

READING RESOURCES ON USING PUBLIC CLIMATE FINANCE TO LEVERAGE PRIVATE CAPITAL

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This document, drawn from Appendix II in WRI's working paper "Moving the Fulcrum: A Primer on Public Climate Financing Instruments Used to Leverage Private Capital," provides an array of relevant papers, publications, and resources produced by various entities that address: 1) Using Public Resources to Leverage Private Sector Participation; 2) Types of Public Financing Instruments and Mechanisms; and 3) Other Contextual Publications. These reading resources represent the current span of literature in climate finance as it relates to the private sector and can be reviewed to enhance one's understanding of the nuanced opportunities and challenges presented by climate finance. This document will periodically be updated as organizations continue to publish in this space.

For full text of the working paper go to:

http://www.wri.org/publication/moving-the-fulcrum.

A. Using Public Resources to Leverage Private **Sector Participation**

Barclays / Accenture

Carbon Capital: Financing the Low Carbon Economy, February 2011; http://group.barclays. com/html phase 2/assets/docs/reports/Carbon-Capital_-Financing-the-low-carbon-economy.pdf.

Chatham House

Unlocking Finance for Clean Energy: The Need for 'Investment Grade' Policy, December 2009; http:// www.chathamhouse.org.uk/files/15616 1209pp hamilton.pdf.

Climate Strategies

Mobilising Private Finance for Low Carbon Development, 2011; http://www.climatestrategies. org/component/reports/category/71/334.html.

Global Green Growth Institute

The role of public-private cooperation in enabling green growth, 2011 http://www.globalgreengrowthforum.com/fileadmin/user_upload/3GF_2011_Report 01.pdf.

Grantham Institute (London School of Economics)

Meeting Climate Challenge: Using Public Funds to Leverage Private Investment in Developing Countries, September 2009; http://www2.lse. ac.uk/GranthamInstitute/publications/Other/ Leveragedfunds/Meeting%20the%20Climate%20 Challenge.aspx.

International Finance Corporation

Climate Finance: Engaging the Private Sector, 2011; http://www1.ifc.org/wps/wcm/connect/5d 659a804b28afee9978f908d0338960/ClimateFinance G20Report.pdf?MOD=AJPERES.

Overseas Development Institute

Leveraging Private Investment: The Role of Public Sector Climate Finance, April 2011; http://www. odi.org.uk/resources/download/5701.pdf

Japan's Private Climate Finance Support: Mobilising Private Sector Engagement in Low Carbon Development, 2012; http://www.odi.org. uk/resources/docs/7589.pdf.

Pew Center for Global Climate Change

Strengthening International Climate Finance, 2010; http://www.pewclimate.org/docUploads/ strengthening-international-climate-finance.pdf.

PricewaterhouseCoopers

Business Leadership on Climate Change Adaptation: Encouraging Engagement and Action, 2010; http://www.pwcwebcast.co.uk/encouragingengagement-and-action-full-report.pdf.

Standard & Poor's

Can Capital Markets Bridge the Climate Change Financing Gap? October 2010; http://www2.standardandpoors.com/spf/pdf/media/GlobalEffortsTo-AddressClimateChangeAreJustWarmingUp.pdf.

Stockholm Environment Institute

Bilateral Finance Institutions and Climate Change: A Mapping of Climate Portfolios, 2009; http:// www.sei-international.org/mediamanager/documents/Publications/Climate-mitigation-adaptation/ bilateral-finance-institutions-climate-change.pdf.

United Nations Environment Programme

Catalyzing low-carbon growth in developing economies: Public Finance Mechanisms to scale up private sector Investment in climate solutions, October 2009; http://www.unep.org/ GreenEconomy/InformationMaterials/Publications/Publication/tabid/4613/language/en-US/ Default.aspx?ID=6156.

Bilateral Finance Institutions and Climate Change: A Mapping of 2009 Climate Financial Flows to Developing Countries, 2010; http://www.unep. org/pdf/dtie/BilateralFinanceInstitutionsCC.pdf.

REDDy Set Grow: Private Sector Suggestions for International Climate Change Negotiators, 2011; http://www.unepfi.org/fileadmin/documents/reddysetgrowll.pdf.

World Bank

Development and Climate Change: A Strategic Framework for the World Bank Group, Technical Report, 2008; http://siteresources.worldbank. org/EXTCC/Resources/407863-1219339233881/ DCCSFTechnicalReport.pdf.

World Development Report (Chapter 6)

Generating the Funding Needed for Mitigation and Adaptation, 2010.

B. Types of Public Financing Instruments and Mechanisms

Bloomberg New Energy Finance

Crossing the Valley of Death: Solutions to the next generation of clean energy project financing gap, 2010; bnef.com/WhitePapers/download/29.

Brookings Institution

The Green Climate Fund: Options for Mobilizing the Private Sector, 2011; http://www.brookings.edu/~/ media/Files/rc/papers/2011/0830_green_climate_ fund sierra/0830 green climate fund sierra.pdf.

Center for American Progress and the Global Climate Network

Leveraging Private Finance for Clean Energy, November 2010; http://www.americanprogress. org/issues/2010/11/pdf/qcn_memo.pdf

Investing in Clean Energy: How to maximize clean energy deployment from international climate investments, Nov. 2010; http://www. americanprogress.org/issues/2010/11/pdf/qcnreport_nov2010.pdf.

Deutsche Bank Group

GET Fit Program: Global Energy Transfer Feed in Tariffs for Developing Countries, April 2010; http://www.dbcca.com/dbcca/EN/_media/GET_ FiT_Program.pdf.

GET FiT Plus: DE-Risking Clean Energy Business Models in a Developing Country Context, April 2011; http://www.dbcca.com/dbcca/EN/_media/ GET_FiT_Plus.pdf?dbiquery=null%3AGET+FiT.

G20 / International Finance Corporation

Climate Finance: Engaging the Private Sector. A background paper for "Mobilizing Climate Finance," a report prepared at the request of G20 Finance Ministers; http://www1.ifc.org/wps/wcm/ connect/5d659a804b28afee9978f908d0338960/ ClimateFinance G20Report.pdf?MOD=AJPERES.

GCCC (Global Climate Change Consultancy)

Engaging Private Sector Capital at Scale in Financing Low Carbon Infrastructure in Developing Countries, May 2010; http://www.gtriplec.co.nz/ assets/Uploads/papers/engaging_private_sector_capital_at_scale_2010_11_15.pdf.

GIZ

Smart Climate Finance: Designing Public Finance Strategies to Boost Private Investment in Developing Countries, 2011; http://www2.gtz. de/dokumente/bib-2011/giz2011-0233en-smartclimate-finance.pdf.

Global Financial Mechanism Project (an initiative of WWF)

Global Financial Mechanism Project: Proposals for the Design and Operation of a UNFCCC to Support At-Scale Mitigation Developing Countries and Leverage Additional Public and Private Sources of Funding, June 2010; http:// climateregistryoption.org.

Organisation for Economic Co-operation and Development

The Role of Pension Funds in Financing Green Growth Initiatives, 2011; http://www.oecd.org/ dataoecd/17/30/49016671.pdf.

Financing Climate Change Action, 2011; http://www.oecd.org/dataoecd/18/35/49096643.pdf.

United Nations

Global Trends in Sustainable Energy Investment (Released Annually); http://sefi.unep.org/english/ globaltrends2010.html.

Public Finance Mechanisms to mobilize private sector investment in climate change mitigation, 2008; http://www.sefi.unep.org/fileadmin/media/ sefi/docs/UNEP Public Finance Report.pdf.

Investing in a Climate for Change: Engaging the Finance Sector, 2008; http://www.uneptie. org/energy/information/publications/details. asp?id=WEB/0140/PA.

Private Financing of Renewable Energy – A Guide for Policy Makers, 2009; http://www.uneptie.org/ energy/finance/pdf/Finance_guide%20FINAL.pdf.

Publicly Backed Guarantees as a Policy Instrument to Back Clean Energy, 2010; http://www.uneptie. org/energy/finance/pdf/guarantees_web.pdf.

United Nations Development Programme

Blending Climate Finance through National Climate Funds, 2011; http://www.undp.org/content/ dam/undp/library/Environment%20and%20Energy/Climate%20Change/Capacity%20Development/Blending Climate Finance Through National_Climate_Funds.pdf.

United Nations Economic Commission for Europe

Financing Global Climate Change Mitigation, 2010; http://www.unece.org/fileadmin/DAM/ energy/se/pdfs/gee21/gee21 pub/GEE21 GlobalClimateChangeMitigation ESE37.pdf.

United Nations Environment Programme

Innovative Climate Finance: Examples from the **UNEP Bilateral Finance Institutions Climate Change** Working Group, 2011: http://www.unep.org/pdf/ UNEP Innovative climate finance final.pdf.

United Nations Environment Programme – Finance Initiative

Financing renewable energy in developing countries: drivers and barriers for private finance in sub-Saharan Africa, 2012; http://www.unepfi.org/ fileadmin/documents/Financing_Renewable_Energy in subSaharan Africa.pdf.

World Bank

Mobilizing Climate Finance, 2011: http://www. g20-g8.com/g8-g20/root/bank objects/G20 Climate_Finance_report.pdf.

C. Other Contextual Publications

Ceres & UN Foundation

Investor Summit on Climate Risk and Energy Solutions – Final Report, 2012; http://www.ceres. org/resources/reports/2012-investor-summit-onclimate-risk-energy-solutions-final-report/view.

Climate Investment Funds

CIF from the Ground Up: Investing in our Green Future, 2011; http://www.climateinvestmentfunds. org/cif/sites/climateinvestmentfunds.org/files/ CIF_Annual_Report.pdf.

Climate Policy Initiative

Improving the Effectiveness of Climate Finance: A Survey of Leveraging Methodologies, 2011; http:// www.edf.org/sites/default/files/effectiveness-%20 climate-finance-leveraging-methodologies.pdf.

The Landscape of Climate Finance, 2011; http://climatepolicyinitiative.org/wp-content/ uploads/2011/10/The-Landscape-of-Climate-Finance-120120.pdf.

Conference on Trade and Development

World Investment Report: Investing in a Low Carbon Economy, 2010; http://unctad.org/en/ docs/wir2010_en.pdf.

Global Environment Facility

Behind the Numbers: A closer look at GEF achievements, 2012; http://www.thegef.org/gef/ sites/thegef.org/files/publication/GEF_Behind_ the Numbers CRA.pdf.

Global Green Growth Institute

Press Release, "Global Organizations to Expand Cooperation on Green Growth for Development" Jan 11, 2012, Mexico City; http://www.oecd.org/ dataoecd/60/48/49379356.pdf.

Grantham Institute

A strategy for restoring confidence and economic growth through green investment and innovation, 2012; http://www2.lse.ac.uk/GranthamInstitute/ publications/Policy/docs/PB-Zenghelis-economic-growth-green-investment-innovation.pdf.

HSBC

Sizing the Climate Economy, 2010; http://www.research.hsbc.com/midas/Res/RDV?a o=20&key=wU4BbdyRmz&n=276049.PDF.

International Finance Corporation

Doing Business 2011: Making a Difference for Entrepreneurs, 2011; http://www.doingbusiness. org/reports/global-reports/doing-business-2012.

McKinsey & Co

Resource Revolution: Meeting the world's energy, materials, food and water needs, 2011; http://www. mckinsey.com/Features/Resource revolution.

Organisation for Economic Co-operation and Development

Monitoring and Tracking Long-Term Finance to Support Climate Action, 2011; www.oecd.org/ dataoecd/57/57/48073739.pdf.

Pew Environmental Group / Bloomberg New Energy Finance

Who is winning the Clean Energy Race? 2010 Edition: Country Fact Sheets: http://www.pewenvironment.org/news-room/fact-sheets/whoswinning-the-clean-energy-race-2010-editioncountry-fact-sheets-329325.

Who is winning the Clean Energy Race? 2010 Edition: http://www.pewenvironment.org/newsroom/reports/whos-winning-the-clean-energyrace-2010-edition-329291.

Who's winning the clean energy race? G-20 investment powering forward, 2010; http://www. pewenvironment.org/uploadedFiles/PEG/Publications/Report/G-20Report-LOWRes-FINAL.pdf.

Renewable Energy Policy Network for the 21st Century

Renewables 2011 Global Status Report, 2011; http://www.ren21.net/Portals/97/documents/ GSR/REN21 GSR2011.pdf.

Stockholm Environment Institute

Will Private Finance Support Climate Change Adaptation in Developing Countries? 2011; http:// www.sei-international.org/mediamanager/documents/Publications/Climate/SEI-WP-2011-05-Private-Sector-Adaptation-Finance-ES.pdf.

United Nations - AGF

Report of the Secretary-General's High-Level Advisory Group on Climate Change Financing, November 2010; http://www.un.org/wcm/webdav/ site/climatechange/shared/Documents/AGF_reports/AGF% 20Report.pdf.

United Nations Environment Programme – Finance Initiative (with IIGCC, INCR, and IGCC)

Investment-grade climate change policy: financing the transition to the low-carbon economy, 2011; http://www.unepfi.org/fileadmin/documents/ Investment-GradeClimateChangePolicy.pdf.

World Bank

State and Trends of the Carbon Market, 2011; http://www.wds.worldbank.org/external/default/ WDSContentServer/WDSP/IB/2011/07/15/00038 6194 20110715040348/Rendered/PDF/632700A ROStateOOBox0361511B0PUBLIC0.pdf.

World Economic Forum

Green Investing 2011: Reducing the Cost of Financing: http://europa.eu/epc/pdf/workshop/3-1 bnef-wef greeninvesting report 2011 en.pdf.

Green Investing 2010: Policy Mechanisms to Bridge the Financing Gap; https://members.weforum.org/pdf/climate/greeninvesting2010.pdf.

World Economic Forum: Critical Mass Initiative

Critical Mass Initiative Working Report: Scaling Up Low Carbon Infrastructure Investments in Developing Countries, January 2011; http:// europa.eu/epc/pdf/workshop/3-1 wef ei criticalmass report 2011 en.pdf.

WRI'S CLIMATE FINANCE SERIES

WRI's Climate Finance series tackles a broad range of issues relevant to public donors, intermediaries, and recipients of climate finance. A subset of this series, including this primer, examines how public climate finance providers—whether governments, development finance institutions, or international finance mechanisms like the proposed Green Climate Fund—can meet the significant investment needs of developing countries by mobilizing private sector investment. It focuses on how the public sector can finance and mobilize investment into private sector projects, but also acknowledges the importance of overarching support for complementary low-carbon policies. Low-carbon sectors specifically considered include renewable energy, energy efficiency, and related infrastructure and services, though lessons may equally apply to other climate change-relevant sectors like sustainable agriculture, transportation, and water infrastructure.

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People & Ecosystems: Reverse rapid degradation of ecosystems and assure their capacity to provide humans with needed goods and services.

Governance: Empower people and strengthen institutions to foster environmentally sound and socially equitable decision-making.

Climate Protection: Protect the global climate system from further harm due to emissions of greenhouse gases and help humanity and the natural world adapt to unavoidable climate change.

Markets & Enterprise: Harness markets and enterprise to expand economic opportunity and protect the environment.

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