

November 2017



Department of Environmental Sciences
University of Kerala, Kariavattom Campus





Dr. Sabu Joseph Associate Professor & Head of the Department

Dear Readers.

"Bhoomika" is the literary incarnation of the hopes and aspirations of Department of Environmental Sciences, University of Kerala. It is vibrant, colourful and lively as its protagonists. The aim of this endeavour is to capture the multivariate aspects of our environment, its conservation and sustainable development. This newsletter reverberates with discussions about topics of environmental importance and various activities and happenings of the department. We have reminisced about the valuable contributions made by the doyens of the department, our former professors who illuminated the path that we are proudly walking on. This initiative could not have materialized without the inspiration and vision of our esteemed faculty members, the untiring efforts of the team Bhoomika and the brilliance of the young dynamic contributors. We wholeheartedly welcome all comments and suggestions and feedback regarding this humble venture.

We proudly present "Bhoomika" - the earthy canvas of our thoughts and actions... also wish all success to achieve its goals.

I am delighted to know that the Department of Environmental Science is bringing forth a newsletter "Bhoomika". It is indeed a good attempt and I congratulate the team involved for their efforts and hardwork in this endeavour. I hope very much that this newsletter will bring to light many of the programmes conducted by the staff and students of the department related to environmental protection and awareness, which normally goes unnoticed. I wish all success for the continuous release of this newsletter for the benefit of students and society as well.



Dr. V. Salom Gnana Thanga Associate Professor Dept. of Env. Sciences



Dr. Jaya D.S. Associate Professor & BOS Chairperson in Environmental Sciences

There's a special joy in publishing a news letter by the Department of Environmental Sciences. This News letter "Bhoomika" may be beneficial for students, researchers and faculty members of the department. Specifically, this publication may help students, researchers and faculty members to communicate their views. This magazine may also help the students and research scholars to express their ideas to mitigate the pollution problems and sustainable management of all segments of the environment. I wish all the best for this publication from the Dept. of Environmental Sciences, University of

**Editorial Team** 

Dr. Sabu Joseph Dr. V. Salom Gnana T

Dr. V. Salom Gnana Thanga

Dr. Jaya D.S. Dr. Prince S. Godson Mr. Junaid Hassan S. Mr. Arunkumar P.S. Mrs. Anula Susan Varughese Ms. Niyathi Vijay



#### Dr. Andrea's visit to Department

Dr. Andrea Germandi, Senior Lecturer, Dept. of Natural Resources & Environmental Management, University of Haifa, Israel visited the University of Kerala towards the end of July. He made an inspiring talk in the Dept. of Env. Sciences on a topic "Water resource management: Experience from Israel". The programme was attended by Faculty members and students from Dept. of Env. Sciences, Geology, Aquatic Biology etc. Talk was followed by an interactive session with students and researchers.



#### UGC-ISF Workshop on Ecosystem Service Assessment for the Sustanable Management of Ashtamudi and Sasthamkotta Lakes, Kerala

As a part of the ongoing Indo-Israel (UGC-ISF) joint project in the Dept. of Environmental Sciences, Univ. of Kerala, a workshop was conducted at The Raviz Hotel, Kollam on "Ecosystem Service Assessment for the Sustainable Management of Ashtamudi and Sasthamkotta lakes, Kerala" on 31st July and 1st August 2017. This was for the identification and quantification of ecosystem services offered by the above lakes. The participants were from the representatives of panchayaths sharing the lake, NGOs, municipality authorities etc. The auspicious occasion was started with a welcome address by Dr. Sabu Joseph (Principal Collaborator of project from India), Organizing Secretary, Associate Professor & Head, Dept. of Environmental Sciences, and was inaugurated by Adv. V. Rajendra Babu, Hon'ble Mayor, Kollam Corporation; Dr. N. Veeramanikandan, Hon'ble Pro-Vice Chancellor, University of Kerala delivered the Presidential address. Dr. Andrea Ghermandi (Principal Collaborator from Israel), Convener of the programe and Senior Lecturer, Dept. of Natural Resources & Environmental Management, University of Haifa, gave the programme overview. Dr. K. K. Appukuttan, Rtd. Principal Scientist, ICAR-CMFRI, Kochi and Secretary of Kerala Sasthra Sahitya Parishath (KSSP), Kollam felicitated the event. Dr. V. Salom Gnana Thanga, Associate Professor, Dept. of Environmental Sciences, University of Kerala proposed vote of thanks.







The inaugural function was followed by technical sessions on various aspects of ecosystem service valuation by eminent personalities in this field including Dr. Shyam S. Salim, Principal Scientist, ICAR-CMFRI, Kochi. He made presentation on "Resource Inventorization, Valuation and Governance Paradigm". Dr. A. Bijukumar, Professor & Head, Dept. of Aquatic Biology and Fisheries, University of Kerala. M.S. Prasantha Kumar, MD, Matsyafed, Govt. of Kerala, Kollam. Dr. Salom Gnana Thanga. V, Associate Professor, Dept. Environmental Sciences, University of Kerala. Presentations by Stakeholders (Sastra Sahitya Parishath, Local Bodies etc). V.K. Madhusoodanan, Kerala Sasthra Sahitya Parishath (KSSP). Dr. Sherly Williams, Associated Professor, Dept. of Zoology, Fatima Mata National College, Kollam. Y. Sajeeda, Assistant Executive Engineer, Kerala Water Authority (KWA), Kollam. Mrs. Geetha. E, Secretary, District Tourism Promotion Councils (DTPC), Govt. of Kerala, Kollam. Dr. Sunil Mohammed, Principal Scientist and Head, ICAR-CMFRI, Kochi. Dr. George D' Cruz, Kerala Sasthra Sahitya Parishath, Kollam. Prof. Dr. K.T. Thomson,

School of Industrial Fisheries, CUSAT, Kochi.

A panel discussion was conducted with a plentiful discussion and exchange of different ideas related to sustainable management of the these lakes by eminent personalities like Dr. Andrea Ghermandi (University of Haifa), Prof. Dr. K.T. Thomson (CUSAT), Dr. K.V. Thomas (NCESS), Dr. Sabu Joseph (University of Kerala), Dr. Sheela, A.M (KSPCB), Dr. K.K. Appukkuttan (ICAR-CMFRI), Mr. V.K. Madusudhanan







(KSSP) in these fields.







### **Induction Programme at School Level**

The School level induction programme, organized by the School of Earth System Sciences, for the newly admitted M.Sc. students of the Department of Geology and Department of Environmental Sciences was conducted in the Seminar Hall of the Department of Environmental Sciences, Kariavattom Campus on 30th August 2017. All the faculty members from the School of Earth System Sciences were participated in this programme. The event was organized mainly to create a basic awareness about the University and its policies and programmes to the newcomers.

The meeting was presided over by Dr S N Kumar, Director of School of Earth System Sciences. The chief guest of the function was Dr N. Purnachandra Rao, Director of NCESS and a renowned Geophysicist. He highlighted the outstanding performance of our country in various sectors especially in the fields of nuclear energy, space science, meteorology etc.











#### Department Level Induction Programme

The department level induction programme for the post graduate students admitted in 2017 was conducted on 14th September 2017 to get awareness about the ongoing research activities of the department. Research Scholars in-charge of various labs explained about the research activities. The formal session started in the afternoon by the welcome address and a brief description about the department by Dr. Sabu Joseph, HOD. Followeing this, Dr. V. Salom Gnana Thanga, Asso. Professor took a class about credit & semester system. After that, Dr. Krishna Prasad Kurup, Medical Officer, Kariavattom campus delivered a talk on "How to live a Happy and Healthy life in campus" and was followed by an interactive session and self-introduction by the newcomers. Mrs. Navami, Lecturer, proposed vote of thanks. The programme came to an end at 4.30 pm.



#### Congratulations...

Each year, the Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre)-ZMT Bremen is sponsoring up to five scientists working in the field of Tropical Coastal Marine Research. Under this scheme, Mr. Junaid Hassan S, Research Scholar of our Department is the one and only researcher from India who has been selected for the prestigious fellowship this year. He is working under the supervision of Dr. Salom Gnana Thanga V, Associate Professor, Dept. of Environmental Sciences, University of Kerala and PD Dr. Tim Jennerjahn, Scientist, ZMT, Bremen, Germany.



### **Outreach Programmes**

#### Dr. Sabu Joseph

Dr. Sabu Joseph participated a couple of committee meetings held at Technopark organized by 'Thettiyar Sahajivanswaraj' in connection with the rejuvenation of Thettiyarone of the tributary of Kazhakuttom thodu which joins with Akkulam-Veli kayal. This peoples forum – Thettiyar Sahajivanswaraj - formed a couple of months back to save and revive Thettiyar, which got polluted by sewage water originating from multiple sources mainly due to the improper treatment of sewage treatment plant (STP). The forum had series of discussions with technopark authorities and authorities of High-rise builders in and around Kazhakuttom, conducted field checks and identified the point sources of pollution. Efforts are on to reduce this water pollution.

Dr. Sabu Joseph delivered a talk related to the Ozone day theme "Caring for all life under the sun" Ozone Friendly Planet, Our Target" in connection with International Ozone Day on Sept. 16, 2017at Dept. of Botany, University College, Trivandrum. It was attended by B.Sc, M.Sc students and research scholars of the department.

#### Dr. V. Salom Gnana Thanga

Dr.V.Salom Gnana Thanga delivered a talk in the joint Indo-German Workshop on Urban Resilience: Coastal Hazards and Coastal Water Management, Vulnerability and Sustainability, held at IIT Madras organized by Prof S.A. Sannasiraj, Dept. of Ocean Engg. Overall 24 researchers from Aachen, Bonn, and India gave lectures and they discussed further cooperation in the area of Coastal Management and Climate Change.

Dr.V.Salom Gnana Thanga, Co-ordinator of "Bhoomitra Sena" club, Department of Environmental Sciences took forward outreach programme in connection with World Environmental Day at S N Public School, Chenkottukonam.

#### Dr Jaya D.S.

In association with the various outreach programmes in Department of Environmental Sciences, Dr. Jaya D.S, conducted a talk on "Ozone depleting substances and its health effects" in Govt. Higher Secondary School, Kazhakuttom in connection with world Ozone Day.

In connection with World Environment Day, Dr. Jaya D.S. delivered a talk on the Importance of Environment day observations in Sree Narayana College, Kollam. Dr. Jaya D.S. conducted a talk on "Antioxidants in Health and Diseases" organized by Dept of Chemistry, Mannam Memorial NSS College, Kottiyam, Kollam.



# Field Trip to Varkkala





On the 21st of October, the students of first M.Sc and second M.Sc classes were taken for field visits to various places of environmental significance to understand and imbibe the different aspects of nature. The group was led by the Head of the Department, Dr. Sabu Joseph, whose able guidance provided many intriguing facts regarding the regions chosen for study. The journey started off with visits to hardrock mining sites in and around Pothencode which included an abandoned mining site. The group then headed towards Madavurpara Protected Movement which comes under the Department of Archeology, where the students could behold a breathtaking view of Thiruvananthapuram from atop the hill. This visit was followed by visits to a clay mining site at Mangalapuram (near Kaniyapuram) and then to the Waste treatment plant managed by Attingal Municipality. The final destination of the tour was Varkala, where the students got an opportunity to understand the ecological and geological significance of the majestic Varkala Cliff. The study tour was an enlightening experience that revealed the significant influence of man in shaping the nature.





## **World Ozone Day**

### Caring for all life under the sun

This year marks the 30<sup>th</sup> anniversary of the Montreal Protocol. As part of the anniversary celebrations, the Ozone Secretariat launched a communication campaign ahead of World Ozone Day. World ozone day is celebrated all over the world, intended to spread awareness of the depletion of ozone layer and search for solutions to preserve it. Each year the day is celebrated with a theme and this year's theme was caring for all life under the sun. In a bid to spread the awareness department conducted an outreach programme in Govt. Higher Secondary School Kazhakkoottam, Thiruvananthapuram.



Niyathi Vijay M.Phil Scholar

#### Researchers Column



Sukanya. S Research Scholar

Since its commencement in 1995 as a nascent department under the Faculty of Applied Sciences & Technology, Department of Environmental Science has been expanding substantially for the past two decades. Our department has always been supportive to students from all walks of life. The faculties are inspiring and constantly encourage the researchers to update in-depth knowledge in the research area they are working in. Together with our impressive faculty and staff we are leading in diverse environmental research activities and I am proud to be a part of this committed vibrant circle of scholars and practitioners. "Bhoomika" as the name implies is very much related to Earth and I believe that it is an apt name for a newsletter which showcases the activities of a community dedicated to conserve the resources of our blue planet. And finally from me, I would like to wish good luck for our team for their enormous effort to make this newsletter dream a reality.

#### **Farewell**

The M.Sc students conducted a farewell programme for M.Phil students (2016-2017) on 23<sup>rd</sup> October 2017. The whole Department was gathered in the seminar hall and the M.Phil students shared their memorable moments in the department. The coordinators arranged lunch for all and we had a good get-together.





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