

Guideline for Field Work Project of ENVIRONMENTAL STUDIES

Title: Study of common Plants/Insect /Birds / Wild life in Cooch Behar College Campus

Content of Field Report

- 1) Title page**
- 2) Acknowledgement**
- 3) Contents**
- 4) Introduction**
- 5) Location of the Study Area**
- 6) Objectives**
- 7) Chapter- 7 (As per Course Curriculum)**
- 8) Conclusion**
- 9) Bibliography**

Total No of pages- 20 (including Maps, Diagrams, Tables, Figures and Photographs)

Paper Size- A4

Paper Orientation- Portrait

The Field Report will be submitted in a Channel File

Cooch Behar Panchanan Barma University

DRAFT SYLLABUS ON ENVIRONMENTAL STUDIES FOR UNDER GRADUATE COURSES OF ALL BRANCHES (Arts, Science & Commerce)

Unit 1: Basic of environmental Studies

Definition, Nature, Scope and Importance; Components of environment: Environmental education.

Unit 2: Natural Resources: Renewable and non- renewable resources

Nature and Natural resources their conservation and associated problems:

- Forest resources: Uses, types and importance, Joint Forest Management & Tribal population, Deforestation and its effects.
- Water resources: Distribution of water on Earth: Use, Over exploitation of surface and ground water; Dams: benefits and problems; Flood & drought.
- Mineral resources: Mineral resources in India, Use and exploitation, Social impacts of mining.
- Food resources: World food problems and food insecurities.
- Energy resources: Renewable and Non renewable energy sources, use of alternate energy sources, Case studies.
- Land resources: Land as a resource; Land degradation, Landslides, Soil erosion and Desertification.
- Use of resources for sustainable development.

Unit 3: Ecology and Ecosystems

Concept of ecology, Population ecology, Community ecology

- Concept of an ecosystem; different types of ecosystem.
- Food chains, food webs and ecological succession.
- Energy flow in the ecosystem, energy flow models.

Unit 4: Biodiversity and its conservation

- Biodiversity: Levels of biological diversity.
- Values of biodiversity.
- Hot-Spots of biodiversity, Mega-biodiversity countries.
- Threat to biodiversity.
- Threatened and endemic species of India.
- Conservation of biodiversity (*In-situ* and *Ex-situ*).

Ecosystem service: Ecological, Economic, Social, Ethical, aesthetical and informational values.2

Unit 5: Environmental Pollution & Management

(a) Nature, Causes, Effects and Control measures of --

- (i) Air pollution ii) Water pollution iii) Soil pollution
- iv) Noise Pollution v) Nuclear Hazards

(b) Fireworks Pollution: Definition, Composition/Ingredients, Effects, Monitoring strategies

- Solid waste management: Causes, effects and disposal methods; Management of biomedical and municipal solid wastes.
- Disaster management: Floods, Earthquake, Cyclone and Landslides

Unit 6: Environmental policies and practices

(10 lectures)

- Climate change, Global warming, ENSO, Acid rain, Ozone layer depletion; Montreal and Kyoto Protocols
- Constitutional Provisions for protecting environment- Articles 48(A), 51 A (g)
- Environmental Laws: The Environment (Protection) Act, 1986, The Air (Prevention and Control of Pollution) Act, 1981; The Water (Prevention and Control of Pollution) Act 1974; and Forest (Conservation) Act, 1980.
- The wildlife Protection Act, 1972.

Unit 7: Human Communities and the Environment

- Human population growth; impacts on environment.
- Population explosion – Family Welfare Programme
- Environment and human health: Concept of health & disease, Examples of common communicable & non- communicable diseases, Public awareness.
- Environment movements in India: Chipko Movements, Silent Valley Movement, Movements in Karnataka.

Unit 8: Field Work Report / Project Report / term paper (Based on any one of the following topics and to be evaluated by internal teachers only)

- Study of common Plants/Insect /Birds / Wild life etc.