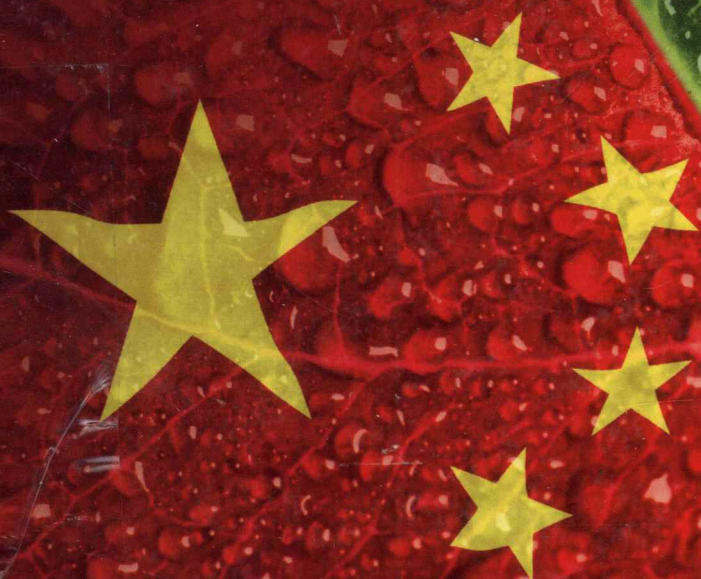




Green Taxation in East Asia

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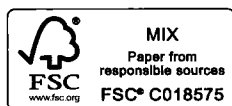
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Preface

The planning for the conference on which this book is based began in mid-2008. The title for the conference held at Hong Kong University (HKU), was: “Green Taxation in East Asia”. This title, which worked well for the conference, has been retained for this book.

It was suggested, in 2008, that it would be sensible to run our conference after, rather than before, the Conference of the Parties (COP15) Climate Change Conference to be held in Copenhagen in December, 2009. The HKU conference, thus, ran in late January, 2010.

From the time when the conference was conceived as the Second International Conference of the Taxation Law Research Programme at HKU, the primary focus was identified as being on taxation systems – and how they should respond (especially in East Asia) to the serious environmental challenges posed by growing greenhouse gas (GHG) emissions. We knew that much international effort had been expended on research and analysis related to the role of other (non-taxation) regulatory measures designed to meet the GHG challenge. Taxation, though, tended to be regarded as being of secondary importance, at best, in the mainstream, post-Kyoto global debate on how best to tackle excessive GHG emissions.

This comparative lack of attention to the role of taxation and related measures as tools to help remedy environmental degradation is unfortunate, we believe, especially in the case of East Asia. China, the largest nation in the world and the key jurisdiction in East Asia has so many environmental challenges and ongoing, regular instances of environmental calamities that it is hard to know where to begin to catalogue them all. But China also presents a remarkable story of economic success probably never before equalled in recorded history. The potential for innovative taxation measures to help build a much more sustainable economic growth model is substantial – and, as we argue, based on the detailed comparative analysis which follows, potentially “doable”.

The cut off point for the majority of the legal and political discussion in the book is mid-2010.

We are indebted to a range of persons for helping to turn our project into this book. We received outstanding support from the Faculty of Law at HKU and the Asian Institute of International Financial Law (AIIFL)

at HKU. The Think-Tank, Civic Exchange was also strongly supportive. We are most grateful to all the participants in the conference and particularly to all the chapter-writers. Special thanks are given to Flora Leung of AIIFL whose tireless work on all aspects of organization was exemplary.

Foreword

Christine Loh

Human activities are putting pressures on Planet Earth on such a scale that there could be abrupt global environmental change.

Scientists have proposed a new approach to global sustainability by identifying and defining “planetary boundaries” within which humanity can operate safely. Nine planetary boundaries have been identified: climate change; ocean acidification; stratospheric ozone; biogeochemical nitrogen cycle and phosphorus cycle; global freshwater use; land system change; loss of biological diversity; chemical pollution; and atmospheric aerosol loading. The scientists observed that humanity has probably already transgressed three of these planetary boundaries: climate change, biodiversity loss, and changes to the global nitrogen cycle.¹

Moreover, the scientists noted that these systems are interdependent in the sense that Planet Earth’s various systems function as a whole. They put forward the hypothesis that transgressing one or more planetary boundaries may tip Planet Earth into a state which could trigger non-linear, abrupt environmental change within continental-to planetary-scale systems. Moreover, because of the interdependence of these systems, transgressing one may shift the position of, or result in transgressing, other boundaries. The scientists emphasized that changes to Planet Earth’s functioning system do not mean that the planet will not survive – it will, but in another state, but humans are the ones who will be affected. The social impact of transgressing planetary boundaries will depend on the social-ecological resilience of the affected societies.²

Humans are thus part of a complex web of relationships involving Planet Earth, without which we cannot exist. It is simply not possible to maintain human well-being within degraded ecosystems.

While there are large uncertainties and knowledge gaps that still need to be filled, the concept of there being planetary boundaries lays the

¹ Rockstrom, J. et al., “A Safe Operating Space for Humanity”, *Nature*, Volume 461, 2009, pages 472–5.

² *Ibid.*

groundwork for society to think about a new approach to governance and management of Planet Earth to ensure a safe space for human development. A new approach to avert the environmental crises humans have created requires change on many fronts throughout the world. We need to transform not only our economic and political systems, but also our legal and financial systems.

Cormac Cullinan, the author of *Wild Law*, argues that the law must protect and enforce the rights of Nature as well as those of humans. To date, environmental laws have failed to stop environmental destruction. Cullinan believes today's laws do not work because they were never intended to serve the environment. Our laws are designed to regulate the manner and rate of exploitation of natural resources and not to enforce limitations on human behaviour in the interests of preserving the ecological balance of Planet Earth. He argues, therefore, that recognizing that Nature has legally enforceable rights would enable the machinery of the state to be used to safeguard ecosystems, rivers, mountains and other species against human exploitation and, in so doing, would begin a process of fundamentally restructuring legal and political systems.³ His view is no longer "pie-in-the-sky". In 2008, Ecuador adopted a constitution which recognized that Nature has legally enforceable rights.

What role can taxation play in this early phase of that transformation? It is clear enough that society needs to discourage certain activities that harm ecosystems and encourage activities that restore and strengthen them. A tax can be imposed on undesirable activities. The question is how to structure such a tax and deal with the politics that inevitably arise as we implement new ways of doing things.

Ideas for new taxes are coming from a variety of sources, including scientists. For example, James E. Hansen, one of the world's best known climate scientists, proposes a special tax to deal with coal. He has repeatedly emphasized that burning fossil fuels (coal, oil, gas) will eventually threaten humanity's survival because fossil fuels produce carbon dioxide (CO₂) that stays in surface reservoirs – atmosphere, ocean, soils and biosphere – for millennia. Climate response to CO₂ begins slowly, because of the inertia of the ocean and the ice sheets on Antarctica and Greenland. He says global warming so far is equivalent to Earth having the sniffles. He points to the events of 2010 – China's droughts followed by floods, Moscow's heat wave, and Pakistan's extensive floods – and while people can get through these problems, the real challenges will

³ Cullinan, C., "Wild Law and the Challenges of Climate Change", *Soundings*, Issue 37, 2007, pages 116–26.

affect our grandchildren if this generation does not rapidly reduce CO₂ emissions.

Hansen argues that governments must recognize that burning fossil fuels will increase CO₂ and will cause Planet Earth as we know it today to become a different planet – ultimately, a desolate ice-free planet with much higher sea levels than today. For humans, the transition will be painful and out of humanity's control. Hansen wants society to phase out coal burning and leave fossil fuels in the ground. The challenge is cost. Fossil fuels are cheaper than other forms of power in significant part because the companies that sell them and the consumers who use them are not required to cover the real costs of their impact on society. Public health costs, for example, (called “external costs” by economists) are borne by the public through sickness and paying medical bills. The fossil fuel industry is not made to cover these costs. If it were, then fossil fuels would not be as cheap as they are today.

Hansen's idea is to create a special carbon tax to be collected from fossil fuel companies. The money collected should be distributed monthly to the public on a per capita basis as a dividend to allow lifestyle adjustments and spur clean energy innovations. He argues that as the tax rises, it will make fossil fuels more and more expensive, and at some stage, there will be no reason to keep on burning them and they will be phased out and replaced by clean forms of energy. Hansen argues this “fee-and-dividend” approach provides the most rapid economically efficient path to a clean energy future and would cure us of our current fossil fuel addiction.⁴

Economist Richard Sandor, founder of the Chicago Climate Exchange, and known as the “father of financial futures”, argues in favour of using market means as another way to change behaviour. He points to the successful sulphur dioxide emissions trading scheme in the United States as an example, and advocates that society should think broadly about all the tools available to push the low carbon transformation. Sandor acknowledges that Hansen's worry about cap-and-trade schemes being exploited by business to line their own pockets is real, but he argues that this is not a reason to “throw the baby out with the bathwater”. Properly designed, cap-and-trade schemes have a role to play too.⁵

⁴ Hansen, J., *Storms of My Grandchildren: The Truth about the Coming Climate Catastrophe and Our Last Chance to Save Humanity*, Bloomsbury, 2009, page 241; Hansen, J., “Tell Barack Obama the Truth – The Whole Truth”, http://www.columbia.edu/~jeh1/mailings/2008/20081229_Obama_revised.pdf, 10 November, 2010.

⁵ See, e.g., “Economics, Innovation and Persistence”, http://www.kellogg.northwestern.edu/news_articles/2009/richardsandor.aspx; see also “CCX's

It would be comforting to think that the transformation to an ecologically sustainable future has already begun. We see evidence of this in new scientific understanding that Planet Earth is one functioning system, that Planet Earth can be given legally enforceable rights, and that both market systems and taxation can expedite the transition. There is another challenge and that is time. Scientists worry about run-away climate change once a tipping point is reached and that humans will be catapulted from the current climate sweet spot into another state that is unsafe for us.

The macro policy rethinking advocated by commentators such as Hansen and Sandor provides us with frameworks for longer-term reshaping of the fundamentals of making carbon “pay its way” in a comprehensive and proper manner. The authors of the jurisdictional chapters in this book are, of necessity, more focused on analysing the interaction, *today*, between taxation (and related fiscal measures) and the environment. From these studies it is clear that a great deal is amiss in the way this interface works at present across all the jurisdictions under review. But this research also shows positive steps being taken – and great scope for further, positive tax policy development. We can see from this research how smart policy innovation can start right now – and also how it can build better foundations for the introduction of more comprehensive, globally effective policy frameworks such as those advanced by Hansen and Sandor.

Time is of the essence. The scholarship in this volume shows that lawyers and tax experts are engaged in finding solutions. Can green taxation make a difference? The answer is a resounding “yes”.

Richard Sandor on Financial Innovation and the Protection of Our Air and Water”, <http://knowledge.emory.edu/article.cfm?articleid=1338>, 10 November 2010. For the *Hansen vs. Sandor* argument, see also Cheung, C.F. and Chen, S., “Fiery Exchange at Climate Dialogue”, *South China Morning Post*, November 5, 2010.

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1. Conspectus

Richard Cullen and Yan Xu¹

1. INTRODUCTION

Expectations were high with respect to the COP15, Climate Change Conference to be held in Copenhagen in December, 2009.² Many hoped that it might resolve a number of the varied problems associated with the implementation of the Kyoto Protocol (COP3). The Kyoto Protocol was

¹ For the purposes of this book (and the conference on which it is based), we have used the term *green taxation* as a shorthand expression to include: taxes, fees and charges – similar to traditional taxes, fees and charges – which are directed (at least in part) at generating improved environmental outcomes (some chapter authors have used slightly modified versions of this terminology). By East Asia we mean that part of Asia including China, Japan, Korea and South East Asia – but not including the nations of the former USSR, the Middle East and South Asia (India, Pakistan, Sri Lanka and adjacent smaller States). We have concentrated on particular key jurisdictions in East Asia for this book: China, Hong Kong and Singapore. China due to its combination of extraordinary size and even more extraordinary, long-term economic development is self-evidently crucial in any discussion such as this. Hong Kong and Singapore provide examples of highly developed jurisdictions in East Asia which both face major environmental challenges. Each of them has, in its way (and for various reasons, not least, ethnic linkages and economic investment), been deeply influential in shaping aspects of development policy in Mainland China over several decades. (Limitations of space meant we needed to make certain jurisdictional choices.) The other jurisdictions discussed have been included: (A) to provide a representative, comparative picture of the state of green taxation today; and (B) to let the experience from those jurisdictions inform the ongoing policy discussion about green taxation in East Asia.

² “COP15” is an acronym for “Conference of Parties, Number 15”. The “United Nations Framework Convention on Climate Change” (UNFCCC or FCCC) is an international environmental treaty produced at the United Nations Conference on Environment and Development (UNCED), informally known as the Earth Summit held in Rio de Janeiro from June 3 to 14, 1992. The objective of the treaty is to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic change within the world climate system, http://unfccc.int/essential_background/convention/background/items/1353.php, June 3, 2010. A continuing series of Conference of Parties has run since the Earth Summit.

concluded in 1997. It established binding obligations on all those countries which signed up to limit greenhouse gas (GHG) emissions.³ Mostly it affected developed countries plus a range of “post-1989” Central-Eastern European countries.⁴

The major feature of the Kyoto Protocol was that it set binding targets for 37 industrialized countries and the European Community for reducing GHG emissions. These amounted to an average of five per cent against 1990 levels over the five-year period 2008–2012.

The Kyoto Protocol was generally seen as an important first step towards a truly global emission reduction regime that would stabilize GHG emissions, and provide the essential architecture for any future international agreement on climate change.

By the end of the first commitment period of the Kyoto Protocol in 2012, a new international framework needed to be negotiated and ratified which could deliver the stringent emission reductions the Intergovernmental Panel on Climate Change (IPCC) has clearly indicated were needed.⁵

The Kyoto Protocol placed a special burden on developed nations (Annex 1 Countries (which includes Economies-in-Transition from Central-Eastern Europe)). The Industrial Revolution had begun in these nations over 150 years ago and heavy industrialization was seen as the primary cause of the growth in GHGs, which, in turn, were seen as the primary drivers of dangerous anthropogenic (man-made) global climate change.⁶

Developing nations, including large rapidly industrializing developing nations like China and India, were not subjected to the same sort of obligations under the Kyoto Protocol. Certain developed nations, including the USA and Australia refused to sign up to the Kyoto Protocol – although Australia finally signed the Protocol, after a change of government, in 2007.⁷

The primary means by which the Kyoto Protocol sought to reduce GHG levels were: Emissions Trading (the carbon market), the Clean Development Mechanism (CDM) and Joint Implementation (JI).⁸ There

³ The key details of the Kyoto Protocol are summarized at http://unfccc.int/kyoto_protocol/items/2830.php, June 6, 2010 (henceforth “KP Key Details”).

⁴ After the fall of the Berlin Wall and the collapse of the USSR these economies began re-engaging with the world in new ways.

⁵ KP Key Details, *op. cit.*

⁶ *Ibid.*

⁷ McGuirk, R., “Australia Signs Kyoto Protocol; US Now Only Holdout”, December 3, 2007, <http://news.nationalgeographic.com/news/2007/12/071203-AP-aus-kyoto.html>, June 6, 2010.

⁸ KP Key Details, *op. cit.*

was only limited focus on the potential direct role of taxation as these primary means of, inter alia, allocating carbon-usage costs were being resolved. The primary means have, as it has turned out, not proved to be very effective in reducing GHG emissions since 1998 – not least because emission levels from major developing nations not covered by the Kyoto Protocol, such as China and India, have increased significantly.⁹ The arguably huge “fiscal moral hazard” problems associated with these UN or government-run, “market-based” mechanisms aimed at reducing GHGs have also increasingly been argued. We use the term fiscal moral hazard to mean the way in which markets (or market-related systems) created using formal legislative or similar instruments, in particular, are prone to being exploited for financial advantage in ways usually technically “within the rules” but also often contrary to the aims of the created market.¹⁰

Great, indeed excessive expectations were placed on the COP15 Meeting in Copenhagen in December, 2010. The serious, continuing impact of climate change (accelerated by massive and increasing carbon-based energy consumption along with a range of other aggravating factors) was widely acknowledged. The “first commitment” period under the Kyoto Protocol (for Annex I countries) is also due to expire in 2012.¹¹

The COP15 Meeting brought together the widest range of key world leaders. The hope was that the seriousness of the problems and the presence of key decision-makers could lead to real progress towards crafting a new multi-lateral agreement on tackling climate change.¹² This did not happen.

⁹ World Bank, *World Development Report 2010 – Overview*, <http://siteresources.worldbank.org/INTWDR2010/Resources/5287678-1226014527953/Overview.pdf>, June 6, 2010.

¹⁰ See, for example, Ng, E., “UN Probes Claim Firms are Faking Carbon Credits”, *Sunday Morning Post*, October 10, 2010. A detailed argument of this view was presented on November 3, 2009 at the Hong Kong University (Campbell, I. D., “After Kyoto: International Welfarism and the Impossibility of Global Carbon Trading”, notes on file with Richard Cullen). Supporters of the CDM also acknowledge these moral hazard problems, see Nigoff, M. G., “The Clean Development Mechanism: Does the Current Structure Facilitate Kyoto Protocol Compliance?”, *Georgetown International Environmental Law Review*, Volume 18, 2006, page 249.

¹¹ KP Key Details, *op. cit.*

¹² See, for example, “Great Expectations for COP15 Climate Change Conference”, http://www.caricom.org/jsp/pressreleases/pres97_09.jsp, June 7, 2010. The UN climate change negotiating process seems to have made some modest steps towards restored relevance at the UN Climate Conference in Cancun, Mexico, in December, 2010. See “Back from the Brink”, *The Economist*, December 18, 2010, page 113.

Serious critics of the mainstream approach to tackling climate change, like Bjorn Lomborg both predicted and noted what they said was the failure of the COP15 Meeting.¹³ Christine Loh, whilst acknowledging the severe disappointments arising out of the COP15 Meeting, also notes the way in which the COP15 process has potentially helped to create a new “tipping point”. In particular the event showed, first that there is now a wide consensus that economies do need to become far less carbon-reliant and secondly, that the seriousness of climate change as a primary global issue was evidenced by the presence of all key world leaders at the COP15 Meeting. She goes on to analyze why the outcomes at COP15 were so below par and notes, for example, entrenched (“locally vital”) views and the cumbersome UN discussion system. She also sets out the now clarified negotiating positions post-COP15. There is a basic three-way tension between: (A) vulnerable smaller countries; (B) larger developing countries; and (C) the developed world.¹⁴

One other consequence of the COP15 process is the way that use of taxation as one key means to tackle the manifest problems associated with climate change has begun to rise up the climate change, serious-discussion-agenda. The Kyoto Protocol itself and what followed from it – not least the very lengthy debate about the position of “stand-outs” like the US and Australia – consumed much climate change political energy. Much of that energy, in turn, was then directed towards the quest of drawing a measurable success from the COP15 Meeting. Despite the post-COP15 disappointment, one benefit of having gotten past this process is that the policy-options discussion has opened up.

Lomborg makes essentially the same point (rather more polemically) when he says:

After 20 years of wasted effort, we can no longer afford to squander more time continuing on this road to nowhere. We can only hope that December’s [COP15] failure will be the jolt we need to once and for all drop the Rio-Kyoto-Copenhagen approach and start tackling climate change effectively.

His primary point is that the best way to tackle climate change is by making a very major effort – significantly public-funded at the outset – to

¹³ See Lomborg, B., “Technology not Talks will Save the Planet”, *Finance and Development – International Monetary Fund*, December, 2009, page 13; and Lomborg, B., “Climate Strategy on a Road to Nowhere”, *Globe and Mail*, February 1, 2010.

¹⁴ Loh, C., “Copenhagen is not Over”, December, 2009, http://www.caricom.org/jsp/pressreleases/pres97_09.jsp, June 7, 2010.

stimulate the highest level of research and development aimed at generating a green-energy technological revolution. This, he argues, would be far more effective – and far less costly – than the mainstream approach, which he characterizes as imposing crippling costs on carbon usage in a likely doomed quest to achieve breakthrough GHG emission reduction targets.¹⁵

As it happens, Lomborg does support, as part of his program, increased taxation of carbon usage – but at a far lower level than levels suggested by serious supporters of the Kyoto approach to allocating costs to carbon usage.¹⁶

When we decided to organize the Green Taxation in East Asia Conference (GTC) a core concern was to focus on the potential use of taxation (and related) measures to foster climate-helpful, large-scale, behaviour change. The true quotidian impact of climate awfulness is more apparent in East Asia than any other region of the world. Greater China confronts severe environmental degradation problems as a direct product of several decades of remarkable economic growth. In 2005 it was reported that 16 of the 20 most polluted cities in the world, where “you could chew the air”, were in Mainland China.¹⁷ Since then the position has tended to grow worse.¹⁸

No one before COP15 honestly believed that any sort of “magic bullet” solution existed. But many were persuaded that the fundamentals of the Kyoto Protocol comprised the core of the any “right approach” and alternatives outside that core were thought to be more marginal. In the post-COP15 world, it seems clear that we will see a wider variety of measures designed to tackle climate change problems being seriously studied.

¹⁵ Lomborg, *op. cit.* Numbers of commentators have argued that Lomborg, in his new (edited) book (*Smart Solutions to Climate Change: Comparing Costs and Benefits*, Cambridge University Press, 2010) has changed his views so that he is now notably less sceptical about the argued consequences flowing from climate change. Lomborg himself claims his position remains that we need to focus on practical remedies – rather than reaching for (vastly expensive) grand solutions. See, for example, Rundle G., “Bjorn Again? Reshaping the Climate Change Debate”, *Crikey E-Newsletter*, September 1, 2010, <http://www.crikey.com.au/2010/09/01/rundle-bj%C3%B8rn-again-reshaping-the-climate-change-debate/>, December 28, 2010.

¹⁶ “Frequently Asked Questions”, <http://www.lomborg.com/faq/>, June 7, 2010.

¹⁷ Watts, J., “Satellite Data Reveals Beijing as Air Pollution Capital of World”, the *Guardian*, October 31, 2005, <http://www.guardian.co.uk/news/2005/oct/31/china.pollution>, June 7, 2010.

¹⁸ Lee, H. Y., “Air Pollution Worsens from World’s Biggest Emitter Nation”, *World Focus*, March 29, 2010, <http://worldfocus.org/blog/2010/03/29/air-pollution-worsens-from-worlds-biggest-emitter-nation/10170/>, June 7, 2010.