

SCHOOL OF EXCELLENCE IN LAW

LL.M CBCS PATTERN

REVISED CURRICULUM

FROM ACADEMIC YEAR 2020-2021

DEPARTMENT OF ENVIRONMENTAL LAW AND LEGAL ORDER

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Environmental Law is an important subject both for the individuals and for the society. The growing public awareness about the importance of environment and ecofriendly procedures has brought in the necessity to bring in environmental law as a specific discipline. This has led to the need for more lawyers, academicians and environmental aspirants owing to the stringent rules and procedures regulating the environment. It was this aim that the Tamil Nadu Dr Ambedkar Law University introduced the Department of Environmental Law and Legal Order in the year 2006 offering environmental law in the post graduate level.

The Department of Environmental Law has conducted programs propagating the idea of environmental protection to the academicians, students and the general public including National and International Conferences. Various training programs have been conducted by the department collaborating with the Tamil Nadu Fire and Rescue Service and also with the National Bio Diversity Authority. The most notable is the Regional Conference on Environment conducted by the National Green Tribunal in association with the United Nations Environment Program and the Pollution Control Boards of the State of Tamil Nadu at TNDALU premises in the year 2016.

Environmental Lawyers can practice for individuals, firms, corporates and the state. Hence the LLM Environmental law CBCS pattern is introduced from the academic year 2020 – 2021 designing the subjects are in such a way to give a deep understanding on the basic aspects of environmental governance and also the international conventions and treaties that provides the framework for the protection of the environment. As there are various authorities implementing environmental law in the country a specific paper is introduced to the students to have practical knowledge which will help them in their practice. Science technology and environment and food and agriculture laws are the elective subjects offered by this department to all branches of PG students to make them understand the importance of environmental law in relation to technology and agriculture. This branch of LLM in Environmental Law gives ample opportunity to the students to equip themselves to engage as environmental lawyers, academicians and also judges.

THE TAMIL NADU DR. AMBEDKAR LAW UNIVERSITY

BRANCH - V

DEPARTMENT OF ENVIRONMENTAL LAW AND LEGAL ORDER LL.M. SYLLABUS

SPECIALIZED CORE PAPERS - 06

- 1. Environmental Law: Policy and Governance
- 2. International Environmental Laws Principles and Governance
- 3. Legal Regulation of Pollution Control
- 4. Environment Energy and Mining Laws
- 5. Research methods in Environmental Law
- 6. Law and Local Environmental Governance in India

DISCIPLINE SPECIFIC ELECTIVE PAPERS – 03

- 7. Climate Change Laws: Policy and Management
- 8. Biodiversity, Traditional Knowledge and Intellectual Property Laws
- 9. Coastal and Marine Management: Law and Policy

GENERIC ELECTIVE PAPERS – 02

- 10. Science, Technology and Environment: Law and Governance
- 11. Food and Agriculture: Policy, Governance and Legal Framework

SUBJECTS IN SEMESTERS

1 Judicial Process (Common Poner I)
1. Judicial Process (Common Paper – I)
2. Legal Education and Research Methodology (Common Paper – II)
 Environmental Law: Policy and Governance (Specialized Core Paper – I)
4. International Environmental Laws – Principles and Governance (Specialized Core Paper – II)
 Science, Technology and Environment: Law and Governance (Generic Elective Paper – I)
1. Constitutional Law: The New Challenges (Common Paper – III)
2. Law and Social Transformation in India (Common Paper – IV)
3. Legal Regulation of Pollution Control (Specialized Core Paper – III)
 Climate Change Laws: Policy and Management (Discipline Specific Elective Paper – I)
5. Applied Research Methodology
Environment Energy and Mining Laws (Specialized Core Paper – IV)
 Research methods in Environmental Law (Specialized Core Paper – V)
3. Biodiversity, Traditional Knowledge and Intellectual Property Laws (Discipline Specific Elective Paper – II)
4. Food and Agriculture: Policy, Governance and Legal Framework (Generic Elective Paper – II)
Law and Local Environmental Governance in India (Specialized Core Paper – VI)
 Coastal and Marine Management: Law and Policy (Discipline Specific Elective Paper – III)
3. Skill Enhancement Course
4. Dissertation

PAPER – I

ENVIRONMENTAL LAW: POLICY AND GOVERNANCE

(Specialized Core Paper)

OBJECTIVES OF THE COURSE:

Humans depend on a healthy environment. Stable economy also depends on natural resources and thriving ecosystems. Environmental laws help ensure the environment and the economy are equally protected and promoted, not just because we need both but because each needs the other. Environmental law is a comparatively newer field of law in India and yet it has significantly shaped the country 's natural and developmental landscape. This course tries to introduce some basic concepts of environment, policies and the legal remedies available for protection of environment in India.

By the end of the course, students will be able to:

- Read and understand the basic legal concepts of the environment and its components and study the International and National History of the development of Environmentalism.
- To study and analyse the various colonial laws, the post independence policies and people movements that contributed to protect, conserve and improve the Environment.
- To study the various powers and remedies available under Constitution of India, Torts and Civil & Criminal Laws of India to protect the environment. And to understand the Activism of the Judiciary towards the same cause.
- Understand the various dimensions of forests, the interrelationship with tribal communities and the legal machinery which exists to protect the forests and to understand the pivotal role of flora and the fauna in conserving the environment and the various laws, missions and policies which exists to protect the wildlife form extinction, protection of waterbodies in India and agricultural lands.

COURSE OUTLINE

MODULE - I: Introduction

- a) Meaning, definition and concept of Environment Environment and its components, Ecology, Biosphere, Ecosystem and its functions, types of Ecosystem.
- b) The International history of Environmentalism International concerns for Environmental Protection – Historical developments of International Environmental law – Early Conservation Groups.

c) Concept and History of Environmentalism in Ancient Indian Tradition and Culture –
 Protection of Environment during Medieval Period – British Period – Post independence
 period – Pitambar Pant Committee – Tiwari Committee – NCEP – Department of
 Environment – MoEF.

MODULE – II: Environmental policy and politics

- a) Pre Independent Environment legislations.
- b) National Policies related to Environment Forest Policy Water Policy National Environment Policy – Five Year Plans
- c) Environmental Movement Bishnoi Movement Save Silent Valley Movement CHIPKO Movement APPIKO Movement Jungle Bachao Andholan

MODULE – III: Legal Remedies and Judicial Remedies

- a) Protection of Environment under the Indian Constitution Introduction Indirect Provisions, International Obligations, 42nd Constitution Amendment Act, 1976 – Directive Principles of State Policy – Fundamental Duties – Development of Fundamental Right to Environment – Distribution of powers between Centre and States over Natural Resources.
- b) Judicial Role, Expansion of Locus Standi, PIL, Constitutional Remedy for Protection of Environment, Dynamic Interpretation of Article 21, 14 & 19 of the Constitution.
- c) Environmental Protection and General Civil and Criminal Laws (a) Environmental Protection and Law of Torts Tort of Nuisance: Public and Private Tort of Negligence Tort of Trespass Environmental Torts (b) Provisions under Indian Penal Code & Under Code of Criminal Procedure.

MODULE - IV: Forest Laws - Part 1

- a) Forest laws before 1927 in India.
- b) Background of Indian Forest Act 1927 Conservation under Indian Forest Act 1927 Authorities under the Indian Forest Act 1927 Forest Conservation Act 1980 CAMPA.
- c) Various types of forest The Forest Survey of India Judicial Approach for Forest Conservation.

MODULE - V: Forest Laws - Part 2

a) Role of State Government and Local Governments in forest protection.

- b) Role of Tribal Community in Forest Governance Symbiotic relationship between forests and tribal people Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 Protection of Biodiversity
- c) National Plans and Missions National Afforestation Plan National Green India Mission – Schemes for Forest Fire Prevention and Management – Agencies (FDA, SFDA, JFMC).

MODULE - VI: Wildlife Laws

- a) The Wildlife Protection Act 1972 Relevant Provisions: Constitution of India, IPC and CrPC.
- b) Sanctuaries and National Parks, Licensing of Zoos and Parks, State Monopoly in the Sale of Wild Life and Wild Life Articles.
- c) The Prevention of Cruelty to Animals Act, 1960 Offences against Wild Life Wildlife conservation and protection projects in India The Wildlife Institute of India The Botanical and Zoological Survey of India Animal Sacrifices in India Tamil Nadu Animal Preservation Act 1958.

MODULE – VII: Protection of Water Bodies

- a) Water Bodies in India Different types of inland waterbodies Causes for Water Bodies
 Destruction in India.
- b) Encroachment of Water bodies Preventive measures against encroachment.
- c) Groundwater in India Major Causes for declining Water Table Overutilization of ground water Rainwater Harvesting and conservation Other measures taken to recharge Ground Water levels in India

MODULE - VIII: Protection of Land

- a) Protection of Common Land Legal Machinery on Land resources: Town Planning, slum sanitation Conservation, utilization and conversion, Ecofriendly land plans
- b) Conversion of Agricultural lands into Non Agricultural Lands and its Impact Legal Mechanism to Convert Agricultural Lands into Non Agricultural Lands.
- c) National/State Measures taken to protect wetlands.

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 Oxford, Clarendon press, 1998.
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- 3. Peoples Union for Civil Liberties Vs. Union of India. (1997) 3 SCC 433 at 422.
- 4. State of Gujarat Vs. Mizrapur Moti Kureshi Kassab Jamat. (2005) 8 SCC 534 at 567.
- 5. M.C. Metha Vs. Union of India. (2002) 4 S.C.C. 356.
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- 7. N. Ghodavarman Thirumulpad Vs. Union of India (1997) 2 SCC 267
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- 13. Animal Welfare Board of India vs. A. Nagaraj and Ors. (2014) 7 SCC 547".
- 14. Subhash Kumar vs. State of Bihar and Ors. (1991)
- 15. Vellore Citizen Welfare Forum vs. Union of India
- 16. Almitra H. Patel & Ors. vs. Union of India and Ors
- 17. Srinagar Bandh Aapda Sangharsh Samiti & Anr.v.Alaknanda hydro Power Co.Ltd. & Ors.
- 18. Samit Mehta vs. Union of India and Ors
- 19. Save Mon Region Federation and Ors. vs. Union of India and Ors
- 20. Ms. Betty C. Alvares vs. The State of Goa and Ors

LEARNING OUTCOME

- Critically evaluate and analyse the significance and importance of environment
- Refine their understanding of environment laws
- Adopt appropriate mechanism for protection of environment

PAPER – II

INTERNATIONAL ENVIRONMENTAL LAWS – PRINCIPLES AND GOVERNANCE

(Specialized Core Paper)

OBJECTIVES OF THE COURSE:

International environmental law has been an emerging field with a lot of multilateral agreements in force. Today, international environmental law has grown alongside human rights in setting the frontiers of cooperation amongst states. Its interface with international trade law is quite fascinating for those who are interested in the shaping of global resource politics and lawmaking. The subject has evolved with its unique principles borrowed from national and international laws in various jurisdictions.

Environmental legal studies shall basically introduce the international dimensions in the initial classes to further their knowledge in the municipal systems.

After undergoing the study, the student will be able to understand the following

- To comprehend a basis understanding about water as a resource, and its impact on legal systems.
- *To master the basis legal principles of transboundary water law.*
- To study the national and international legal regimes relating to watercourses.
- To explore the connections amongst water, environment, land and human rights laws.

COURSE OUTLINE

MODULE - I: Global Environmental Concerns and Politics

- a) Transboundary environmental harms in history migratory birds protection of wild life
 pollution in seas and international rivers
- b) Greenhouse gas emissions melting of glaciers and other effects of global warming exploitation of fossil fuels
- c) Environmental Politics evolution of green parties North South Divide

MODULE – II: Evolution of Contemporary International Environmental Law

- a) Bilateral and multilateral agreements concerning pollution, and management of resources prior to 1972 role of IUCN and UN agencies
- b) UN conferences Stockholm to Rio+20 Multilateral treaty framework and bilateral arrangements soft law instruments
- c) Agenda 21 MDGs SDGs

MODULE – III: Principles of International Environmental Law – I

- a) Transparency, Public Participation and Access to Information and Remedies obligation to cooperate in environmental matters
- b) Common but Differentiated Responsibilities
- c) State responsibility Internationally wrongful acts

MODULE - IV: Principles of International Environmental Law - II

- a) Sustainable Development Precautionary and Polluter pays Intergenerational equity
- b) Access and Benefit Sharing regarding natural resources Common Heritage and Common Concern of Humankind
- c) Sovereign right to exploit natural resources Environmental Impact Assessment

MODULE - V: Global Commons

- a) Climate change and desertification regimes
- b) High seas and marine resources governing Antarctic and Arctic
- c) Space Law and Environment Air Traffic and Pollution

MODULE - VI: Nuclear and Other Transboundary Hazards

- a) Non Proliferation Nuclear Waste Disposal Comprehensive Test Ban India and International Nuclear Resource Cooperation
- b) International Disaster Management Law Tampere Convention International Health Regulations
- c) Movement of Hazardous Waste Marine Pollution Pollution from Ship and Legal
 Control Protecting shared resources

MODULE – VII: International Obligations to Protect National Resources

- a) Biodiversity Forests
- b) Wetlands Migratory Birds
- c) Natural and Cultural Heritage

MODULE - VIII: International and Non - Governmental Institutions

- a) UN Agencies for Environment UNEP UNDP UNESCO
- b) Global Environmental Facility World Bank WTO
- c) IUCN WWF Greenpeace

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- 2. Pulp Mills on the River Uruguay https://www.icj cij.org/en/case/135
- 3. Nuclear Tests https://www.icj cij.org/en/case/58
- 4. Whaling in the Antarctic https://www.icj cij.org/en/case/148
- 5. Gabcikvo Nagymaros Project (Hungary/Slovakia) https://www.icj cij.org/en/case/92
- 6. Obligations concerning Negotiations relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament (Marshall Islands v. India) https://www.icj cij.org/en/case/158
- 7. South China Sea Arbitration Case https://pca cpa.org/en/cases/7/
- 8. Southern Bluefin Tuna (New Zealand Japan, Australia Japan) https://legal.un.org/riaa/cases/vol_XXIII/1 – 57.pdf
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LEARNING OUTCOME

- Understanding the importance and structure of international legal framework in relation to international environmental law
- Apply the principles to international and national situations involving environment.
- Appreciate and understand the link between national and international laws in the enforcement of International and National Environmental Law.
- To further research and practice in the field of international environmental law

PAPER – III

LEGAL REGULATION OF POLLUTION CONTROL

(Specialized Core Paper)

OBJECTIVES OF THE COURSE:

The objective of the course is to provide a basic level understanding of the legislative framework of environmental regulation, its implementation and adjudication on Environmental Pollution.

The objectives can be further put forth as follows:

- To enable students to identify core environmental issues and legal and institutional responses to them.
- *To analyse the role of judiciary in environmental protection.*
- To introduce the basic concepts and principles of environmental law and to analyze these principles as tools of environmental protection, where the laws and policies fall short.
- To understand development of environmental law in an international perspective, specifically developed and developing countries perspective combating Environmental Pollution.

COURSE OUTLINE

MODULE – I: Environmental Problems from various Pollutions sources and factors responsible

- a) Pollution Kinds of pollution Air Water Noise Land pollution Food pollution (food adulteration) Thermal pollution Nuclear (radioactive) pollution Light pollution
- b) Factors contribution Environmental Pollution Industrialization, Poverty, Population Explosion, Urbanization, and Over Exploitation of Resources.
- c) Impact of pollution on environment and human health.

MODULE – II: Pollution Prevention Laws and its Legislative Measures

- a) The Water (Prevention and Control of Pollution) Act, 1974 The Air (Prevention and Control of Pollution) Act, 1981 The Environment Protection Act, 1986 The Noise Pollution (Regulation and Control) Rules, 2000.
- b) The Public Liability Insurance Act, 1981 The National Environment Tribunal Act, 1995
 The National Environment Appellate Authority (NEEA) Act, 1997.

c) The Ozone Depleting Substances (Regulation and Control) Rules, 2000, National Green Tribunal Act, 2010.

Module III – International Efforts for Environmental Pollution

- a) The Stockholm conference 1972 Brundtland commission 1983 Nairobi conference
 1982 The Rio Summit 1992 the Rio Declaration at the earth charter Major achievement of the Rio Summit –
- b) Main features of the Rio Declaration Kyoto conference and part on Global Warming 1997 present developments.
- c) Review of different Case studies on Environmental pollution international perspective.

MODULE – IV: Enforceability of Principles and Doctrines under Indian Constitution referring Rio Declarations

- d) The Polluter Pays Principle European Community Treaty. Article 102 Rule 2 of the Treaty Rio Declaration of 1992'. Principle 16 of The Declaration The 'Polluter Pays Principle' Exposes the Polluter to two fold Liability Namely: (i) Compensation to the Victims of Pollution; and (ii) Ecological Restoration
- e) The Precautionary Principle United Nation's Conference on Environment and Development held at Rio in 1992.
- f) The Public Trust Doctrine State has a duty as a 'Trustee' Under Article 48A of The Constitution of India to protect and improve the Environment and Safeguard the Forests and Wildlife of The Country. While applying Article 21 of the constitution of India (Right to life), the state is obliged to take account of Article 48(A) for Constitutional Obligation on part of State and of the Citizens for the protection of Environment.

MODULE – V: Fundamental Right to live in a Healthy Environment – Judicial Activism

- a) Role of National Green Tribunal.
- b) High courts and Supreme Court in environmental protection.
- c) Leading judgments to safeguard Environment and enforce the fundamental right to live in a Healthy Environment through 'Judicial activism'.

MODULE – VI: Understanding Environmental Impact Assessment (EIA) with progress of Sustainable Development.

a) Provisions of environment impact assessment under the environmental protection Act, 1986.

- b) Rationale behind EIA EIA methodology and process environment impact assessment notification 2006 Preliminary assessment of EIA comprehensive EIA functions of the impact Assessment Agency Public hearing and EIA Understanding types and methodology EIA Evolution of standards of EIA History of EIA in India EIA process forms Impact assessment –
- c) Comparative review of EIA process and procedures followed in foreign Countries.

MODULE – VII: Environmental Dispute and Grievance Settlement Mechanism.

- a) National Environment Tribunal Act, 1995 powers, functions and jurisdiction of the National Environmental Tribunal, National Environment Appellate Authority Act, 1997.
- b) Powers, Functions and Jurisdiction of The National Environment Appellate Authority.
 National Green Tribunal Act 2010 powers, functions and jurisdiction National Green Tribunal.
- c) Recent case studies on Environmental Dispute.

MODULE - VIII: Environmental Protection Rules and Handling Waste Management

- a) Environmental Protection Rules and Handling Waste Management by combating pollution – from Hazardous waste, Bio – Medical Waste, Municipal Solid Waste, Plastic Usage and Waste, E – waste – Management.
- b) Limitations on Emissions.
- c) CFC preventing the damage to the ozone layer prevention and mitigation toxic spills and leaks.

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LEARNING OUTCOME

- *Understand the applicability of the core principles of pollution law*
- Describe and analyse the pollution law regime and identify how important legal issues are addressed within it.
- Critically analyse the judgments relating to pollution control and identify the legal issues.
- Understand the remedies available to citizens in dealing with pollution and applying them in practice.

PAPER – IV

ENVIRONMENT ENERGY AND MINING LAWS

(Specialized Core Paper)

OBJECTIVES OF THE COURSE:

The World Energy consumption contributes to pollution, environmental deterioration and global greenhouse emissions. To end this, renewable energy resources can play an important role in controlling and reducing environmental impact. The process of mining also poses serious threat to the environment thereby causing larger impacts on the environment. This course thrives to cover the essential legal framework to strengthen the protection of environment and also touches upon issues such as legal framework within the country and International initiatives.

By the end of the course, students will be able to:

- Basic concepts relating to energy and mining and its impact on environment.
- International and national framework relating to energy and mining laws.
- Role of various authorities implementing energy and mining laws.
- Rights of displaced people due to illegal mining and their displacement.

COURSE OUTLINE

MODULE - I: Introduction

- a) Definition and concepts relating to Mining and Energy, Impact of Mining and Energy production on Environment.
- b) Kinds of Energy: Conventional/Non Renewable Energy: Fossil Fuels, Coal, Oil, Natural
 Gas Non conventional/Renewable Energy Wind Energy, Solar Energy,
 Hydroelectric power energy, Geothermal Energy, biomass Energy, Nuclear Energy –
 Types of Mining.
- c) History of Mining and Energy production in India.

MODULE – II: International Mining and Energy Laws

a) Sovereign Rights of States to exploit resources through Mining activities – Oil and Gas
 Law (OPEC RULES) – Contract between two countries to exploit oil: Concessions and
 Licenses – Production Sharing Agreements – Investment law – Mining and Energy issues
 Oil as a global driver of geo – politics – ONGC.

- b) International Energy Disputes Energy and Security Global Energy demand Availability and distribution, Energy subsidies and WTO Carbon Trading Low Carbon energy: Policy & Regulation.
- c) Global Management in Mining for Sustainable Development Sustainable Mining Practices – United Nations Industrial Development Organization – Sustainable Energy Solutions and Clean Technologies – Goals related to Mining and Energy under SDG Agenda 2030.

MODULE - III: Constitutional Framework and Policies

- a) Constitutional framework regulating mining in India Union List Entry 54 & State List
 Entry 23 Important Supreme Court decisions relating to Mining Laws in India –
 Privatization of Mining sector in India post LGP policy 1991.
- b) Protecting Environment, Health and Safety of people arising out of Mining and its ancillary industries – Protection of Tribal population and Livelihood – Environmental Impact Assessment: Promoting awareness of Environmental Democracy and Participation in Environmental Decision making.
- c) Constitution framework regulating Energy sector in India Energy sources and conservation Projected Indian energy production production and usage the management of the electric power generation sector Right to access Electricity National Energy Policies Prathan Mantri Sahaj Bijli Har Ghar Yojana "Saubhagya", 2017.

MODULE – IV: Laws related to mining in India

- a) Mining on Land: Coal Mines Mines and Minerals Act Regulatory Structure, Ownership, Foreign Ownership Processing and sale of mineral resources, and Tax.
- b) Minor Minerals Sand Mining
- c) Off Shore Mining: the offshore areas mineral (development and regulation) Act, 2002 International Seabed Authority United Nations Convention on the Law of the Sea 1982

MODULE - V: (Energy Laws Part 1) Energy sector in India.

- a) Laws relating to Electricity Electricity Act 2003 Right to Electricity Production of Electricity through Renewable resources Appellate Tribunal for Electricity.
- b) Importance and need of Energy Conservation in India Energy from Waste sector in India.
- c) Renewable Energy Production in India Indian Renewable Energy Development Agency Limited (IDERA) Ministry of New and Renewable Energy.

MODULE - VI: (Energy Law Part 2) Nuclear Energy in India

- a) Defining Nuclear Energy Importance of the Nuclear Energy as a Renewable energy.
- b) Growth of Nuclear power in India The Emergence of Environmental Concerns Nuclear power of India – Challenges – Civil liability for Nuclear damage Act, 2010 – Atomic Energy Act, 1962.
- c) Principles governing nuclear liability: Safety principles, Security, Prevention and Protection, Responsibility, Compensatory, Sustainable and developmental, Interdependence and transparency, strict and no fault liability, Nuclear Energy Park.

MODULE - VII: Authorities governing Mining and Energy Sector in India.

- a) State Governments, Ministry of Mines (MOM), Indian Bureau of Mines (IBM), Ministry of Coal (MOC), Ministry of Petroleum and Natural Gas (MOPN),
- b) Ministry of Power, Bureau of Energy Efficiency
- c) Ministry of Environment, Forest and Climate Change (MOEFCC).

MODULE – VIII: Protection of Environment

- a) Mitigation of environment degradation due to Mining Adoption of environment friendly technology – Labour issues
- b) Displacement of the population due to mining, Marginalization of local communities and economic disparities in mining areas Social Issues
- c) Rehabilitation of closed and abandoned mine sites Afforestation and Preservation of Biological diversity – Institutional Governance of Mineral Resources

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LEARNING OUTCOME

- Refine their understanding of energy resources and mining laws
- Adopt appropriate mechanism for protection of environment
- Implement best practices for sustainable mining
- Adhere to sound principles of protection and preservation of environment
- Critically evaluate and analyse the significance and importance of energy and mining laws and its implementation.

PAPER - V

RESEARCH METHODS IN ENVIRONMENTAL LAW

(Specialized Core Paper)

OBJECTIVES OF THE COURSE:

Environmental degradation is an escalating problem from local to global scales.

- It is important for students of environmental law to understand and address these environmental problems in a practical way.
- This course prepares the students to understand the procedures of various authorities implementing environmental law.
- Hence in this course the students are required to submit reports on the working of various authorities after observing the procedures.

COURSE OUTLINE

MODULE - I: Sources of environmental law

- a) Sources of Environmental law International Theories Treaties Conventions
- b) Sources of National Environmental law Constitution Legislations Administrative regulations – Industrial Code of conduct.
- c) Law making process of environmental law National and International.

MODULE - II: Environmental Law Research

- a) Nature of Environmental Law Trans disciplinary Relationship with other disciplines.
- b) Fundamental Principles of Environmental Law principle of intergenerational equality principle of common care for human interests.
- c) Purpose of environmental law research.

MODULE - III: Agencies/Bodies enforcing Environmental law

- a) Ministry of Forest and Environment Working of Central and State Pollution Control boards
- b) Functioning of national Green tribunal
- c) Regulatory bodies enforcing various environmental laws

MODULE – IV: Environmental compliance requirements

- a) Environmental permits and clearances
- b) Self-declaratory mechanisms Information under RTI

c) Environment Impact Assessment – environmental audit – Reporting disclosure obligations

MODULE - V: Liabilities for breach of environmental Law

- a) Environmental civil Liability concepts relevant judgments
- b) Penalty provisions offences by companies
- c) Environmental Insurance Liability

MODULE - VI: Working of NGT

- a) Authorities
- b) Powers and functions
- c) Landmark judgments

MODULE - VII: Working of Pollution Control boards

- a) Central Pollution control board
- b) State Pollution control Boards
- c) Practice procedures

MODULE - VIII: Working of Bio Diversity Authorities

- a) National Bio Diversity Authority
- b) State Bio diversity
- c) Powers and functions

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- 6. Director General (Road Development) National Highways Authority of India Vs. Aam Aadmi Lokmanch
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- 8. Tamil Nadu Pollution Control Board Vs. Sterlite Industries (I) Ltd
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LEARNING OUTCOME

- Understand core concepts and procedures from a practical view point and their application in environmental problem solving.
- Appreciate key concepts from economic, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions.
- Appreciate the ethical, cross cultural, and historical context of environmental issues and the links between human and natural systems.
- Appreciate that one can apply systems concepts and methodologies to analyze and understand interactions between social and environmental processes.
- Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world.

PAPER - VI

LAW AND LOCAL ENVIRONMENTAL GOVERNANCE IN INDIA

(Specialized Core Paper)

OBJECTIVES OF THE COURSE:

The Course is designed to provide in depth knowledge and understanding of existing Local Environmental law, bye laws and policies.

- Moving forward it is tougher to look local planning and the environment is isolation
- So, the course is designed in such way to equip its learners to tackle the loopholes in the present institutional mechanisms for managing local matters
- To propose innovative changes as are necessary in existing laws to find convergence with urban environmental management practices
- To effectively implement existing laws/policies by blending them with fast changing needs and expectations of a dynamic society.

COURSE OUTLINE

MODULE – I: Understanding the Urban Society and Governance

- a) What is Urbanization? Process of Urbanization and Urban Culture Challenges to Urban Society
- b) Dynamics of Urbanization and Patterns in India Factors promoting Urbanization and Trends of Urbanization in India Multiculturalism in Urban Society.
- c) Government Plans and Schemes for Urbanization Urbanization and Basis Services.

MODULE – II: Understanding the Local Governance

- a) Gandhian perspective of Rural Development and 73rd Constitutional Amendment
- b) Village Panchayat and Environmental Management.
- c) Decentralising Governance of Natural Resources in India: Opportunities and Challenges.

MODULE – III: Local Environmental Problems

- a) The Challenges of Slums and Forced Evictions Crisis of affordable Housing problems.
- b) Water supply and Sanitation crises Social and Environment impact on Solid Waste Management in India.
- c) Urban Transport Accessibility and Mobility Urban Spatial planning problems Town and Country Planning.

MODULE - IV: Laws and Policy - Pertaining to Environment

- a) Law and Policy Concept.
- b) Environmental Law and Constitution Major Laws and Environment National Environmental Legislations – Water and Air Legislations, Environmental Protection Act – 1986.
- c) Ecology Conservation and Environmental Governance in Urban India Environmental Liabilities under Tort, Criminal law.

MODULE - V: Laws and Policies Pertaining to Local Environment

- a) Slum Clearance Acts, Rent Control Legislation Country and Town Planning; Apartment Regulations – Urban Land Zoning and Taxation Laws.
- b) Urban Development Policies in India Disaster Management and Environment Practice and Response Management.
- c) Land Use Policies, Land Consumption Community Development.

MODULE – VI: Urban Enforcement Machineries

- a) Corporation and Municipalities.
- b) Urban Development and Metropolitan Development Authorities Pollution Control and Water Boards.
- c) Licensing Authorities Land Acquisition

MODULE - VII: Environment and Judiciary

- a) Role of Judiciary in prompting sustainable development. Judicial Activism and Environmental Jurisprudence.
- b) Green Court in India Strengthening Environmental Governance.
- c) Environmental Management

MODULE - VIII: Urban Development and Environment Protection Mechanisms

- a) Urban Developmental Projects Infrastructure Projects and Environment.
- b) Good Governance Practices Decentralization Empowering locals in decision making.
- c) New Models relating to Environmental Conservation and its challenges.

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LEARNING OUTCOME

- Learners will be able to understand the background knowledge of rural environmental management.
- Appreciate tools for addressing crucial urban problems at both policy and implementation level.
- The Course will enable the participants to propose changes as are necessary in laws to find convergence with Local Environmental management practices.

PAPER - VII

CLIMATE CHANGE LAWS: POLICY AND MANAGEMENT

(Discipline Specific Elective Paper)

OBJECTIVES OF THE COURSE:

Climate change describes a change in the average conditions, such as temperature and rainfall, in a region over a long period of time. The objective of climate change laws and policies is to stabilize the greenhouse gas concentrations in the atmosphere at the level of prevent dangerous and reduce anthropogenic with climate system. This course thrives to cover the essential legal framework to strengthen the protection of environment and also touches upon issues such as, legal framework within the country and international initiatives.

After studying this course students will be able to:

- *Improve their practice in learning and teaching relating to climate change.*
- To be able to evaluate environmental, scientific and technological information in order to develop informed opinions about this issue.
- An understanding of climate and climate change processes at local to global scales
- An understanding of the policy framework in which environmental decisions are made in India and internationally

COURSE OUTLINE

MODULE – I: Global Climate Change and Impacts

- a) Defining Climate and Climate Change Types of Climate-Projected Impacts Of Climate
 Change Risk Of Irreversible Changes
- b) Elements of climate (Wind, Temperature, Humidity, Precipitation, Pressure); Micro Macro climate zones; Earth's climate through ages, trends of global warming and climate change
- c) Drivers of global warming and the potential of different greenhouse gases (GHGs) causing the climate change- Its e, Human, Animals, Society

MODULE – II: Ozone layer, Environmental policy & Agreements

- a) Ozone layer or ozone shield; Importance of ozone layer
- b) Ozone layer depletion and causes; ozone depleting substances; effects of ozone depletion
- c) Mitigation measures and International protocols; Environmental policy debate

MODULE – III: International Climate Change Regulations

- a) The Global Climate Changes Regime The United Nationals Framework Convention on Climate Change (UNFCCC), 1992
- b) Carbon credit and carbon trading; clean development mechanism
- c) Kyoto Protocol, Montreal Protocol, the Paris Agreement, 2015

MODULE - IV: National Climate Change Regulations

- a) National Emissions trading Measures
- b) Other National Climate Change Measures Greenhouse and Energy Reporting Environmental Impact Assessment and Approval Requirements Nuclear Power Policy
- c) Carbon Trading and Sequestration Renewable and Low Emissions Energy Sources –
 Geo sequestration Energy Efficiency Requirements

MODULE - V: Policies

- a) Climate change Action at the local level Contribution of the courts to climate change
 law Participation by the Non Governmental Sector in Climate Change law –
 Intergovernmental Panel on Climate Change (IPCC)
- b) Climate change; Policy ideas to protect the Planet in 2019 National Action Plan on Climate change – NAPCC in 2008 – Participation by the Non – Governmental Sector in Climate Change Law – Ministry or Environment Forest and Climate Change (MOFF&CC)
- c) United National Climate Action Summit in New York on 23 September 2019 ICLG –
 Environment and Climate Change Laws and Regulations 2020 The Challenge of
 Integration The Challenge of Regulatory coordination

MODULE - VI: Climate Change mitigation

- a) Political context of greenhouse gas emissions key emitters and strategies to bring down emissions to safe levels;
- b) Integration of mitigation into development planning through low emission development strategies
- c) Main economic sectors where mitigation actions can be applied; key international mechanisms in planning and implementing mitigation actions Sustainable Clean Energy green Technologies Climate Change & SDG 2030.

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LEARNING OUTCOME

- Refine their understanding of climate change laws and policies
- Adopt appropriate mechanism for protection of environment
- Implement best practices for prevention of pollution
- Adhere to sound principles of protection and preservation of environment
- Critically evaluate and analyse the significance and importance of environment.

PAPER – VIII

BIODIVERSITY, TRADITIONAL KNOWLEDGE AND INTELLECTUAL PROPERTY LAWS

(Discipline Specific Elective Paper)

OBJECTIVES OF THE COURSE:

This course is intended to promote the awareness, knowledge and the importance relating to the intellectual property rights and its relationship in the process of promoting and conserving the sustainable development and the conservation of biological resources and the knowledge associated with such resources and protection of traditional knowledge. Accordingly, this Course aims to

- Promote the knowledge in 3 important disciplines which is interdisciplinary and multidisciplinary in nature but it brings to develop interest among the students
- Find the relationship between the 3 important domains the intellectual property rights, biodiversity regime and traditional knowledge regime which are closely connected with one another.
- Create awareness to the students about the importance of international institutions which are playing a crucial role in shaping the relationship between the IP rights, biodiversity and traditional knowledge in the international arena namely, the WTO, TRIPs Agreement of WTO, CBD including the Nagoya Protocol, ITPGR of FAO, WIPO and other relevant international organizations.
- Impart the importance of the practice of IP, biodiversity and TK in the developing countries particularly in India and it also wants to impart the difference of practice of various IP, biodiversity and TK in the world in general, particularly the practice of IP, biodiversity and TK in the European Union and the USA.

COURSE OUTLINE

MODULE – I: Historical background of IP rights

- a) Historical perspectives of intellectual property rights relationship with conservation of biological diversity – promotion of sustainable development – fair and equitable sharing of benefits arising out of the utilization of the biological resources and the knowledge associated with such resources.
- b) Practice of IP in the ancient era Vedic era and the medieval era and the modern IP rights.

c) Definition of IP rights – its meaning, concept – implications arising out of TRIPs agreement on the minimum standards relating to maintenance, availability and enforcement – Patents, Geographical indications, Trade secret, sui generis IP rights.

MODULE - II: Evolution of Biodiversity regime

- a) Definitions and concepts biological diversity, sustainable development, genetic resources, farmers' privilege, indigenous people, tribal rights to IPR.
- b) Practice relating to biological diversity promotion of sustainable use access and benefit sharing in the ancient era including Vedic era, Sangam literature, thirukkural importance of basic Indian medicinal system: Siddha, Ayurveda its implications relating to IP and sustainable development and biological diversity.
- c) Practice of various Kings in promoting biodiversity and environment roles of Asoka Dynasty, Chola Dynasty – contributions made by Ori, Pari in Tamil Nadu in promoting biodiversity.

MODULE – III: International law relating to IP rights and its relationship with biodiversity and traditional knowledge

- a) Uruguay negotiations implications of Uruguay round adoption of TRIPs agreement of
 WTO provisions relating to patents in TRIPs agreement its implications on
 biodiversity.
- b) Provisions relating to sui generis protection of IP its implications on bio patents, biodiversity, plant variety protection, farmers' rights.
- c) Relationship between TRIPs agreement and UPOV convention 1961, 1978, 1991.

$\label{eq:module} \begin{tabular}{l} MODULE-IV: International law relating to traditional knowledge and its implications on \\ IP\ regime \end{tabular}$

- a) Emergence of permanent sovereignty over natural resources adoption of international undertaking on plant and genetic resources;
- b) ITPGR IP implications on food and agricultural genetic resources, utilization multilateral benefit sharing scheme; Adoption of CBD relationship between CBD and TRIPs implications arising out Article 8(j) of TRIPs implications arising out of Bonn guidelines implications arising out Nagoya Protocol, 2010 relationship between general ABS mechanism and specialized ABS mechanism difference between bilateral benefit mechanism under the CBD regime and multilateral benefit sharing scheme under the ITPGR regime application of benefit sharing mechanism during the emergency crisis;

c) Role of international institutions – WIPO, WHO, UNICEP, UNDP, UNEP, WTO, TTIP, TTP

MODULE – V: Indian IP law and its implications on biodiversity regime in India

- a) Implications arising out of the Indian Patents Act 1970, 2002, 2005.
- b) Patentable subject matter and its relationship with biodiversity and traditional knowledge.
- c) Geographical indications and its relationship in developing protection to the traditional knowledge, biological resources, farmers' rights, tribal rights – application of sui generis
 IP system in promoting the rights of the traditional knowledge holders, tribes, farmers

MODULE – VI: Indian law relating to the traditional knowledge and its impact on the IP Rights in India

- a) Biological diversity Act concept of PIC and MAT access and benefit sharing bio heritage sites – importance of various governments – role of Panchayat Raj Institutions in promoting sustainable development of biological resources, ABS, protection of TK including community IP to the TK holders;
- b) Protection of traditional knowledge of farmers through sui generis IP mechanism protection of plant varieties under Farmer's rights Act benefit sharing scheme Genome Savior Scheme farmers' privilege farmers' rights v. breeders' rights protection available to the farmers including the concept of innocent infringement other mechanisms available against exploitation of IP right holders;
- c) Forest Rights Act implications arising out of this Act on the IP rights of tribes, their right over traditional knowledge, biological diversity, community rights, tangible as well as intangible property rights implications of schemes Minimum Support Price for Minor Forest Produce, Van Dhan Yojana

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LEARNING OUTCOME

- The origin and development of intellectual property rights
- The specific type of intellectual property rights which has a closer relation with the biodiversity regime and TK regime
- The different regimes of state practice relating to IP, biodiversity and TK in the developed and developing countries in general and particularly in India, USA and European Union

•	The importance of community IP rights given to the tribes, indigenous peop	le, farmers,
	etc	

• The concept of inclusive IP, inclusive growth and inclusive and sustainable development

– the relationship between these concepts.

PAPER - IX

COASTAL AND MARINE MANAGEMENT: LAW AND POLICY

(Discipline Specific Elective Paper)

OBJECTIVES OF THE COURSE:

Marine Ecosystem play a vital role in Human's Life. Especially, Coastal is a very potential area for a variety of development options. The increase of population and its activities will be able to threaten the existence and sustainability of ecosystems and coastal resources, marine and small islands. In this Course students will learn

- How policy on coastal conservation is required.
- The objectives are to get an insight on the coastal conservation policies implemented and to learn experiences.
- The findings demonstrate that countries objectives for coastal management are to achieve sustainable development.
- Legally protecting the Marine Biodiversity and its various frame works for future generations.

COURSE OUTLINE

MODULE - I: Introduction

- a) Definition of Coastal and Marine environment Resources in Coastal and marine environment.
- b) Challenges for coasts and oceans Exploitation of Coastal and Marine resources.
- c) History of Resource Distribution in coastal and marine ecosystem coastal resource management coastal zone management planning.

MODULE - II: Marine protected areas and International Legal Framework.

- a) Convention on Biological Diversity.
- b) SOLACE MARPOLE UNCLOS Marine Environment and Agenda 21: Integrated management and sustainable development of coastal and marine areas including Exclusive economic zones Other International Instruments.
- c) Strengthening International including regional cooperation and coordination Coasts and Marine development under SDG 2030.

MODULE - III: Marine Protected Areas and India.

a) Marine and coastal conservation under the Indian Constitution.

- b) Marine Protected Areas in India.
- c) Important Supreme Court and High Court decisions.

MODULE – IV: Coastal and Marine Conservation in Indian Legal Instruments.

- a) Wildlife Protection Act 1972 Environmental Protection Act, 1986 Biological Diversity Act, 2002.
- b) Biosphere Reserves Coastal Regulation Zone Notification.
- c) Fisheries Regulation in India State level Fisheries Management.

MODULE - V: Pollution in Coastal and Marine ecosystems

- a) Illegal Fishing Legal Mechanisms preventing Illegal Fishing.
- b) Oil Spill Impact of oil spill on Marine and Coastal Biodiversity.
- c) Coastal erosion Destruction of mangroves Coral Reef Destruction.

MODULE - VI: Preservation of Marine and Coastal Health

- a) EIA People Participation
- b) Coastal Aquaculture Authority
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LEARNING OUTCOME

- How marine diversity can be managed and maintained.
- The various frameworks regarding the conservation of marine resources.
- Increase in coastal damage due to pollution.
- The various marine protected areas around the country and the world.

PAPER – X

SCIENCE, TECHNOLOGY AND ENVIRONMENT: LAW AND GOVERNANCE

(Generic Elective Paper)

OBJECTIVES OF THE COURSE:

Science plays an important role in environment protection. The various technological innovations have made way to both advantage and disadvantages of environment from getting conserved as well as damaged. This Course gives a clear view of

- How science is related with environment.
- The technicalities used for saving the natural resources from exploitation.
- Discussions on the various health issues occurring due to environmental damage and its regulatory framework.
- Necessity of creating awareness about it to general public

COURSE OUTLINE

MODULE – I: Introduction

- a) Science, Technology, Innovation relationship potential benefits and risks associated with technology and environment. Environment and Science trans – disciplinary perspective
- b) Technicalities that deplete natural resources Alternatives green technologies smart technologies.
- c) National, regional International and Transnational legal frameworks.

MODULE - II: Sustainable Development goals and environment

- a) Sustainable development goals (SDGs) and Environment.
- b) Role of United Nations in dealing with sustainable development Centres for promoting sustainable development Role of civil society in promoting sustainable development.
- c) Transboundary Environmental Assessment and Role of Technology Technology innovation for Sustainable Development Alternate technologies and environmental impact.

MODULE - III: Medical technology and environment

 a) Medical technologies – impact on environment –. Medical Devices and Environmental consciousness – Expanding Health Technology Assessments to Include Effects on the Environment – Microbial Technology for Health and Environment

- b) International conventions on medical technologies, human health and environment –
 Regulatory framework
- c) Medical Waste management national and international governance.

MODULE – IV: Communication technology and environment

- a) Communications technologies environmental impacts radiation impact on flora and fauna and humans. Information and Communication Technology (ICT) Revolution: Its Environmental Impact and Sustainable Development.
- b) Electronic infrastructure non-electronic infrastructure Legal regulation for managing communication technologies. Electrical Energy Production – Digital Coin Mining – Smartphones revolution and environment impact.
- c) E Waste management regulatory frameworks.

MODULE - V: Bio ethics and Law/ Environmental ethics and law

- a) Bioethics Risk Identification & Analysis: Methodological Issues & Ethical Issues in the Scientific Process – The Public Health Model of Environmental Policy: the reduction of morbidity & mortality
- b) Bio ethics and law definition of harm and monetary valuation of environmental goods.
- c) Animal testing ethics of animal research. Access and Benefit Sharing Payments for ecosystem services: legal and institutional frameworks

MODULE – VI: Role of NGOs and Businesses in Governance related to Rapidly Advancing Technologies

- a) NGOs partners in shaping policies and programs creating environmental awareness undertaking watershed development disaster management sustainable livelihoods; from joint forest management to giving inputs to policies
- b) Worldwide environmental organisms Green Peace WWF Business ethics and environment protection.
- c) Role of NGO in Environmental protection in India Environmental education Social work – advocacy – consultative initiatives – Public Interest Litigation. Role of NGO in Environmental Impact assessment.

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LEARNING OUTCOME

- *Understand the deeper relationship between science technology and environment.*
- Various goals to manage sustainable development in the country.
- Disposal of Medical waste as per the guidelines and rules mentioned.
- Roles played by NGO's in technological developments.

PAPER - XI

FOOD AND AGRICULTURE: POLICY, GOVERNANCE AND LEGAL FRAMEWORK

(Generic Elective Paper)

OBJECTIVES OF THE COURSE:

Agriculture is the backbone of our economy.

- It is agriculture that provides food to the nation. There are various laws that regulates agriculture
- Both food and agriculture are governed by various laws and regulations both central and states in India.
- This course is designed to give a broader outlook on agriculture and food laws with special reference to India.

COURSE OUTLINE

MODULE - I: Introduction

- a) Importance of agriculture in social and economic landscape
- b) International Framework Role of FAO WTO Framework Agreement on Agriculture Agreement SPS TBT Right to food as human right
- c) Constitutional dimensions of food and agriculture

MODULE - II: Agriculture and land

- a) Laws relating to land relevant to agriculture LAAR Act acquisition of agricultural land
- b) Seeds Act framework insecticides Act fertilizers orders legal framework for protection of plants
- c) Irrigation and water resources significance to agriculture ground water conservation

MODULE – III: Agricultural Labourers

- a) Legal aspects of agricultural labourers protection of rights of labourers farmers welfare measures –
- b) aspects relating to crop insurance schemes and measures trade and commerce relating to agricultural products 2020 Act contract farming –
- c) significance of essential commodities Act agricultural products

MODULE - IV: Grading and marking of agricultural products

- a) Need for grading and marking Grading and Marking of agricultural products quality assurance – export and import of agri products – legal framework – relevant provisions under the Foreign trade regulation Act
- b) Role of specialised boards rubber spices coffee tea for promotion of agri products cash crops
- c) Crop and livestock Insurance Law relating to pesticides and insecticides
- d) Participatory Irrigation Management.
- e) The Tamil Nadu Farmers' Management of Irrigation Systems Act 2000

MODULE - V: Storage, Marketing and Distribution

- a) Food security legal aspects
- b) Historical evolution of PDS system legal framework procurement and distribution of food
 food security Act

MODULE - VI: Food Safety and Regulation

- a) Elements of food safety measures regulatory measures for food safety evolution of food safety regulation national and international scenario
- b) Advertisements and sale standards Junk food, Tobacco and other regulated substances
- c) Food Safety and Standards Laws Bureau of Indian Standards

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LEARNING OUTCOME

- Understand the relationship between food and agricultural law and policies to each other and other areas of law.
- Understand the broad scope of issues, laws and regulations that fall under the food and agriculture umbrella.
- Understand the regulatory framework of the food and agricultural sectors on the central level and the roles that states play in regulation of these sectors.
- Understand the basic elements of food safety and food labelling, agricultural contracts, environmental regulation of agricultural production, farm programs, the Farm Bill and other key aspects of law and policy