

FECT

FEDERATION FOR ENVIRONMENT, CLIMATE AND TECHNOLOGY

Annual Progress Report 2020



FECT

TC

DS

FECT-MV

FECT Inc

FECT-KM

FECT Trust

Federation for Environment, Climate and Technology is a Federation comprising Foundation for Environment, Climate and Technology - FECT (Reg. No. – N (A) 1148, GA 56), Tropical Climate Guarantee Ltd. – TC (Reg. No. – GL 2438), Disaster Services – DS (Reg. No. – GA 00209570), FECT– Maldives - FECT-MV, FECT – Inc. which is registered in New York, USA (DOS ID No. – 3976120) and FECT – Comoros - FECT-Km, FECT-Trust – Etrust 03/16

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HIGHLIGHTS

We had a challenging, eventful and ultimately productive year at Federation for Environment, Climate and Technology in 2020 – a year of challenges in our 22-year informal history. We have kept up to the rising demands, projects have been completed, proposals submitted and new directions established. Staffing has adapted in numbers, skillsets and teamwork. IT systems are being maintained and the IRI data library installed on FECT servers is functional. Our operational weekly, monthly climate bulletin were circulated widely. Instrumentation for weather, air quality and soil moisture were installed and maintained in Sri Lanka and Maldives. We completed projects on STEM education successfully. Here we summarize the events, programs, partnerships, personnel and outputs for the year.

Administration

Our administration was challenged by the regulatory challenges and reporting and on the new constituent organizations. Due to the pandemic, we had to get organized for work from home. Our past work on the Cloud such as filing systems, library catalogues, internal blogs, Kanban boards and wiki pages had to be brought up to adequate standards. Digital archiving has been improved for some areas of our Themes and Projects. Disaster Risk Management especially with respect to IT remains to be addressed.

Publications

Some of our research papers on climate science, impacts, adaptations and disaster risk management are in progress for publications.

Conferences

Our staff participated and presented only at online conferences in India, USA and Sri Lanka.

Programs

We had active programs on air quality, instrumentation, Maldives, operational Climate services, Web Development, and Data Library development.

Projects

We had a portfolio of 3 projects. We are undertaking projects on dengue and climate, climate literacy.

Proposals

We submitted responses to the USAID Climate Change Adaptation Activity, Promoting Literacy on Climate, Climate Change, its Impacts and Mitigation through Awareness of Potential Transition to High Renewable Energy in Sri Lanka which are under review.

Operational Services

We continued to disseminate our weekly and monthly climate reports for Sri Lanka & Maldives. Our website gave a running update on the current seasonal climate conditions. Data were continuously being obtained through our instruments and assimilated for climate analysis through the Data Library.

Strategic Review

We have had staff brainstorming. Last year's reviews identified some critical areas for improvement as

- 1) Digital Archiving
- 2) Disaster Risk Management for IT
- 3) Ensuring legal and regulatory compliance
- 4) Identity staffing needs in IT, Legal, Research, Writing and Project Management
- 5) Improved Project Monitoring, Data Management and Performance Management
- 6) Better securing our Physical Infrastructure

We have taken modest steps in items 1-6 above but work remains— in some areas such as staffing, our recruitment was followed by staff departure. We picked up on our work in instrumentation and in research in dengue and climate. We have updated the staff handbook and summary on charitable activities.

Achievements

The websites www.cleanair.lk www.drought.lk and www.disease.lk competed at the e-swabhimani 2020 - Digital and Social Impact Awards by Sri Lanka's Information and Communication Technology Agency (ICTA). Cleanair.lk was awarded the Merit Trophy under the category Environment and Green Energy.

Challenges and Response

- The most significant challenge that we faced this year was turnover of staff which led to some knowledge and experience gaps.
- The regulatory and legal work took our time and treasure but these matters are now being managed well.
- We are trying to manage data acquisition which is expensive in Sri Lanka by setting up instruments and finding ways to acquire data.
- In Sri Lanka, work was slow after the COVID -19 outbreak and we had to adapt to work from home.

CODA

The need for improved climate risk management, understanding of climate and better disaster risk management means is being recognized as more important than ever. Nature reinforces this from time to time. Having built up our capacities, we can be more ambitious in helping vulnerable people around the Indian Ocean meet these threats as best in the coming years.

Instruments

We installed and maintaining automated web-enabled environmental observations systems for weather, soil moisture and air pollution in Sri Lanka and Maldives. New instrumentation was installed at Bulugohatenna, Bay leaf Restaurant Borella, Trinity College Kandy and Nachchaduwa in Sri Lanka.

Websites

Our websites have become richer. We setup 3 portals [cleanair.lk](#), [drought.lk](#), and [disease.lk](#) to provide authoritative information on air quality, drought and diseases accessible to the public. [cleanair.lk](#) has been nominated as finalist under the category Environment and Green Energy. We maintained operational climate services for Sri Lanka and Maldives, generating content, disseminating regularly, responding to queries, and enabling researchers both within and without. Our library holdings and catalogues were maintained.

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), Akurana Pradeshiya Sabhawa, Akurana Divisional Secretary, Akurana Women's Welfare Association, Open University of Sri Lanka (OUSL), Environment Committee of the Public Utilities Commission, and News View.

In Maldives, we had productive collaborations with Maldives National University, Land and Marine Environment (LaMER) and the Small Island Research Group (SIRC/G).

PUBLICATIONS

Papers in Progress:

- Zubair, L., Ahmed, N., Mohamed, M., Zahid, Climate Drives the Seasonal and Regional Variation in Dengue Incidence in the Maldives.
- Zubair, L., Lokuhetti, R., Visvanathan, J., Hadgie, T. and Ellegala, P., PM2.5 Sensors Detect Transport of Particulates from Sri Lanka's Coal Power Plant to Its Highlands.
- Nijamdeen, A., Zubair, L., Salih, R., Lokuhetti, R., Hadgie, T., Randiwela, M., Seasonal Climate variability Impacts Tea Production across Tea Regions of Sri Lanka.
- Kusumawathie, P., Finer scale risk analysis of dengue in Medical Officer of Health area Akurana in Sri Lanka.
- Zubair, L. and Ellegala, P., Remarkable Increase of Ambient Air pollution Levels in Sri Lanka on 5th and 6th November, 2019 is attributed to transport from the Indian Sub-Continent.
- Zubair, L., Nijamdeen, A., the 2014-2016 El Niño in Sri Lanka: Climate, Impacts, Response.
- Lareef Zubair, Ashara Nijamdeen, the 2014-2016 El Niño in Maldives: Climate, Impacts, Response.
- Zubair, L., Gunathilake, C., Nijamdeen, A., A Decade of Climate Services for Water Management in Sri Lanka.
- Gunathilake, C., Nijamdeen, A., Zubair L., (2020). A Decade of Climate Services for Water Management in Maldives.
- Zubair, L., Lokuhetti, R., Nijamdeen, A., Seasonal and Regional Variation of Rainfall and Temperature Climate over Sri Lanka during 2018, NEELAHARITHA-The Climate Change Magazine of Sri Lanka. Sri

Lanka: Ministry of Mahaweli Development and Environment. 2020.

Technical Reports:

- Nijamdeen, A., Sasna, S., Kailaivasan, T., Randiwela, M., Kusumtawathie, P.H.D., Himanga, H., The Spatial and Seasonal Distribution of The Mosquito Vectors of Dengue and its relationship to Incidence of Dengue in the Akurana Sub-District of Kandy District in Sri Lanka. TCG Technical Report. 2020-01.
- Nijamdeen, A., Shayendra, D., Kailaivasan, T., Randiwela, M., Thennakoon, U., Kusumawathie, P.H.D., Annual and Monthly Climatology of Dengue Cases in Sri Lanka by District for 2001-2005. Tropical Climate Guarantee Technical Report. 2020-02.
- Chandrasiri, M.K.D.C.K., Nijamdeen, A., Evaluation of Methods to Estimate Evaporation from Climate Data in Kandy, FECT Technical Report-2020-03.
- Kailaivasan, T., Athawuda, A., Nijamdeen, A., Nadashan, P., Ellegala, P., Characterizing Seasonality and Spatial Variability of TB in Sri Lanka. Tropical Climate Guarantee Technical Report. 2020-04
- Ellegala, P., Kailaivasan, T., Gunathilake, C., Randiwela, M., Shameer, R., Nijamdeen, A., Why has there been no pronounced decline in Air Pollution due to the Corona Virus Curfews in Sri Lanka. FECT Technical Report. 2020-05.
- Thunendran, P., Nijamdeen, A., Characterizing Urbanization since 2003 in Akurana along the Pinga Oya River, Central Sri Lanka using Land Surveys and Free Satellite Imagery. Tropical Climate Guarantee Technical Report. 2020-06.
- Zubair, L., (2020) Estimation of External Costs of Thermal Power Generation, Comments to PUCSL on the Report on Social and Environmental Impacts of Power Plants, Federation for Environment, Climate and Technology Technical Report. 2020-07.
- Zubair L., Hadgie T., Nijamdeen A., Gunathilake C., Ellegala P., Randiwela M., Sathyendra D., Shameer R., Nadashan, P., The impact of emissions from the Norochcholai Coal Power Plant on Air Quality locally and on the Western Hills and its Slopes, Foundation for Environment, Climate and Technology Technical Report. 2020-08.
- Gunathilake, C., Javad, Z., Kailaivasan, T., Nijamdeen, A., Shameer, R., Randiwela, M., Hadgie, T., Ellegala, P., Zubair, L., Views of Inhabitants around Norochcholai on the Coal Power Plant and its Impacts on the Community. Federation for Environment, Climate and Technology, Technical Report. 2020-09.
- Wickramagamage, P., Zubair, L., Nijamdeen, A., Hadgie, T., Kailaivasan, T., Gunathilake, C., Shakira, F., Sathyendra, D., Athawuda, A. (2020) Project Report, STEM Education and Capacity Building in Southern Maldives, Foundation for Environment, Climate and Technology (FECT).

CONFERENCES

- International Conference on Climate Services, Pune, India, February 2020.
- International Visitor Leadership program, United States, March 2020.
- American Geophysical Union Fall meeting, Online, December 2020.
- Sri Lanka Association for Advancement of Science, Online, December 2020.

Abstracts:

- Gunatillake, C., Lokuhetti, R., Nijamdeen, A., Zubair, L., Michael, B., (2020) Provision of Climate Advisory for Sri Lanka for Disaster, Health and other Sectoral Management, International Conference on Climate Services, Pune, India, February 2020.
- Gunatillake, C., Lokuhetti, R., Nijamdeen, A., Zubair, L., Michael, B., (2020) Provision of Climate Advisory for Maldives for Disaster, Health and other Sectoral Management, International Conference on Climate Services, Pune, India, February 2020.
- Shifaz. M., et.al., (2020) Advancing STEM Education in a Middle and High School in Remote Islands of the Maldives. International Workshop on 'Policy Making for Transforming Silo-Based Education to STEM Education for Developing Countries', Colombo, Sri Lanka, 10-12 June, 2020.
- Zubair, L., et.al., (2020) STEM Education in the Far-flung and Vulnerable small islands of Maldives. Can the Work of Scientists be beneficially harnessed? International Workshop on 'Policy Making for Transforming Silo-Based Education to STEM Education for Developing Countries', Colombo, Sri Lanka, 10-12 June, 2020.
- Nijamdeen, A., Zubair, L., Ellegala, P., Hadgie, T., Gunatillake, C., (2020) Attributing improvement of Air quality in Colombo to Covid- 19 curfews to distracts focus on Sri Lanka's major source of air pollution, American Geophysical Union Fall meeting, 8th December 2020.
- Nijamdeen, A., Zubair, L., Thunendran, P., Bandara, B., Gunatillake, C, Devadasan, N., (2020) Characterizing Urbanization over two decades in the Pinga Oya River catchment in Central Sri Lanka using Land Surveys and Google Earth images for Application for Dengue and Hydrological Risk Assessment, American Geophysical Union Fall meeting, 10th December 2020.
- Nijamdeen, A., Zubair, L., Wickramagamage, P., Shifaz, M., Hadgie, T., Gunatillake, C., (2020) STEM Education in the far flung and vulnerable islands of Maldives: Can the work of Scientists be beneficially harnessed? American Geophysical Union Fall meeting, 11th December 2020.
- Nijamdeen, A., Zubair, L., Kusumawathie, P.H.D., (2020) The impacts of Climate variability on Seasonality, Spatial variability and Extremes of Dengue Transmission in Sri Lanka: Relationship of El Nino, Indian Ocean Dipole and Warming and Epidemic Incidences, American Geophysical Union Fall meeting, 14th December 2020.
- Perenperaj, Nadesan., Zubair L., (2020) The impact of climate variability on economic growth in Sri Lanka, Sri Lanka Association for Advancement of Science, December 2020.
- Thunendran, P., Zubair, L., Bandara, R., Gunatillake, C., (2020) Can changes in land use and built environment affecting disaster and disease risk be quantified using land survey and Google Earth images? Sri Lanka Association for Advancement of Science, December 2020.
- Ellegala P., Zubair L., Gunatillake C., (2020) Was the spike in air pollution in Sri Lanka from 3-5 November 2019 due to transboundary transport or inland sources? Sri Lanka Association for Advancement of Science, December 2020.
- Chandrasiri, M.K.D.C.K., Nijamdeen, A., Zubair, L., (2020) Choice and validation of evaporation estimation models under Sri Lankan conditions, Sri Lanka Association for Advancement of Science, December 2020.

- Nijamdeen, A., Zubair, L., Kusumawathie, P.H.D., Kailaivasen, T., Sasna, S., Randiwela, M., (2020) Seasonal, Spatial and Epidemic Characteristics of Dengue Vectors in a rapidly urbanizing hill country locale and its relationships with dengue cases and climate, Sri Lanka Association for Advancement of Science, December 2020.
- Wickramasinghe, D.H.K., Zubair, L., Ellegala, P., Gunatillake, C., (2020) Did the COVID19 curfews or seasonal wind changes drive the drop in fine air-borne particulate matter in Colombo after 20 March 2020? Sri Lanka Association for Advancement of Science, December 2020.
- Nijamdeen, A., Gammanpila, S., Zubair, L., Bandara, R., Wickramagamage, P., and Kusumawathie, P.H.D., (2020) Contamination of Groundwater and Soil and Risk of Further Transmission due to COVID19 Infected and Other Burials: Does Sri Lanka's environment pose a unique risk? International Conference on Ground Water Conservation and Management by Leveraging Science, Technology and Innovation, December 2020.

e-poster presentations

- Nijamdeen, A., Zubair, L., Ellegala, P., Hadgie, T., Gunatillake, C., (2020) Attributing improvement of Air quality in Colombo to Covid- 19 curfews to distracts focus on Sri Lanka's major source of air pollution, AGU Fall meeting, i-poster session, 8th December 2020 (Link to poster- <https://agu2020fallmeeting-agu.ipostersessions.com/?s=58-8D-7D-97-7F-F3-E1-84-BD-BA-FC-EE-C7-C3-BB-3A>) (Link to e-lightning sessions -<https://agu.confex.com/agu/fm20/meetingapp.cgi/Session/106566>)
- Nijamdeen, A., Zubair, L., Kusumawathie, P.H.D., (2020) The impacts of Climate variability on Seasonality, Spatial variability and Extremes of Dengue Transmission in Sri Lanka :Relationship of El Nino, Indian Ocean Dipole and Warming and Epidemic Incidences, American Geophysical Union Fall meeting, iposter session 14th December 2020 (Link- <https://agu2020fallmeeting-agu.ipostersessions.com/?s=39-A6-DA-B4-86-C2-9A-28-50-10-47-C9-C4-21-12-88>) (Link to e-Lightning - <https://agu.confex.com/agu/fm20/meetingapp.cgi/Session/101313>)
- Nijamdeen, A., Zubair, L., Kusumawathie, P.H.D., Kailaivasen, T., Sasna, S., Randiwela, M., (2020) Seasonal, Spatial and Epidemic Characteristics of Dengue Vectors in a rapidly urbanizing hill country locale and its relationships with dengue cases and climate, e poster, Sri Lanka Association for Advancement of Science, Poster Presentation December 2020 (Link- <https://www.youtube.com/watch?v=lalcrVcEuVw>)
- Wickramasinghe, D.H.K., Zubair L., Ellegala P., Gunatillake C, (2020) Did the COVID19 curfews or seasonal wind changes drive the drop in fine air-borne particulate matter in Colombo after 20 March 2020? - e-poster, Sri Lanka Association for Advancement of Science, Poster Presentation December 2020 (Link - <https://www.youtube.com/watch?v=sImcLSvBPJA&t=8s>)
- Nijamdeen, A., Zubair, L., Wickramagamage, P., Shifaz, M, Hadgie, T., Gunatillake, C., (2020) STEM Education in the far flung and vulnerable islands of Maldives: Can the work of Scientists be beneficially harnessed?, AGU Fall meeting, iposter session, 11th December 2020 (Link to poster - <https://agu2020fallmeeting-agu.ipostersessions.com/?s=B1-F5-87-AD-AC-14-0C-8B-60-BC-15-E0-2F-C1-4C-1B>)

Presentations:

- Thunendran, P., Zubair, L., Bandara, R., Gunatillake, C., (2020) Can changes in land use and built environment affecting disaster and disease risk be quantified using land survey and Google Earth images?, Sri Lanka Association for Advancement of Science, Oral session December 2020(Link - <https://agu.confex.com/agu/fm20/meetingapp.cgi/Paper/7758470> (Link to e-lightning session - <https://agu.confex.com/agu/fm20/meetingapp.cgi/Session/109233>)
- Nadashan, P., Zubair, L., (2020) The impact of climate variability on economic growth in Sri Lanka, Sri Lanka Association for Advancement of Science, Technical Session December 2020.
- Thunendran, P., Zubair, L., Bandara, R., Gunatillake, C., (2020) Can changes in land use and built environment affecting disaster and disease risk be quantified using land survey and Google Earth images? Sri Lanka Association for Advancement of Science, Technical Session December 2020.
- Ellegala, P., Zubair, L., Gunatillake, C., (2020) Was the spike in air pollution in Sri Lanka from 3-5 November 2019 due to transboundary transport or inland sources? Sri Lanka Association for Advancement of Science, Technical Session December 2020.
- Chandrasiri, M.K.D.C.K., Nijamdeen, A., Zubair, L., (2020) Choice and validation of evaporation estimation models under Sri Lankan conditions, Sri Lanka Association for Advancement of Science, Technical Session December 2020

PROJECTS

- Partnership for Enhanced Engagement in Research (PEER) - Dengue Project continued. A sub-contract was provided by Environmental Foundation to report on Air Quality in relation to Norochcholai Coal Power Plant.
- Sub-contract on Norochcholai Coal Power Plant, Environmental Foundation limited.

ADMINISTRATION AND IT

- Our accounting systems, audits and company reporting were completed well.
- Inventories of books, files, journals and reports were made more accessible.
- 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.
- We keep complaint with the labour, financial and company law.

COMMUNICATION MATERIAL

Institutional Documents:

- The Annual Progress report for 2019 was issued.
- The Review of our Charitable Activities was updated.

Brochures/ Flyers:

- Updated FECT-Comoros flyer.
- Created the STEM Education flyer & STEM website flyer
- An informational flyer on the Bayleaf weather Station flyer

- Updated the TC VSO flyer English & Tamil
- Updated the TC VSO Sinhala Flyer

DISCUSSIONS / MEETINGS

Internal Meetings:

- January 2020 – Project Review Meeting at the Old Trinitians’ Sports Club, Kandy, Sri Lanka. Professor Jude Fernando participated for this event as a guest.
- January 2020 – Communication Workshop at Digana Village Resort, Kandy, Sri Lanka. Especially Mr. Nalaka Gunawardene, Dr. Lalitha Dissanayake and Prof. P. Wickramagama participated in this workshop.

External Meetings:

- February 2020 – Chayana Gunathilake, The Global Framework for Climate Services (GFCS) has teamed up with the Climate Services Partnership (CSP) to organize the Sixth International Conference on Climate Services, Pune, India.
- March 2020 – Piyushani Ellegala, International Visitor Leadership program, Washington, USA
- September 2020 – Ashara Nijamdeen, Stakeholder Consultation on Reviewing and Updating Nationally Determined Contributions of Sri Lanka Workshop, Oak Ray Regency Hotel, Deveni Rajasinghe Mawatha, Getambe, Kandy.
- September 2020 – Climate Change Adaptation Project meeting. USAID project management specialists along with representatives of FECTSL and MNU participated in an online meeting.

FEATURE ARTICLES

- May 2020 – Z.L. Mohamed, Ramzy Razeek: An extraordinary struggle for an ordinary life of services upended by a Police arrest, (Daily FT, Ground views 1249 words)
- June 2020 - Z. L. Mohammed, கண்டியில் நடைபெற்ற வன்முறைகள் தொடர்பாக, காலம் சென்ற அம்பாலை, பேரகெட்டிய தேரரின் கருத்துக்கள் (650 words)
- June 2020 – Lareef Zubair and Piyushani Ellegala, Air Quality Improvement in Colombo due to COVID curfews or changes in wind? (Daily Mirror, 1302 words)
- June 2020 – Lareef Zubair, Crediting the Lockdown for Sri Lanka’s cleaner air masks the real problem (Commentary), (Mongabay, 1821 words)
- July 2020 – Z.L.Mohamed, ජාතිවාදයට එරෙහි වූ අරගලයක් වෙනුවෙන් තැබූ ඉස්වුක් සටහනකට රමසි රාසික් අසාධාරණ ලෙස අත්අඩංගුවට ගැනීම , (Vikalpa, 1177 words)

MEDIA CITATIONS

- May 21, 2020 : Aided by weather, Sri Lanka’s lockdown leads to decline in air, sea pollution by Dennis Mombauer, Mongabay, <https://news.mongabay.com/2020/05/aided-by-weather-sri-lankas-lockdown-leads-to-decline-in-air-sea-pollution/>
- June 21, 2020: “Lockdown = Cleaner air” By Jithendri Gomes, The Sunday Morning

ONGOING GRANTS

- **PEER Cycle 7:** Developing Dengue Risk Predictions from Environmental, Entomological and societal information to aid public health management in Sri Lanka. From the US National Academy of Sciences (PI – P. H. D. Kusumawathie, 2019 – 2021)

Grant Reporting:

• PEER Cycle 7: Developing Dengue Risk Predictions from Environmental, Entomological, and Societal Information to aid public health management in Sri Lanka.

- (Oct+Nov+Dec 2019): reporting submitted in January 2020.
- (Jan+Feb+March): reporting submitted in April 2020.
- (April+May+June): reporting submitted in July 2020.
- (July+Aug+Sep): reporting submitted in October 2020.
- (September 2019 - September 2020): reporting submitted in October 2020.

PROPOSALS

- Climate and Disaster Risk Management in Sri Lanka: How can research be communicated effectively to support decision-needs of Marginalized and Vulnerable communities, to PEER Cycle 9, USAID, February 2020
- Can Air Pollution in Sri Lanka be characterized to identify impacts on Hydrology, Forests and Health skillfully for Mitigating its Impacts?” PEER Cycle 9- USAID, February 2020
- Diagnosing the Impacts on Forest Dieback in Horton Plains due to Atmospheric Transport of Lead Pollution? Organization for Women in Science for the Developing World (OWSD) Early Career Fellowship

Concept Notes:

- Response to Request for Information USAID/Maldives Climate Change Adaptation Project Reference Number: 2021/A Upmanu Lall^{1,2}, Brendan Buckley³, Remi Cousin², Tufa Dinku², Alessandra Giannini², Joaquim Goes³, Bradfield Lyon², Andrew Robertson², and Lareef Zubair¹ 1. Columbia University Water Center, 2. International Research Institute for Climate and Society and 3. Lamont Doherty Earth Observatory, Columbia University in the City of New York.
- Response to Request for Information USAID/Maldives Climate Change Adaptation Project Reference Number: 2021/A Upmanu Lall^{1,2}, Brendan Buckley³, Remi Cousin², Tufa Dinku², Alessandra Giannini², Joaquim Goes³, Bradfield Lyon², Andrew Robertson², and Lareef Zubair¹ 1. Columbia University Water Center, 2. International Research Institute for Climate and Society and 3. Lamont Doherty Earth Observatory, Columbia University in the City of New York.
- Request for Information USAID/Sri Lanka Climate Change Adaptation Project Reference Number 2021/A: Ranmalee Bandara, PHD. Kusumawathie, Champa Nawarathne, Ashara Nijamdeen, Vidhura Ralapanawe, P. Wickramagamage, Nalin Wickramanayaka, and Lareef Zubair, Foundation for

Environment, Climate and Technology-Sri Lanka, Sabaragamuwa University, Open University, Tropical Climate Guarantee, University of Peradeniya and University of Ruhuna

- Response to Request for Information USAID/Sri Lanka & Maldives Climate Change Adaptation Project Reference Number: 2021/A Hudha Ahmed, Aishath Afaaf, Mizna Mohamed, Shazla Mohamed, Lareef Zubair Foundation for Environment, Climate and Technology-Maldives and Sri Lanka and Maldives National University, Male.
- Promoting Literacy on Climate, Climate Change, its Impacts and Mitigation through Awareness of Potential Transition to High Renewable Energy in Sri Lanka, British High Commission, December 2020 (DS)

OPERATIONAL SERVICES (CLIMATE SERVICES)

Disseminated our weekly, monthly and annual climate assessments for Sri Lanka and Maldives by email and via social media. Dissemination of drought monitoring for Sri Lanka and Maldives and automated climate report generation for Maldives were continued.

- 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>; Weekly expert input for Hydro-meteorological Assessment for Mahaweli Authority is made available via <http://fectsl.blogspot.com>; <http://www.climate.lk> and <http://fectsl.wordpress.com>
- Climate Services for Maldives: Collaboration with the Maldivian Meteorological Services Monthly Hydro-meteorological Advisory services to Maldives. via <http://fectmv.blogspot.com> and <http://www.tropicalclimate.org/maldives>
- Climate Services for the Comoros: <http://www.tropicalclimate.org/comoros> provides updated information for the Comoros.

TRAINING AND STAFF

There were seven staff members who contributed and Internship opportunities were provided for 14 students from University of Peradeniya, Eastern University of Sri Lanka, NIBM, SLIATE and ICBT. Part-time contributions were provided by P. Thunendran.

WEBSITES, BLOGS, COLLABRATION BOARDS, SOCIAL MEDIA AND MAILING LISTS FOR SRI LANKA AND MALDIVES

Websites

- We updated our website: www.climate.lk, www.disaster.lk and lareef.net
- www.cleanair.lk, www.drought.lk and www.disease.lk were setup
- www.tropicalclimate.org was made serviceable.
- www.recoverlanka.net and www.geolanka.net are not being maintained any longer and the content of recoverlanka is now online.

Blogs

1. Project Blogs (External):

Our projects each have a webpage which is accessible via www.climate.lk or www.tropicalclimate.org. In addition, we maintained blogs for the following projects at

- MDP: <https://mdpsl.wordpress.com>
- AgMIP project: <https://agmipsl.wordpress.com>
- PEER: <https://peersl.wordpress.com>

2. Institutional Blogs (Internal):

- Blogs on Sri Lankan climate at: <http://srilankaclimate.wordpress.com> and <http://fectlk.blogspot.com>
- <http://fectsl.blogspot.com> and <http://fectsl.blogspot.com> is archived at www.kottu.org, a blog aggregator.
- <http://fectsl.wordpress.com/> has been updated regularly
- Tea & Climate in Sri Lanka: <https://teaclimate.blogspot.com>

3. Internal Blogs:

Staff

- FECT Standard Operating Procedure - <https://fectsop.blogspot.com/>
- Strategic Planning and Projects for FECT - <https://fectstrat.blogspot.com/>

Institutional

- Disaster Services Internal - <https://fectds.blogspot.com/>
- Disaster Services SL - <https://disasterlk.blogspot.com/>

Themes

- IT – <https://fectit.blogspot.com/>
- Publication - <https://fectpub.blogspot.com/>
- Communication - <https://fectcom.blogspot.com/>
- Admin
 - HR - <https://fecthr.blogspot.com/>
 - Admin - <https://fectadmin.blogspot.com/>
 - Management - <https://fectmgmt.blogspot.com/>
- FECT Organizational Notes - <https://fectorg.blogspot.com/>
- Weekly Reports - <https://fectreports.blogspot.com/>
- Projects - <https://fectprojects.blogspot.com/>
- Tea & Climate - <https://teaclimate.blogspot.com/>
- Research – Climate - srilankaclimate.wordpress.com, maldivesclimate.wordpress.com
- Data - [Data Library](#)

Programs

- Indian Ocean

- Chagos - chagosclimate.wordpress.com
- Zanzibar - ZA.blogspot.com,
- Comoros - Comoros.blogspot.com
- Maldives - MV.blogspot.com

Collaboration Boards

1. Trello Boards

FECT Projects

- Pinga Oya - <https://trello.com/b/UhV1iJ5c/pinga-oya>
- Hazards project – Formerly Drought <https://trello.com/b/NWnP8k7C/hazards-project-formerly-drought>
- STEM - <https://trello.com/b/Pu8m8tBb/stem-project>
- Dengue central province project - <https://trello.com/b/JdwM6AGG/dengue-central-province-project>
- DS Project - <https://trello.com/b/zu2AGlZq/ds-project>
- E-Swabhimani - <https://trello.com/b/8zxL2JWR/e-swabhimani-2020>

Themes

- FECT Admin- <https://trello.com/b/NUxbJrpL/fect-admin>
- FECT HR - <https://trello.com/b/5ys4nydD/fect-hr>
- Communication - <https://trello.com/b/Sq4eFS8C/communication>
- Data Bases - <https://trello.com/b/DSEsqk71/data-bases>
- FECT Financial - <https://trello.com/b/xcrh43rY/fect-financial>
- Legal
 - FECT Legal - <https://trello.com/b/2njt2NGk/legal>
 - ZY Cases- <https://trello.com/b/4tgbY2wu/zy-cases-lt-dc-mc-coa>
- IT
 - FECT IT - <https://trello.com/b/beY5G5rY/fect-it>
 - Instrumentation & Monitoring <https://trello.com/b/NvJNVPWe/instrumentation-monitoring>
 - IT Master list Tasks - <https://trello.com/b/D8UAtZSO/it-master-list-tasks>
 - Social service and Advocacy
 - VSO FECT & TC - <https://trello.com/b/9IbGvI0B/vso-fect-and-tc>
 - AWWA - <https://trello.com/b/jqcwRIhl/awwa>
 - Resolve the issue in AWWA - <https://trello.com/b/hYjeZuG/resolve-the-issue-in-awwa>
 - TC/DS/TRUST - <https://trello.com/b/SNHUfQhB/tc-ds-trust>

Staff

- FECT Tasks- <https://trello.com/b/YjNkEY3a/fect-tasks>
- Staff Productivity online – SPO – Formerly OCW - <https://trello.com/b/25dLEqCg/staff-productivity-online-spo-formerly-ocw>
- BLOGS/TRELLO/OSF/ASANA - <https://trello.com/b/wkmAoh3S/blogs-trello-osf-asana>
- Office Maintenance
 - Akurana- <https://trello.com/b/VuIMLsCU/akurana-office-maintenance>

- Digana- <https://trello.com/b/wZa7N4Mu/digana-office-maintenance>
- Strategic Planning - <https://trello.com/b/SEPEkwQe/fect-strategic-planning>
- Work Reporting - <https://trello.com/b/Cc5HyJog/work-reporting>

Programs

- Maldives Communication - <https://trello.com/b/5vFl4Jny/maldives-communication>
- AQ Impacts- <https://trello.com/b/p5maTBH1/aq-impacts>
- Dengue & Climate SL - <https://trello.com/b/Z59PKKqe/dengue-and-climate-sl>

Institutional

- Disaster Services - <https://trello.com/b/dHseME3Z/disaster-services>
- Setting up Tropical Climate - <https://trello.com/b/SNHUfQhB/setting-up-tropical-climate>
- SWOT Analysis FECT - <https://trello.com/b/4CINmOWE/swot-analysis-of-fect>
- KMV Documentation- <https://trello.com/b/G0wRINk7/kmv-documentation>

FECT Admin

- FECT Admin TH, RZ, FS, NS History Archive - <https://trello.com/b/QFU4sm4G/fect-admin-th-rz-fs-ns-history-archive>
- FECT ADMIN Operational Tasks - <https://trello.com/b/J8T85WGc/fect-admin-operational-tasks>

LZ Boards

- Genealogy- <https://trello.com/b/tavNt1Dz/genealogy>
- Zubair Family Legal - <https://trello.com/b/a4oYPz0z/zubair-family-legal>

2. Freed camp

- Cleanair.lk - <https://freedcamp.com/view/2765322/tasks>
- Drought.lk - <https://freedcamp.com/view/2765267/tasks>
- Disease.lk - <https://freedcamp.com/view/2766222/tasks>
- Tea and Climate - <https://freedcamp.com/view/1500730/tasks>
- Electronic and Computer Hardware - <https://freedcamp.com/view/2833606/tasks>

3. OSF Projects

- Maldives Climate Bulletin - <https://osf.io/gh4cp/>
- Climate.lk Track Records - <https://osf.io/c5zx8/>
- FECT Re-Org - <https://osf.io/vm9tk/>
- FECT OCW - <https://osf.io/crzdth/>
- ICTA - <https://osf.io/kypur/>
- DSC Publications - <https://osf.io/nbmkf/>
- KMV - <https://osf.io/thzak/>
- Sri Lanka Dengue & Climate - <https://osf.io/j2ygs/>

- Disaster Services Project - <https://osf.io/fjwre/>
- Hazards Project Reporting - <https://osf.io/xmtfq/>
- Tea and Climate - <https://osf.io/jf4wr/>
- Digana Office Maintenance - <https://osf.io/3jnx4/>
- FECT Electronic Hardware - <https://osf.io/phwdg/>
- Data Library Updating - <https://osf.io/zdkur/>
- Telecommunications - <https://osf.io/bcgwp/>
- Data - <https://osf.io/tjcyw/>
- Institutional Key Documents - <https://osf.io/mhuf7/>

Social Media

Twitter:

Our 3 Sri Lanka related twitter accounts have been somewhat active

- <https://twitter.com/fectlk>
- <https://twitter.com/climatelk>

Facebook: The visual presentation has been improved. However, we have not been active except for automatic postings

- <https://www.facebook.com/FECTSL>

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/bPlinx>

MALDIVES - WEBSITES, SOCIAL MEDIA AND MAILING LISTS

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>
www.climate.mv/ was setup for representing our work in the Maldives.
stem.climate.mv/ was setup as a resource for middle school students and their educators.
- **Blogs:** <http://fectsl.blogspot.com> and fectmv.blogspot.com are being regularly updated.
<https://maldivesclimate.wordpress.com>
- **Twitter:** <https://twitter.com/fectmv>
- **Facebook:** <http://facebook.com/fectmv>
- **Mailing List:** Subscription: <http://www.climate.lk/subscribe.html>
Alternative short link: <http://eepurl.com/bPkohP>

COMOROS - WEBSITES, SOCIAL MEDIA AND MAILING LISTS

Our websites, blog and twitter account for Comoros have been updated. 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:** <http://twitter.com/fectkm>

CHAGOS - WEBSITE, SOCIAL MEDIA AND MAILING LISTS

Our website and social media accounts for our work in Chagos have been updated. In the coming years, we shall make contact with Chagossians and those interested.

- **Website:** <http://tropicalclimate.org/chagos>
- **Blog:** <http://chagosclimate.wordpress.com>

ZANZIBAR - WEBSITE, SOCIAL MEDIA AND MAILING LISTS

We have set up a website and social media accounts for Zanzibar. In the future, we hope to work with our partners in Zanzibar.

- **Website:** <http://www.tropicalclimate.org/zanzibar>
- **Blog:** <http://fectza.blogspot.com>
- **Twitter:** <https://twitter.com/fectza>

DISASTER SERVICES – WEBSITE AND SOCIAL MEDIA

We have been updating and maintaining the website and social media accounts for our work on Disaster Services.

- **Website** - <https://disaster.lk>
- **Twitter** - <https://twitter.com/disasterlk>
- **Facebook** - <https://www.facebook.com/disasterlk>
- **YouTube** - https://www.youtube.com/channel/UCvBg5N-R_Q7ksoHMP9Wp5dQ

DROUGHT – WEBSITE AND SOCIAL MEDIA

We have setup the website and social media accounts this year to present our work on drought.

- **Website** - <https://drought.lk>
- **Twitter** - <https://twitter.com/droughtlk>
- **Facebook** - <https://www.facebook.com/droughtlk.lk>
- **Instagram** - <https://www.instagram.com/drought.lk>

CLEANAIR – WEBSITE AND SOCIAL MEDIA

We have setup the website and social media accounts this year to present our work on air quality.

- **Website** – <https://cleanair.lk>
- **Twitter** - <https://twitter.com/Cleanairlk>
- **Facebook** - <https://www.facebook.com/cleanairlk.lk>
- **Instagram** - <https://www.instagram.com/cleanairlk>

DISEASE – WEBSITE AND SOCIAL MEDIA

We have setup the website and social media accounts this year to provide information on diseases

- **Website** - <https://disease.lk>
- **Twitter** - <https://twitter.com/diseaselk>
- **Facebook** - <https://www.facebook.com/diseaselk.lk.5>
- **Instagram** - <https://www.instagram.com/diseaselk>

INSTRUMENTATION

Weather Instruments

- We operated two automated weather stations (AWS) and made data available online. Weather data at our offices are taken every half an hour and uploaded automatically to the Internet for public access.
- For Digana: http://tropicalclimate.org/digana_weather
- For Akurana: <http://tropicalclimate.org/akuranaweather>
- For Maldives: <https://www.climate.mv/weather/>
- Ambient Weather Stations were maintained in Aranayaka, Norochcholai and Nawalapitiya this year we installed at Borella, Kandy, Nachchaduwa.

Air Quality Instruments

- Purple Air instruments installed were maintained in Norochcholai, Illanthandiya, Puttalam, Nirmalapura, Nawalapitiya, Nachchaduwa.
- Air visual instruments installed were maintained in Norochcholai, US Embassy, LST, Akurana, Puttalam, Kandy and Serakkuliya.
- Ambient Air Quality Sensor was installed in Borella

Soil Moisture Instruments

- The Soil moisture instrument installed was maintained in the FECT office in Akurana and in the Observatory of the Maldivian Meteorological Service.

ADMINISTRATION AND IT (EXTENDED)

Financial management at Peoples Bank, Hatton National Bank and Commercial Bank has been without any issues. Our auditors, Anzari and Co. have once again certified our accounts to be up to standard and our Annual Reports have been submitted to 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 website.
- Computer systems were maintained and upgraded to keep up with the additional staff. We have set up communication systems for remote interaction between our offices.
- FECT is registered in Comoros, Sri Lanka, Maldives and New York.

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