Course title: Policy Perspectives on Water						
Course code: PPS 193	No. of credits: 2	<b>L-T-P:</b> 28-0-0	Learning hours: 28			
Pre-requisite course code and title (if any): None						
Department: Policy Studies						
Course Coordinator(s): Prof Arun Kansal		Course Instructor(s): Dr Punam Pandey				
Contact details: akansal@teriuniversity.ac.in						
Course type: Core		Course offered in: Semester 2				

# **Course Description**

This course will introduce students to diverse perspective on water resource management. It examines the relations between water and development and explores this relation in the context of policy framework which is increasingly being influenced by conflict over resources. A prominent focus of this course is on discussing the trajectory of water management reforms in India and salience of various actions in bringing positives changes in its management.

# **Course objectives**

- 1. To introduce students to principles and conceptual issues in the analysis of water scarcity and security
- 2. To provide familiarity with approaches and multi-dimensionality of water management

# Course content

Module	Topic	L	T	P
1.	Water as component of Ecosystem	5		
	Introduction to models and systems; Water and Climate; Water and Soil; Water and Vegetation.			
2.	Overview of water situation in India	5		
	Introduction to Water Stress and Water Quality Index; Status and Trends of SW & GW exploitation and pollution; factors responsible- technical, policy and institutional factors.			
3.	Water and Development	8		
	Water and Food; Water and Energy; Population, human settlement and			
	water use; Water and Industry; Evolution of understanding of water			
	security and governance			
	Concepts of transboundary water			
	Water access, ownership and rights			
4.	Water management approaches and national strategies	6		
	River basin approach; Watershed approach; Community management;			
	Economics, finance and private sector participation; Sectoral analysis of			
	water management (Agriculture, Domestic, Industry, Power (thermal and			
	Hydro)), interlinking projects			
5.	Water Security and conflict management	4		
	Concept of water security, Regional consciousness and inter-state issues			
	Total	28	0	0

Evaluation criteria:	Weightage (%)
Class participation	25%
Class presentation	25%
Review papers	25%
Written exam	25%

#### Learning outcomes

At the end of the course, students would:

- Have the ability to understand the reasons for contestation over water resources, its management and governance
- Be able to understand, analyse issues regarding water governance and reforms in India taking into account social, economic and environmental parameters
- Be able to articulate the contemporary challenges that the water sector in India faces.

## Pedagogical approach

This course has been designed wherein students will be able to read, discuss and write about work being discussed. The course will be run majorly as a discussion forum and it will be expected that student read beforehand the assigned reading and come prepared to the class to participate in the discussion. This will also give them an opportunity to reflect on author's approach, methods employed, and explanatory building blocks used to take forward the argument. Audio-visual tools like short documentaries that highlight the issues will also be used in the class.

#### **Materials:**

## Required text

## **Suggested readings:**

## Note: Latest research papers, articles and topic-wise readings will be suggested in class.

- 1. Loucks, D.P., J.R. Stedinger, and D. A. Haith, (1981) *Water Resource Systems Planning and Analysis*, Englewood Cliffs, NJ, Prentice Hall.
- 2. Simonvic, S.P. (2009) Managing water resources: Methods and tools for a system approach, UNESCO Publishing, France.
- 3. Loucks, D.P. and J.S. Gladwell, (1999) *Sustainability Criteria for Water Resource Systems*, Cambridge, UK, Cambridge University Press.
- 4. Chorley, R. J. 1969. Water, earth and man: a synthesis of hydrology, geomorphology and socioeconomic geography. London: Methuen young Books.
- 5. Ehrlich, P.R., Holdren, J.P., and Ehrlich A. H.1978. Ecoscience: population, resources, environment, 3rd ed. San Franscisco: W.H. Freeman.
- 6. Shaw E. M. (1994) Hydrology in Practice (3rd Edition), Chapman & Hall, London.

### **Case Studies**

#### Websites

#### **Journals**

## Other readings

# Additional information (if any): None

# **Student responsibilities**

The nature of the course demands that the students shall attend all lectures and have the habit of identifying and reading open e-learning resources.

#### Reviewers

- 1. Prof Ajay Temburkar, DoCE, VNIT, Nagpur
- 2. Dr A K Mishra, DoCE, NCU, Gurugram