

Multi-year Expert Meeting
on Transport, Trade Logistics and
Trade Facilitation
8th Session

**Climate Change Adaptation for Seaports
in Support of the 2030 Agenda
for Sustainable Development**

27–28 October 2020

**Session: Climate change Impacts and
Adaptation, Key issues and experiences,
Recent Initiatives and Developments**

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SESSION: CLIMATE CHANGE IMPACTS AND ADAPTATION, KEY ISSUES AND EXPERIENCES, RECENT INITIATIVES AND DEVELOPMENTS



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INTERNATIONAL FINANCE CORPORATION (IFC)

IFC—a sister organization of the World Bank and member of the World Bank Group—is the largest global development institution focused on the private sector in developing countries.

WORLD BANK GROUP COMMITMENTS, DISBURSEMENTS, AND GROSS ISSUANCE

By fiscal year, millions of dollars

World Bank Group	2016	2017	2018	2019	2020
Commitments ^a	64,185	61,783	66,868	62,341	77,078
Disbursements ^b	49,039	43,853	45,724	49,395	54,367
IBRD					
Commitments ^a	29,729	22,611	23,002	23,191	27,976
Disbursements	22,532	17,861	17,389	20,182	20,238
IDA					
Commitments ^a	16,171	19,513 ^d	24,010 ^e	21,932 ^a	30,365 ^e
Disbursements	13,191	12,718 ^d	14,383	17,549	21,179 ^d
IFC					
Commitments ^f	11,117	11,854	11,629	8,920	11,135
Disbursements	9,953	10,355	11,149	9,074	10,518
MIGA					
Gross Issuance	4,258	4,842	5,251	5,548	3,961
Recipient-Executed Trust Funds					
Commitments	2,910	2,962	2,976	2,749	3,641
Disbursements	3,363	2,919	2,803	2,590	2,433

FY20 Portfolio Exposure^a

Dollar amounts in millions, for IFC's own account as of June 30, 2020

Total	\$58,650	100%
By Industry		
Financial Markets	\$22,824	39%
Infrastructure	\$10,689	18%
Funds	\$ 5,069	9%
Manufacturing	\$ 4,215	7%
Agribusiness & Forestry	\$ 3,969	7%
Tourism, Retail & Property	\$ 2,950	5%
Trade Finance	\$ 2,866	5%
Health & Education	\$ 2,785	5%
Telecommunications & Information Technology	\$ 1,653	3%
Natural Resources ¹	\$ 1,631	3%
By Region⁶		
Latin America and the Caribbean	\$12,085	21%
East Asia and the Pacific	\$ 9,932	17%
South Asia	\$ 9,876	17%
Sub-Saharan Africa	\$ 9,736	17%
Europe and Central Asia	\$ 7,769	13%
Global	\$ 5,401	9%
Middle East and North Africa	\$ 3,852	7%

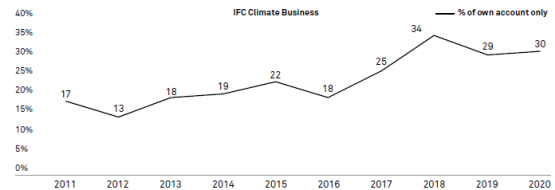
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IFC'S CLIMATE ACTION

- Continued focus on strategic priority areas: clean energy, climate-smart agribusiness, green buildings, climate-smart cities, green finance, and climate risk
- Climate finance flows through project finance (full projects or components of), equity, Green Bonds, and other fin. instruments
- Increasing climate demand and support for advisory or investment support on climate projects, including development of "resilient asset" projects, and/or issuing related Green Bonds

TOTAL CLIMATE FINANCE COMMITMENTS (US\$ MILLIONS)	FY20	FY19	FY18	FY17	FY16	FY15
Own account long-term finance (LTF)	\$3,324	\$2,603	\$3,910	\$2,996	\$1,986	\$2,349
Core mobilization	\$3,500	\$3,172	\$4,542	\$1,775	\$1,285	\$2,122
Total	\$6,824	\$5,775	\$8,452	\$4,771	\$3,271	\$4,471

Figure 1: IFC Climate Business as a Percentage of Total Commitments: Ten-Year Trend



Climate risk (physical impacts), climate resilience, adaptation

- Mainstreamed sectoral approach:
 - Identification of risks
 - Assessment of risks
 - Risk management

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IDENTIFICATION OF CLIMATE RISKS (PHYSICAL)

- IFC project teams identify risks to new projects
- Identification of risks done via sectoral risk screening tools, or sectoral methodological guidance
- The tools focus on changes in climate that can materially affect an investment's financial, environmental or social performance
- Projections of climate indices compare future values with the baseline

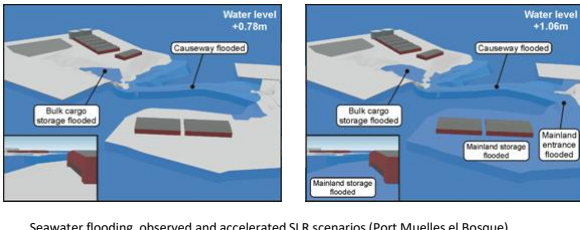
MAIN CLIMATE DRIVER'S CHANGES	current value	SCENARIO					
		2025		2050		2100	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
Wind Speed (Average No days per year with daily mean wind > 99th percentile threshold of the baseline climate)	3.65	3.62	3.56	3.34	3.27	3.17	2.99
Agitation (No hours/year with significant wave height > 2.5 m in navigation zone)	0.08	0.03	0.03	0.00	0.00	0.00	0.00
Overtopping (No hours/year with overtopping > 0.1 l/s/m of a rubble mound breakwater, freeboard 2 m)	0.00	No influence	No influence	No influence	No influence	No influence	No influence
Coastal flooding (Number of hours per year with coastal flooding > 2 m in the berth)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sea level rise (Relative sea level rise, in m)	0.00	0.08	0.09	0.18	0.22	0.37	0.54
Rainy days (Number of days per year with precipitation - only affects if cargo is sensitive to rain-)	90.59	92.44	90.31	90.02	80.65	86.36	70.11
Rain intensity (25-year return level of maximum 5-day precipitation amount)	131.03	122.91	134.01	122.48	127.29	115.49	120.46
Severe drought (Annual probability of extreme drought occurring in the basin considered -only affects in WT cases-)	-	No influence	No influence	No influence	No influence	No influence	No influence
Maximum Temperature (Average number of days per year with maximum temperature ≥ 40°C)	0.18	0.16	0.33	0.92	3.17	2.57	21.54
(Frequency -No events/year- of experiencing a 'hit' from a tropical cyclone of at least 64 kt - Category 1-)	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Color scale: -50% change or ≤ 0 cm of SLR (green), -5% change or ≤ 10 cm of SLR (yellow), $\leq 10\%$ ch. or ≤ 20 cm of SLR (light green), $\leq 15\%$ ch. or ≤ 30 cm of SLR (orange), >15% ch. or >30 cm of SLR (red)

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CLIMATE RISK ASSESSMENT

- Based on the results, risks are quantified and analyzed in terms of potential materiality to the actual investment
- Depending on the results, they may require a more detailed assessment

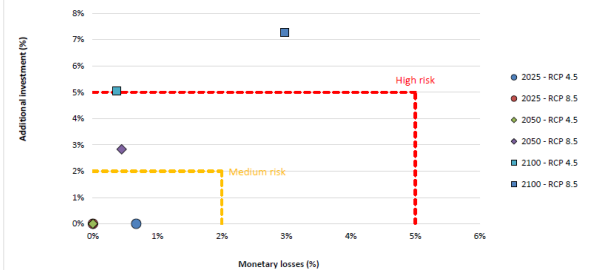


Seawater flooding, observed and accelerated SLR scenarios (Port Muelles el Bosque)

	SCENARIO					
	2025		2050		2100	
	RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
Additional investment (M USD)	0.00	0.00	0.00	4.13	7.37	10.61
Monetary losses (M USD) in scenario year	1.99	0.00	0.00	1.69	1.47	11.77
Expected revenue (M USD) in scenario year, without effects of cl. change	294.60	296.60	380.36	378.67	393.73	383.43
<i>* If investments are made, in order to prevent monetary losses, monetary losses before investment could be greater than losses in scenario year.</i>						
Additional investment (%) (As % of increase over initial investment)	0.00%	0.00%	0.00%	2.83%	5.05%	7.27%
Monetary losses (%) (As % of planned revenue)	0.67%	0.00%	0.00%	0.45%	0.37%	2.98%

	SCENARIO					
	2025		2050		2100	
	RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
Additional investment	LOW RISK	LOW RISK	LOW RISK	MEDIUM RISK	HIGH RISK	HIGH RISK
Monetary losses	LOW RISK	LOW RISK	LOW RISK	LOW RISK	LOW RISK	MEDIUM RISK
Combined risk assessment	LOW RISK	LOW RISK	LOW RISK	MEDIUM RISK	HIGH RISK	HIGH RISK

GRAPHIC ASSESSMENT



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CLIMATE RISK MANAGEMENT

Climate risk management can take many forms, depending on the identified risks and strategic directions:

- Planning
- Design
- Information
- Monitoring
- Diversification
- Reinforcements, upgrading
- Dedicated structures
- Hedging / insurance (limited scope)
- etc.

Many require additional financing – but not all.

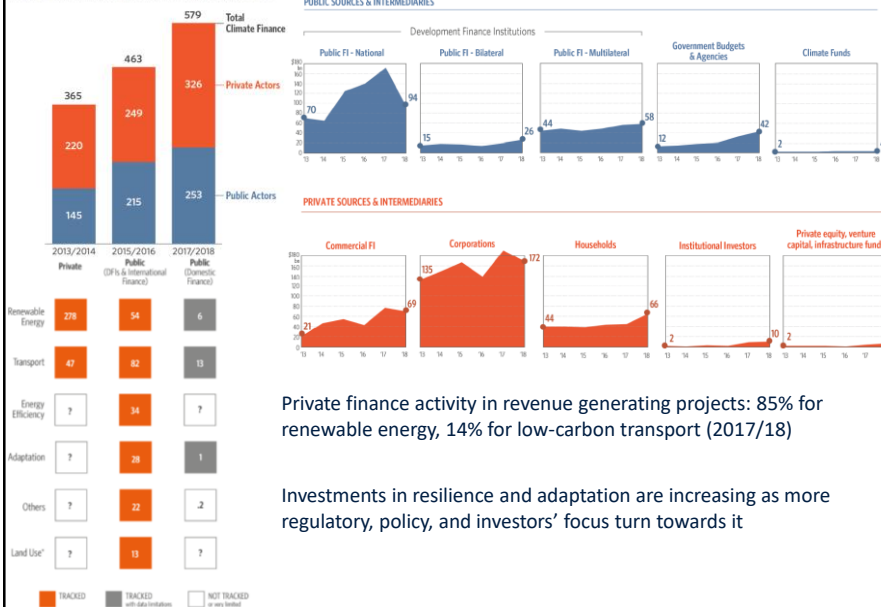


Adaptation interventions and investments in Port Muelles el Bosque include new structures, upgrades, monitoring, planning, and operational changes

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CLIMATE FINANCE FLOWS; RELATED DEVELOPMENTS

Breakdown of global climate finance flows by public and private actors, 2013-2018 (Over-year average, USD bilion)



Private finance activity in revenue generating projects: 85% for renewable energy, 14% for low-carbon transport (2017/18)

Investments in resilience and adaptation are increasing as more regulatory, policy, and investors' focus turn towards it

- **TCFD** (Task Force on Climate-related Financial Disclosures, Financial Stability Board): climate-related financial risk disclosures for use by companies in providing information to investors, lenders, insurers & other stakeholders
- **Rating agencies** such as Moody's, S&P, Fitch increasingly focusing on the inclusion of climate risk in ratings
- **WBG Resilience Rating System**
- **Climate Bonds Initiative:** Climate Resilience Principles guiding certification under Climate Bond Standards
- **WBG pilot initiative:** Enabling Private Investment in Adaptation