ACWADAM's Course on Groundwater Governance

About the Course

Scripted in its agricultural hinterland, the development of India's groundwater resources is a story about how groundwater has enabled millions of farmers to improve agricultural production over reasonably short periods of time. At the same time, it has also ensured access to safe drinking water and has proven to be a buffer for poor rainfall years, including complexities of drought and floods. This has, however, given rise to serious issues around socio-ecological sustainability of the resource itself which manifests in the form of depleting water tables, deteriorating water quality including problems linked to public health, environment and increased levels of vulnerability to resource abuse and contamination. Groundwater competition is playing out in myriad ways, before flash points of conflicts become obvious.

The rationale behind the need to develop mechanisms of groundwater governance includes participatory forms of groundwater management. Aquifer-based approaches inclusive of combination of groundwater management and governance have begun to find their way into the practices and policies dealing with groundwater in India. While discussions on various approaches to groundwater management have gained momentum the question of 'complementary' groundwater governance remains largely unresolved. In this light, a significant diversion from a business-as-usual approach to groundwater resource management in India could be to move away from 'infrastructure' based, 'supply-side' solutions, to more comprehensive solutions that integrate hydrogeology and engineering with sociology and economics in developing a groundwater governance framework.

This course will attempt to take up these various linkages of issues, solutions, experiences and challenges to address the questions pertaining to groundwater governance in India. The course is designed in a bi-modular fashion to cater to the needs and gaps in groundwater understanding and to comprehensively introduce a package of science, participation and regulation, all of which form the backbone of the groundwater governance framework.

Who can enroll?

Practitioners, civil society organisations, government officials, students, researchers and activists can enroll for the course. Although there is no stipulated minimum background qualification for eligibility, participants should have understanding of English, Marathi or Hindi language. Experience of working in the water sector or associated with various developments in the sector would be an added benefit.

Course design

Two modules:

- **Science of Groundwater and its importance in Groundwater Management**
- **Groundwater Management and Governance**

Two modules are offered and participants can either enroll for one module or the entire course (two modules). The modules consist of classroom sessions involving participatory pedagogy, practical and field work. Each module will be run for a 5-week period. The course details are as follows:

Duration: 10 weeks starting 22nd July 2019 (Four Days a week, Monday to Thursday, Evening 6 to 8 PM)

Venue: **Gokhale Institute of Politics and Economics**, BMCC Road, Deccan Gymkhana, Pune, 411004 (Google Maps Link: **https://goo.gl/maps/yymYwYBVvvsXTxRQA**)

Selection and Fees: ACWADAM will exercise a selection of participants, depending upon enrolment and the limit to the number of seats. The course costs are subsidized through a support from Ford Foundation. A nominal fee of Rupees 1000/- will be borne by the participants as a contribution towards ACWADAM's work on aquifers, watersheds and environmental co-management. Fees can be remitted through cheque drawn in favour of ACWADAM, Pune at the time of the registration session.

Interested individuals/ organizations can contact: admin@acwadam.org for enrollment details or queries, if any.

ACWADAM
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Course Outline:

Date	Week	Module 1: SCIENCE OF GROUNDWATER	Duration
22/07/2019	WEEK 1	Introduction to Groundwater (Also a pre-course assessment, to set the baseline)	2
23/07/2019		Earth Sciences in understanding Groundwater	2
24/07/2019		Rocks and Rock Structure	2
25/07/2019		Vadose Water	2
29/07/2019	WEEK 2	Groundwater Accumulation and Movement	2
30/07/2019		Aquifers	2
31/07/2019		Aquifer properties	2
01/08/2019		Wells and Aquifers	2
05/08/2019	WEEK 3	Springs and Aquifers	2
06/08/2019		Mapping- Field Hydrogeology	2
07/08/2019		Measurement and Monitoring- Water levels	2
08/08/2019		Measurement and Monitoring- Groundwater Quality and Weather	2
12/08/2019	WEEK 4	Groundwater Balance	2
13/08/2019		Groundwater and Ecosystems	2
14/08/2019		Groundwater Recharge- Augmenting through programmes	2
15/08/2019		Groundwater Demand Management- ensuring water security	2
19/08/2019	WEEK 5	Aquifers and Water Security	2
20/08/2019		Case Studies- Experimental Station and Springs (1 hour each)	2
21/08/2019		Case Studies- Alluvial Systems and Volcanic Systems (1 hour each)	2
22/08/2019		Tests/Presentations	2
17/08/2019		**Field work**	
		Total (Classroom Hours)	**40**

		Module 2: GROUNDWATER MANAGEMENT AND GOVERNANCE	
26/08/2019	WEEK 6	Need for Groundwater Management and Governance (and pre course assessment)	2
27/08/2019		Existing Efforts in Groundwater Management (with special reference to watershed programmes)	2
28/08/2019		Groundwater as a common pool resource	2
29/08/2019		Global experiences in Groundwater Governance-1	2
09/09/2019	WEEK 7	Global experiences in Groundwater Governance-2	2
10/09/2019		Groundwater and Rainfed Agriculture (and case studies)	2
11/09/2019		Participatory decision and action - protocols and processes	2
12/09/2019		Understanding aquifers through communities - East India Plateau and Alluvial systems (1 hour each)	2
16/09/2019	WEEK 8	Case Studies - Participatory groundwater management (PGWM) - experiences from deccan basalts	2
17/09/2019		Water Conflicts	2

18/09/2019		Groundwater Competition and Conflicts	2
19/09/2019		Groundwater and Energy	2
23/09/2019	WEEK 9	Gender and Water (with reference to groundwater)	2
24/09/2019		Urban Groundwater Systems	2
25/09/2019		Conceptual Contours of Groundwater Governance	2
26/09/2019		Institutional Architecture for Groundwater Governance (National & State)	2
30/09/2019	WEEK 10	Groundwater Legislation	2
01/10/2019		GW Legislation Case Studies- Experiences of Select States	2
02/10/2019		Towards a GW Governance Framework for India	2
03/10/2019		Tests/Presentations	2
28-Sep		**Field work**	
		Total Hours	**40**