

<b>Course title:</b> Business, Natural Ecosystems and Community				
<b>Course code:</b> PPM 112		<b>No. of credits:</b> 2	<b>L-T-P:</b> 20-08-00	<b>Learning hours:</b> 28
<b>Pre-requisite course code and title (if any):</b> NA				
<b>Department:</b> Business & Sustainability				
<b>Course Coordinator:</b> Dr. Sapna A. Narula		<b>Course instructors:</b> Dr. Sapna A. Narula		
<b>Course type:</b> Core		<b>Course offered in:</b> 3 Semester		
<b>Course Description:</b> Biodiversity and ecosystems are increasingly being recognized as critical natural resource and business issues as geographical areas selected by organizations as a source of materials or supplies are relied upon at an operational level and impact business decision making. There may also be non- financial costs that warrant recognition and measurement, with reference to water scarcity issues and knock on impacts of industrial production on other local industries such as farming or fishing. However, there are other impacts on natural resources which need immediate attention in context of business dependencies and community development. The course explores the drivers, regulatory pressures, frameworks and, most significantly, the business case for ecosystem service measurement and management and social issues associated with it.				
<b>Course objectives:</b> To equip business management students with the skills they need to better manage the impacts and dependencies on ecosystems and services that they provide To make them understand the relationship of businesses with local communities and learn to devise strategies for community relationship and engagement				
Course contents				
Module	Topic	L	T	P
1	<b>Introduction to Ecosystems and its Services</b> Introduction to Ecosystems: Structure and functioning; Ecosystems Services, Assessing changes in ecosystem Services, Business Case for Action (Risk Assessment); Business Initiatives in Ecosystem Management; Business- Community-Ecosystems Interface Case studies-Steel, Mining, Cement.	4	0	0
2	<b>Identifying Ecosystem Impacts and Dependencies</b> Introduction to Corporate Ecosystems Services Review; Tools, Framework and Methodologies (Water Footprint, GHG Footprint, Stakeholder Engagement Tools, Life-Cycle tools)  <b>Corporate Ecosystem Valuation</b> Business Case for Valuation of Ecosystems, Screening for Corporate Ecosystem Valuation; The Economics of Ecology and Biodiversity, CEV Tools and Methodologies (InVest Integrated Valuation of Ecosystem Services and Trade-offs), Decision-making tools (MLSA software), Applying Corporate Ecosystem Valuation, Using CEV for improving business performance, Market for Ecosystem Services (Direct payments, Tradable Limits, Certifications)	8	4	0
3	<b>Natural Ecosystems and Business Applications</b> Forests and Community, Forest Based Industries, Utilization of Non-Timber Forest Products and role of businesses, Community and Social Forestry, Forest and Livelihoods. REDD+; Businesses and Aquatic/ wetlands Ecosystems Case Study: NTFP based Livelihood Development in Dhenkenal Distt of Odisha.	4	2	0
4	<b>Engaging with Communities</b>	4	2	0

	Impact assessment of Business Projects, Community Engagement and Management, Relocation and Rehabilitation, Sustainable Livelihood Development, Socially responsible Business Models for Community Development			
	<b>Total</b>	20	8	0

**Evaluation criteria:**

The evaluation criteria of the course aim at testing the practical skills learnt during the course duration.

Test 1: Test 1 will consist of case studies / questions on theoretical concepts

Test 2 Case Studies (Group presentations): The students shall be asked to prepare analysis of the cases assigned and present in the class.

Test 3 Field assignment (Group presentations): Students are encouraged to conduct a field visit to suitable locations to study business impacts and dependencies of various industries on ecosystems such as mining, textile, cement, real-estate or any other. The students would then apply the skills learnt during the course to solve business problems related to ecosystems. The presentation and the concept note may be prepared based on the field visit and followed by the field visit report.

Test 1	20%
Test 2 Case Studies (Group presentations)	40%
Test 3 Field Assignment	40%

**Learning outcomes:**

By the end of the course, the students will:

Develop an understanding of business impacts and dependencies on ecosystems, the ecosystem services and their sustainable use. (Test1 and 2)

Learn tools and techniques of Corporate Ecosystem Review and Valuation (Test 1, 2 and 3)

Learn to devise strategies for community engagement and management (Test 2 and 3) Develop an ability to handle both operational and strategic business problems related to both risk assessment and management with respect to impacts on Ecosystems and Communities (Test 3).

**Pedagogical approach:**

The course largely relies on case study-based approach to learning. Around eight case studies listed in the course outline would be discussed. The students would learn hands on training related to tools, frameworks and techniques of Corporate Ecosystem Valuation, Stakeholder Engagement and, Social Impact assessment. The students are encouraged to debate and discuss on various aspects of community relationship management and come out with their reports and give presentations on various facets of socially responsible business models involving community initiatives. There will be a field visit to study the business impacts on ecosystems and communities. Reading material (Listed in next section) for each module will be provided.

**Suggested Readings: Suggested Readings**

Ecology and Equity: The Use and Abuse of Nature in Contemporary India Author(s): Madhav Gadgil and Ramachandra Guha

Looking Back to Change Track (New) Editor: Divya Datt and Shilpa Nischal, Year:2010, TERI Press , Forest Policy & Law - Applied Forestry Series No 1 by S S Negi.

**Other References:**

Guide to Corporate Ecosystem Valuation: A framework for improving corporate decision-making (WBCSD, 2013)

Corporate Ecosystem Valuation (CEV) Guidance (WBCSD, 2013)

Corporate Ecosystem Valuation: A scoping study(WBCSD,2013)

Ecosystem services and biodiversity tools to support business decision-making (WBCSD,2013)

Introduction to Valuing Ecosystem Services (WBCSD,2013)

Connecting the dots: Nexus between ecosystem and business(WBCSD,2013)

Approach for reporting on ecosystem services: Incorporating ecosystem services into an organization's

Performance disclosure (GRI)

Corporate Value Chain (Scope 3) Accounting and Reporting Standard (WBCSD,2013)

Business, Ecosystems, and Biodiversity: New Horizons for Management Research (WBCSD,2013) How Business Values Natural Capital: Taking Stock and Looking Forward (WBCSD,2013) Responding to the biodiversity challenge: Business contributions to the Convention on Biological Diversity (WBCSD) Biodiversity and ecosystem services scaling up business solutions: Company case studies that help achieve global biodiversity targets (WBCSD) Ecosystem services and biodiversity tools to support business decision-making (WBCSD) The Corporate Ecosystem Service Review (WBCSD) GRI inside and out: Global Reporting Initiative (GRI) Annual Report(PUMA, 2016) Markets for Ecosystem Services – New Challenges and Opportunities for Business and the Environment: *A Perspective* (IUCN) Corporate Ecosystem valuation: Building the business cases (WBCSD,2013) How to Value Ecosystem Impacts and Opportunities: *Guide to Corporate Ecosystem Valuation road tested* (WBCSD,2013) Responding to the Biodiversity Challenge Business contributions to the Convention on Biological Diversity Making Sustainable Living Commonplace: Unilever Strategic Report: Annual Report and Accounts (Unilever) Narula, S.A. and Bhattacharyya, S., 2017. Off-grid Electricity Interventions for Cleaner Livelihoods: A Case study of Value Chain Development in Dhenkanal District of Odisha. *Journal of Cleaner Production*, 142, pp.191-202. Magray, M.A., Narula, S.A & Anwer, R.: Scope of Lac as Enterprise Development in Jharkhand; *Indian Journal of Economics and Development*, (2017), 13 (2), 387-39 Narula, S. A, Magray, M.A and Desore, A. (2017), A sustainable livelihood framework to implement CSR project in coal mining sector; *Journal of Sustainable Mining*, (2017), 16(3), 83-93

**Student responsibilities:** Attendance, feedback, discipline: as per university rules.

**Course Reviewers:**

Prof. Brajesh Singh, Director, Global Centre for Land based Innovation, Hawkesbury Institute for Environment, University of Western Sydney, Australia

Dr. Rajat Panwar, Associate Professor (Associate Professor (Sustainable Business Management) Appalachian State University, US.

Ms. Kanchi Kohli: Legal Research Director, Namati Environment Justice Program Centre for Policy Research, New Delhi

### Action Taken Report

Comment Received from the Academic Council	Response of the Course Coordinator
Suggested title for the course- Business, Natural Ecosystems and Community	The title has been changed
The title of the first module of the course may be revised	It has been revised
Aquatic systems/ wetlands ecosystems; abiotic structure to be added	Has been added
First module to be focused on imparting fundamental knowledge of ecosystem structure and functioning	Added
Social cost benefit analysis, basic duties of corporate citizens, valuation of externalities may be added as some sub-topics	Will be covered in module 2
Formatting may be revisited and learning outcomes to be linked with evaluation components	Learning outcomes have been linked Formatting has been revised
The course content may be revisited in places for more clarity Linkage/collaboration with organizations like Tatas to be explored for practical exposure	Noted
	As per the continuous evaluation system, there will be written test of 20 marks with the same set of questions. The students will be given a field assignment at the start of the semester. The students will pick up an industry in group and study it based on the secondary data and present a concept note in class. The concept note will be evaluated, and the comments will be provided before the student groups

	<p>move into field. They then move to their respective locations in groups (e.g. the group which has taken mining industry will choose mining locations for their study. The study will be conducted mid-semester. The students present the results in form of report and presentation by end of semester.</p> <p>This test 3 is related to learning outcome 3 and 4 as highlighted above.</p> <p>Test 2 aims to give case studies</p> <p>There are three different types of evaluation (written test, case analysis presentation and field study assignment which will be conducted at regular intervals throughout the semester. A variety of testing techniques are being used rather than the conventional approach of written test. This is a must for management student alongside field exposure and finding solutions to business problems</p>
is mapped with the learning outcomes;	It has been done already
is fair, transparent and unbiased.	<p>Test 1 same set of questions will be given)</p> <p>Test 2 (Each group will make presentation on analysis of assigned cases assigned cases)</p>

Test 3: The student groups will choose one industry each for study for field assignment. The same set of questions and assignments will be given

The evaluation is fair as the students would be evaluated against the same evaluation parameters. The discussion of results with the students would ensure transparency.