

# International Conference on Climate Change



16<sup>th</sup> – 17<sup>th</sup> February, 2017, Colombo, Sri Lanka

“Climate Change: Facing the challenge beyond COP21”



## TECHNICAL PROGRAM

DAY 01 - THURSDAY, 16<sup>TH</sup> FEBRUARY 2017

### INAUGURATION SESSION

Thursday, 16<sup>th</sup> February 2017 | 08.00 to 10.05 (The Victoria Hall)

08.00 – 08.45	<b>Conference Registration</b>
09.00 – 09.15	<b>Lighting of the Oil lamp and National Anthem</b>
09.15 – 09.25	<b>Welcome Address by the Program Chair</b> Mr. Isanka P. Gamage ( <i>Co-Founder &amp; Managing Director - The International Institute of Knowledge Management (TIKM), Sri Lanka</i> )
09.25 – 09.45	<b>Speech by the Conference Chair</b> Dr. Erandathie Lokupitiya ( <i>Department of Zoology and Environment Sciences, University of Colombo, Sri Lanka</i> )
09.55 – 10.05	<b>Speech by</b> Ms. H.N.K.T Dulani ( <i>Assistant Director, Climate Change Secretariat, Ministry of Mahaweli Development and Environment</i> )
10.05 – 10.20	<b>Conference Photograph</b>
10.20 – 10.40	<b>Morning Refreshments</b>

### KEYNOTE ADDRESS

Thursday, 16<sup>th</sup> February 2017 | 10.45 to 11.25 (The Victoria Hall)

10.45 – 11.25	<b>“Carbon Cycle Feedback : A Primary Source of Uncertainty in 21<sup>st</sup> Century Climate Change”</b> Dr. A. Scott Denning ( <i>Professor of Atmospheric Science, Colorado State University, USA</i> )
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### TECHNICAL SESSION 01: MEASUREMENTS AND MODELING IN RELATION TO GREENHOUSE GAS EXCHANGE AND FUTURE CLIMATE PREDICTION

Chaired by Dr. A. Scott Denning (*Professor of Atmospheric Science, Colorado State University, USA*)

Thursday, 16<sup>th</sup> February 2017 | 11.30 to 13.15 (The Victoria Hall)

11.30 – 11.45	<b>Modelling Soil Carbon in Ireland Using Modified Extreme Weather Data</b> Mr. Padraig Flattery ( <i>Maynooth University, Ireland</i> )
11.45 – 12.00	<b>Evaluation of Downscaled CMIP5 Climate Models to Select Best Models to Develop Future Climate Scenarios for Sri Lanka</b> Mr. H. M. R. C. Herath ( <i>Department of Meteorology, Sri Lanka</i> )
12.00 – 12.15	<b>Future Climate Projections for Annual and Seasonal Rainfall in Sri Lanka Using CMIP5 Models</b> Ms. D. W. T. T. Darshika ( <i>Department of Meteorology, Sri Lanka</i> )
12.15 – 12.30	<b>Estimation of Asian and Global Carbon Fluxes Using Maximum Likelihood Ensemble Filter (MLEF)</b> Mrs. K. M. P. Perera ( <i>University of Sri Jayewardenepura, Sri Lanka</i> )

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12.30 – 12.45	<b>Relationship between CO<sub>2</sub> Concentration and NDVI Based on Satellite Observations over IRAN</b> Dr. Samereh Falahatkar ( <i>Natural Resources and Marine Sciences Faculty, Tarbiat Modares University, Iran</i> )
12.45 – 13.00	<b>Effect of Aerosols on Ocean Parameters in India by Using Remote Sensing Applications</b> Mr. Sandip Navnathrao Palve ( <i>M.I.T, India</i> )
13.00 – 13.15	<b>Detection of Optical Motion of Clouds Using Linear Symmetry</b> Mr. Sudarshana Ramanayake ( <i>Advanced Technological Institute, Sri Lanka</i> )
13.15 – 14.00	<b>Networking lunch</b>

## TECHNICAL SESSION 02: CLIMATE CHANGE, AGRICULTURE AND FOOD SECURITY

Chaired by Dr. Erandathie Lokupitiya (*Department of Zoology and Environment Sciences, University of Colombo, Sri Lanka*)

Thursday, 16<sup>th</sup> February 2017 | 14.00 to 15.15 (The Winchester Hall)

14.00 – 14.15	<b>Best Management Practices with Low Greenhouse Gas Emissions for Salinity Management in Paddy Soils of South Asia</b> Dr. E. Lokupitiya ( <i>University of Colombo, Sri Lanka</i> )
14.15 – 14.30	<b>Towards Phosphorus and Climate Smart Agriculture (PACSA) in Sri Lanka</b> Dr. Dana Cordell, Dr. Brent Jacobs ( <i>Institute for Sustainable Futures, University of Technology Sydney, Australia</i> ) & Prof. Mohomad Esham ( <i>Sabaragamuwa University, Sri Lanka</i> )
14.30 – 14.45	<b>Assessment of the Impact of Extreme Weather Events on Coconut Productivity in Selected Locations of Sri Lanka</b> Ms. Charuni Pathmeswaran ( <i>University of Colombo, Sri Lanka</i> )
14.45 – 15.00	<b>Seeds for Needs: Revival of Traditional Varieties and Landraces for Climate-Resilient Agriculture</b> Dr. Neeraj Sharma ( <i>Bioversity International, India</i> )
15.00 – 15.15	<b>Adoption of Conservation Tillage as a Climate Change Mitigation and Resilience Enhancement Factor in Agricultural Sector: A Case Study from Fars Province, Iran</b> Dr. Afshin Marzban ( <i>Ramin Agriculture and Natural Resources University of Khuzestan, Iran</i> )

## WORKSHOP ON THE “ROLE OF INDUSTRY IN CLIMATE CHANGE MITIGATION”

Conducted by Dr. A. Scott Denning (*Professor of Atmospheric Science, Colorado State University, USA*) & Mr. V. R. Sena Peiris (*Visiting Lecturer, Mechanical Engineer, Director/CEO – NCPC, Council Member – APRSCP, IEPSL, Sri Lanka*)

Thursday, 16<sup>th</sup> February 2017 | 15.20 to 17.15 (The Victoria Hall)

15.20 – 15.25	<b>Introduction</b>
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15.25 – 15.45	<b>“Climate Change Mitigation and Adaptation: Challenges and Opportunities” by Dr. A. Scott Denning</b> <i>(Professor of Atmospheric Science, Colorado State University, USA)</i>
15.45 – 15.55	<b>Q &amp; A Session</b>
15.55 – 16.10	<b>Speech by Dr. T. L. Pradeep</b> <i>(JLanka Technologies (Pvt) Ltd, Sri Lanka)</i>
16.10 – 16.25	<b>Evening Refreshments</b>
16.25 – 16.45	<b>Speech by Mr. V. R. Sena Peiris</b> <i>(Visiting Lecturer, Mechanical Engineer, Director/CEO – NCPC, Council Member – APRSCP, IEPSL, Sri Lanka)</i>
16.45 – 16.55	<b>Q &amp; A Session</b>
16.55 – 17.05	<b>“Evaluation of the Environmental and Economic Performance of three Selected Textile Factories in Biyagama Export Processing Zone” by Ms. B. K. Shyamika Shivanthi</b> <i>(University of Colombo, Sri Lanka)</i>
17.05 – 17.15	<b>Conclusion</b>

19.00 Onwards	<b>Conference Networking Dinner with Cultural Show @ Raja Bojun hosted by TIIMM</b>
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## DAY 02 - FRIDAY, 17<sup>TH</sup> FEBRUARY 2017

### **TECHNICAL SESSION 03: CLIMATE CHANGE IMPACTS ON FORESTS, BIODIVERSITY CONSERVATION AND NATURAL RESOURCE MANAGEMENT**

Chaired by Prof. S. W. Kotagama *(University of Colombo, Sri Lanka)*

Friday, 17<sup>th</sup> February 2017 | 08.30 to 10.00 (The Victoria Hall)

08.30 – 08.45	<b>Vulnerability of the Aquifer Adjacent to Vadamaradchchi Lagoon, Jaffna Peninsula Using Drastic Index</b> Mr. K. Gunaalan <i>(University of Jaffna, Sri Lanka)</i>
08.45 – 09.00	<b>Climate Change Impact on Productivity and Carbon Sink of Russian Forests</b> Ms. Nataliya Malysheva <i>(Russian Research Institute of Silviculture and Mechanization of Forestry, Russia)</i>
09.00 – 09.15	<b>Soil Carbon Stock Changes as Affected by Forest Land Conversion to Energy Crop (Sweet Sorghum) and by Biochar Application in Thailand</b> Ms. Duangrat Suekhum <i>(The Joint Graduate School of Energy and Environment, King Mongkut's University of Technology Thonburi, Thailand)</i>
09.15 – 09.30	<b>Integrating Bird Indicator Species and REDD+ for Conservation Priority in Protected Area</b> Dr. Nurul L. Winarni <i>(University of Indonesia, Indonesia)</i>

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09.30 – 09.45	<b>Disappearance of Tropical Rainforest on the Island of Borneo in Response to Climate Change: Is there any Evidence from Long-Term in Situ Observations?</b> Prof. Kazimierz Becek ( <i>Bulent Ecevit University, Turkey</i> )
09.45 – 10.00	<b>Climate Change: Biodiversity Conservation with Reference to Thar Desert</b> Ms. Hansa Meena ( <i>Rajasthan University, India</i> )
10.00 – 10.20	<b>Morning Refreshments</b>

## KEYNOTE ADDRESS

Friday, 17<sup>th</sup> February 2017 | 10.20 to 11.00 (The Victoria Hall)

10.20 – 11.00	<b>“Land Management and Climate Change Co-Benefits; Accounting Tools and the Carbon Benefits Project”</b> Dr. Eleanor Milne ( <i>Affiliate Scientist, University of Leicester, United Kingdom and Colorado State University, USA</i> )
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## TECHNICAL SESSION 04: CLIMATE CHANGE: IMPACTS ON WATER, SANITATION AND LIVELIHOODS IN THE DEVELOPING WORLD AND PREPAREDNESS

Chaired by Prof. Saroj Jayasinghe (*Faculty of Medicine, University of Colombo, Sri Lanka*)

Friday, 17<sup>th</sup> February 2017 | 11.05 to 12.50 (The Victoria Hall)

11.05 – 11.20	<b>Sea Level Rise: Its Impacts on Developing Countries</b> Ms. Aparajita Alam ( <i>University of Southern Queensland, Australia</i> )
11.20 – 11.35	<b>The Impact of Drought on Water Supply and Alternative Measures Used to Enhance Water Security in Rural Communities of Limpopo Province, South Africa</b> Dr. Lutendo Sylvia Mudau ( <i>Tshwane University of Technology, South Africa</i> )
11.35 – 11.50	<b>The Production of Emergency Food Reserve (EFR): Community – Government - Private Sector Cooperation Program in Calamity - Prone Areas (Community Disaster Preparedness)</b> Ms. Lourdes S. Montevirgen ( <i>Industrial Technology Development Institute, Philippines</i> )
11.50 – 12.05	<b>Contextualization and Localization: Acceptability of the Developed Activity Sheets in Science 5 Integrating Climate Change Adaptation in the District of Pililla School Year 2016 - 2017</b> Mr. Kim Alvin C. De Lara ( <i>Niogan Elementary School, Philippines</i> )
12.05 – 12.20	<b>Few Climate Change Studies Assessment across the Three Continents</b> Mr. Ganesh D. Kale ( <i>Sardar Vallabhbhai National Institute of Technology, India</i> )
12.20 – 12.35	<b>The Onset and the Withdrawal of the Rainy Season in Thailand, and Their Effect on Oyster Farming</b> Dr. Panu Trivej ( <i>Kasetsart University, Thailand</i> )
12.35 – 12.50	<b>Impacts of Climate Change on Irrigation Water Demands and Groundwater Resources</b> Prof. Jahangir Abedi Koupaei ( <i>Isfahan University of Technology, Iran</i> )

12.50 – 13.50	<b>Networking lunch</b>
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## POSTER SESSION

Chaired by Dr. Erandathie Lokupitiya (*Department of Zoology and Environment Sciences, University of Colombo, Sri Lanka*)

Friday, 17<sup>th</sup> February 2017 | 13.50 to 14.35 (The Victoria Hall)

13.50 – 14.35	<b>Analysis of Climate Change Impacts on Cashew Yield in Sri Lanka</b> N. Balasuriya ( <i>University of Colombo, Sri Lanka</i> )
	<b>Influence of Environmental Factors on Population Distribution of Three Commonly Occurring Species of Tiger Beetles (Coleoptera : Cicindelidae) in Sri Lanka</b> Mr. Agasthya Thotagamuwa ( <i>University of Colombo, Sri Lanka</i> )
	<b>Impact of Climate Change on Iraq and Future National Resilient Thinking (Mesopotamian Marshlands as a Case Study)</b> Mr. Nadheer Abood Fazaa ( <i>Newcastle University, United Kingdom</i> )
	<b>Effects of Topography and Microclimatic Variables on Nematode Abundance in a High Grown Tea Plantation of Nawalapitiya</b> Ms. Kavindya Thathsarani Kosvinna ( <i>University of Colombo, Sri Lanka</i> )
	<b>Grow Green for a Smarter Sustainable Safer and Healthier Tomorrow</b> Ms. Duppala Praharshita ( <i>St. Francis Degree College For Women, India</i> )
	<b>Current Status of the Seagrass of Sri Lanka and Their Research Needs Related to Climate Change</b> U. S. C. Udagedara ( <i>Blue Resources Trust, Sri Lanka</i> )
	<b>Climate Change and Livestock Production: A Review with Emphasis on Dairy Farming in Sri Lanka</b> Mr. C. N. S. Gamage ( <i>Ministry of Rural Economic Affairs, Sri Lanka</i> )
	<b>Impact of Changed Rainfall Patterns due to Climate Change and Usage of Available Weather Information by Communities Who Face Human Elephant Conflict (HEC) in Udawalawe, Sri Lanka</b> Mr. N. M. K. C. Premarathne ( <i>Institute of Policy Studies of Sri Lanka, Sri Lanka</i> )

## TECHNICAL SESSION 05: CLIMATE CHANGE ADAPTATION, MITIGATION, AND SUSTAINABLE DEVELOPMENT

Chaired by Dr. Eleanor Milne (*Affiliate Scientist, University of Leicester, United Kingdom and Colorado State University, USA*)

Friday, 17<sup>th</sup> February 2017 | 14.35 to 16.05 (The Victoria Hall)

14.35 – 14.50	<b>Comparison of Energy Usage and Greenhouse Gas Emissions Associated with Tea and Rubber Manufacturing Processes in Sri Lanka</b> J. Vidanagama ( <i>University of Colombo, Sri Lanka</i> )
14.50 – 15.05	<b>Barriers to Transformative Adaptation: Responses to Flood Risk in Ireland</b> Mr. Darren Clarke ( <i>Maynooth University, Ireland</i> )
15.05 – 15.20	<b>Livestock Production amongst Climate Change: The Sri Lankan Dilemma</b> Mr. C. N. S. Gamage ( <i>Ministry of Rural Economic Affairs, Sri Lanka</i> )

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15.20 – 15.35	<b>Shrimp Farmers’ Competence and Training Needs on Climate Change Adaptation: A Case Study from Southwest Coastal Bangladesh</b> Mr. Md. Ali Akber ( <i>Khulna University, Bangladesh</i> )
15.35 – 15.50	<b>Strategic Communication Program to Raise Awareness About The Importance of Participatory Afforestation and Reforestation Activities to Mitigate Climate Change Risks in Bangladesh</b> Mr. Md. Shahabuddin ( <i>Bangladesh Center for Communication Programs (BCCP), Bangladesh</i> )
15.50 – 16.05	<b>Branding Gender in Climate Change Adaptation Policies in Bangladesh</b> Ms. Sadia Binte Rezaq ( <i>Independent Researcher, Bangladesh</i> )
16.05 – 16.25	<b>Evening Refreshments</b>

Friday, 17<sup>th</sup> February 2017 | 16.25 to 17.00 (The Victoria Hall)

16.25 – 16.50	<b>Conference Concluding and Awarding Ceremony</b>
16.50 – 17.00	<b>Vote of Thanks by</b> Mr. Oshadee Withanawasam ( <i>Co-Founder, CEO &amp; Chairman - The International Institute of Knowledge Management (TIKM), Sri Lanka</i> )

## Saturday, 18<sup>th</sup> February 2017 | Post Conference Tour (Optional)

### ICCC 2017 Conference Chair

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**Dr. Erandathie Lokupitiya**

(Department of Zoology and Environment Sciences,  
University of Colombo, Sri Lanka)

### Evaluation Panel

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- Dr. Eleanor Milne - Dr. Eleanor Milne (*Affiliate Scientist, University of Leicester, United Kingdom and Colorado State University, USA*)
- Ms. Anoja Herath - Director-Development, Ministry of Agriculture, Sri Lanka
- Prof. Chandana Jayarane - University of Colombo, Sri Lanka.
- Prof. Deepthi Wickremasinghe - Department of Zoology, University of Colombo, Sri Lanka
- Prof. L. Manawadu - University of Colombo, Sri Lanka
- Dr. Inoka Suraweera - Ministry of Health, Sri Lanka
- Mr. Anura Ranwala - Coastal Inland Water and Environmental Consultant

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