Climate & Development Knowledge Network

Climate compatible development

Sam Bickersteth

What's the problem?

2 C not realistic

40% gap in mitigation pledges to achieve 2 C

200mn people displaced

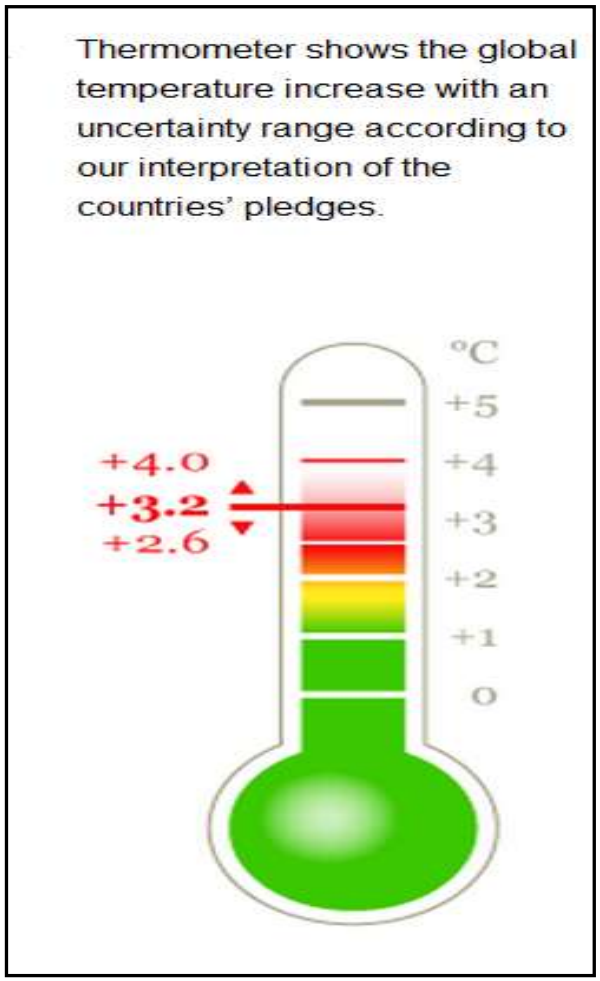
Tuvalu runs out of water this week

20-30% of species at risk of extinction

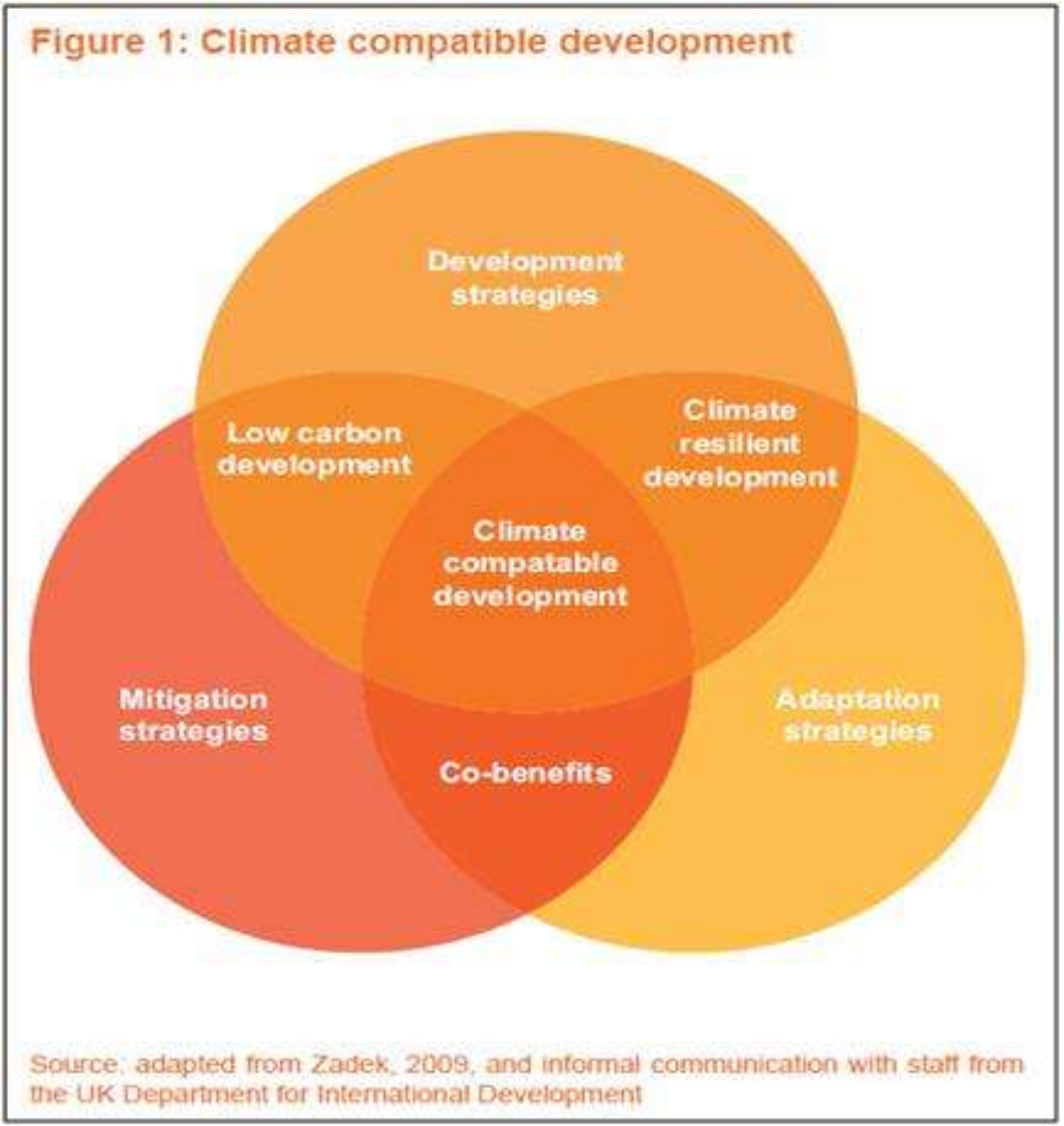
Reduce emissions per productive unit 8 times by 2050

Poor political conditions – in US and elsewhere

Nauru going to International Court of Justice



Climate Compatible Development



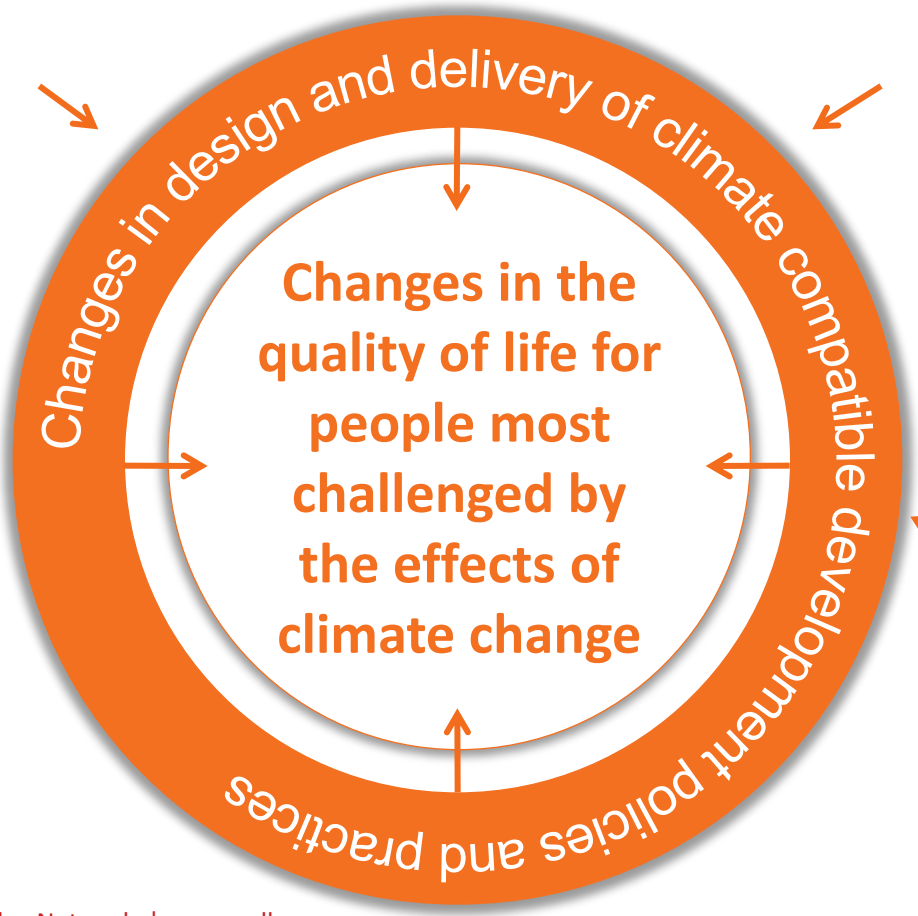
'Climate compatible development' means development that minimises the harm caused by climate impacts, while maximising the many human development opportunities presented by a low emissions, more resilient, future.

Dimensions of Change

Changes in institutions and **institutional capacity** to respond to CCD needs and demands

Changes in the **understanding** and **commitment** of decision makers around CCD issues

Changes in co-ordination, **collaboration** and mobilisation amongst key CCD stakeholders

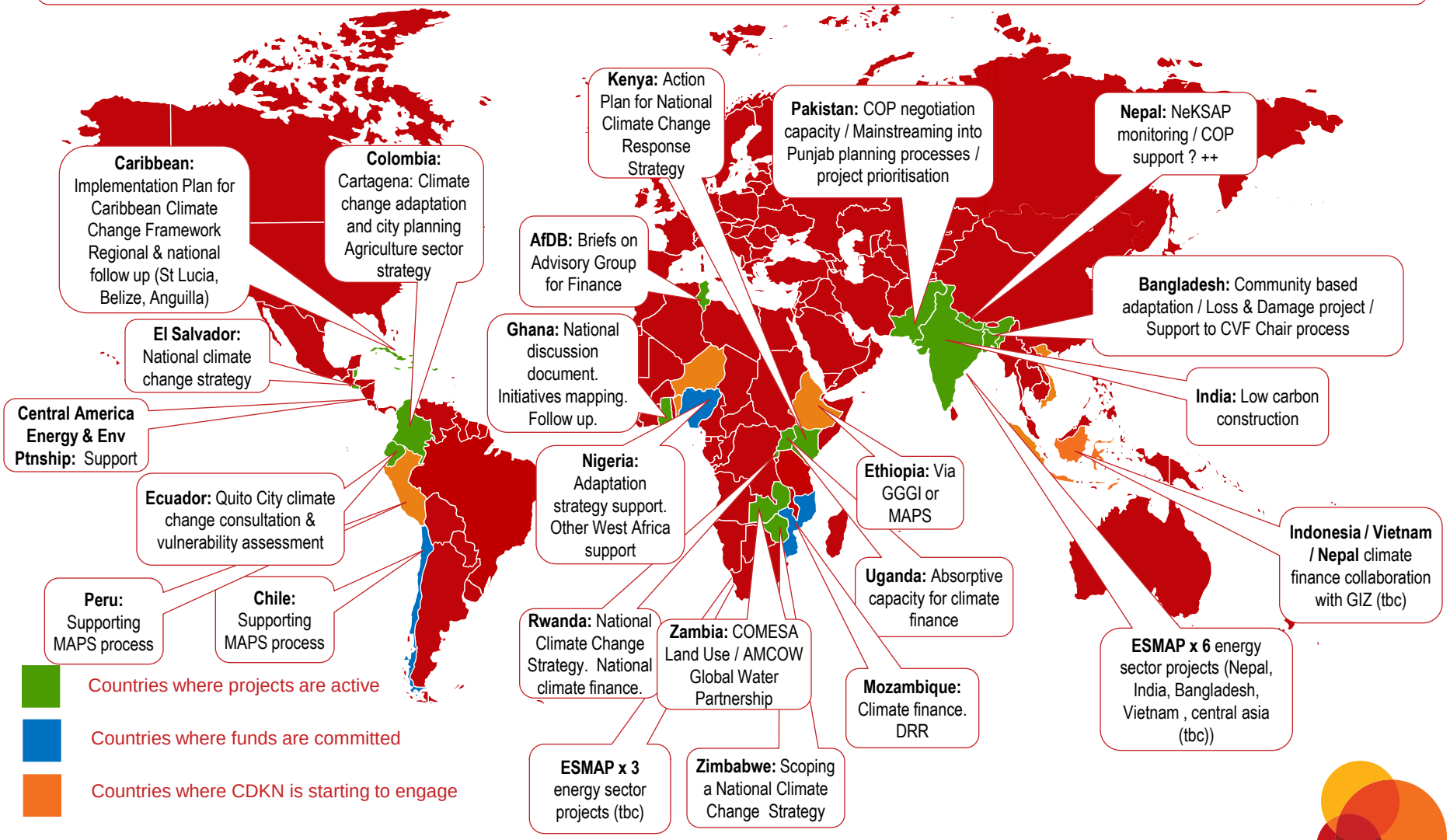


Changes in quality relevance and usability of CCD **evidence** base

Changes in the ability of decision makers to leverage and channel CCD **resources** strategically

CDKN portfolio

Global: CCD: Comparative analysis of CCD methodologies & tools - user guide for decision-makers. LEDS Global Partnership. Green Growth Best Practice Initiative. **Finance:** Support to Transitional Committee for GCF. Support and input to CMCI. **Agriculture:** Meridian participatory process support.



Climate compatible development: where and why?

Climate Smart Agriculture

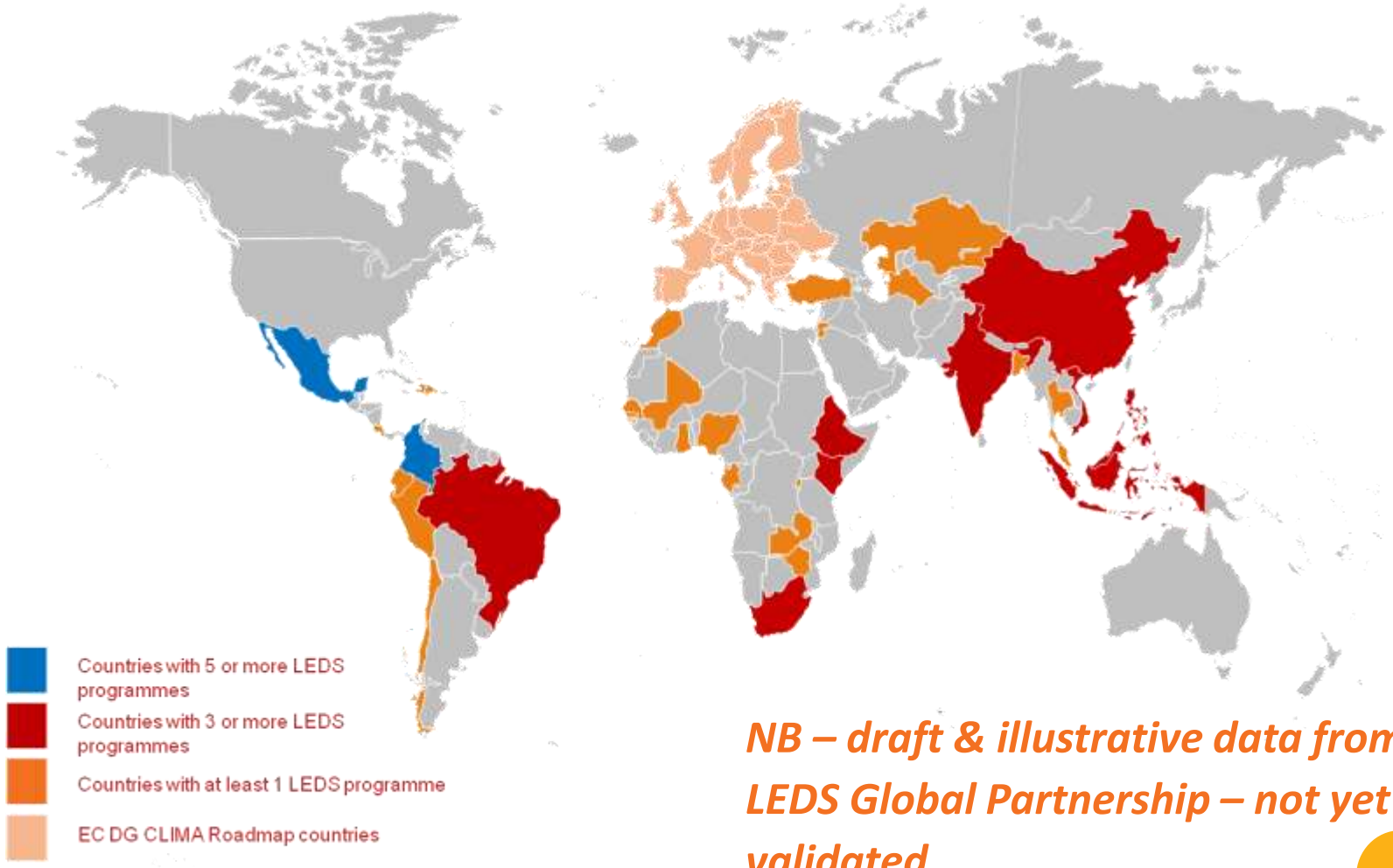
- Need to feed 9bn people by 2050
- Sector most vulnerable to climate change: 10-12% average crop losses in Africa by 2050
- 14% of global GHG from agriculture
- Green growth in Africa depends on agriculture – 30% of GDP and 60% of workforce
- Triple win of climate smart agriculture

  - Increased productivity and food security
  - Increased resilience
  - Reduced emissions

- Examples at scale:
  - Low till agriculture in Zambia, Brazil and Canada
  - Agroforestry in Niger
  - Soil fertility and landscape restoration in China's loess plateau

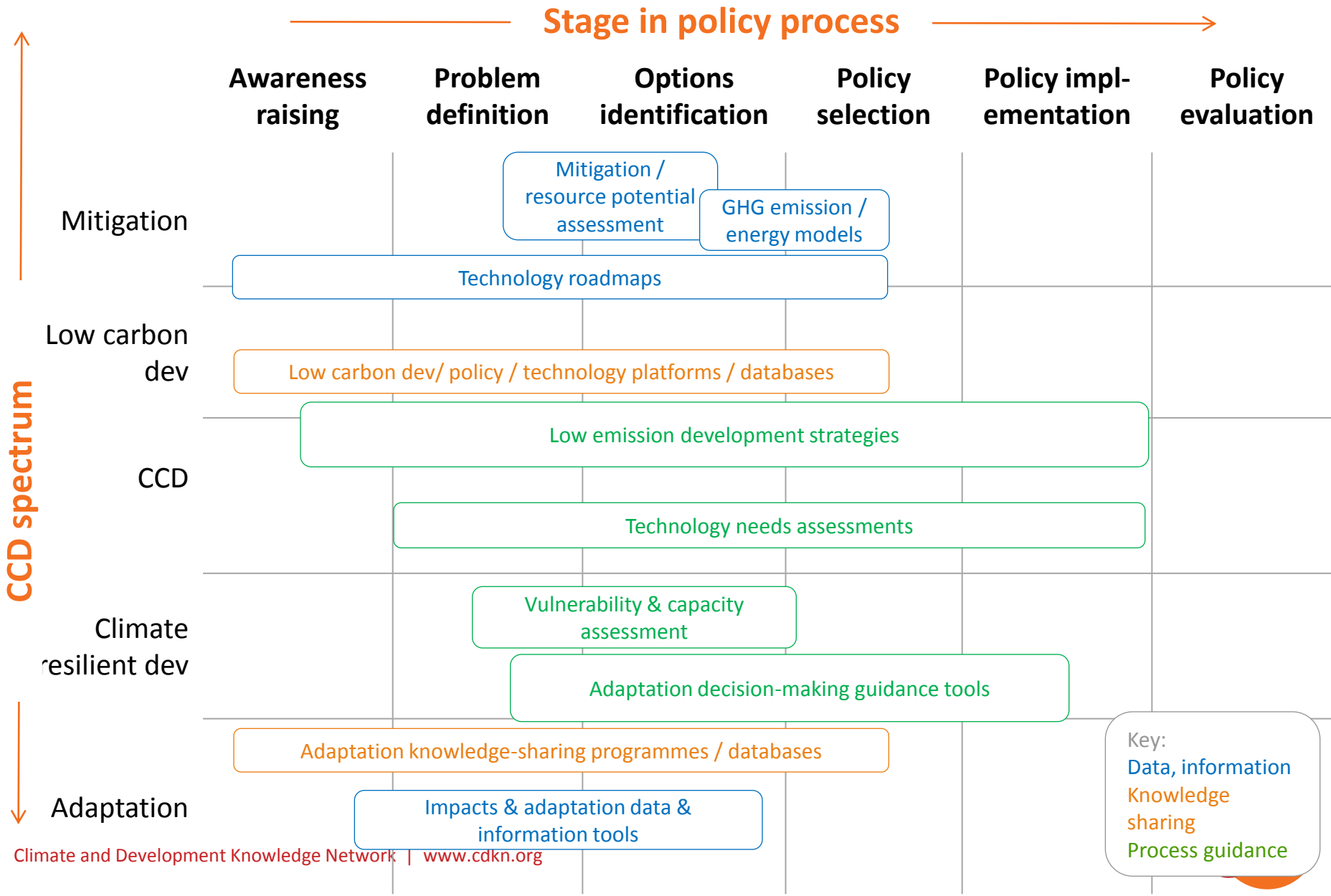
Mapping different CCD programmes

Many countries have several programmes – why?

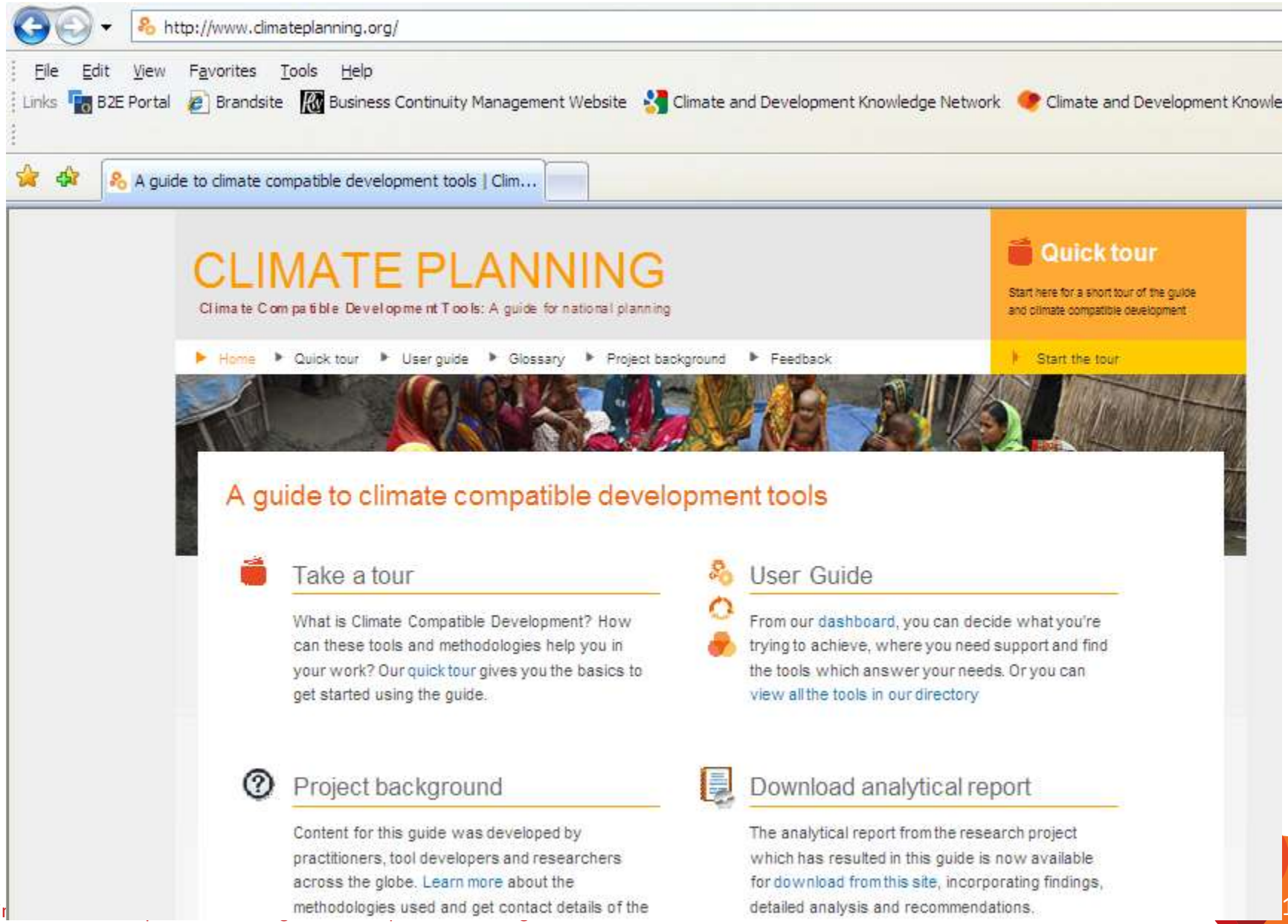


NB – draft & illustrative data from LEDS Global Partnership – not yet validated

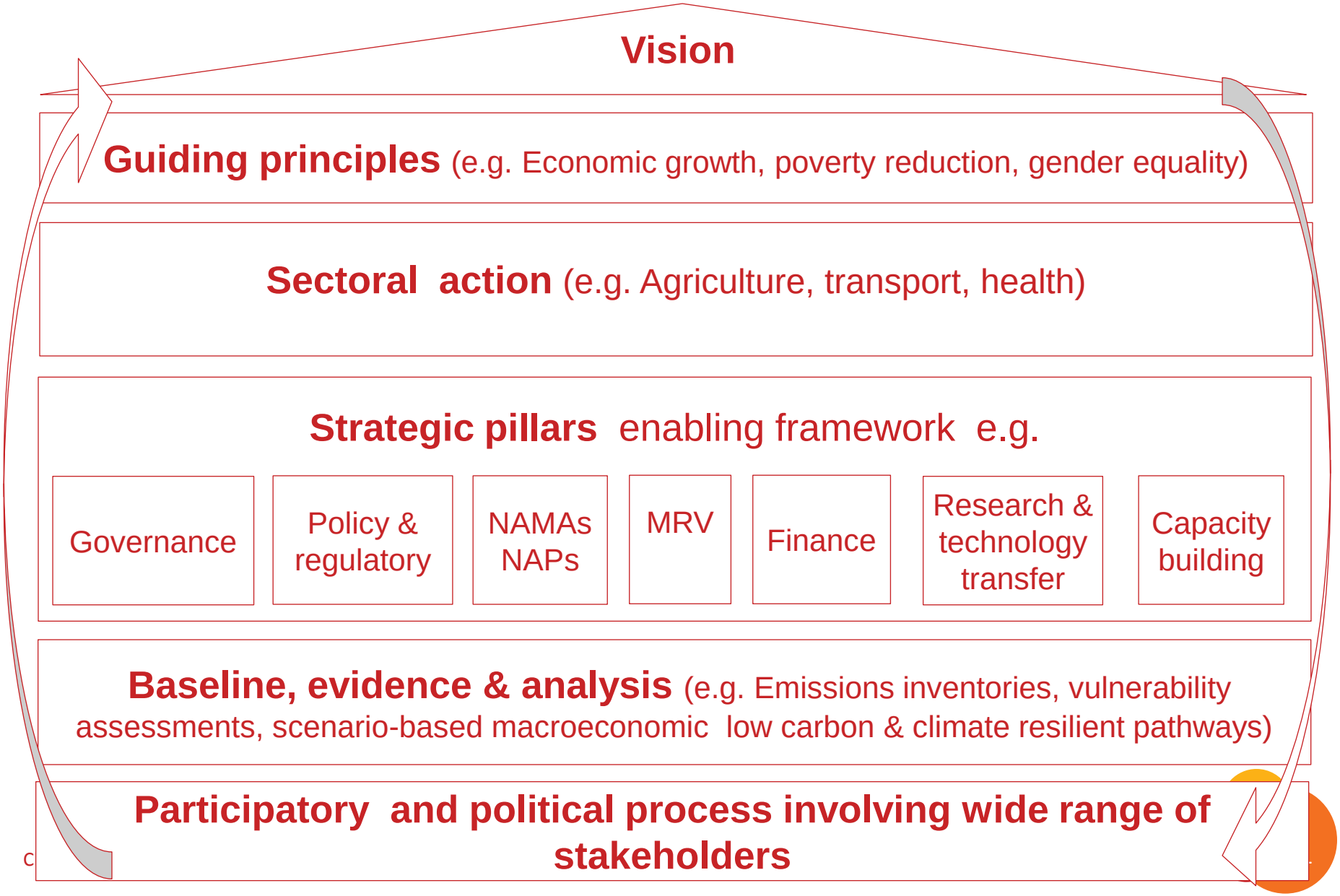
A typology of tools & methodologies



Guide for decision-makers



CCD planning process



	National	International
Incentive and regulatory framework	Climate Change Act Independent Climate Change Commission Low carbon transmission plan or roadmap National cap and trade Carbon tax Portfolio regulation of energy companies Targeted tax incentives for private sector R and D Regulate emissions from vehicles Regulate other emissions Strengthen forest law to reduce deforestation Strengthen planning laws on housing design and location Decoupling utility profits from gross sales	New post-Kyoto international targets International cap and trade International carbon tax International standards for fuel efficiency and emissions Extend emissions targets to aviation and shipping Regulate trade (e.g. in forest products) New international treaties on water sharing
Public expenditure	Increase R and D budget AMCs for renewable technologies Subsidise retro-fitting of buildings Subsidise new technologies (e.g. CCS) Subsidise renewables at domestic level Provide subsidies to offset fuel poverty Extend social protection for vulnerable groups Invest in strengthening critical infrastructure Invest in new infrastructure Subsidise insurance mechanisms Cut traditional fuel subsidies Improved extension and entrepreneurial education Education and consumer benchmarking	Fund N-S technology transfer Fund S-S cooperation Extend scope of CDM Regional risk facilities

RWANDAN: GREEN GROWTH AND CLIMATE RESILIENCE STRATEGY

Vision 2020 objectives: middle income country by 2020: 9% p.a growth transformation of economy to high-value agriculture to industry and services

Climate change impact: up to 2.5 degrees hotter and up to 20% higher wetter by the mid-2050; 1% of GDP annual loss by 2030

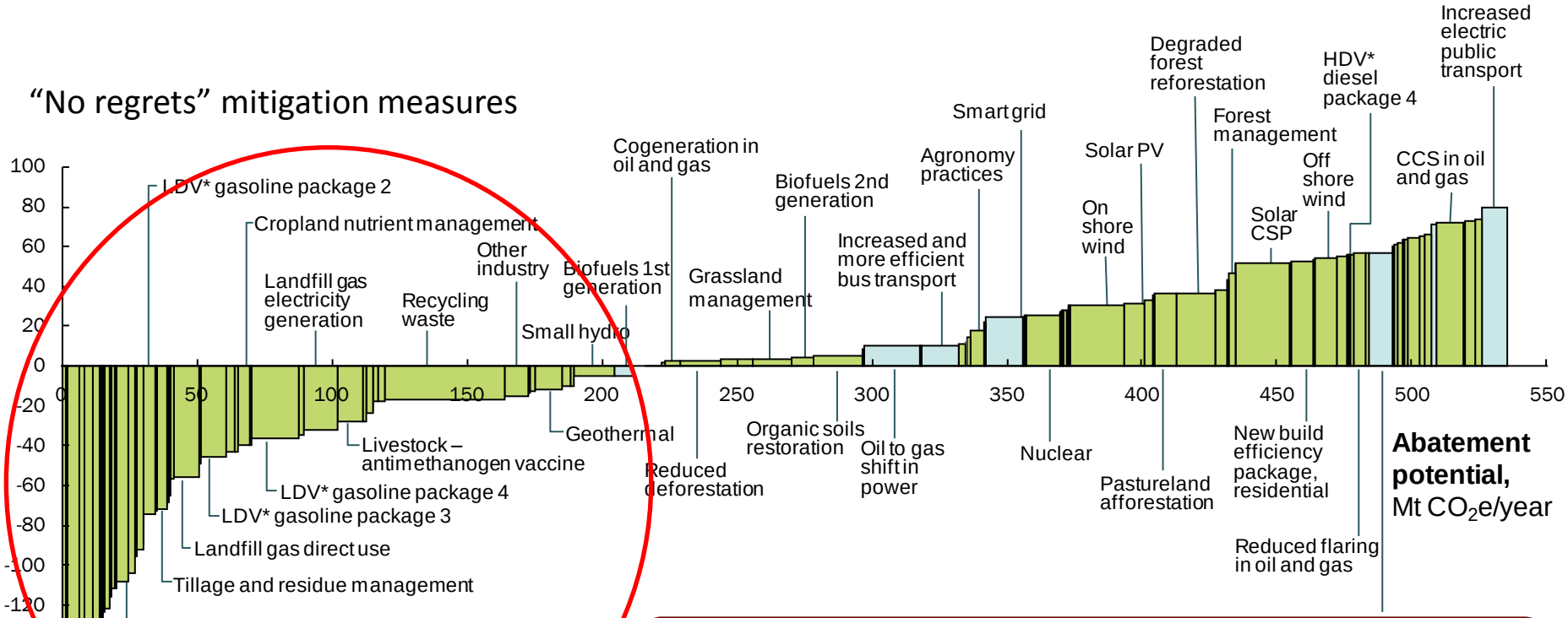
Climate-resilient and low carbon economy strategy includes:

- Geothermal energy to reduce dependence on imported oil, which currently costs 4.7% of GDP – potential of 700MW (cf current electricity generation of only 95 MW)
- Reduced dependency on imported inorganic fertilisers
- High density, walkable cities
- Irrigation infrastructure
- Robust road network
- Improving climate data and evidence for policy-making.

Low Carbon Growth is the growth story

- Renewable industry $US 250 bn a year (2010) growing at 30% a year.
- Global renewables investment is about the same as in fossil fuels.
- Prices come down as a result: for solar, doubling in volume reduces cost by a factor of 2
- Chinese 12th 5 Year Plan – low carbon areas; renewables and clean tech growth targets; national carbon price and emissions trading
- Denmark – 40% emissions reductions by 2020; carbon neutral by 2050;
- Korea – 30% reductions by 2020; national emissions trading scheme
- Mexican Low Emissions Development Strategy – adaptation, mitigation and economic growth

GHG Abatement Cost Curve for Mexico in 2030 (USD/t CO_2e)



* LDVs = light duty vehicles; HDVs = heavy duty vehicles
Note: The cost estimate for the light-colored bars is approximate
Source: McKinsey GHG abatement cost curve v2.0; McKinsey analysis

- 144 abatement opportunities identified at a price below US$90/t$CO_2e$ abated (excluding transaction and information costs)
- 40 percent of the abatement potential is negative or zero cost
- Government of Mexico implementing 70 options
- Agreed target o f 51 Mt CO2e by 2020
- Sectoral targets pushed by President

Global Deal Matters - UNFCCC Negotiations

Political conditions for a deal not before.... ???

Durban could achieve something:

- arrangements for Green Climate Fund
- agreement on a Technology Mechanism
- bringing order on adaptation mechanism.

Challenges

- Delay increases the cost of adaptation and mitigation
- Kyoto expires 2013; possible in principle agreement for Second Commitment Period but without some key countries
- Differences on finance
- Making finance real– delivering the $100bn with private and public money.

Global Deal Matters - UNFCCC Negotiations continued…

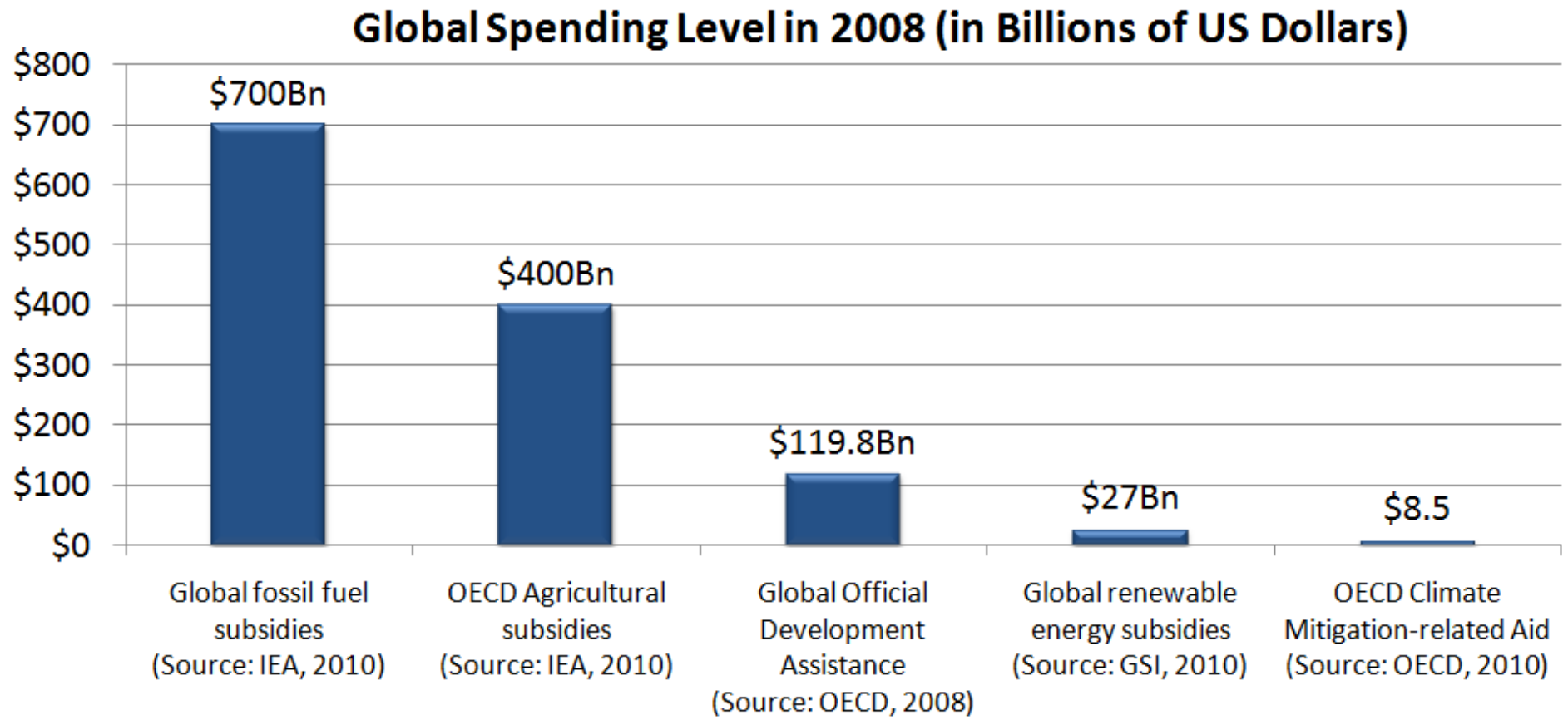
Global negotiations matter because

- it's a global problem!
- set and promote national standards and incentives

Success in spite of lack of deal:

- Poorest countries financing their own adaptation (eg Nepal 8% of govt expenditure; 50% own resources)
- 80 countries have FITs
- Growth of renewables

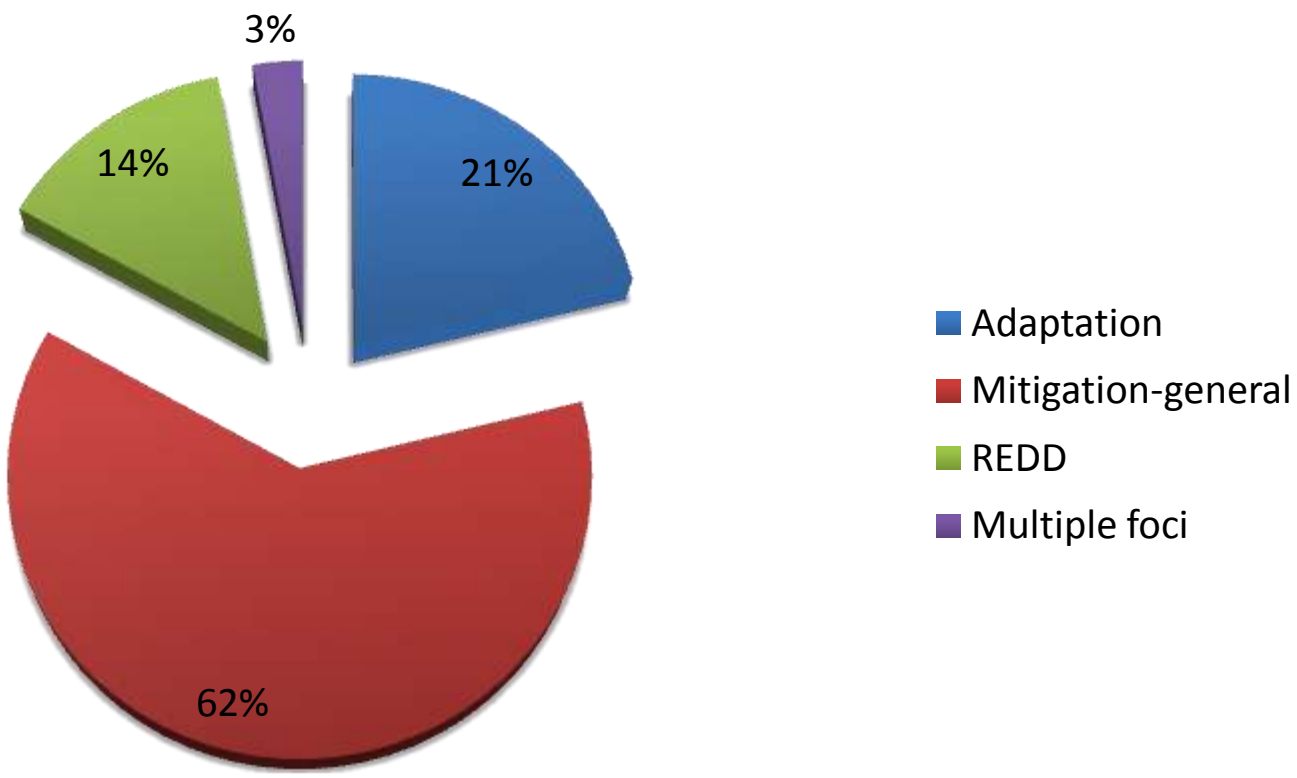
Comparing Climate Finance with other flows



Demand: Costs of Adapting to Climate Change

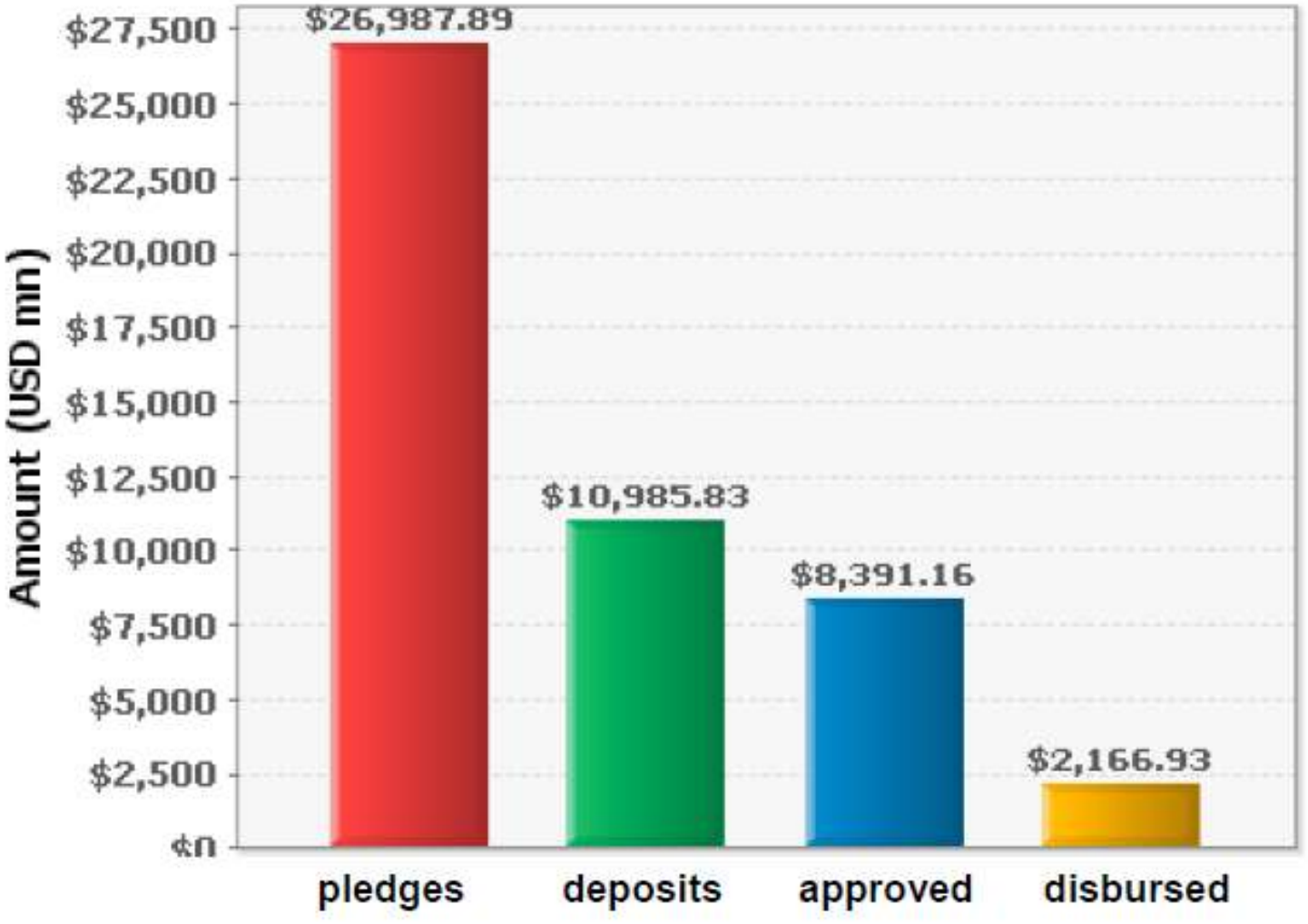
Source	US$ billion p.a.	Comments
World Bank (2006)	9 - 41	Cost of climate-proofing FDI, GDI and ODA flows
Stern (2006)	4 - 37	Update, with slight modification of World Bank (2006)
Oxfam (2007)	➢50	Based on World Bank, plus extrapolation of costs from NAPAs and NGO projects
UNDP (2007)	86 - 109	World Bank plus costing of PRS targets, better disaster response
UNFCCC (2007)	49 - 171	$28-67 Billion of this would be in developing countries. Sectors such as mining, energy, retail, finance and tourism were not included.
World Bank (2009)	75 - 100	Higher estimates under the wetter NCAR scenario than the drier CSIRO scenario
Parry *et al*. (2009)	~100 - 500	Includes estimates for mining, finance and other sectors + adaptation deficit

Distribution of Funds



Source: Climate Funds Update (09-2011)

Pledges vs. Disbursement



Applications to CCD: a six step programme

1. Both international and national action is needed
2. Economy wide approach – growth/industrial policy.
3. Finance is key especially for LDCs
4. Emphasise win-wins, co-benefits and action in sectors – e.g. Energy efficiency; renewables, Climate smart agriculture, reduced pollution, energy security.
5. Build and use civil society – e.g. 'reverse lobbying'.
6. Leadership – national and international – private and public sectors.

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