	44.916 (0.247)	46.612 (0.247)	-1.696***
Literacy of household head			
No education, illiterate	0.311 (0.008)	0.266 (0.008)	0.046***
Informal education, literate	0.049 (0.004)	0.042 (0.004)	0.007
Primary education	0.435 (0.009)	0.379 (0.009)	0.056***
Secondary education	0.193 (0.008)	0.263 (0.008)	-0.070***
University education	0.011 (0.004)	0.050 (0.004)	-0.039***
Marital status of household head			
Married	0.941 (0.005)	0.927 (0.005)	0.014**
Single	0.007 (0.002)	0.018 (0.002)	-0.011***
Widow(er)	0.036 (0.004)	0.042 (0.004)	-0.005

	(1) TARGETED HOUSEHOLDS	(2) NON-TARGETED HOUSEHOLDS	(1-2) MEAN DIFFERENCE
Divorced/separated	0.005 (0.001)	0.006 (0.001)	-0.001
Abandoned	0.011 (0.002)	0.008 (0.002)	0.003
Household characteristics			
Indigenous ("Adivashi") household	0.004	0.004	0.000
Female household member(s) solely responsible to fetch water	0.780 (0.008)	0.740 (0.008)	0.041***
Human capital			
Number of permanent household members	4.064 (0.029)	4.148 (0.029)	-0.085**
Number of dependent household members	1.268 (0.019)	1.251 (0.019)	0.017
Dependency ratio	0.535 (0.009)	0.516 (0.009)	0.019*
At least one household member has a disability	0.133 (0.005)	0.074 (0.005)	0.059***
At least one household member has a chronic illness	0.241 (0.007)	0.198 (0.007)	0.043***
Monetary capital			
Main income source: agriculture/fishing day labour	0.336 (0.008)	0.229 (0.008)	0.106***
Average monthly household income (BDT)	6649.972 (134.422)	9096.280 (134.422)	-2446.308***
Logarithmized average monthly household income (BDT)	8.669 (0.012)	8.890 (0.012)	-0.221***

	(1) TARGETED HOUSEHOLDS	(2) NON-TARGETED HOUSEHOLDS	(1-2) MEAN DIFFERENCE
Average daily income per person (BDT)	57.446 (1.150)	78.270 (1.150)	-20.825***
Logarithmized average daily income per person (BDT)	3.925 (0.011)	4.154 (0.011)	-0.230***
Average daily income per person higher than USD 1.9	0.003 (0.005)	0.079 (0.005)	-0.076***
Natural capital			
Owns agricultural land	0.214 (0.009)	0.397 (0.009)	-0.183***
Size of agricultural land (in decimals)	24.286 (11.412)	110.242 (11.412)	-85.956***
Owns other land	1.000 (0.000)	1.000 (0.000)	0.000
Size of other land (in decimals)	11.534 (6.468)	24.696 (6.468)	-13.161*
Owns large ruminant(s)	0.276 (0.008)	0.264 (0.008)	0.012
Owns small ruminant(s)	0.266 (0.008)	0.262 (0.008)	0.003
Owns poultry	0.698 (0.009)	0.682 (0.009)	0.016
Physical capital			
Household structure (walls)			
Jhpuri (shack)	0.124 (0.005)	0.072 (0.005)	0.052***

	(1) TARGETED HOUSEHOLDS	(2) NON-TARGETED HOUSEHOLDS	(1-2) MEAN DIFFERENCE
Katcha (temporary)	0.765 (0.009)	0.630 (0.009)	0.135***
Semi-pucca (semi-permanent)	0.094 (0.007)	0.173 (0.007)	-0.079***
Pucca (permanent)	0.017 (0.006)	0.125 (0.006)	-0.108***
Total	**3120**	**63051**	

The table presents the mean and standard errors (in parentheses) of each indicator built on census data using the sample of target beneficiaries (column 1) and the non-sampled households (column 2). Column 3 presents the values of the t-test which equal the difference in the indicator means between column 1 and column 2. ***, **, and * indicate significance at 1, 5, and 10 per cent critical level.

All variables except for age, number of permanent household members, number of dependent members, information on monthly and daily income and size of agricultural and other land are binary variables. The mean for binary variables is equivalent to the proportion of the sample for which the corresponding indicator applies. The total sample size of the beneficiaries of the project is 3,120 except for the demographic indicators for which the sample is 3,070 due to missing entries. The total sample size of non-beneficiaries (column 2) is 63,051 for the natural and physical capital indicators. Due to missing entries, the sample varies between 62,027 and 63,032 for the other indicators.

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