

## About the course

*Blue Economy 101* is an introductory course designed to build foundational understanding of the ocean-based economy and its role in sustainable development. The course begins by exploring the origins, definitions, and importance of the Blue Economy, including the ecological, cultural, and economic value of marine and coastal systems. Learners are then introduced to key ocean sectors such as fisheries, aquaculture, deep-sea resources, maritime transport, marine renewable energy, biotechnology, and coastal tourism, supported with an India-focused lens, using national data and coastal examples to contextualise learning.

Global and national policy frameworks, including SDG 14 and India's Blue Economy initiatives and governance mechanisms provide a grounding in how ocean sectors are regulated and managed. The course also highlights emerging innovations in monitoring tools, value-added services, nature-based solutions, and new Blue Economy pathways relevant to India's coastal states and island territories. Major ocean challenges such as overfishing, pollution, climate impacts, acidification, sea level rise, and harmful algal blooms are examined.

The curriculum looks ahead to future opportunities through career pathways, community engagement, citizen science, and marine awareness, equipping learners with the knowledge needed to participate in and contribute to a sustainable ocean economy.

## Learning Objectives

- To build foundational understanding of the Blue Economy, its origins, key habitats, and the ecological, cultural, and economic importance of oceans in achieving sustainable development.
- To explore the major ocean-based sectors and evaluate their economic potential.
- To understand how global and national frameworks are supported by emerging technologies, models, and nature-based solutions that promote resilient marine development.
- To critically assess environmental and socio-economic challenges and explore strategies for mitigation and adaptation.
- To apply theoretical knowledge through real examples demonstrating integrated approaches to marine conservation, blue carbon, and sustainable coastal development.
- To inspire learners to engage with future pathways, careers, and community-driven initiatives that support a sustainable and inclusive Blue Economy.

## **Target Audiences**

- Educators & Academic Researchers
- Policymakers & Government Officials
- Marine Conservationists & Ecologists
- Coastal & Ocean Resource Managers
- NGOs, Community Leaders & Coastal Stakeholders
- People who are interested in Ocean Stewardship

**Course Duration: 16-18 hours**

## **Course Title - Blue Economy 101**

### **Module 1: Introduction to the Blue Economy**

- 1.1** Definition and origin
- 1.2** Ecological, cultural, and economic significance
- 1.3** Marine and Coastal Habitats

### **Module 2: Key Sectors of the Blue Economy**

- 2.1** Fisheries and Aquaculture
- 2.2** Deep Sea Resources
- 2.3** Maritime Transport and Ports
- 2.4** Marine Renewable Energy
- 2.5** Marine Biotechnology and Research
- 2.6** Tourism and Coastal Development

### **Module 3: Global Policy on Blue Economy**

- 3.1** UN Sustainable Development Goal 14
- 3.2** Recent Initiatives of the Government of India on Blue Economy

### **Module 4: Innovations in the Blue Economy**

- 4.1** Monitoring and measurement tools
- 4.2** Value Added Services
- 4.3** New pathways of Blue Economy

### **Module 5: Challenges & Impacts**

- 5.1** Overfishing and IUU fishing
- 5.2** Plastic pollution and blue economy

**5.3** Marine pollution

**5.4** Ocean Acidification and Biodiversity Loss

**5.5** Sea Level Rise (SLR)

**5.6** Harmful Algal Blooms

**Module 6: Future Prospects**

**6.1** Career Opportunities

**6.2** Community, Citizen science, Marine Awareness