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STRENGTHENING CAPACITY FOR ENVIRONMENTAL LAW IN THE ASIA-PACIFIC : DEVELOPING ENVIRONMENTAL LAW CHAMPIONS Siem Reap, Cambodia, November 26 – December 1, 2017

CLIMATE CHANGE & CLEAN ENERGY LAW

Presented by Professor Rob Fowler, Law School, University of south Australia







Learning outcomes

Session Topic

- Situate climate law within an understanding of the science & politics of climate change
- Understand the international regime on climate change (including REDD+)
- Understand the scope and content of domestic climate law





Learning outcomes

Teaching Methodology

- Understand the value of a brainstorming exercise to generate ideas
- Develop ability to give constructive feedback to peers
- Understand the range of subject-matter and methods available for teaching climate change and clean energy law in an environmental law course
- See also: IUCN Academy Climate Law Teaching Resources (including simulations & negotiations) <u>http://www.iucnael.org/en/online-resources/climate-law-teaching-resources</u>





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
- What counts as 'climate law' (vs. climate policy)
- Vast potential scope:

Carbon trading, carbon markets, building codes, certification standards, trade law, urban planning, corporate securities disclosure rules, voluntary commitments, contractual clauses, tort litigation, ocean law, migration law, public health legislation.

What makes climate law unique?

- economic, social and environmental interconnectedness
- Irreversibility
- the knowledge that present actors may knowingly leave future generations in an unsustainable position
- Interactions between tort perpetrators and victims who will never meet
- very long, almost unimaginable, timeframes

- Uncertainties
- complicated and often unknowable patterns of cause and effect
- Past responsibilities
- diversity of actors who engage
 with and shape climate law –
 ranging from banks to NGOs to
 mayors to industry associations
 to pension funds to citizen
 coalitions to international
 financial institutions





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The Science of Climate Change – IPCC 5th Assessment Report, 2014 (Key Findings) – see <u>http://www.ipcc.ch/</u>

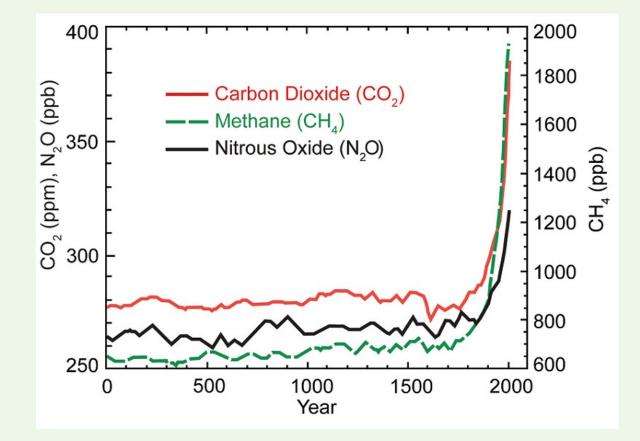
- Warming of the atmosphere and ocean system is *unequivocal*.
- It is *extremely likely* that human influence has been the dominant cause of observed warming since 1950
- Concentration of <u>greenhouse gases</u> in the atmosphere has increased to levels unprecedented on earth in 800,000 years.
- The global surface temperature increase by the end of the 21st century is *likely* to exceed 1.5 C relative to the 1850 to 1900 period for most scenarios, and is *likely* to exceed 2.0 C for many scenarios
- IPCC pointed out that the longer we wait to reduce our emissions, the more expensive it will become.

CAUSES OF CLIMATE CHANGE

- Emissions of greenhouse gases (CO2, methane, nitrous oxide and fluorocarbons)
- Burning of coal, oil and gas produces CO2 emissions (energy & cement production now account for about 90% of total CO2 emissions)
- Deforestation
- Increased livestock farming
- Economic and population growth further drive CO2 emission increases from fossil fuel combustion



Increases in Greenhouse Gas emissions over last 2000 years (from US National Climate Assessment, 2014)







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Climate Change Law – International measures

- UN Framework Convention on Climate Change (UNFCCC) [in force as of 1994]
 - Annex 1 (developed) countries are 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)
 - "Commitments by developing countries under the Convention will depend on the provision of financial resources and transfer of technology by developed countries";





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 (1st 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 "flexibility mechanisms":
 - Clean Development Mechanism (Art.12)
 - Joint Implementation (Art.6)
 - International Emissions Trading (Art.17)
- Implementation issues
 - Scope and role of the flexibility mechanisms
 - Extent of land-use and forest changes allowed in the calculations
 - Lack of effective compliance monitoring and enforcement mechanism.

PARIS AGREEMENT (2015)RATIFICATION AND ENTRY INTO FORCE

- The Paris Agreement (PA) is an Annex to the decision of COP 21 agreed on 12 December 2015 by 196 Parties (FCCC/CP/2015L.9/Rev.1) and subsequently signed in New York on 22 April 2016;
- PA came into force on 4 November 2016 after at least 55 Parties accounting in total for at least an estimated 55 % of total global GHG emissions ratified it (Art. 21.1).
- !70 parties have now ratified the Agreement (from 197 signatories)
- USA has given notice of its intention to withdraw from the agreement, but this cannot take effect before 4/11/2020 (one day after the next US Presidential election!)



GLOBAL TARGET AND TIMETABLE

- **Global goal**: to hold the increase in the global average temperature "well below 2° C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5° C above pre-industrial levels" (Art. 2.1(a))
- Aim is to reach global peaking of GHG emissions "as soon as possible" and to "undertake rapid reductions thereafter in accordance with the best available science" (Art. 4.1)
- Aim also is to "achieve a balance between anthropogenic emissions by sources and removals by sinks of GHGs in the second half of this century"

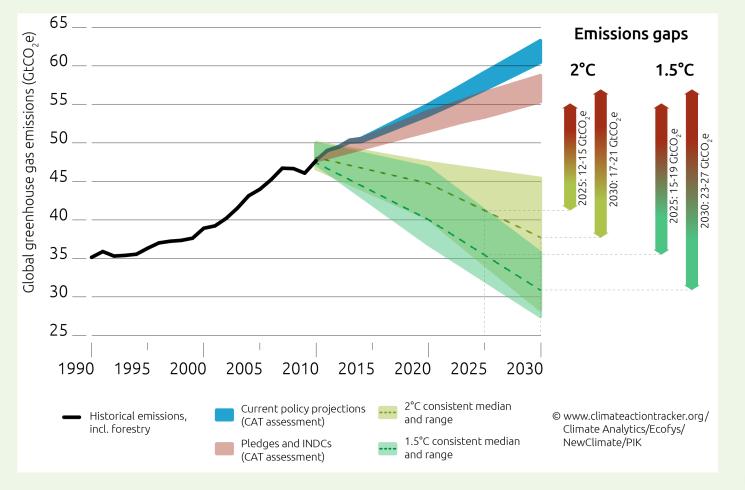


GLOBAL TARGET AND TIMETABLE (cont.)

- A "facilitative dialogue" is to be undertaken in 2018 to make a preliminary assessment of progress towards the "well below 2° C" goal
- Global stocktaking on actual progress towards the "well below 2° C" goal to be undertaken every five years from 2023 (Art. 14)
- Parties to communicate by 2020 "mid-century, long-term low GHG emission development strategies (COP decision, cl. 36)



Global Analysis INDCs, current policies vs 1.5 and 2° C pathways





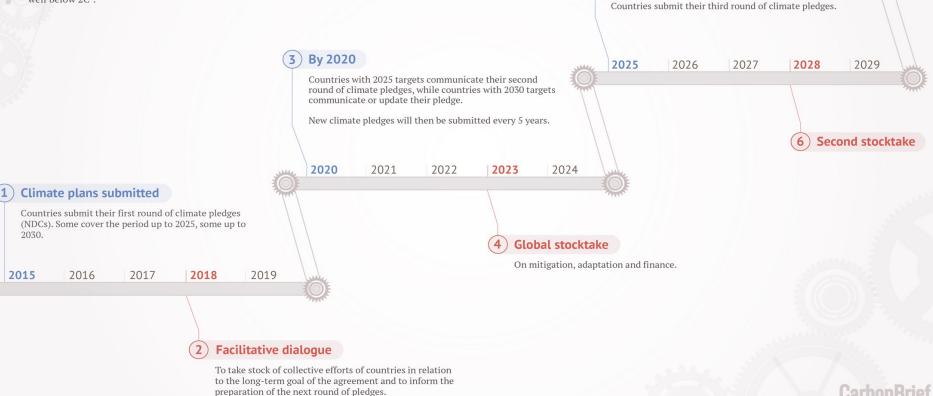
FUTURE Nationally Determined Contributions – BOTTOM UP APPROACH

- Prior to COP 21 in Paris, Parties submitted *intended nationally determined contributions* (INDCs). These are now being followed up with revised *nationally determined contributions* (NDCs).
- Each NDC is to be revised every five years (Art. 4.9) "with a view to enhancing its level of ambition" (Art. 4.11) – so as to secure domestic initiatives that will achieve the global emissions reduction target
- Each Party's successive, future NDC is to reflect its "highest possible ambition" (Art.4(3);
- NDCs will be recorded in a public registry maintained by the secretariat (Art. 4.12) thus enabling civil societies to hold their countries' governments accountable for their pledges
- NDCs submitted by Laos (7/9/2016) and Cambodia (6/2/2017); see <u>http://www4.unfccc.int/ndcregistry/Pages/All.aspx</u>



Timeline: How countries plan to raise the ambition of their climate pledges

The Paris "ratchet mechanism" is designed to steadily increase ambition over time, ensuring that the world reaches net zero emissions in the second half of the century and keeps temperature rise "well below 2C".



By 2025

5)



2030

Climate Change Law Reform



Climate Change Laws of the World

Research Institute on Climate Change and the Environment A 2017 Climate Legislation Study calculated that more than 1,200 laws to curb climate change have now been passed, an increase from about 60 laws in place two decades ago.



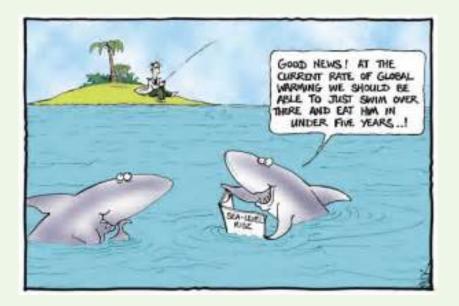




National climate change legislation

- More than 1,200 national laws to curb climate change have now been passed, an increase from about 60 laws in place two decades ago (see Grantham Research institute, Climate Change laws of the World, 2017).
- 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 (e.g., carbon farming measures)

Climate Change Litigation



- Enables the teaching fast-moving developments in law
- climate litigation is also
 a way to teach
 comparative
 environmental law
- The regulatory role of climate lawsuits







National measures – climate litigation

- Litigation FORCING authorities to act to regulate greenhouse gas (GHG) emissions:
- Netherlands Urgenda Foundation v The State of the Netherlands <u>http://edigest.elaw.org/nl.urgenda.15</u> 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 <u>http://edigest.elaw.org/pk_Leghari</u>
 - 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 climate polluters

REDD+



REDD (Reducing Emissions from Deforestation and Forest Degradation):

• The Initial Idea: Slow climate change by saving trees and reducing emissions from deforestation and forest degradation

REDD+: includes the Conservation of Forest Carbon Stocks, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks **REDD++** extends REDD concept to land use for agricultural activity

• The Legal Basis:

- The 2015 Paris Climate Accord included an explicit provision on REDD (Article 5) which draws on dozens of prior policy decisions.

- There is a growing push through REDD+ to include avoided deforestation into future global emissions reductions schemes.



