

**Report on
International Conference on
Ecosystem Services of Wetlands: 'Ardrabhumi-2016'
(16th and 17th February 2016)**

The conference was inaugurated by Chief guest Dr. Rakesh Kumar, Director NEERI and Guest of Honour, Hon. Dr. Sanjay Deshmukh, Vice Chancellor, University of Mumbai. As per the tradition of this college, proceeding of the conference was released during inauguration.

Dr. Deshmukh who is the alumni of VPM's B. N. Bandodkar College of Science, in his inaugural address spoke about reliance of human beings on wetlands. He quoted research on mangroves for candidate genes with respect to salt tolerance, and their significance as bio-shield to avoid natural calamities like tsunamis. He stressed the need to have philosophy of protection and utilization of wetlands and also the need to shift from unilateral thinking to broader perspective for Mangrove conservation. Dr. Deshmukh also raised the issue of amendment in CRZ regulation and need to review mangrove role in terms of judicious utilization of resources.

Dr. Rakesh Kumar discussed the need for considering both direct and indirect damages caused to wetland ecosystems due to incidences like oil spill. He stated, "We need to protest for protection and conservation of wetlands. Environmental economics angle should be considered while proposing development and community participation plays a significant role in caring for nature. People should be vocal about wetland issues".

Principal Dr. Madhuri Pejaver narrated the college tradition of holding conferences since 2002 and highlighted the contribution of this College in conducting quality research on varied aspects of Thane creek and other wetlands.

Mr. M. Y. Gokhale, Treasurer of Vidya Prasarak Mandal, in his Presidential address, mentioned that conservation of wetlands is sensitive issue as the natural resources are diminishing fast. By referring various Shlokas, he stated that the resources are respected in our culture and maintaining equilibrium amongst all the components of ecosystem is the need of the hour.

Technical session 1

Dr. Debi Goenka -

He narrated contributions by CAT in environment conservation including help in preparation of draft of CRZ notification for Ministry of Environment. He expressed deep concern over rapid destruction of mangroves against comparatively little being done for their protection. Dr. Goenka discussed about the proposed Navi Mumbai International Air Port Project which includes reclamation of mudflats, forests, two hills and diversion of two rivers. He mentioned that we have still not learnt any lessons from Mithi and Chennai floods. He underlined significance of mudflats and saltpans as separate ecosystem and stressed upon the need for their protection. while concluding the speech, he appealed to younger generation to learn about wetland, to take it to next level and translate it into actual positive steps.

Technical Session 2

Dr P A Aziz

Dr Aziz said that the human being is custodian of nature. He stressed several ecosystem services which the wetland offers. the recent concern as he said are the issues like global climate change, carbon sequestration and regulation of impacts and possible adaptation strategies. Dr Aziz further added that not consumption but footprint is the problem & we need technology for protection and conservation. Dr Aziz said that in market driven society of the day, monetary valuation of wetlands is important so as to convey the importance of this system to various components of the society.

Technical Session 3

Dr Geetanjali Deshmukhe

Dr Deshmukhe briefly described different types of wetland ecosystems including estuaries, mangroves, sea grasses, coral reef systems and tidal mudflats. She discussed coastal ecosystems of Gujarat with special reference to Gulf of Kutch & Gulf of Khambhat. Characteristics of this system, marine biodiversity, mangrove cover, diversity of marine algae were discussed in her speech. Dr Deshmukhe referred to marine sanctuary & marine national park of this ecosystem and expressed her concern with reference to overenthusiastic collection of organisms by academicians and amateur researchers.

Oral Presentations by participants

Technical Session 4

Dr W.A.H.P. Guruge

Dr Guruge referred to various definitions of wetland and their classification. He described in details the ecosystem services offered by wetlands & their significant aesthetic, educational, cultural and spiritual benefits. He further expressed concern over the threats faced by wetlands due to indirect and direct drivers including loss due to degradation, development activities and agricultural practices. Dr Guruge solicited the need for establishment and maintenance for vegetation buffers around the wetlands for better conservation.

Technical Session 5

Dr Laxmikant Deshpande

Dr Deshpande presented Godrej case study for role of industries in conservation of mangrove vegetation. He described the protection and conservation of the mangrove ecosystem spread across Vikhroli in Mumbai with more than 16 species of mangroves and associates. Dr Deshpande reviewed the experience of Godrej in mangrove conservation as one of the most successful example of coexistence of industry, community and environment. He concluded by stating that conservation approach should be linked to modern management system for efficient and effective implementation.

Technical Session 6

Dr Rajendra Singh

Dr. Rajendra Singh shared his experiences about efforts of water conservation undertaken by Tarun Bharat Sangh at Rajasthan. He appealed to the young generation to come forward and participate in these efforts. He described the dire consequences of increasing water loss and scarcity and expressed his fear about the future situation where we would be left with money, but no water to use. Dr. Singh mentioned that corruption and greed are the key problems faced by society and the learners in educational institutes should aim for gaining knowledge and not money. He expressed his concern over the research within the boundary of books and said it would not be of any real use to society and every individual should come forward and actually be a part of water conservation movement.

The first day of conference was concluded by Prof. S.D Rathod.

Day 2

Technical Session 7

Dr Amit Kokje

Dr Kokje introduced the delegates with Location Analytics and GIS as a powerful platform to create, organize and analyze the vast information collected in environmental studies. He discussed briefly the role of GIS with reference to Indian Scenario & its use for bridging the gaps in knowledge. Dr Kokje stressed upon the need for information sharing portal or repository so that there would be better access to scientific information and can be used to increase awareness about wetland and other environmental issues. He gave several examples from New Zealand where GIS and open sources are used by local communities for conservation.

Technical Session 8

Dr Anjankumar Prusty

Dr Prusty focussed on 12 UNESCO criteria

X World Heritage sites of SAARC countries with reference to new and emerging pollutants including persistent inorganic & organic pollutants generated through industries like pharmaceuticals, pesticides, personal care products, plasticizers and hormones. Dr Prusty described the situation by citing analysis carried out using published and unpublished reports from various SAARC countries. he pointed out the presence of heavy metals and pesticides in waters and wetlands & the damage caused to ecosystem. He appealed the delegates to initiate concerted efforts for conservation & WHS at Ramsar sites.

Oral Presentations by Delegates

Technical Session 9

Stalin Dayanand

Shri Dayanand narrated various conservation activities taken up by Vanashakti and raised the question if Ramsar has failed miserably. He described extremely high levels of ignorance among common people and also the politicians. He discussed examples of Sewri Mangrove Park, Lonar ecosystem and role of NGOs for conservation measures. He referred to example of Pallikarni wetland at Chennai and Project near Shilphata, Kalyan to describe how degradation of wetlands finally result into loss. He added that influence of realty developers and lack of sufficient infrastructure for forest department are also responsible for loss of wetlands. He suggested effective use of Wetland Atlas and exploitation of wetland only for sustainable tourism as key factors for conservation.

Technical Session 10

Dr. Untawale

Dr. Untawale presented an entire picture of ecosystems of coastal wetlands including sand dunes and mangroves. His long experience and expertise led the delegates through important findings of research on the impact of climate change on marine ecosystems. Dr. Untawale shared his experiences in mangrove plantations, example of crocodile worship by local fisherman community at Goa and idea of National Mangrove Germplasm preservation Centre. He recommended strict adherence to the present CRZ rules, need for considering marine ecosystems as top priority and large scale afforestation programs.

Felicitation of Dr. R. P. Athalye

Technical Session 11

Dr. Sasikumar Menon

Dr. Menon briefly mentioned about need of volunteers' and citizens' support required for activities initiated by HOPE. He reminded that "Come out and Be Active" is the need. He discussed services of mangrove ecosystem in terms of ethnobotany. He described several therapeutic and medicinal uses of phytochemicals of mangrove origin. Dr. Menon explained Pharmacokinetic studies in mangroves and stressed the need for documentation in this field.

Technical Session 12

Dr. Shirish Manchi

Dr. Manchi stated the presence of vital link between people and wetlands. He shared his experiences in conservation efforts for Edible Nest Swiftlets, endemic to Andaman and Nicobar islands. The efforts to study breeding biology, nesting of this species and challenges of community participation were discussed. Dr. Manchi narrated the impact of market demand for the nests, requirement of high level of motivation for locals, incentives for them, risks associated during observations and success of ex-situ conservation. He described the project as self sustaining and as one of the biggest achievements in conservation efforts.

Valedictory Program

Shri Kishor Thakare-

Shri Thakare quoted – “Van hai to Jal hai, Jal hai to Jeevan Hai”. He mentioned various projects undertaken by government for water conservation and mangrove plantation. He described the need for harvesting rainwater and success of Vanarai Bandharas in water retention. He appealed the delegates to function as Ambassadors to spread message about water conservation

Review of Conference Proceedings

Dr. Vinda Manjramkar

Principal Dr. Pejaver

Madam Dr. Pejaver narrated the efforts taken up for organizing conference at International level and congratulated the entire team of teaching , nonteaching staff and students. She mentioned the successful mangrove plantation carried out at then proposed Rutuchakra site by HOPE. She expressed that real happiness is achieved through conservation efforts carried out by individuals. She appealed the students to decide the area of study or research in future and also define the field for social contribution in individual capacity. She extended her best wishes to Dr. Athalye and stated that the conference was a tribute to his dedicated contribution in the field of research and conservation of Thane Creek Wetlands.

Dr. Vasudevan-

Dr. Vasudevan mentioned The efforts taken by Mangrove Cell to create awareness about mangroves and skill development programs for forest staff to manage mangrove ecosystems sustainably. He briefly described coastal and marine biodiversity issues and the vast canvas to work for conservation. Dr. Vasudevan shared his experience that lot of people and organization extend their support when one starts working for conservation and this can be considered as the unique opportunity to serve Mother Nature. He further said that though Wetlands Rules 2010 are in place, if we all would join hands together, then only it would be possible for government to have legal ways for effective wetland conservation. Dr. Vasudevan congratulated the college for the wonderful organization of the conference.

The conference was attended by 221 participants including academicians, researchers and scientist from various parts of the countries viz., India, Andaman and Nicobar Islands, Srilanka and New Zealand.

Declaration of winners for Poster presentation- **Dr. Shirish Manchi**

Vote of Thanks by **Dr. Poonam Kurve**

