

Architecture of International Climate Finance

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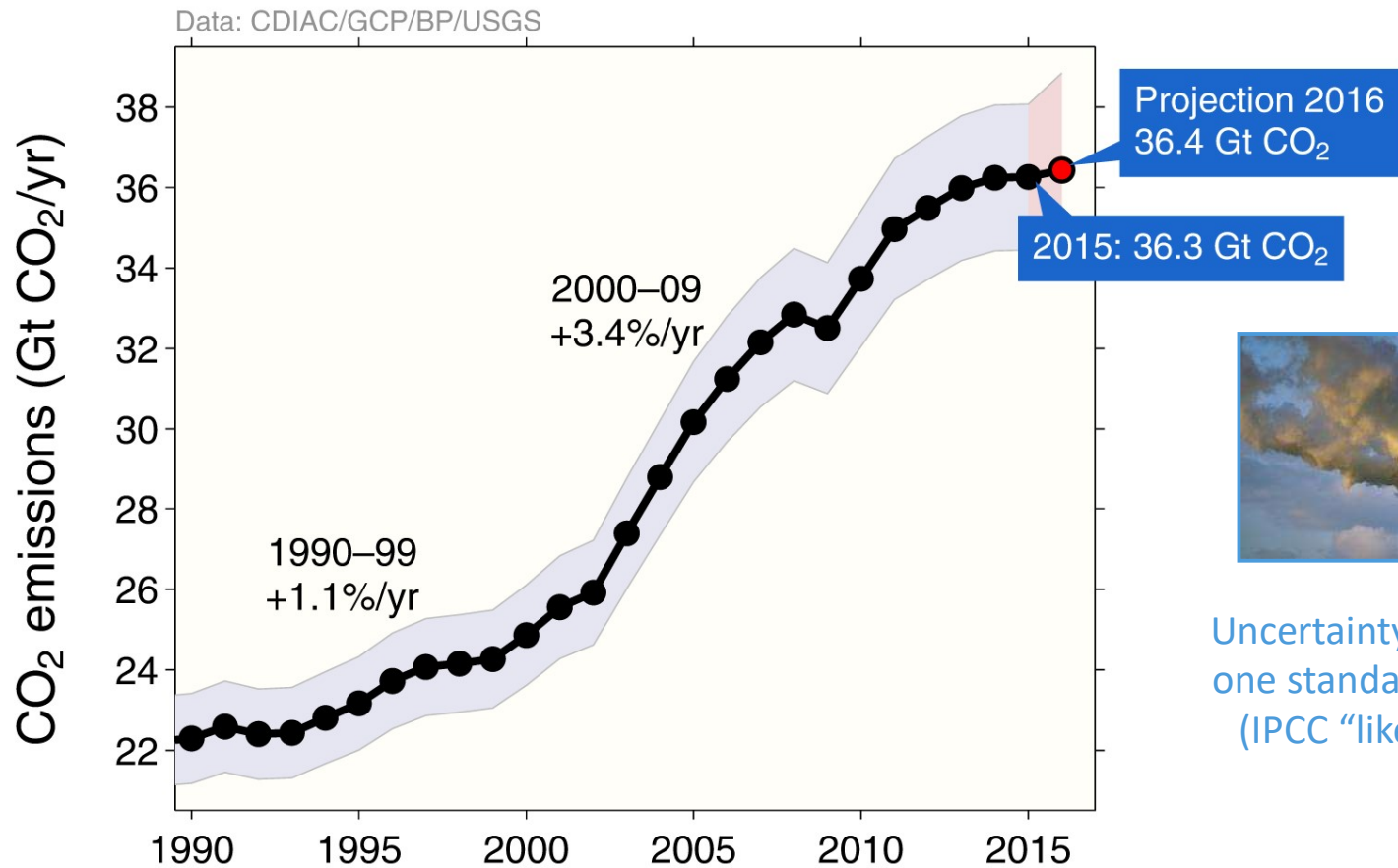


Outline

- a. Global architecture of climate financing
- b. Multilateral climate funds
- c. Developed countries' bilateral climate financing schemes (Japan, Norway, Australia, Germany, UK)
- d. National climate funds

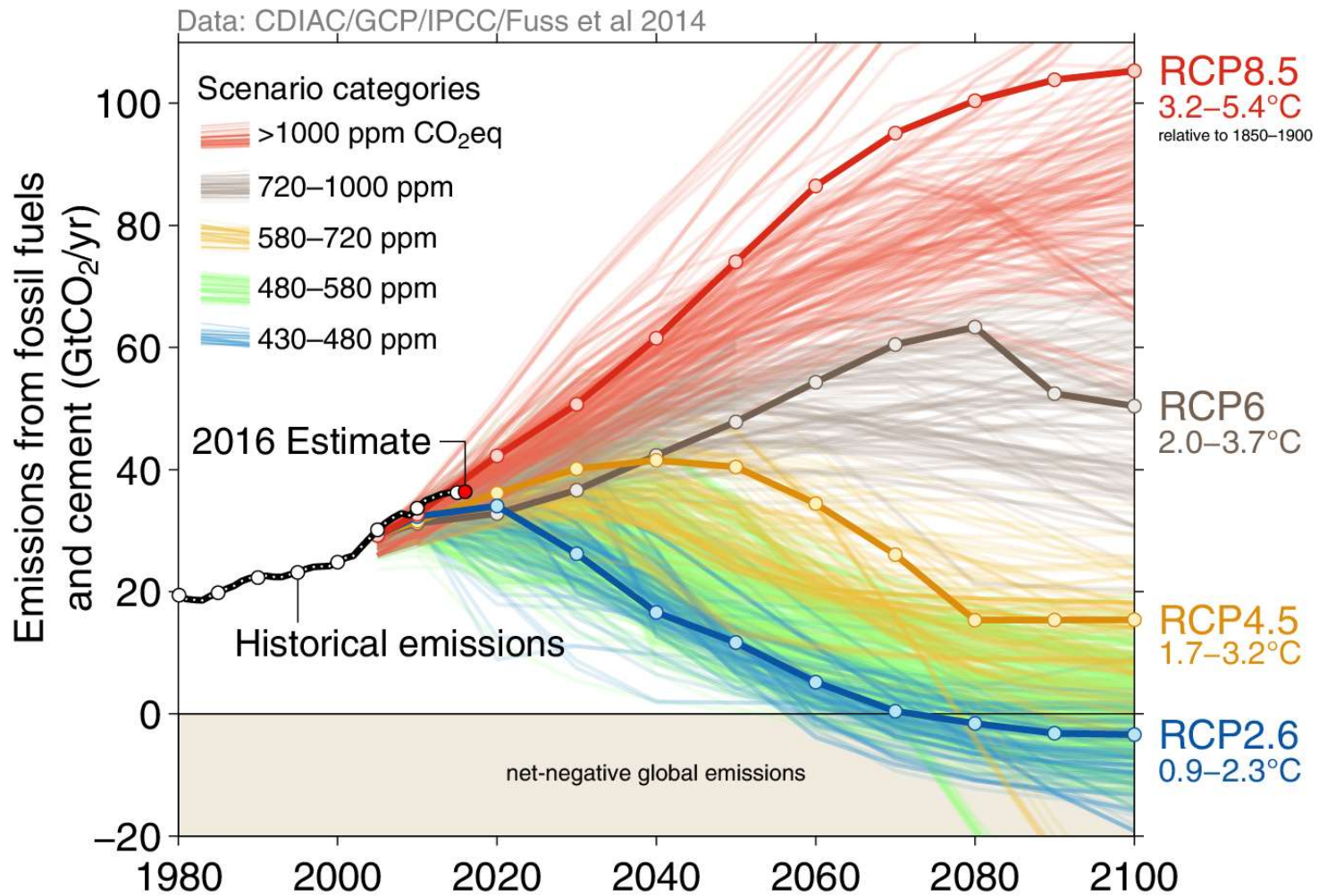
Emissions from fossil fuel use and industry

Global emissions from fossil fuel and industry: 36.3 ± 1.8 GtCO₂ in 2015



Uncertainty is $\pm 5\%$ for one standard deviation (IPCC “likely” range)

Observed emissions and emissions scenarios

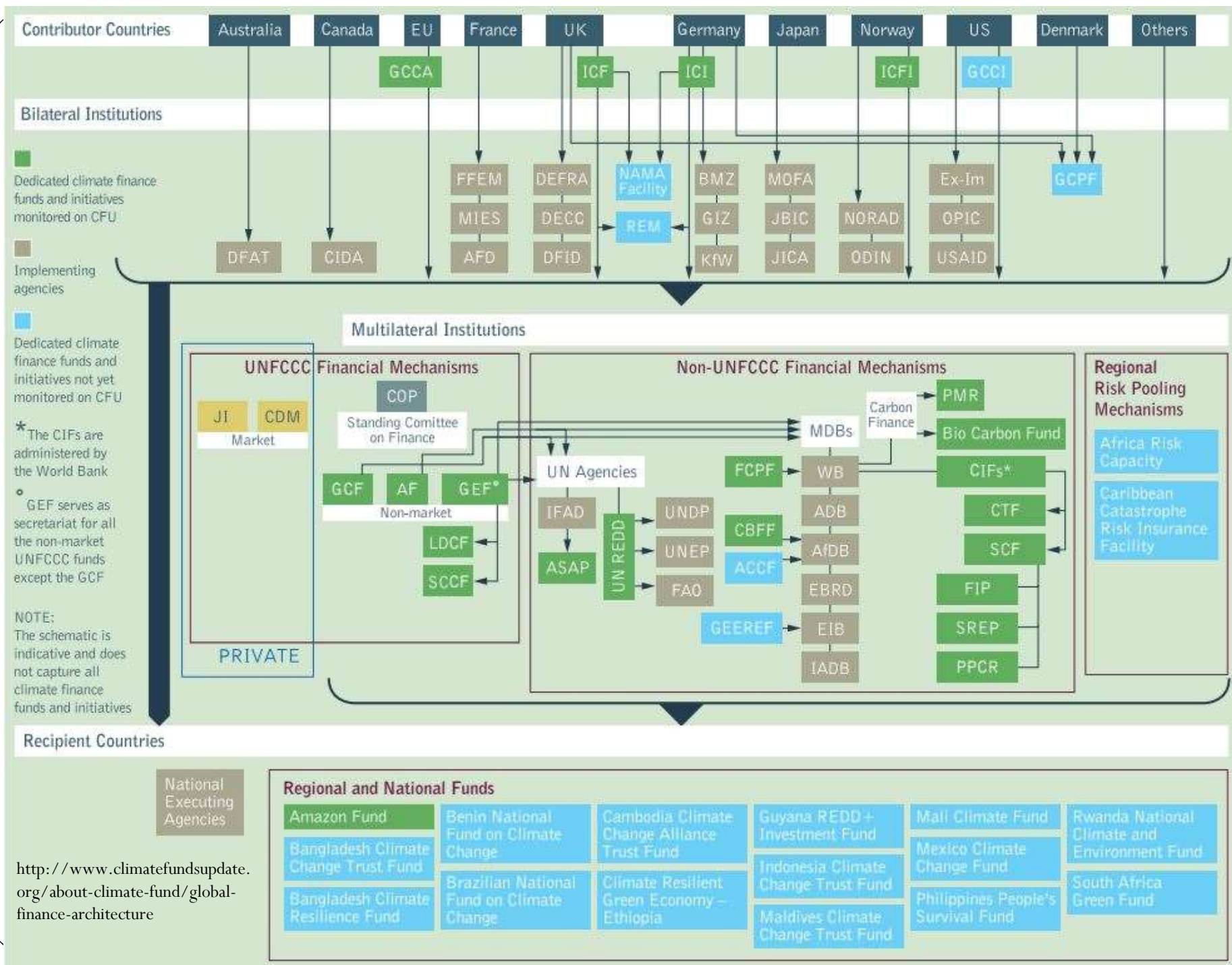


Global architecture of climate financing

- **What constitutes climate finance?**
 - The financial resources mobilized to support developing countries to mitigate and adapt
 - Which is counted as climate finance !! No clear agreement
- **Climate finance is complex and not easy to track**
 - Finance by multilateral institutions are relatively clear
 - Bilateral and private sector finance is difficult to track
- **Too many climate finance mechanisms, and uncoordinated**

Climate finance status

- Many developed countries have their “own climate finance schemes” or finance “through bilateral agencies”
- A large sum of climate finance flows through a dedicated multilateral funds
- There are large “diversity in the type” of available climate finance
 - Grants, concessional loans, guarantees, private equity: depending on objectives of funds
- Funding channels are “too many” creating confusion and difficult in ascertaining their effectiveness
- Many developing countries are creating “own national funds” which receives climate finance from a “multiple sources”



Implementing Agencies and Institutions

- **AfDB** - African Development Bank
- **ADB** - Asian Development Bank
- **AFD** - French Development Agency
- **BMZ** - Federal Ministry for Economic Cooperation and Development
- **CIDA** - Canadian International Development Agency
- **DECC** - Department of Energy and Climate Change
- **DEFRA** - Department for Environment, Food and Rural Affairs
- **DFAT** - Department of Foreign Affairs and Trade (Australia)
- **DFID** - Department for International Development
- **EBRD** - European Bank for Reconstruction and Development
- **EIB** - European Investment Bank
- **Ex-Im** - Export-Import Bank of the United States
- **FAO** - Food and Agriculture Organisation
- **FFEM** - French Global Environment Facility
- **GIZ** - German Technical Cooperation
- **IADB** - Inter American Development Bank
- **IFAD** - International Fund for Agricultural Development
- **JBIC** - Japan Bank of International Cooperation
- **JICA** - Japan International Cooperation Agency
- **KfW** - German Development Bank
- **MIES** - Interministerial Taskforce on Climate Change
- **MOFA** - Ministry of Foreign Affairs
- **NORAD** - Norwegian Agency for Development Cooperation
- **ODIN** - Ministry of Foreign Affairs
- **OPIC** - Overseas Private Investment Corporation
- **UNDP** - United Nations Development Programme
- **UNEP** - United Nations Environment Programme
- **USAID** - U.S. Agency for International Development
- **WB** - World Bank

Multilateral funds and Initiatives

- **AF** - Adaptation Fund
- **ACCF** - Africa Climate Change Fund
- **ASAP** - Adaptation for Smallholder Agriculture Programme
- **CBFF** - Congo Basin Forest Fund (hosted by AfDB)
- **CDM** - Clean Development Mechanism (implemented under the Kyoto Protocol)
- **CIF** - Climate Investment Funds (implemented through WB, ADB, AfDB, EBRD, and IADB)
- **CTF** - Clean Technology Fund
- **FCPF** - Forest Carbon Partnership Facility
- **FIP** - Forest Investment Program
- **GCCA** - Global Climate Change Alliance
- **GCF** - Green Climate Fund
- **GEF** - Global Environment Facility
- **GEEREF** - Global Energy Efficiency and Renewable Energy Fund
- **JI** - Joint Implementation (implemented under the Kyoto Protocol)
- **LDCF** - Least Developed Countries Fund
- **PMR** - Partnership for Market Readiness
- **PPCR** - Pilot Program on Climate Resilience
- **SCCF** - Special Climate Change Fund
- **SCF** - Strategic Climate Fund
- **SREP** - Scaling-Up Renewable Energy Program
- **UNREDD** - United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation

Bilateral Funds and Initiatives

- **GCCI** - Global Climate Change Initiative (US)
- **GCPF** - Global Climate Partnership Fund (Germany, UK and Denmark)
- **ICF** - International Climate Fund (UK)
- **ICFI** - International Climate Forest Initiative (Norway)
- **ICI** - International Climate Initiative (Germany)
- **NAMA facility** - Nationally Appropriate Mitigation Action Facility (UK and Germany)
- **REM** - REDD Early Movers (Germany and UK)

Phases in funding



Fund
mobilization

Fund
administration
and
governance

Fund
disbursement
and delivery

Global Environment Facility (GEF)

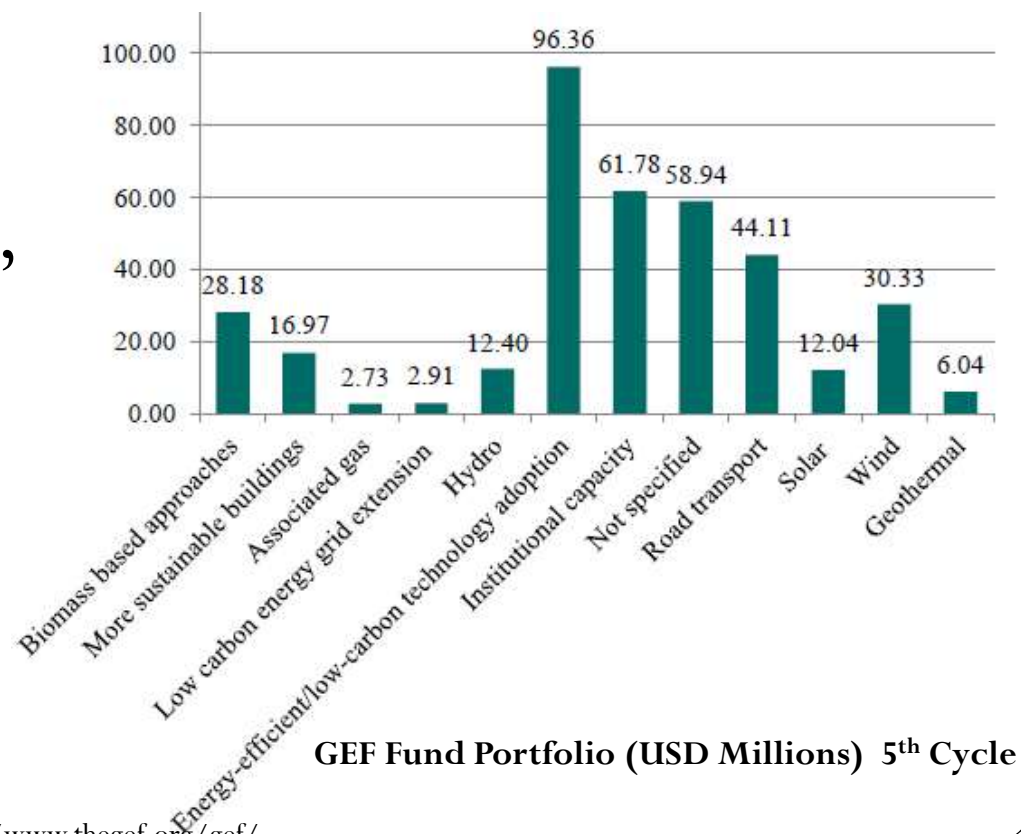
- Operating entity of UNFCCC financial mechanisms; also serves as financial mechanism for CBD, POPs, UNCCD
- Grants and concessional funding to cover "incremental" costs of delivering global environmental benefits
- Established in 1991 - Operated in replenishment cycle of 4 years (GEF-1: 1994-98, GEF-2 1998-2002, GEF-3 2002-6)
 - 4th Cycle 2006-10: 1.083 bn US\$ (pledged)
 - 5th Cycle 2010-14: 1.244 bn US\$ (Pledged)
 - 6th Cycle 2014-18: 1.101 bn US\$ (Pledged)

Global Environment Facility (GEF)

- Developing countries contribute in funding and play a equal role in overseeing GEF
 - Originally, proposed to capitalization with 1% of GDP contribution from all participating countries- not happened
 - Developing country governments (major ones: China, India, South Africa, Mexico, Korea) have contributed about US\$ 16 million in 5th replenishment cycle of GEF
 - Reasonable developing country ownership

Global Environment Facility (GEF)

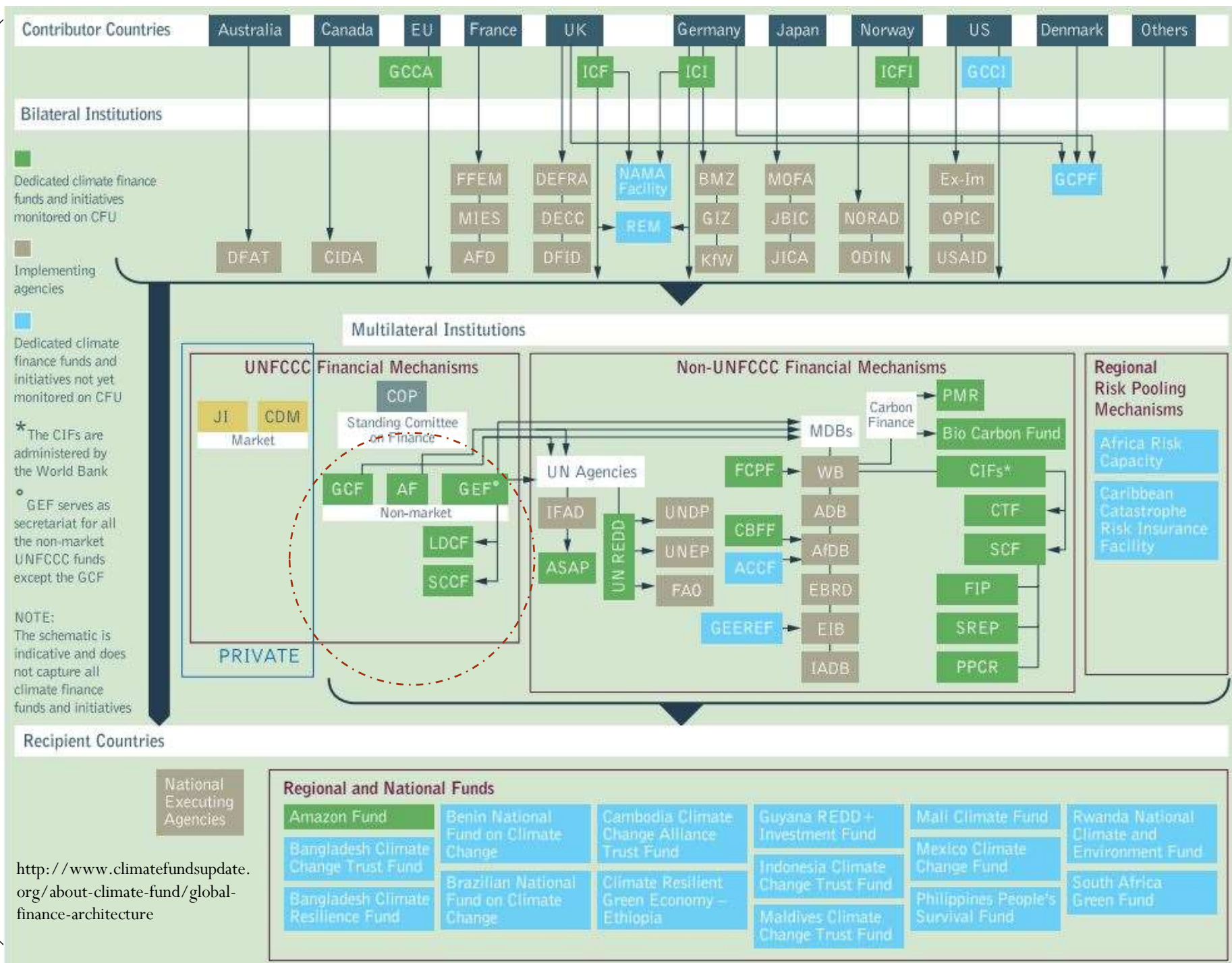
- 5th Cycle: Pledged 1,244 mn, Approval 868 mn, Disbursed 547 mn \$.
- 6th Cycle: Pledged 1,101 mn, deposited 1,078 mn, approved 216 mn, disbursed 207 mn \$ (by May 2016)



GEF Fund Portfolio (USD Millions) 5th Cycle

Global Environment Facility (GEF)

- Major activity areas
 - *Mitigation*: Reducing or avoiding emissions in developing countries in/through renewable energy; energy efficiency; sustainable transport; and management of land use, land-use change and forestry (LULUCF)
 - *Adaptation*: Supporting climate-resilient development in developing countries in short and longer-term adaptation activities
 - But, all adaptation activities in 5th /6th replenishment cycle are to be done through LDCF and SCCF



■ Dedicated climate finance funds and initiatives monitored on CFU

■ Implementing agencies

■ Dedicated climate finance funds and initiatives not yet monitored on CFU

* The CIFs are administered by the World Bank

o GEF serves as secretariat for all the non-market UNFCCC funds except the GCF

NOTE: The schematic is indicative and does not capture all climate finance funds and initiatives

<http://www.climatefundsupdate.org/about-climate-fund/global-finance-architecture>

Least Developed Countries Fund (LDCF)

- Under UNFCCC, administered by GEF
- Operationalized 2002, undecided lifetime
- Established to support 49 LDCs to meet the adaptation needs with current focus on preparation and implementation of National Adaptation Programmes of Action (NAPAs)
- All grants
- Pledged 963 mn US\$, deposited and approved all (May 2016)

https://unfccc.int/cooperation_and_support/financial_mechanism/least_developed_country_fund/items/4723.php

<http://www.climatefundsupdate.org/listing/least-developed-countries-fund>

Special Climate Change Fund (SCCF)

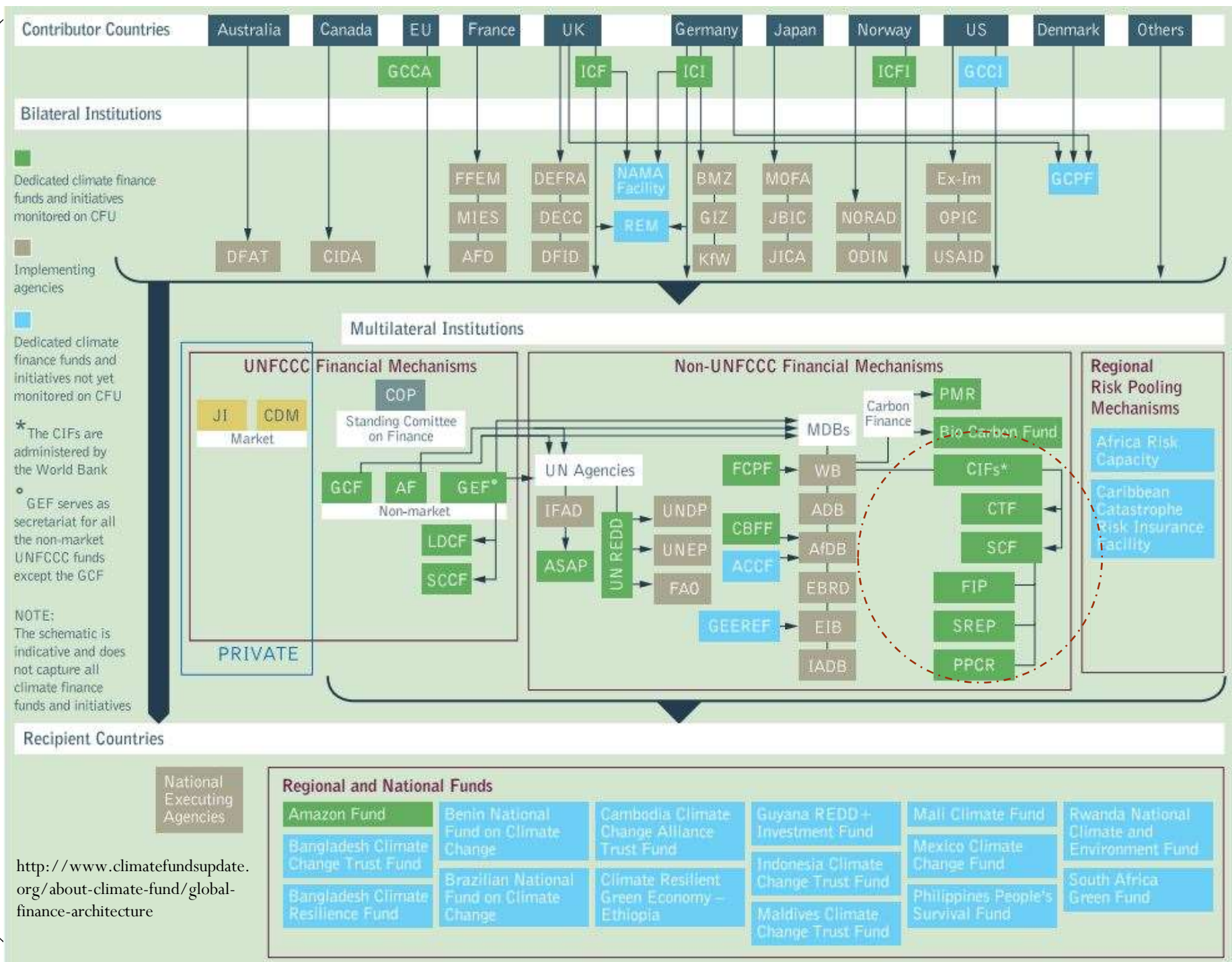
- Under UNFCCC, administered by GEF
- Operationalized in 2002
- Eligible for all developing countries
- All grants
- Areas
 - Small scale adaptation (priority)
 - Technology transfer
- Pledged 350 mn US\$, all deposited, approved 285 mn US\$, disbursed 192 mn US\$ (May 2016)

<http://www.thegef.org/gef/SCCF>

<http://www.climatefundsupdate.org/listing/special-climate-change-fund>

Adaptation Fund (AF)

- Established in 2001, operationalized in 2009
- World Bank as an interim trustee
- Financed through 2% of proceeds on the issued CERs of CDM + voluntary pledges of donor governments.
- All grants; all aspects of climate change adaptation
- Direct access of funding to developing countries through National Implementing Entities without going through multilateral agencies
- Income 565 mn US\$, approved 320 mn US\$, disbursed 112 mn US\$ as of May 2016



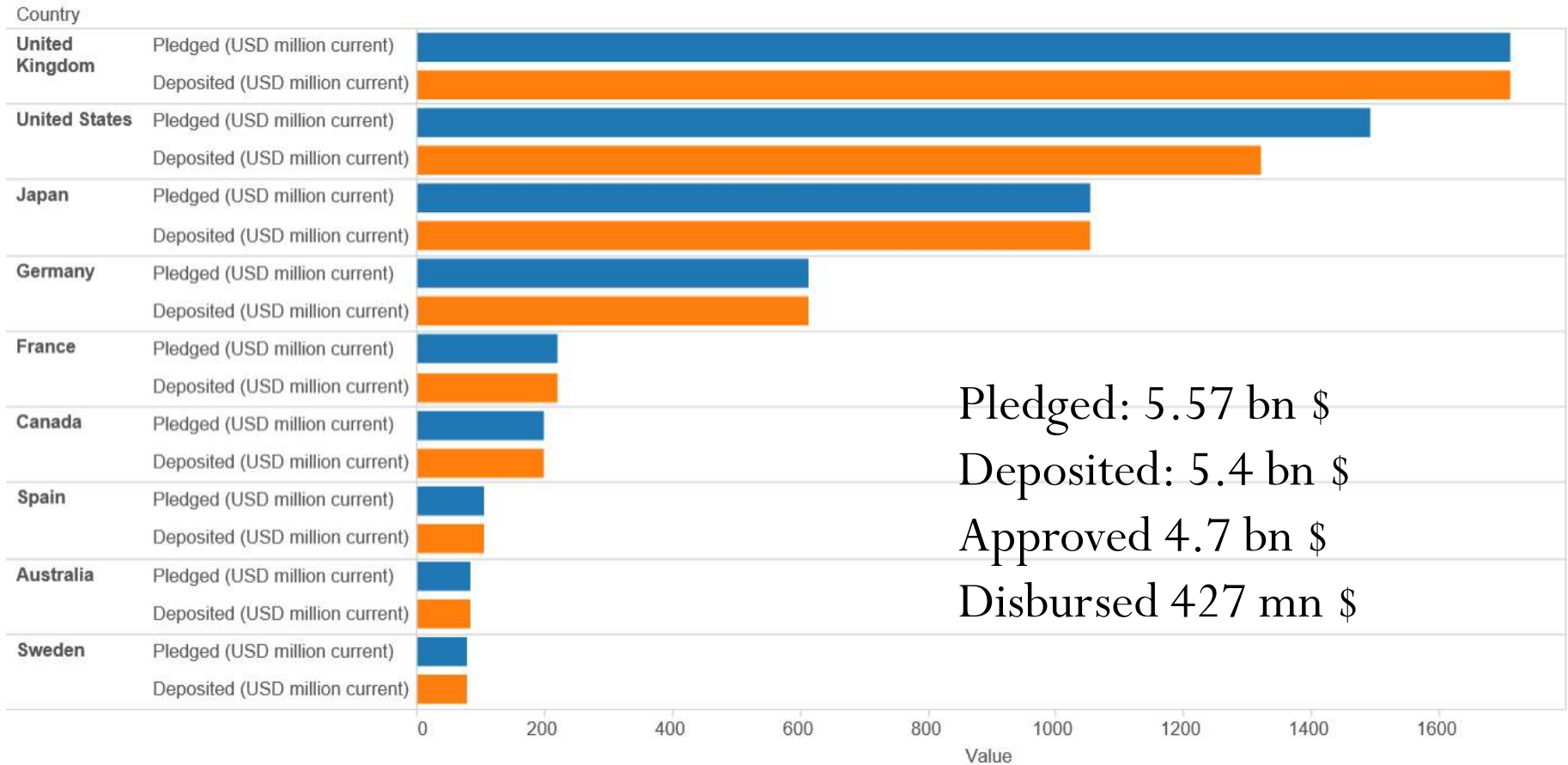
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Climate Investment Funds (CIFs)

- Non-UNFCCC mechanism; established in 2008
- Administered by the World Bank with regional dev. banks
- Multi-donor trust fund; total pledge of about 7.6 bn US\$
- A mixed bag of many financial instruments
- Clean Technology Fund (CTF) – 69% of funds (5.57 bn US\$ pledged)
- Strategic Climate Funds (SCF) – remaining sum
 - Pilot Program for Climate Resilience (PPCR)
 - Forest Investment Program (FIP)
 - Scaling-Up Renewable Energy Program for Low Income Countries (SREP)

All data as of May 2016

Clean Technology Fund Income



Clean Technology Fund (CTF)

- Key areas supported- mitigation centered
 - Renewable energy and efficient technologies (incl coal fired)
 - Transport Sector's efficiency and modal shifts improvements
 - Energy efficiency in buildings, industry, and agriculture
- Type of finance
 - A mix of grants, concessional loans, guarantees etc.
- Criticisms
 - Quick design and implemented; Inadequate consultation with civil society
 - Parallel structure to UNFCCC funds
 - Efficient coal-fired power plants are within clean definition

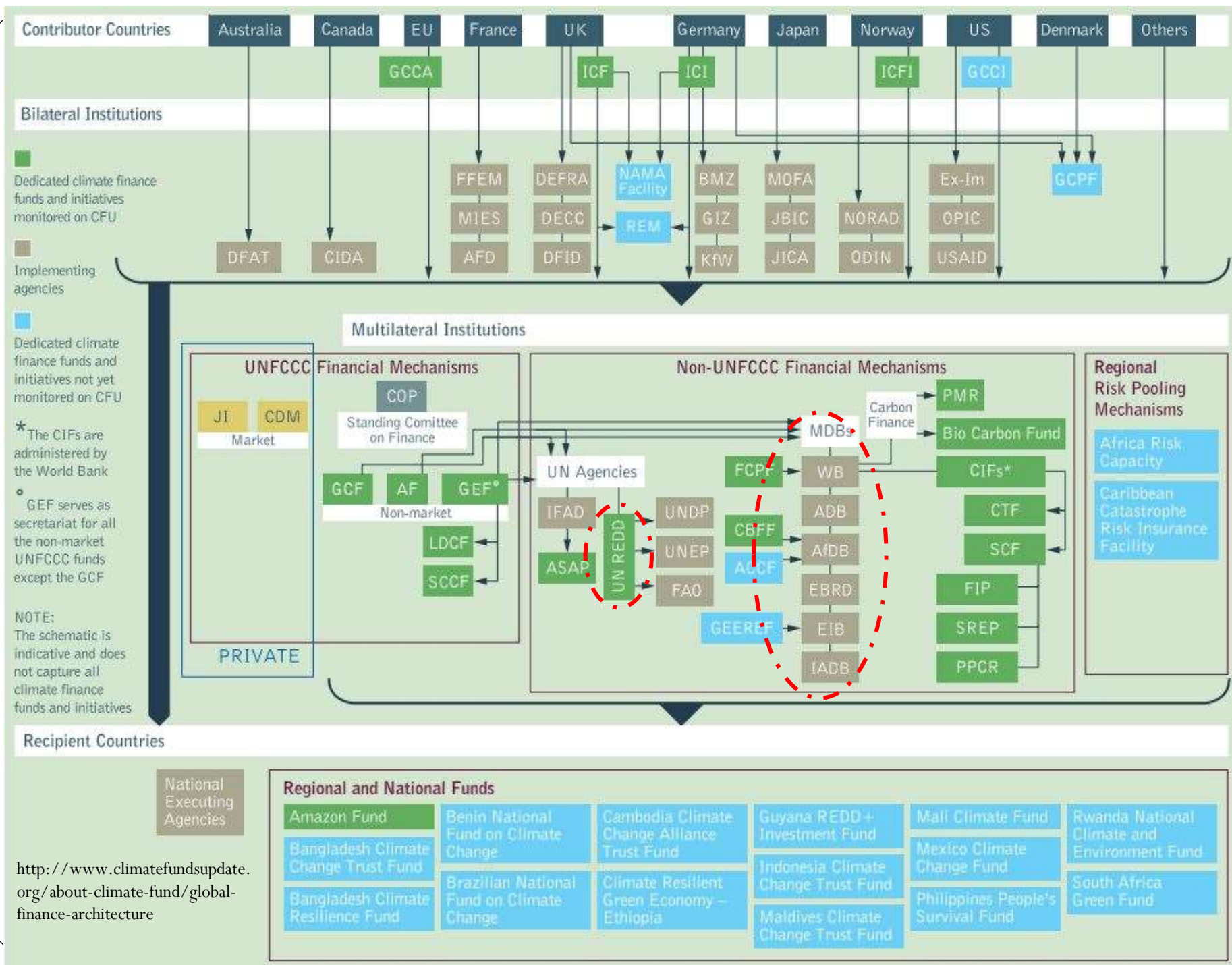
Strategic Climate Funds

- **Pilot Program for Climate Resilience (PPCR)**
 - Criticism: parallel structure to UNFCCC funds; loan-ing for adaptation and debt (supposed to be compensation to developing countries for historic responsibility)
 - 1,117 mn \$ pledged, only 36 mn \$ disbursed
- **Forest Investment Program (FIP)**
 - Support REDD and sustainable forest mgmt
 - 640 mn pledged, 526 mn deposited, 343 mn approved, only 6 mn disbursed

All data as of May 2016

Strategic Climate Funds

- Scaling-Up Renewable Energy Program for Low Income Countries (SREP)
 - Grants and near-zero interest credit
 - 528 mn pledged/deposited, 225 mn approved, only 3 mn disbursed.



<http://www.climatefundsupdate.org/about-climate-fund/global-finance-architecture>

Development Bank's own programs

All data as of May 2016

- Caters particular regions and specific themes
- The Forest Carbon Partnership Facility (FCPF) of the World Bank
 - Operation from 2008; till 2020; harnessing carbon market revenues to reduce emissions from REDD+; **grant basis in exchange for carbon reduction**;
 - Carbon Fund: 702 mn US\$ pledged; 441 mn deposited
 - Readiness Fund: 370 mn pledged; 324 mn deposited; 207 mn approved; 57 mn disbursed
- Congo Basin Forest Fund (CBFF) of African Development Bank
 - Operation from 2008; until 2018; poverty and climate change through reducing deforestation; **all grants**; 186 mn US\$ pledged; 83 mn approved; 59 mn disbursed
- EIB administered EU Global Energy Efficiency and Renewable Energy Fund (GEEREF)
 - Operational from 2008; maximizing the private finance leveraged through public funds (PPP); **private equity and grants**; 15 yr from 2008; 170 mn US\$ pledged; 90 mn approved and disbursed.

UN REDD Program

- Started with 141 mn US\$ pledge from Norway (mainly ICFI)- followed by Denmark, Japan, Luxemburg, Spain, Switzerland and European Commission
- Operational 2008; 270 mn US\$ pledged; 260 mn deposited; 245 approved; 172 mn disbursed; **all grants**
- Scope
 - Prepare and implement national REDD
 - Developing science based REDD instrument and linking to UNFCCC

All data as of May 2016

Bilateral climate finance schemes

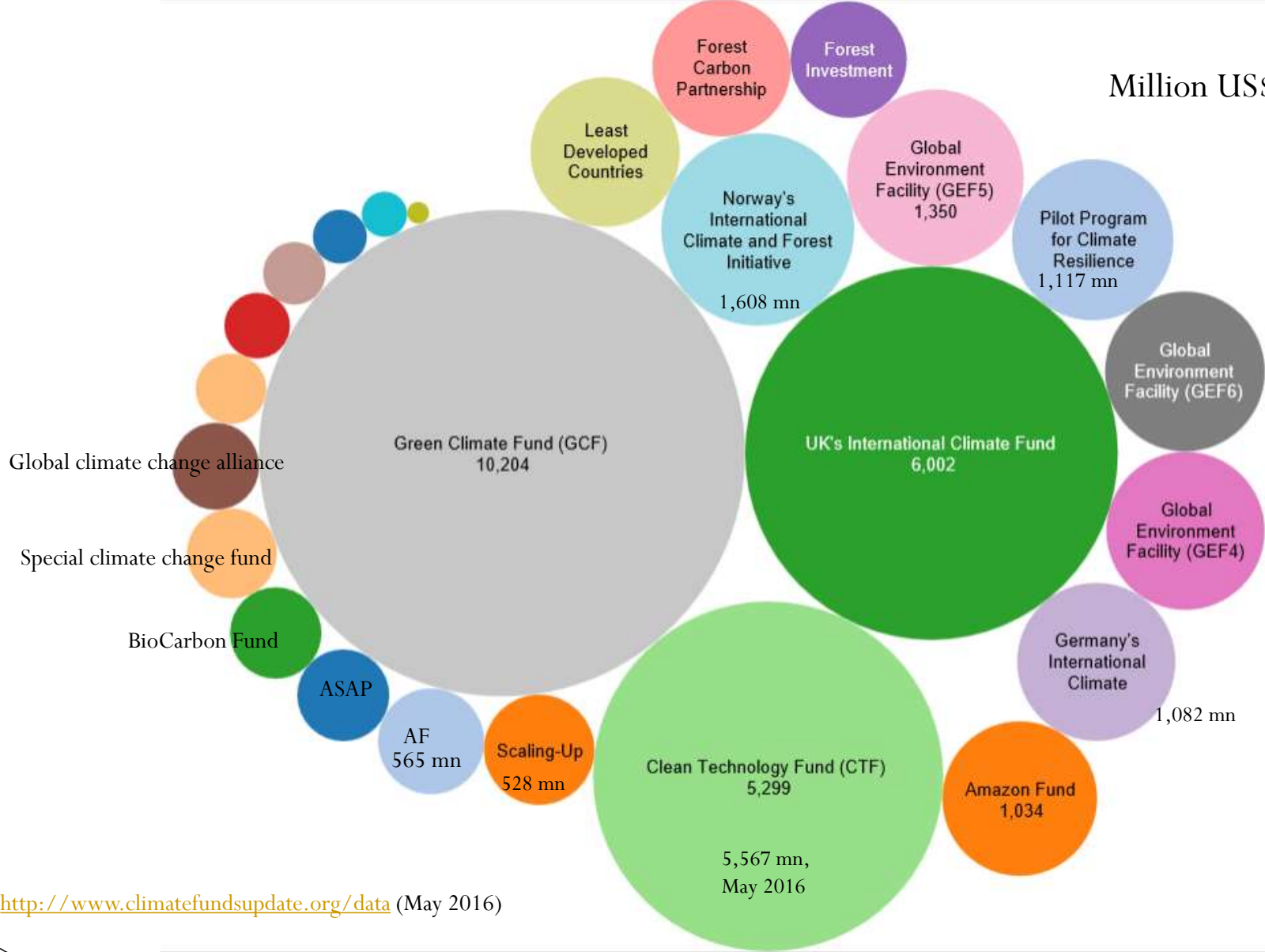
- **Principal actors:** development agencies of countries
- **Germany's International Climate Initiative (ICI) - since 2008**
 - 1.08 bn pledged, approved all mitigation, adaptation, REDD+ projects
 - Source of German revenue: Sale of national tradable emission certificates, which is additional to ODA commitment
- **The UK's International Climate Fund- since 2011**
 - Pledge: 6 bn US\$ including wide variety of channels (1.8 bn US\$ approved for projects)

Bilateral climate finance schemes

- **Norway's International Forest Climate Initiative- since 2008**
 - 1.6 bn US\$ pledged for IFCI
 - The N-ICFI contributes to several multilateral and bilateral initiatives including the Brazilian Amazon Fund, Congo Basin Forest Fund, Forest Carbon Partnership Facility and Forest Investment Program
 - Excluding contributing to others: 305 mn US\$ approved projects for bilateral schemes
 - REDD+ activities in Brazil, Indonesia, Tanzania, and Guyana
- **Australia's International Forest Carbon Initiative – since 2007**
 - Approved 159 mn US\$ for Papua New Guinea and Indonesia (REDD+)
- **Japan's Fast-Start-Finance- since 2008-10 and 2010-12**
 - Pledged 15 bn US\$ (bilateral + multilateral incl CIF + direct project with private sector); about 10 bn US\$ bilaterally

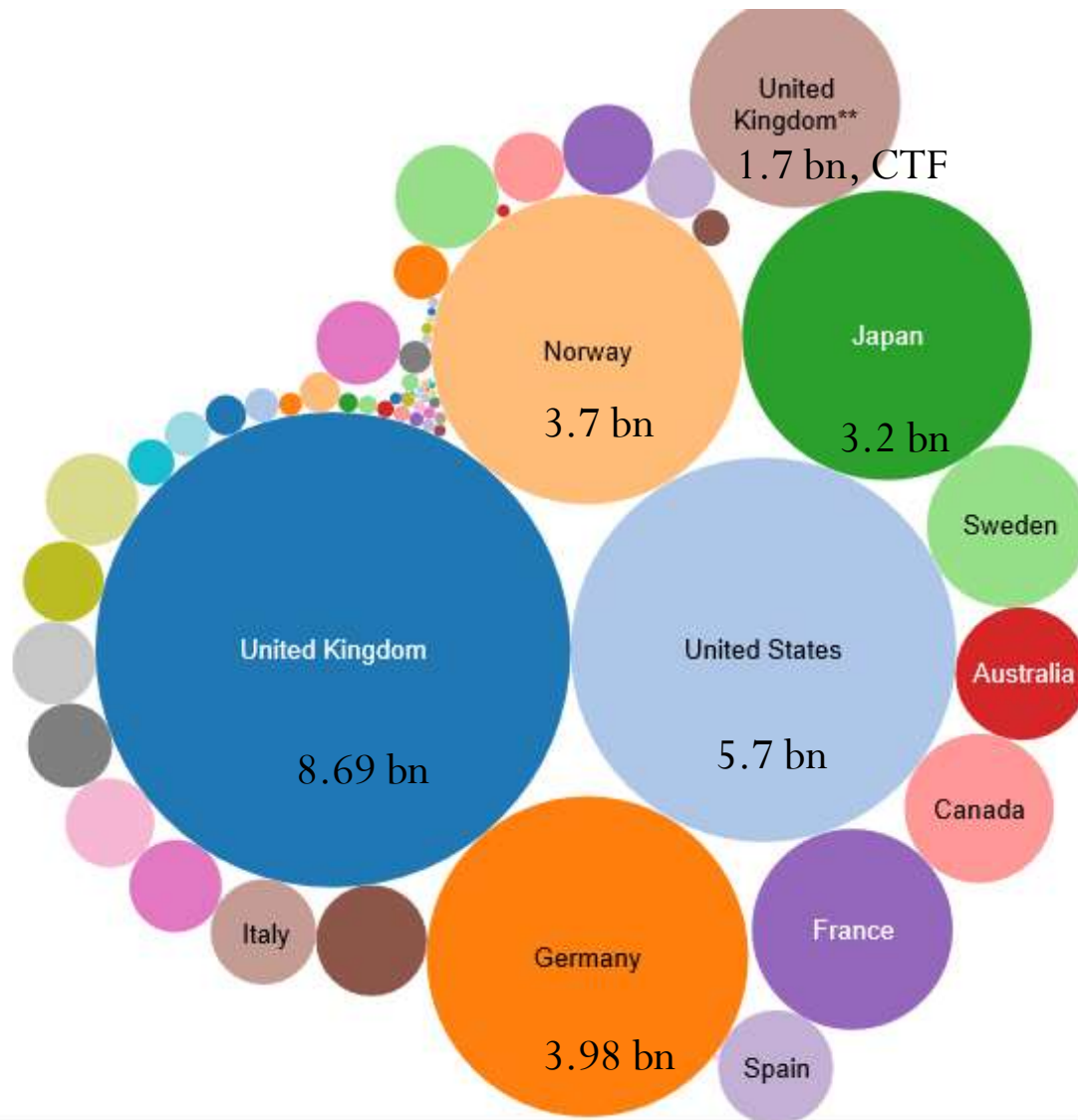
Size of funds

Million US\$



<http://www.climatefundupdate.org/data> (May 2016)

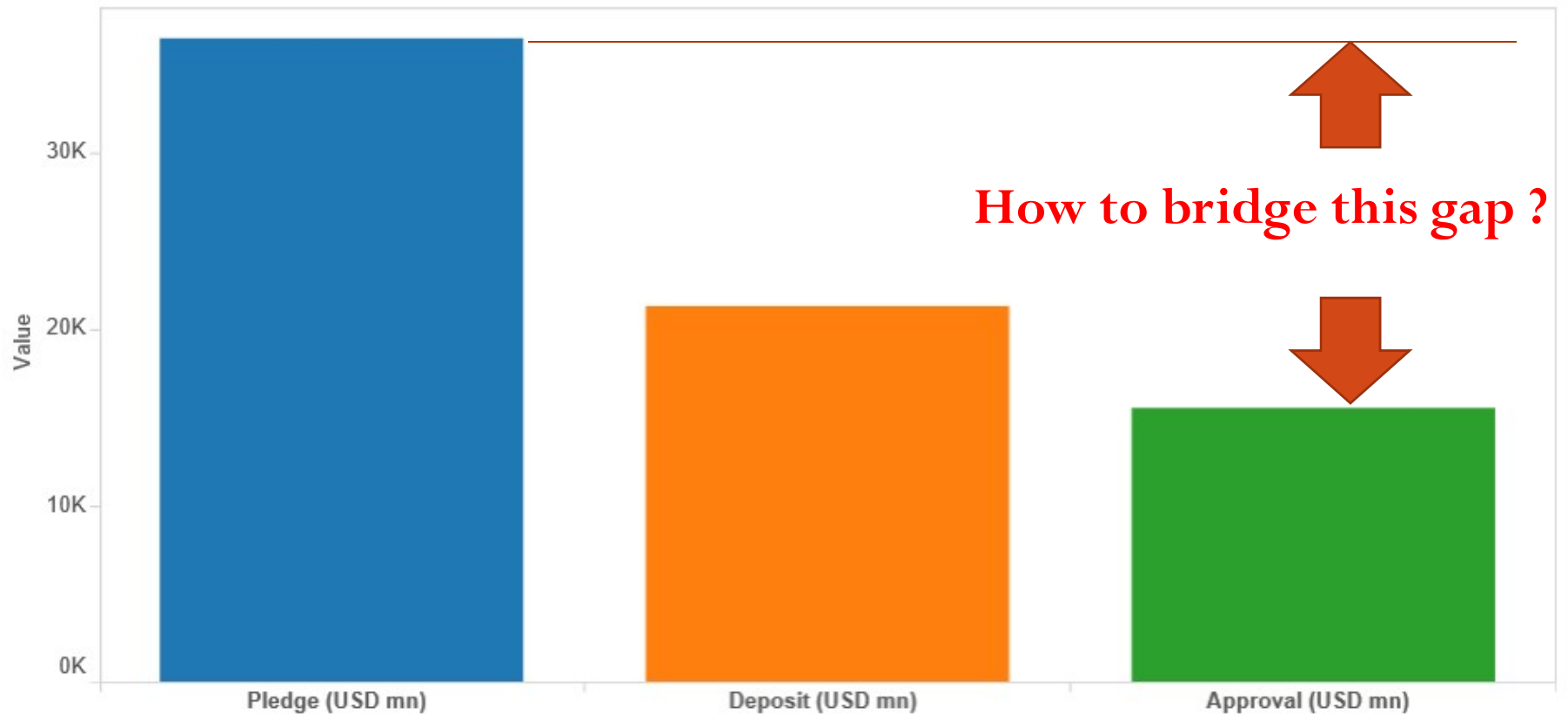
Contributors to climate funds



All data as of May 2016

Status of pledged, deposited and approved funds

Status of the funds



National climate financing funds

- The channels for intl climate finance is multiple necessitating recipient countries to set up trust funds to channel and manage that to meet national priorities effectively
- The national, private and international financing needs further co-ordination
- National climate funds can vary considerably in terms of objectives, legal status, type of fund, trustee arrangements, capitalization and beneficiaries

National climate financing funds

- UNDP acts as the administrator of national funds in many cases

Examples:

- Bhutan Trust Fund for Environmental Conservation (BT FEC)
- China Clean Development Mechanism Fund (CCDMF)
- Cambodia Climate Change Alliance (CCCA) Trust Fund
- Thailand Energy Conservation Promotion (ENCON) Fund
- Lao Environmental Protection Fund (EPF)
- Micronesian Conservation Trust (MCT)
- Tuvalu Trust Fund (TTF)
- Bangladesh Climate Change Resilience Fund, (managed by World Bank)
- Bangladesh Climate Change Trust Fund (Government of Bangladesh)
- The Philippines' Peoples Survival Fund (PSF)

Design features of national climate funds

- Type of funds
- Legal arrangement
- Governing body
- Beneficiaries

Design features of national climate funds – Type of funds

- **Three types of funds**

- Endowment, revolving and sinking funds
- Capitalization and governance depend on types of fund

- **Sinking fund**

- Disburses / consumes the principle capital and the income from investments (if any) for a short time; Not sustainable
- Example
 - Multi-donor trust fund- resource committed one time and flow to the intended beneficiaries
 - Cambodia Climate Change Alliance (CCCA) Trust Fund
 - Indonesia Climate Change Trust Fund (ICCTF)

Indonesia Climate Change Trust Fund (ICCTF)

- Aim to coordinate and support key areas, namely, energy efficiency, sustainable forestry, peatland management, and climate change resilience
- All Grants
- 21 mn US\$ pledged by UK, Australia and Sweden (approved 9.5 mnUS\$ by June 2015)

Amazon Fund

- Operated by Brazilian National Development Bank and overseen by group consisting government, civil society and private sector
- Norway pledged 1 bn US\$ to Amazon Fund for REDD+; Petrobras also contributing
- Approved project 553 mn US\$ till June 2015

Design features of national climate funds – Type of funds

- **Revolving fund**

- Same as sinking fund except that a replenishment sources exist at regular interval
- In many countries government budget, a designated tax (such as tax of fuels) or external source may fill the basket regularly
- Examples
 - National Fund on Climate Change of Brazil Gov which is replenished by local fossil fuel revenues (Promote low carbon investments through delivering low interest capital; 170 mn US\$ is expected)
 - China Clean Development Mechanism Fund (CCDM fund)- funded through levy to CDM projects
 - Energy Conservation Promotion Fund (ENCON fund), Thailand – funded thorough tax to petroleum products - handled by EPPO

Energy Conservation Promotion Fund (ENCON) Thailand

- Two components
 - Provides grants for government agencies, non-governmental organizations as well as research institutions
 - Thailand Energy Efficiency Revolving Fund (TEERF)
 - Finances to promote energy efficiency- provide soft loans
 - Implemented by eleven commercial banks and monitored by Department of Alternative Energy Development and Efficiency (DEDE)
 - Already finished

Design features of national climate funds – Type of funds

- **Endowment fund**

- Principal capital is not used but only income from investment is used to disburse grants

- Examples: Bhutan Trust Fund for Environmental Conservation

- **Endowment fund and sinking fund together**- where endowment fund covers the cost of operation to work continuously approach sinking funds

- Examples: Micronesian Conservation Trust; Lao Environmental Protection Fund

- **Endowment fund and revolving fund together**: endowment fund works as way of replenishing revolving fund at regular period

- Examples: Tuvalu Trust Fund

Design features of national climate funds – Legal arrangement

- **Managed by an extension of government administration**
 - Management is mandated to government agency- ENCON Fund is under EPPO Thailand
- **Managed by an independent body but established by a law/ regulation**
 - Bhutan Trust Fund for Environmental Conservation
- **Managed in the form of a private corporation or a non-profit organization**
 - Micronesian Conservation Trust (Non-Profit Corporation Charter granted)
- **Manages as a program by multilateral agency for multi-donor trust fund**
 - Cambodia Climate Change Alliance

Design features of national climate funds – Governing body

- Board of Trustee
 - Government representatives- ENCON and CCDM
 - Multi-stakeholders- BTFEC
 - International and national representatives - MCT, TTF and CCCA Trust Funds
- Executive office
- Technical committee
- Investment committee

Thank you