

IMPACTS OF OIL SPILLS IN THE SUNDARBANS AND CHALLENGES TO THE CONSERVATION OF MARINE ECOSYSTEM: A LEGAL ANALYSIS WITH SPECIAL REFERENCE TO SOUTHERN STAR 7 INCIDENT AND PROJECTED RAMPAL POWER PLANT

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ABSTRACT

Huge oil spills accidents have been very frequent at the Bay of Bengal particularly in the Sundarbans estuaries carrying large vessels. Vessels using prohibited routes through the Sundarbans have caused accidents causing large oil spills. This unique mangrove that works as a shield protecting the country from natural disasters support exceptional biodiversity in its terrestrial, aquatic and marine habitats. However, the incidents of huge oil spills along with many other problems of overexploitation or development initiatives have been dangerous and have caused serious threats to the ecosystem. In December 2014, Southern Star 7 carrying 3.8 lac litres of furnace oil collided in Sela River, known as a sanctuary for sweet-water Irrawaddy and brackish-water Ganges dolphins, threats the most important ecosystems of the Sundarbans. The government so far has failed to clean up the mishap. The conservation and protection of biodiversity is one of the obligations of the State that is stipulated in the Constitution of Bangladesh, in tune with international commitments in this regard. The proposed 1320 MW Rampal Power Plant, a joint venture between Bangladesh and India within 14 kilometers of Sundarbans, is now a serious concern for the overall biodiversity and ecosystem of the largest mangrove forest in the world.

INTRODUCTION

Huge oil spills accidents have been very frequent at the Bay of Bengal particularly in the Sundarbans estuaries carrying large vessels. Vessels-source oil pollution is one of the main reasons for the marine pollution in Bangladesh¹, especially when some accidents are due to the fact that the vessels carrying oil use prohibited routes. Bangladesh is a party to many international instruments dealing with biodiversity and environment including the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978, popularly known as MARPOL. Lack of regulated operations of large number of vessels is threatening the Sundarbans ecosystem,

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¹ Karim, M. S., "Implementation of Marpol Convention in Bangladesh" 6 (2009) *Macquarie Journal of International and Comparative Environmental Law* at p.51.

the world's largest mangrove that is a landmark of ancient heritage and biodiversity. Sundarbans provides habitat for Royal Bengal Tigers and supports exceptional biodiversity in its terrestrial, aquatic and marine habitats. Mangrove forests are believed to be shield of the coast of Bangladesh as all the natural storms originated from the Bay of Bengal first hit the mangrove forest.² The effects of oil spills in the Sundarbans are alarming given the recent incidents in the oil and gas industry threatening the environment.³ Bangladesh is now thinking for conservation of its marine resources after delimitation of its maritime boundary with Myanmar⁴ and India.⁵ In the light of the Bay of Bengal Maritime Boundary Arbitration between Bangladesh and India, Bangladesh currently has acquired 106,513 square kilometers of marine area. Conservation of the marine environment in Bangladesh is not only an environmental issue but equally an economic and development issue.⁶ One study shows that heavy metal contamination is affecting millions of trees in that forest and people depending on the Sundarbans causing top-dying disease leading to death of Sundari (*Heritiera fomes*), the predominant tree species.⁷ This unique ecosystem is under threat for various reasons.⁸ Ships wreck in Sundarbans is the main reason behind large scale mortality of *Heritiera* and *Excoecaria* seedlings in 1990s.⁹ On 9 December 2014, a ship named Southern Star 7 carrying 3.8 lac litres of furnace oil collided in Sela River, which is best known as the sanctuary

² Camargos M.N. and Silva S.T., "Mangrove Swamps and Sustainability" in Benidickson J., Boer, B., Benjamin .A.H, and Morrow K. (ed.), *Environmental Law and Sustainability After Rio* (Edward Elgar 2011) at p. 367.

³ Emch, M. E., "Human Ecology of Deforestation in Bangladesh" in Vajpeyi D. K.,(ed.), *Deforestation, environment and sustainable development: a comparative analysis*, Praeger Publishers, 2001, at p. 71.

⁴ Dispute Concerning Delimitation of Maritime Boundary between Bangladesh and Myanmar in the Bay of Bengal, International Tribunal for the Law of the Sea, Case No. 16, March 14, 2012.

⁵ Bay of Bengal Maritime Boundary Arbitration between Bangladesh and India, Permanent Court of Arbitration, The Hague, July 7, 2014.

⁶ *supra* note 1

⁷ Awal, M. A., "Analysis of Environmental Pollution in Sundarbans" 2(5) (2014) *American Journal of Biological and Life Science* at p.94.

⁸ Bangladesh: Preserving Biodiversity in the Sundarbans, *The World Bank*, <<http://www.worldbank.org/en/news/video/2014/06/25/preserving-bio-diversity-sundarbans>>. Last visited on April 10, 2015.

⁹ In 1990, a huge oil spill from an undefined source was detected near Sundarbans. In 1989, oil spills in Chittagong marine area, in Khulna another spill of 3000 tons persistent oil in 1992. Again in 1994, an oil spill caused by a vessel flying Panama's flag capsized near Sundarbans. See, Ghosh, A., *Natural Resource Conservation and environment Management*, APH Publishing Corporation, 2003.

for sweet-water Irrawaddy and brackish-water Ganges dolphins, within Sundarbans. This accident has threatened the most important ecosystems including the critical ecological area of the country.¹⁰ This was the third vessel to sink in the area in last three years; the previous two carried fly ash and fertilize.¹¹ The government declared the Sundarbans a dolphin sanctuary in 2011 an inhabitant for 6,000 Irrawaddy dolphins.¹² Within a few days of the spill, the oil had spread to about 350 square kilometers, covering other rivers and canals.¹³ The Sela River route that the Southern Star 7 was following is prohibited for all kinds of large vessels because it runs through deep forest and it is the dolphin sanctuary.¹⁴ Bangladesh government opened up the delta in 2011 to large commercial vessels which the environmental experts described it as a bomb waiting to explode.¹⁵ Environmentalists have been urging the government to ban vessels through Sela River to save the Sundarbans and its ecosystem. The 31 km artificial river route between Mongla and Ghasiakhali has been re-opened for vessels after a gap of five years but the ships are hardly following the route, rather they prefer to follow the Sela river route. Forest Department reported that the wildlife poaching and trafficking have dramatically increased after opening the Sela for vessels.¹⁶

¹⁰ Star Online Report, “Oil spills into river as tanker sinks at Sundarbans” *The Daily Star*, 9 December 2014, at <<http://www.thedailystar.net/oil-spills-into-river-as-tanker-sinks-at-sundarbans-54377>. Last visited on March 3, 2015.

¹¹ Mukherjee, K. & Niyogi, S., “Oil spill alarm in Sundarban mangroves” *Times of India*, 12 December 2014, at <<http://timesofindia.indiatimes.com/home/environment/pollution/Oil-spill-alarm-in-Sundarban-mangroves/articleshow/45484105.cms>. Last visited on March 6, 2015.

¹² Alexander, C., “After Oil Spill in Bangladesh’s Unique Mangrove Forest, Fears About Rare Animals” (*National Geographic*, December 17, 2014), at <<http://news.nationalgeographic.com/news/2014/12/141216-sundarbans-oil-spill-bangladesh-tigers-dolphins-conservation/>. Last visited on March 11, 2014.

¹³ Dasgupta, S., “Sundarbans still reeling from effects of December oil spill” (*Mongabay*, January 21, 2015), at <<http://news.mongabay.com/2015/01/sundarbans-still-reeling-from-effects-of-december-oil-spill/>. Last visited on March 26, 2015.

¹⁴ *ibid.*

¹⁵ Alam, S., “Bangladesh development threatens fragile Sundarbans mangroves” *Business Insider* (Delhi, December 19, 2014), at <<http://www.businessinsider.com/afp-bangladesh-development-threatens-fragile-sundarbans-mangroves-2014-12?IR=T>. Last visited on March 11, 2015.

¹⁶ Mahmud, I. and Sarafat, S., “Ship owners don’t relief Shela” *The Daily Prothom-Alo*, February 14, 2016, at <<http://epaper.prothom-alo.com/view/dhaka/2016-02-14/1>. Last visited on February 29, 2016.