



Climate Change, Forests & International Order: What Comes After Agenda 21?

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Overview

- **Legal Regimes for Forests - Historical Perspectives**
- **Competing Public Policy Objectives for forest regimes**
- **Progressive Development of the environmental law of the forest**
- **Challenges – The *Anthropocene Epoch***
- **Implications for Singapore – Its Society, Economy and Law**
- **General Principles of Law to Guide the coming era**



Legal Regimes for Forests - Historical Perspectives

- The Carta Foresta of 6 November 1217, which accompanied the Magna Carta in England, and the legal regimes for the forests
- Establishment of the Constitutional Forest Preserve in New York State in 1894, and President Theodore Roosevelt's Address to the Nation's Governors, in 1908 & National Forest Service
- The Afforestation Law of the Peoples Republic of China, Articles 26-28 of the Forestry Law recodified in 1985
- Urban afforestation -Trees for photosynthesis and mitigation city heat – PLANYC & 1 million new trees in New York City



Competing Public Policy Objectives for forest regimes

- *“Embracing Complexity in International Forest Governance: A Way Forward,”* report of the International Union of Forest Research Organizations (IUFRO, 2010).
- Commodity models - International Tropical Timber Organization (ITTO) and the UN Food and Agricultural Organization (FAO)
- Ecosystem utility models – “Land-use, Land-Use Change and Forestry” (LULUCF) and the “Reducing Emissions from Degradation and Deforestations” (REDD) and with conservation, (REDD+) under the UN Framework Convention on Climate Change –



Competing Public Policy Objectives for forest regimes

- Biofuels models – wood as a primary energy source (2 billion people’s primary source) and forests as a source of biofuels such as palm oil (a European Union priority) and untoward consequences for forests
- Forest preservation in protected areas – World Commission on Protected Areas of the International Union for the Conservation of Nature and Natural Areas (IUCN) – the values of biological diversity and beauty



Progressive Development of the environmental law of the forest

- Beyond “Sustainability” - **Agenda 21** and the Forest Principles
- The Convention on Biological Diversity and UN World Charter for Nature
- Synergies among the Multilateral Environmental
- Agreements (MEAs) - Prospects for the Nagoya agreements and the Joint Liaison Group between the UNFCCC and the CBD and the UN Convention on Desertification
- RIO+20 and the move to a green economy



Challenges – The *Anthropocene Epoch*

- Forests and forest law evolved together during the Holocene Epoch
- Climate Change is irreversible and is vastly altering temperate and tropical forests
- Humans and nature can only prosper together in a symbiotic relationship – the era of unbridled growth yields to an era in which society provides “enough” and mutually enhances the natural systems of the Biosphere (nature inspired business models)

See UNEP Report “*Decoupling Natural Resource Use and Environmental Impacts from Economic Growth*” (2010) at www.unep.org/resourcepanel

See Gunter Pauli, *Blue Economy – 10 Years, 100 Innovations, 100 Million Jobs* (2010, Redwing Pub.)



Challenges – The *Anthropocene Epoch*

- The Rio 1992 model of “sustainability” as defined by the Bruntlund Report, Our Common Future (1987) is becoming obsolete, but law and policy still embraces the expectation it can be attained
- The Post World War II “Bretton Woods” international financial institutions are becoming obsolete, but law and policy still embrace that model
- Fracture lines evident in The Great Recession of 2008 and the Sovereign Debt Recession of 2012
- Globally, we humans muddle through, with our messy laws...but the laws of nature evolve in their own ways



Implications for Singapore – Its Society, Economy and Law

- Positive Accomplishments – A great platform for coping – From a Garden City to a City in a garden
- The coming coastal garden and adapting to sea level rise
- Urban Building and Systems Redesign – emulate *Masdar* (Abu Dhabi) & shift to alternative energy systems (beyond oil...) & green walls and roofs and still more trees & mini-parks



Implications for Singapore – Its Society, Economy and Law

- Provide the technology hub for Southeast Asia 's shift to the green economy
- Revamp the legal regimes to encourage financing in the “Blue Economy” models
- Harmonize and integrate legal regimes across ASEAN – cooperate with Asian Development Bank in doing so



General Principles of Law to Guide the coming era

- Principle of Non-Degradation or Non-Regression – no back sliding in environmental stewardship
- Principle of Resilience
- Rio Principles 10 and 17 – More systematic use of Environmental Impact Assessment and public participation in environmental decision-making
- Principle of Cooperation and measuring corollaries