

Assigning rights to carbon: Feasible in the forests of Indonesia?



Author's photo.

Thomas Mouritz
Bachelor of Laws
Bachelor of Arts
(Sustainable Development)

This thesis is presented for Honours in Sustainable
Development

**School of Sustainability
Murdoch University, Western Australia
May 2011**

Declaration

I declare that this thesis is my own account of my own research. It contains as its main content work which has not been previously submitted for a degree at any university, except where acknowledgement is made in the text.

Thomas Mouritz

Student No: 30575532

Acknowledgements

I must thank supervisor John Davis for his guidance and encouragement, and Allan Johnstone, Honours Coordinator, for the tremendous patience, flexibility and support given to me by the School of Sustainability over the course of an unorthodox program of study. I came to this department, and university, somewhat by accident, and the breadth of the 'incidental' education I have since received has greatly influenced my outlook and direction in life.

Glen McLeod, Merinda Logie and Gitte Heij generously gave time and effort to assist me in components of my Honours program outside of this thesis, which I sincerely appreciated.

Several friends and family members kindly passed on their travel snaps from around the world, permitting this thesis a small amount of colour and illustration of the text.

I had an invigorating time and gained some valuable insight whilst carrying out a significant amount of my research using the office facilities of Kinesis in Sydney. I was even more fortunate for the support and encouragement given to me whilst writing back home in Perth by my parents, whom I could never thank enough for their love and support.

I am also appreciative for the experience of my short but impressionable travels in Indonesia, and it is without doubt that the people met and places seen had no small part in capturing my attention towards the subject of this thesis.

Abstract

Tropical deforestation contributes significantly to climate change. The concept of reducing emissions from deforestation and forest degradation (REDD) in developing countries has now been accepted in the international climate regime as a strategy for mitigating the dangerous effects of climate change. Under an international 'REDD+' framework, it is proposed that developed countries will compensate developing countries for the carbon offsets generated by avoided deforestation and other forest conservation activities. Clarifying who owns the rights to the forest carbon is a complicated issue that must be resolved in heavily forested developing countries. Carbon rights have developed as a novel form of property from the western legal tradition that has become increasingly centred on individual ownership and transferability of assets and resources. While some developed countries have attempted to define carbon property rights, in most developing countries this remains a difficult notion to conceive in their property systems.

This situation is typified in Indonesia. As one of the world's largest sources of emissions from land use change, Indonesia has a long history of poor management and regulation of forest resources. The allocation of property rights in and around forests has been contentious for many years and contributed significantly to the vast deforestation of the Indonesian archipelago.

It is questionable whether Indonesian law is capable of supporting a carbon rights regime. A plural system combining several different legal sources, the operation of law in Indonesia has been dogged by contradictions and inconsistent and arbitrary application. The importation and transplantation of legal concepts into the Indonesian context has been particularly unsuccessful. In light of this 'shaky ground', successfully assigning rights to forest carbon in Indonesia appears a major challenge.

Table of Contents

Declaration	2
Acknowledgements	3
Abstract	4
Chapter One: Introduction	8
Chapter Two: Reducing Emissions from Deforestation and Forest Degradation.....	11
2.1 Earth’s changing climate	11
2.2 Terrestrial carbon, forests and climate change.....	12
2.3 Climate change and Indonesia	15
2.4 A collective response to climate change.....	18
2.5 A potential answer: REDD+	19
2.6 The main challenges for REDD+.....	22
Design, operation, cost.....	22
Governance, tenure and ownership rights	24
Chapter Three: Property Rights to Carbon.....	28
3.1 Introducing property	28
3.2 The development of property rights.....	28
3.4 The emergence of carbon property rights	32
3.5 Different approaches to carbon property rights.....	37
Australia	37
New Zealand	39
Ghana	41
Mexico.....	42
A varied tale	44
Chapter Four: The Law, The Land and Forests in Indonesia.....	45
4.1 The ‘imagined community’ of Indonesia.....	45
4.2 Foundations of Indonesian law: Persistent tension	46
4.3 Indonesian land law and forests	50
4.4 Recent legal developments	54
4.5 The lingering perception of land and forest law.....	56

Chapter Five: Towards Rights Under REDD+ in Indonesia.....	58
5.1 The need to exercise caution with REDD+	58
5.2 REDD+ in Indonesia: Underway and uncertain	61
Government action underway	61
Indonesia's REDD Regulations.....	62
Remaining uncertainties and challenges	64
Bibliography.....	67

Figures

Figure 1. An approximation of the carbon flows between different systems in gigatonne (Gt) units	13
Figure 2. Global emission trends	14
Figure 3. Global forest coverage.....	16
Figure 4. Forested coastline, rural Aceh, Indonesia.	17
Figure 5. Forested mountains of Borneo, Indonesia	27
Figure 6. Land clearing for residential subdivision	30
Figure 7. Eucalyptus open forest near Marulan, NSW, Australia.....	33
Figure 8. Web page for CO2 Australia	39
Figure 9. Naturally fallen trees in View Hill, Canterbury, New Zealand.	40
Figure 10. Pueblos Mancomunados, community owned forest in Sierra Norte de Oaxaca, Mexico.....	43
Figure 11. Satellite image of Indonesia.....	45
Figure 12. Rural village and surrounding agriculture and forest in West Sumatra, Indonesia.	49
Figure 13. Heavily forested coastal area of Flores, Indonesia.	51
Figure 14. Timber logs in Bali, Indonesia.	53
Figure 15. Indonesia's early established 'REDD-plus roadmap'.....	62
Figure 16. Fisherman on Lake Maninjau, West Sumatra, Indonesia.....	66

Acronyms

BAL	Basic Agrarian Law
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
GHG	Greenhouse gas
IPCC	International Panel on Climate Change
IUJPL	<i>Izin Permanaftaan Jas Lingkungan</i> (environmental service permit)
LULUCF	Land Use, Land Use Change and Forestry
REDD	Reducing Emissions from Deforestation and Degradation
REDD+	Reducing Emissions from Deforestation and Degradation, plus Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change