



M.Sc Environmental Management
National University of Singapore
Report for the Academic Year 2009-2010

M.Sc. Environmental Management

1. Introduction

The Master of Science (Environmental Management), or MEM, programme is a multi-disciplinary integrated programme that is hosted by the School of Design and Environment (SDE), National University of Singapore. It aims to provide graduate-level education in environmental management for senior and mid-level managers and professionals.

The MEM programme is the only academic programme in NUS that is jointly mounted by seven faculties and schools in the university. The supporting faculties/schools are: Faculty of Arts and Social Sciences, School of Design and Environment (SDE), Faculty of Law, Faculty of Engineering, Faculty of Science, NUS Business School, and the Yong Loo Lin School of Medicine. SDE, as host of the programme, administers the programme and co-ordinates the curriculum and its delivery. The Director of the programme is from SDE. The other faculties contribute faculty members to teach, supervise dissertations and conduct seminars.

The programme has had a Memorandum of Understanding (MOU) with Yale University's School of Forestry and Environmental Studies, the oldest school on the environment in the US, since 2001. The MOU provides for staff exchange, and each year, a faculty member from Yale teaches the core module Business and the Environment at NUS, while one or more professors from NUS teach at the Yale School. Another MOU was signed with Duke University's Nicholas School of the Environment and Earth Sciences in March 2009.

Graduates from the MEM programme have gone on to take up positions in government agencies and the private sector, as well as non-governmental organizations in Singapore and abroad. A significant number of the graduates have proceeded to do doctoral studies at the NUS and other reputable universities.

2. Advisory Committee Members

The programme has a distinguished panel of advisors. The Advisory Committee, shown in Table 1, is chaired by Professor Tommy Koh, Ambassador-at Large.

Table 1 Members of MEM Advisory Committee

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| <ul style="list-style-type: none"> • Prof James Gustave Speth
Former Dean, School of Forestry and Environmental Studies
Yale University, USA | <ul style="list-style-type: none"> • Mr. Warren Fernandez, Regional Director, Communications Strategy Asia Pacific, Shell Eastern Petroleum (Pte) Ltd, Singapore |
| <ul style="list-style-type: none"> • Prof Jack L Knetsch
Professor Emeritus, Economics and Resource Management, Simon Fraser University, Canada | <ul style="list-style-type: none"> • Mr. Kwek Leng Joo, Managing Director, City Developments Limited, Singapore |

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| <ul style="list-style-type: none"> • Prof Nicholas A Robinson
Gilbert & Sarah Kerlin Distinguished
Professor of Environmental Law, Pace
University, USA
Former Chair, IUCN Academy of
Environmental Law • Mr. Lee Tzu Yang
Chairman, Shell Companies in Singapore • Mr Edwin Khew
Chairman, Sustainable Energy
Association of Singapore, CEO, IUT
Global Pte Ltd, former Nominated
Member of Parliament • Mr. Ng Lang, Chief Executive Officer,
National Parks Board, Singapore | <ul style="list-style-type: none"> • Mr. Andrew Tan, Chief Executive Officer,
National Environment Agency, Ministry
of Environment and Water Resources,
Singapore • Mrs. Kirtida Mekani, Director
CIS Agrifest Pte Ltd, Singapore • Dr Geh Min, Consultant, Eye Surgeon
former President, Nature Society
Singapore, former Nominated Member
of Parliament • Professor Tan Wee Hin, Leo
Department of Biological Science
Faculty of Science
National University of Singapore |
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3. Programme Management

Programme Management Committee

Each of the seven faculties and schools in NUS which contribute to the teaching of the programme is represented in the Programme Management Committee (PMC). In 2009-10, Assoc Prof Victor R. Savage was appointed as

Deputy Chairman of the PMC, and Dr Asanga Gunawansa and Dr Kua Harn Wei of SDE were appointed as members of the committee. The current membership of the PMC is shown below.

Chair:	Members:
Assoc Prof Lye Lin Heng Faculty of Law	<ul style="list-style-type: none"> • Assoc Prof Bai Renbi, Faculty of Engineering • Prof Chou Loke Ming, Faculty of Science • Assoc Prof Audrey Chia, NUS Business School • Prof David Koh, Yong Loo Lin School of Medicine • Dr Asanga Gunawansa, SDE • Dr Kua Harn Wei, SDE • Dr Malone-Lee Lai Choo, SDE
Deputy Chair: Assoc Prof Victor R. Savage Faculty of Arts and Social Sciences	Associate Member - Assoc Prof Jesuthason (Dodo) Thampapillai, Lee Kuan Yew School of Public Policy
Programme Director Prof George Ofori SDE	

Programme Director

The Programme Director is responsible for the co-ordination and continuous development, of the MEM programme. The Director oversees the administration of all aspects of the programme including outreach and collaboration with other

institutions. In January 2010, Professor George Ofori of SDE assumed the position of Programme Director. He took over from Dr Ong Boon Lay, also from SDE.

4. 2009-2010 Intake of Students

On 31 July 2009, the MEM programme welcomed its ninth intake of students. A smaller group of students was admitted in January 2010. The new students admitted to the programme are shown in Table 2.

Table 2 Students admitted to MEM programme, 2009-10

Name of Student	Nationality	Background	Work Experience
Full-time students			
Mr. Anindya Ray	Indian	Bachelor of Engineering (Environmental Engineering)	Special Project Coordinator
Ms. Chong Siet Ling	Malaysian	Bachelor of Engineering (Environmental Engineering)	Manager; Technologist
Ms. Das Raj Shree	Indian	Bachelor of Engineering (Electronics & Communications)	Service Executive; Technical Trainer
Mr. Jan Martin Hecker	German	Double Degree in International Management	-
Mr. Liankhanlun Ngaihte	Indian	Bachelor of Architecture	Architect
Mr. Ling Seow Kang	Singapore	Bachelor of Engineering	-
Ms. Nabanita Islam	Bangladeshi	Bachelor of Architecture	Lecturer; Junior Resident Architect
Mr. Saurabh Joshi	Indian	Bachelor of Social Science in Economics with Minor in Management	-
Mr. Somdeep Nandy	Indian	Bachelor of Architecture	Architect; Assistant Architect
Mr. Daniel Shaer Shepherd	English	Bachelor of Science, (Physics with Astrophysics)	Head Teacher, Director; English Teacher and cultural Liaison
Mr. Ram Bahadur Singh Maharjan	Nepalese	Master of Arts (Sociology), Bachelor of Science	Program Officer; Event Manager
Mr. Maghimai Raj Maghimai	Indian	Bachelor of Technology	Graduate Engineer
Marcus Arul Raj			
Ms. Loh Jiayi, Davina	Singaporean	Bachelor of Arts with Merit	Brand Manager; Account Manager
Ms. Chia E Ming, Jean	Singaporean	Bachelor of Arts	Manager; Asst Manager
Mr. Ashwinkumar Dakshinamurthi	Indian	Bachelor of Technology (Biotechnology)	-
Ms. Devika Araivindan	Indian	Bachelor of Engineering (Civil Engineering)	Associate Software Engineer
Ms. Tan Kaia Margit Davis	Norwegian	MSc (Molecular Neuroscience); MSc (Physics and Mathematics)	Research Officer; Clinical Research Associate
Ms. Amireeta Kumari	Pakistani	Bachelors in Business Administration	AIESEC Management Trainee
Part-Time Students			
Mr. Cheng Yue Pan	Singaporean	Bachelor of Engineering (Environmental Engineering)	Executive
Ms. Chng Wei Ping, Michelle	Singaporean	Bachelor OF Science (Life Sciences)	Marine Biologist
Mr. Chua Hoe Guan	Singaporean	Bachelor of Science (Food Technology)	Manager

Mr. Kee Tuan Qiang	Singaporean	Bachelor of Engineering	Environmental Health Executive
Ms. Leong Li Sun	Malaysian	Bachelor of Science (Biological Science)	Assistant Research Officer
Mr. Neo Kay Hian	Singaporean	Bachelor of Engineering (Electrical Engineering)	Operation Engineer
Ms. Ong Liu Ching	Singaporean	Bachelor of Engineering	Production Control Engineer
Ms. Qian XueJia	Singaporean	Bachelor of Engineering (Electrical & Electronic Engineering),	Project Officer
Mr. Tang Kok Min	Singaporean	Bachelor of Science (Building)	Assistant Manager
Mr. Wong Chee Long	Singaporean	Bachelor of Science (Building)	Property Executive
Ms. Xin Jingjing	Singaporean	Bachelor of Social Sciences (Geography)	Principal Executive
Mr. Chew Keng Hui	Singaporean	Bachelor of Science (Building)	Estate Management Officer
Mr. Jens Helmut Veltmann	German	Bachelor of Business Administration	Organiser of the Clean Energy Expo
Ms. Tan Xiang Yan	Singaporean	Bachelor of Engineering	Environmental Health Executive
Mr. Loo Deliang	Singaporean	Bachelor of Social Science in Economics	Executive
Ms. Khoo Yuan Ling	Singaporean	Bachelor of Arts	Analyst
Mr. Abe Jacob	Singaporean	MBA (International Management); Bachelor of Science	Consultant, Business Sustainability Manager, National Director
Ms. Huang Jiefang Audrey	Singaporean	Bachelor of Engineering (Environmental Engineering)	Shipping Executive
Mr. Lee Kok Onn	Singaporean	Bachelor of Engineering (Electronics & Electrical Engineering)	Assistant Director, Design Engineer
Ms. Lim Chien Fang	Brunei	M.Sc (Management); Bachelor of Science	Senior Executive, Team Administrator
Mr. Lim Kok Ching	Singaporean	MBA (Technology); Bachelor of Business Administration (Hons)	Project Manager, Product Intern, Country Manager
Mr. Tai Benny	Singaporean	Master of Professional Accounting; Bachelor of Science (Economics); Chartered Financial Analyst	Snr Vice President, Snr Manager, Vice President, Vice President
Mr. Efsthios Giannouostas	Greek	MSc (Geoenvironmental Eng); Bachelor of Engineering (Environmental Eng)	Asst Manager, Environmental Engineer; Environmental Consultant



Short speech by Best Dissertation Award Winner, Ms G Kannagi



New Students on a fieldtrip to the Central Nature Reserve

5. Teaching

Core and Elective Modules

Students are required to read a total of seven core modules, which are taught by academic staff from the supporting schools. In addition, as the MEM is a multi-faculty program, students

can chose to take Elective modules from other faculties within NUS. For academic year 2009-2010, the core and elective modules shown in Table 3 were read by the MEM students.

Table 3 Core Modules, 2009-10

Core Module	Lecturer
LX5103 Environmental Law - Law Faculty	Assoc Prof Lye Lin Heng (Course Coordinator)
BL5102 Environmental Science - Faculty of Science	Prof Chou Loke Ming
ESE5901 Environmental Technology - Faculty of Engineering	Assoc Prof Liya E Yu
PP5269 Environmental Economics and Public Policy - Lee Kuan Yew School of Public Policy	Assoc Prof Jesuthason Thampapillai
DE5107 Environmental Planning - School of Design and Environment	Dr Malone-Lee Lai Choo
DE5106 Environmental Management and Assessment - School of Design and Environment	Mr Carsten Huttche
BX5101 Business and the Environment - Yale University School of Forestry and Environmental Studies; and SDE	Prof Marian Chertow (Yale) Ms Weslyne Ashton (Yale) Dr. Kua Harn Wei Mr Carsten Huttche



Prof Marian Chertow teaching via video-conferencing

Adjunct and Part-time Lecturers

To ensure that the strong academic content of the programme is complemented by the relevant practice and professional aspects, the programme engages qualified and experienced professionals in the field as adjunct faculty members or part-time teachers. Mr Carsten Huttche, Director of Enviropro Pte Ltd, was appointed as Adjunct Senior Lecturer to teach

DE5106 Environmental Management and Assessment. He also helped in the teaching of BX5101 Business and Environment.

Ms Wong Sheau Fong, Regional Operations Director (Planning, Design and Development Asia) of AECOM, was appointed a part-time teacher. She co-taught DE5107 Environmental Planning. Dr. Ho Hua Chew, a well-known environment advocate who used to teach in NUS at the Department of Philosophy, conducted a workshop on Environmental Ethics for the students, as he had done in previous years. He also contributed to the teaching of DE5107 Environmental Planning by leading the students on the ecological study of the planning site.

Yale University

As further manifestations of the implementation of the MOU with Yale University's School of Forestry and Environmental Studies, two faculty members of Yale, Prof Marian Chertow and Dr Weslynn Ashton taught most of the module, BX5101 Business and the Environment via video conferencing.

Assoc Prof Lye Lin Heng taught a course on Comparative Environmental Law at Yale University, together with Prof Nicholas Robinson of Pace University School of Law, who is a member of the MEM Advisory Committee.

Projects



One of the Environmental Master Plan prepared by the MEM students; AECOM prize winner of the Environmental Master Planning project

Efforts are made to engage students in 'real life' assignments so that they can contextualize the projects to the political, economic, social and cultural environments. Some examples of projects

undertaken in 2009-10 are now presented.

Environmental Science and Environmental Management and Assessment

As part of the project brief, the students were required to undertake an Environmental Impact Study of Pulau Hantu. Under the guidance of Professor Chou Loke Ming and Mr Carsten Huttche, the students attempted to assess a wide range of impacts on the marine environment and terrestrial biodiversity as well as other related issues.

Environmental Management and Assessment

Another group project under Environmental Management and Assessment involved a real life competition at the National University of Singapore Society (NUSS). Three teams of students undertook a professional carbon footprint for the NUSS.

Environmental Planning Project

In the environmental planning project for 2009-10, students undertook an 'actual' master planning project on a proposed development site in the Lim Chu Kang area to the North of Singapore. It is a site of 728 ha, bounded by Lim Chu Kang Road to the West, Neo Tiew Road to the East and South, and the Johore Straits to the North. The site encompasses the Sungei Buloh Wetland Reserve as well as the Sungei Krangi Nature Trail. In the light of the Concept Plan announcement, this hitherto less developed part of Singapore is likely to face development pressures for housing and related community amenities, recreation, as well as economic activities.

6. Dissertations and Study Reports

As a requirement of the programme, the MEM students must submit either a Dissertation (20,000 words) or a Study Report (10,000 words). The students' work on these important components of the MEM programme was supervised by faculty members from many departments across the

university. In 2009-10, the students undertook research on a wide range of topics for their. The Dissertation and Study Report topics studied in 2009-10, and the supervisors, are presented in Table 4.

Table 4 *Dissertation and Study Report topics studied in 2009-10*

Name of Student	Dissertation / Study Report Titles	Supervisor(s)
Anindya Ray	A Critical Review of IEA's World Energy Model	Assoc Prof Gupta Shreekant (Main); Dr Benjamin Sovacool (Co-Supervisor) Lee Kuan Yew School of Public Policy
Chia E Ming, Jean	Charting a Greener Course in Shipping - Incorporating Environmental Performance Indicators in a Tanker Pool System	Assoc Prof Audrey Chia NUS Business School
Chong Siet Ling	Moving Forward with Sustainable Food for a Better Planet: Issues and Approaches	Dr Benjamin K Sovacool Lee Kuan Yew School of Public Policy
Daniel Shaer Shepherd	Cooling Effect Comparison of Cool Roof and Green Roof	Prof Wong Nyuk Hien Department of Building School of Design and Environment
Das Raj Shree	Electronic Waste Management / What new technologies are available to make a golf course more environmentally responsible? Do these fixes always require a substantial initial investment or can some solutions be implemented relatively cheaply?	Mr Carsten Huttche Dean's Office School of Design and Environment
Jan Martin Hecker	The Sustainability of Singapore's traffic system – a model for worldwide megacities or a candidate for improvements?	Assoc Prof Lee Der Horng Department of Civil Engineering Faculty of Engineering
Liankhanlun Ngaihte	Big and Green Golf Course: Toward Sustainability in the 21st Century	Prof George Ofori Department of Building School of Design and Environment
Ling Seow Kang	A community based model for small scale urban organic farming and food waste management for more sustainable residential estates in Singapore	Dr Kua Harn Wei Department of Building School of Design and Environment
Loh Jiayi, Davina	The Environment and Public Perception	Prof Victor R. Savage Department of Geography, Faculty of Arts and Social Sciences
Loo Deliang	Developing a Campus Sustainability Index (CSI) for Large, Growing Asian Universities: Case Study of the National University of Singapore	Prof David Higgitt Department of Geography, Faculty of Arts and Social Sciences
Maghimai Raj Maghimai Marcus Arul Raj	Renewable Energies and Clean Development Mechanism	Dr. Asanga Gunawansa Department of Building School of Design and Environment
Nabanita Islam	Mitigating the Urban Heat Island Effect in Dhaka city: an approach towards Urban Built Form Or, Relationship between the Built Forms and the Energy Consumption in Residential Areas of Dhaka	Assoc Prof Wong Nyuk Hien Department of Building, School of Design and Environment

Ram Bahadur Singh Maharjan	The Potential Role of Water Hyacinth in Waste Water Treatment in Nepal	Prof Chou Loke Ming Department of Biological Science, Faculty of Science
Saurabh Joshi	Carbon Taxes and Tradable Permits: Economic Instruments for Reducing Carbon Dioxide Emissions	Assoc Prof Gupta Shreekant Lee Kuan Yew School of Public Policy
Somdeep Nandy	Urban sustainability indicators for Kolkata	Assoc Prof Dodo J Thampapillai Lee Kuan Yew School of Public Policy
Ang Zhi Qin@Ang Chee Khng, Kevin	Promoting Renewable Energy and Improving Energy Efficiency– An Assessment of Singapore’s Approach	Prof Farooq Shamsuzzaman (Main), Prof Neoh Koon Gee (Co-Supervisor) Department of Chemical and Biomolecular Engineering, Faculty of Engineering
Cheong Shew Chin	Micro-algae fuel and non-fuel products – a conceptual framework for Singapore	Assoc Prof Jeff Obbard Department of Environmental Science and Engineering, Faculty of Engineering
Ho Hai Wee	Electric Motor Vehicles the Way or “No Way”?	Assoc Prof Lee Der Horng Department of Civil Engineering Faculty of Engineering
Lim Bock Teck	Review On Green Mark Assessment Scheme in Singapore.	Assoc Prof Wong Nyuk Hien Department of Building, School of Design and Environment
Lim Hui Khian Karen	Comparative Analysis of management of visitor pressure in coastal parks	Prof Chou Loke Ming Department of Biological Science, Faculty of Science
May Yadana Aung	Assessment of Sustainable Cities	Prof Chou Loke Ming Department of Biological Science, Faculty of Science
Tan Puay Cheow	Recycling in Singapore - The Singapore Model: Strategies and Ways to Improve	Assoc Prof Lye Lin Heng Faculty of Law
Yong Kim Lian, Kelly	Study of the 3Rs Program/ Efforts in Schools in Singapore	Assoc Prof Victor Savage Department of Geography, Faculty of Arts and Social Sciences
Yu Zhen	A Study on Singapore’s recycling efforts	Assoc Prof Lye Lin Heng Faculty of Law

7. Collaboration with Industry

Shell Companies in Singapore

The Shell Companies in Singapore continue to provide strong support for the MEM programme. As in previous years, the organization provided a grant for prizes, research, publications and bursaries. It sponsored the Shell Gold Medal and Prize which is awarded to the top graduating student, and the Best Dissertation Award which is given to the graduate with the highest mark for the Dissertation.

Through the years, Shell’s bursaries have supported many of the MEM students financially. The students who were granted bursaries in 2009-10 were:

- Mr. Saurabh Joshi (from India)
- Mr. Anindya Ray (from India)
- Ms. Das Raj Shree (from India)
- Mr. Liankhanlun Ngaihte (from India)
- Mr. Maghimai Marcus Arulraj (from India)
- Mr. Somdeep Nandy (from India).

In addition, Shell also provides internships to students at its refinery facilities at Pulau Bukom.

Other Private Companies and NGOs

Many other private companies and government bodies also participated in the MEM programme in 2009-10 by allowing their senior personnel to speak at seminars or deliver guest lectures; enabling students to undertake site visits to, and

case studies on, their establishments; as well as providing internships to students. These companies included Shell, TRANE Singapore, Asia Turfgrass Center, Singapore Compact for CSR, National Parks Board, and Singapore Green Building Council.

City Developments Ltd

In July 2010, the MEM programme concluded an MOU with City Developments. The agreement provides for collaboration in research and other activities of mutual interest.

Each year, agencies such as the National Parks Board and National Environment Agency, and private organizations such as Jebsen and Jessen (SEA) Pte Ltd, and Shell Companies in Singapore admit students as interns. The internship programme is not a pre-requisite for graduation; it was implemented to provide opportunities for students to gain environmental management experience in Singapore before graduating from the programme. Typically, students are attached to the organizations for a period of two to three months.

Internships

8. MEM Seminar Series, Workshops and Field Trips AY2009-2010

Seminar Series

The MEM programme organizes a Seminar series to explore various environmental issues from a global and inter-disciplinary perspective. Local and overseas speakers are invited to speak at these seminars. MEM alumni also use this forum to

share their work experience with current students. These seminars are usually open to the public as the programme's contribution to environmental education and awareness building in Singapore. The seminars presented in 2009-10 are shown below.

Seminars

- **"Caring for the Environment - Story of a Rich Grandfather and CPR Economics"**
Attorney Antonio A. Oposa Jr, Philippines, Law of Nature Foundation.
- **"Large, Measurable, State of the Art, Long Term Guaranteed Energy Efficiency for Buildings: Does Anyone Want It?"**
Mr Lee Eng Lock, General Manager, TRANE Singapore
- **"The Food's Professional Dilemma - a healthy diet or a healthy profit?"**
Prof Albert Ernest Joseph McGill, Visiting Professor, Department of Chemistry, Faculty of Science, National University of Singapore
- **"The Criticality of Resource Reuse and Recycling in Indian Industry"**
Dr Weslyne Ashton, Associate Research Scientist, Lecturer and Director, Program on Industrial Ecology in Developing Countries, Yale University, School of Forestry and Environmental Studies, USA
- **"Cuba - A Model of Socio-Eco Sustainability?"**
Ms Betty L Khoo-Kingsley, Eco-educator, Researcher, Writer and Presenter
- **"Responsible Business, Social Responsibility for Sustainable Development"**
Mr Thomas Thomas, Executive Director, Singapore Compact for CSR
- **"Green Gold Management in Asia: Grass, Money, and the Environment"**
Dr Micah Woods, President and Research Director, Asian Turfgrass Center,

Comment [L1]: Please improve formatting

- **"Environmental Sustainability versus Economic Sustainability"**
Dr Asanga Gunawansa, Assistant Professor, Department of Building, School of Design and Environment
- **"Recycling - Recent Developments, Issues and Challenges"**
Dr Peck Thian Guan, Director, Office of Safety, Health and Environment, National University of Singapore And Member of the Economic Research Institute of Asean and East Asia 3R Working Group
- **"Greening the Environment."**
Mr Ng Lang, Chief Executive Officer, National Parks Board, Singapore
- **"Shell Energy Dialogue: The Transition to a New Energy Future"**
Mr Warren Fernandez, Regional Director (Asia Pacific), Global Communications Strategy, Shell
- **"Greening A Global City: Successes, Limitations and Challenges to Singapore's Environmental Policy"**
Dr Geh Min, Mt. Elizabeth Medical Centre, former President, Nature Society Singapore and former Nominated Member of Parliament, Singapore

Field Trips and Visits to Government Agencies

A number of field trips were organized for the MEM students in 2009-10. They included a visit to the Central Nature Reserve; a trip to Pulau Hantu as part of the requirements for the project on BL5102 Environmental Science and DE5106

Environmental Management and Assessment; and a visit to HP Singapore, and ORIGIN Exterminators Pte Ltd as part of the project requirements for Environmental Management and Assessment.



Guided field trip to Central Nature Reserve by Ms Karen Teo (NParks)



Visit to Pulau Hantu as part of the project assignment for BL5102 Environmental Science and DE5106 Environmental Management and Assessment

9. Student Accomplishments

Mr Poh Wei Leong

Mr Poh Wei Leong (from Singapore) was the recipient of the Shell Medal and Prize for AY 2008-2009 for being the top graduating student in the year.

Mr Raj Ittoo Girish and Ms Kannagi G.

Mr Raj Ittoo Girish (from Mauritius) and Ms Kannagi G. (from Singapore) were recipients of the Shell Best Dissertation Award in the academic year. Their dissertations were entitled: "An Integrated Coastal Management Strategy for the Island of Mauritius" and "Thermal Performance of Vertical Greenery Systems in the Tropical Environment" respectively.



Ms Kannagi G receiving her award from Mr. Donny Ching

10. Workshops Conducted for Industry Partners in 2009-2010

SEI-MEM Executive Programme

The MEM programme has been conducting many Executive Programmes for ministries, departments and agencies in Singapore. These include the Ministry of Environment and Water Resources, National Environmental Agency (NEA) and Public Utilities Board (PUB).

In 2005, the MEM Program signed the Singapore Environment Training Programme MOU with the Singapore Environment Institute with the objective of establishing co-operation in the provision of capacity building and training on environmental issues.

In 2009-2010, a five-day executive workshop was conducted. The subjects covered included Global Issues on the Environment, Environmental Technology, Environmental Law; Environmental Science; Environmental Monitoring; Environmental Economics and Public Policy; Business and the Environment; Environmental Management and Assessment; Environmental Planning; and Environmental Ethics.

The faculty members who taught in the workshop were: Dr Ong Boon Lay, Prof Chou Loke Ming, Assoc Prof Lye Lin Heng, Prof Koh Kheng Lian, Assoc Prof Bai Renbi, Assoc Prof Victor Savage, Prof. Dodo Thampapillai, Dr Kua Harn Wei, Mr Carsten Huttche, Dr Malone-Lee Lai Choo and Dr Ho Hua Chew.

Ministry of Foreign Affairs, Singapore

The MEM programme was approached by the Ministry of Foreign Affairs to prepare and present a course on climate change from a multi-disciplinary perspective for its senior officers.

The faculty members who taught on this course were: Assoc Prof Jeffrey P. Obbard (Faculty of Engineering); Asst Prof Lim Lei Theng (Faculty of Law); and Assoc Prof Jesuthason Thampapillai (Lee Kuan Yew School of Public Policy).

11. Promotion of Programme

The MEM programme is actively marketed through a frequently updated website, distribution of printed publicity materials, and promotional trips to the countries which form the main source of its students. The activities during these trips include presentations at universities, meetings with government officials and senior management of agencies and other major organizations

involved in environmental management. Over the years, promotional trips to Indonesia, Malaysia, the Philippines and Vietnam have been undertaken. In 2009-10, Dr Asanga Gunawansa visited Sri Lanka, and Assoc Prof Victor R. Savage visited Vietnam to promote the MEM programme.

12. Graduates of 2009-2010

The names and countries of origin of the MEM students who graduated from the programme in 2009-10 are shown in Table 5.

Table 5 List of graduates from MEM programme in 2009-10

Name	Country of Origin
Mr Saurabh Joshi	India
Ms Maria Martha Cecilia G Fernandez	Philippine
Mr Sathyanarayanan Srinivasan	India
Mr Gan Chin Yean	Singapore
Ms Carrie Wallace Candeto	America
Ms Chamila Darshani Weerathunghe Arach Chige	Sri Lanka
Ms Chio Kaiyun	Singapore
Mr Lim Bock Teck	Singapore
Ms Wong Yuet Tin	Singapore
Ms Sowmya Duggappa Gowda	India
Ms Chong Siet Ling	Malaysia
Mr Jan Martin Hecker	German
Mr Daniel Shaer Shepherd	England
Mr Ishwari Prasad Poudel	Nepal
Ms Mokshana Nerandika Wijeyeratne	Sri Lanka
Ms Jaseema Jaffarullah	India
Mr Chua Hong Hui	Malaysia
Ms Wong Hua Lin, Corine	Singapore
Ms. Koh Quee Hua	Singapore
Ms. May Yadana Aung	Thailand
Mr. Anindya Ray	India
Mr. Betrice Jeba Dare	India
Mr. Liankhanlun Ngaihte	India
Mr. Somdeep Nandy	India

