Enlisting Markets in the Conservation and Sustainable Use of Biodiversity in South Asia’s Sundarbans

Dan Biller, The World Bank, Washington, DC, USA
Ernesto Sanchez-Triana, The World Bank, Washington, DC, USA

ABSTRACT

The unique biodiversity of the Sundarbans is threatened by a number of factors, many of which are the direct or indirect result of market failures. Past governmental interventions aiming at protecting biodiversity have been ineffective, while other government efforts have directly or indirectly led to ecosystem degradation. In order to address these challenges, new governmental interventions are needed, particularly those that have the potential to mitigate market failures and address policy failures. This paper discusses how institutional and market failures, particularly the failure to capture the value of biodiversity as a ‘public good’, are the key drivers of biodiversity loss in the Sundarbans region of India. It argues that policy interventions to address these failures, as well as other measures that foster the development of markets that recognize the economic value of biodiversity, are a crucial tool for conserving and promoting the sustainable use of the Sundarbans’ biodiversity. After describing the study area, a novel integrative development model, the potential for sustainable provision of private, public goods, and ecosystem services and the factors threatening them, the paper concludes with four policy suggestions that may assist in enabling biodiversity conservation and sustainable use in the Sundarbans.

Keywords: Biodiversity, Conservation, Ecosystem Services, Public Goods, Sundarbans, Sustainable Provision

INTRODUCTION

Biodiversity is often viewed as a public good whose provision offers little scope for private sector participation. The role of conserving and sustainably providing biodiversity goods and services often falls on society as a whole and on the state as society’s intermediary. The state is expected to act as a regulator and/or provider of biodiversity conservation and sustainable use. Simultaneously, the state is expected to play a number of different roles including regional development, promotion of economic growth, alleviation of poverty and protection of different

DOI: 10.4018/jsesd.2013070106
forms of capital – natural, man-made, human and social. This naturally pressures constrained budgets and biodiversity is often underprovided. Regulators also often enact regulations and create incentives that, intentionally or not, serve to accelerate biodiversity degradation.

Recently, the value of enlisting the private sector in the sustainable provision of biodiversity goods and services has been widely recognized (OECD, 2003). Successful examples have appeared in both developed and developing countries. Depending on existing regulatory conditions and on the biodiversity goods and services provided by a particular region, the enlistment of private sector and private/public mechanisms may assist in increasing the sustainable provision of biodiversity goods and services while helping local communities generate income.

This paper discusses how institutional and market failures, particularly the failure to capture the value of biodiversity as a ‘public good’, are the key drivers of biodiversity loss in the Sundarbans region of India. It also argues that policy interventions to address these failures, as well as other measures that foster the development of markets that recognize the economic value of biodiversity, are a crucial tool for conserving and promoting the sustainable use of the Sundarbans’ biodiversity. This paper consists of six sections, in addition to this introduction. The second section describes the study area; the third section briefly discusses an integrated development strategy for the Sundarbans and underscores that biodiversity conservation and sustainable use cannot be viewed in isolation from the overall development of the region; the fourth section summarizes the methodology used to prepare this analytical work on biodiversity; the fifth section discusses the analysis’ main findings; and the sixth section concludes by providing policy recommendations to strengthen conservation of biodiversity in the Sundarbans.

Study Area

The Sundarbans region is one of the richest ecosystems in the world. The region contains arguably the world’s largest remaining mangrove forest, with high levels of floral and faunal diversity. The entire mangrove forest region – which covers approximately 10,200 km² – is known for its exceptional biodiversity, including numerous threatened species such as the Bengal tiger, estuarine crocodile, Indian python, and several species of river dolphin. Roughly 40 percent of the forest ecoregion lies within the Indian state of West Bengal (about 4,200 km²), and the remainder is in Bangladesh (about 6,000 km²) (Figure 1).

Recognizing the importance and uniqueness of the Sundarbans, the United Nations Educational, Scientific and Cultural Organization (UNESCO) declared the Indian portion of the forest a World Heritage Site in 1987, and the Sundarbans Biosphere Reserve was designated under the UNESCO Man and the Biosphere program in 2001. The Bangladeshi Sundarbans was declared a Ramsar site in 1992, making it subject to the standards of the Ramsar Convention on Wetlands, an international treaty that promotes the conservation of natural resources in wetlands. Also, roughly 1400 km² of the Bangladeshi Sundarbans, consisting of three wildlife sanctuaries: Sundarban East (in Bagerhat), West (in Satkhira), and South Wildlife Sanctuary (in Khulna), were declared a separate World Heritage site in 1997.

There are significant differences between the administration of the Sundarbans on both sides of the border. The entire Sundarbans area of India is spread over the districts of North 24 Parganas and South 24 Parganas, covering 19 administrative blocks, and consists of roughly 4,200 km² of reserve forest and 5,400 km² of nonforested area, the latter located along the north and northwestern fringe of the mangrove forest (which constitutes the inhabited portion of the Sundarbans). The inhabited areas consist of 54 islands populated by about 4.1 million people, who face limited development opportunities.
The Agritourism Potential of Aquaculture Farms in Romania
Zugravu Gheorghe Adrian, Turek Rahoveanu Maria Magdalena, Soare Ionica and Turek Adrian (2012). *International Journal of Sustainable Economies Management* (pp. 58-75).
www.igi-global.com/article/agritourism-potential-aquaculture-farms-romania/69958?camid=4v1a

Online Grocery Shopping in Developing Countries: Jordanian Consumers as Case Study
www.igi-global.com/article/online-grocery-shopping-developing-countries/69536?camid=4v1a