
FOUNDATION FOR ENVIRONMENT CLIMATE AND TECHNOLOGY

FECT Annual Progress – 2016

SUMMARY

Publications and Conferences:

- Published the proceedings of the Pinga Oya Symposium with supplementary material.
- Documented the workshop on climate and water held with the Maldives National University in 2015.
- Published articles on El Nino Impact for 2016 for Sri Lanka, and for Maldives, in the Climate Change Magazine by Dr. Mickey Glantz.
- Our staff participated and presented at workshops and conferences in Sri Lanka, Maldives, Thailand, Indonesia and the US.

Projects and Proposals:

- Our work on projects for the PEER-Drought, PEER-Hazards, and RAWI-Wind continued.
- Our contributions to setting up of the Masters in Development Practice came to a close
- The PEER cycle 1 project on climate predictions for water resources in Sri Lanka and Maldives came to a close.
- Our work on the PEER Drought project and PEER Hazards project picked up this year.
- Two proposal were submitted to the Gates Foundation with one turned down.
- We contributed two chapters to the Book on El Nino Ready Nations conducted by Dr. Mickey Glantz of the Center for Capacity Building at the University of Colorado.

Operational Work:

- We continued to disseminate our weekly, monthly and annual climate assessments for Sri Lanka and Maldives by email and via social media.
- Weather observations were continued in our offices at Digana and Akurana.
- New weather station was installed in Southern Maldives in collaboration with LaMER.
- Automated climate report generation on Maldives and Comoros continued.
- Our data resources for Maldives were incorporated into the Data Library.
- Continued dissemination of drought monitoring products for Sri Lanka and Maldives.

Staff and Training:

- 4 Interns were provided the opportunity to obtain exposure at FECT.

Communication and Websites: There was substantial development of blogs, twitter, and facebook accounts for Sri Lanka, Maldives and Comoros. Our websites are compliant to standards now.

Collaboration: We continued collaborations with partners and colleagues locally and internationally.

- Interacted with PEER grantees and personnel in Bangkok, Thailand and Padang, Indonesia.
- Hosted workshops and review meetings in Sri Lanka and Maldives.
- Set up a Geographic Information Systems for Maldives.
- FECT staff contributed to the Environmental Committee of Akurana.
- Dr. L. Zubair provided technical support to citizens who were concerned with the Sampur coal power plant project by evaluating the climatic hazards, disasters and air pollution.

Administration and IT: Our accounting systems, audits and company reporting were reviewed well.

- We continued to make inventories of our written resources: books, files, journals and reports more accessible. It is now available to the staff via an internal page.
- Our IT systems have kept up to the demands of additional staff and have been upgraded.
- We are working on cloud based accessibility to information resources.

EXTENDED SUMMARY – CONTENTS

Peer Reviewed Journal Publications and Book Chapters	2
Books	2
Conference Abstracts	3
Workshops / Conferences / Meetings	4
Presentations	6
Grants Ongoing	7
Grant Reporting	7
Grants Completed	7
Proposals and concept notes	7
Training & Staff	8
Operational Services	8
Dissemination	9
Websites, Blogs, Social Media and Mailing Lists for Sri Lanka	9
Websites, Social Media and Mailing Lists for Maldives	10
Websites, Social Media and Mailing Lists for Comoros	10
Websites, Social Media and Mailing Lists for Chagos	10
Weather instruments:	10
Administration and IT:	11
Collaboration:	11
Acknowledgements:	12

EXTENDED SUMMARY

Peer Reviewed Journal Publications and Book Chapters

- Gunaratne, A., & Zubair, L. (2015). FINE SCALE EVALUATION OF TROPICAL WIND CLIMATOLOGIES USING A MASS CONSISTENT MODEL. *International Journal of Numerical Methods and Applications*, 14(2), 77.

Books & Book Chapters

- Zubair, L., Z. Yahiya and P. Wickramagamage (Editors), Proceedings of the Pinga Oya Symposium, Foundation for Environment, Climate and Technology, Kandy, Sri Lanka.
- Zubair, L., Zahid, Yahiya, Z., Agalawatte, P. and Lokuhetti, R. (2016). The Maldives. In Michael H. Glantz (Ed.), *A STEPPING STONE TOWARD ENSO RELATED DRR LESSONS LEARNING: Lessons Learned Portal Project for ENRNs (El Niño Ready Nations)* (pp. 26 – 31). US: CCB/INSTAAR, University of Colorado.
- Zubair, L., Yahiya, Z., Agalawatte, P. and Lokuhetti, R. (2016). Sri Lanka. In Michael H. Glantz (Ed.), *A STEPPING STONE TOWARD ENSO RELATED DRR LESSONS LEARNING: Lessons Learned Portal Project for ENRNs (El Niño Ready Nations)* (pp. 26 – 31). US: CCB/INSTAAR, University of Colorado.
- Zubair, L., Yahiya, Z., Agalawatte, P. and Lokuhetti, R. (2016). The El Nino event of 2015/16 in Sri Lanka: Predictions, Preparedness, Communication and Impacts. In Climate Change Secretariat (Ed.), *NEELAHARITHA-The Climate Change Magazine of Sri Lanka* (pp.40-46). Sri Lanka: Ministry of Mahaweli Development and Environment.
- Agalawatte, P., Yahiya, Z., Viswanathan, J., Zubair, L. and Bell, M. (2016). Providing climate services for water management in Sri Lanka. In Climate Change Secretariat (Ed.),

NEELAHARITHA-The Climate Change Magazine of Sri Lanka (pp.40-46). Sri Lanka: Ministry of Mahaweli Development and Environment.

- Agalawatte, P., Zubair, L. and Yahiya, Z. (2016). State of the art climate change assessments for Sri Lanka from CMIP5. In Climate Change Secretariat (Ed.), *NEELAHARITHA-The Climate Change Magazine of Sri Lanka* (pp.40-46). Sri Lanka: Ministry of Mahaweli Development and Environment.

Technical Reports

- Agalawatte, P., Rathnayake, U., Yahiya, Z., and Zubair, L. (2016). “*The Climate over Sri Lanka up to the Yala of 2015*”. Technical Report. Foundation for Environment, Climate and Technology, Digana.
- Lokuhetti, R., Agalawatte, P., Rathnayake, U., Kamiss, A., Vishwanathan, J., Yahiya, Z., and Zubair, L. (2016). “*The Rainfall Climate over Sri Lanka during 2015*”. Technical Report. Foundation for Environment, Climate and Technology, Digana.
- Lokuhetti, R., Agalawatte, P., Yahiya, Z., Viswanathan, J., Zubair, L., Zahid and Bell, M. (2016). Monthly Reports on *Experimental Climate Monitoring and Prediction for the Maldives – (from January - December 2016)*. Technical Report. Foundation for Environment, Climate and Technology, Digana.
- Afaaf, A., Janan Vishwanathan, Zeenas Yahiya, Lareef Zubair, (2016). *Communication Strategy for FECT on Social Media*”. Technical Report. Foundation for Environment, Climate and Technology, Digana.
- Lokuhetti, R., P. Agalawatte, N. Shobana, S. Rathnayake, U. Ratnayake and Z. Yahiya. FECT report on Aranayake landslide site visit. June 2016.
- Kamiss, A., Viswanathan, J., Z. Yahiya, and Zubair, L. (2016). “*Recent Disasters in Sri Lanka-Data Analysis*” Technical Report. Foundation for Environment, Climate and Technology, Digana.
- Rathnayake, S., Z. Yahiya and L. Zubair (2016). Analysis of Historical Flooding Incidence in Akurana. (in draft form) FECT Technical Report. Foundation for Environment, Climate and Technology, Digana.
- FECT. *Experimental Climate Monitoring and Prediction Highlights for the Maldives* (produced fortnightly since June 2016). Technical Report. Foundation for Environment, Climate and Technology, Digana.
- Agalawatte, P. and Lareef Zubair, (2016). Extremes Classification for Rainfall at the Main Meteorological Stations in Sri Lanka. FECT Technical Report. Foundation for Environment, Climate and Technology, Digana.
- Agalawatte, P. Quantifying hydrologic risk of extreme events in a changing climate – IPWE Training Workshop, FECT Technical Report. February 2016.
- Ratnayake, R.M.U.M. Modeling using Groundwater Vista (MODFLOW) software. IPWE Training Workshop, FECT Technical Report. February 2016.
- Vishwanathan, J. Short course on Watershed Modeling using MIKE SHE/MIKE 11. IPWE Training Workshop, FECT Technical Report. February 2016.

Conference Abstracts

Zubair, L., Wickramagamage, P., Yahiya, Z., Viswanathan, J., Chandrasekera, S. and Agalawatte, P. (2016). “*Environmental Management Challenges under Rapid Urbanization: Lessons from Pinga Oya catchment of Sri Lanka's Mahaweli River*”. IPWE 2016 8th International Perspective on Water Resources and the Environment, workshop of the American Society of Civil Engineers; 4-6 January 2016, IPWE conference paper no: 261.

Agalawatte, P., Yahiya, Z., Zubair, L. and Nawarathna, B. (2016). “*Intra-Seasonal Climate Predictions for Water Resources Management in Sri Lanka*”. IPWE 2016 8th International Perspective on Water Resources and the Environment, workshop of the American Society of Civil Engineers; 4-6 January 2016, IPWE conference paper no: 266.

Yahiya, Z., Zubair, L., Agalawatte, P., Viswanathan, J., Wijeratne, K., Zahid, M., Mizna Mohamed, Majeeda Mohamed, and Rasheed, M. (2016). “*Operational Island-Scale Water Scarcity Assessment for the Maldives*”. IPWE 2016 8th International Perspective on Water Resources and the Environment, workshop of the American Society of Civil Engineers; 4-6 January 2016, IPWE conference paper no: 264.

Agalawatte, P., Zubair, L., Zahid, Viswanathan, J., Yahiya, Z. & Bell, M. (2016). “The Monthly Climate Advisory for Maldives – a resource for marine Scientists”. Maldives Marine Science Symposium; 27 October 2016, Maldives Marine Science Abstract Booklet, pp (39).

Workshops / Conferences

- January, 2016 - A *Review Meeting for FECT staff and Collaborators* was held at the Digana Resort in Rajawella to Brainstorm on past and on-going projects, common issues, review work to fix problems and improve work and working conditions, to identify priorities and to draft a strategic plan for FECT 2016, on 1st January, 2016.
- January, 2016 –Prabodha Agalawatte, Udara Ratnayake, Janan Viswanathan, Akram Kamiss and Prof. P. Wickremagamage participated at the short course conducted by the Eighth International Perspective on Water Resources and the Environment (IPWE) organized by the American Society of Civil Engineers (ASCE) and the Environmental and Water Resources Institute (EWRI), at Cinnamon Grand Colombo, Sri Lanka. 3rd January 2016.
- January, 2016 – Lareef Zubair, Prabodha Agalawatte, and Zeenas Yahiya participated at the workshop on Eighth International Perspective on Water Resources and the Environment (IPWE) organized by the American Society of Civil Engineers (ASCE) and the Environmental and Water Resources Institute (EWRI), at Cinnamon Grand Colombo, Sri Lanka. 4-6 January 2016.
- January, 2016 - A *Workshop for FECT staff and Collaborators* was held in Akurana to orient the new staff members on past and on-going projects, on 13th and 14th January, 2016.
- February, 2016 – Zeenas Yahiya and Shafna Sadeek participated at the International Conference on Dengue and Dengue Hemorrhagic Fever 2016 – “Dengue to Stem the Tide” at BMICH, Colombo, Sri Lanka. 24th and 26th January, 2016.
- April, 2016 - A *Review Meeting for FECT staff and Collaborators* was held at the Digana Resort in Rajawella to update on-going project activities, review work, fix problems and improve working conditions, to identify priorities, on 29th April, 2016.
- May 2016 – L. Zubair & P. Wickremagamage participated at the student workshop on GIS and Climate at the Maldives National University, Maldives.
- June 2016 – Z. Yahiya participated as a panelist at the conference on *1st Provincial Sustainable Development Engagement Platform: Localizing the Transformation*, held at Provincial Council, Pallekele, Kundasale, in view of attaining SDG by 2020 by Engaging Provincial & Local Government in Planning for an Inclusive Transformation and Implementing Sustainable Development Policies and Strategies at Local & Provincial Government Level, on 27th June, 2016.
- August 2016 – Lareef Zubair participated at the *Symposium on Outlook on CKDu* held at the National Institute of Fundamental Studies (NIFS), Kandy on 15th August, 2016.
- August 2016 – Rimza Zacky participated at the *PEER financial training* workshop held in Bangkok Thailand from August 8-9, 2016.

- August 2016 – Lareef Zubair and Zeenas Yahiya participated at the workshop on *Research topics and plans for the Bachelor of Environment Management* held at the Maldives National University, Male', Maldives on 29th August, 2016.
- September 2016 – Lareef Zubair and Prabodha Agalawatte participated at the FOSID 2016 – (Faculty of Science Industry Day) held at the Faculty of Science, University of Peradeniya, on September 3, 2016.
- September 2016 - Lareef Zubair and Zeenas Yahiya participated at the "Science and Technology for Society Forum Sri Lanka 2016", held from 8th to 10th Sep 2016 at the Water's Edge, Colombo, Sri Lanka organized by COSTI/Ministry of Science Technology and Research, Sri Lanka.
- October 2016 - Prabodha Agalawatte, and Zeenas Yahiya participated at the 5th Asia Pacific Climate Change Adaptation Forum - Blue Green Era Conference held at BMICH from the 17 – 19 October, 2016.
- October 2016 – Manusha Lakmali, Ruchira Lokuhetti and Ashara Nijamdeen participated at the APAN Youth Forum at the BMICH from the 17 – 19 October, 2016.
- October 2016 - Prabodha Agalawatte attended the Maldives Marine Science Symposium held at the Maldives National University, Maldives on 27th October, 2016.
- December 2016 – Lareef Zubair participated and delivered the keynote speech at the Fifth Annual Science Research Sessions – 2016 “Enriching the Novel Scientific Research for the Development of the Nation” held at the Faculty of Applied Sciences, South Eastern University of Sri Lanka, Sammanthurai, on December 29, 2016.

Discussions / Meetings

- February, 2016 – Udara Ratnayake had a meeting with Dr. Zahid of Maldives Meteorological Services, Maldives to discuss about Maldives Water Scarcity and availability of Data, on 19th February, at the Old Colombo Dutch Hospital premises in Colombo
- May - June 2016 – Zeenas Yahiya participated at five meetings held on Mitigating Floods in Akurana, organized by the Environment Committee – Akurana, at Asna Mosque, Akurana, on 21st, 28th May, & 5th 12th and 26th June, 2016.
- June 2016 – Zeenas Yahiya met with Mr. Warnakulasooriya and Ms. Madara (Akurana Divisional Secretary) and Mr. Rajapaksha & Ms. Nazliya (Akurana/Alawathugoda Pradeshiya Sabhawa) to discuss flooding and environmental issues related to Akurana.
- August 2016 – Lareef Zubair participated at meetings held at the Environmental Law Foundation and Collaborated on Review of EIA for the Sampur Coal Power Plant
- August 2016 – Lareef Zubair and Zeenas Yahiya visited with community down-wind of the Norochcholai Coal Power plant.
- July 2016 - L. Zubair meeting with Minister Gamini Jayawickrama Perera at the New York consulate for Sri Lanka on Sustainable Development, USA.
- August 2016 – L. Zubair and Z. Yahiya met with USAID team: Andrew Sissons (Mission Director), Nihani Riza (Maldives and Sri Lanka) and Margot Welk (Environment Specialist) at the Maldives National University, Maldives on 29th August, 2016.
- August 2016 - L. Zubair and Z. Yahiya met with Mr. Aslam and Mr. Hussain of LaMER groups, and Dr. Shiham Adam the Director of Maldives Marine Research Center.
- September 2016 - L. Zubair, Invited to Committee on Environment, Convened by the Public Utilities Commission of Sri Lanka, September 13th, 2016

Feature Articles

July 18, 2016: L. Zubair, Clouded Sampur (Daily news)

July, 20, 2016: L. Zubair, Is the air pollution analysis for the Sampur Coal Plant credible? (Financial Times) and (Sri Lanka Guardian, Ground Views)

July 21, 2016: L. Zubair, Is the air pollution analysis for the Sampur Coal Plant credible? (Sri Lanka Guardian, Ground Views)

July 24, 2016: L. Zubair, Was Air Pollution Analysis for Sampur Coal Plant Botched? (The Sunday Leader)

October 18, 2016: L. Zubair, Monitoring the ongoing drought in Sri Lanka (Ground Views)

October 19, 2016: L. Zubair, Monitoring the ongoing drought in Sri Lanka (Financial Times)

Presentations

- ***8th International Perspective on Water Resources and the Environment (IPWE) conference organized by the American Society of Civil Engineers (ASCE) and the Environmental and Water Resources Institute (EWRI), at Colombo, Sri Lanka, 4-6 January 2016.***
 - Zubair, L. “*Environmental Management Challenges under Rapid Urbanization: Lessons from Pinga Oya catchment of Sri Lanka's Mahaweli River.*”
 - Agalawatte, P. “*Intra-Seasonal Climate Predictions for Water Resources Management in Sri Lanka*”
 - Yahiya, Z. “*Operational Island-Scale Water Scarcity Assessment for the Maldives*”.
- ***FECT Review Meeting at Digana Resort, Digana Rajawella, 1st January, 2016.***
 - Zubair, L., “*State of FECT Projects and Programs*”.
 - Zubair, L., “*Catchment management under rapid urbanization – Pinga Oya catchment*”
 - Agalawatte, P., “*Seasonal and Intra-Seasonal Climate Predictions*”.
 - Viswanathan, J., “*IT and Web development for FECT and ongoing plans*”.
 - Kamiss, A., “*Recent Disaster History Analysis in Sri Lanka*”.
 - Shobana, K., “*Library System*”.
 - Zahid, “*Climate and Disasters in Maldives*”.
 - Wickramagamage, P. “*Coastal Systems, Vulnerability, GIS*”
 - Weerasinghe, A. “*Climate Needs for Water Management in North-West and North-Central Sri Lanka*”.
- ***FECT Orientation Workshop at Akurana, 13th and 14th January, 2016.***
- ***FECT Review Meeting at Digana Resort, Digana Rajawella, 29th April, 2016.***
 - Agalawatte, P., “*Use of Markov Models for Rainfall and Temperature Predictions for Sri Lanka*”.
 - Lokuhetti, R., “*FECT annual climate report for Sri Lanka*”.
 - Ratnayake, U., “*System Dynamics Model for Water Resources in the Maldives*”.
 - Ratnayake, S., “*Open Science Foundation Portal for Science Management*”.
 - Viswanathan, J., “*Weather and Terrestrial Observation System at FECT*”.
 - Zubair, L., “*State of FECT Projects and Programs & Strategic Planning for FECT*”.
- Yahiya, Z. “*Identifying the impacts of disasters & management strategies in Akurana.*” Meeting on Mitigating Floods in Akurana, organized by the Environment Committee – Akurana, Asna Mosque, Akurana. 21st May, 2016.
- Yahiya, Z., One of the panelist at the 1st Provincial Sustainable Development Engagement Platform: “*Localizing the Transformation*” held on 27th June 2016, at the Provincial Council, Pallekele, Kundasale
- L. Zubair, Panelist on Communication of Science, Technology and Innovation National Forum, Ministry of Science and Technology, Colombo – 7, September 7-10th, 2016.
- L. Zubair, Invited to Committee on Environment, Convened by the Public Utilities Commission of Sri Lanka, September 13, 2016

- Agalawatte, P., Zubair, L., Zahid, Viswanathan, J., Yahiya, Z. & Bell, M. (2016). “The Monthly Climate Advisory for Maldives – a resource for marine Scientists”. (Poster Presentation at the Maldives Marine Science Symposium on 27 October 2016, at the Maldives National University, Male’ Maldives.

Grants Ongoing

- **ASIRI:** *Remote Sensing of Atmospheric Waves and Instabilities* (RAWI). This examines the ocean-atmosphere linkages over the tropical Indian Ocean region. Project conducted by the Office of Naval Research, administered by University of Notre Dame (L. Zubair, Co-PI 2014-2017).
- **PEER Cycle 3:** “*Developing Monitoring Tools for Managing Drought Risk and addressing the Riddle of Increased Drought Tendency amidst the Wetter Climate Change Projections for Sri Lanka and Maldives*” from the US National Academy of Sciences (PI - Z. Yahiya, L. Zubair, Mizna Mohamed, 2014 -2017).
- **PEER Cycle 4:** “*Can drought, flood and landslide hazard be skillfully assessed at fine spatial resolution from combining constrained streams of observed, remotely sensed and model predicted data in Sri Lanka and Maldives?*” from the US National Academy of Sciences (PI – P. Wickramagamage, L. Zubair, Zahid, 2015 – 2018).
- **ENRN:** *El Nino Ready Nations, from the Center for Capacity Building, University of Colorado, Dr. Mickey Glantz (PI), sponsored by USAID.*

Grant Reporting

- 4 Quarterly Reports and Annual Technical Report were submitted to Partnerships for Enhanced Engagement in Research Science, on “*Developing Monitoring Tools for Managing Drought Risk and addressing the Riddle of Increased Drought Tendency amidst the Wetter Climate Change Projections for Sri Lanka and Maldives*”.
- 4 Quarterly Reports and Annual Technical Report were submitted to Partnerships for Enhanced Engagement in Research Science, on “*Can drought and flood hazard be skillfully assessed at fine spatial resolution from combining constrained streams of observed, remotely sensed and model predicted data in Sri Lanka and the Maldives?*”.

Proposals, Concept notes and Expression of Interest

- January 2016 – pre-proposal to **Partnerships for Enhanced Engagement in Research (PEER)** cycle 5 Program entitled, “Water Scarcity in Sri Lanka’s Mahaweli River basin and Maldives – Could the impending crisis from Agricultural Intensification, Urbanization, Infrastructure Development and Climate Change be mitigated?”. Principal Investigator: Eng. Ananda Weerasinghe.
- March 2016 - FECT contributed to the project proposal by Prof. Upmanu Lall of the Department of Earth and Environmental Engineering, Columbia University, New York, NY 10025, USA, titled Potential to Provide Useful Climate Information at Moderate Time Scales: Case Study for DoD Installations at Diego Garcia proposed to Strategic Environmental Research and Development Program (SERDP)
- May 2016 - Proposal on “Assimilation of Epidemiological, Environmental and Vulnerability Data for Central Sri Lanka for Operational Predictions of Malaria Re-Emergence Risks” to the Grand Challenges Grant Opportunities by the Bill & Melinda Gates Foundation.

- November 2016 - Proposal on “Design New Solutions to Data Integration for Malaria Elimination” to the Grand Challenges Grant Opportunities by the Bill & Melinda Gates Foundation.
- November 2016 – Expression of Interest on Climate and Dengue Risk: Thematic Research Program on CC and Disaster to the National Science Foundation. Principal investigator: Dr. P.H.D. Kusumawathie
- November 2016 - Expression of Interest on Research on Water Availability: Thematic Research Program on CC and Disaster to the National Science Foundation entitled, “Assessment of water availability of important river basins of Sri Lanka under future climate”. Principal investigator: Prof. P. Wickramagamage
- November 2016 – Expression of Interest in the Climate Change and Disasters Program on Hazards and vulnerability to the National Science Foundation entitled, “Dynamic Hydro-climatic Hazard, vulnerability and risk assessment for Sri Lanka”. Principal investigator: Zeenas Yahiya
- November 2016 - Expression of Interest on Standardizing, processing to a useable format and archiving (project 2) under strategic thrust 7 to the National Science Foundation entitled, “Comparison and quality control of ground observed weather data in Sri Lanka and implementation of an online weather database”. Principal investigator: Prabodha Agalawatte

Training & Staff

Internship opportunities were provided to students from the Faculty of Science at University of Peradeniya, and the Sri Lanka Institute of Advanced Technological Education (SLIATE).

- Shafna Sadeek joined FECT as a Trainee Writer in January 2016.
- Deepashika Gunasekera joined FECT as a Writer in January 2016
- Ruchira Lokuhetti joined FECT as an Intern in January 2016 and transitioned to a Junior Research Scientist.
- Shashini Ratnayake joined FECT as an Intern in April 2016.
- Ashara Nijamdeen joined FECT as a Intern Science Writer in September 2016
- Manusha Lakmali joined FECT as an Intern in September 2016
- Jonathan Frank joined FECT as a Writer in October 2016
- Duleeka Watagodapitiya joined FECT as an Intern in December 2016

Operational Services

- ***Climate Services for Sri Lanka:*** We continued to provide Climate Services for the Mahaweli Authority and Maldives. Archives of advisory reports are available at: <http://fectsl.blogspot.com/>; and the monthly Climate Report for Maldives at: <http://www.tropicalclimate.org/maldives>. Weekly expert input for Hydro-meteorological Assessment for Mahaweli Authority in Sri Lanka, made available via <http://fectsl.blogspot.com>; <http://www.climate.lk/> and <http://fectsl.wordpress.com/>
 - Continued to support the 30-day predictions for Sri Lankan regions.
 - Continued various rainfall estimation tools.
- ***Climate Services for Maldives:*** Collaboration with the Maldivian Meteorological Services
 - Monthly Hydro-meteorological Advisory services to Maldives.
 - Made Available via <http://fectmv.blogspot.com>
- ***Climate Services for the Comoros:*** <http://www.tropicalclimate.org/comoros/> provides updated information for the Comoros.

Dissemination

Lectures

- May 2016 - Wickramagamage, P. Lecture on GIS to the Bachelor of Environment Management students and lecturers at the Faculty of Science, at the Maldives National University.
- May 2016 - Zubair, L. - Lecture on Data Library, FECT work, and Global Data Access at the Maldives National University.

Brochures/Flyers

- Updated the two page brochure on Projects in Sri Lanka
- Prepared a flyer on PEER Drought project
- Prepared a flyer on PEER Hazards project
- Translated the two page brochure on Projects in Sri Lanka to Sinhala and Tamil languages

Posters

- Agalawatte, P., Zubair, L., Zahid, Visvanathan, J., Yahiya, Z. & Bell, M. (2016). “The Monthly Climate Advisory for Maldives – a resource for marine Scientists”
- Revised the Maldives Poster Book

Websites, Blogs, Social Media and Mailing Lists for Sri Lanka

Websites:

- We updated our website: <http://www.climate.lk>
- www.tropicalclimate.org remains a work in progress.
- www.recoverlanka.net and www.geolanka.net are not being maintained any longer and their contents shall be recovered in the future.

Project Websites:

- MDP: <https://mdpsl.wordpress.com/> (5 posts, 249 views, 174 visitors)
- AgMIP project: <https://agmipsl.wordpress.com/> (38 posts, 4059 views, 1956 visitors)
- PEER: <https://peersl.wordpress.com/> (43 posts, 4276 views, 2315 visitors)
- ASIRI RAWI project: http://www.tropicalclimate.org/Asiri_Rawi/
- ENRN: <http://www.climate.lk/ENRN/>

Blogs:

- The FECT-SL, AgMIP and PEER blogs were updated occasionally with general, water related and agriculture related content.
- Blogs on Sri Lankan climate at: <http://srilankaclimate.wordpress.com> and <http://fectlk.blogspot.com> (10 000+ views).
- <http://fectsl.blogspot.com> and <http://sselect.net/> are archived at www.kottu.org, a blog aggregator.
- <http://fectsl.wordpress.com/> has been updated regularly (14 posts, 5434 views, 839 visitors)

Twitter:

Our 3 Sri Lanka related twitter accounts have been somewhat active. We have now rebranded @fectwms as @climatelk and is now our principal outlet for weather and climate information. The visual presentation of these sites has been redone and is hopefully more inviting.

<https://twitter.com/fectlk> (130 tweets, 31 followers)

<https://twitter.com/fectwms> (42 tweets, 8 followers) now @climatelk

<http://twitter.com/sselect> (95 tweets, 84 followers)

Facebook:

On our facebook page, the visual presentation has been redone.

<https://www.facebook.com/FECTSL> (54 posts and 22 likes)

Mailing Lists:

Our mailing system has been maintained and we are sending our weekly climate newsletter

Subscription: Link is now listed at

<http://www.climate.lk/subscribe.html> Alternative short link: <http://eepurl.com/bPlixn> (58 subscribers, 50+ campaigns)

Websites, Social Media and Mailing Lists for Maldives

We have maintained websites, social media and mailing lists for Maldives. Subscriptions for Maldives is included in <http://www.climate.lk/subscribe.html>

Websites:

<http://www.tropicalclimate.org/maldives>

Blogs:

<http://fectsl.blogspot.com> and fectmv.blogspot.com are being regularly updated.

<https://maldivesclimate.wordpress.com/> (1 post, 22 views, 9 visitors)

Twitter:

<https://twitter.com/fectmv> (65 posts and 53 followers)

Facebook:

<http://facebook.com/fectmv> (344 posts and 216 likes)

Mailing List:

Subscription: <http://www.climate.lk/subscribe.html>

Alternative short link: <http://eepurl.com/bPkohP> (89 subscribers, 32 campaigns)

Websites, Social Media and Mailing Lists for Comoros

We had set up websites, blog and twitter account for Comoros and translated our flyer into French as well. Our main partner Hairu Fisheries in Comoros pulled out in large measure and as result we were stymied. We hope to work with Comorian partners.

Websites:

<http://www.tropicalclimate.org/comoros>

Blog:

<http://fectcomoros.blogspot.com>

Twitter:

<https://twitter.com/fectkm> (0 tweet, 1 follower)

Website, Social Media and Mailing Lists for Chagos

We have also set up a website and social media accounts for our work in Chagos.

Website:

<http://tropicalclimate.org/chagos/>

Twitter:

<https://twitter.com/fectlk>

Weather and Soil Moisture Instruments:

We operated two automated weather stations and made data available online. Weather data at our offices is taken every half an hour and uploaded automatically to the Internet for public access. One year of continuous records are available.

- For Digana: http://tropicalclimate.org/digana_weather/ Twitter: <https://twitter.com/diganaweather>
- For Akurana: http://tropicalclimate.org/akurana_weather/

- Soil Moisture and Temperature measurement Instruments from Davis Instruments at 4 depths along with transmission and automated data-logging were installed and are now operational.
- New Weather station for Southern Maldives:
For Southern Maldives: operated by LaMER at Small Island Research Centre, Southern Maldives
- Soil Moisture and Temperature measurement Instruments at 4 depths along with transmission and automated data-logging were provided for the Maldives.

Administration and IT:

Financial management at Peoples Bank, Hatton National Bank and Commercial Bank has been ordinary. Our auditors, Anzari and Co. have once again certified our accounts to be up to standards and our Annual Report has been submitted to the Registrar of Companies by Ralapanawe Associates, Colombo.

- Our libraries have been catalogued and are available digitally.
- Our paper holdings have been organized into a filing system to a large extent.
- These catalogues and other information are being made available via a staff internal web site.
- Computer systems were maintained and upgraded to keep up with the additional staff. We have set up better communication systems for remote interaction between our offices.
- FECT is registered in Comoros, Sri Lanka and New York. Our application to register FECT in Maldives is pending at the Ministry of Home Affairs for over a year.

Collaboration:

We had productive collaborations with personnel attached to the Mahaweli Authority of Sri Lanka (MASL), Ministry of Mahaweli Development and Environment, University of Peradeniya (UOP), Ministry of Sustainable Development and Wildlife, Central Province Government, Akurana Pradeshiya Sabhawa, Akurana Divisional Secretary, Akurana Womens Welfare Association, Anti Malaria Campaign, Open University of Sri Lanka (OUSL), Kotmale International Training Institute, Community Service Movement Akurana and Young Friends Akurana / Newsview.

We contributed to the Environmental Committee of Akurana to recommend measures to mitigate floods and environmental issues in Akurana.

In Maldives, we had productive collaborations with Maldives National University, Male' Water and Sewerage Company of Maldives, Maldives Meteorological Services, Health Protection Agency of Maldives, Renewable Energy Maldives, Land and Marine Environmental Resource Group Pvt Ltd., Maldives.

Lareef Zubair and Zeenas Yahiya discussed about projects in person with USAID personnel Nihani Riza and Paul Richards (USAID-Colombo & Maldives) and followed up with email and phone communication.

Lareef Zubair and Zeenas Yahiya met with USAID team visiting Maldives - Andrew Sissons (Mission Director), and Margot Welk (Environment Specialist) at the Maldives National University, Maldives on 29th August, 2016.

Internationally, we collaborated with NASA Goddard Space Flight Centre, Columbia University, Florida Agricultural and Mechanical University, University of Colorado, Indiana University-Purdue University at Indianapolis (IUPUI), International Research Institute for Climate and Society (IRI), State University of New York (Albany), New York University, Andulas University in Sumatra, Indonesia, Nansen Environmental Research Centre (India), and the University of Notre Dame.

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