

***STRENGTHENING CAPACITY FOR ENVIRONMENTAL  
LAW IN THE ASIA-PACIFIC : DEVELOPING  
ENVIRONMENTAL LAW CHAMPIONS  
Cebu, 22-26<sup>th</sup> August 2016***

**CLIMATE CHANGE & CLEAN ENERGY LAW**

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Western Sydney University



# Learning outcomes

## Session Topic

- Understand the basic science of climate change
- Understand the international regime on climate change (including REDD+)
- Understand the scope and content of domestic climate law
- Understand emerging developments in clean energy law

# Learning outcomes

## Teaching Methodology

- Understand the use of film to assist understanding of scientific concepts
- Understand the value of a brainstorming exercise to generate ideas
- Ability to give constructive feedback to peers
- Understand the relevance of, and possible approaches to, teaching climate change and clean energy law in an environmental law course
- IUCN Academy Climate Law Teaching Resources  
<http://www.iucnael.org/en/online-resources/climate-law-teaching-resources>

# Introduction to Climate Law

- Climate change is a global environmental issue that has been identified by scientists over the last 30 years as a significant threat to both humans and biological diversity ;
- It is the law relating to both **mitigation** of, and **adaptation** to, climate change
- A relatively new branch of environmental law, often taught in Law Schools as a separate subject
- International and national regimes
- What is the scope of climate change law?
  - Includes clean energy / renewable energy law
  - Understanding the science



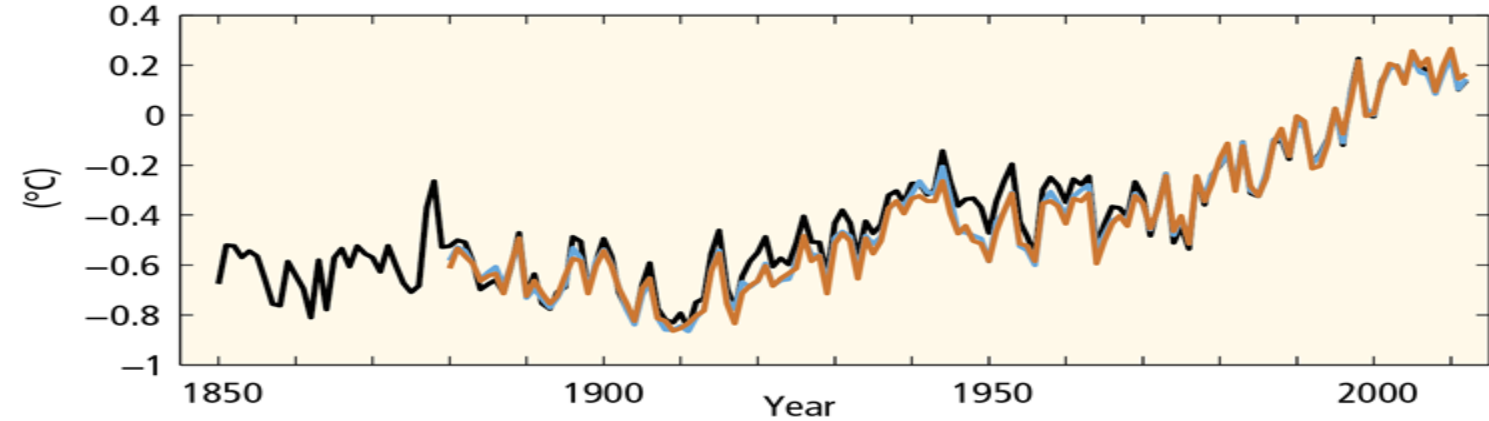
# The Science of Climate Change

- To teach climate law effectively, it is essential to first explain to students the scientific dimensions of climate change;
- This is particularly important because there is still not yet **full scientific certainty** about all aspects of climate change, in particular its impacts at the regional rather than global level
- Lack of full scientific certainty has prompted opposition in many countries to new climate laws;
- Use of graphs; statistics and film
- <http://nas-sites.org/americasclimatechoices/videos-multimedia/climate-change-lines-of-evidence-videos/> - National Academies Washington DC
- Intergovernmental Panel on Climate Change <http://www.ipcc.ch/>

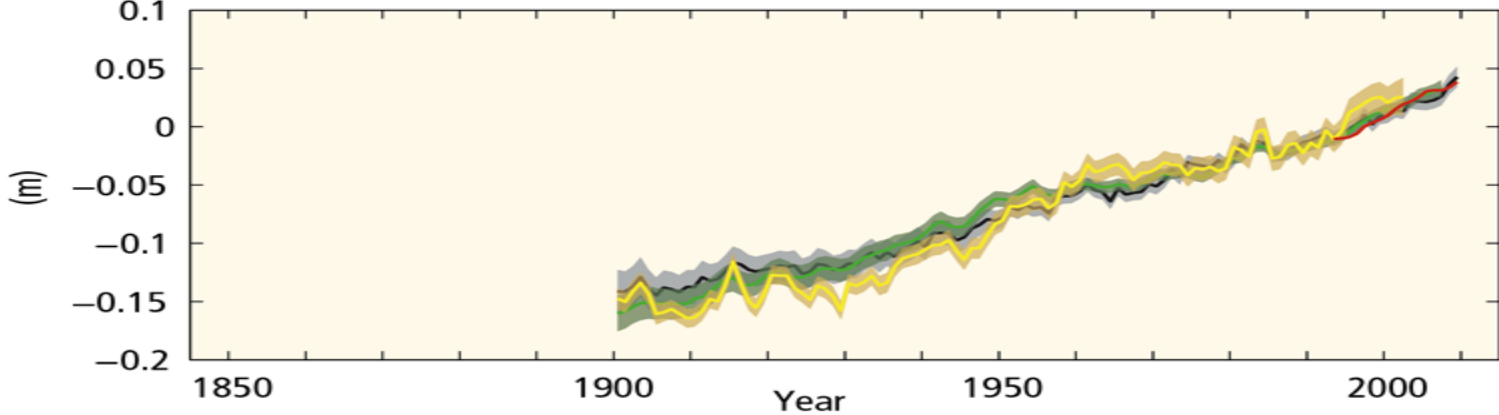
# The Science of Climate Change – the IPCC

- Scientific studies of climate change have been reviewed every five years since 1987 in the reports of the Intergovernmental Panel on Climate Change (IPCC);
- In its Fourth Assessment Report (AR4) in 2007, the IPCC stated that:  
“Most of the observed increase in globally-averaged temperatures since the mid-20th century is **very likely due** to the observed increase in anthropogenic GHG concentrations.”
- **In its Fifth Assessment Report (AR5) in 2014, the IPCC stated that:**  
“The evidence for human influence on the climate system has grown since the Fourth Assessment Report (AR4). It is **extremely likely** that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in greenhouse gas concentrations and other anthropogenic forcings together.”

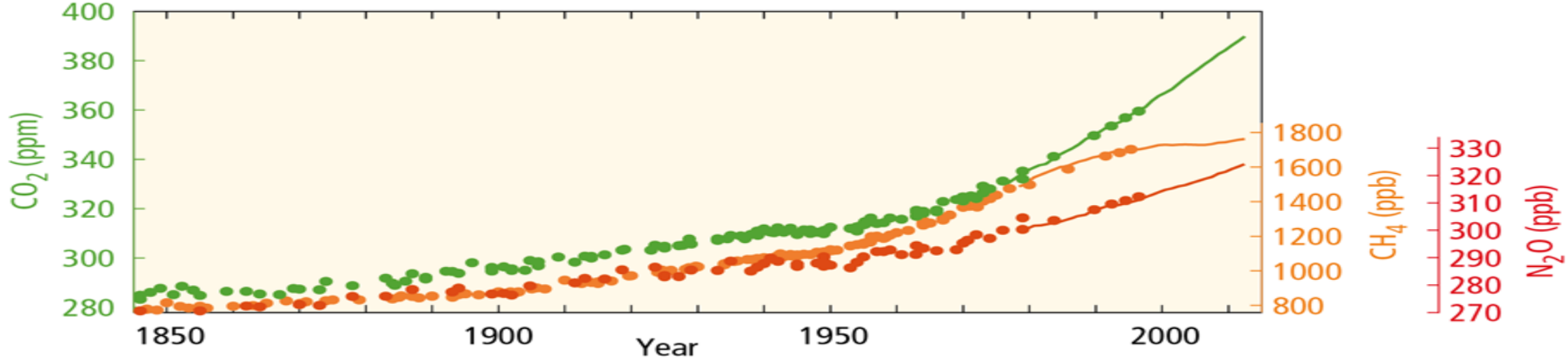
**(a) Globally averaged combined land and ocean surface temperature anomaly**



**(b) Globally averaged sea level change**



**(c) Globally averaged greenhouse gas concentrations**



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# The Science of Climate Change – the causes

- CO2 emissions from fossil fuel & cement now account for about 90% of total CO2 emissions
  - Economic and population growth drive CO2 emission increases from fossil fuel combustion (coal)
  - Globally energy use increased by 31%, 1971-2010
    - OECD and EIT – per capita energy use rose 13-14%
    - LAM rose by 60%
    - MAF rose by 90%
    - ASIA rose by 200%
- \*\* energy use in these 3 regions per capita is less than OECD + EIT 40 years ago



## Representative key risks for each region for



### Polar Regions (Arctic and Antarctic)

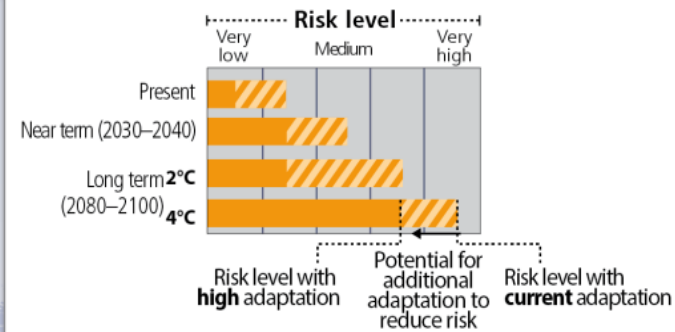
Risks for ecosystems



Risks for health and well-being



Unprecedented challenges, especially from rate of change



### North America

Increased damages from wildfires



Heat-related human mortality

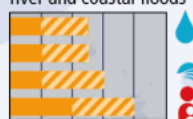


Increased damages from river and coastal urban floods



### Europe

Increased damages from river and coastal floods



Increased water restrictions



Increased damages from extreme heat events and wildfires

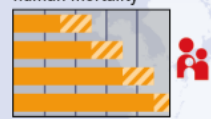


### Asia

Increased flood damage to infrastructure, livelihoods and settlements



Heat-related human mortality



Increased drought-related water and food shortage



### Africa

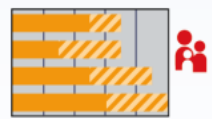
Compounded stress on water resources



Reduced crop productivity and livelihood and food security

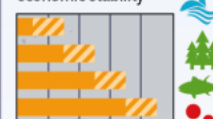


Vector- and water-borne diseases

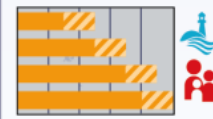


### Small islands

Loss of livelihoods, settlements, infrastructure, ecosystem services and economic stability



Risks for low-lying coastal areas



### Australasia

Significant change in composition and structure of coral reef systems



Increased flood damage to infrastructure and settlements



Increased risks to coastal infrastructure and low-lying ecosystems



### The Ocean

Distributional shift and reduced fisheries catch potential at low latitudes



Increased mass coral bleaching and mortality



Coastal inundation and habitat loss



### Central and South America

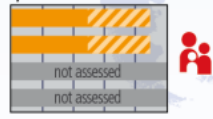
Reduced water availability and increased flooding and landslides



Reduced food production and quality



Spread of vector-borne diseases



# Climate Change Law – International measures

- **UN Framework Convention on Climate Change (UNFCCC)**
  - Signed at Rio Earth Summit, 1992
  - Entered into force 21/3/1994 (192 parties)
  - Objective “ ...stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent **dangerous** anthropogenic interference with the climate system.” (Art.2)

# Climate Change Law – International measures

## UNFCCC (cont.)

Each of **Annex 1 (developed)** countries is required to “adopt national policies and take measures to mitigate climate change by limiting its emissions of greenhouse gases and protecting its greenhouse gas sinks” (Art. 4.2)

General obligations are also imposed on **all** Parties regarding the production of national greenhouse gas (GHG) inventories (Art. 4.1)

“Commitments by developing countries under the Convention will depend on the provision of financial resources and transfer of technology by developed countries;

Also must take into account that “economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.” (Article 4.7)

# Climate Change Law – International measures

- **Kyoto Protocol (1997)**
  - Signed in Kyoto, Japan in 1997
  - Entered into force 16/2/2005 (182 parties)
  - Annex 1 countries agreed to reduce their overall emissions by 5.2% below 1990 levels between 2008-2012 (1<sup>st</sup> commitment period)
  - Specific, but varying targets set for each UNFCCC Annex 1 country (Article 3)
  - No new commitments for Parties not included in Annex I

# Climate Change Law – International measures

## Kyoto Protocol cont.

- Ability to meet mitigation commitments through:
  - Clean Development Mechanism (Art.12)
  - Joint Implementation (Art.6)
  - International Emissions Trading (Art.17)
- Implementation issues
  - Scope and role of flexibility
  - Extent of land-use and forest changes allowed in the calculations
  - The parameters of a compliance monitoring and enforcement mechanism.



# International measures since Kyoto

## Bali road map

- action plan to get a legally binding instrument to take over from Kyoto
- Parties agreed to consider ‘measurable, reportable and verifiable nationally appropriate mitigation actions’ for all parties
- Wide agenda
- Possibility of sectoral targets for middle income countries, possibly without sanctions
- Growth of regional and national emission trading schemes eg EU, Australia, Canada, Japan, China, US.
- Is there greater potential for JI as developing countries move to emerging economies?
- Much higher profile for forestry and agriculture – 20% of global carbon emissions from deforestation and degradation of forests. REDD

# Progress??

- 2008 – Poznan
- 2009 – Copenhagen – failure to deliver strong commitments - Copenhagen Accord; promise of \$100b/yr by 2020
- 2010 – Cancun – individual country pledges (not legally binding) – don't keep temperatures below 2 degree increase
- 2011 – Durban – agree to a legally binding agreement by 2015; climate justice issues; Green Climate Fund operationalised
- 2012 – Doha – women + climate
- 2013 – Warsaw - adaptation; mechanism on loss and damage; gender balance in the process; REDD+ program completed
- 2014 – Lima – adaptation; green climate fund > US\$10b; multilateral assessment; non-state actors
- 2015 - Paris

# COP21 Paris – Dec 2015

- INDC's – **not amounting to 2 degrees**
- International Agreement and COP 21 Decisions to < 2 degrees, aiming for 1.5 degrees
- “pursue efforts to limit the temperature increase to 1.5 C above pre-industrial levels”
- Increase ambition with periodic reviews of INDC's
- Finance US\$100b/yr
- Focus of supporting renewable energy
- New financial instruments to better deal with risk for renewable energy investment
- Communique on removal of fossil fuel subsidies
- 22 April – signed by 174 countries and ratified by 15 <http://unfccc.int/2860.php>
- New governance approach “bottom up” ?

# INDC's - National measures

- There is a rapidly emerging body of legislation, particularly in developed countries, directed to mitigation of climate change,
- more recently to adaptation measures – planning laws
- Government buy backs of coastal properties?
- Compensation?
- Insurance issues
- National legislation is required for a cohesive and comprehensive approach to climate change, covering both mitigation and adaptation

# National measures - legislation

- **Examples of national climate-related legislation**
  - Prescribing **targets** for the reduction of GHG emissions
  - Requiring the **reporting** of GHG emissions for a national inventory
  - Imposing **economic measures** to reduce emissions:
    - trading (“cap and trade”) systems;
    - Carbon tax on emissions
  - **Energy-related measures** e.g., targets for renewable energy; feed in tariffs; rebates
  - **Carbon sequestration measures**



# Philippines Climate Change Act 2009

- Established a Climate Change Commission (CCC) - policy-making body developing National Framework Strategy on Climate Change (NFSCC) and coordinating, monitoring and evaluating government adaptation and mitigation plans.
- Empowered to mainstream climate change adaptation and mitigation into national and local sectoral and development plans and related policy through recommendations, capacity building, and coordination with diverse stakeholders.
- CCC recommends key development investments in climate-sensitive sectors such as agriculture, forestry to achieve SDGs
- CCC promotes broader multi-stakeholder participation and integrate climate change mitigation and adaptation.



# National measures - litigation

- Litigation FORCING authorities to act to regulate greenhouse gas (GHG) emissions:
- Netherlands – Urgenda Foundation v The State of the Netherlands  
<http://edigest.elaw.org/nl.urgenda.15> Hague District Court
  - “The Dutch government must reduce CO2 emissions by a minimum of 25% (compared to 1990) by 2020 to fulfil its obligation to protect and improve the living environment against the imminent danger caused by climate change.”
- Pakistan – Ashgar Leghari v Federation of Pakistan 2015 High Court of Lahore [http://edigest.elaw.org/pk\\_Leghari](http://edigest.elaw.org/pk_Leghari)
  - ordered the government of Pakistan to implement the National Climate Change Policy and convened a Climate Change Commission to oversee and report to the Court on progress.
- Philippines – Human rights petition against top 47 polluters

# Philippines – Human rights petition against top 47 polluters

- Philippines (CHR) - constitutional power to investigate human rights violations
- Petitioned 47 “carbon majors” including Shell, BP, Chevron, BHP Billiton, Anglo American for breaching fundamental rights to “life, food, water, sanitation, adequate housing, and to self determination”
- First of kind in the world launched by a government body.



- Complaint argues companies should be held accountable for the effects of GHG emissions in Philippines
- Demands they explain how human rights violations resulting from climate change will be “eliminated, remedied and prevented”.
- Calls for official investigation into human rights implications of climate change & ocean acidification & whether the investor-owned “carbon majors” are in breach of their responsibilities



## CONTEXT

### International:

### Policy bases for REDD and REDD+

- UNFCCC Decision 1/CP.13 (1,b,iii) Bali Action Plan
- UNFCCC Decision 2/CP.13 Reducing emissions from deforestation in developing countries: approaches to stimulate action
- UNFCCC REDD+ Safeguards (Cancun Safeguards)





## UNFCCC Decision 1/CP.13 (1,b,iii) Bali Action Plan

“Policy approaches and positive incentives on issues relating to *reducing emissions from deforestation and forest degradation in developing countries* ; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries;” (FCCC/CP/2007/6/Add.1\* p3)

<http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf#page=8>



## REDD+ **broadens policy focus** from forest conservation to climate change mitigation.

- Underlying problems remain the same and basing forest conservation on emissions has its own challenges.

## For REDD+ to succeed, **causes of deforestation and degradation** must be addressed.

- Causes may be local, national or international, and are often cross-sectoral;
- Main causes: agricultural expansion & unsustainable logging



*REDD+ includes Reducing Emissions from Deforestation and Forest Degradation in Developing Countries; and the role of Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks.*

*But simply speaking,* developing countries must be rewarded for reducing **deforestation** (when forests are cleared for other land uses) and reducing forest **degradation** (when forest resources are damaged)



# Cancun Safeguards (2011):

- (a) Follow national forest programs, int'l conventions & agreements;
- (b) Transparent and effective national forest governance structures;
- (c) Respect knowledge and rights of indigenous and local people, noting UN Declaration on the Rights of Indigenous Peoples (UNDRIP);
- (d) Full and effective participation of relevant stakeholders;
- (e) Consistent with conserving natural forests & biodiversity
- (f) Actions to address the risks of reversals;
- (g) Actions to reduce displacement of emissions.



# Key Elements of REDD+

1. Reference level;
2. Monitoring, reporting and verification;
3. Financing;
4. Incentive allocation;
5. Safeguards.





# Institutional Design

- New Institutions for forest & climate change program design & implementation
- Integrated - horizontal (inter-agency, inter-sectoral) & vertical (central-provincial-local) coordination

## Monitoring, Review and Verification



# REDD+ Legal & Policy Concerns

## 1. Substantive Issues:

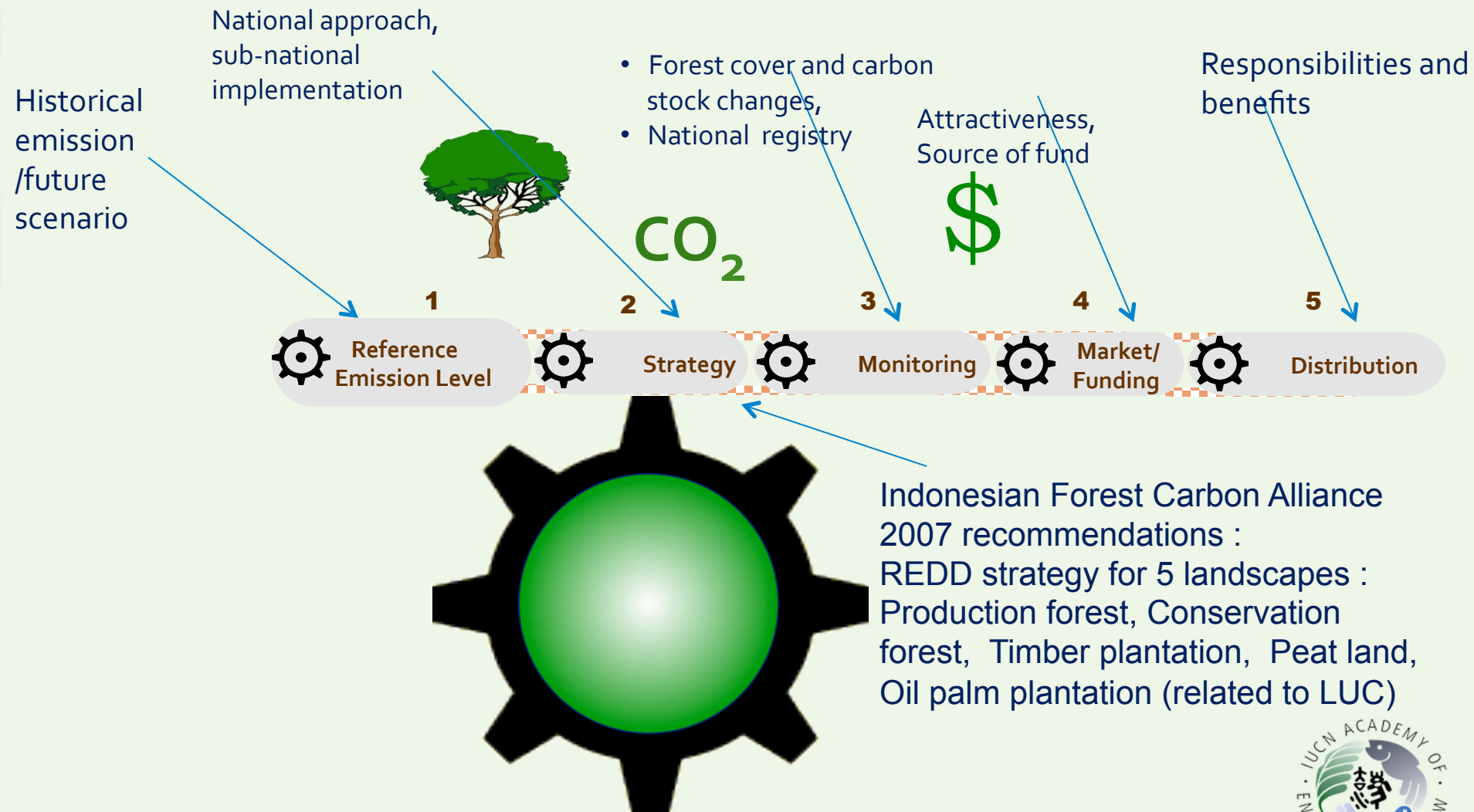
1. Land, Forest & Carbon Rights
2. Institutional Arrangements
3. Implementation
4. Land-Use Planning

## 2. Procedural Approaches:

1. Balancing Policy, Legislation & Regulation



# REDD+ Architecture



Developed from Indonesia Forest Carbon Alliance (IFCA) study (2007)



# PHILLIPINES REDD+

- Philippine Government developing a national system for REDD+ based on environmental and social standards
- Establishing national structures and processes for the coordination and implementation of REDD+ measures
- Developing mechanisms for REDD+ financing and benefit-sharing
- Developing land-use plans for forests in selected regions as a requirement for zoning and issuing land-use rights
- Concepts for integrating environmental and social standards in the implementation of REDD+



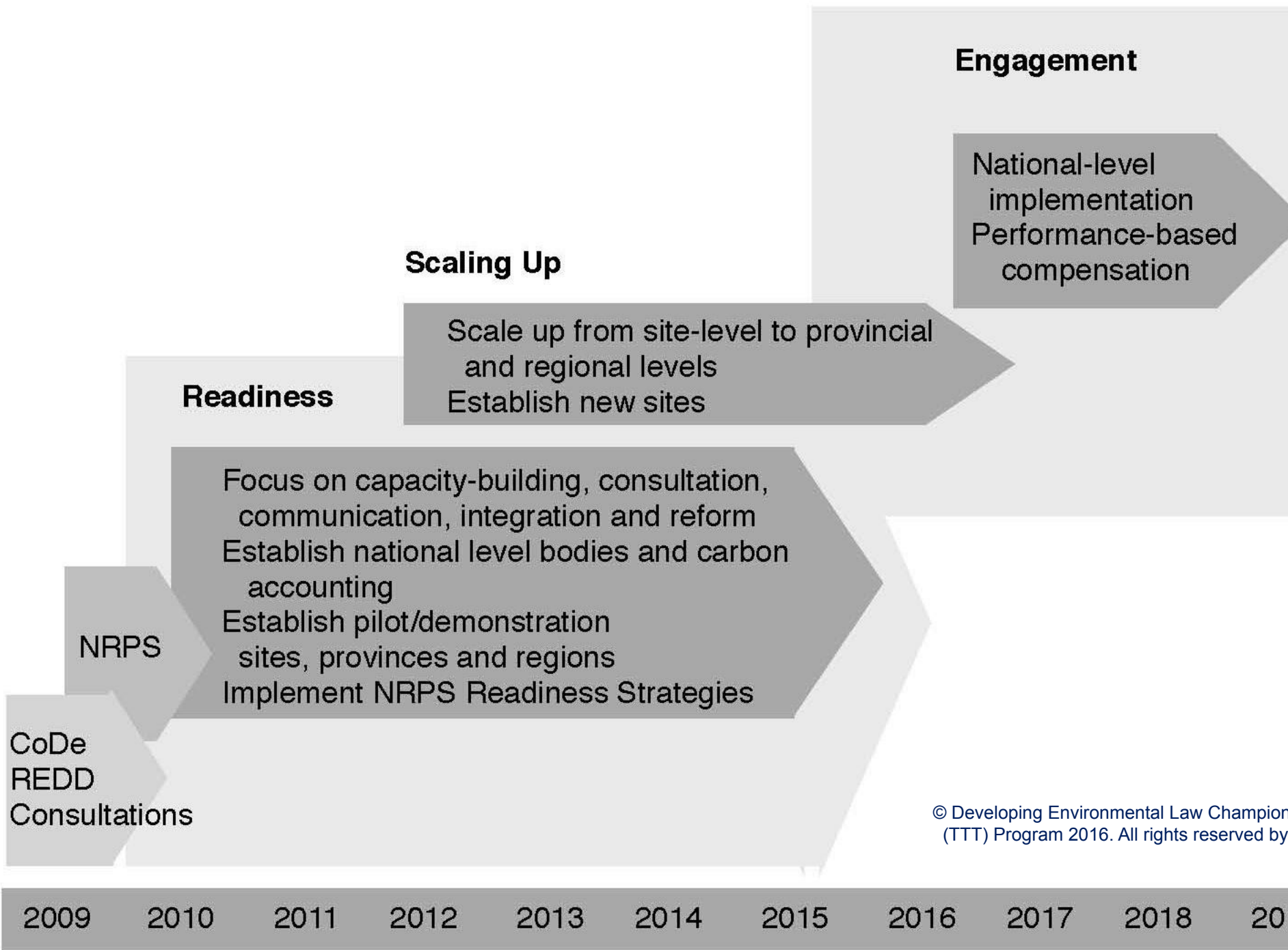
## **Philippine Policy on REDD+**

- National Framework Strategy on Climate Change (NFSCC)
- National Climate Change Action Plan
- Philippine National REDD Plus Strategy (PNRPS)

## **Indigenous Rights, Peoples Organizations, Civil Society Organizations and REDD +**







## Engagement

National-level implementation  
Performance-based compensation

## Scaling Up

Scale up from site-level to provincial and regional levels  
Establish new sites

## Readiness

Focus on capacity-building, consultation, communication, integration and reform  
Establish national level bodies and carbon accounting  
Establish pilot/demonstration sites, provinces and regions  
Implement NRPS Readiness Strategies

NRPS

CoDe REDD Consultations

2009    2010    2011    2012    2013    2014    2015    2016    2017    2018    2019