

"Climate change and global sustainability: Action for bridging the gap"

15<sup>th</sup> -16<sup>th</sup> February 2018, Colombo, Sri Lanka.

#### **TECHNICAL PROGRAM**

### DAY 01 - THURSDAY, 15<sup>TH</sup> FEBRUARY, 2018

#### **INAUGURATION SESSION**

Thursday, 15<sup>th</sup> February 2018 | 08.00 to 10.15 | (Samudra Ballroom)

indisday, 15	Condary 2018   06:00 to 10:15   (Samuara Bamoom)
08.00 - 09.00	Conference Registration
09.00 - 09.10	Lighting of the Oil Lamp and National Anthem
09.10 - 09.20	Welcome Address by the Conference Convener
	Mr. Isanka P. Gamage (Co-Founder & Managing Director - The International Institute of
	Knowledge Management (TIIKM), Sri Lanka)
09.20 - 09.40	Speech by the Conference Chair
	(Dr. Erandathie (Erandi) Lokupitiya, Senior Lecturer, Department of Zoology and
	Environment Sciences, University of Colombo, Sri Lanka)
09.40 - 09.50	Speech by the Hosting Partner
	(Prof. Lakshman Dissanayake, Vice-Chancellor, University of Colombo, Sri Lanka)
09.50 - 10.00	Speech by the Ministry
	(Dr. R. D.S Jayathunge, Director, Climate Change Secretariat, Ministry of Mahaweli
	Development and Environment, Sri Lanka)
10.00 - 10.10	Speech by the Colombo Plan
10.10 - 10.15	Web Launch/Video Launch
10.15 – 10.25	Conference Photograph
10.25 – 10.40	Morning Refreshments

#### **KEYNOTE FORUM**

Thursday, 15<sup>th</sup> February 2018 | 10.40 to 11.20 | (Samudra Ballroom)

	, , , , , , , , , , , , , , , , , , , ,
10.40 - 11.20	"The Interaction Between Arctic Permafrost and Global Climate"
	Dr. Kevin Schaefer
	(National Snow and Ice Data Center, University of Colorado, USA)

### TECHNICAL SESSION 01: CLIMATE PREDICTION: MODELING AND DETECTION OF RECENT AND FUTURE CLIMATE CHANGE

Thursday, 15<sup>th</sup> February 2018 | 11.20 to 13.20 | (Samudra Ballroom)

Chaired by Dr. Salut Muhidin (University of Dhaka, Bangladesh)

11.20 - 11.40	A1	Climate Extremes and Precipitation Trends in Kelani River Basin, Sri Lanka and
		Impact on Streamflow Variability under Climate Change
		K.D.C.R. Dissanayaka <sup>1</sup> , R.L.H.L. Rajapakse <sup>2</sup> ( <sup>1</sup> Water Management Secretariat
		Office, Mahaweli Authority of Sri Lanka <sup>2</sup> University of Moratuwa, Sri Lanka)
11.40 - 12.00	A2	Forecasting Average Temperature and Precipitation and Its Impact on Drought
		Conditions in China
		Imran Khan <sup>1</sup> , Lei Hong Dou <sup>1</sup> , Arif Ullah <sup>1</sup> , Minjuan Zhao <sup>1</sup> ( <sup>1</sup> Northwest A&F
		University, China)



"Climate change and global sustainability: Action for bridging the gap"

15<sup>th</sup> -16<sup>th</sup> February 2018, Colombo, Sri Lanka.

42.00 42.20	42	
12.00 – 12.20	A3	Identifying Changes in Rainfall Distribution using Standerdized Precipitation
		Index (SPI): An Application in Uva Province Sri Lanka
		Jeewanthi P.W.¹, Wijesuriya W.², Amarakoon A.M.C.¹ (¹Uva Wellassa University,
		Sri Lanka, <sup>2</sup> Rubber Research Institute of Sri Lanka, Sri Lanka)
12.20 – 12.40	A4	Historical and Projected Variability in Monsoon Onset and Withdrawal over
		South Asia using Nasa-Nex Ensemble: Implications for Agriculture
		Carlo Montes <sup>1</sup> , Mathew A. Stiller-Reeve <sup>2,3</sup> , Ghulam Hussain <sup>1</sup> , Simon Mason <sup>4</sup>
		and Timothy J. Krupnik <sup>1</sup> ( <sup>1</sup> International Maize and Wheat Improvement Center
		(CIMMYT) – Climate Services for Resilient Development (CSRD) in South Asia,
		Bangladesh, <sup>2</sup> Uni Research Climate, Uni Research, Bergen, Norway, <sup>3</sup> Bjerknes
		Centre for Climate Research, Norway, <sup>4</sup> International Research Institute for Climate
		and Society, The Earth Institute of Columbia University, USA)
12.40 - 13.00	A5	Land Use Land Cover Change Mapping and Analysis using Remote Sensing and
		GIS: A Case Study of Chilika-Puri Coast, India
		Punya Murthy Khristodas <sup>1</sup> , K. Palanivelu <sup>1</sup> , A. Ramachandran <sup>1</sup> ( <sup>1</sup> Anna University,
		India).
13.00 - 13.20	A6	Risk Based Assessment of Structures Subjected to Environmental Actions in a
		Changing Climate
		Dimitrios Diamantidis (Ostbayerische Technische Hochschule, Regensburg,
		Germany)

## TECHNICAL SESSION 02: CLIMATE CHANGE, ADAPTATION, MITIGATION AND SUSTAINABLE DEVELOPMENT

Thursday, 15<sup>th</sup> February 2018 | 11.20 to 13.40 | (Gregory)

Chaired by Prof. Ashfaque Ahmed (University of Dhaka, Bangladesh)

11.20 - 11.40	B1	Potential for Climate Change Mitigation through Low-Carbon Rail Transport in
		India
		Pali P (University of Manchester, England)
11.40 - 12.00	B2	Climate Change Mitigation through Organic and Inorganic Fertilization and
		Carbon Sequestration in Soil of Bangladesh
		M.A. Alam <sup>1</sup> , M.M. Rahman <sup>1</sup> , M.M.U. Miah <sup>1</sup> , S. Akhter <sup>2</sup> , J.C. Biswas <sup>3</sup> , M.
		Maniruzzaman <sup>3</sup> , A.K. Chowdhury <sup>2</sup> , F. Ahmed <sup>2</sup> , M.A. Mannan <sup>1</sup> and H.K. Shiragi <sup>1</sup>
		(¹Bangabandhu Sheikh Mujibur Rahman Agricultural University, Bangladesh,
		<sup>2</sup> Bangladesh Agricultural Research Institute, Bangladesh, <sup>3</sup> Bangladesh Rice
		Research Institute, Bangladesh)
12.00 – 12.20	В3	Building Climate Change Resiliency through Partnerships: A Framework for
		Strategic Cross Sector Collaborations
		A. Pairis <sup>1</sup> , U. Abeysekera <sup>1</sup> ( <sup>1</sup> Climate Science Alliance – South Coast, USA)
12.20 - 12.40	В4	Photosynthetic Biomass in Forest Plantations and Its Role in Climate Change
		Mitigation
		Bandara W.A.R.T.W <sup>1</sup> , Senanayake F.R <sup>1</sup> , Tharaka L.K.D.N <sup>1</sup> ( <sup>1</sup> University of Kelaniya, Sri
		Lanka)



"Climate change and global sustainability: Action for bridging the gap"

15<sup>th</sup> -16<sup>th</sup> February 2018, Colombo, Sri Lanka.

12.40 – 13.00	B5	Impact of Conversion of Grassland to Plantation Forests on Soil Microorganisms and Soil Organic Carbon
		Premetilake, M.M.S.N <sup>1</sup> , Ratnayake, R.R. <sup>2</sup> , Kulasooriya, S.A. <sup>2</sup> ,Perera, G.A.D. <sup>3</sup> ( <sup>1</sup> Uva
		Wellassa University, Sri Lanka, <sup>2</sup> National Institute of Fundamental Studies, Sri
		Lanka, <sup>3</sup> University of Peradeniya, Sri Lanka)
13.00 - 13.20	В6	Impact of the Establishment of Botanical Garden on Soil Carbon Content in Dry
		Zone of Sri Lanka
		P.W.D. Chamari <sup>2</sup> , R.P.S.K. Rajapaksha <sup>1</sup> ,K.L.W. Kumara <sup>2</sup> , R.R. Ratnayake <sup>1</sup> ( <sup>1</sup> National
		Institute of Fundamental Studies, Sri Lanka, <sup>2</sup> University of Ruhuna, Sri Lanka)
13.20 - 13.40	В7	Assessment of Plant Structure and Composition in Dhaka: A Rapidly Developed
		Urban City of Bangladesh
		Md. Shahariar Jaman <sup>1</sup> , Ishrat Jahan <sup>1</sup> , Mahbuba Jamil <sup>3</sup> , Md. Forhad Hossain <sup>1</sup>
		(¹Sher-e-Bangla Agricultural University, Bangladesh, ³Government of People's
		Republic of Bangladesh, Bangladesh)

#### **TECHNICAL SESSION 03: CLIMATE CHANGE AND AGRICULTURE**

Thursday, 15<sup>th</sup> February 2018 | 11.20 to 13.20 | (Regency)

Chaired by Dr. Bijoy Nandan (School of Marine Sciences Cochin University of Science and Technology, India)

reemology, manay		
11.20 – 11.40	C1	Impacts of Climate Change on Changing Water Resources and Agro-Ecological
		Zones in the Coastal Plain of the Mekong Delta, Vietnam
		Hong Minh Hoang <sup>1</sup> , Tran Thi Ngoc Bich <sup>1,3</sup> , Van Pham Dang Tri <sup>2</sup> , Yi-Ching Chen <sup>3</sup> ,
		Nguyen Thanh Quan <sup>2</sup> , Nguyen Duc Tai <sup>2</sup> ( <sup>1</sup> Tra Vinh University, Vietnam, <sup>2</sup> Can Tho
		University, Vietnam, <sup>3</sup> Da-Yeh University, Taiwan)
11.40 - 12.00	C2	Carbon Footprint of Canned Pineapple
		Monthira Yuttitham <sup>1</sup> , Jiraporn Boonmark <sup>1</sup> ( <sup>1</sup> Mahidol University, Thailand)
12.00 – 12.20	С3	Impacts of Climate Change on Paddy Yields and Fate of Rice Residues in Different
		Climatic Zones of Sri Lanka
		E. A. S. K. Somarathne <sup>1</sup> , E. Lokupitiya <sup>1</sup> ( <sup>1</sup> University of Colombo, Sri Lanka)
12.20 – 12.40	C4	Assessment of Climatic Variability and Its Probable Impacts on Major Crops in
		Bangladesh
		M. R. A. Hawladar <sup>1</sup> , M. M. U. Miah <sup>1</sup> , M. M. Rahman <sup>1</sup> , M. A. Aziz <sup>2</sup> , J. C. Biswas <sup>3</sup> , S.
		Akter <sup>2</sup> , A. K. Chowdhury <sup>2</sup> , F. Ahmad <sup>2</sup> , M. Maniruzzaman <sup>3</sup> and N. Kalra <sup>4</sup>
		(¹Bangabandhu Sheikh Mujibur Rahman Agricultural University, Bangladesh,
		<sup>2</sup> Bangladesh Agricultural Research Institute, Bangladesh, <sup>3</sup> Bangladesh Rice
		Research Institute, Bangladesh, <sup>4</sup> Indian Agricultural research Institute, India)
12.40 - 13.00	<b>C5</b>	Impacts of Climate-Resilient and Eco-Friendly Crop Management Practices on
		Yields of a Representative Range of Crops Grown Across a Natural Temperature
		Gradient in Tropical South-Asia
		W.A.J.M. De Costa <sup>1</sup> , K.M.R.D. Abhayapala <sup>1</sup> , M.A.P.W.K. Malaviarachchi <sup>2</sup> , J.B.D.A.P.
		Kumara <sup>3</sup> , R.M. Fonseka <sup>1</sup> , L.D.B. Suriyagoda <sup>1</sup> , D.M. De Costa <sup>1</sup> ( <sup>1</sup> University of
		The state of the s



"Climate change and global sustainability: Action for bridging the gap"

15<sup>th</sup> -16<sup>th</sup> February 2018, Colombo, Sri Lanka.

		Peradeniya, Sri Lanka, <sup>2</sup> Field Crops Research & Development Institute, Sri Lanka, <sup>3</sup> Sabaragamuwa University, Sri Lanka)
13.00 - 13.20	C6	Effect of Biochar on Chili Pepper Fine Root and Carbon Stock in Heavy Acid Soil
		Phongthep Hanpattanakita <sup>1</sup> , Panapapas Kerdsaenga, Supika Vanitchung <sup>1</sup> ,
		Sukhumaporn Saeng-Ngam <sup>1</sup> ( <sup>1</sup> Srinakharinwirot University, Thailand)

13.20 - 14.20	Networking Lunch
---------------	------------------

### TECHNICAL SESSION 04: URBANIZATION AND CLIMATE RISK IMPLICATIONS IN COASTAL AND OTHER AREAS

Thursday, 15<sup>th</sup> February 2018 | 14.20 to 15.40 | (Gregory)

Chaired by Dr. Mery Biswas (Presidency University, India)

14.20 - 14.40	D1	Coastal Flood Over Sri Lanka: Exploring The Distributional Changes In Extreme
		Rainfall using Bayesian Non-Crossing Quantile Regression
		Chandrasekara S.S.K <sup>1</sup> , Uranchimeg, S <sup>1</sup> , Kwon, H-H <sup>1</sup> ( <sup>1</sup> Chonbuk National University,
		Republic of Korea)
14.40 - 15.00	D2	Impacts of Future Sea Level Rise on Infrastructure in Chennai, India
		Ayyangar Akshaya <sup>1</sup> Kumara Masillamani Bhavani <sup>1</sup> , Rajan <sup>1</sup> , Sudhir Chella <sup>1</sup>
		(¹Indo-German Centre for Sustainability, Indian Institute of Technology Madras,
		India)
15.00 - 15.20	D3	Construction of Southern Expressway and Flood Impact in Matara Municipal
		Area
		H. C. M. Hewage <sup>1</sup> , S.L.J. Fernando <sup>1</sup> and N.M. Nishamani <sup>1</sup> ( <sup>1</sup> University of Ruhuna,
		Sri Lanka)
15.20 - 15.40	D4	The Effect of Urban Expansion on Urban Surface Temperature in Kandy City Sri
		Lanka: an Analysis with Landsat Imageries
		RJM Uduporuwa <sup>1</sup> , L Manawadu <sup>1</sup> , (¹Sabaragamuwa University, Sri Lanka,
		<sup>2</sup> University of Colombo, Sri Lanka)

#### **TECHNICAL SESSION 05: CLIMATE CHANGE AND TECHNOLOGY**

Thursday, 15<sup>th</sup> February 2018 | 14.20 to 16.00 | (Regency)

Chaired by Dr. Chaturangi Wickramaratne (Environmental Foundation (Guarantee) Limited, Colombo, Sri Lanka)

14.20 - 14.40	E1	The Impact of Cell-phone Towers on the Climate Change: A Legal and Policy
		Analysis of Bangladesh, India and Pakistan
		Adity Rahman Shah (East West University, Bangladesh)
14.40 - 15.00	<b>E2</b>	Vehicle Emission Tracker: A Mobile-Social Application Modal to Spot Vehicle
		Emission using Ringelmann Smoke Chart
		S.M.D.J.T. Jayatilake <sup>1</sup> , Dr. A.G.T. Sugathapala <sup>2</sup> ( <sup>1</sup> Department of Motor Traffic, Sri
		Lanka, <sup>2</sup> University of Moratuwa, Sri Lanka)



"Climate change and global sustainability: Action for bridging the gap"

15<sup>th</sup> -16<sup>th</sup> February 2018, Colombo, Sri Lanka.

15.00 – 15.20	E3	Food Preservation via Irradiation Technology to Combat with Climate Change
		Related Food Security
		I.G.N. Hewajulige <sup>1</sup> , R.C. Pitipanaarachchi <sup>1</sup> , D. Priyangani <sup>1</sup> , D. Jayawardhana <sup>1</sup> ,
		K.V.T. Gunewardena <sup>1</sup> , A.A.G. Madurakanthi <sup>2</sup> and P. Rathnayake <sup>2</sup> ( <sup>1</sup> Industrial
		Technology Institute, Sri Lanka. <sup>2</sup> Sri Lanka Gamma Centre, Biyagama Export
		Processing Zone, Sri Lanka)
15.20 - 15.40	E4	Statistical Downscaling of Grace Derived Terrestrial Water Storage (TWS) Product
		: Case Study For Sri Lanka
		Marapana M. B. M. R. D. H. B <sup>1</sup> , Bandara R <sup>1</sup> , ( <sup>1</sup> Sabaragamuwa University, Sri Lanka)
15.40 - 16.00	E5	In what ways does Contextualization Matter in Climate Change Communication?
		Tobias, C. (Nanyang Technological University, Singapore)

	T
16.00 - 16.15	Evening Refreshments

#### **ICCC FORUM**

Thursday, 15<sup>th</sup> February 2018 | 16.00 to 18.00 | (Samudra Ballroom)

,,			1 \	· · · · · · · · · · · · · · · · · · ·	
16.15 – 18.00	"Bridging the	Gaps in	Research, Policy and Industry	<i>(</i> "	
	(Climate Char	nge and	Sustainability Forum 2018)		



"Climate change and global sustainability: Action for bridging the gap"

15<sup>th</sup> -16<sup>th</sup> February 2018, Colombo, Sri Lanka.

### DAY 02 – FRIDAY, 16<sup>TH</sup> FEBRUARY, 2018

### TECHNICAL SESSION 06: CLIMATE CHANGE IMPACTS ON BIODIVERSITY CONSERVATION AND NATURAL RESOURCE MANAGEMENT

Friday, 16<sup>th</sup> February 2018 | 09.00 to 10.20 | (Samudra Ballroom)

Chaired by Dr. Suranjana Banerji (Presidency University, India)

09.00 - 09.20	F1	Future Warming Shifts Climatic Suitability of Native Himalayan Tree Species
		Pramod Lamsal <sup>1</sup> , Lalit Kumar <sup>1</sup> , Farzin Shabani <sup>1</sup> , Kishor Atreya <sup>2</sup> ( <sup>1</sup> University of New
		England, Australia, <sup>2</sup> Asia Network for Sustainable Agriculture and Bioresources
		(ANSAB), Kathmandu, Nepal)
09.20 - 09.40	F2	Assessment of Soil Carbon of The Mangroves in Shwethaungyan Area of the
		Ayeyarwady Region in Myanmar
		Vanniarachchy Suraj Anuradha <sup>1</sup> , Aung, Hta <sup>2</sup> , Kontny, Joacim <sup>3</sup> ( <sup>1</sup> Prime Carbon Co Ltd,
		M.Saysettha, Vientiane Capital, Lao PDR, <sup>2</sup> Pathein University, Myanmar,
		<sup>3</sup> Worldview International Foundation, Myanmar)
09.40 - 10.00	F3	Physiological Response of Two Freshwater Fish Species (Rasbora daniconius and
		Dawkinsia filementosa) in Sri Lanka to Selected Factors of Climate Change
		W.A.M.T. Weerathunga <sup>1</sup> , A.M.G.K. Athapaththu <sup>1</sup> , W.A.K.S.Shanaka <sup>2</sup> , ( <sup>1</sup> University
		of Kelaniya, Sri Lanka, <sup>2</sup> University of Kelaniya, Sri Lanka)
10.00 - 10.20	F4	Forest Conservation as a Strategy to Reduce Climate Vulnerability in Sri Lanka:
		What to Protect and Where?
		Wikramanayake E.D (Environmental Foundation, Ltd., Colombo, Sri Lanka)

## TECHNICAL SESSION 07: CLIMATE CHANGE, ADAPTATION, MITIGATION AND SUSTAINABLE DEVELOPMENT II

Friday, 16<sup>th</sup> February 2018 | 09.00 to 11.00 | (Gregory)

Chaired by Dr. Prof. Nebiye Musaoglu (Istanbul Technical University, Turkey)

09.00 – 09.20	В8	Conservation of Flood Flow Zone and Compact Township Development: A Case Study of Turag River and Its Adjoining Areas
		Md. Ashraful Islam¹, Syeda Bushra Binte Amin¹ (¹Rajdhani Unnayan Kartripakkha,
		Bangladesh)
09.20 - 09.40	В9	Assessment of the Sustainability and the Effectiveness of the Existing Solid
		Waste Management Regulations and Practices in Colombo Municipality with
		Reference to Greenhouse Gas (GHG) Mitigation
		K. M. S. R. Fernando <sup>1</sup> , E. Lokupitiya <sup>1</sup> ( <sup>1</sup> University of Colombo, Sri Lanka)
09.40 - 10.00	B10	Climate Change, Civilizational Transformation, Sustainable Development and Sri
		Lanka.
		Dhas. M.N.A (The Foundation for Civilizational Transformation and Conscious
		Evolution, Sri Lanka)
10.00 - 10.20	B11	Climate Change and Its Impact as Perceived by People of Sundarijal VDC
		Ritika K.C, (Golden Gate International College, Nepal)



"Climate change and global sustainability: Action for bridging the gap"

15<sup>th</sup> -16<sup>th</sup> February 2018, Colombo, Sri Lanka.

10.20 - 10.40	B12	Ratio between Potential Evapotranspiration and Precipitation as a Drought Index
		and Its Impacts on Rubber Yield in Sri Lanka
		D. N Wijayarathne <sup>1</sup> , E. Lokupitiya <sup>1</sup> ,T.U.K.Silva <sup>2</sup> , ( <sup>1</sup> University of Colombo, Sri Lanka,
		<sup>2</sup> Rubber Research Institute, Agalawatte, Sri Lanka)
10.40-11.00	B13	Restoration of the Cascade System as a Solution to Water Scarcity in Drought
		Periods: A Review of The Potential in the Dry Zone of Sri Lanka
		Dilanjani H.U.K <sup>1</sup> , Rajapkshe P.S.K <sup>2</sup> , Sameera A.K.R <sup>3</sup> ( <sup>1,2</sup> Rajarata University, Sri Lanka,
		<sup>3</sup> Mahawali Authority of Sri Lanka, Sri Lanka)

11.00-11.15	Morning refreshments
-------------	----------------------

#### **POSTER SESSION**

Friday, 16<sup>th</sup> February 2018 | 10.20 to 11.00 | (Samudra Ballroom)

Chaired by Dr. Erandathie Lokupitiya (University of Colombo, Sri Lanka)

		detine Lonapierya (omversity of colombo, on Lama)
	P1	Temperature Trend Analysis of Bhubaneswar City, India
		Punya Murthy Khristodas <sup>1</sup> , K. Palanivelu <sup>1</sup> and A. Ramachandran <sup>1</sup> ( <sup>1</sup> Anna University,
		Chennai, India)
	P2	Importance of Biodiversity and Ecosystems in Current and Future Adaptation
		Plans and Strategies of Sri Lanka
		Vanniarachchy Suraj Anuradha (Prime Carbon Co Ltd, 20/217 B.Huakhuar,
		M.Saysettha, Vientiane Capital, Vietnam)
	Р3	Greenhouse Gas Exchange in Relation to Soil C and N Intensity from a Tropical
		Rice Paddy Differing Soil Amendments
		Akhilesh Vijay <sup>1</sup> , S. Bijoy Nandan <sup>1</sup> ( <sup>1</sup> Cochin University of Science and Technology,
		India)
	P4	Influence of Seasons on Extreme Temperature and Rainfall in the Wet Zone of
		Sri Lanka
		G. Naveendrakumar <sup>1,2,</sup> Meththika Vithanage <sup>3</sup> , Sarani Meneripitiya <sup>4</sup> , J.
		Obeysekera <sup>5</sup> , M.C.M. Iqbal <sup>6</sup> and S. Pathmarajah <sup>7</sup> ( <sup>1</sup> University of Jaffna, Sri Lanka,
		<sup>2</sup> University of Peradeniya, Sri Lanka, <sup>3</sup> University of Sri Jayewardenepura, Sri Lanka,
		<sup>4</sup> National Science Foundation (NSF), Sri Lanka, <sup>5</sup> South Florida Water Management
10.20 – 11.00		District (SFWMD), USA, <sup>6</sup> National Institute of Fundamental Studies (NIFS), Sri
		Lanka, <sup>7</sup> University of Peradeniya, Sri Lanka)
	P5	Signatures of Environmental Factors in Relation to Climate Change in a Model
		Tropical Estuarine System on the South West Coast Of India
		S. Bijoy Nandan <sup>1</sup> , Regina Hershey N. <sup>2</sup> , Neelima Vasu K <sup>1</sup> ( <sup>1</sup> Cochin University of
		Science and Technology, India, <sup>2</sup> N.S.S Hindu College, India)
	P6	Optimizing the Effective Use of Traditional Methods over the Current Practice of
		Waste Management and Its Impact on Climate Change
		Jayanthan Amalanathan (Resilient Environment Youth Network, Batticalioa, Sri
		Lanka)
	P7	Military Threat Perception in Perspective of Climate Change Referred Pakistan



"Climate change and global sustainability: Action for bridging the gap"

15<sup>th</sup> -16<sup>th</sup> February 2018, Colombo, Sri Lanka.

	·
	Musarrat Jabeen <sup>1</sup> , Iftikhar Khattak <sup>1</sup> , Hadiqa Suhail <sup>1</sup> ( <sup>1</sup> National Defense University, Islamabad, Pakistan)
P8	Performance of Existing Green Facades as Urban Heat Island Adaptation Strategy
	in Hot Humid Colombo
	Chameera Udawattha <sup>1</sup> , Rangika Halwatura <sup>1</sup> ( <sup>1</sup> University of Moratuwa, Sri Lanka)
P9	Mangrove Tree Planting : Malaysian Experience
	Murugan Nagu Pandithan (Malaysian Red Crescent, Malaysia)
P10	Design of Reusable, Biodegradable, Hydrophobic and Transparent Packing
	Material from Natural Plant Cellulose Fibers
	S.Sivanujan (University of Jaffna, Sri Lanka)
P11	Determining The Best Agricultural Management Practices for Salt-Affected
	Coastal Paddy Soils in Sri Lanka Considering Net Greenhouse Gas Emission along
	with Other Socioeconomic Benefits
	Archana A.S <sup>1</sup> , Lokupitiya E <sup>1</sup> , Sirisena D.N <sup>1</sup> , Seneviratne G <sup>1</sup> ( <sup>1</sup> University of Colombo,
	Sri Lanka)
P12	Impact of University Waste Management Practices on Greenhouse Gas
	Emissions at Landfill Sites.
	Madumi Kariyawasam¹ and Erandathie Lokupitiya¹ (¹University of Colombo, Sri
	Lanka)
P13	Estimating Carbon Footprint of Rubber Industry in Monaragala District
	W.S.S.L. Abeyrathna <sup>1</sup> , S. P Nissanka <sup>2</sup> , V H L Rodrigo <sup>3</sup> , E. S Munasinghe <sup>3</sup>
	(¹Postgraduate Institute of Science, University of Colombo,Sri Lanka,² University of
	Peradeniya, <sup>3</sup> Adaptive Research Unit, Rubber Research Institute, Agalawatta,Sri,
	Sri Lanka)
P14	
	Incorporating Weather Related Factors
	Priyadarshana A.D.AD <sup>1</sup> , Lokupitiya R.S <sup>1</sup> , Kuruppuarachchi D <sup>1</sup> ( <sup>1</sup> University of Sri
D4.5	Jayewardenepura, Sri Lanka)
P15	
	Vikas Mendi <sup>1</sup> Subba Rao <sup>1</sup> Jaya Kumar Seelam <sup>2</sup> ( <sup>1</sup> National Institute of Technology
D4.C	Karnataka,India, <sup>2</sup> National Institute of Oceanography, India)
P16	Circular Economy Approach for Solid Waste Management in Sri Lanka
D17	G.V.H.M.Pathmasiri (Freelance Researcher, Sri Lanka)
P17	
	Population of Beneficial Insects and Climatic Parameters Present in Chilli
	Growing Areas of Different Agroecological Regions of Sri Lanka
	K. Prasannath <sup>1</sup> , D.M. De Costa <sup>2</sup> , K.N.P. Dharmadasa <sup>2</sup> ( <sup>1</sup> Eastern University, Sri
D10	Lanka, <sup>2</sup> University of Peradeniya, Sri Lanka)
P18	Measuring Flood Risk in Ratnapura Town Area in Sri Lanka
	H.W.Y.J Hettiwaththa <sup>1</sup> , R.A.B Abeygunawardana <sup>1</sup> ( <sup>1</sup> University of Colombo, Sri Lanka)

11.00-11.15	Morning refreshments	
-------------	----------------------	--



"Climate change and global sustainability: Action for bridging the gap"

15<sup>th</sup> -16<sup>th</sup> February 2018, Colombo, Sri Lanka.

#### **KEYNOTE FORUM**

Friday, 16<sup>th</sup> February 2018 | 11.15 to 12.00 | (Samudra Ballroom)

11.15 – 12.00	Prof. Keith Paustian (Colorado State University, USA)

#### **PUBLICATION WORKSHOP**

Friday, 16<sup>th</sup> February 2018 | 12.00 to 13.00 | (Samudra Ballroom)

12.00 - 13.00	Dr. Erandathie (Erandi) Lokupitiya (Senior Lecturer, Department of Zoology and
	Environment Sciences, University of Colombo, Sri Lanka)
	Dr. Kevin Schaefer (National Snow and Ice Data Center, University of Colorado, USA)

13.00 – 14.00 Netv	working Lunch
--------------------	---------------

## TECHNICAL SESSION 08: CLIMATE CHANGE IMPACTS ON BIODIVERSITY CONSERVATION AND NATURAL RESOURCE MANAGEMENT II

Friday, 16<sup>th</sup> February 2018 | 14.00 to 15.20 | (Samudra Ballroom)

Chaired by Dr. Carlo Montes (International Maize and Wheat Improvement Center (CIMMYT) – Climate Services for Resilient Development (CSRD) in South Asia, Bangladesh)

14.00 – 14.20	F5	San Diego County: The Ecological Impacts of Climate Change on a
		Biodiversity Hotspot
		D. Cayan <sup>1</sup> , M. Jennings <sup>2</sup> , J. Kalansky <sup>1</sup> , A. Pairis <sup>3</sup> , U. Abeysekera <sup>3</sup> , S. Gershenov <sup>1</sup> , K.
		Guirguis <sup>1</sup> ,S. Vanderplank <sup>2</sup> , A. Syphard <sup>4</sup> , E. Stein <sup>5</sup> , D. Lawson <sup>6</sup> , R. Clemesha <sup>1</sup> , J.
		Randal <sup>7</sup> , S. Gaughen <sup>8</sup> , R. Roy <sup>9</sup> , ( <sup>1</sup> Scripps Institution of Oceanography, <sup>2</sup> San Diego
		State University, <sup>3</sup> Climate Science Alliance South Coast, <sup>4</sup> Conservation Biology
		Institute, <sup>5</sup> Southern California Coastal Water Research Project, <sup>6</sup> Space and Naval
		Warfare Systems Command, <sup>7</sup> The Nature Conservancy, <sup>8</sup> Pala Band of Mission
		Indians, <sup>9</sup> La Jolla Band of Luiseño Indians)
14.20 - 14.40	F6	Soil Organic Carbon Content and Its' Effect on Available Soil Nutrients in Knuckles
		Conservation Forest of Sri Lanka
		R.P.S.K. Rajapaksha <sup>1</sup> , H.M.S.P. Madawala <sup>2</sup> , S.K. Gunathilake <sup>3</sup> , R.R. Ratnayake <sup>1</sup>
		(¹National Institute of Fundamental Studies, Sri Lanka, University of Peradeniya, Sri
		Lanka, <sup>3</sup> Sabaragamuwa University, Sri Lanka,)
14.40 - 15.00	F7	Meiofaunal Response to Climate Change and Other Environmental Perturbations
		in the Arctic Fjord
		S. Bijoy Nandan <sup>1</sup> , Jima M <sup>1</sup> , Jayachandran P.R <sup>1</sup> , Krishnapriya P.P <sup>1</sup> , Aswathy N.K <sup>1</sup> ,
		Athira A.T <sup>1</sup> , Akhilesh Vijay <sup>1</sup> , K. P. Krishnan <sup>2</sup> ( <sup>1</sup> Cochin University of Science &
		Technology, India, <sup>2</sup> Ministry of Earth Sciences, Government of India, India)
15.00 – 15.20	F8	Shoreline Change A Threat to Coastal Zone: A Case Study of Karwar, West Cost of
		India



"Climate change and global sustainability: Action for bridging the gap"

15<sup>th</sup> -16<sup>th</sup> February 2018, Colombo, Sri Lanka.

Arunkumar Yadav <sup>1</sup> , B. M Dodamani <sup>1</sup> , G. S Dwarakish <sup>1</sup> ( <sup>1</sup> Hydraulics National Institute
of Technology, India)

## TECHNICAL SESSION 09: CLIMATE CHANGE, ADAPTATION, MITIGATION AND SUSTAINABLE DEVELOPMENT III

Friday, 16<sup>th</sup> February 2018 | 14.00 to 15.20 | (Gregory)

Chaired by Prof. Janendra De Costa (University of Peradeniya, Sri Lanka)

14.00 – 14.20	B11	Carbon Neutral Energy: Producing Energy Efficient Briquettes With Invasive
		Species Water Hyacinth (Eichornia Crassipes), Wood Residues and Cow Dung to
		Replace Fossil Fuels Used in Small and Medium Scale Industries.
		W A R T W Bandara <sup>1</sup> , P Kowshayini <sup>1</sup> ( <sup>1</sup> University of Kelaniya, Sri Lanka)
14.20 - 14.40	B12	Feasibility Study on Use of Cotton Apparel Waste for the Biomass Boilers as an
		Energy Source
		Prasanga W.M.C <sup>1</sup> , Wahala W.M.P.S.B <sup>1</sup> ( <sup>1</sup> University of Moratuwa, Sri Lanka,
		University of Sabaragamuwa, Sri Lanka)
14.40 - 15.00	B13	A Study on the Adaptation of Global Green Standards and ISO14000 in Pakistan
		and Their Impact on Firm Performance
		Syed Raza Ullah Shah (Environment, Occupational Safety and Social Compliance,
		Pakistan)
15.00 - 15.20	B14	Financial and Environmental Overview on Solar Powered Water Pumping
		System for Agriculture in Sri Lanka.
		Bandara Rotawewa (Food and Agriculture Organization – Sri Lanka)

### TECHNICAL SESSION 10: CLIMATE CHANGE: IMPACTS ON WATER AND SANITATION AND HEALTH IN THE DEVELOPING WORLD

Friday, 16<sup>th</sup> February 2018 | 14.00 to 15.20 | (Regency)

Chaired by Dr. Md. Mizanur Rahman (Bangabandhu Sheikh Mujibur Rahman Agricultural University, Bangladesh)

14.00 – 14.20	G1	A Study of Effect of Climate Change on Resilience and Human Health Using Bio- Climatological Indicators
		Hamidian Pour Mohsen <sup>1</sup> , Ghanbari Siroos <sup>1</sup> ( <sup>1</sup> University of Sistan and Baluchestan, Iran)
14.20 - 14.40	G2	The Access To and Use of Healthcare Services and Vulnerabilities of Climate-
		Displaced People in Mainland Bangladesh
		Haque, MR <sup>1,2</sup> , Parr, N <sup>2</sup> , Muhidin, S <sup>2</sup> ( <sup>1,2</sup> University of Dhaka, Bangladesh,
		<sup>2</sup> Macquarie University, Australia)
14.40 - 15.00	G3	Modelling Water Quality for Informed Policy Making in Long-Term Scenarios
		Under Climate Change – Prospects for Sri Lanka
		Wickramaratne, C. <sup>1,2</sup> , Rigosi A <sup>2</sup> , Van der Linden, L. <sup>3</sup> , Brookes, J. <sup>2</sup> ( <sup>1</sup> Environmental
		Foundation (Guarantee) Limited, Colombo, Sri Lanka, <sup>2</sup> University of Adelaide,
		Australia, <sup>3</sup> South Australian Water Corporation, Australia)
15.00 – 15.20	G4	Does Sea Level Rising Due to Climate Change have any Impact on the Central
		Coastal Zone of Bangladesh?



"Climate change and global sustainability: Action for bridging the gap"

15<sup>th</sup> -16<sup>th</sup> February 2018, Colombo, Sri Lanka.

Ashfaque Ahmed <sup>1</sup> , Parveen Rashid <sup>1</sup> , Sirajul Hoque <sup>1</sup> ( <sup>1</sup> University of Dhaka,
Bangladesh)

### TECHNICAL SESSION 11: URBANIZATION AND CLIMATE RISK IMPLICATIONS IN COASTAL AND OTHER AREAS II

Friday, 16<sup>th</sup> February 2018 | 15.00 to 16.00 | (Samudra Ballroom)

Chaired by Dr. Carlo Montes (International Maize and Wheat Improvement Center

(CIMMYT) – Climate Services for Resilient Development (CSRD) in South Asia, Bangladesh)

' <u> </u>		, , , , , , , , , , , , , , , , , , , ,
15.20 - 15.40	D5	Carbon Structuring and Dissolved Greenhouse Gas Concentrations: the Fate of a
		Tropical Wetland (Cochin Estuarine System), India
		S. Bijoy Nandan <sup>1</sup> , Regina Hershey N <sup>2</sup> ., Akhilesh Vijay <sup>2</sup> , Neelima Vasu K. <sup>2</sup> (1School of
		Marine Sciences Cochin University of Science and Technology, India, <sup>2</sup> N.S.S Hindu
		College, India)
15.40 - 16.00	D6	Impact of Urbanization on Growth of Water Hyacinth in River Tapi: A Case Study
		Dr. Krupesh A. Chauhan <sup>1</sup> , Preety Tiwari <sup>1</sup> ( <sup>1</sup> Sardar Vallabhbhai National Institute of
		Technology, India)
16.00 - 16.20	D7	Semi Quantitative Analysis of Land Use Homogeneity and Spatial Distribution of
		Individual Ecological Footprint
		Banerji. S (Presidency University, India)

#### **TECHNICAL SESSION 12: CLIMATE CHANGE AND AGRICULTURE III**

Friday, 16<sup>th</sup> February 2018 | 15.20 to 16.00 | (Gregory)

Chaired by Dr. Md. Main Uddin Miah (Bangabandhu Sheikh Mujibur Rahman

Agricultural University, Gazipur, Bangladesh)

15.20 – 15.40	C10	Conservation Agriculture Enhances Crop Productivity and Soil Health in A Rice Ecosystem in Bangladesh
		M.M.R.Jahangir <sup>1</sup> , M. Jahiruddin <sup>1</sup> ( <sup>1</sup> Bangladesh Agricultural University, Bangladesh)
15.40 – 16.00	C11	3 /
		Temperature on Germination and Initial Growth of Parthenium Weed
		Haroon Khan <sup>1</sup> , Ishaq Ali Shah <sup>1</sup> ( <sup>1</sup> The University of Agriculture Peshawar- Pakistan)
16.00 - 16.20	C12	Effect of Biochar on Photosynthesis and Some Physiological Responses of Chili
		Pepper in Strongly Acid Soil
		Sukhumaporn Saeng-Ngam <sup>1,</sup> Pacharapol Pearaksaa <sup>1</sup> Phongthep Hanpattanakit <sup>1</sup> ,
		Supika Vanitchung <sup>1</sup> ( <sup>1</sup> Srinakharinwirot University, Thailand)

### TECHNICAL SESSION 13: CLIMATE CHANGE: IMPACTS ON WATER AND SANITATION AND HEALTH IN THE DEVELOPING WORLD II

Friday, 16<sup>th</sup> February 2018 | 15.20 to 16.40 | (Regency)

Chaired by Dr. Monthira Yuttitham (Mahidol University, Nakhon, Phathom Thailand)



"Climate change and global sustainability: Action for bridging the gap"

15<sup>th</sup> -16<sup>th</sup> February 2018, Colombo, Sri Lanka.

15.20 – 15.40	G5	Local People's Perception of Climate Change and Related Hazards in Dry and Wet Zones of Sri Lanka Samarasuriya Patabendige C <sup>1</sup> , Kazama S <sup>2</sup> ( <sup>1</sup> University of Moratuwa, Sri Lanka <sup>2</sup> Tohoku Universities, Japan)
15.40 – 16.00	G6	Long-Term Monitoring of Wetlands via Remote Sensing and GIS: A Case Study from Turkey <sup>1</sup> Musaoglu N, <sup>1</sup> Tanik A, <sup>2</sup> Gumusay, MU, <sup>1</sup> Dervisoglu, A, <sup>1</sup> Bilgilioglu, B, <sup>2</sup> Bakirman, T. <sup>1</sup> Yagmur, N, <sup>1</sup> Baran, D, <sup>2</sup> Gokdag, MF ( <sup>1</sup> Istanbul Technical University, Turkey, <sup>2</sup> Yildiz Technical University, Turkey)
16.00 – 16.20	G7	Process of River Bed Configuration and Its Impact on Riverine Hazard- A Contemporary Study of River Jayanti, West Bengal, India  Dr. Mery Biswas <sup>1</sup> , Ankita Paul <sup>1</sup> (*Presidency University, India*)
16.20 – 16.40	G8	Farmers' Perceptions of Climatic Impacts and Adaptation Responses: An Evidence from Coastal Odisha, India Sahoo Dibakar <sup>1</sup> , Sridevi <sup>1</sup> ( <sup>1</sup> University of Hyderabad, India)

16 40 - 17 00	Evening Refreshments
10.40 - 17.00	Evening Refreshments

#### **Conference Closure**

Friday, 16<sup>th</sup> February 2018

17.00 – 17.30	Conference Concluding and Awarding Ceremony
17.30 - 17.40	Vote of Thanks by
	Mr. Duminda Koralagamage (Assistant General Manager - The International Institute of
	Knowledge Management (TIIKM), Sri Lanka)

### Friday, 17th February 2018 | Post Conference Tour (Optional)

Conference Chair	
Dr. Erandathie Lokupitiya	
(University of Colombo, Sri Lanka)	

Conference Convener Mr. Isanka P. Gamage

(The International Institute of Knowledge Management, Sri Lanka)

Conference Secretariat
Mr. Keerthi Chandana

(The International Institute of Knowledge Management, Sri Lanka)



"Climate change and global sustainability: Action for bridging the gap"

15<sup>th</sup> -16<sup>th</sup> February 2018, Colombo, Sri Lanka.

Organizer



**Hosting Partner** 



**Event Partner** 

**Academic Partner** 



Strategic partner



P Blue CArc

Supporting Ministry
The Ministry of Mahaweli Development and
Environment, Sri Lanka





**Official Tour Partner** 

