



# Lake 2016: Conference on Conservation and Sustainable Management of Ecologically Sensitive Regions in Western Ghats

[THE 10<sup>TH</sup> BIENNIAL LAKE CONFERENCE]

Date: 28-30<sup>th</sup> December 2016, <http://ces.iisc.ernet.in/energy>

Venue: V.S. Acharya Auditorium, Alva's Education Foundation, Sundari Ananda Alva Campus, Vidyagiri, Moodbidri, D.K. Dist., Karnataka, India – 574227

## Mangroves – Threats and conservation strategies

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Mangrove ecosystem in the world covering an area of approximately 190,000 to 240,000 distributed in about 117 countries, harbour 193 plant species, 397 fishes, 259 crabs, 256 molluscs, 450 insects and more than 250 other associated species. Mangrove ecosystem has the highest level of productivity among natural ecosystems, and performs several ecosystem services. However, the continued exploitation of mangroves worldwide has led to habitat loss, changes in species composition, loss of biodiversity and shifts in dominance and survival ability. Worldwide, about half of the mangroves have been destroyed. For that matter India has reduced from 6000 km<sup>2</sup> in 1953 to 2000–3000 km<sup>2</sup> in 1989. These forests now occupy an area of about only 4871 km<sup>2</sup> area. The Indian mangrove biodiversity is rather high. The increased anthropogenic pressure on mangroves in India has been mainly due to land use changes and on account of multiple uses such as for fodder, fuel wood, fibre, timber, alcohol, paper, charcoal and medicine. A larger area of approximately 40% of the coastal land in the west coast has been converted to agriculture and urban development. Environmental awareness, proper management plan and greater thrust on ecological research on mangrove ecosystems may help save and restore these unique ecosystems. In order to conserve these fragile ecosystems the following strategies may be implemented. 1) The local governments should formulate proper management policy by involving local people who have a stake in the conservation and management of mangrove forests in their areas. 2) Efforts should be made at village, district and state levels by the policy makers and NGOs, to educate the local people about the economic and ecological values and functions of mangrove forests, and the negative results of their mismanagement. There is a need to involve people at the grassroots level, in protection of these forests. 3) The government should also encourage and involve ecologists, researchers and specialists to work on various aspects of ecological management of this resource. 4) Long-term

research activities should be undertaken in collaboration with various premier organizations to increase the productivity of mangrove forests and also to develop various management models which can give added benefits to local communities involved in protection and conservation. 5) Added to these, the local educational institutions should chalk out the programme with the students and their parents to create an awareness on the ecological significance of these fragile and sensitive ecosystems and the prime necessity of their conservation.