
UN Carbon Market Mechanisms: Business opportunities for the Caribbean

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Promoting clean technologies and opportunities under the carbon market mechanisms

Stakeholder engagement

- Key partnerships
- Engaged 8/16 governments
- Known in the region
- Making the carbon market simple

Clean Development Mechanism, CDM

- Added 11 projects: from 60 to 71
- Drafted (4) notes for CDM improvements
- Updated governments contact list

Renewable energy & waste sectors

- Supported 9 standardized baselines proposals Supporting entity for regional programme

Capacity building: delivering trainings, promoting success stories, sharing information, & answering technical queries

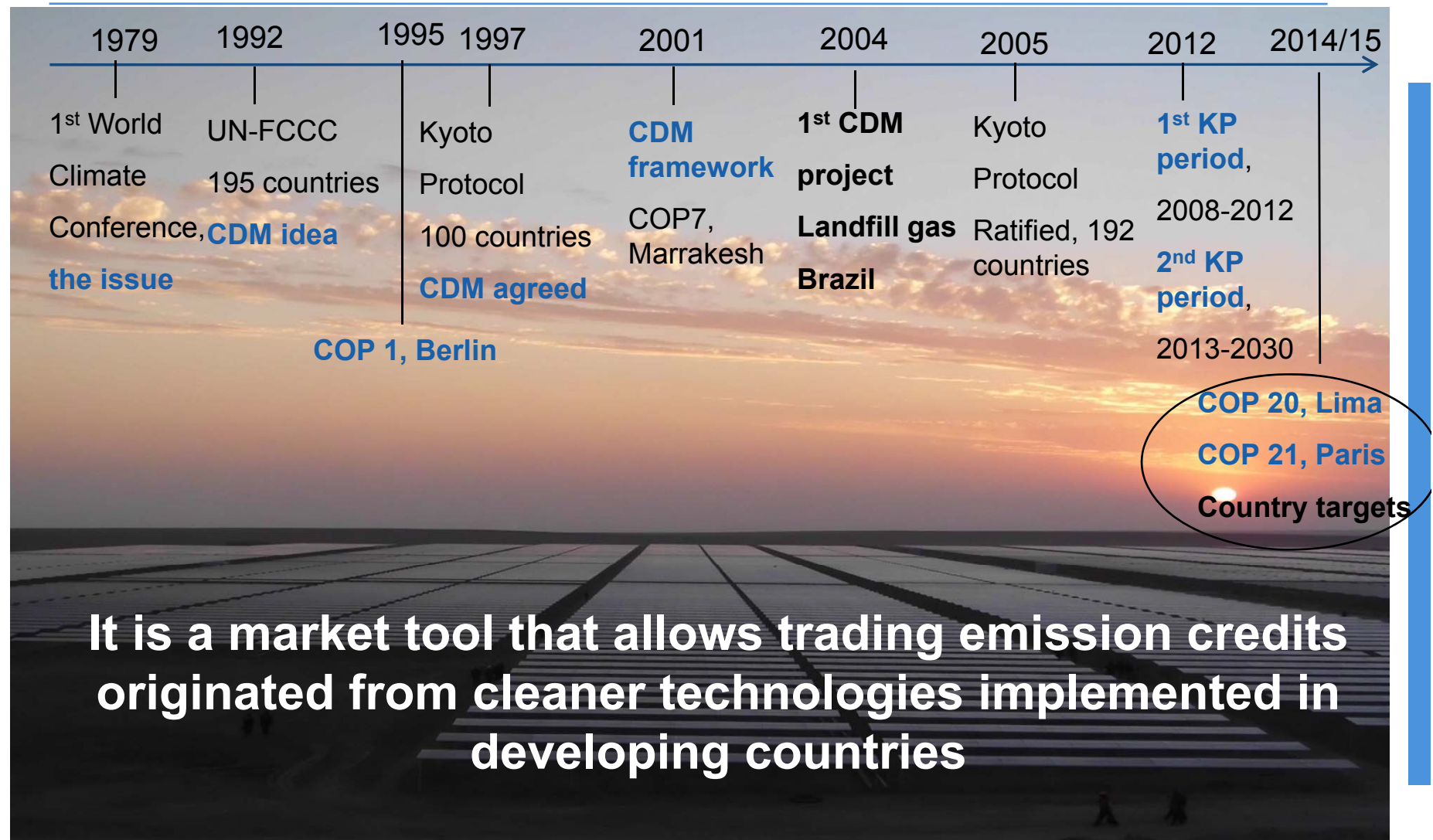


Outline

- 1. Background to the carbon market**
- 2. UNFCCC case study in the hospitality sector**
- 3. Sources of funding**
- 4. RCC St. George's type of support**
- 5. What is there for you?**

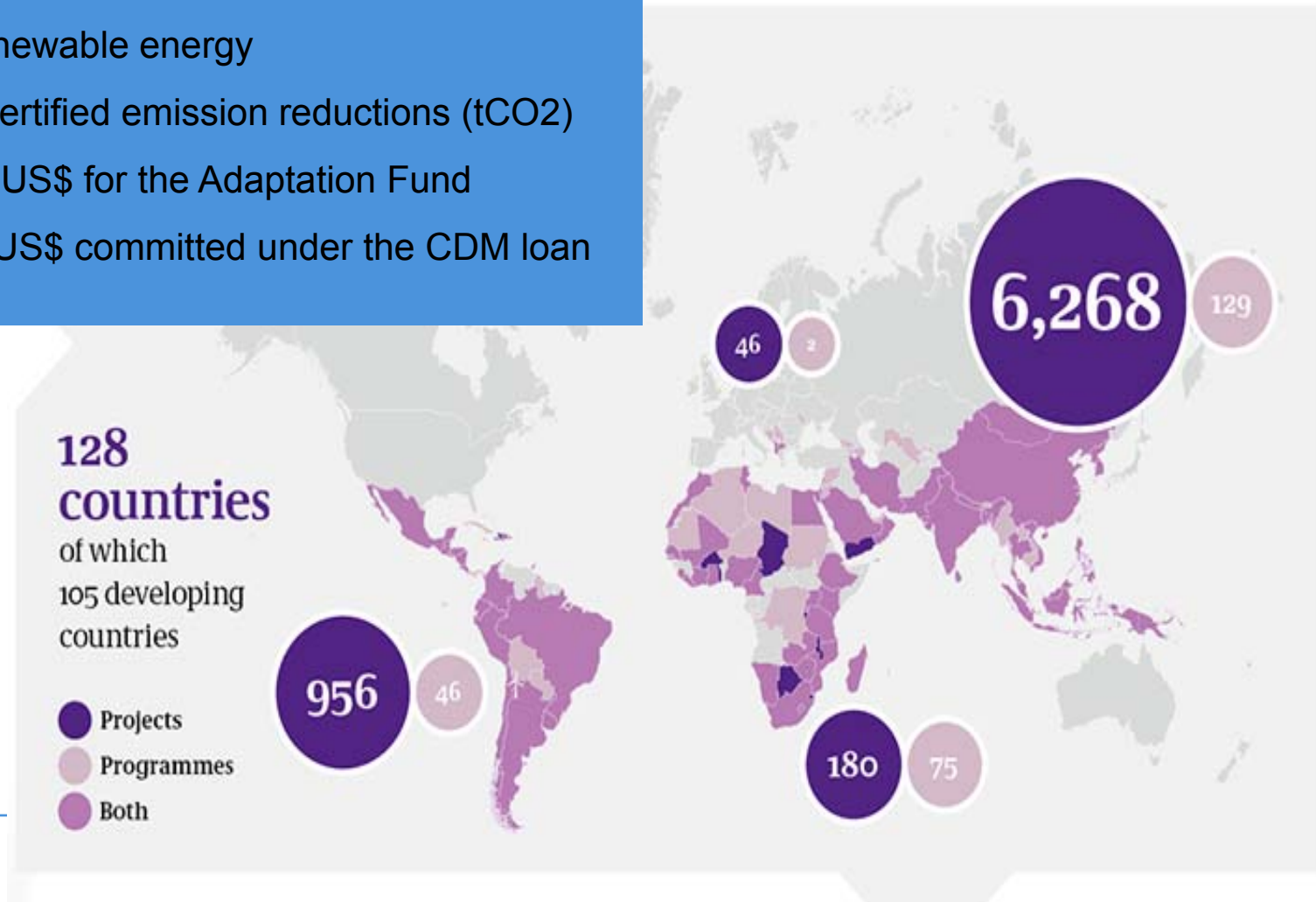


What is the CDM, Clean Development Mechanism?



The CDM in numbers

> 7,500 projects
315 billion US\$ invested
110 GW renewable energy
2.2 billion certified emission reductions (tCO₂)
188 million US\$ for the Adaptation Fund
> 5 million US\$ committed under the CDM loan scheme (*)



(*) CDM loan scheme for consultancy, validation or verification

CDM projects

RETROFITTING HOMES

Reducing energy costs
Improving living conditions
Creating new jobs and skills



HYDRO PLANT

Providing electricity
In rural areas

BIOGAS DIGESTORS

Accessing clean energy
Empowering women



COMPOSTING

Empowering communities
Managing waste



2) UNFCCC case study



Hotel Facts



- ✓ Opened in 2002
- ✓ Five star hotel in Kolkata
- ✓ 238 guest rooms

**The first hotel in the world with
certified emission reductions, CERs, by UNFCCC**



Project Facts

Name (Ref.686)	Improvement in Energy Consumption of a Hotel
Project type	EE improvements– meth AMS-II.B EE & fuel switching measures – meth AMS-II.E
CDM Lifetime	10 years
Investment	US\$ 1 million
Reductions	2,987 tCO ₂ /year
Registration	18/11/2006
Location	Kolkata, West Bengal, India



Measures and Savings

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Unit/appliance	Measures	Savings (*)
Electric water heater	Installing solar	1.866 GWh/year
Pumps	Retrofitting pumps	@ 3.5 INR/kWh (2006) 6.53 million INR/year=
Heat, ventilation & air-conditioning	Retrofitting HVAC with U shape pipes	
Kitchen exhaust fans	Installing various frequency drivers	145,100 US\$/year
Steam boiler	Installing a magnetizer	55,932 L diesel/year @ 26 INR/L (2006)
	Re-using low energy waste heat	1.44 million INR/year=
	Using condensate steam	32,000 US\$/year

TOTAL SAVINGS

177,100 US\$/year



(*) Diesel & electricity prices sourced from Validation Report, CDM 0686, 1 US\$=45 INR, 2006

Project finance

	India, 2006	Grenada, 2014 (*)
Total investment, US\$	1 million	1.5 million (50% higher)
Total savings demand, US\$/year	145,100	@0.40 US\$/kWh 746,400
Total savings generation, US\$/year	32,000	@1.07US\$/L (*) 59,847
Total savings, US\$/year	177,100	806,247
Pay-back period, years	5.7	1.9
Carbon revenues, US\$, 10 years	93,000 (@10US\$/CER)	28,173 (@3US\$/CER)



Co-Benefits

Technological	<ul style="list-style-type: none">• Introduces clean technology measures to 'common' technologies• Encourages replication of measures in the sector or other sectors
Economic	<ul style="list-style-type: none">• Increases profitability by reducing electricity and diesel consumption due to savings in energy bills• CDM fund expected encourages Indian hotels for investing in energy efficient measures
Social	<ul style="list-style-type: none">• Creates new skills and jobs by the introducing new technologies such as solar• Reduces grid demand and allows grid electricity to be used by the ones in need
Environmental	<ul style="list-style-type: none">• Reduces GHG emissions• Reduces pollution due to extraction, processing and transporting fossil fuels such as diesel (for steam generation at hotel and for electricity generation at country level)



What can carbon trading do for the hospitality sector?

- Enhances public image due to UNFCCC certification
 - E.g.: Corporate Social Responsibility and Eco Tourism
- Provides a clear framework for monitoring and reporting of the electricity savings due to the introduction of the EE measures
 - By ensuring long-term sustainability and deliverables of the EE activity
- Engages new sources of funds
 - At CDM level
 - At climate level



3) Sources of funding



Engages new sources of funds – At CDM level

- CDM loan scheme: CDM proposal and certification
 - >5 million US\$ committed, 50 projects
 - Next window: March 2015
- kfW – German Development Bank: financing and grants
 - CDM Programme of Activities (group of projects)
 - EE activities, funds for implementing and marketing
- NEFCO Carbon Fund– Nordic Environment Finance Corporation
 - CDM projects in Latin American & Caribbean
 - EE activities, last call in November 2014
- Norwegian Government –
 - Buying CERs from special projects in SIDS
 - Deadline for next application: On going



Engages new sources of funds for entrepreneurs – At climate level

- UNDP-GIZ, Integrated Climate Change Adaptation Strategies, ICCAS, Grenada
→ Call for projects, November 2014, 50,000 US\$
- Caribbean Climate Innovation Center
→ Provided 11 grants, April 2014, 25,000 US\$
- Inter-American Development Bank
→ Energy Innovation Contest, IDEAS, January 2015, 200,000 US\$



4) RCC St. George's type of support



How can RCC St. George's support you?

- Provides free technical support
 - Drafting proposals for funding
 - CDM project cycle: design, registration, validation, monitoring & certification
- Links stakeholders with funding agencies
- Advices on clean technologies such as EE measures, energy savings and carbon revenues
 - Identifying methodologies and similar projects
 - Calculating savings and carbon revenues
- Provides opportunities for internships – E.g. the CDM, carbon markets, carbon accounting, climate change policies.



5) What is there for you?



What is there for you?

- Apply IT & business skills to create your own business in niche new sector
 - Build up knowledge/experience → provide services such as energy/environmental auditing (ISO 50001, ISO 14001)
 - Develop smart phone applications → E.g. to check on electricity/water usage
 - Explore feasibility of applying clean technologies → electric cars, biofuels, energy efficiency, solar/wind appliances
- Opportunity to carry out an internship with RCC St. George's
- Support climate mitigation → the planet, your country
https://www.youtube.com/watch?v=G2ED5tlyQ_I



Action on climate change makes sense for businesses



Thank you!



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CDM Regional Collaboration Centre, St. George's

References:

CDM background

<http://cdm.unfccc.int/about/index.html>

Facebook UN Carbon Mechanisms

<https://www.facebook.com/UNCarbonMechs?ref=ts&fref=ts>

UNFCCC Regional Collaboration Centres

<http://cdm.unfccc.int/stakeholder/rcc/index.html>

Can't do this alone – GRENADAPTS video

https://www.youtube.com/watch?v=G2ED5tlyQ_I

