



©Training/Workshop/Course
Urban Lake Management
(edrc/course/2011-06/2015)

1 day/Week/Semester Course
(Lecture + Workshop + Fieldwork)
2 Credits (6.00Hrs/Session)
Open to All

Instructor: ©Dr. Mansee Bal Bhargava

Entrepreneur, Researcher, Educator. PhD (Erasmus University, Rotterdam, NL),
MPhil (University of Cambridge, Cambridge, UK), Masters (CEPT University, Ahmedabad, IN)
Eco-Development and Research Cell, a not for profit Environmental Design Consultants, Ahmedabad
Tel: 0091 98240 92804. Email: mansee.bal.bhargava@gmail.com



A. Course Overview

Managing the urban lakes involves, at the core, managing several components parts: the lake system, the functions of the lakes, the actors involved with the lake (in use and in control), and the rules-in- use. Each of these components parts are specific in nature and have specific requirements for sustenance. Over the years, each of these component parts have developed into specialized fields in the policy and research arena and so are their management approaches well developed. This means that there is vast knowledge lying in the specialized fields but it lacks integration with the other

fields. Isolated knowledge since not integrated systematically have led to fragmented and competing management practices in the past; and in several situations have heightened the problems of the urban lake management, for example the urban lake management was dominated by the environmental field for decades but the approach has failed to deliver as it is evident from the present conditions of the urban lakes. Several attempts of integration are in the process in the policy and research arena. They are mostly tried from the sustainability science approach, social-ecological systems approach, integrated land-water management approach and complexity management approach. Integrated urban lake management approach in real sense is not easy. Urban lake systems are complex social-ecological systems and integrated urban lake management is obviously complicated.

It is therefore important to integrate the existing knowledge and move towards adaptive learning process in urban lake management. This will help to build a comprehensive understanding of the urban lake systems and design appropriate solutions to address the problems. It will also help to build the resilience of the urban lake systems. The training cum workshop is aimed towards building a comprehensive understanding of the urban lake systems in India. The objective of the training cum workshop is that urban lake managers are able to ask and find answer to the following question by the end of the training cum workshop: **How do we realize the entirety of the urban lake management?**

Since the knowledge is already there in the different fields of specialization and it only requires only systematic integration, the foundation of the training cum workshop is the interaction among the fields, experts and local urban managers. This is an interactive workshop where experts from different fields share their expertise with local urban managers who deal with the urban lakes on daily basis.

The sessions of the training cum workshop include building understanding of the following aspects through interaction and field experience of:

1. Managing the Lake covers issues on biological, ecological, technical, engineering, watershed, etc.
2. Managing the Uses covers issues on value-s, services, sectors, demand/ supply, land use, infrastructure, change and etc.
3. Managing the Users covers issues on perception, dependability, benefits, behavior, attitude, change, etc.
4. Managing the Management covers issues on planning, urban development, policy, strategies, rules legal, finance, etc.
5. Managing the Managers covers issues on provision, maintenance, administration, implementation, coordination, monitoring, etc.

6. Contextual Analysis covers the realization that the starting point from the above generates different lake management approaches at different levels, scales and time.
7. System Analysis covers the realization that the each of the above are sub-systems and have overlapping areas and are nested within a larger system.

B. Learning Objectives

The training cum workshop is different in its own way. Unlike bringing the local managers to the classroom the training cum workshop is field based, meaning experts will reach out to the local managers in their cities. The training cum workshop is designed to be organized locally at a city where a lake needs to be addressed.

A hand on with a lake involves analyzing a lake in the city as a case study using the above aspects. This is done through field study including documentation of observations, interviews, and survey.

Action plan involves working on a time-bound hypothetical lake protection and preservation plan after analyzing the above aspects. Within the timeframe of the training cum workshop, a live case (urban lake) will be studied, diagnosed and planned for conservation and management. This will help the local managers evaluate their current lake issues and approach with the experts and then get ideas for future lake maintenance. Experts on the other hand will excel their learning from real life cases. This is crucial in adaptive learning process.

Before we start it is important to know the two urban lake management approaches in a lake under the observation: preventive approach and cure approach. Preventive approach goes for the lakes that require protection from degradation (mostly located in the peri-urban); and cure approach goes for the lakes that require restoration from the state of degradation (mostly located in the urban developed area). Most urban lakes in India belong to the latter category. The course addresses both: briefly about the former and detail about the later.

Who, when and how? The training cum workshop is appropriate for the current and future urban (lake) managers from varied fields that are linked to the urban lake management. It includes government and non-government organizations and academic disciplines.

C. Assignments

- Assignments both individual and group in two parts:
- **Individual** - Compilation of the small assignments as articles for publication and public dissemination.
- **Team work** - Compilation of the overall experience into a report and exhibition panel.

D. Evaluation

- Bifurcation of grading in two parts: Assignments – 60% and Attendance – 40%

E. Logistics

The training cum workshop is apt for five working days. It includes interactive lecture sessions, field work of a lake, and rapid action plan exercise on the management of the lake.

This is a not for profit initiative. The full cost of conducting the training cum workshop remains with the host organization, including the coordinator's fee and the actual costs of coordination.

© The course is designed as part of the extensive research on urban lake governance. It will be tailored according to the need of the city. For further details, contact at mansee.bal.bhargava@gmail.com or e-d-r-c@edc.org.in.

F. References

- Capiella, K. & Schueler, T., 2001. *Crafting a Lake Protection Ordinance*. In: T. Schueler, ed., 2001. *Watershed Protection Techniques: Urban Lake Management*, 3(4), pp.751–768.
- Schueler, T. editorial, 2001. *Watershed Protection Techniques: Special Urban Lake Management Edition*. 3(4). Center for Watershed Protection, Ellicott City, MD.
- Schueler, T. 2005. *Manual 1: An Integrated Framework to Restore Small Urban Watersheds: Urban Sub-watershed Restoration Manual Series*. Center for Watershed Protection, Ellicott City, MD.
- Bal, M. 2015. *Social-ecological System Framework: Understanding urban lake governance and sustainability in India*. PhD Dissertation at Erasmus University Rotterdam (ISBN: 978-90-7011-65)
- <https://www.ramsar.org/>
- <http://www.ilec.or.jp/>
- <http://www.moef.gov.in/>