

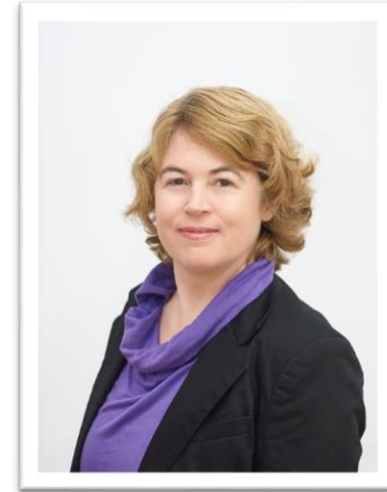
Access to Climate Finance

17th November 2016, Berlin, Germany, Christine Wörlen, Ph.D.

In cooperation with:



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- Head of Renewable Energy Division at the German Energy Agency (dena), Berlin, 2007 – 2009
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1. Climate finance after Paris and the Green Climate Fund
2. Logframes

AGENDA

1 Climate finance after Paris and the Green Climate Fund



What is climate finance?

- Insurance against extreme weather events
- Financing emissions
- Financing emission reductions
- Funds that are made available by governments of so-called developed countries in the context of the UNFCCC for mitigation and adaptation
- Financing green growth
- Donations for food security in drought areas

Climate finance – a quick recap

- Not a technical term
- But common understanding:
 - Funds
 - Coming from „developed countries“
 - Going to „developing countries“
 - For mitigation and adaptation
- Best definition: rely on UNFCCC, Art. 11 and Paris Agreement

Paris Agreement (I) – how much?

- „...*Recognizing* the urgent need to enhance the provision of finance, technology and capacity-building support by developed country Parties, in a predictable manner, to enable enhanced pre-2020 action by developing country Parties,“
- “53. *Also decides* that (...), developed countries intend to continue their existing collective mobilization goal through 2025 in the context of meaningful mitigation actions and transparency on implementation; prior to 2025 the Conference of the Parties (...) shall set a new collective quantified goal from a floor of USD 100 billion per year, taking into account the needs and priorities of developing countries;
“54. *Recognizes* the importance of adequate and predictable financial resources, including for results-based payments, as appropriate,...”

Paris Agreement (II) – what for?

- „52. *Decides* that, in the implementation of the Agreement, financial resources provided to developing country Parties should enhance the implementation of their policies, strategies, regulations and action plans and their climate change actions with respect to both mitigation and adaptation to contribute to the achievement of the purpose of the Agreement as defined in its Article 2”
- “54.including for results-based payments, as appropriate, for the implementation of policy approaches and positive incentives for reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks; as well as alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests; while reaffirming the importance of non-carbon benefits associated with such approaches; encouraging the coordination of support from, inter alia, public and private, bilateral and multilateral sources, such as the Green Climate Fund, and alternative sources in accordance with relevant decisions by the Conference of the Parties;

- Global Environment Facility: 1.6 bn for four years
- Green Climate Fund: 10 bn

- Hyperlink to GCF website:
- <http://www.greenclimate.fund/projects/portfolio>
- Challenges:
 - Decision making process
 - Pipeline building
 - Incremental reasoning

How much climate finance do we need?

- Enter your guess

Incremental cost reasoning

- Guiding thought of UNFCCC:
 - The climate friendly alternative is more expensive than the standard way of doing business
 - The difference between the two options are the „incremental costs“
 - These can be interpreted as the cost of climate change, and are supposed to be covered by climate finance
- Challenges:
 - Definition in practical terms
 - Negative incremental costs
 - Cost reduction of renewables
 - Nationally Determined Contributions
 - Green Growth Strategies

Which of the following has the highest incremental costs?

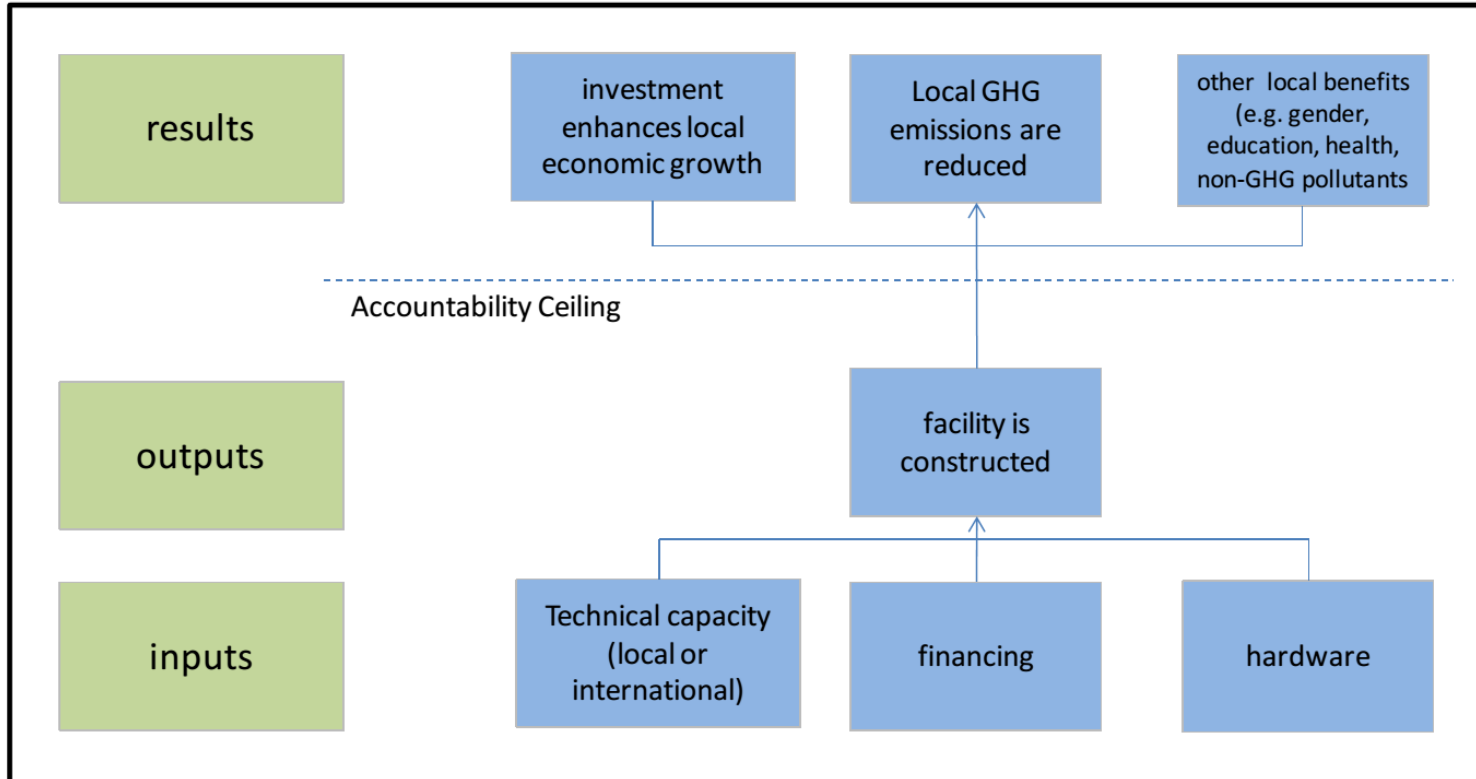
- Solar energy in 2000
- Solar energy in 2016
- Wind in 2016
- Marine current turbine technology in 2016

2 Logframes



Logical frameworks („Logframes“)

- Why?
 - Standard tool for planning and describing projects
- What?
 - Helps you clarify why you want to do activities, for which you
 - Need inputs
 - To produce outputs
 - That lead to outcomes
 - Which are intermediate steps on the pathway to impact.



Typical program logic of a local project



RESULTS-BASED LOGICAL FRAMEWORK OF PROPOSALS FINANCED BY AFRICA CLIMATE CHANGE FUND

Title of the Proposal: Bank Task Manager: Recipient/Country/Department:	Amount Requested: Planned duration:	Alignment of proposal with CSP: Y / N Sector priorities: Y/N Trust fund objective: Y/N	Date of submission:
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Hierarchy of objectives	Expected results	Performance indicators	Objective indicators and timeframe		Significant Risks and mitigation measures
			Baseline	Targets	
Goal <i>(Global objectives of the Bank or Bank Sector to which the program and /or proposal contribute)</i>	Impact	Impact Indicators: <i>Evidence showing the accomplishment of results</i>		Progress anticipated in the long term: Timeframe:	<u>Assumption statement:</u> <i>Risk factors and conditions vital to success</i> Mitigation strategy/strategies
Project/ Programme Purpose <i>(Purpose of the project/ programme to which the proposal contributes)</i>	Outcomes	Outcome Indicators: <i>Evidence showing the accomplishment of the intended outcomes of change</i>		Progress anticipated in the medium term: Timeframe:	<u>Assumption statement:</u> <i>Risk factors and conditions vital to success</i> Mitigation strategy/strategies
Proposal Purpose	Output 1 Output 2	Output Indicators <i>Evidences showing that the outputs were accomplished</i>		Progress anticipated in the short term: Timeframe:	<u>Assumption statement:</u> <i>Risk factors and conditions vital to success</i> Mitigation strategy/strategies
Input and activities to achieve the outputs					
Activities			Inputs		
Activity 1					
Activity 2					



Example: a UNDP GEF project in Mexico

- In order to create and sustain commercial markets for grid-connected PV systems, the Federal Power Commission must be convinced of the technical and long-term financial sustainability of PV technology in the context of unsustainable direct subsidies for consumption. This project is designed therefore to open the way for large-scale market penetration of grid-connected PV technology.
- The baseline scenario assumes that the subsidy regime for residential consumption will continue in the Northwest of Mexico, with no real incentives for viable alternatives for the large-scale introduction of grid-connected PV technology. The proposed project will establish basic conditions in a city in the Northwest of Mexico for technical vetting and commercial expansion of residential PV systems, as well as for small enterprises. The project strategy includes the engagement of local service providers through consultations and targeted informational campaigns to develop supply for the PV market. Some work on policy modifications will also be carried out, to address all of the pertinent issues for market development of PV technology (social, economic, technological and policy). Finally, extensive technical monitoring and evaluation will be carried out on the net metering system to be installed, in order to ameliorate concerns from CFE on the technical and financial issues related to PV technology.

- Objective:
- Outcome 1: Grid connected PV systems are demonstrated as a viable technical and commercial electricity supply option in the northern Mexican context
- Outcome 2: Technical capacity for the design, operation, and maintenance of on grid PV systems and related components is incorporated in national institutions.
- Outcome 3: Project results influence national renewable energy policy and contribute to global PV market development efforts

Logframe for Mexico Project:

- **Outcome 1: Grid connected PV systems are demonstrated as a viable technical and commercial electricity supply option in the northern Mexican context**
- *Output 1 Financial mechanisms and market insertion models for the deployment of grid connected PV systems are developed*
- Activity 1.1 – Identification of potential financial mechanisms
- *Output 2 – 130 kW of grid-connected PV residential and commercial systems installed and operating in northwest Mexico, based on the delivery models developed in Output 1*
- Activity 2.1 Definition of technical characteristics of PV systems
- Activity 2.2 Purchase and installation of equipment
- Activity 2.3 – Monitoring and documentation of system performance
- *Output 3 Analysis of technical and commercial feasibility of grid-connected systems is developed*
- Activity 3.1 Analysis of technical viability based on project experiences is conducted.
- Activity 3.2 Analysis of market penetration potential based on project experiences and global PV market status is developed

OBJECT STRATEGY GOAL	OBJECTIVELY VERIFIABLE INDICATORS			
	INDICATOR	TARGET VALUE	MEANS OF VERIFICATION	ASSUMPTIONS AND RISKS
OBJECTIVE: to demonstrate the technical, operational, ultimately, economic feasibility of grid-connected PV systems as a means to reduce or soften the summer peak electrical demand in northern Mexico	Supportive regulatory frameworks and incentive programs developed to grid connected PV systems	Implementation and adoption of legal frameworks and incentive programs	Legal amendments on sector policy proposed to Congress	Financial institutions engaged promote financing schemes options develop PV info and data effectively applied and potential investor
	Financial mechanisms to ensure user access and PV system sustainability are developed and tested	Credit lines and other supportive options available at financing institutions	Number of loans approved	
	Technical capacity of local users on grid connected PV operations	Institutions, technicians and user have participated in training programs and are applying received knowledge in PV related operations	Number of personnel trained	
	Cost of generation with on-grid PV Systems in northern Mexico	A firm cost in \$/W is determined and cost trajectories over the next 5 years are projected	Project documentation	
	Total electricity generated from on grid PV systems (and thus displacing conventional electricity sources)	220MWh/year	Project Documentation	
	PV information is updated and disseminated to users and investors to encourage and facilitate future investment	PV info widely available and used to make investments	Manuals and guidelines available	
OUTCOME 1: Grid connected PV systems are demonstrated as a viable technical and commercial electricity supply option in the northern Mexican context	Financing plans approved	Financing mechanisms available for multiple users and stakeholders	Statutes, minutes	Financial mechanism not proven sufficient needed expansion
	Systems purchased through finance plan	PV market developed	Signed contracts	
	Systems connected to grid and in operation	PV systems connected to grid reducing electrical demand	Grid reports, site visits	Technical failure considered underperformance
	Technical studies on net metering integrated and distributed	Database of technical standards available	Reports	

INPUTS TO ACHIEVE OUTCOME 1:

Financial mechanisms and market insertion models for the deployment of grid connected PV systems are developed

130 kW of grid-connected PV residential and commercial systems installed and operating in northwest Mexico, through the delivery models developed in Output 1

Analysis of technical and commercial feasibility of grid-connected systems is developed



GOAL	INDICATOR	TARGET VALUE	MEANS OF VERIFICATION	ASSUMPTIONS AND RISKS
OUTCOME 2: Technical capacity in the design, installation, and maintenance of on-grid PV systems and related components is incorporated in national institutions	Procedures for interconnection developed and internalized	National institutions provided with technical capacity	Manuals published	Trained technicians from CFE
	CFE personnel participate in training	CFE personnel able to operate grid PV systems	Course registration list, number of participants	Lack of on-grid connection systems generation schemes

INPUTS TO ACHIEVE OUTCOME 2:

Technical guidelines and specifications for the interconnection of PV systems to the local grid developed

An on-grid PV system training program is developed and implemented through CFE

OUTCOME 3: Project influences national renewable energy policy and contributes to local and global PV market development efforts	Increased knowledge of the potential benefits of grid-connected PV systems	Public awareness on grid-connected PV systems benefits	Meeting minutes, internal reports	Collapse of PV industry
	Increased participation of suppliers in dissemination activities	Suppliers capable to promote PV benefits	Promotional brochures	Lack of acceptance by user
	Reliable information distributed	Information exchange systems operating	Distribution lists	
	Energy variable included in national MDG reporting	MDG goals on energy reported and accomplished	Minutes, reports, published strategies	
	Gender perspective permeates project activities	Gender perspective applied and disseminated	Strategy published	
	Gender-sensitive indicators developed	Gender Indicators reached	Indicators published	

INPUTS TO PRODUCE OUTCOME 3:

Policy recommendations based on project results are issued

Local suppliers well informed and aware of grid-connected PV market potential

Project experiences are shared with national stakeholders and other similar initiatives worldwide

Systematization of information on grid-connected PV in the context of Mexico's strategy for Goal 7 of the Millennium Development Goals.

Development of gender strategy

Thank you!

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