

- 6.4 気候ファイナンスワークショップ資料(2015年10月28日)

# Climate Change International Technical and Training Center: CITC

Role as a regional capacity development center to support Southeast Asian countries integration

**Dr. Jakkanit Kananurak**

Director of Climate Change International Technical and Training Center : CITC

Wednesday, 28<sup>th</sup> October 2015

Thailand Greenhouse Gas Management Organization (Public Organization)



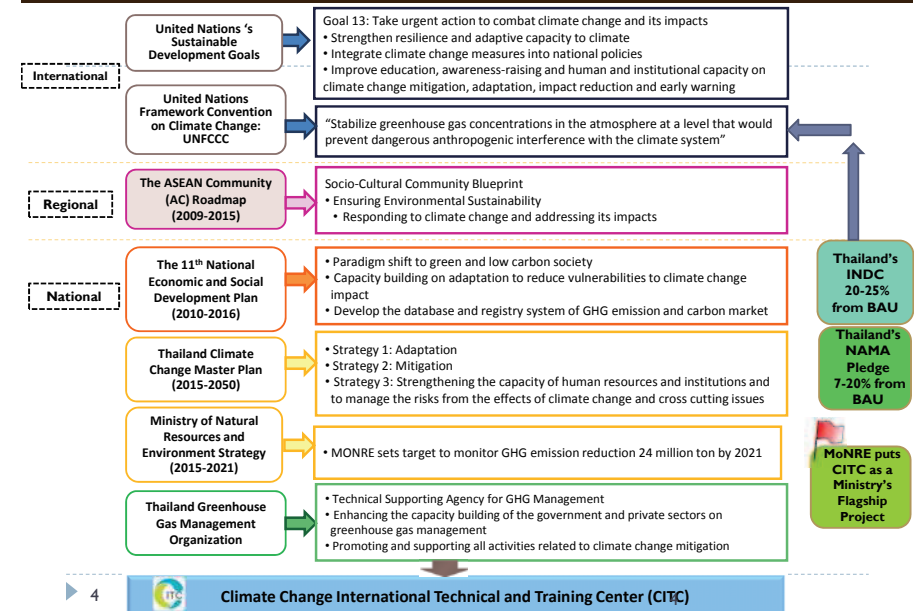
## Outline

1. Introduction to CITC
2. Knowledge Clusters
3. Achievements & Progress
4. Upcoming Activities

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## Introduction to CITC

### Linkages of CITC to global, regional, and national policies



## Introduction to CITC (1/5)

- ▶ **Climate Change International Technical and Training Center (CITC) is :**
  - **Established by Thailand Greenhouse Gas Management Organization (TGO)**
  - **A flagship project by the Ministry of Natural Resources and Environment, Thailand**
  - **Officially launched on May 8, 2014**
  - **Supported by Japan International Cooperation Agency (JICA)**

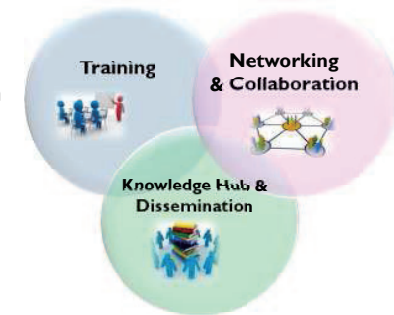
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## Introduction to CITC (2/5)

- **“ One-stop technical and training center on climate change in order to move towards low carbon & resilient society the region”**

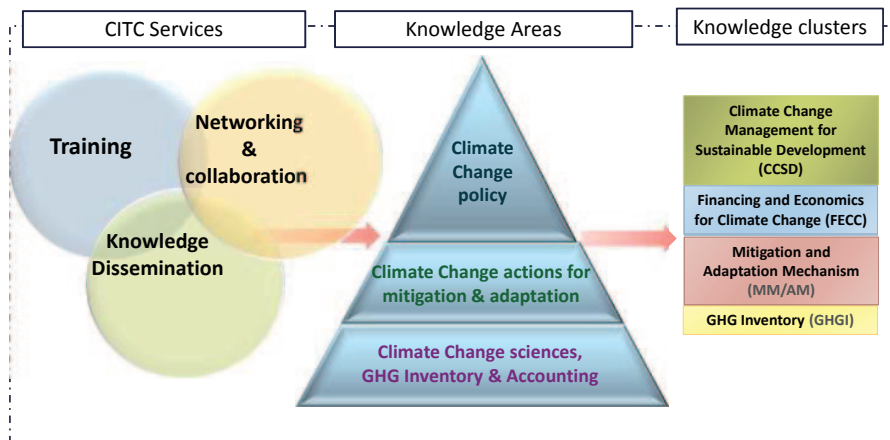
### Mission

1. Provide capacity development on climate change mitigation and adaptation
2. Promote climate change networking platform
3. Promote knowledge dissemination on climate change mitigation and adaptation



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## Introduction to CITC (3/5)



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## Climate Education and Training: Getting Fit to Shape the Future :The Article 6 Dialogue, June 2015, Bonn

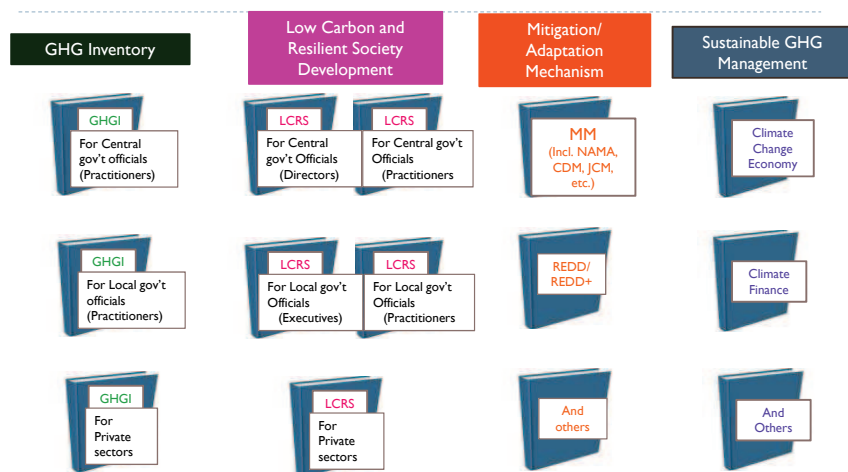


- ▶ Christiana Figueres, Executive Secretary of the UNFCCC  
*.....“It is **not only about studying climate change, but also about understanding it.** It is critical to include it in curricula, but it needs to be embedded in the DNA of today’s very education concept. It is not just another course; it is about how everything else we study or do is affected by climate change.  
**It is about understanding the transformation to be able to act on it.”***

Source: <http://newsroom.unfccc.int/lima/article-6-climate-education-and-training/>

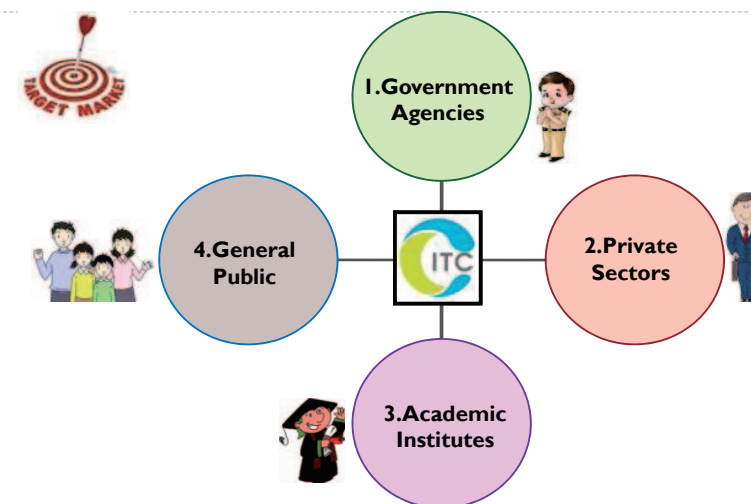
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## Introduction to CITC (4/5) Knowledge Clusters



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## Introduction to CITC (5/5)



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## Achievements & Progress

## Achievements & CITC's Training Program (1/9)

Curriculum	Targets	Date	No. of Participants	
			Trainees	TTT
1. Greenhouse Gas Inventory (GHGI)	Central governments practitioners	Aug, Sep 2014/ May, July 2015	143	19
2. Low Carbon and Resilient Society Development (LCRS)	Local governments practitioners	Dec 2014	38	33
3. Low Carbon and Resilient Society Development (LCRS)	Local governments executives	Mar 2015	59	-
4. Climate Change Economics	Central governments	Mar, May /June 2015	61	13

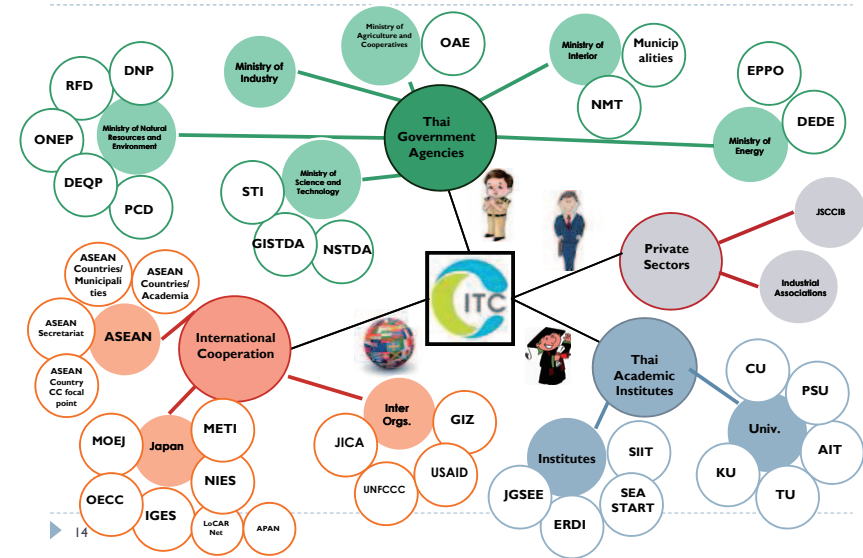
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## Achievements & CITC's Training Program (2/9)

Curriculums	Targets	Date	No. of Participants	
			Trainees	TTT
5. Low Carbon and Resilient Society Development (LCRS)	Central governments Executive and practitioners	Sep 2015	37	-
6. Mitigation Mechanism (MM)	Central governments practitioners	Sep 2015	88	42
Total			426	107

## Achievements & Progress – Networking (3/9)



## Achievements & Progress (4/9)

participated the **ASEAN Working Group on Climate Change (AWGCC)** for introducing the establishment of CITC and CITC activities from **2012-2015**.



## Achievements & Progress (5/9)

The UNFCCC COP 20/ CMPI0 Side Event  
**“Climate Change Capacity Development Activities in Southeast Asia Region: Enhance Capacity through the CITC”**  
 (co-organized with JICA) Lima, Peru  
 (more than 70 participants)



H.E. Mr. Rungdej Mahasaranond  
 Ambassador of Thailand at Lima, Peru



Mr. Michihiro Oi  
 Director, Office of International Strategies on Climate Change, MOEJ



Mr. Ichiro Sato  
 Deputy Director, Office for Climate Change, JICA



## Achievements & Progress

The UNFCCC COP 20/ CMPI0 Side Event  
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Dr. Jakkanit Kananurak, TGO	Ms. Murni Titi Resdiana (DNPI), Indonesia	Dr. Luong Quang Huy, MONRE, Vietnam	Dr. Puja Sawhney, IGES Bangkok Regional Center	Ms. Takako Ono, IGES	Mr. Jiro Miguel Ogahara, OECC	Mr. Satoshi Iemoto, JICA Expert
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## Achievements & Progress (6/9)

**“Regional Workshop for Capacity Development on Low Carbon and Resilient Society in Southeast Asian Countries”**, 22–24 June 2015, Bangkok, Thailand  
 (117 participants from ASEAN Secretariat, focal points, cities and academia from ASEAN member countries)



General Ekachai Chansri  
 Advisor to the Minister of Natural Resources and Environment, Thailand



Mr. Hiroyuki Okajima, Minister-Counsellor, Embassy of Japan in Thailand

## Achievements & Progress (7/9)

**“Regional Workshop for Capacity Development on Low Carbon and Resilient Society in Southeast Asian Countries”**, 22–24 June 2015, Bangkok, Thailand



MOC Signing Ceremony



Panel Discussion “Capacity development as a key success factor to achieve Low Carbon and Resilient Society”

## Achievements & Progress (8/9) Knowledge Hub & Dissemination

*Leaflets and Stand-banners*



# Achievements & Progress (9/9) Knowledge Hub & Dissemination

CITC website ([www.citc.in.th](http://www.citc.in.th))



Climate Change Channel (movie clips, linked with CITC website)



## Upcoming Activities

Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Jul-Sep 2016
<b>Trainings / Workshops</b>			
Workshop on TNA for Climate Finance	Training on Low Carbon & Resilient Society (2)	Training on Climate change economics (3)	Training on Low Carbon & Resilient Society for central government (2)
peer review meeting for Low Carbon & Resilient Society	Training on Climate Finance (1)	Training on Mitigation Mechanism (2)	
peer review meeting Mitigation Mechanism	Training on Low Carbon & Resilient Society (1)	TTT Course	
Workshop on Low Carbon & Resilient Society	Training on Mitigation Mechanism (1)		
	ASEAN Workshop (3)		
<b>Knowledge Hub &amp; Dissemination</b>			
Publications through media to all targets			
PR and Networking activities (road shows, participation of domestic & international events)			
CITC website & E-learning			



## Opportunity to enhance climate mitigation programs by climate finance

Regional Workshop for Capacity Development on Climate Finance in Southeast Asian countries  
28 October 2015, Bangkok



Benita Gurung, Regional Collaboration Center, Bangkok  
UNFCCC secretariat

### OUTLINE

- 1) Landscape of climate finance -mitigation
- 2) CDM's contribution to climate finance
- 3) Opportunities for CDM projects
- 4) Final remarks



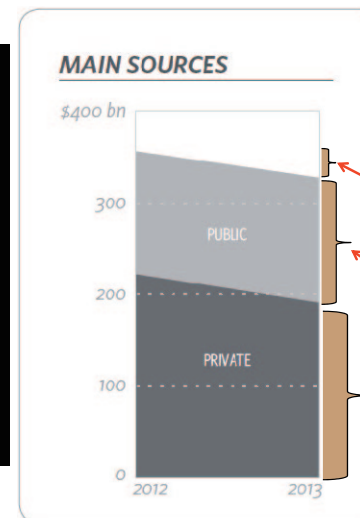
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## 1. Landscape of climate finance



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## Climate finance – 2013 vs 2012



- Total flows, 2013: **331 bn. US\$**;
- Total flows, 2012: **359 bn. US\$**
- >90% for mitigation
- Gap: 28 bn. US\$ gap, **8% decrease**
- **2013:**
- Public: 137 bn. US\$; 126 b.US\$ from:
  - Development Financial Inst., DFI
- Private: 193 bn. US\$, mainly from:
  - Project developers and corporates



Source: The Global Landscape of Climate Finance 2014, Climate Policy Initiative.  
<http://climatepolicyinitiative.org/wp-content/uploads/2014/11/The-Global-Landscape-of-Climate-Finance-2014.pdf>

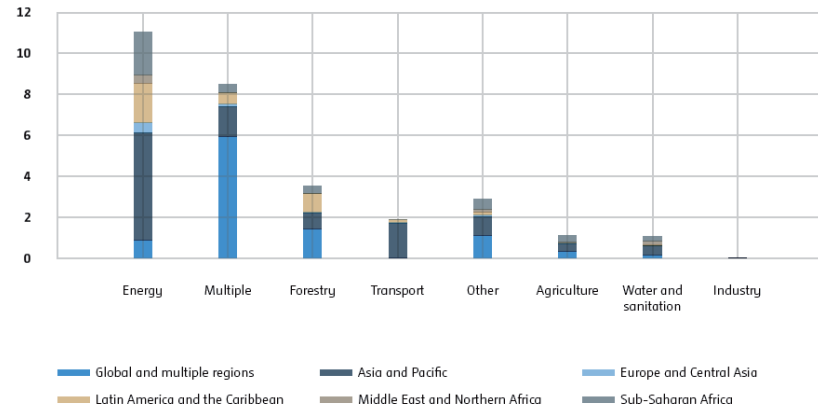
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## Fast Start Finance (FSF) by regions/sectors

- FSF, commitment from developed to developing countries, 30 bUS\$

\* Billion US\$, 2010-2012



Source: Biennial assessment and overview of climate finance flows 2014

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## Climate finance by MDB, 2012 –US\$ million

MDB	Adaptation	Mitigation	Total
AfDB	445	1,463	<b>1,908</b>
ADB	821	2,001	<b>2,822</b>
EBRD	188	2,812	<b>3,000</b>
EIB	179	3,484	<b>3,663</b>
IFC		1,552	<b>1,552</b>
IDB	139	1,619	<b>1,758</b>
WB	3,813	6,168	<b>9,981</b>
<b>Total</b>	<b>5585</b>	<b>19100</b>	<b>24,685</b>

Source: UNFCCC Biennial assessment and overview of climate finance flows 2014

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## 2. CDM's contribution to climate finance 2004-2013

## Renewable energy investment, 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
GTREI	39.5	64.5	99.6	145.9	171.2	168.4	226.7	279.4	249.5	214.4
GTREI-Developed	32.0	49.0	74.0	103.0	113.0	106.0	153.0	187.0	142.0	122.0
GTREI-Developing	8.0	16.0	25.0	43.0	58.0	63.0	74.0	92.0	107.0	93.0
CDM	0.0	0.9	9.3	14.1	15.8	31.1	51.8	80.5	197.5	17.9

\* GTREI, Global trend in renewable energy investment

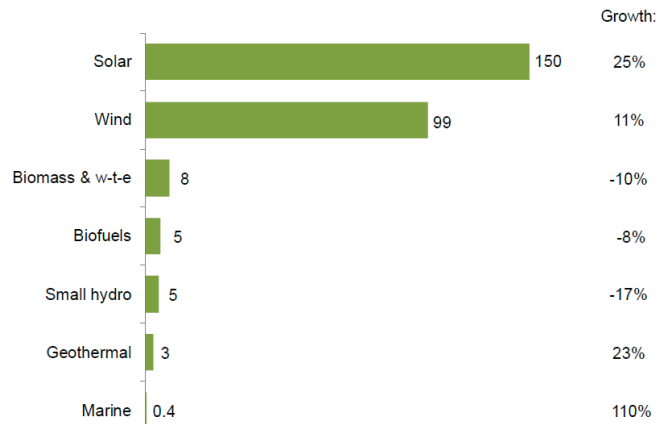
- Renewable energy, RE, investment grew from 39.5 to 214.4 bn.US\$, 2004 to 2013
- RE investment in developed and developing countries increased ~4 and 12 times, respectively.
- In 10 years CDM contributed to 418 bn.US\$; In 2012 **CDM contributed nearly 80%** of the total investment for RE

Source: Biennial assessment and overview of climate finance flows 2014

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### GLOBAL NEW INVESTMENT IN RENEWABLE ENERGY BY SECTOR, 2014 AND GROWTH ON 2013 (\$BN)



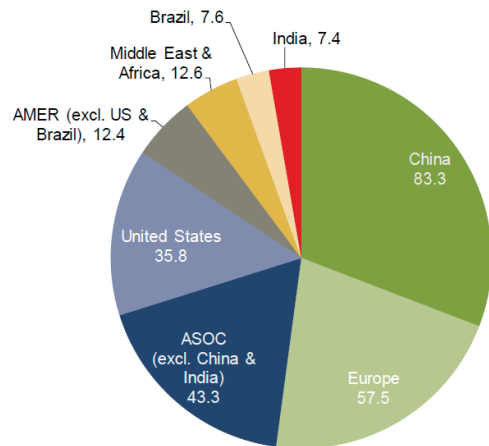
Note: New investment volume adjusts for re-invested equity. Total values include estimates for undisclosed deals. Source: Bloomberg New Energy Finance; UNEP



### 3. Opportunities for CDM projects



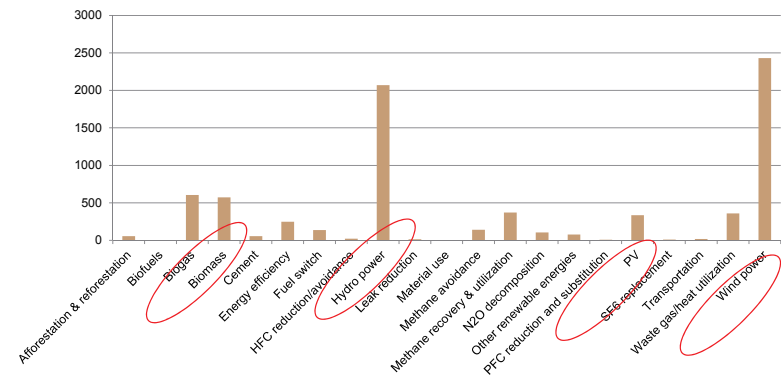
### GLOBAL NEW INVESTMENT IN RENEWABLE ENERGY BY REGION, 2014 (\$BN)



Source: Bloomberg New Energy Finance; UNEP



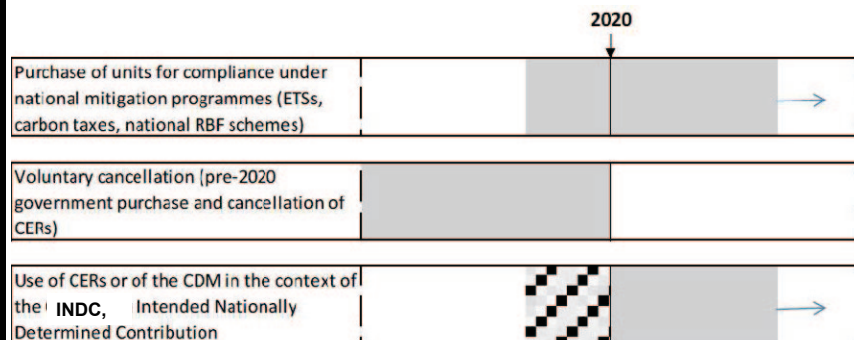
### Types of registered CDM Project activities- registered so far (October 2015)





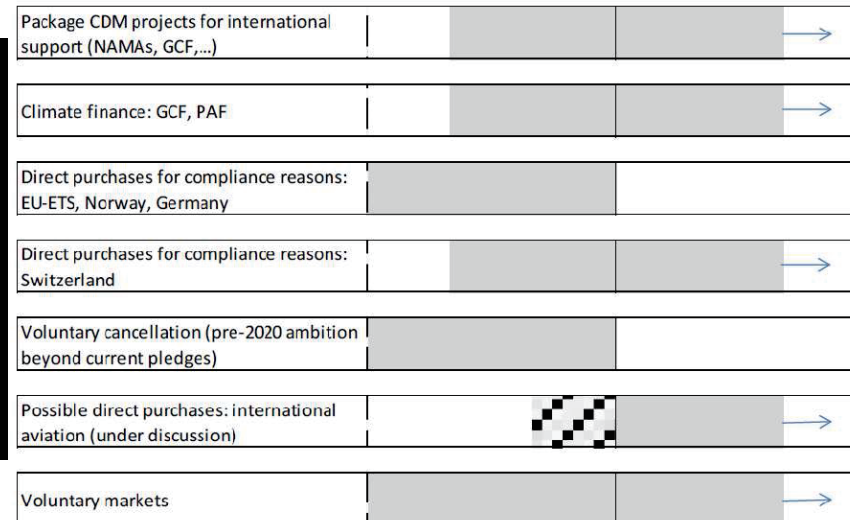
## Sources of demand for CERs

### At national/regional level:



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## Sources of demand for CERs



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## Current opportunities for CDM

Buyer	Total USD or CER credits	From	Criteria
Foundation for Climate Protection & Carbon Offset, KliK, Swiss Petroleum Association	1 million CERs	11/2013	Maximum of 35% of total volume from one country Maximum bid size is 100,000 CERs/transaction RE technology, hydro <20MW Energy efficiency
NEFCO Norwegian Carbon Procurement Facility (NorCap)	30 million CERs	10/2013	Vulnerability to carbon prices (stranded, abandoned) Developing country without a cap under Kyoto Wind or hydro projects, LDCs Minimum 300,000 CERs/transaction Excluded: hydro & wind in non-LDCs, HFC/N2O (adipic acid production), coal based production without CCS



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## Current opportunities for CDM

Buyer	Total USD or CER credits	From	Criteria
Swedish Energy Agency	10 million CERs	12/2013	Focused on Africa/SE Asia Minimum 200,000 CERs/transaction RE, energy efficiency and waste management Project should be new or vulnerable projects
World Bank Prototype Auction Facility, PAF	100m USD in 4 lots of USD25 m	2015 PAF I, July	China excluded Methane from landfill, waste-water, etc. Excludes oil and gas and coal mines Eligible monitoring period start date, Sept. 2014. <b>PAF I:</b> 12 winners @ 2.4 CER price, 8.7 million CERs sold
Carbon Market Foundation, KfW, Germany		2013, last call 31/08/15	CERs from PoA-CDM Minimum 25,000 CERs/year Maximum volume for start-up financing no more than 2million EUR/PoA Not limited to LDCs



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## Current opportunities for CDM

- New Corporate Target for Climate Finance\*
- **ADB to invest \$6 billion for climate change for Asia-Pacific by 2020**
- **Of this, \$4 billion for mitigation and \$2 for adaptation**
- **Green Climate Fund**
  - Operating entity of the financial mechanism of the UNFCCC, CoP16
  - Centrepiece of long-term finance under UNFCCC
  - Secretariat December 2013 Songdo;
  - Fully operational, staffed and resourced

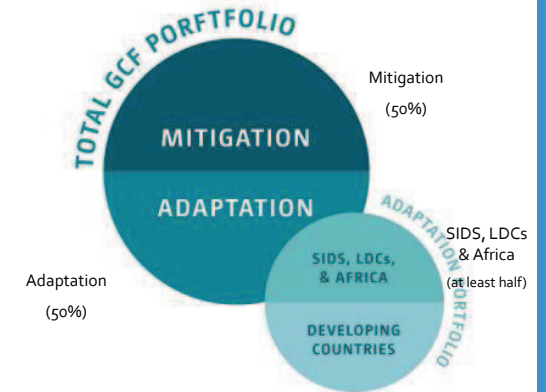
\* Source: <http://www.adb.org/news/adb-double-annual-climate-financing-6-billion-asia-pacific-2020>



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## GCF- Resources Allocation

- \$10.2 billion in pledges
- \$5.8 billion in signed contributions
- 50/50 split between adaptation & mitigation
- Geographic balance
- 50% of adaptation resources for SIDS, LDCs and African states



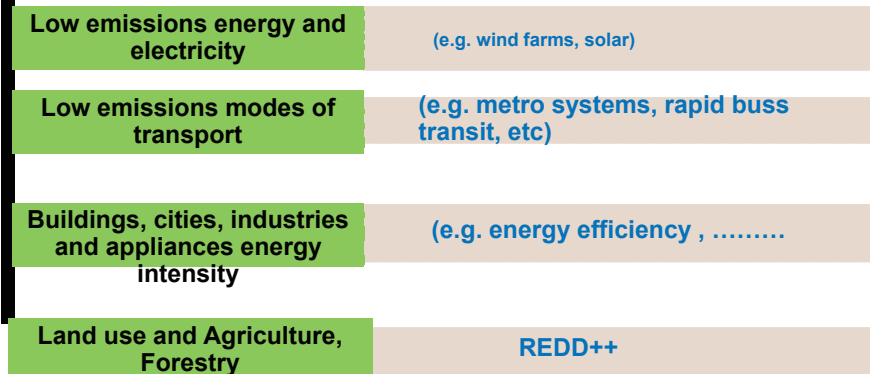
Source: GCF-Presentation, Dr. Binu Parthan, UNFCCC Asia Pacific Workshop, Sept 30, 2015



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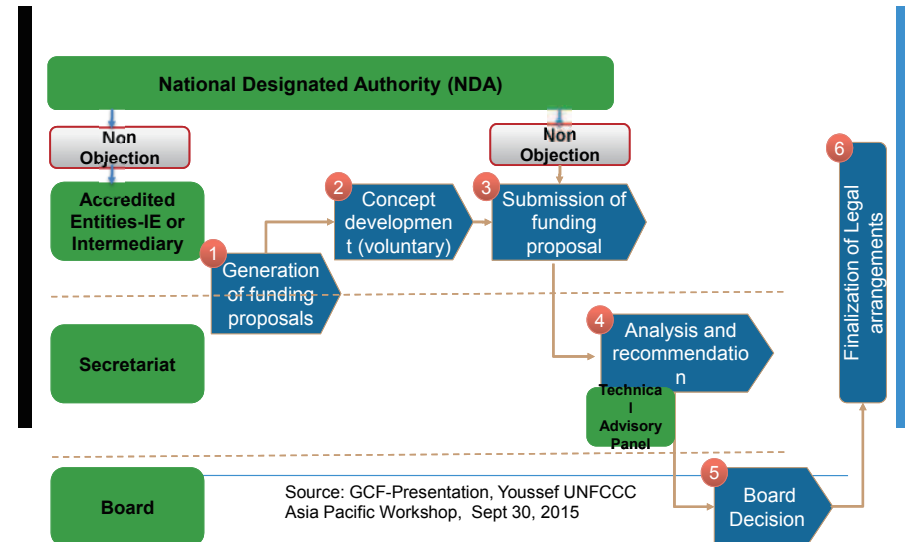
## GCF- Areas of Strategic Investment

### Mitigation Pillar



Source: GCF-Presentation, Youssef UNFCCC Asia Pacific Workshop, Sept 30, 2015

## Initial Proposal Approval Process



Source: GCF-Presentation, Youssef UNFCCC Asia Pacific Workshop, Sept 30, 2015

## 4. Final remarks



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### Final remarks

1. Financial flows in the last 5 years are > 300 bn.US\$/year, ; >90% focused on mitigation, renewable energy
2. Development financial institutions and corporations are the key actors involved in climate finance. However, **data uncertainty** on reporting sources and destinations of funding remains a challenge.
3. CDM has proven to be a market tool that promotes public and private investment. E.g. For RE contributed towards 418 bn.US\$.
4. CDM, an enhanced/new market mechanism could support filling up the mitigation gap, 17 GtCO<sub>2</sub>, needed to achieve 2oC level.
5. Mitigation potential from >1,000 CDM registered projects in the region can be used towards: (i) national commitments; e.g. country/ regional trading schemes; (ii) international initiatives; e.g. PAF II



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### Definition of climate finance

**Capital flows that target mitigation or adaptation objectives or outcomes. These flows include private and public finance; they support project implementation, policy and capacity building**

*Climate Policy Initiative*

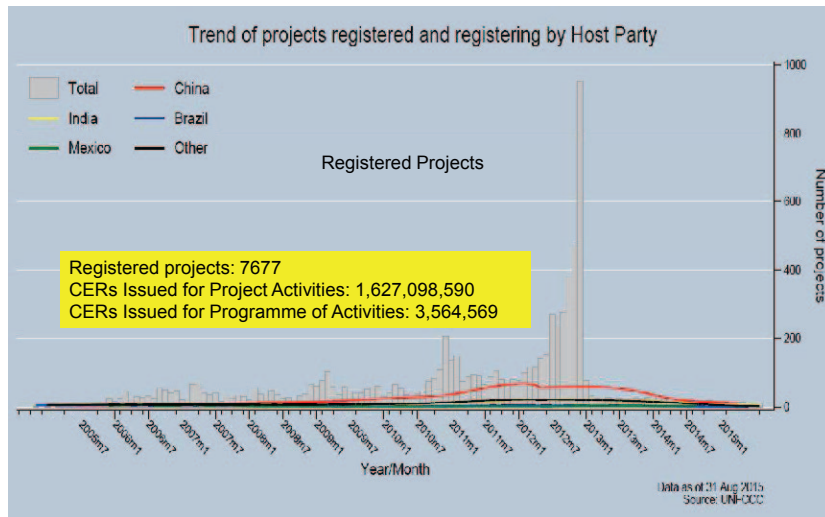


Source: Biennial assessment and overview of climate finance flows 2014

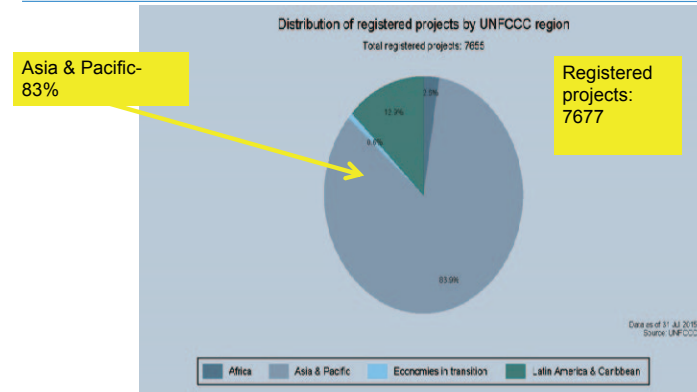
[https://unfccc.int/files/cooperation\\_and\\_support/financial\\_mechanisms/standing\\_committee/applicator/pdf/2014\\_biennial\\_assessment\\_and\\_overview\\_of\\_climate\\_finance\\_flows\\_report\\_web.pdf](https://unfccc.int/files/cooperation_and_support/financial_mechanisms/standing_committee/applicator/pdf/2014_biennial_assessment_and_overview_of_climate_finance_flows_report_web.pdf)

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## CDM Statistics



## CDM Project activities



# Domestic and International Finance

Tomonori SUDO, Ph.D  
Associate Professor,  
Ritsumeikan Asia Pacific University

Regional Workshop for Capacity Development on  
Climate Finance in Southeast Asian countries  
28 October 2015  
Bangkok, Thailand

## Finance needs for Sustainable Development

Investment gap for the world under a business-as-usual scenario is far larger (\$5 trillion/y) than the incremental investments needed to accommodate climate change (\$0.7 trillion/y, 14%).

Climate change considerations must be mainstreamed into such investments!



Source: JICA

Sector	Business-as-usual scenario investment needs		2°C scenario investment needs		Incremental investment required		Source
	Cumulative 2010-2050	Annual average	Cumulative 2010-2050	Annual average	Cumulative 2010-2050	Annual average	
Power generation	6,933	347	10,136	507	3,203	160	IEA
Power transmission and development	5,450	272	5,021	251	-429	-21	IEA
<b>Energy total</b>	<b>12,383</b>	<b>619</b>	<b>15,157</b>	<b>758</b>	<b>2,774</b>	<b>139</b>	
Buildings	7,162	358	13,076	654	5,914	296	IEA
Industry	5,100	255	5,800	290	700	35	IEA
<b>Building &amp; Industrial total</b>	<b>12,262</b>	<b>613</b>	<b>18,876</b>	<b>944</b>	<b>6,614</b>	<b>331</b>	
Road	8,000	400	8,000 <sup>a</sup>	400 <sup>a</sup>	-	-	OECD
Rail	5,000	250	5,000 <sup>a</sup>	250 <sup>a</sup>	-	-	OECD
Airports	2,300	115	2,300 <sup>a</sup>	115 <sup>a</sup>	-	-	OECD
Ports	800	40	800 <sup>a</sup>	40 <sup>a</sup>	-	-	OECD
Transport vehicles	16,908	845	20,640	1,032	3,732	187	IEA
<b>Transport total</b>	<b>33,008</b>	<b>1,650</b>	<b>36,740</b>	<b>1,837</b>	<b>3,732</b>	<b>187</b>	
Water	26,400	1,320	26,400 <sup>a</sup>	1,320 <sup>a</sup>	-	-	OECD
Agriculture	2,500	125	2,500 <sup>a</sup>	125 <sup>a</sup>	-	-	FAO
Telecommunications	12,000	600	12,000 <sup>a</sup>	600 <sup>a</sup>	-	-	OECD
Forestry	1,280	64	2,080	104	800	40	UNEP
Other sectors	unknown	unknown	unknown	unknown	unknown	unknown	
<b>Total investment</b>	<b>99,833</b>	<b>4,991</b>	<b>113,753</b>	<b>5,689</b>	<b>13,934</b>	<b>698</b>	
	<b>-\$100 tr</b>	<b>-\$5 tr</b>	<b>-\$114 tr</b>	<b>-\$57 tr</b>	<b>-\$14 tr</b>	<b>-\$07 tr</b>	

Sources: OECD<sup>a</sup>, IEA<sup>b</sup>, FAO<sup>c</sup>, UNEP<sup>d</sup>. Data presented in US\$ 2010 rates.  
Note: Total investment does not include synergy effects that can occur between other investments besides energy, buildings and industry and transport. The total amount provided is a proxy of future investment. Investment in water and telecommunications infrastructure covers the OECD and emerging markets only. Investment in agriculture covers 20 developing countries only. See Appendix 1 for full details of assumptions, scope and calculations.

Source: WEF (2013)

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## Asia's Total Infrastructure Investment Needs by Sector, 2010–2020 (in 2008 US\$ million)

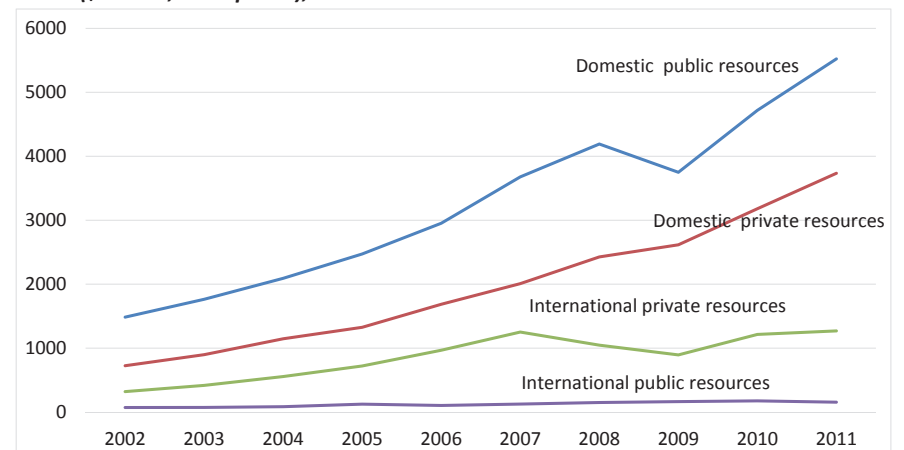
Sector/Subsector	New Capacity	Replacement	Total
<b>Energy (Electricity)</b>	<b>3,176,437</b>	<b>912,202</b>	<b>4,088,639</b>
<b>Telecommunications</b>	<b>325,353</b>	<b>730,304</b>	<b>1,055,657</b>
Mobile phones	181,763	509,151	690,914
Landlines	143,590	221,153	364,743
<b>Transport</b>	<b>1,761,666</b>	<b>704,457</b>	<b>2,466,123</b>
Airports	6,533	4,728	11,260
Ports	50,275	25,416	75,691
Railways	2,692	35,947	38,639
Roads	1,702,166	638,366	2,340,532
<b>Water and Sanitation</b>	<b>155,493</b>	<b>225,797</b>	<b>381,290</b>
Sanitation	107,925	119,573	227,498
Water	47,568	106,224	153,792
<b>Total</b>	<b>5,418,949</b>	<b>2,572,760</b>	<b>7,991,709</b>

\$ = United States dollar.  
Sources: ADBI (2009); Bhattacharyay (2008).

Source: ADB and ADBI (2009)

## Financial resources for sustainable development

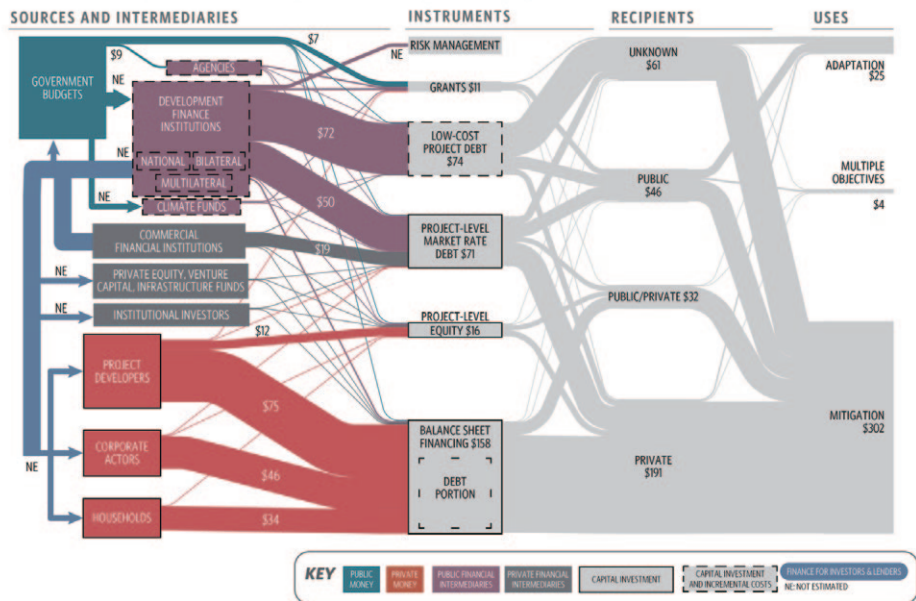
*Trends in finance to developing countries*  
(*\$ billion, 2011 prices*), 2002–2011



Sources: IMF, OECD, WDI, etc.

# LANDSCAPE OF CLIMATE FINANCE 2014 USD 331 BN TOTAL

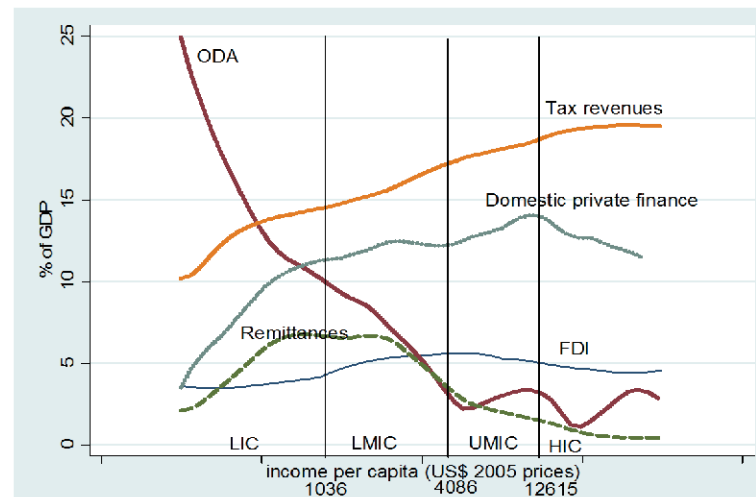
Landscape of Climate Finance 2014 illustrates climate finance flows along their life cycle for the latest year available, mostly 2013



Source: CPI (2014)

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## The composition of finance varies by level of income (% GDP)



Sources: IMF, OECD, WDI, etc.

## Knowledge gaps

- Source of finance
  - Domestic vs International
  - Public vs Private
  - Blending and innovative finance
- Characteristics of each finance source
  - Volume, predictability, opportunity and risks
- Enabling environment
  - Policy, regulations and incentives
  - Role of players

## Characteristics, potentials and risks of finance

	Characteristics	Potential	Risk
<b>Domestic public finance</b> • Nat'l budget (Nat'l tax) • Municipality budget • Bonds • Domestic DFIs	<ul style="list-style-type: none"> <li>• Most stable and low risk finance source.</li> <li>• Good for finance in low profit public projects</li> <li>• Contribute to leveraging domestic private finance</li> </ul>	<ul style="list-style-type: none"> <li>• Improved governance and financial system lead to increase of domestic finance flows and FDI.</li> </ul>	<ul style="list-style-type: none"> <li>• Political difficulty in increase of tax revenue</li> <li>• Lack of capacity of appropriate public fiscal management</li> <li>• Risk to crowd-out private finance</li> </ul>
<b>International Public Finance</b> • ODA • OOF • Multilaterals	<ul style="list-style-type: none"> <li>• Stable and low risk finance but low predictability</li> <li>• Limited volume of finance</li> <li>• Need to use efficiently and effectively</li> </ul>	<ul style="list-style-type: none"> <li>• Leveraging private finance</li> </ul>	<ul style="list-style-type: none"> <li>• Risk to crowd-out private finance.</li> <li>• Need to appropriate foreign reserve and forex management</li> </ul>
<b>Private finance</b>	<ul style="list-style-type: none"> <li>• Largest finance source.</li> <li>• Contribute to SD by investing in the project where social benefit will be increased while private benefit will be maximized.</li> <li>• Generate employment opportunity and sustainable development impact by expansion of business.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase of private finance flow into developing countries</li> <li>• Increase of finance flows between developing countries</li> </ul>	<ul style="list-style-type: none"> <li>• Unstable due to economic situation and sensitive to risks</li> <li>• Hard to capture the total flow of private finance</li> <li>• Hard to make sure the transparency and accountability due to business confidentiality</li> </ul>
<b>Blended finance</b> • PPP • EU Blending mechanism	<ul style="list-style-type: none"> <li>• Sharing risks and cost by public, private finance will be mobilized and contribute to establish better business environment and market.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase of private sector participation</li> </ul>	<ul style="list-style-type: none"> <li>• Risk of market distortion</li> <li>• Risk of dependency to public</li> </ul>

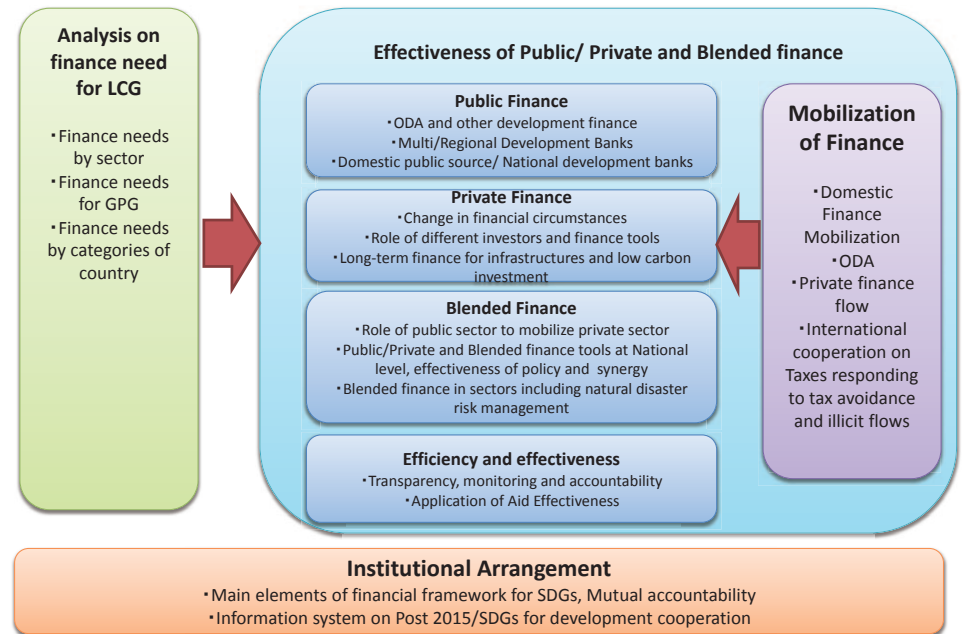
8



## key policy issues involved at national and regional level

- National Level
    - How to mobilize finance for Low-carbon Green Growth?
      - Domestic resource mobilization
      - International Public Finance and GCF
      - Private Sector Finance and Innovative Finance
  - Regional Level
    - Can Asian countries manage financial resources within the region?
      - Advanced economy
      - Emerging economy
      - Developing economy
- Incentive and regulation, Market, Enabling environment, Institutions

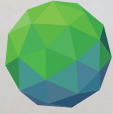
## Proposed scope of the research - LCG Finance Analysis



Thank you for your attention!

Your comments are highly appreciated!

Tomonori Sudo, Ph. D.,  
t-sudo@apu.ac.jp



GREEN CLIMATE FUND

## State of Play and Proposal Approval from GCF

October 2015



GREEN CLIMATE FUND

## About GCF

- Mandated by the United Nations Framework Convention on Climate Change
- Promoting the paradigm shift toward low-emission and climate-resilient development pathways
- Global community has tasked the GCF to be the world's largest climate fund so as to address the climate change challenges in developing countries



GREEN CLIMATE FUND

## Areas of Strategic Investment

**Climate Mitigation**  
(reducing CO2 emissions)

Low emissions energy and electricity

Low emissions modes of transport

Buildings, cities, industries and appliances energy intensity

Land use including agriculture & forestry

**Climate Adaptation**  
(protecting countries and companies from impacts of climate related disasters)

Protecting livelihoods of people in vulnerable zones

Food and water security

Making infrastructure resilient to climate change

Preserving ecosystems



GREEN CLIMATE FUND

## Investment Criteria

- Impact Potential**
  - Potential to the achieve the Fund's objectives and result areas
- Paradigm Shift Potential**
  - Potential to catalyse impact beyond a one-off project or programme investment
- Sustainable Development Potential**
  - Potential to provide wider benefits and priorities
- Needs of Recipient**
  - Vulnerability and financing needs of the beneficiary country and target groups
- Country Ownership**
  - Beneficiary country ownership of and capacity to implement funded activities
- Efficiency & Effectiveness**
  - Economic and financial soundness of programme/project; appropriateness of concessionality



## Private Sector Facility Overview

- The GCF's Private Sector Facility (PSF) was created to catalyze and maximize private sector engagement in climate finance throughout developing countries.
- The GCF will allocate a significant proportion of its resources to the PSF.
- **The PSF is not an "add on"; it is mainstream component of the GCF.**



## Green Climate Fund- status update

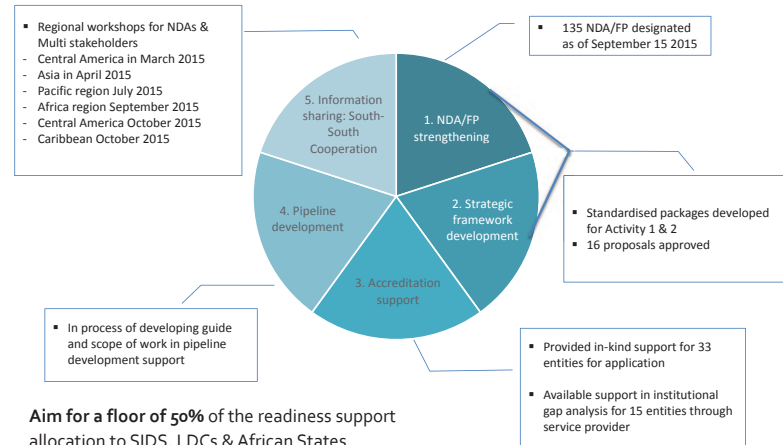
- The Fund reached **effectiveness** in May 2015 (total of **6 billion USD** equivalent)
- Readiness commitments to **16 countries** worth **4.25 million USD**
- **20 entities** accredited
- Strong demand for funding: project ideas, concept notes and funding proposals worth **more 7 billion USD** received



## Roles of NDAs and focal points



## Readiness state of play

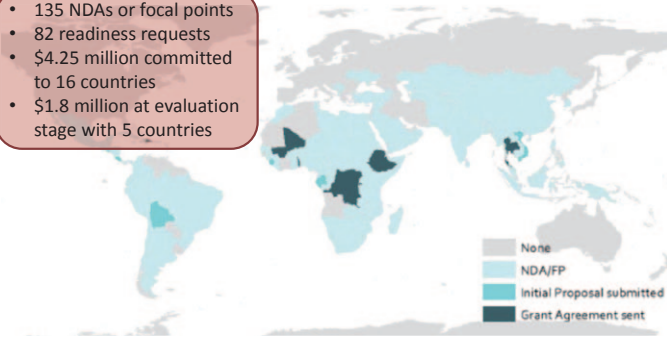




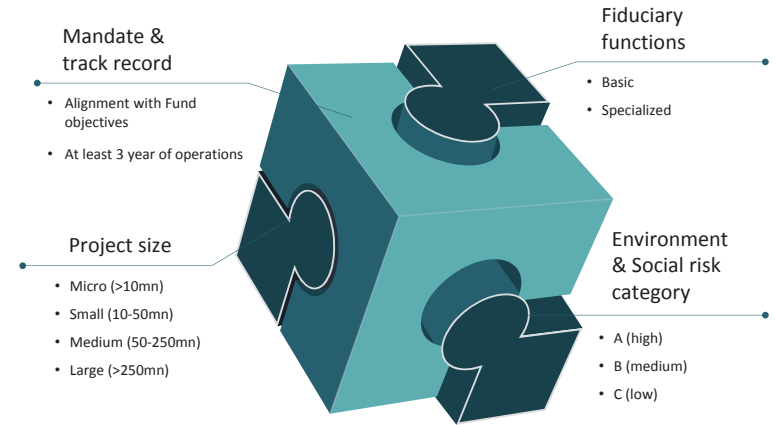
## NDA, focal points and readiness overview

### GCF Readiness Requests (as of September 15)

- 135 NDAs or focal points
- 82 readiness requests
- \$4.25 million committed to 16 countries
- \$1.8 million at evaluation stage with 5 countries



## Fit-for-Purpose Accreditation

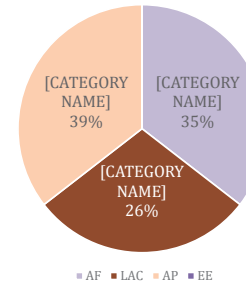


## Accredited Entity - 20

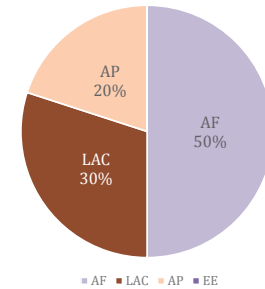


## Geographical Balance of Accredited Entities

Applications submitted, by Nomination



Accredited Entities, by Nomination



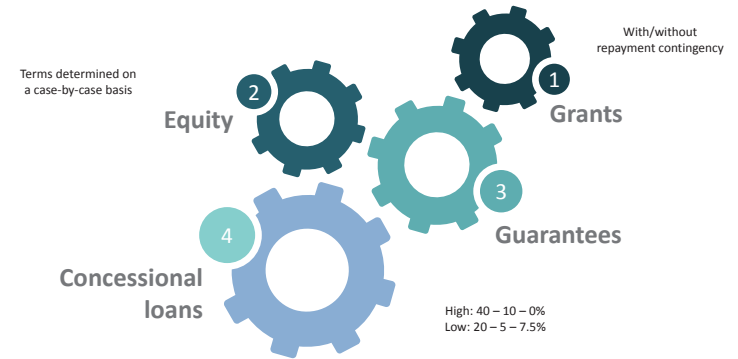


## Readiness for Accreditation: supporting direct access entities

- Provided in-kind support for **33 entities** for application
- Institutional gap analysis for **6 entities** under way, 9 more entities expected by the end of 2015



## Financial Instruments



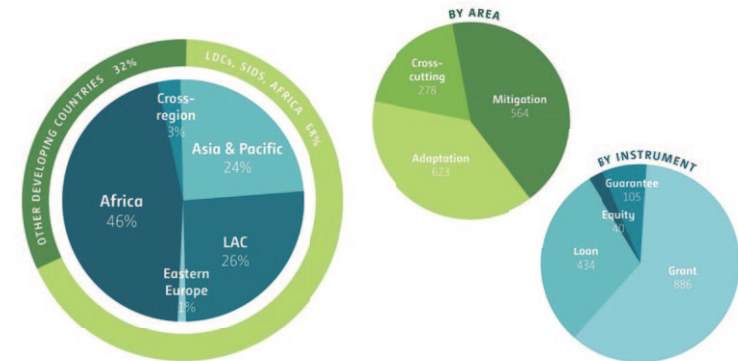
## Financial Instrument Terms

- Grant element tailored to incremental cost or risk premium
- Right level of concessionality & financial structure
- Long-term financial sustainability & indebtedness
- Minimize market distortions & disincentives
- Asses risk & explore risk-sharing where relevant
- Experience & capacity of accredited entity



## Funding Proposals received

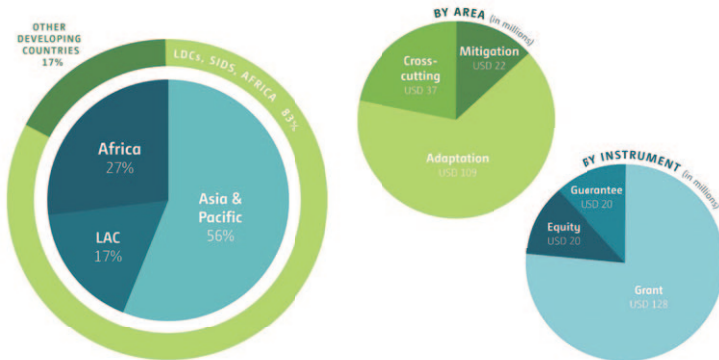
37 proposals totaling USD 1.5 billion





## Funding Proposals for consideration

8 proposals totaling USD 168 million



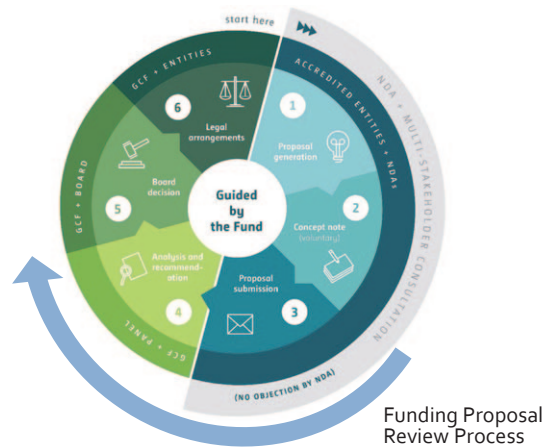
## Funding Proposals for consideration

8 proposals totaling USD 168 million

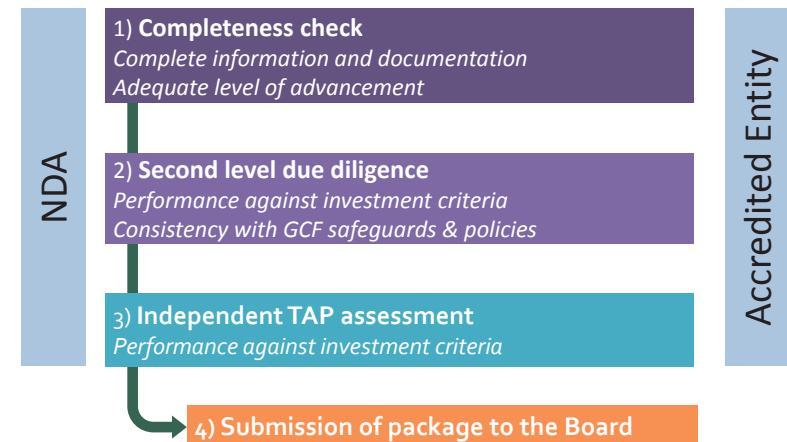
No.	Project name	Accredited entity	Country / Region	Mitigation/adaptation/cross-cutting	Public/private	GCF funding requested (in million USD)
FP 001	Building the Resilience of Wetlands in the Province of Datem del Marañón in Peru	Profonape	Peru	Crosscutting	Public	6.2
FP 002	Scaling Up the Use of Modernized Climate Information and Early Warning Systems in Malawi	UNDP	Malawi	Adaptation	Public	12.3
FP 003	Increasing the Resilience of Ecosystems and Communities through the Restoration of the Productive Bases of Salinized Lands in Senegal	CSE	Senegal	Adaptation	Public	7.6
FP 004	Climate Resilient Infrastructure Mainstreaming in Bangladesh	KIW	Bangladesh	Adaptation	Public	40
FP 005	Kawisaft Ventures Fund in Eastern Africa	Acumen	Multiple (Africa)	Crosscutting	Private	25
FP 006	Energy Efficiency Green Bond in Latin America and the Caribbean	IDB	Multiple (Latin America)	Mitigation	Private	22
FP 007	Supporting Vulnerable Communities in Maldives to Manage Climate Change-Induced Water Shortages	UNDP	Maldives	Adaptation	Public	23.6
FP 008	Urban Water Supply and Wastewater Management Project in Fiji	ADB	Fiji	Crosscutting	Public	31
<b>Total funding requested (in million USD)</b>						<b>168</b>



## Proposal Approval Process



## Funding Proposal Review Process







## Second level due diligence

### Performance against investment criteria

Impact potential

Paradigm shift potential

Sustainable development potential

Needs of the recipient

Country ownership

Efficiency and effectiveness

### Consistency with GCF policies

Environmental and social safeguards

Gender

Risk

Fiduciary standards

Results management and reporting

Legal compliance



## Common Gaps Identified in Completeness Check

### 1) Incomplete information

- Budget breakdown missing
- Disbursement schedule not provided

### 2) Missing documentation

- Feasibility study not complete
- Environmental and Social Management Plan needed, but not available

### 3) Not sufficiently advanced

- Resettlement action plan needed but not developed
- Stakeholder consultation not conducted



## Strengthening Performance against Investment Criteria

### 1) Climate impact potential

- Use a robust methodology to calculate emission reductions or number of beneficiaries
- Provide an adaptation rationale based on scientific evidence of climate-related impact

### 2) Long term sustainability

- Improve financial viability of economic activities, based on the interest of indigenous communities
- Duly consider Operation & Maintenance plans and costs

### 3) Efficiency and effectiveness

- Identify additional sources of co-financing, crowding-in of funds



## Enhancing Consistency with GCF Policies

### 1) Gender assessment

- Identify differentiated impacts and livelihood opportunities for women
- Disaggregate targets by gender

### 2) Logic framework

- Strengthen cause-effect relation to effectively tackle barriers
- Narrow down the scope of activities to focus resources

### 3) Risks

- Solidify risk mitigation measures to minimize risk profile



GREEN  
CLIMATE  
FUND

## Scaling up climate finance for Climate Change Adaptation

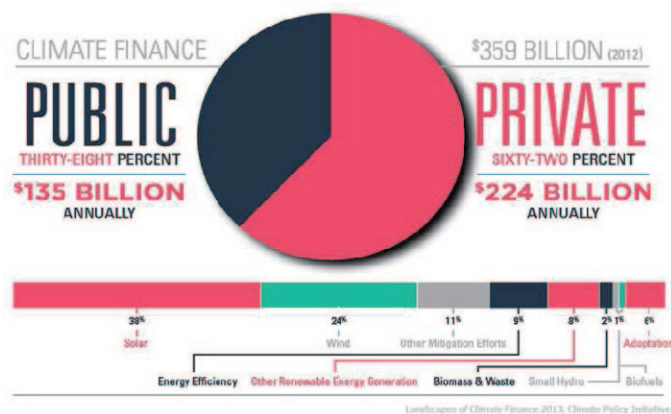
### (Mobilizing the Private Sector)

Puja Sawhney, Ph.D  
 Coordinator of the Regional Hub for Asia Pacific Adaptation Network (APAN),  
 Institute for Global Environmental Strategies  
 28 October 2015  
 Bangkok, Thailand

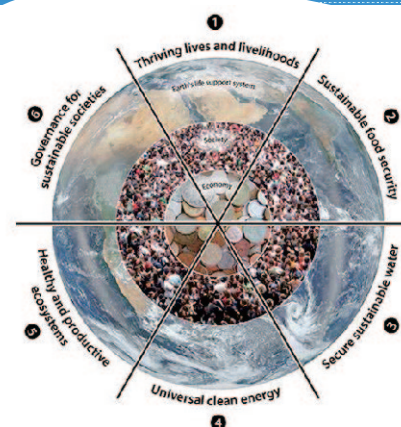
## Main Message

- \* There is **no shortage** of money – not even for climate change - \$360 billion in 2012, but not much for adaptation (\$22 billion);
- \* There is a lack of capacity – specifically a lack of **capability** in governments to implement funded projects efficiently and effectively, even if the funds are readily available, so the private sector must be involved;
- \* Above all there is a lack of **creativity** – thinking outside the box to create new revenue streams – like payment for ecosystem services, debt for climate swaps, or private sector investment in environmental goods and services;
- \* Too often the private sector is seen as the cause of environmental problems, including climate change, rather than a potential **source of solutions** – this must change;
- \* The private sector will respond when **informed** and **engaged** and will often develop their own adaptation strategies, because it is in their own long term interests (e.g. insurance companies and pension funds).

## Most Climate Finance is Private but only 6% for Adaptation



## Multiple Types of Adaptation Needs



As the boundary between adaptation and sound development is blurred, so are the roles of the private sector and governments in adaptation finance.

## Traditional Financing Sources Already Involve the Private Sector

- \* Official development assistance – globally around \$150 billion per year (proportion for climate change adaptation is uncertain, as adaptation funding is supposed to be “new and additional”);
- \* Multilateral Development Banks – World Bank Group – around \$80 billion per year (active portfolio in East Asia and the Pacific - \$30 billion; natural resources management and environment - \$20 billion);
- \* Asian Development Bank – around \$13 billion per year – (From 2001-2012 a total of \$30 billion on environmental sustainability projects);
- \* Private sector is already engaged as contractors, suppliers, and consultants – and often as co-financiers.

## Traditional Financing Sources Already Involve the Private Sector

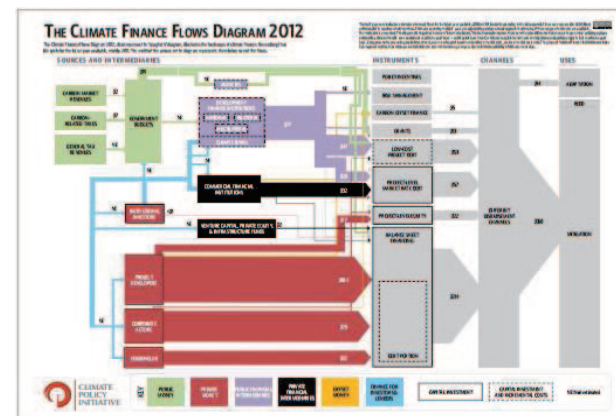
- \* The same goes for other traditional sources of finance:
  - \* Food and Agriculture Organisation - \$500 million
  - \* International Fund for Agricultural Development - \$1 billion
  - \* United Nations Development Programme - \$5.7 billion
  - \* United Nations Environment Programme - \$217 million
  - \* World Health Organization - \$2 billion
  - \* United Nations Office of Sustainable Development
  - \* United Nations Framework Convention on Climate Change
  - \* Etc.

*Plus – Multiple sources of bilateral finance and their specific reporting and accounting requirements*

## New Sources of Finance



## Climate Funds are coming from Multiple Sources



Let’s just say it is complicated!  
But the private sector is not tracked by CPI as providing any adaptation finance – is this a mistaken view?

## Main Sources of Dedicated Adaptation Finance in Asia-Pacific

### Funds managed by national governments

- \* Global Climate Change Alliance (GCCA) - European Union
- \* Nordic Development Fund (NDF)
- \* Nordic Climate Facility (NCF)
- \* International Climate Initiative (ICI) - Germany
- \* Japan's Fast Start Finance (FSF)
- \* International Climate Fund (ICF) – United Kingdom
- \* International Climate Change Adaptation Initiative (ICCAI) – Australia
- \* Etc.

### Funds managed by multilateral institutions

- Adaptation Fund (AF)
- Least Developed Countries Fund (LDCF) (GEF)
- Special Climate Change Fund (SCCF) (GEF)
- Pilot Program for Climate Resilience (PPCR) – 5 MDBs

## Green Climate Fund: A Game Changer for the Private Sector?

- \* The Green Climate Fund (GCF) was adopted as a financial mechanism of the UN Framework Convention on Climate Change (UNFCCC) at the end of 2011.
- \* It aims to make an ambitious contribution to attaining the mitigation and adaptation goals of the international community.
- \* Over time it is expected to become the **main multilateral financing mechanism** to support climate action in developing countries.
- \* It will have a Private Sector window, but no details yet.
- Raising \$15 billion by end 2014
- Half for climate change adaptation
- Half of adaptation funds for Africa, LDCs and SIDs.
- Direct access through National Implementing Entity (NIE) accreditation and a Designated National Authority (DNA)
- **How will the private sector be engaged?**

## What Additional Motivation is needed for the Private Sector?



NEWS OF THE FUTURE : A TERRORIST GROUP CALLED "THE ENDANGERED SPECIES MARTYR'S BRIGADE" CLAIMS RESPONSIBILITY FOR THE KIDNAPPING OF CITES SECRETARY-GENERAL JOHN E. SCANLON ...

## Private Sector Funds for Adaptation?

**Green Transition Scorecard - \$5.3 trillion since 2007**

**Green Bonds (about \$50 billion)**

- \* Climate Bonds Initiative is mobilizing the \$80 trillion bond market for climate change solutions - **can it turn to adaptation?**
- \* **Global Environment Fund (GEF)** - global alternative asset manager with approximately \$1 billion in assets under management, investing in energy, environmental, and natural resources sectors – **needs good adaptation investments;**

**Corporate social responsibility of companies (ISO 26000) - \$484 billion in water sector alone since 2007;**

**Divestment in the \$674 billion/yr investment in fossil fuels – so far about \$50 billion (can adaptation be included);**

**Pension funds - \$32 trillion (2013) (remind your fund about CC);**

**Insurance and re-insurance companies - \$4.6 trillion (2011)**



## Innovative Uses of Adaptation Financing?

Can governments and others create the enabling environment for private sector investment in:

Reducing Emissions from Deforestation and Forest Degradation (REDD+) (with adaptation co-benefits) – **Palm oil and forest companies**

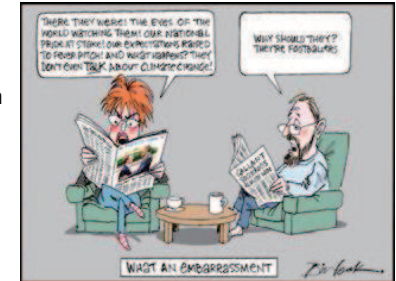
- Payment for Ecosystem Services (PES) – **Water supply companies, tourism, hotels, private parks**
- Debt for Nature (or Climate) Swaps – **Commercial banks and bond markets**
- Climate Change Trust Funds



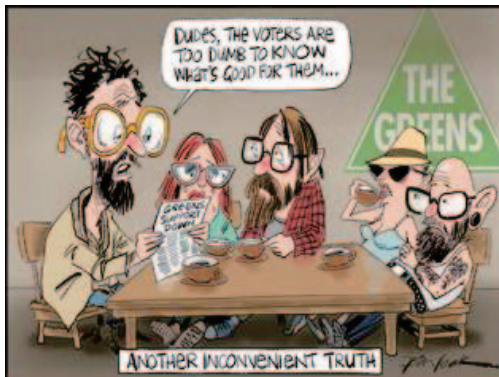
## Where to from here?

How Can Governments Mobilise Private Sector Interest in Adaptation?

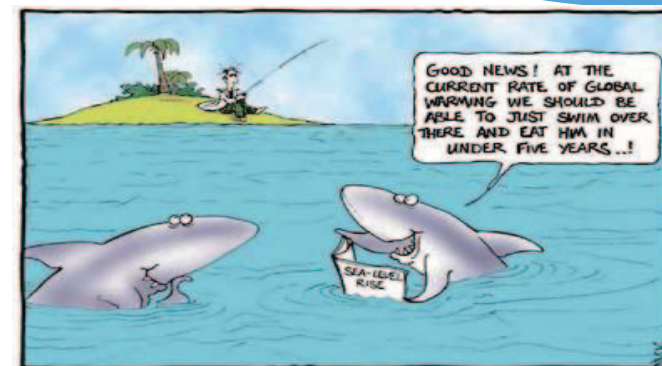
- Tax penalties and concessions;
- Green procurement;
- Public-private partnerships in adaptation projects;
- Insurance of public assets against climate change damage;
- Issuance of climate change bonds;
- Creation of a climate change “index” in the stock exchange; and
- Subsidies for investment in adaptation measures.



## Final Words



- ❑ Governments and the private sector need to work more closely together for adaptation.
- ❑ Ultimately you and I are also the private sector and equally responsible for investing in climate change adaptation.



Thank<sup>16</sup> you



<http://www.economist.com/news/briefing/21618680-our-guide-actions-have-done-most-slow-global-warming-deepest-cuts>

Policy/Action	Cumulative emissions	Period	Annual emissions*
Montreal protocol <sup>1</sup>	135.0bn	1989-2013	2.6bn
Hydropower worldwide <sup>2</sup>	2.6bn	2010	2.6bn
Nuclear power worldwide <sup>2</sup>	2.2bn	2010	2.2bn
China one-child policy <sup>3</sup>	1.3bn	2005	1.3bn
Other renewables worldwide <sup>2</sup>	600m	2010	600m
US vehicle emissions & fuel economy standards <sup>1,4</sup>	6.0bn	2012-25	460m
Brazil forest preservation <sup>5</sup>	3.2bn	2005-13	400m
India land-use change <sup>6</sup>	177m	2007	177m
Clean Development Mechanism <sup>7</sup>	1.5bn	2004-14	150m
US building & appliances codes <sup>8</sup>	1.0bn	2008-30	136m
China SOE efficiency targets <sup>9</sup>	1.9bn	2005-20	126m
Collapse of USSR <sup>9</sup>	709m	1992-98	118m
Global Environment Facility <sup>10</sup>	2.3bn	1991-2014	100m
EU energy efficiency <sup>11</sup>	230m	2008-12	58m
US vehicle emissions & fuel economy standards <sup>2,4</sup>	270m	2014-18	54m
EU renewables <sup>11</sup>	117m	2008-12	29m
US building codes (2013) <sup>12</sup>	230m	2014-30	10m
US appliances (2013) <sup>12</sup>	358m	2014-30	10m
Clean technology fund <sup>13</sup>	1.7bn	project lifetime	no
EU vehicle emission standards <sup>14</sup>	140m	2020	no

**CATEGORIES:**  
 Energy production  
 Transport  
 Other regulations  
 Global treaties  
 Land & forests  
 Other

See following panel for sources and explanations

\*Annual emissions are cumulative emissions divided by the relevant period. The estimate for the current emissions avoided under the Montreal protocol is eight billion tonnes of CO<sub>2</sub>e. The annual figure for the collapse of the USSR refers to the years 1992-98. <sup>1</sup>Cars and light trucks <sup>2</sup>Heavy trucks



Empowered lives.  
Resilient nations.

## BUILDING READINESS FOR CLIMATE FINANCE:

### Experience of Mainstreaming Climate Change into Sectoral Planning and Budgeting in Thailand

Pawin Talerngsri  
Inclusive Green Growth and Sustainable Development  
UNDP Thailand

## Background

The concept of 'climate finance' has gained interest following commitments from developed countries and international agencies to provide new and additional funding for actions on climate change....

## Background

BUT....

More important issue is “How the recipient countries build '**READINESS**' to plan for, access, deliver, and monitor climate finance?”

## Background

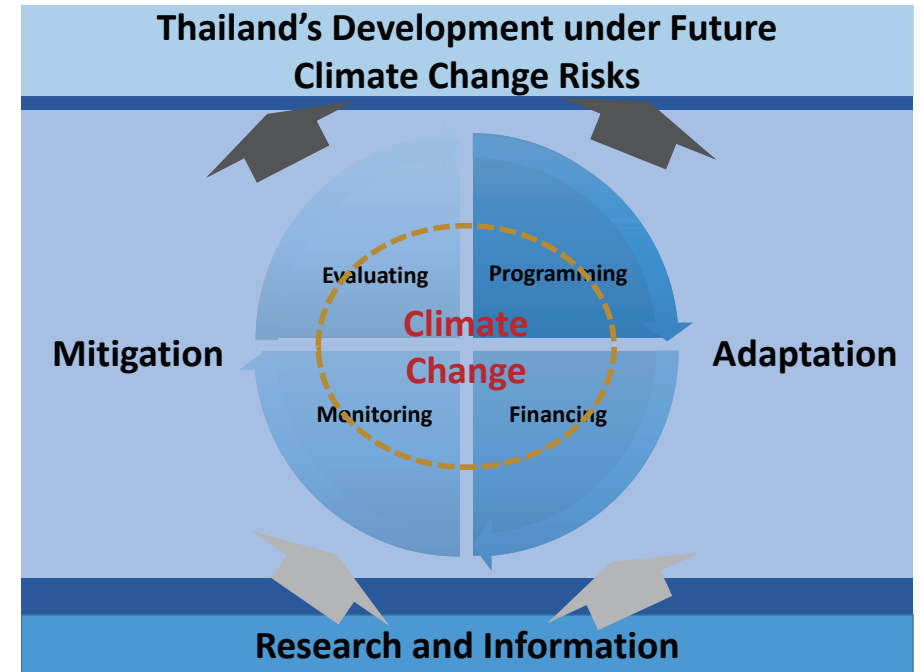
Getting more money for climate change related investments is essential....

But more essentially is “How the money spent **IMPACT** climate change!!!”

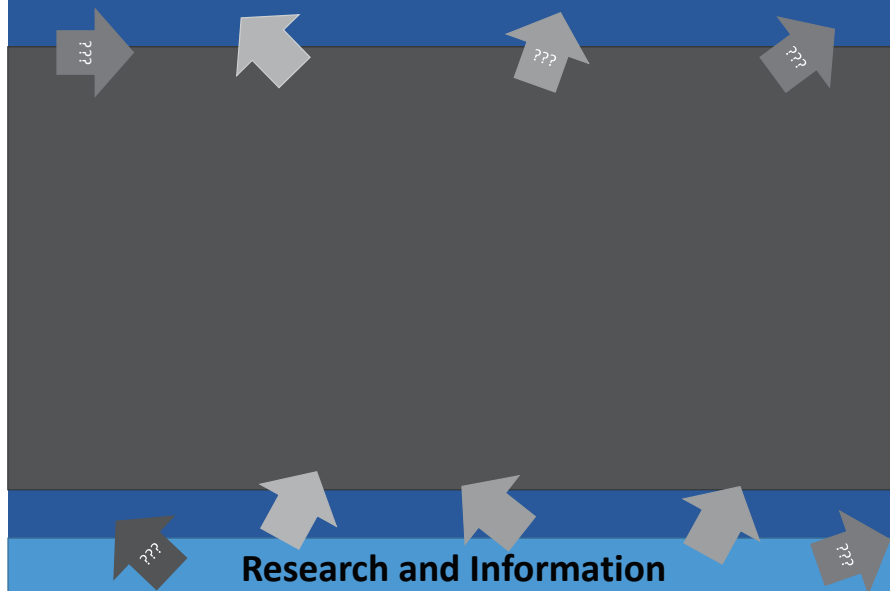
## Project: Strengthening Thailand's Capacity to Link Climate Policy and Public Finance

Climate Change, not treated as a separated policy agenda, BUT **mainstreamed** into policy review, planning, and budgeting processes

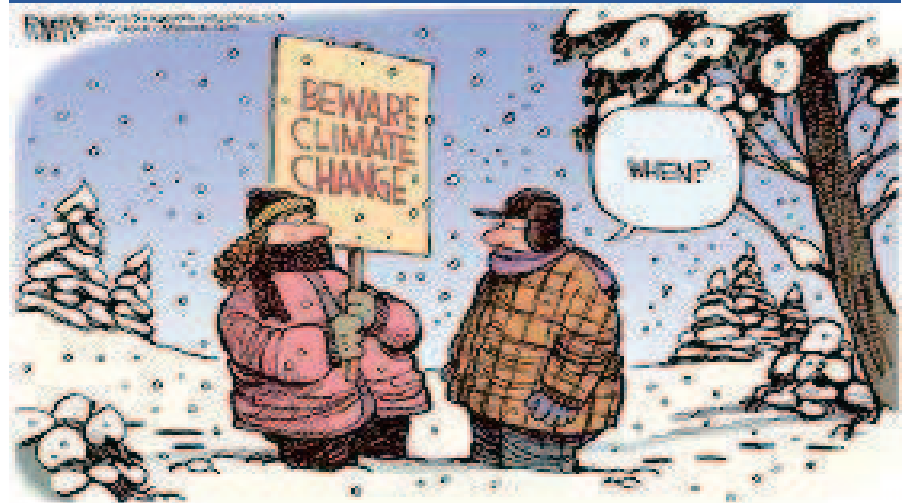
Aim is to strengthen **efficiency** and **effectiveness** of Climate Change related expenditure, based on the existing national system



## National Development under Future Climate Change



Understanding about the Nature and effect of Climate Change!



## Imperfection and Uncertainty of Climate Change Modeling!



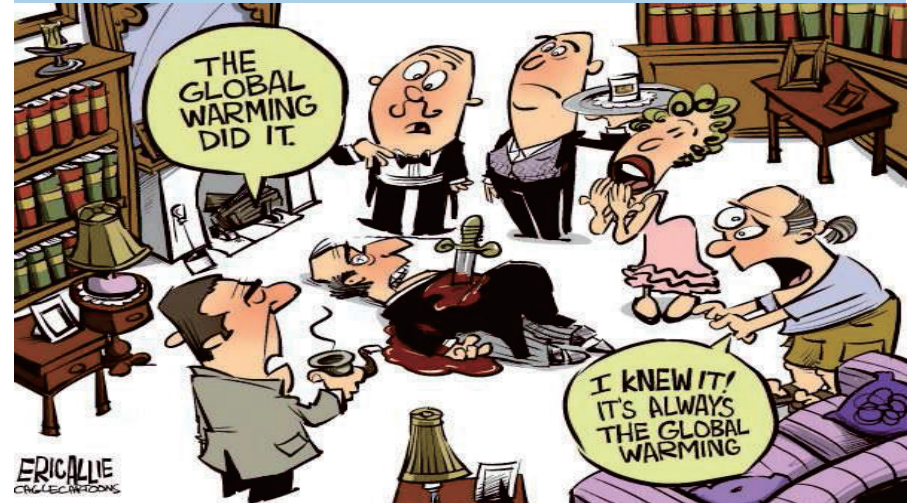
## Lack of Financing!



## CC Considered as Secondary Issue!



## Sometime over Claiming with no Analysis!





## Mainstreaming of Climate Change into Planning and Budgeting

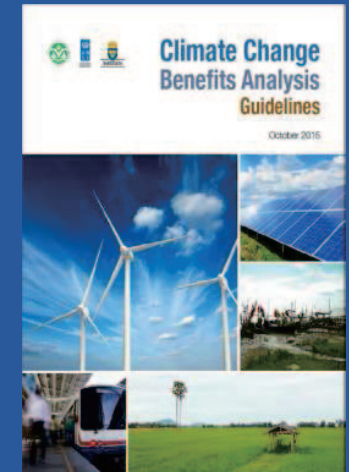
Thinking of Climate Change

Recognition on The Benefits

Formulating Programme / Project with Climate Change Concerns

Identification of Climate Change Benefits

Need a Common Guidelines / Framework for Analyzing and Determining the Level of Projects' Benefits related to Climate change



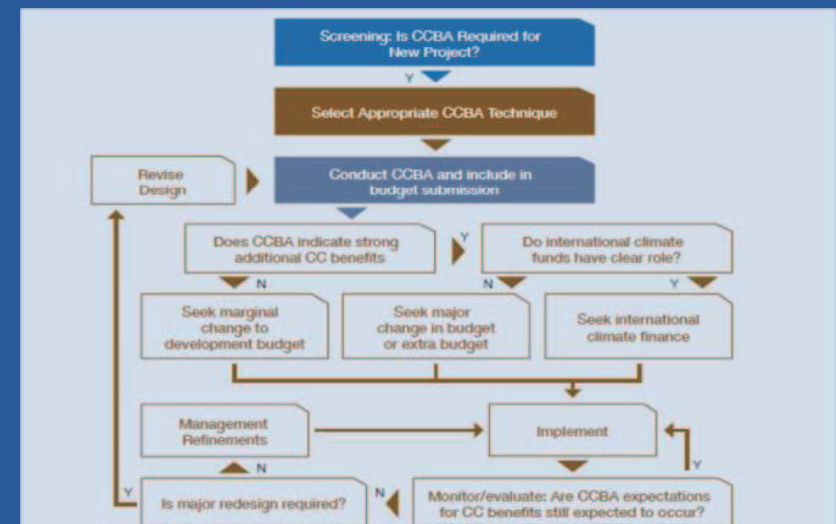
## The Climate Change Benefit Guidelines: Objectives

**Functional Agencies** to *take into considerations of future climate change scenarios and formulate projects/programmes with CC benefit analysis incorporated*, primarily serving their functional objectives, but also addressing CC concerns.

**Budget Agencies** to *make reference to this Guidelines when considering the claimed benefits of climate change incorporated in the submitted budget request*, for budget allocation and tracking purposes.

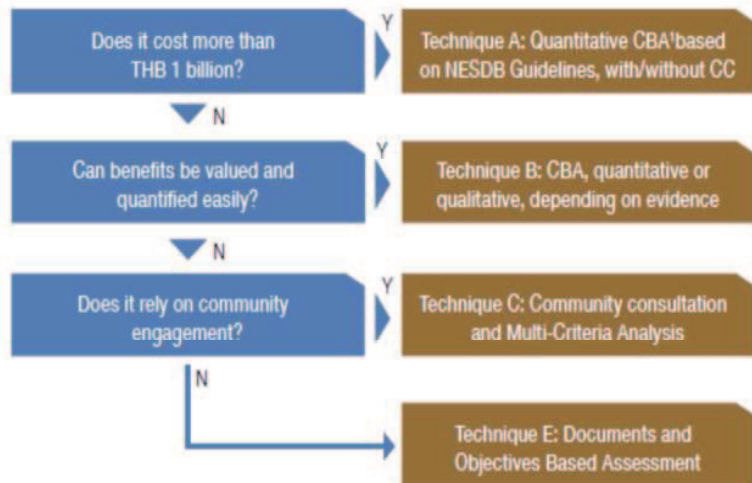
**Planning Agencies** to use this Guidelines as *a guiding framework for operationalizing and monitoring their national plans and strategies related to climate change* and to be able to *determine objectively the level of benefits related to CC*

## Overview



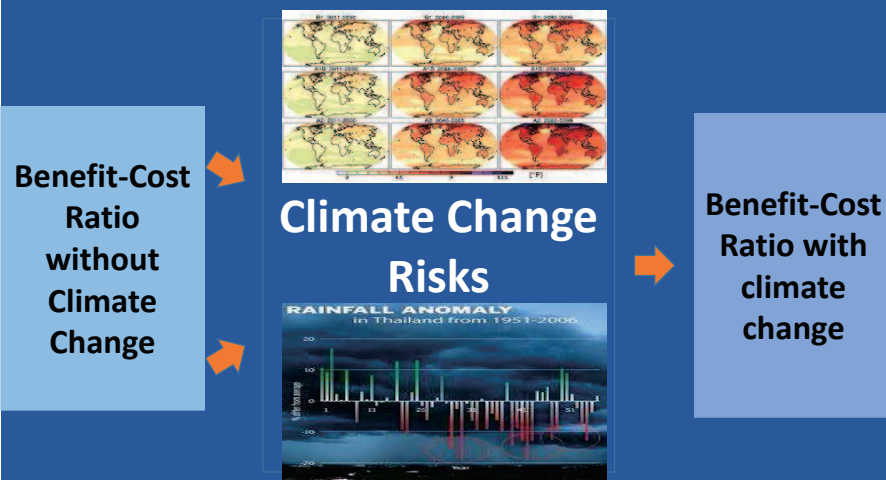


## Techniques



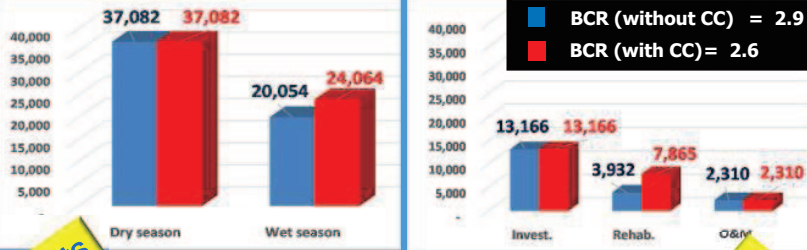
## Pilot Analysis: Agricultural Sector

## CC Benefit Analysis



Project	BCR	BCR	CC%
	Without CC	With CC	
Irrigation	2.8	3.2	10%
Integrated Pest Management	4.8	6.2	22%
Shrimp	1.7	2.2	21%
Biogas from pig waste	1.5	2.0	23%
Vetiver Grass	2.2	2.7	20%

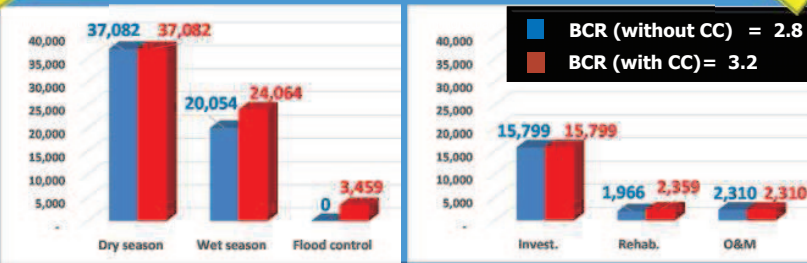
## No Proofing



Benefits

Proofing = Greater Financing Required

Costs



## Flood Diversion Canal Project

กรณีศึกษา : การวิเคราะห์ผลประโยชน์โครงการด้านการเปลี่ยนแปลงสภาพภูมิอากาศ โครงการกั้นรอยแยกน้ำผิวดิน บริเวณตอนบนแม่น้ำท่าพระฯ กรุงเทพมหานคร

โครงการกั้นรอยแยกน้ำผิวดินบริเวณตอนบนแม่น้ำท่าพระฯ เป็นโครงการที่มุ่งลดผลกระทบจากการเปลี่ยนแปลงสภาพภูมิอากาศ โดยเฉพาะการเพิ่มระดับน้ำทะเลและปริมาณน้ำฝนที่รุนแรง ซึ่งส่งผลให้เกิดน้ำท่วมในพื้นที่เกษตรกรรมและชุมชนในเขตเมือง

วัตถุประสงค์ของโครงการคือการลดความเสี่ยงจากน้ำท่วมในพื้นที่เกษตรกรรมและชุมชนในเขตเมือง โดยการลงทุนในการก่อสร้างคันกั้นน้ำและระบบระบายน้ำ

โครงการนี้คาดว่าจะช่วยลดความเสียหายจากน้ำท่วมในพื้นที่เกษตรกรรมและชุมชนในเขตเมืองได้ประมาณ 100 ล้านบาทต่อปี

การลงทุนในการก่อสร้างคันกั้นน้ำและระบบระบายน้ำคาดว่าจะอยู่ที่ประมาณ 100 ล้านบาท

การวิเคราะห์ผลประโยชน์โครงการแสดงให้เห็นว่าโครงการนี้มีมูลค่าสุทธิที่บวก (+) ซึ่งบ่งชี้ว่าโครงการนี้คุ้มค่าต่อการลงทุน

การวิเคราะห์ต้นทุนผลประโยชน์ของโครงการแสดงให้เห็นว่าโครงการนี้มีต้นทุนที่ต่ำกว่าผลประโยชน์ที่ได้รับ

การวิเคราะห์ความเสี่ยงของโครงการแสดงให้เห็นว่าโครงการนี้มีระดับความเสี่ยงที่ต่ำ

การวิเคราะห์ความยั่งยืนของโครงการแสดงให้เห็นว่าโครงการนี้มีศักยภาพในการสร้างรายได้และจ้างงาน

การวิเคราะห์ผลกระทบทางสังคมของโครงการแสดงให้เห็นว่าโครงการนี้มีผลกระทบทางสังคมที่บวก

การวิเคราะห์ผลกระทบทางสิ่งแวดล้อมของโครงการแสดงให้เห็นว่าโครงการนี้มีผลกระทบทางสิ่งแวดล้อมที่ต่ำ

## Soil and Water Conservation Measures

กรณีศึกษา : การวิเคราะห์โครงการและแผนงานด้านการเปลี่ยนแปลงสภาพภูมิอากาศ พื้นที่เกษตรกรรมในจังหวัดเชียงใหม่

โครงการอนุรักษ์ดินและน้ำในพื้นที่เกษตรกรรมเป็นโครงการที่มุ่งลดผลกระทบจากการเปลี่ยนแปลงสภาพภูมิอากาศ โดยเฉพาะการเพิ่มระดับน้ำทะเลและปริมาณน้ำฝนที่รุนแรง ซึ่งส่งผลให้เกิดน้ำท่วมในพื้นที่เกษตรกรรมและชุมชนในเขตเมือง

วัตถุประสงค์ของโครงการคือการลดความเสี่ยงจากน้ำท่วมในพื้นที่เกษตรกรรมและชุมชนในเขตเมือง โดยการลงทุนในการก่อสร้างคันกั้นน้ำและระบบระบายน้ำ

โครงการนี้คาดว่าจะช่วยลดความเสียหายจากน้ำท่วมในพื้นที่เกษตรกรรมและชุมชนในเขตเมืองได้ประมาณ 100 ล้านบาทต่อปี

การลงทุนในการก่อสร้างคันกั้นน้ำและระบบระบายน้ำคาดว่าจะอยู่ที่ประมาณ 100 ล้านบาท

การวิเคราะห์ผลประโยชน์โครงการแสดงให้เห็นว่าโครงการนี้มีมูลค่าสุทธิที่บวก (+) ซึ่งบ่งชี้ว่าโครงการนี้คุ้มค่าต่อการลงทุน

การวิเคราะห์ต้นทุนผลประโยชน์ของโครงการแสดงให้เห็นว่าโครงการนี้มีต้นทุนที่ต่ำกว่าผลประโยชน์ที่ได้รับ

การวิเคราะห์ความเสี่ยงของโครงการแสดงให้เห็นว่าโครงการนี้มีระดับความเสี่ยงที่ต่ำ

การวิเคราะห์ความยั่งยืนของโครงการแสดงให้เห็นว่าโครงการนี้มีศักยภาพในการสร้างรายได้และจ้างงาน

การวิเคราะห์ผลกระทบทางสังคมของโครงการแสดงให้เห็นว่าโครงการนี้มีผลกระทบทางสังคมที่บวก

การวิเคราะห์ผลกระทบทางสิ่งแวดล้อมของโครงการแสดงให้เห็นว่าโครงการนี้มีผลกระทบทางสิ่งแวดล้อมที่ต่ำ

## Benefit analysis with CC consideration

Climate Change Data

- Analysis of CC downscaled data (e.g. rain and run off) relevant to the project areas

Risk Analysis

- Analysis of risks based on future climate scenarios

Direct and Indirect benefit assessment

- Analysis of climate change benefits of the investment schemes

## Benefit analysis with CC consideration

### Streamflow simulation

Near Future (2040-2059) vs. Far Future (2080 - 2099) at station C.2, Nakhon Sawan

### Representative Concentration Pathways

RCP 4.5 and RCP 8.5

### Flood risk: Result (base year = 1995)

- considered Return Period as index

Return Period without CC

43-50 years

Return Period with CC

3-7 years

	Flood Damage and Loss (M USD)	Flood Area (Ha)
Without Climate Change	734	265,774
With Climate Change	1,826	341,938

## Climate Change Benefits: Irrigation Scheme

WITHOUT CLIMATE CHANGE		WITH CLIMATE CHANGE	
Metric	Figure	Metric	Figure
Cost	63,180 Million Baht	Cost	63,180 Million Baht?
Benefit	77,307 Million Baht	Benefit	294,973 million baht
EIRR	14.52%	EIRR	43.91%
NPV	14,126 Million Baht	NPV	231,793 million baht
B/C ratio	1.22	B/C ratio	4.67

Implication for greater financing:  
Redesign of the scheme for climate  
proofed infrastructure!!!

## Energy Sector

Climate  
Change  
Risks

Agriculture  
Development  
Plan

Agriculture  
Related  
Projects

Climate Change  
Adaptation  
Benefits

Benefit-Cost  
Analysis

NAMA

Energy  
Conservation  
Plan

EE/RE  
Projects

Climate Change  
Mitigation  
Benefits

Cost-  
Effectiveness  
Analysis

## Cost-Effectiveness Analysis

(Net Costs – Net Benefits)

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CO2 Saving

(Cost per tone of CO2 saving)

ของตลอดระยะเวลาดำเนินโครงการ

Marginal Abatement Costs = MAC

Indicator for Cost-Effectiveness!!

## MOE Pilot Projects

BIOGAS



CNG



### BIO GAS PROJECT

**COSTS = Investment, Operation, Opportunity Costs**

**BENEFITS = Firewood Replacement, Digestible, Clean Water, Reduced pollution, Reduced GHG from avoided emission of Methane**

### CNG

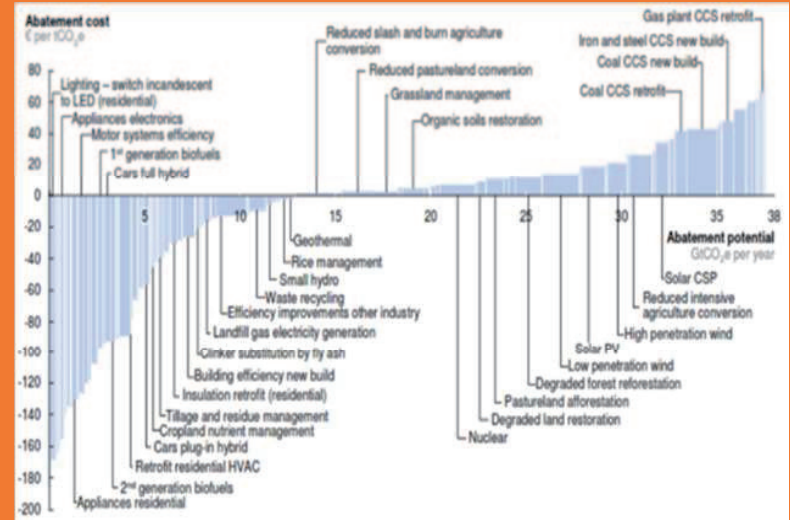
**COSTS = Investment, Maintenance Costs**

**BENEFITS = Reduced Fuel Costs, Reduced pollution, Reduced GHG**

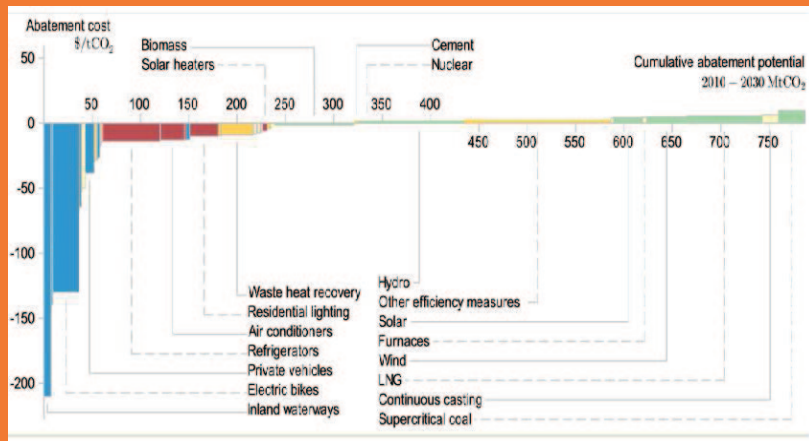
## Estimated Results

	BIO GAS	CNG
Net Cost (20 year) (NPV-Baht)	18,079,000	771,000,000
Net Benefit (20 year)(NPV-baht) (including wider econ benefit, but excluding carbon) (only firewood, not electricity)	18,273,000	1,625,000,000
(tCO <sub>2</sub> e/20 year)	1,837,000	15,000
MAC (baht/tCO <sub>2</sub> e)	-3.2	-55,223

## Global MAC Curve



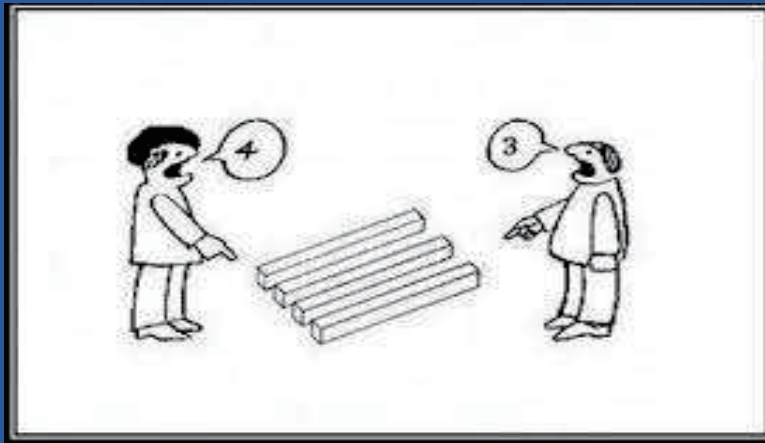
## Vietnam MAC Curve



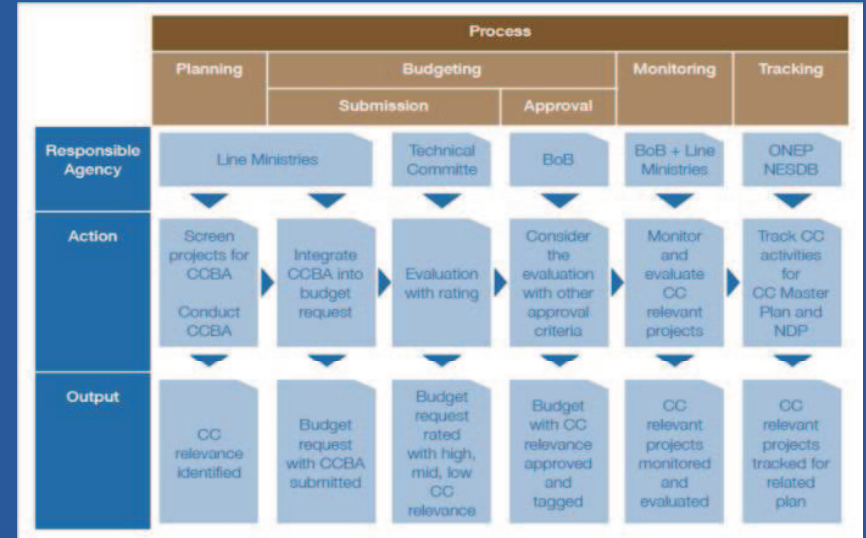
## Operation of the Guidelines



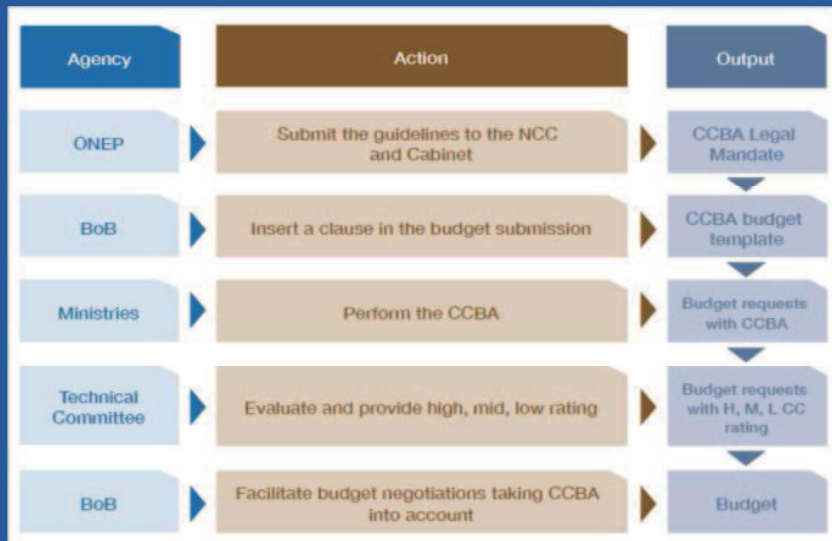
# Same Wave Length?



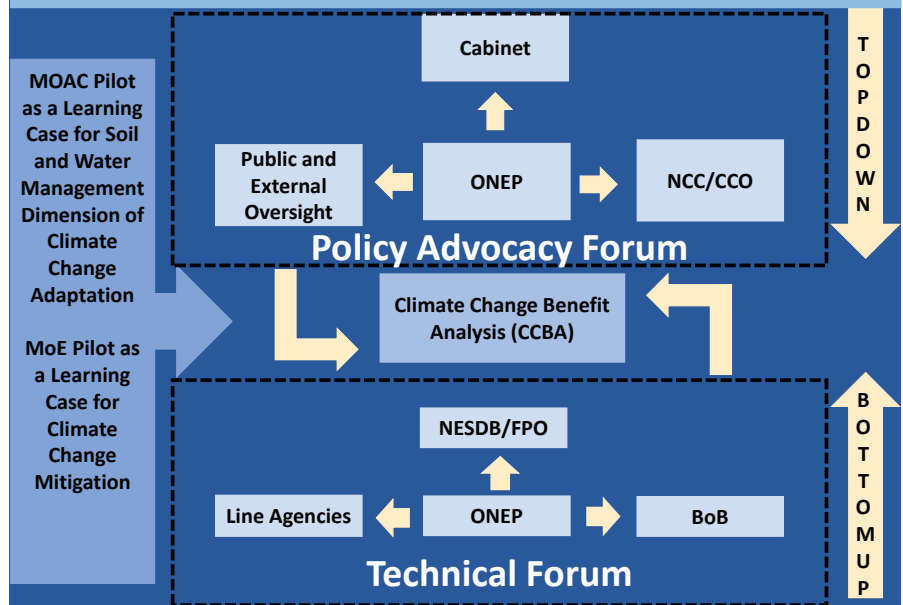
# Operation



# Institution



# Summary and Next Steps





## Role of CITC

Strong Need for  
Strengthening Institutional  
Capacity, both at the  
sectoral and policy levels, for  
CCBA!!!

## Climate Finance Capacity Development

*Introducing a new CITC course on Climate Finance*

CITC Regional Workshop for Capacity Development  
on Climate Finance in SE Asian Countries  
Pullman King Power Hotel, Bangkok, Thailand  
28<sup>th</sup> October 2015



## Contents of Presentation

1. Background
2. Capacity Needs for Climate Finance
3. Target Audience of Training Course
4. Course Objectives
5. Course Structure and Length
6. Course Modules and Contents
7. Consideration of 1 day or 2 day agenda

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## Background

Climate finance offers countries, and particularly developing countries, with a financing mechanism to pursue low-carbon development and infrastructure options.

Development projects and activities supported by climate finance have the overarching goal to support countries in their efforts to respond to both climate change mitigation and adaptation needs.

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## Climate Finance Challenges

- Some experts comment on the lack of necessary climate finance funds globally, i.e. a projected USD 400 billion per year additional investment will be required by 2030 to stay below 2°C.
- However, other experts comment that the key barrier to climate financing is a lack of “investable projects”.
- Furthermore, investable projects require the support of institutional infrastructures to ensure the suitability, accountability and appropriate implementation of these projects.

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## Capacity Needs for CF

In order to strengthen the capacity of national governments and project managers to deliver “investable projects” relevant under the available climate finance programmes, significant training is needed to better understand:

- ✓ The shifting investment patterns of climate finance, as well as the possibilities to scale up projects and activities under climate financing.
- ✓ The efficient levers to mobilize private investment and its potential in any country.
- ✓ The numerous difficulties in accessing, utilising and reporting on use of climate finance that exist due to lack of clarity and skills on these issues.

***Accessing, Managing, Delivering, Monitoring & Evaluating***

***Climate Finance Projects at international, regional, national and local levels.***

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## Target Audience

*This course targets those persons who are responsible for supporting, planning, managing and implementing climate mitigation and adaptation related projects, and who require further understanding of the current mechanisms and procedures for Climate Financing.*

Specifically:

- ✓ **National government officers** (from Southeast Asia) who are in charge of mitigation related activities, development planning, and infrastructure development/investment.
- ✓ **Project managers and implementers** from both private and public sectors (including project developers, development finance consultants and managers, plant operators and manufacturers, advisory professionals, etc.).

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## Course Objective

*This course aims to provide a general understanding of the current nature and variety of climate financing opportunities and the types of climate mitigation and adaptation projects that they can support.*

*Participants in this course should gain specific knowledge on how to apply for, access, utilise and provide accountability for the use of climate financing.*

- ✓ **Government officers** should gain the capacities to build supportive institutions and infrastructure for use of climate finance and to mobilize multi-stakeholder involvement in relevant projects.
- ✓ **Project developers** should gain the capacities to effectively access, utilise and report on the use of climate finance funds.

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## Course Structure and Length

- **Structure:** 5 thematic modules covering 1) Science and Policy, 2) CF Mechanisms, 3) CF project/cases, 4) Accessing and Managing CF Projects, and 5) Establishing a Supportive Infrastructure for CF
- **Length:** *To be discussed here*
  - 1 day = 6.5 hours class time
  - OR
  - 2 day = 13.5 hours class time

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## Course Modules - Outline

- *Introduction*
  - i. Climate Change Science and Policy
  - ii. Climate Finance – Policy and Mechanisms
  - iii. Case Studies of Climate Finance Projects
  - iv. Accessing Climate Financing and Managing Projects
  - v. Developing Supportive Infrastructures for Climate Finance
- *Closing*

## Course Introduction

- ✓ Participant Arrival and Registration
- ✓ Course Background, Overview and Objectives
- ✓ Self-Introductions of Participants



### Module 1: CC Science and Policy

- ✓ Climate Change science and the 2°C Target
- ✓ Climate Negotiations and Key Findings from IPCC AR5 WGIII
- ✓ Climate Finance negotiations under the UNFCCC process
- ✓ Introducing the Energy Economy
- ✓ Introducing Mitigation Investments
- ✓ Mitigation Investments and their impact on the Energy Economy

### Module 2: Climate Finance – Policy and Mechanisms

- ✓ Climate Finance negotiations under the UNFCCC process
- ✓ Climate Finance mechanisms and Institutional Landscape (international, multi-lateral, bi-lateral, private)
- ✓ Typologies of Climate Finance:
  - Mitigation Finance and CDM
  - Adaptation Finance
  - REDD+ Finance
  - Results-based Finance
  - Project Types eligible for use of Climate Finance
- ✓ Climate Finance trends in Asia



### Module 3: Case Studies of Climate Finance Projects

- ✓ A set of Case Studies will be prepared as part of the learning materials/course book.
- ✓ Exploring several Climate Finance projects related to the different typologies of climate finance, i.e. mitigation and CDM, adaptation, REDD+, results-based, etc.
- ✓ Highlights from these cases will be presented and discussed
- ✓ Group activity – examining cases

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### Module 4: Accessing Climate Financing and Managing Projects

- ✓ Effective Project Development and Management
- ✓ Application processes and project criteria/requirements
- ✓ Working with national climate finance focal points
- ✓ Domestic management of Climate Finance
- ✓ Monitoring and Evaluation, Reporting Criteria and MRV

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### Module 5: Developing Supportive Infrastructures for Climate Finance

- ✓ Assessing domestic needs and priorities for climate finance
- ✓ Policy Instruments for Financing Climate Activities
- ✓ Public development of supportive institutions & infrastructures
- ✓ Securing Multi-Stakeholder Cooperation and Expertise in projects
- ✓ Strategies for enhanced delivery of international support
- ✓ Cooperation mechanisms and South-South Collaboration

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## Closing

- ✓ Participant Reflections
- ✓ Discussion on Future Actions
- ✓ Certificate Award Ceremony?

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# Course Length Options

## ONE DAY COURSE option

- 1 day = 6.5 hours class time
- 5 modules (primarily includes lectures)
- Each Module in 1 session:
  - Introduction = 30 mins.
  - Module 1 = 75 mins.
  - Module 2 = 75 mins.
  - Module 3 = 60 mins.
  - Module 4 = 60 mins.
  - Module 5 = 60 mins.
  - Closing = 30 mins.

## TWO DAY COURSE option

- 2 day = 13.5 hours class time
- 5 modules in 8 sessions
- Modules may include lectures, practical, and/or group work:
  - Introduction = 60 mins.
  - Module 1 = 150 mins.
  - Module 2 = 120 mins.
  - Module 3 = 150 mins.
  - Module 4 = 195 mins.
  - Module 5 = 90 mins.
  - Closing = 45 mins.

**Thank You,**  
*For your kind attention!*



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Hayama, Kanagawa  
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## TGO-CITC ♦ Climate Finance Training

### Course Outline

#### Background:

Climate finance offers countries, and particularly developing countries, with a financing mechanism to pursue low-carbon development and infrastructure options. Development projects and activities supported by climate finance also have the overarching goal to support countries in their efforts to respond to both climate change mitigation and adaptation needs.

Some experts comment on the lack of necessary climate finance funds globally, i.e. a projected USD 400 billion per year additional investment will be required by 2030 to stay below 2°C. However, other experts also comment that the key barrier to climate financing is a lack of “investable projects” and the institutional infrastructures to ensure the suitability, accountability and appropriate implementation of these projects.

In order to strengthen the capacity of national governments and project managers to deliver “investable projects” relevant under the available climate finance programmes, significant training is needed to better understand:

- ✓ The shifting investment patterns of climate finance, as well as the possibilities to scale up projects and activities under climate financing.
- ✓ The efficient levers to mobilize private investment and its potential in any country.
- ✓ The numerous difficulties in accessing, utilising and reporting on use of climate finance exist due to lack of clarity and skills on these issues.

#### Target Audience:

*This course targets those persons who are responsible for supporting, planning, managing and implementing climate mitigation and adaptation related projects, and who require further understanding of the current mechanisms and procedures for Climate Financing.*

- 1) National government officers (*from ASEAN countries*) who mitigation related activities, development planning, and infrastructure development/investment.
- 2) Project managers and implementers from both private and public sectors (including project developers, development finance consultants and managers, plant operators and manufacturers, advisory professionals, etc.).

#### Course Objectives:

*This course aims to provide a general understanding of the current nature and variety of climate financing opportunities and the types of climate mitigation and adaptation projects that they can support. Participants in this course should gain specific knowledge on how to apply for, access, utilise and provide accountability for the use of climate financing.*

- ✓ Government officers should gain the capacities to build supportive institutions and infrastructure for use of climate finance and to mobilize multi-stakeholder involvement in relevant projects.
- ✓ Project developers should gain the capacities to effectively access, utilise and report on the use of climate finance funds.

#### Course Length and Structure:

1 day / 6.5 hours class time / 5 modules (primarily includes lectures)

OR

2 day / 13.5 hours class time / 5 modules in 8 sessions (includes lectures, practical and group work)

#### Certification (on completion of course):

Xxxxxx?

## Curriculum Outline/Agenda – One Day Training Option

Module	Time Allocation	Possible Schedule	Topic and Contents
<b>Registration</b>		8:30-9:00	Participant Arrival and Registration
<b>Introduction</b>	30 minutes	9:00-9:30	<ul style="list-style-type: none"> <li>- Course Background and Overview</li> <li>- Self-Introductions</li> </ul>
<b>1</b>	75 minutes	9:30-10:45	<b>Climate Change Science and Policy</b> <ul style="list-style-type: none"> <li>- Climate Change science and the 2°C Target</li> <li>- Climate Negotiations and Key Findings from IPCC AR5 WGIII</li> <li>- Mitigation Investments and the Energy Economy</li> </ul>
<i>break</i>	30 minutes	10:45-11:15	<i>Coffee Break</i>
<b>2</b>	75 minutes	11:15-12:30	<b>Climate Finance – Policy and Mechanisms</b> <ul style="list-style-type: none"> <li>- Climate Finance negotiations under the UNFCCC process</li> <li>- Climate Finance mechanisms and Institutional Landscape (international, multi-lateral, bi-lateral, private)</li> <li>- Typologies of Climate Finance: <ul style="list-style-type: none"> <li>o Mitigation Finance and CDM</li> <li>o Adaptation Finance</li> <li>o REDD+ Finance</li> <li>o Results Finance</li> <li>o Project Types eligible for use of Climate Finance</li> </ul> </li> <li>- Climate Finance trends in Asia</li> </ul>
<i>lunch</i>	90 minutes	12:30-14:00	<i>Lunch</i>
<b>3</b>	60 minutes	14:00-15:00	<b>Case Studies of Climate Finance Projects</b> <ul style="list-style-type: none"> <li>- Exploring several Climate Finance projects related to the different typologies of climate finance, i.e. mitigation and CDM, adaptation, REDD+, results-based, etc.</li> </ul>
<b>4</b>	60 minutes	15:00-16:00	<b>Accessing Climate Financing and Managing Projects</b> <ul style="list-style-type: none"> <li>- Effective Project Development and Management</li> <li>- Application processes and project criteria/requirements</li> <li>- Working with national climate finance focal points</li> <li>- Domestic management of Climate Finance</li> <li>- Monitoring and Evaluation, Reporting Criteria and MRV</li> </ul>
<i>break</i>	30 minutes	16:00-16:30	<i>Coffee Break</i>
<b>5</b>	60 minutes	16:30-17:30	<b>Developing Supportive Infrastructures for Climate Finance</b> <ul style="list-style-type: none"> <li>- Assessing domestic needs and priorities for climate finance</li> <li>- Policy Instruments for Financing Climate Activities</li> <li>- Public development of supportive institutions &amp; infrastructures</li> <li>- Securing Multi-Stakeholder Cooperation and Expertise in projects</li> <li>- Strategies for enhanced delivery of international support</li> <li>- Cooperation mechanisms and South-South Collaboration</li> </ul>
<b>Closing</b>	30 minutes	17:30-18:00	<ul style="list-style-type: none"> <li>- Participant Reflections</li> <li>- Award Ceremony</li> </ul>

## Curriculum Outline/Agenda – Two Day Training Option

DAY ONE – Climate Finance Training			
Session	Time Allocation	Possible Schedule	Topic and Contents
<b>Registration</b>		8:00 – 8:30	Participant Arrival and Registration
<b>Introduction</b>	60 minutes	8:30 – 9:30	<ul style="list-style-type: none"> <li>- Course Background, Overview and Objectives</li> <li>- Self-Introductions of Participants</li> </ul>
<b>1</b> [module 1]	90 minutes	9:30 – 11:00	<b>Climate Change Science and Policy</b> <ul style="list-style-type: none"> <li>- Climate Change science and the 2°C Target</li> <li>- Climate Negotiations and Key Findings from IPCC AR5 WGIII</li> <li>- Climate Finance negotiations under the UNFCCC process</li> </ul>
<i>break</i>	30 minutes	11:00 -11:30	<i>Coffee Break</i>
<b>2</b> [module 1]	60 minutes	11:30 – 12:30	<b>The Role of Climate Finance in the Energy Economy</b> <ul style="list-style-type: none"> <li>- Introducing the Energy Economy</li> <li>- Introducing mitigation investments</li> <li>- Mitigation Investments and the Energy Economy</li> </ul>
<i>lunch</i>	90 minutes	12:30 -14:00	<i>Lunch</i>
<b>3</b> [module 2]	120 minutes	14:00 -16:00	<b>Climate Finance Mechanisms</b> <ul style="list-style-type: none"> <li>- Climate Finance mechanisms and Institutional Landscape (international, multi-lateral, bi-lateral, private)</li> <li>- Typologies of Climate Finance: <ul style="list-style-type: none"> <li>o Mitigation Finance and CDM</li> <li>o Adaptation Finance</li> <li>o REDD+ Finance</li> <li>o Results Finance</li> <li>o Project Types eligible for use of Climate Finance</li> </ul> </li> <li>- Climate Finance trends in Asia</li> </ul>
<i>break</i>	30 minutes	16:00 -16:30	<i>Coffee Break</i>
<b>4</b> [module 3]	60 minutes	16:30 – 17:30	<b>Case Studies of Climate Finance Projects – Presentations</b> <ul style="list-style-type: none"> <li>- Exploring several Climate Finance projects related to the different typologies of climate finance, i.e. mitigation and CDM, adaptation, REDD+, results-based, etc.</li> <li>- Introduction of Case Studies and Group Work</li> </ul>

DAY Two – Climate Finance Training			
Session	Session	Session	Session
<b>5</b> [module 3]	90 minutes	8:30 – 10:00	<b>Case Studies of Climate Finance Projects – Group Activity</b> <i>* with morning coffee</i>
<b>6</b> [module 4]	60 minutes	10:00 – 11:00	<b>Accessing Climate Financing</b> <ul style="list-style-type: none"> <li>- Effective Project Development and Management</li> <li>- Application processes and project criteria/requirements</li> </ul>
<i>break</i>	30 minutes	<i>11:00 – 11:30</i>	<i>Coffee Break</i>
<b>8</b> [module 4]	60 minutes	11:30 – 12:30	<b>Managing Climate Finance Projects</b> <ul style="list-style-type: none"> <li>- Working with national climate finance focal points</li> <li>- Domestic management of Climate Finance</li> <li>- Monitoring and Evaluation, Reporting Criteria and MRV</li> </ul>
<i>lunch</i>	90 minutes	<i>12:30 -14:00</i>	<i>Lunch</i>
<b>7</b> [module 4]	75 minutes	14:00 -15:15	<b>Practical on Accessing and Managing Climate Financing</b>
<i>break</i>	30 minutes	<i>15:15 – 15:45</i>	<i>Coffee Break</i>
<b>8</b> [module 5]	90 minutes	15:45 – 17:15	<b>Developing Supportive Infrastructures for Climate Finance</b> <ul style="list-style-type: none"> <li>- Assessing domestic needs and priorities for climate finance</li> <li>- Policy Instruments for Financing Climate Activities</li> <li>- Public development of supportive institutions &amp; infrastructures</li> <li>- Securing Multi-Stakeholder Cooperation and Expertise in projects</li> <li>- Strategies for enhanced delivery of international support</li> <li>- Cooperation mechanisms and South-South Collaboration</li> </ul>
<b>Closing</b>	45 minutes	17:15 – 18:00	<ul style="list-style-type: none"> <li>- Participant Reflections</li> <li>- Award Ceremony</li> </ul>