**Course title:** Governance and Management of Natural Resources  
**Course code:** NRE 149  
**No. of credits:** 3  
**L-T-P:** 32-10-0  
**Learning hours:** 42

**Pre-requisite course code and title (if any):** Students should have familiarity with basic environmental and economic theories/concepts. The class requires regular reading and update with various discussions and debates pertaining to natural resources management in the country. Thus, only those students really interested in policy, governance and development issues should opt for this course.

Each session requires prior reading of 2-3 articles. Where a student is found to have not prepared for the class, marks will be deducted accordingly.

The topic for the term paper has to be decided by the second week of the course. This will be a group assignment. Groups will be expected to identify a particular sector or issue (pertaining to natural resources) and work on the governance issues/challenges.

**Department:** Department of Energy and Environment  
**Course coordinator:**  
**Course instructor:** Dr Smriti Das  
**Contact details:** smriti.das@terisas.ac.in  
**Course type:** Elective  
**Course offered in:** Semester 3

**Course Description**
In today’s rapidly globalizing world and finite resources, society is struggling to find a holistic and balanced approach to managing the interactions between nature and society. The interactions are complex and involve a number of stakeholders. In absence of a balanced approach to managing interests, we witness environmental conflicts that lead to adverse natural and social outcomes.

Governance of natural resources entails interaction between array of institutions that regulate the interaction between natural and social systems. These institutions pertain to formal laws, rules and regulations as well as informal norms and customary practices that guide the behavior of individuals and groups with respect to environment/natural resources. Effective institutional interventions would be those that account for this complexity of interests and interactions and aim for sustainable outcome.

In this course, the students would be introduced to this complex array of institutions, ideas of collective action in managing environment/natural resources and the role of actors (within the realm of state, market and civil society) in attaining the goal of sustainable management of natural resources.

The course would be built on concepts drawn from various academic disciplines (political science, economics, sociology and ecology) to offer an inter-disciplinary lens to the students to examine issues of environmental governance and resource conservation and management. Empirical examples of governance arrangements and challenges would be cited from different ecological context (forestry, water, agriculture) also depicting temporal and spatial variation.

**Course objectives**
1. To familiarize the students with complex array of stakeholders, interests and institutions in managing natural resources  
2. To introduce to the students various conceptual and analytical perspectives (drawn from different academic disciplines) to look at environmental problems
3. To offer a nuanced understanding of evolution of governance paradigms and an in-depth explanation of the role of bureaucracy, markets and civil society
4. To encourage critical thinking skills and interdisciplinary expertise among students

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| 1. | **Module 1: Overview of conceptual issues and approaches**  
Conceptual distinctions and nuances  
Institutions and organizations; Governance and Government; Management and Governance  
Theoretical approaches to governance and contribution of different disciplines:  
Rational Choice and New Institutional Economics; Influence of neo-liberal ideologies on governance; Public Administration and Management; Legal anthropological approaches, legal pluralism in governance; Socio-technical perspectives  
Establishing the rationale for NRM regimes: Introducing concepts of carrying capacity, ecological footprint, resilience, sustainability, property rights, externalities, power and politics  
Perspectives like deep ecology, ecofeminism, ecological pragmatism, political economy and political ecology will also be introduced | 8 | 4 | |
| 2. | **Module 2: Bureaucracy and Natural Resource Management**  
The relevance and appropriateness of the bureaucratic set-up for NRM (Weberian concepts).  
Understanding accountability and transparency; rent-seeking perspectives. | 4 | 0 | |
| 3. | **Module 3: Decentralization and changing role of the state**  
Distinction between decentralization, devolution and deconcentration.  
The ‘participation’ paradigm: emergence, experiences and challenges (Cases from India and other South Asian countries)  
Policy perspective: reviewing debates and policies - the 73rd and 74th amendments to the Constitution of India, Panchayats (Extension to Schedule Area) Act, 1996 - and its implication for management and governance of natural resources  
Understanding resource user organizations.  
Lessons from JFM and Irrigation Management in India. | 6 | 2 | |
| 4. | **Module 4: Collective Action and Management of common property resources (CPRs)**  
Types of property, emergence of the concept of common property resources, institutional arrangements for managing CPRs  
Issues in collective management of natural resources  
Understanding conditions for collective action.  
Collective action as a socially embedded process - understanding communities and social, power and gender | 6 | 2 | |
relationships in Natural Resource Management. 
Mainstreaming gender and equity considerations in Natural Resource Management. 
Case studies/lessons from water-surface and groundwater, land and forestry.

| 5. Module 5: Markets as a form of natural resource allocation |
|---|---|
| Equity, efficiency and sustainability implications. |
| Market creation as a reform strategy: Issues and perspectives. |
| Along with market creation, perspectives on ecosystem goods and services (payment for ecosystem services), PPP arrangements will also be discussed extensively in the form of case studies. |

| 6. Module 6: Role of NGOs and civil society in Natural Resource Management |
|---|---|
| Emergence of civil society organizations (and environmental NGOs) and typology of NGOs |
| Emphasis on partnerships for sustainable development |

| Total |
|---|---|
| 32 | 10 |

**Evaluation criteria**

Students are strongly encouraged to read various journal articles and discuss and debate cases from different sectors. The score on class participation is based on students’ attentiveness, preparation and participation. Term paper allows the students to carry out research in an ecological context of their choice. Alternatively, they can also analyze the policies in a particular sector. Minor test is oriented towards examining the students’ grasp of some of the essential concepts. Final exam is issue based and students are given readings a week prior to the exam so that they can adequately explore the issues and challenges.

- Class preparation and participation: 10%
- Term paper: 40%
- One minor test: 10%
- Final Exam: 40%

**Learning outcomes**

- Students will gain an overview of key concepts, theories and analytical frameworks related to natural resource governance.
- They will be able to critically evaluate governance approaches in different ecological contexts from a variety of perspectives.
- They will be able to explain the relevance of various models of governance to particular issues in different cases.
- They will be able to carry out interdisciplinary research and evaluate various natural resource based interventions for its social, institutional, ecological and economic outcomes.

**Pedagogical approach**

The course will be delivered through a mix of lectures, class discussions, case studies and documentaries highlighting the environmental challenges and evidences thereof.

**Materials**

Required text

Suggested readings
Module 1


Module 2


**Module 3**


**Module 4**


**Module 5**


**Module 6**


**Additional Readings (for those interested)**

**Module 1**


**Module 3**


**Module 4**


The reading list is suggestive. Important readings will be circulated. Students are actively encouraged to regularly browse through journals such as *World Development, Public Administration Review, The Economic and Political Weekly, and Natural Resources Forum*

**Case studies**

**Websites**

**Journals**

1. Natural Resources Forum
2. Public Administration Review
3. The Economic and Political Weekly
4. World Development

**Additional information (if any)**
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