



GREEN BUDGET GERMANY
FORUM ÖKOLOGISCH-SOZIALE MARKTWIRTSCHAFT

GREEN BUDGET PAPER 2008/12 FÖS-IMPULSE 2008/12



Reporting from Singapore Global Conference on Environmental Taxation (GCET)

THE LION AWAKES: THE 9TH GCET IS AGAIN YOUNGER, MORE FEMALE, MORE GLOBAL AND MORE THIRD WORLD

Transition and developing countries need practical help more than academic papers

By Dr. Anselm Görres, President Green Budget Germany (GBG)

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2008-12-goerres-lionpapersingapore.doc/16.04.2009

SUMMARY/ABSTRACT

Some personal observations about trends, topics, participants and attitudes seem appropriate from someone who, like GBG-President Dr. Görres, participated in eight of the nine Global Conferences on Ecological Taxation (GCETs) since the first one (2000 in Cleveland). In “Lion City” Singapore, fascinating debates created an atmosphere of excitement. Issues raised included the relative virtues of ecotaxes versus emission trading (mainly with a focus on the new US options), reform of transport taxation, and many contributions regarding Green Budget Reform in megacities and the Third World.

Green Budget Germany (Forum Ökologisch-Soziale Marktwirtschaft e.V./ FÖS) is a nonprofit organisation, founded in 1994, with membership open to everyone. We specialize in Market-Based Instruments of Environment Policy (MBI) and participate in the German and European Ecotax and Emission Trading debate with own contributions. We seek dialogue with the business, scientific and political communities. With a number of partners, we launched **Green Budget Europe** as European Platform to advance MBI on September 25th, 2008 in Brussels. Among other publications, we publish newsletters in German and English: ÖkoSteuerNews and GreenBudgetNews.

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The journey described here would not have been possible without the financial support of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. We'd like to express our sincere thanks to MinR Peter Franz, head of the division environment and economy, innovation and employment, eco-audit for his contribution to the sponsorship.

I. INTRODUCTION

The 9th **Global Conference on Environmental Taxation (GCET)** was held from 6-7 November 2008 in Singapore. It was organised by the Asia-Pacific Centre for Environmental Law (APCEL) and the Faculty of Law at the National University of Singapore (NUS). Partners and supporters included the Centre on Asia and Globalisation at the Lee Kuan Yew School of Public Policy of the NUS, the Association of Chartered Certified Accountants in Singapore (ACCA), the Inland Revenue Authority of Singapore (IRAS), the IUCN Academy of Environmental Law, the Environmental Tax Policy Institute at Vermont Law School, the Department of Business Law at Macquarie University Sydney, the Department of Accounting at Cleveland State University, USA and the International Tax and Investment Centre (ITIC) in Washington DC, USA.

The 9th GCET in Singapore is part of an annual series of conferences characterized by their international and multidisciplinary, but fortunately, not always strictly academic flavour. They provide a forum for legal scholars, economists, political scientists, conservationists, representatives of government agencies and of the private sector to exchange the latest research on the use of environmental taxes and other market-based instruments to advance environmental policy objectives. These economic instruments cover a wide range from user charges on pollutants or resource use to loans and grants for the development of sustainable technology to emissions trading.

This year's conference topic was **Environmental Taxation and Challenges of the Urban Environment: Role of Taxation and other Market-based instruments – Exchange of Experiences between Developed and Developing Countries**. The conference focused on the special problems of the urban environment and the challenges which confront cities and megacities. Within this thematic framework, the conference covered subjects as manifold as energy generation and consumption, transportation, pollution, population growth, housing, urban development and public health. The role and the effectiveness of fiscal policies and of market-based instruments were evaluated from the perspective of developed as well as developing countries. Main goal was to build a platform for the exchange of experiences concerning fiscal policies. Instruments and tools for representatives of government institutions should be offered to ensure a sustainable urban environment, to protect the natural resources and to handle the population growth in times of the climate change.

The conference series of the Global Conferences on Environmental Taxation was hosted by Cleveland State University, Ohio/USA in June 2000. Further conferences took place in Vancouver, Brit-

ish Columbia/Canada in April 2001, in Woodstock, Vermont/USA in April 2002, in Sydney, New South Wales/Australia in June 2003, in Pavia, Italy in September 2004, in Leuven, Belgium in September 2005, in Ottawa, Canada in October 2006. In 2007, the conference was hosted for the first time in this prestigious conference series by an NGO, Green Budget Germany. With over 300 participants from every continent from 49 different countries, the 2007's GCET conference was a tremendous success. **Dr. Anselm Görres**, co-founder of Green Budget Germany and its President since 2000 attended eight of the nine GCET conferences.

We want to express special thanks to the organising committee of the 9th GCET: **Prof Kheng Lian KOH**, director at APCEL and **Assoc Prof Lin Heng LYE**, deputy director at APCEL as co-chairs of the organising committee, **Mr Hafiz CHOUDURY** of ITIC, **Asst Prof Asanga GUNAWANSA**, department of building, school of design and environment at National University of Singapore, **Ms Penelope PHOON-COHEN**, Association of Chartered and Certified Accountants in Singapore, **Ms Sumathi SAAD JANJUA**, Principal Tax Officer, Corporate Tax Division, Inland Revenue Authority of Singapore and **Assoc Prof Dodo THAMPAPILLAI**, Lee Kuan Yew School of Public Policy at National University of Singapore.

Before joining the conference, Dr Anselm Görres used the opportunity for a stopover in New Delhi, the capital of India. In the course of three days, he had several meetings where he met and conversed with the Indian NGO TERI (The Energy and Resources Institute) and **Prof Amitabh Kundu**, well known from his attendance of the Munich GCET. This meeting included fruitful discussions with Prof. Kundu's colleagues and about 50 students after the talk of Dr Görres. At the TERI, the visit gave opportunity to contact **Ms Divya Datt**, Fellow for Energy Environment Policy, and her team for a discussion about typical problems faced by developing countries when introducing environmental policy.

We hope to deepen the contacts made in India and in Singapore to continue working on the development of market-based instruments in environmental policy!

II. REPORT FROM SINGAPORE

Some personal observations about the trends in topics, participants and attitude from someone who participated in eight of the nine GCETs since the first one (2000 in Cleveland) seems appropriate. Eight years ago in Cleveland, some 70 people, mainly from the US and Europe, talked about ecotax reform as something very far away, at least for the majority of non-EU delegates. In my memory, most of them were men over forty-five.

In “Lion City” Singapore, fascinating debates created an atmosphere of excitement. Issues raised included the relative virtues of ecotaxes versus emission trading (mainly with a focus on the new US options), reform of transport taxation, and many contributions regarding Green Budget Reform in megacities and the Third World. Encouraged by Obama’s victory two days before the conference, the audience’s tone became more action-oriented than in most of the former GCETs. Like the entire island state of Singapore, the conference was perfectly organized in a harmonious blend of Confucian efficiency and Asian hospitality. The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) sponsored GBG’s participation in the GCET. This paper describes some of the major highlights and trends of the conference.

Megacities and the concerns of emerging or developing countries

The official conference theme – *Challenges of Urban Development* – was, with few exceptions, focused on urban development in the Third World.¹ Throughout the conference, the discussion focus of delegates from countries as diverse as Australia, Argentina, Brazil, China, India, Indonesia, Japan, Kenya, Korea, Malaysia, Pakistan, Philippines, Singapore, Sri Lanka, or Uganda was quite different from the more academic research interests of participants from Europe and the US. These different agendas were previously recognized in the 2008 GCET at Munich, which offered special workshops for developing countries within the conference.² **Hafiz Choudhury** proposed in his final remarks that new formats should be found to meet the special needs of developing and emerging economies at the **next GCET, to be held September 23-25, 2009 in Lisbon,**³ Following through on this proposal, **Green Budget Europe will host a back-to-back conference dedicated to developing countries on a day preceding or following the 10th GCET.**

¹ The full conference subtitle was: *Environmental taxation and challenges of the urban environment: Exchange of experiences between developed and developing countries*. There were some interesting studies on megacities in the First World, such as Giorgio Panella’s paper on Traffic Management in six Italian cities, Ana Yábar’s study of several Spanish cities, or Alberto Majocchi’s look at megacities in West Africa.

² These workshops began a very fertile cooperation between Green Budget Germany and German Technical Cooperation (GTZ). For more info, see: www.worlddecotax.org/downloads/info/documentation_gtz-Workshop.pdf.

³ Mr. Hafiz Choudhury is Principal of the Washington-based consultancy M Group and an advisor to the International Tax and Investment Center (ITIC) in Washington, D.C.

Theoretical research changes to more empirical and implementation-oriented studies

Most aspects of Green Budget Reform have been thoroughly analyzed from all possible theoretical angles over the last decades. There is no lack of theoretical papers but, rather, a deficit in transferring theoretical knowledge to practical situations and solutions. Solving these problems require research to arrive at a thorough understanding of economic, legal and other institutional frameworks.

As we move from small microeconomic steps like parking fees or taxes on plastic bags to truly macroeconomic fiscal reforms that generate substantial revenues, we have to get involved in the nasty details of other economic and policy spheres such as social security, poverty, housing, or the labour market. **This makes practical work with market based instruments more fascinating in many ways than pure regulatory measures, but also much harder to analyze or ultimately implement.**

If we want to overcome the *rule of NATO – no action, talk only* – we have to better understand the policy cycle and the formation of social alliances.⁴ As with the last GCET, the conference itself was a good example of fertile cooperation between lawyers, economists, environmental practitioners, politicians, NGOs, and business people.

Business participants with positive contributions and attitudes

In Germany, it is often difficult to get the business community actively and positively involved in the debate of market based instruments. The area has become negatively stigmatized as a rather controversial "red-green" project (social democrats and greens). It has not played an important role under Germany's present "black-red" coalition (Christian conservatives and social democrats). At the 8th GCET in Munich, one of our most difficult tasks was to find business representatives who would be expected to speak favourably of MBI policies.

In Singapore, as in prior GCET sessions, it was encouraging to see open-minded business representatives and people from well-known accounting and tax consultancies embrace the subject. The ITIC's statements sounded far from the usual political lobbyist talk so often heard in Washington DC. A paper by two PriceWaterhouseCoopers consultants presented Singapore's ambitious environmental policies as an innovative and successful strategy to attract sustainable investments. The

⁴ Sven Rudolph's paper about the lessons from Germany gave a very stimulating example of such work, containing insights enhanced by insider information.

Singapore Association of Chartered Certified Accountants (ACCA) was a main sponsor of the conference.

Interesting and maturing debates on micro, meso and macro level issues

In the early years of GCET, many participants clearly held a microeconomic view of environmental economics, primarily applying models and analyses to local or regional problems. Plastic bag taxes, parking fees, and applying emission trading to specific problems like sulphur dioxide emissions in China were discussed. However, in China every eco-problem could be treated as a macro problem due to the sheer size of the country. Two very interesting case studies on Chinese experiences with ETS (emission trading systems) were presented by **LI Zhiping** and **CHAI Chunyan**.

I do not want to appear to criticize studies of regional, local or sectoral problems; however, MBIs will have the greatest impact when applied to macro problems. And, unfortunately, it is a longstanding tradition in economic thinking to reduce environmental problems to mere microeconomic disorders.⁵

Clearly, this exclusion of macro topics has become outdated. Ignoring such threats to the climate is no longer accepted in many countries. **As a result, the conference was characterized by a very satisfactory discussion of problems on all levels: micro, meso and macro.**

Majority of US speakers favouring taxes over trading

With the **Obama** victory, the issue of taxes versus trading has become one of the hottest debates on the macro level. **Janet Milne** and **Roberta Mann** presented excellent papers arguing the pro tax view, while taking into account the somewhat neglected aspects of administrative costs.⁶ Most papers re-confirmed our impression that the majority of US scientists clearly favour a carbon tax. At the moment, it is not as clear whether the business community will emission rights, assuming they are not auctioned. Present political moves in Brussels and the European capitals show that it is extremely difficult to move away from give-away certificates. No one wants to give up a free lunch generously provided to them by a gentle government...

Our point of view at Green Budget Germany and Europe is here quite simple. We take as much as we get from either instrument. Constructive controversy as provided by **Milne** and **Mann** is very neces-

⁵ Read my criticism of Coase and the infamous Coase Theorem at <http://www.foes.de/en/downloads/articles/CoaseCurse09+SBS.pdf>

⁶ Celeste Black presented an interesting paper on the Australian proposals.

sary. But we should be glad about every **effective** instrument that we get established. **The scope of the combined environmental problems is such that we will need all the effective instruments the political systems allows for.** Furthermore, for each country, it is beneficial to have experience with more than one type of instrument, as evidenced by Singapore. With over three years of practical know-how about emission trading in Europe, a little criticism to the papers or to the organizers is justified. It is unclear why the papers did not tap these experiences or why no European experts provided an insider view from East of the Atlantic, if only to point out positive aspects of the European ETS (emission trading system).



Road pricing and the Singapore experience

Quite a number of papers did discuss the issue of intelligent traffic regulation. **Prof. LYE Ling Hen**, one of the two main organizers, presented the impressive arsenal the small island state built up over the year, in order to keep traffic growth in check. Without going into detail, the main lesson contradicts traditional economic thinking that one instrument per target is enough (often referred to as *Tinbergen-theorem*). As nice as the *Tinbergen-theorem* looks in a textbook, in practical life, however, you discover that a) traffic control involves quite a number of targets, not only to curb environmentally harmful emissions, but also to limit congestion, manage scarce parking areas, control noise etc. and that b) it helps distribute the controlling tasks to be solved and the resulting anger and resistance of citizens over a number of instruments. If only one instrument existed, citizens would likely unite to fight against it.

Coming to Singapore via Delhi, the enormous contrast impressed me. In Delhi, apart from the building sites for new subway lines, it proved equally difficult to find most street signs as well as to detect signs of traffic management. The roads seem to be congested 7/24/365. I even cancelled my sightseeing tour because I feared to spend hours in traffic jams.

Singapore, on the other hand, made it a pleasure to use the roads. For instance, perfectly readable large street signs are found at each corner, and the roads are seldom congested. Furthermore, electronic road pricing runs as smoothly as the heavy vehicle charge on motorways in Germany. **Jean-Francois Lefebvre** explained how voters in Quebec could be convinced to accept progressive road pricing solutions, if presented with the right questions and other forms of good promotion.

Stephen Potter from the UK struck another note, but with similar arguments and implications. Within the European tradition, the instrument of choice to make cars and trucks pay for the infrastructure were fuel taxes. They do correlate nicely with many negative factors like consumption of fuel and weight, speed or noise of vehicles. However, they are less suited when it comes to congestion which depends on who is going where, and when. They could also lose their steering power when more and more cars rely on other sources of energy, for instance batteries. **As a consequence, the entire system of levies and taxes relating to traffic, needs overhauling and should be based to a much higher degree on electronic road pricing, like Singapore has it successfully implemented and Britain is presently testing it.**

A very interesting paper from the US pointed out “*a schizophrenia, as some tax provisions appear to help environmentally friendly behaviour, while others seem to encourage activities or choices that tend to be environmentally unfriendly*”.⁷ From our work in Germany, we can only commend the authors for describing contradicting incentives found in several countries, not only the US.

A conference not to be missed – so come to Portugal!

It is unfortunate we cannot report in more details about the many other great contributions one could hear and (in some cases, even) debate at the conference, as debating time was rather scarce. To mention just a few further highlights from the program, **Josè Marcos Domingues'** paper about biofuels in Brazil presented a positive view, perhaps a good corrective for the sometimes stern criticism of alternative fuels often to be heard in Europe. **Mona Hymel** from Arizona was one of a few individuals who touched the subject of nuclear energy, with a paper critical of tax credits. **Lalin Kovudhikulrungsri** and **Krittika Lertsawat**, both from Thailand, proposed charges to fight aircraft noise, while **Ronald Kagwa** from Uganda, showed the difficulty of making even small progress in an African country.

Prof. Nicholas Robertson from Pace University School of Law opened the conference with a scathing critique of the moral and business failures of Wall Street. One day after the conference, The Straits Times published a fitting cartoon, portraying a business man at a crossroad where he had to choose between Capitalism (pure) and Neo-Confucian Capitalism.⁸ Environmental taxation and

⁷ *An Examination of the Environmental Impact of Key US Transportation Related Tax Provisions*, by Bruce W. McClain, Paul J. Lee and Rahmat Tavallali.

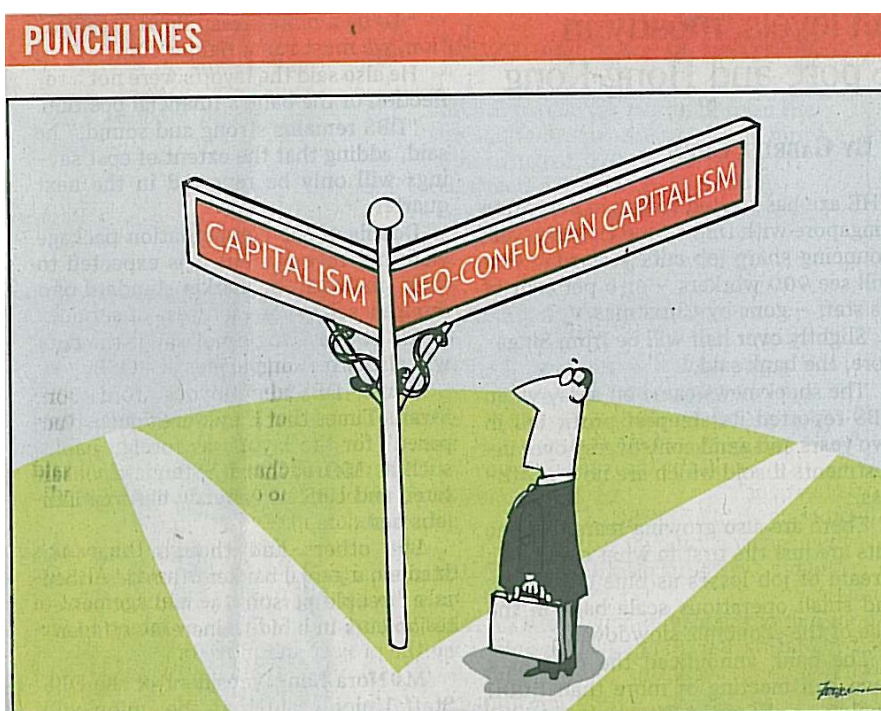
⁸ Lydia Lim, Senior political correspondent: Capitalism needs a new culture – Individualism must be replaced by personal and social responsibility. The Straits Times, November 8, 2008.

other market based instruments are certainly important step stones on a new road the world will have to follow.

At any rate: The 9th GCET, like all the preceding events, was a great place to exchange research, to enjoy the variety of people and countries, each with their different approach to problems (and to the English language), to network with different communities, and to learn from one another. If international cooperation could become as easy and satisfying as witnessed in the context of the GCETs, the climate problem would already be solved. So please don't miss the next conference:

Ate lógo em Lisboa!

Further information to the 10th GCET: <http://www.worldcotax.org/home.html>



III. PANELISTS DEBATE CAP-AND-TRADE SCHEMES VS. CARBON TAXES

by Charles Gnaedinger⁹

Many aspects of environmental taxation came under the spotlight at the Ninth Global Conference on Environmental Taxation in Singapore on November 6-7. However, the debate over whether to favour carbon taxes or cap-and-trade regimes stole the show. The global financial crisis played more than a bit part, when presenters explained how the financial market meltdown may affect the development of a future global market in carbon emissions.

Garden City

Addressing the challenges of the urban environment was the theme of the conference. Many speakers from Singapore referred to the natural beauty of their island home, known as the Garden City. While they credited careful government regulation for protecting Singapore's natural beauty, they noted that Singapore's prudent land use could not be credited to environmental taxes.

Singapore's list of environmental taxes is short, comprising only transport and water taxes, said **Liu Hern Kuan**, chief legal officer at the Inland Revenue Authority, Singapore. **Liu** said among the criticisms of environmental taxes are that they rely on value judgments, they don't provide predictable sources of revenue, and they are regressive. Sustaining the modern lifestyle found in the developed world today inevitably means natural resources will be used, pollution discharged, and climate change furthered, he said. Environmental taxes can discourage behaviour viewed as bad. "But at the end of the day, that's a value judgment," **Liu** said. "What is bad?"

"Environmental taxes are a victim of their own success," **Liu** added, meaning that because individuals seek to avoid what is taxed, the revenue from green taxes often drops the longer the tax is in place. It's difficult to budget for environmental tax revenue, which is not sustainable, he said. "Another criticism would be that environmental taxes can be regressive because the costs of environmental taxes pass more to the poor than the rich," **Liu** said. For instance, that happens if environmental taxes raise transport costs, which make up a larger part of a low-income earner's budget than an upper-income earner's budget.

⁹ Charles Gnaedinger is a legal reporter with Tax Notes International. E-mail: cгнаedinger@tax.org
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Europe's Green Movement

Chas Roy-Chowdhury, head of taxation for the Association of Chartered Certified Accountants in the United Kingdom, said environmental taxes have “fallen into disrepute,” at least in Europe, because voters see them as merely another revenue raiser. **Roy-Chowdhury** said revenue from U.K. environmental taxes 10 years ago was about 3 percent of GDP, but today that figure has fallen to 2.4 percent of GDP. (U.K. environmental taxes include fuel taxes, the aggregates levy, the climate change levy, and the landfill tax.)

The same trend is taking place in all the other EU member states except Denmark, he said, where revenue from environmental taxes has steadily risen over the last decade and now stands at 6 percent of GDP. The decline in environmental tax revenue is happening despite stated U.K. and EU policy to use market-based instruments – including environmental taxes – to fight climate change by reducing carbon dioxide emissions, **Roy-Chowdhury** said. “We have a real problem with how we square the circle with environmental taxes,” he said.

For example, if the United Kingdom wants to reduce vehicle CO₂ emissions by 5 billion pounds, the government could increase fuel taxes by 50 pence per litre of fuel. “Now, that may be quite difficult from a political point of view, but that may be what is actually required to happen to reduce CO₂ emissions by vehicles to meet the obligations or the wishes of government,” he said.

Roy-Chowdhury said governments could overcome resistance to environmental taxes if voters knew that the taxes really benefit the environment. Resistance could also be overcome if people saw the revenue from environmental taxes applied to lower taxes in other areas, like income taxes, and not enacted as just another revenue raiser. “So perhaps we need to look much more widely at the idea of hypothecation - so people know where their tax revenue is going,” he said. **Roy-Chowdhury** said that to achieve the recently announced U.K. goal of reducing CO₂ emissions by 80 percent in 40 years, the EU carbon emissions trading system (ETS) must be relied on.

The ETS is the cap-and-trade system that has operated in EU member states since 2005 to lower carbon emissions. (For prior coverage of the EU emissions trading system, see *Tax Notes Int'l*, Feb. 4, 2008, p. 406, Doc 2008-1472, or 2008 WTD 17-2.) **Roy-Chowdhury** also said that EU policy-makers may introduce minimum tax levels on coal, gas, and other sources of CO₂ emissions, so that the ETS and carbon taxes might complement one another to achieve significant reductions in greenhouse gas emissions.

U.S. Instruments

Janet Milne, professor and environmental tax policy institute director at the Vermont Law School, said U.S. policymakers view carbon tax and cap-and-trade system proposals as separate instruments. Proposed legislation for each instrument to date in Congress has made no allowance for the other instrument.

Because most U.S. CO₂ emissions occur in major cities, **Milne** said greenhouse gas emissions are a true urban problem for the United States and that her talk was therefore relevant under the conference theme of environmental taxes and the challenges of the urban environment. “With my bias as a tax person . . . I tend to lean toward a carbon tax,” she said, because a tax is simpler than a cap-and-trade system. Though both are market-based instruments, “the superstructure for a cap-and-trade system would require many more tiers of public and private administration,” she said. Nevertheless, she also said that “plausible reasons” for a cap-and-trade system in the United States could be found. “Certainly, that is the way the forces of gravity seem to be taking us at the moment,” **Milne** said.

In comparing administrative aspects of carbon taxes and cap-and-trade systems, **Milne** referred to two carbon tax bills introduced in the House of Representatives in 2007. The first was H.R. 2069, the Save Our Climate Act of 2007, introduced by Reps. Fortney **Pete Stark**, D-Calif., and **Jim McDermott**, D-Wash. (For the bill, see *Doc 2007-18696 or 2007 TNT 156-46*.) The second was H.R. 3416, the America’s Energy Security Trust Fund Act of 2007, introduced by Rep. **John B. Larson**, D-Conn. (For the bill, see *Doc 2008- 19587 or 2008 TNT 179-85*.)

She also discussed a cap-and-trade bill that the Senate had debated in June 2008. That was S. 3036, the substitute of Sen. **Barbara Boxer**, D-Calif., to S. 2191, the Climate Security Act of 2008, introduced by Sens. **Joseph Lieberman**, I-Conn., and **John Warner**, R-Va. (For the bill, see *Doc 2008-12169 or 2008 TNT 107-21*.)

Milne said one big difference between the instruments is that a U.S. carbon tax could be implemented within one year, while the cap-and-trade system in S. 3036 couldn’t be enacted before 2012. The reason is that S. 3036, if passed by Congress and signed into law, would require the Environmental Protection Agency to write extensive regulations. Cap-and-trade system start-up costs would also be high, unlike for a carbon tax. **Milne** said the Congressional Budget Office has estimated that \$1.7 billion would be needed to set up the cap-and-trade system, from 2009 to 2013, partly because the EPA would need to hire many new administrative personnel. Also, a carbon tax would be “a

relatively simple two-party relationship,” she said, under which identified taxpayers would pay the carbon tax to the IRS, which would handle oversight and enforcement.

Many administrative steps would be needed for the cap-and-trade system to function, however. The overall carbon emissions cap must be established by law. The EPA would next distribute allowances annually. At first, **Milne** said, most allowances would be distributed for free, but by 2050 up to 75 percent would be auctioned. Next, the annual allowances would enter the trading market. Trade in carbon allowances would occur, and the polluting entities would have to show each year that they had the needed allowances and would have to submit to EPA oversight and enforcement. On top of all that, **Milne** said, instruments like futures contracts and options would be traded on the carbon allowances market. While cap-and-trade allowances would be estimated to reach \$200 billion annually, she said, the related market in derivatives would be estimated to reach \$2 trillion annually. The “general trading public” would be involved in the carbon market, she said, requiring market intermediaries, brokers, and exchanges.

“As I previously indicated, I think that a cap-and-trade system is going to be more costly to create because of the complexity in creating these new commodities and markets, and we have the costs of public administration on an ongoing basis,” she said. Annual cap-and-trade administrative fees would reasonably be \$1 billion, but for the carbon tax, she said, “one would intuitively think that probably the cost is lower.”

Finally, the cap-and-trade system would have transactional costs connected with brokerage fees in the trading market, recording of allowances, and so forth, showing that part of the cap-and-trade costs would be allocated to private-sector investors who have no legal responsibility to reduce emissions, she said. The operation of a carbon tax would not give rise to similar transactional costs, however. In short, comparing what she called the administrative and mechanical aspects of the carbon tax and cap-and-trade proposals, **Milne** said she would favour a carbon tax. Why then is the momentum building for a U.S. cap-and-trade system? **Milne** said she partly attributes it to “a visceral reaction to the word ‘tax’.” Some people may also believe a cap-and-trade system could better achieve the desired objective – capping carbon emissions – than a tax.

Market Abuses

Associate Prof. Hope Ashiabor of Macquarie University in Australia said recent world events show that financial market failures are a legitimate concern as the world weighs policy options to limit

carbon emissions. “The global financial meltdown . . . raises questions on the extent to which we can rely on the markets in setting a price for carbon,” said **Ashiabor**, who teaches in Macquarie’s Department of Business Law. He spoke at the conference as the recipient of the 2008 Kreiser Award for Outstanding Contributions to Environmental Taxation.

The financial meltdown has also highlighted governments’ role in correcting market failures, **Ashiabor** said. He reminded participants that over the summer, the price of oil reached \$147 a barrel, which “gave consumers and governments around the world a taste of what a carbon tax’s impact would be.” As a result, he said, all governments used adjustment measures to adapt their economies to the situation. In Southeast Asia in particular, governments removed subsidies on petroleum products to counter budget losses and losses faced by state-owned energy companies.

The topic of market abuses was featured prominently in the speech of keynote speaker **Prof. Nicholas Robinson** from Pace University School of Law in White Plains, N.Y. He discussed how global financial markets – starting with the market for sub prime mortgages in the United States – have failed over the last year, often as a result of greed and failure to perform due diligence by market actors. **Robinson** faulted accountants for not insisting on evaluating the complete books of financial institutions. He said that without transparency and accurate and reliable information, investor trust can’t be gained in financial markets. **Robinson** said that a global carbon emissions trading regime, if not properly developed and monitored, would be vulnerable to a meltdown of the same type that financial markets have experienced. “We’ve got to do some reflecting about how did we get into this mess, in order to not only get out of the mess, which we will do, but also to figure out how we will implement a safe and sound emissions trading system for mitigating the greenhouse gas emissions and adapting to the changes in climate,” **Robinson** said. The recent “complex breakdown” in the financial sector “will impair our ability to create a . . . financial system for carbon trading,” he said.

He also faulted national governments for focusing their attention on the financial meltdown “while treating the far more expensive environmental meltdown as merely an economic externality.” He was referring to the costs of global natural disasters, violent storms, and forest fires in 2005, which was the hottest year on record. Nevertheless, he expressed optimism that EU member states and most nations that are now negotiating new environmental cooperation systems to fight climate change will be successful in their work. He predicted that the 15th conference of the parties of the UN Framework Convention on Climate Change, meeting in December 2009 in Copenhagen, Denmark, will establish an international carbon cap-and-trade system.

Milne agreed with the market abuse concerns expressed by **Robinson**, and she said that even with the EPA monitoring the matching of emissions and allowances under a U.S. cap-and-trade system, “we also have the potential problem of market abuses.” “**Professor Robinson’s** remarks show that’s a very serious problem, as it was with markets for mortgage backed securities,” **Milne** said. She said that a carbon trading market would function effectively only if it had “full confidence.” **Milne** also said that in evaluating the pros and cons of cap-and-trade systems and carbon taxes, a further administrative difference between the two options is that a cap-and-trade system would have the potential for market abuses if a clear regulatory structure isn’t established in advance.

Border Tax Adjustments

Keith Kendall, a senior lecturer in the School of Law at La Trobe University in Melbourne, said a carbon tax is preferable to an emissions trading system to reduce global greenhouse gas emissions, based on many economic and legal arguments. However, he also called for clarity under World Trade Organization rules for border tax adjustments (BTAs) as applied to a carbon tax. **Kendall** said if countries undertake carbon taxes unilaterally, domestic political opposition will usually be significant because of concerns that domestic industries will suffer harm while foreign industries will not. (For prior coverage of border tax adjustments, see *Tax Notes Int’l*, Apr. 7, 2008, p. 36, *Doc 2008-7045*, or *2008 WTD 63-1*.) A BTA would allow a country that implements a carbon tax before a multilateral carbon tax is in place to refund the tax for its own manufacturers’ exports and to impose the tax on imports from countries that don’t impose a carbon tax. A BTA today, however, might be viewed as a violation of WTO free trade rules, **Kendall** said. For unilateral carbon taxes to be enacted quickly, therefore, this uncertainty about BTAs under WTO rules should be removed, he said. He said the BTA issue is another good reason to favour carbon taxes over an emissions trading system. “The only option for pricing carbon in which a BTA could be legal under the WTO is a carbon tax,” **Kendall** said.

ANNEX

**Ninth Global Conference on Environmental Taxation (9th GCET) in Singapore
6 & 7 November 2008**

“Environmental Taxation and Challenges of the Urban Environment: Exchange of Experiences between Developed and Developing Countries”

CONFERENCE PROGRAMME (as at 3 November 2008)

At Concorde Hotel (previously called Le Meridien Hotel), 100 Orchard Road, Singapore
Venue: Concorde Ballroom, Lobby Level (Level 3)

Wednesday 5th November 2008

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| 6.30pm - 9.00pm | Pre-Conference Dinner for Speakers, hosted by ACCA Singapore At National University of Singapore Guild House, Suntec City 3 Temasek Boulevard #05-01 Suntec City Mall Singapore 038983 |
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Thursday 6th November 2008

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| 8.15am | Registration |
| 9.00am | Welcome and Introductions (Venue: Concorde Ballroom) 1. <u>Prof Tan Cheng Han</u> – Dean, Law Faculty, National University of Singapore (NUS) 2. <u>Prof Koh Kheng Lian</u> – Director, Asia-Pacific Centre for Environmental Law (APCEL) & Conference Co-Chair, Steering and Organising Committees, Law Faculty, NUS 3. <u>Assoc Prof Lye Lin Heng</u> – Conference Co-Chair, Steering and Organising Committees, Deputy Director, APCEL, Law Faculty, NUS 4. <u>Ms Penelope Phoon-Cohen</u> – Country Head, ACCA, Singapore |
| 9.15am | Guest-of-Honour, Mr Teo Ser Luck, Senior Parliamentary Secretary, Ministry of Transport, and Ministry of Community Development, Youth and Sports, Singapore |
| 9.30am | Keynote Presentations (Venue: Concorde Ballroom) Chairperson: Emeritus Prof Lawrence Kreiser, Dept of Accounting, Cleveland State University, USA 1. Keynote speaker – <u>Prof Nicholas Robinson</u> , Gilbert and Sarah Kerlin Professor of Environmental Law, Pace University School of Law, former Chair of IUCN Commission on Environmental Law and IUCN Academy of Environmental Law, USA, “Melting Down Financial ‘Investment’ Markets: Hedges Against Wider Market Collapse”. 2. <u>Mr Chas Roy-Chowdhury</u> , Head of Taxation, ACCA, UK, “European Perspectives on Environmental Taxation”. |
| 10.30am to 10.45am | Refreshments |
| 10.45am to 12.30pm | Plenary Session I - Environmental Taxation and the Urban Environment (Venue: Concorde Ballroom) Chairperson: Assoc Prof Lye Lin Heng, APCEL, NUS 1. Keynote speaker – <u>Mr Liu Hern Kuan</u> , Chief Legal Officer, Inland Revenue Authority, Singapore, (jointly with Ms Sumathi Saad Janjua, Principal Tax Of- |

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| | <p>ficer, Inland Revenue Authority of Singapore), “Environmental Taxes and its Role in Singapore’s Approach towards Environmental Sustainable Development”.</p> <ol style="list-style-type: none"> 2. <u>Prof Janet Milne</u>, Director, Environmental Tax Policy Institute, Vermont Law School, USA, “Urban Emissions and Market-Based Administration: Burdens and Risks”. 3. <u>Prof Alberto Majocchi</u>, Professor of Public Finance, University of Pavia, Italy, “Mega-cities, Congestion and Pollution Control”. |
| <p>12.30pm to 2.00pm</p> | <p>Presentation of Kreiser Award for Environmental Taxation Lunch (Venue: Concorde III & Studio I)</p> |
| <p>2.00pm to 3.45pm</p> | <p>Concurrent Panel Session A - The Implementation of Environmental Taxation and other Economic Instruments</p> <p>Panel 1 – Environmental Taxation and the Construction Industry (Venue: Concorde I) Chairperson: Asst Prof Asanga Gunawansa, School of Design and Environment, NUS</p> <ol style="list-style-type: none"> 1. <u>Prof Nancy Shurtz</u>, School of Law, University of Oregon, USA, “The Role of Environmental Tax and Market Mechanisms in the Green Building Movement: The Case of Portland, Oregon”. 2. <u>Prof Patricia Blazey</u>, Head of Department of Business Law, Macquarie University, Australia, (jointly with Prof Peter Gillies), “Sustainable Housing in Australia – Fiscal Incentives and Mandatory Codes – Current Developments – Policies for the Future”. 3. <u>Assoc Prof Ann Hansford</u>, Department of Taxation, Bournemouth University, United Kingdom, (jointly with Ms Sara Williams and Dr Therese Woodward), “The UK Construction Industry and Climate Change Initiatives”. 4. <u>Mr Wayne Gumley</u>, Senior Lecturer, Department of Business Law and Taxation, Monash University, Australia “The Ecological Footprint of Australian Cities – The Role of Taxation Incentives”. <p>Panel 2 – Environmental Taxation and Water (Venue: Concorde II) Chairperson: Mr Hafiz Choudhury, International Tax and Investment Centre, Washington DC, USA</p> <ol style="list-style-type: none"> 1. <u>Ms Attiya Waris</u>, Asst Lecturer, School of Law, University of Nairobi, Africa, “Taxation, the Environment and State Responsibility: The Right of Access to Water Fit for Human Consumption”. 2. <u>Dr Usman Mustafa</u>, Chief of Training and Project Evaluation Division, Pakistan Institute of Development Economics, Pakistan, (jointly with Mirajul Haq and Iftikhar Ahmad), “Consumer Perceptions, Practices, Willingness to Pay and Analysis of Existing Laws for Safe Drinking Water of Abbottabad District, Pakistan”. <p>Panel 3 – Carbon Pricing and Emissions Trading (Venue – Studio II) Chairperson: Assoc Prof Shreekant Gupta, Lee Kuan Yew School of Public Policy, NUS</p> <ol style="list-style-type: none"> 1. <u>Ms Celeste M Black</u>, Senior Lecturer, Faculty of Law, University of Sydney, Australia, “Australia’s Proposed Emissions Trading Scheme: Aligning Tax |

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| | <p>Policy with the Goals of the AETS”.</p> <ol style="list-style-type: none"> 2. <u>Prof Li Zhiping</u>, School of Law, Sun Yat-Sen University, People’s Republic of China, “The Emissions Trading System under the Perspective of Enterprises”. 3. <u>Assoc Prof Karen Bubna-Litic</u>, Faculty of Law, Sydney University of Technology, “Understanding the Impacts of Carbon Pricing Mechanisms on Indigenous Communities”. 4. <u>Ms Chai Chunyan</u>, Graduate student, Bard College, New York, USA, “Understanding the Evolution of Sulfur Dioxide Pollution Control Policy in China: the Role and Efficacy of Market-based Instruments in Chinese Environmental Protection”. |
| 3.45pm – 4.00pm | Refreshments |
| 4.00pm to 6.00pm | <p>Concurrent Panel Session B</p> <p>Panel 4 – Environmental Taxation and Fuels (Venue – Concorde I) Chairperson: Prof Josè Marcos Domingues, Faculty of Law, State University of Rio de Janeiro, Brazil</p> <ol style="list-style-type: none"> 1. <u>Mr Bruno Cesar Campos</u>, Economist, Tax Department of PETROBRAS, Brazil, “Petroleum Royalties and Muncipal Development: The Case of Campos Basin in Brazil”. 2. <u>Prof Josè Marcos Domingues</u>, Faculty of Law, State University of Rio de Janeiro, Brazil, “Biofuels, Megacities and Green Taxes: The Why and Wherefore of Non-Fiscal Fuel Taxation”. 3. <u>Prof Abdul Haseeb Ansari</u>, International Islamic University, Malaysia, “Socio-Economic Perspectives of Withdrawal of Subsidy on Diesel and Petrol and Imposition of Energy Tax on Their Consumption: A Study with Special Reference to Malaysia”. 4. <u>Dr Paul Lee</u>, School of Business, Walsh University, USA, (jointly with Prof Rahmat Tavallali and Prof Bruce McClain), “The Impact of United States Qualified Transportation Fringe Benefits on the Environment and Taxpayer Behavior”. <p>Panel 5 – Water, Land and Pollution Management (Venue – Concorde II) Chairperson: Prof Euston Quah, Head, Dept of Economics, Nanyang Technological University, Singapore</p> <ol style="list-style-type: none"> 1. <u>Mr Mabasi Thadeus</u>, Asst Lecturer, Department of Environmental Law, Uganda Pentecostal University, Uganda, “The Efficacy of Environmental Taxation as a Mechanisms For Pollution Control in Ampala City”. 2. <u>Asst Prof Lourdes O Montenegro</u>, Department of Economics, University of San Carlos, Cebu, Philippines, (jointly with Margeret B Calderon, Institute of Renewable Natural Resources, University of Phlippines, Los Banos, Laguna, Philippines), “The Effectiveness of Monitoring and Enforcement of Water Pollution Control in the Philippines”. 3. <u>Assoc Prof Takehiro Usui</u>, Department of Economics, Soka University, Japan, “Does a Rebound Effect Exist in Solid Waste Management? – Panel Data Analysis of Unit-based Pricing”. <p>Panel 6 – Trade, Carbon Taxes and New Markets (Venue – Studio II) Chairperson: Emeritus Prof Lawrence Kreiser, Dept of Accounting, Cleveland</p> |

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| | <p>State University, USA</p> <ol style="list-style-type: none"> 1. <u>Emeritus Prof Lawrence Kreiser</u>, Department of Accounting, Cleveland State University, USA, (jointly with Mr Bill Butcher, Dr Hans Sprohge and Dr Julsuchada Sirisom), “Chinese Trade and Border Tax Adjustments based on Environmental Protection: The Impact of WTO Rules”. 2. <u>Dr Keith Kendall</u>, Senior Lecturer, School of Law, La Trobe University, Australia, “Exports and Imports under a Carbon Tax”. 3. <u>Mr Abhinav Maker</u>, Korea International Cooperation Agency Fellow, The International Tribunal for the Law of Sea, Germany, “To CAP or To TAX? – An Economic and Legal Argument in Favour of Carbon Taxes over a Cap on Trade to Combat Climate Change”. 4. <u>Mr Kip Werren</u>, Assoc Lecturer, School of Law, University of New England, Australia, (jointly with Prof Paul Martin), “The Use of Taxation Incentives to Create New Eco-Service Markets”. |
| 6.00pm | End of Day One |
| 7.00pm to 7.30pm | Cocktail drinks served at Concorde III |
| 7.30pm to 10pm | <p>Conference Dinner for participants hosted by International Tax Investment Center (ITIC), Washington DC, USA (Venue: Concorde Ballroom)</p> <p>Address by Mr Hafiz Choudhury, Program Advisor, International Tax Investment Center (ITIC) on behalf of Mr Dan Witt (President, ITIC)</p> |

Friday 7th November 2008

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| 8.30am to 10.15am | <p>Plenary Session II – The Use of Taxation in Transportation Management (Venue: Concorde Ballroom)</p> <p>Chairperson: Prof Koh Kheng Lian, APCEL, NUS</p> <ol style="list-style-type: none"> 1. <u>Assoc Prof Hope Ashiabor</u>, Department of Business Law, Macquarie University, Australia, (jointly with Rosiati Ramli), “Managing the Shift towards Sustainable Transportation in the Southeast Asian Countries: Do Taxes and other Market-based Instruments play a Role?” 2. <u>Prof Stephen Potter</u>, Dept of Design, Development, Environment and Materials, Faculty of Mathematics, Computing and Technology, The Open University, Walton Hall, England, “Using Environmental Taxation for Transport Demand Management”. 3. <u>Assoc Prof Lye Lin Heng</u>, Faculty of Law, National University of Singapore, Singapore, “Environmental Taxation in the Management of Transportation in Singapore”. |
| 10.15am to 10.30am | Refreshments |
| 10.30am to 12.15pm | <p>Concurrent Panel Session C</p> <p>Panel 7 – Transportation & Congestion Management I (Venue: Concorde I)</p> <p>Chairperson: Mr Jean-Francois Lefebvre, Lecturer, Department of Urban Studies at the Université du Québec à Montréal (UQAM), Canada</p> <ol style="list-style-type: none"> 1. <u>Prof Giorgio Panella</u>, Department of Public and Territorial Economics, University of Pavia, Italy, (jointly with Prof Andrea Zatti), “Traffic and Congestion Management in Italian Urban Areas: is Pricing Manoeuvring?” 2. <u>Mr Jean-Francois Lefebvre</u>, Lecturer, Department of Urban Studies, Université du Québec à Montréal (UQAM), Canada, (jointly with Prof Georges A Tanguay, Prof Florence Junca-Adenot and Mr Juste Rajaonson), “Rising to the |

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| | <p>Occasion: How Eco-Taxes in the Transportation Sector can create Double-Dividends for Quebec”.</p> <p>3. <u>Prof Ana Yábar</u>, Environmental Sciences Institute, Complutense University of Madrid, Spain, (jointly with Assoc Prof Pedro M Herrera, Assoc Prof Pablo Chico and Dr Carlos Rossello), “Taxes & Charges as a Means of Reducing Transport GHG Emissions in the Urban Environment Proposals for Megacities based on the Spanish Experience”.</p> <p>Panel 8 – Energy (Venue: Concorde II) Chairperson: Assoc Prof Hope Ashiabor, Department of Business Law, Macquarie University, Australia</p> <ol style="list-style-type: none"> 1. <u>Mr Kris Bachus</u>, Research Manager, Environmental Policy and Sustainable Development, University of Leuven, Belgium, “Environmentally Harmful Energy and Transport Subsidies”. 2. <u>Prof Mona L Hymel</u>, Faculty of Law, University of Arizona, USA, “Tax Credits for Nuclear Energy – To be or Not to be?” 3. <u>Ms Nur Cahyonowati</u>, Lecturer, Faculty of Economics, Diponegoro University, Indonesia, (jointly with Indah Susilowati), “Taxation in Indonesia and Environmental Costing: How Much Do Tax Payers Pay for Natural Exploration?” 4. <u>Assoc Prof Hope Ashiabor</u>, Department of Business Law, Macquarie University, Australia, “Environmentally Related Taxes in the Context of High Energy Prices: Challenges and Prospects for the Developing and Emerging Economies of Asia”. <p>Panel 9 – Case Studies I (Venue: Studio II) Chairperson: Assoc Prof Shreekant Gupta, Lee Kuan Yew School of Public Policy, NUS</p> <ol style="list-style-type: none"> 1. <u>Ms Gao Li</u>, PhD student, University of Hong Kong, Hong Kong SAR, “Exploring the ‘Real’ Obstacle to Implementation of Polluter Pays Principle: Taking Hong Kong Case as a Touchstone”. 2. <u>Prof Monika Boehm</u>, Faculty of Law, Philipps University, Marburg, Germany, “Environmental Impact of Local Taxes and Fees in Germany”. 3. <u>Assoc Prof Margaret Mc Kerchar</u>, School of Business Law and Taxation, University of New South Wales, Australia, “Fostering Green Innovation: Can Australia’s Research and Development Tax Concessions be More Effective?” 4. <u>Assoc Prof Shreekant Gupta</u>, Lee Kuan Yew School of Public Policy, National University of Singapore, Singapore, “Fiscal Implications of Environmental Taxes in India – An Exploratory Analysis”. |
| 12.15pm to 1.30pm | Lunch (Venue: Concorde III & Studio I) |
| 1.30pm to 3.00pm | <p>Concurrent Panel Session D</p> <p>Panel 10 – Transport & Congestion Management II (Venue: Concorde I) Chairperson: Assoc Prof Lye Lin Heng, APCEL, NUS</p> <ol style="list-style-type: none"> 1. <u>Mr John Mutua</u>, Assistant Policy Analyst, Infrastructure and Economic Services Division, Kenya Institute for Public Policy, Africa, (jointly with Prof Thomas Sterner, and Mr Martin Borjesson), “Transport Choice, Elasticity and Distributional Effects of Fuel Taxes in Kenya”. |

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| | <p>2. <u>Assoc Prof Maria Amparo Grau Ruiz</u>, Financial & Tax Law, Universidad Complutense de Madrid, Spain, “Spanish Municipal Parking Fees: the Case of Madrid”.</p> <p>3. <u>Prof Fumiaki Toudou</u>, Faculty of Economics, Niigata University, Japan, “Re-building Public and Private Transport and Budget Structure in Local Cities - Case Studies from Japan”.</p> <p>Panel 11 – Case-Studies II (Venue: Concorde II) Chairperson: Assoc Prof Jesuthason ‘Dodo’ Thampapillai, Lee Kuan Yew School of Public Policy, NUS</p> <p>1. <u>Ms Chen Ping</u>, LLM student, School of Law, Wuhan University, People’s Republic of China, (jointly with Prof Qin Tianbao), “The Environmental Fee for Tax Reform in China: A ‘One-size for all’ Solution for Environmental Problems?”</p> <p>2. <u>Ms Zhou Yanfang</u>, PhD student, School of Law, Wuhan University, People’s Republic of China, (jointly with Prof Wang Xi), “Greening the Taxation System and Reforming Pollution Fees in China”.</p> <p>3. <u>Prof Natalie P Stoianoff</u>, Director, Master of Industrial Property Programme, Faculty of Law, University of Technology, Sydney, Australia, (jointly with Andrew H Kelly), “Environmental Stewardship and the Philanthropic Sector: The Role of Taxation Policy”.</p> <p>Panel 12 – Case Studies III (Venue: Studio II) Chairperson: Dr Anselm Görres, Green Budget Germany</p> <p>1. <u>Dr Sven Rudolph</u>, Asst Prof, Department of Economics, University of Kassel, Germany, “Making the Patient Follow the Doctor’s Orders: Lessons from Implementing Market-Based Instruments in Germany”.</p> <p>2. <u>Mr Sunil Agarwal</u>, PricewaterhouseCoopers, Singapore, (jointly with Mr Killian Pattwell), “Tax and the Environment – a Threat or an Opportunity to Singapore’s Competitiveness?”</p> <p>3. <u>Mr Ronald Kaggwa</u>, Environment Economist, National Environment Management Authority, Uganda, “The Impacts of Fiscal Policies and Market-based Instruments (Uganda)”.</p> <p>4. <u>Ms Lalin Kovudhikulungsri</u>, Graduate Student, Institute of Air and Space Law, McGill University, Canada, (jointly with Ms Krittika Lertsawat), “Legal Aspects of Aircraft Noise Charges Mechanisms in a Developing Country – A Case Study for Noise Charges in Suvarnabhumi Airport, Thailand”.</p> |
| 3.00pm to 3.15pm | Refreshments |
| 3.15pm to 4.30pm | <p>Plenary Session III (Venue: Concorde Ballroom) Chairperson: Prof Janet Milne, Vermont Law School, USA</p> <p>1. Keynote speaker – <u>Prof Akio Morishima</u>, Special Research Advisor, Institute for Global Environmental Strategies (IGES), Japan “Emission Trading System and Environmental Tax as a Policy Measure to Realize Low Carbon Society”.</p> <p>2. <u>Assoc Prof Jesuthason ‘Dodo’ Thampapillai</u>, Lee Kuan Yew School of Public Policy, National University of Singapore, Singapore, “Environmental Taxes, Cumulative Pollution Loads and Fiscal Balance”.</p> <p>3. <u>Prof Roberta Mann</u>, Faculty of Law, Widener University, USA, “Crouching Lobbyist, Hidden Subsidy? How to Overcome Politics and Find Our Green</p> |

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| | Destiny”. |
| 4.30pm to 5.15pm | Plenary Session IV - Reflections and Comments (Venue: Concorde Ballroom) Chairperson: Prof Janet Milne, Vermont Law School, USA Panelists – Mr Chas Roy-Chowdhury; Mr Hafiz Choudhury; Dr Anselm Görres; Emeritus Prof Lawrence Kreiser; Prof Koh Kheng Lian; Prof Nicholas Robinson and Assoc Prof Jesuthason ‘Dodo’ Thampapillai |
| 5.15pm | Concluding Comments (Venue: Concorde Ballroom) Prof Janet Milne, Vermont Law School, USA: Announcement for the 10th Global Conference on Environmental Taxation, Lisbon, Portugal Closing Remarks |
| 5.30pm | Conference Closes |

Note: The speakers, titles of papers and order of speakers are subject to change.

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