

(by EMERALDGEARS INITIATIVE FOUNDATION GLOBAL under EGIF - capacity-strengthening initiatives)

Certificate Course on Environmental Economics, Policy, and Governance, designed to provide an in-depth understanding of environmental economics, policy frameworks, and governance mechanisms.

Module 1: Introduction to Environmental Economics (4 Hours)

- **Overview of Environmental Economics**
 - **Definition, Scope, and Importance**
 - **Market Failures and Externalities**
 - Common Goods, Public Goods, and the Tragedy of the Commons
- **Key Concepts**
 - o Environmental Valuation Methods
 - Cost-Benefit Analysis (CBA)
 - o The Role of Environmental Economics in Policy Design

Module 2: Economic Theories in Environmental Context (6 Hours)

- **Welfare Economics and Environmental Policy**
 - **Pareto Efficiency and Market Failures**
 - **Pigovian Taxes and Subsidies**
- Market-Based Instruments (MBIs)
 - o Tradable Permits, Carbon Taxes, and Cap-and-Trade Systems
- The Role of Behavioural Economics in Environmental Decision-Making

Module 3: Environmental Policy Frameworks (6 Hours)

- **Global and Regional Policy Frameworks**
 - o United Nations Framework Convention on Climate Change (UNFCCC)
 - The Paris Agreement and the Role of Nationally Determined Contributions (NDCs)
 - Sustainable Development Goals (SDGs)

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- **National Environmental Policies**
 - India's National Action Plan on Climate Change (NAPCC)
 - **Key Environmental Policies in Emerging Economies**

Module 4: Governance and Institutions in Environmental Policy (6 Hours)

- **Environmental Governance Structures**
 - **Public and Private Sector Roles**
 - Role of International Organizations (e.g., UNEP, World Bank)
- **Legal and Regulatory Frameworks**
 - o Environmental Laws and Regulations in India
 - **International Environmental Law**
 - **Environmental Impact Assessments (EIA) and Strategic Environmental Assessments**

Module 5: Economics of Climate Change and Green Growth (6 Hours)

- **Understanding the Economics of Climate Change**
 - Impact of Climate Change on Economic Systems
 - **Climate Change Mitigation and Adaptation Strategies**
- **Green Growth and Sustainable Development**
 - o Green Jobs, Green Technologies, and Circular Economy
 - **Low Carbon Development Strategies**

Module 6: Energy Economics and Sustainability (6 Hours)

- **Economic Aspects of Renewable Energy**
 - Cost of Renewable Technologies (Solar, Wind, Biomass)
 - **Energy Efficiency and Decarbonization**
- **Energy Subsidies and Pricing Mechanisms**
 - o Role of Subsidies in Renewable Energy Adoption
 - Energy Pricing and Its Effect on Climate Goals

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Module 7: Tools for Policy Analysis and Economic Modelling (6 Hours)

- **Environmental Policy Analysis**
 - **Environmental Policy Evaluation and Impact Assessment**
 - Tools like Life Cycle Assessment (LCA), Input-Output Analysis
- **Economic Models for Environmental Policy**
 - o Computable General Equilibrium (CGE) Models
 - **Partial Equilibrium Models in Environmental Economics**

Module 8: Capstone Project and Case Studies (6 Hours)

- **Practical Application through Case Studies**
 - o Case Study on Renewable Energy Policy in India
 - **Carbon Pricing and Trading in European Markets**
- **Project Development**
 - **Design an Environmental Policy for Sustainable Economic Growth**
 - **Policy Simulation and Analysis**
- **Project Presentation and Evaluation**

Features of the Programme

- 1. Delivery Mode: Hybrid (online lectures, case studies, practical sessions, and in-person workshops).
- 2. Learning Resources: Course materials, readings, interactive videos, and case studies.
- 3. Assessment: Quizzes, assignments, and a final capstone project.
- 4. Certification: Awarded upon successful completion of all modules and assessments.

This structure ensures that participants gain a comprehensive understanding of the key concepts in environmental economics, policy-making processes, and governance. If you'd like further details on any module or customization, feel free to ask!