



# NATURAL RESOURCES MANAGEMENT

## **PROF. SUDIP MITRA**

Centre for Rural Technology  
IIT Guwahati

**PREREQUISITES:** Bachelor Degree in any Engineering and/ or Science discipline

**INTENDED AUDIENCE:** Under graduate and post graduate students, professional, practitioner in the discipline of Agriculture, Rural Technology, Rural Development, Agricultural Engineering, Environmental Science, Environmental Study, Ecology, Natural Resources Management etc.

**INDUSTRY SUPPORT:** Industries dealing with land restoration, biomedicine development, irrigation, forest product utilities, Agricultural technologies, Landscape management, Air management etc.

## **ABOUT THE COURSE:**

This course focuses on the need of sustainable management of the Earth's depleting natural resources such as soil, water, forest, minerals and biological resources, in relation to the growth of the human population. The range of topics covered in the course will provide students with a wider perspective on many national and international natural resource management (NRM) issues. Farm based technologies and simulation modeling is an important aspect of modern day NRM. Appropriate NRM is the key to the sustainable development.

## **ABOUT THE INSTRUCTOR:**

Prof. Sudip Mitra, in his 20 years of professional career he enriched himself working in Government, Non-Government, and National & International Universities & Institutions. To name a few Jawaharlal Nehru University (JNU), New Delhi; Tezpur (Central) University, Assam; National Institute of Disaster Management (NIDM), New Delhi. He also served as Project Director at M S Swaminathan Research Foundation (MSSRF), Chennai; The Energy and Resources Institute (TERI) and TERI University; Centre for Development Research (ZEF), University of Bonn, Germany etc. His contribution as one of the youngest consultants in one project coordinated by the Inter Academy Council-Amsterdam, the Netherlands is noteworthy. This project studied the Science and Technology Strategies for Improving Agricultural Productivity, Food Security and Environment in Africa and was carried out on request of then UN Secretary General Mr. Kofi Annan. As a Fulbright Fellow (2012), he worked with Prof Johan Six at the University of California, Davis, USA. He has served as task force member of MNREGA convergence MoRD and also Global Technology Watch Group task force of DST-TIFAC, Govt. of India. He is also an elected Member National Academy of Sciences, India (MNASc).

## **COURSE PLAN:**

**Week 1:**Introduction to Natural Resource Bases: Part 1

**Week 2:**Introduction to Natural Resource Bases: Part 2

**Week 3:**Resource Management Paradigms: Part 1

**Week 4:**Resource Management Paradigms: Part 2

**Week 5:**Approaches in Resource Management

**Week 6:**Biodiversity and conservation of natural resources

**Week 7:**Participatory Rural Appraisal (PRA) and Rapid Rural Appraisal (RRA): Part 1

**Week 8:**Participatory Rural Appraisal (PRA) and Rapid Rural Appraisal (RRA): Part 2

**Week 9:**Technologies for NRM

**Week 10:**Community Based Natural Resources Management

**Week 11:**Environmental Management Systems (EMS)

**Week 12:**Modeling tools and ICT for NRM