**Course Title: Conservation Policy in the Developing World**

**Course Instructor:** Dr. Ghazala Shahabuddin

**Semester:** Spring 2024

**Credits**: 4

**Code:** ES 2002/POL 2069

**Course Description**

This course delves into the policies relating to biodiversity conservation in developing countries with a reference to its ecological, historical and socio-political contexts. Students will learn to integrate biodiversity concerns with sustainable development and social concerns. The course will begin with giving an understanding of the ecological processes underlying the loss of biodiversity and ecosystem degradation as well as its consequences for society. The historical and political dimensions of species loss/extinction will also be discussed. The course will then turn to critically exploring past and prevalent paradigms and strategies for biodiversity conservation such as strict nature protection, Integrated Conservation and Development (ICDP), community-based conservation, crop certification, Payment for Ecosystem Services (PES) and ecotourism, with the aid of key international case studies. In addition, current debates on wildlife laws and policies will be discussed using Indian case studies on two topics: grasslands & pastoralism and biodiversity in agriculture. The aim of this course is to use perspectives from a variety of disciplines, including ecology, history, political science, economics and sociology, to develop a holistic view of today’s biodiversity crisis and its solutions.

**Course Objectives:**

The students will learn to integrate knowledge from different disciplinary areas to understand real-life biodiversity conservation in terms of policy and implementation. They will also learn to critically understand and analyze scholarly literature in this area.

**Assessment:**

The successful completion of this course will depend upon intensive reading, presentations in class and participation in discussions that show in-depth engagement with readings and lectures. Upto 35 pages of reading will be assigned each week. Students will write one term paper, one essay assignment and one in-class test in this course. The weightage of marks in this course will be as follows:

Class presentations and participation: 25%

Essay Assignment: 20%

Mid-term Exam: 25%

Term Paper (Final): 25 %

Attendance: 5%

**List of Topics/Modules**

**Note: Each module is covered in 1.5 hours**

**Modules 1,2,3: Causes of Biodiversity Loss**

This module will discuss the causes of biodiversity loss will be studied in detail, specifically, habitat loss, land-use change, habitat fragmentation, climate change, pollution and overkill (hunting). Varying perspectives on the causes of biodiversity loss will be explored. Students will discuss varying perspectives on the primary causes of biodiversity loss, through juxtaposing arguments from Gold (2003) and top-down views in Tal (2018) and Barnard and Emmanuel (2014).

**Readings:**

Gold, A.G.2003. Foreign trees: Lives and landscapes in Rajasthan. In Paul Greenough and Anna Lowenhaupt Tsing (eds.) Nature in the Global South: Environmental Projects in South and Southeast Asia. Durham and London: Duke University Press: pp. 170-200.

Tal, A. 2018. Going, going, gone: A History of Israel’s Biodiversity. Pp. 142-161 in G. Cederlof and M. Rangarajan (Eds.) At Nature’s Edge, The Global Present and Long-Term History. Oxford University Press, Delhi, India.

Barnard, T.P. and M. Emmanuel. 2014. Tigers of Colonial Singapore. Pp. 55-80 in Barnard, T.P. (Ed.) Nature Contained: Environmental Histories of Singapore. NUS Press, Singapore.

**Module 4,5,6: Strictly Protected Areas: History and Management**

The concept of strictly protected areas (SPA) is discussed. SPAs are an important manifestation of the exclusionary mode of conservation as practised globally. Due to the way they are designed and implemented, they have led to widespread alienation of local residents due to displacement, curtailment of access to natural resources and human-wildlife conflict. At the same time, their long-term effectiveness in protecting biodiversity has come under question. Poor application of science, financial shortages, poor governance and administration, and lack of specific management objectives have led to a situation where in many cases ecosystem degradation is as high inside PAs as outside. In this module we explore the history, management and effectiveness of PAs with an emphasis on the importance of ecosystem management for preserving biodiversity.

**Reading:**

Guha, R. 2003. The authoritarian biologist and the arrogance of anti-humanism: Wildlife conservation in the Third World. Chapter 5: 139-157. In Saberwal , V.K. and M. Rangarajan (eds.)2003. *Battles over Nature: Science and Politics of Wildlife Conservation.* Permanent Black, New Delhi.

Karanth, K.U. 2006. Sacred Groves for the Twenty-first Century. Pp. 121-139 In A *View from the Machan: How Science can Save the Fragile Predator*. Permanent Black, Delhi.

Terborgh, J. and C. Van Schaik.2002. Why the World Needs Parks Pgs 3-14 In *Making Parks Work, Strategies for Preserving Tropical Nature*. Island Press, USA.

**Module 7,8: Exploring Policies on Conservation-Induced Displacement**

Displacement of local residents has been a way to create inviolate spaces for protected areas across the world. In this module, we explore the specific policies for conservation-induced displacement from Tiger Reserves in India, with reference to the law and the implementation processes.

Rangarajan, M. and G. Shahabuddin (2006). Displacement and relocation from Protected Areas: Towards a biological and historical synthesis. *Conservation & Society* 4(3):359-378.

Karanth, K.K., Kudalkar, S., Jain, S., 2018. Re-building communities: voluntary resettlement from protected areas in India. *Frontiers in Ecology and Evolution* 6, 4–11. doi:10.3389/fevo.2018.00183

Kabra, A. & B.Das. 2022. Aye for the tiger: hegemony, authority, and volition in India’s regime of dispossession for conservation, Oxford Development Studies, 50:1, 44-61,

DOI:  [10.1080/ 13600818.2022.2028134](https://doi.org/10.1080/13600818.2022.2028134)

**Module 9,10: Human-Wildlife Conflicts**

This module explores the many dimensions of human-wildlife conflict- that is responsible for considerable damage to human lives and livelihoods in developing countries. Wild animals damage crops, kill livestock and injure and kill humans, many of whom already belong to marginalised sections of society. The behavioural, historical, ecological and political factors that determine extent and intensity of conflict are discussed, as well as the consequences for human-animal relations. Mitigative strategies including insurance and compensatory schemes, creation of corridors and village relocation are also discussed through a case study on elephant-human conflict.

**Readings:**

Thakaekara, T. 2018. Thinking like an elephant: looking beyond protected areas. Pgs 83-108 In.Bhagwat, S. (ed.) *Conservation and Development in India, Reimagining Wilderness.* Earthscan, Routledge, London/New York.

Barua, M., S.A. Bhagwat and S. Jadhav. 2013. The hidden dimension of human-wildlife conflict: Health impacts, opportunities and transaction costs. *Biological Conservation* 157: 309-316.

Nature Conservation Foundation. Living with Elephants.

<https://www.youtube.com/watch?v=MWcdMjv41ho>

**Module 11,12: Institutions and Institutional Weakness**

Kela, S. 2021. The Heart of the Matter: Studying institutional structures in historical perspective. In Sundar, N. and S. Raghavan (Eds). *A Functioning Anarchy: Essays for Ramachandra Guha*. Allen Lane.

Vasan, 2002. Ethnography of a forest guard. Economic and Political Weekly Vol 37(40):

Barret, C.B., K Brandon, C Gibson and H. Gjertsen (2001). Conserving tropical biodiversity amid weak institutions. *BioScience* 51: 497-502.

Brockington, D. 2008. Corruption, Taxation and Natural Resource Management in Tanzania. *Journal of Development Studies* 44 (1): 103-126.

**Module 13,14**

**The Integrated Conservation & Development (ICDP) Model**

The Integrated Conservation & Development (ICDP) Model came about as a reaction to the dominant exclusionary mode of conservation practices in most developing countries. It aims to reduce the adverse impact of PA on people’s livelihoods while at the same time, reducing the anthropogenic impact on nature. To what extent can this win-win situation be realised? Is ICDP basically an inherently flawed model or are there conditions and circumstances under which ICDP can be successful in a developing economy? These are some of the questions being explored in this module.

**Reading:**

Van Schaik, C. & H.D. Rijksen. 2002. Integrated Conservation and Development Projects: Problems and Potential. Pp. 15-27 In J. Terborgh, C. van Schaik, L. Davenport & M. Rao, eds. *Making Parks Work: Strategies for Preserving Tropical Nature*, pp. 156-171. USA, Island Press.

Baviskar, A. 2003. States, Communities and Conservation: The Practice of Ecodevelopment in the Great Himalayan National Park. Pgs 267-299 In In Saberwal , V.K. and M. Rangarajan (eds.)2003. *Battles over Nature: Science and Politics of Wildlife Conservation.* Permanent Black, New Delhi.

**Module 15,16**

**Community-Based Conservation**

The view that wild areas largely managed by indigenous communities and local residents, lately named community conserved areas or CCAs, can be effective in saving species and ecosystems from extinction, is rapidly gaining ground. Varying perspectives on the usefulness and effectiveness of CCAs on different continents will be discussed.

**Readings:**

Chhatre, A. & V.K. Saberwal. 2006. Local Practices: The Sacred and the Profane. Pgs 116 to 146.In : *Democratizing Nature- Politics, Conservation and Development in India*. Oxford University Press, India.

Dutt, B., R. Kaleta and V. Hoshing. 2006. The Hunter and the Hunted: Conservation with Marginalized Communities. Pp 241-263 In Shahabuddin, G. & M. Rangarajan (Eds.) *Making Conservation Work, Attempting Solutions to Biodiversity Loss in this New Century*. Permanent Black, Ranikhet, India.

**Module 17**

**Culture and Conservation: Case Study on Hunting**

Aiyadurai, A. 2021. *Tigers Are Our Brothers: An Anthropology of Wildlife Conservation in Northeast India*. Oxford University Press, India.

Harrison, R.D., R. Sreekar, J.F. Brodie, S. Brook, M. Luskin, H. O’Kelly, M. Rao, B. Scheffers & N. Velho. 2016. Impacts of hunting on tropical forests in Southeast Asia. *Conservation Biology* 30(5): 972-981.

Nijhawan, S. & A. Mihu. 2020. Relations of Blood: Hunting Taboos and Wildlife Conservation in the Idu Mishmi of Northeast India. *Journal of Ethnobiology* 40(2) : 149-166.

Janaki, M., R. Pandit and R.K. Sharma. 2020. The role of traditional belief systems in conserving biological diversity in the Eastern Himalaya Eco-region of India. *Human Dimensions of Wildlife.*

**Module 18,19**

**Ecotourism as a Conservation Strategy**

Ecotourism has been thought to be one of the win-win strategies for long-term conservation, given its supposed benefits both for the environment as well as for local livelihoods and empowerment in conservation areas. Students will read critiques of ecotourism and the way it has been used as a tool for conservation. They will analyze government documents related to India’s ecotourism policy.

**Readings:**

Brockington D, R. Duffy and J. Igoe. 2007. Nature Unbound: Conservation, Capitalism and the Future of Protected Areas. Chapter 7 (Pgs 131-148). Earthscan, London.

Rai, N. 2012. Green Grabbing in the Name of the Tiger. Vol XLVII, No. 42: Pgs 108-109.

Mawdsley, E., D. Mehra and K. Beazley. 2009. Nature Lovers, Picnickers and Bourgeois Environmentalism. Economic and Political Weekly XLIV No. 11: Pgs 49-59.

Ministry of Environment, Forests and Climate Change. 2018. *Policy for Eco-tourism in Forest and Wildlife Areas*.

**Module 20**

**Case Study on Grassland Diversity and Pastoralism**

Grasslands are one of the most widespread and biodiverse ecosystems worldwide, ranging from savannahs of East Africa to the alpine meadows of the Himalayas. Yet they are poorly understood in terms of ecology and human use. Further, pastoral communities who are dependent on these ecosystems have been as marginalised as the ecosystems themselves. In this module, the complex social ecology of grasslands will be explored, and the policy changes that are required for long-term conservation.

Rahmani, A.R. 2003. Conservation outside Protected Areas: Case Study of Bustard Protection (Pp.117-138). In Saberwal, V.K. and M. Rangarajan (Eds.). *Battles over Nature, Science and the Politics of Conservation*. Permanent Black, India.

Datta, S. 2018. Greener on Neither Side: The Socio-ecological Crisis of Grasslands in India. Pgs. 198-231 In Srinivasan, U. and N. Velho. (Eds.) *Conservation from the Margins*. Orient Blackswan, Delhi.

Agrawal, A. and V. Saberwal. 2007. South Asian Pastoralism: The Environmental Question. Pp.288-297. In M. Rangarajan (Ed.) *Environmental Issues in India: A Reader*. Dorling Kindersley, India.

Ghotge, N.S. and S.R. Ramdas. 2014. Chapter 6: Black Sheep and Grey Wolves, Pastoralism in the Deccan (Pgs 131-156).In: Rangarajan, M., M.D. Madhusudan and G. Shahabuddin. *Nature Without Borders*. Orient Blackswan, Delhi.

**Module 21,22**

**Conservation outside Protected Areas**

In this module, we discuss the possibilities of biological conservation in landscapes devoted to production, particularly, agriculture. Trade-offs between biodiversity conservation and agricultural production have become increasingly visible. Traditional means of agriculture that focus on subsistence actually encourage biodiversity over large scales; increasing intensification can lead to local elimination of a range of species. In a world where food production is being prioritized, it is necessary to understand these trade-offs and the production systems that may allow for coexistence with wild species. In this context, global ‘land-sharing’ as opposed to ‘land-sparing’ strategies will be discussed.

Phalan B., Onial M., Balmford A., and Green R. (2011). Reconciling food production and biodiversity conservation: Land sharing and land sparing compared. *Science* 333:1289-1291.

Sundar, G. 2014. Sarus cranes, cultivators and conservation. Pp. 81-94 In Rangarajan, M., M.D. Madhusudan and G. Shahabuddin (Eds.). *Nature Without Borders*. Orient Blackswan, Delhi.

Sundar, K. S. G. (2011) Agricultural intensification, rainfall patterns, and large waterbird breeding success in the extensively cultivated landscape of Uttar Pradesh, India. *Biological Conservation*: 144 (10):3055-3063.

Harvey, C.A. et al. (2008) Integrating agricultural landscapes with biodiversity conservation in the Mesoamerican hotspot. *Conservation Biology* 22(1): 8-15

**Modules 23,24,25**

**Economic Incentives for Conservation**

Several ways to induce conservation-oriented behaviour based on financial benefits have been experimented with during the last few decades such as debt-for-nature swaps, direct payments, payments for environmental services, timber certification and conservation easements. Payment for Environmental Services (PES) has recently emerged as an important financial tool for encouraging biodiversity conservation. In these modules, PES is examined from the ecological, political and historical perspectives and evaluated as a conservation tool in developing countries, using Costa Rica as a case study. We also study effectiveness of food certification in promoting sustainable landscapes, using coffee as an example.

Readings:

(A) **Payment for Environmental Services**

Pagiola, S. 2008. Payments for Environmental Services in Costa Rica. *Ecological Economics* 65 : 712-724.

Sanchez-Azofeifa, G.A., A. Pfaff, J.A. Robalino & J.P. Boomhower. 2007. Costa Rica’s Payment for Environmental Services Program: Intention, Implementation and Impact. *Conservation Biology* 21(5): 1165-1173.

Wunder, S. 2007. The Efficiency of Payments for Environmental Services in Tropical Conservation. Conservation Biology 21 (1): 48-58.

Daniels, A.E., K. Bagstad, V. Esposito, A. Moulaert, C.M. Rodriguez. 2010. Understanding the impacts of Costa Rica’s PES: Are we asking the right questions? *Ecological Economics* 69: 2116-2126.

(A)**Market Incentives**

Bose, A. 2018. Ficus to filter: Understanding complexities of market incentives for conserving biodiversity on private lands. Pgs 164-192 In. Bhagwat, S. (Ed.) *Conservation and Development in India, Reimagining Wilderness*. Routledge, London.

Rueda, X., and E.F. Lambin. 2013. Responding to Globalization: Impact of Certification on Colombian Small-Scale Coffee Growers. *Ecology and Society* 18(3): 21.

Wiersum, K.F., Gole, T.W. et al. 2008. Certification of wild coffee in Ethiopia: Experiences and Challenges. *Forest Trees and Livelihoods* 18: 9-21.

**Module 26**

**Case Study on Science and Conservation (Book Discussion)**

In this module, the focus will be on the practice of conservation: exploring how biologists and conservationists go about their chosen task of trying to save species from extinction. We discuss two books that look at conservation of two very different species on two continents: mountain gorillas in Rwanda and Asian elephant in India.

Sekar, N. 2022. *What’s Left of the Jungle, A Conservation Story*. Bloomsbury, India.

Weber, B. and A.Vedder. 2001. *In the Kingdom of Gorillas, Fragile Species in a Dangerous Land*. Simon and Schuster, New York, USA.