

CONSERVATION ACTION TRUST

31st January 2016

Dr. Mechtild Rossler, Director
World Heritage Centre
UNESCO
7, place de Fontenoy
75352 Paris 07 SP
France

Dear Sir,

The Sundarbans National Park of India World Heritage Site (“Sundarbans India” or the “property”) forms part of the massive Sundarbans ecosystem, “10,000 km² of land and water (more than half of it in India, the rest in Bangladesh) in the Ganges delta.”[1] The Sundarbans contains the world’s largest mangrove forest, and it is one of the most biologically diverse and productive ecosystems in the world. It is home to hundreds of species of flora and fauna, and some of the most iconic and endangered animals in the world, including the single largest population of Royal Bengal tigers, the Irrawaddy and Ganges River dolphins, king cobra, and the river terrapin, which was once believed to be extinct.[2] The Bengal tigers, which are one of the most recognized and revered animals in India, “have adapted to an almost amphibious life, being capable of swimming for long distances and feeding on fish, crab and water monitor lizards.”[3] In addition to its rich biodiversity, the Sundarbans provides critical ecosystem services as a “storm barrier, shore stabilizer, nutrient and sediment trap, [and] a source of timber and natural resources.”[4] Because of its “immensely rich” flora and fauna and its dynamic ecosystem, the Sundarbans National Park of India was inscribed as a World Heritage Site in 1987.

We are deeply concerned that the proposed Rampal and Orion coal-fired power plants, two massive projects proposed to be constructed near the Sundarbans boundary in Bangladesh, would have significant impacts on the entire Sundarbans ecosystem. The India and Bangladesh Sundarbans are a shared, complex and interdependent ecosystem, and the aquatic and terrestrial species in the Sundarbans India that share this magical place do not recognize the political boundary that divides this mythical and ancient jewel. Harms to any area of the Sundarbans, if significant enough, can have a ripple effect on the entire ecosystem.

The Rampal and Orion plants pose many serious threats. For example, the burning of the coal at the Rampal plant alone would generate 940,000 tons of toxic residue (called coal ash) each year. Coal ash contains heavy metals including arsenic, lead, mercury, cadmium, chromium and selenium.^[5] There have been many situations in which coal ash has leaked out of its containment area polluted the surrounding environment. A 2013 study of the disposal of coal ash at thermal power plants in India concluded that the ash had contaminated soil, vegetation, and ground water with mercury, posing risks to soil and aquatic ecosystem, fish, wildlife, and humans.^[6] If such an incident were to occur in the Sundarbans, it would pose significant health risks to wildlife, from a decrease in reproductive rates to death, especially to the aquatic and semi-aquatic organisms abundant throughout its ecosystem.^[7] Mercury and heavy metal contamination of the aquatic food chain downstream from the power plant (both the Pashur River and Bay of Bengal) may affect migratory birds and fish that travel widely through the Sundarbans, having a ripple effect on all species along the food chain. Bengal tigers, for example, are known to migrate between the Sundarbans in Bangladesh and India, and could be harmed by the bioaccumulation of heavy metals in the aquatic food chain, which makes up part of their diet.

Air emissions and liquid discharges from the Rampal and Orion plants would threaten the entire Sundarbans. Burning coal produces a number of harmful air pollutants, sulfur dioxide (SO₂), nitrogen oxides (NOx), particulate matter and mercury.^[8] Emissions from coal plants are a leading cause of smog, acid rain, and toxic air pollution, posing a danger to the entire Sundarbans' ecosystem.^[9]

These are only some examples of potential threats from the Rampal and Orion plants to the Sundarbans India; others include threats from river dredging, shipping, and water abstraction. The potential threats from Rampal and Orion would also exacerbate existing threats facing the Sundarbans India. As the World Heritage Committee has recognized:

the salinity of the Indian Sundarbans, largely due to the eastward shift of the mouth of the Ganges, is being influenced by upstream diversion of up to 40% of the dry season flow of the Ganges, the repercussions of which are not clearly understood. Oil spills are a potential threat which cause immense damage, especially to aquatic fauna and seabirds and probably also to the forest itself into which oil could be carried by high tides.^[10]

Regrettably, to date there has been no assessment – governmental or independent – of the possible transboundary impacts of the Rampal and Orion plants to the Sundarbans ecosystem in India, including cumulative impacts, making the extent of such impacts uncertain. As recognized by the International Court of Justice in a number of decisions, nations have an international obligation to assess the transboundary environmental impact of industrial activity that has the potential to harm a resource shared with another State.^[11]

In light of the above and because the Rampal and Orion plants are moving towards major construction rapidly, we are writing to request the Committee to take immediate action to protect this special place. Specifically, we urge the Committee to:

- 1) add the Sundarbans National Park of India to the agenda for its 2016 meeting;*
- 2) request the Governments of Bangladesh and India to conduct an independent, transboundary environmental impact assessment that studies the threats from the Rampal and Orion plants on endangered and migratory species that contribute to the Outstanding Universal Value of the Sundarbans National Park in India; and*
- 3) add the Sundarbans National Park of India to the List of World Heritage in Danger, based on the potential threats of Rampal and Orion on the Sundarbans ecosystem as a whole, which is already burdened with many anthropogenic and climate change stressors.*

Please do let us know if you need any more information or clarifications.

Yours sincerely,

Debi Goenka

Executive Trustee

[1] UNESCO, Sundarbans India World Heritage Site Statement of Outstanding Universal Value (OUV), <http://whc.unesco.org/en/list/452>.

[2] Ibid.

[3] Ibid.

[4] Ibid.

[5] EIA for the Rampal project volume 1, p. 378 .

[6] N.S. Raman et al., *Mercury in Thermal Power Plants- A Case Study*, International Journal of Pure & Applied Sciences, 36 (2013)
<http://www.ijpab.com/form/2013%20Volume%201,%20issue%202/IJPAB-2013-1-2-31-37.pdf>.

[7] Physicians for Social Responsibility, *Coal Ash: Hazardous to Human Health*, <http://www.psr.org/resources/coal-ash-hazardous-to-human-health.html>; Physicians for Social Responsibility and Earthjustice, *Coal Ash: The toxic threat to our health and environment* (September 2010), <http://www.psr.org/resources/coal-ash-the-toxic-threat-to-our-health-and-environment.html>.

[8] Union of Concerned Scientist, *coal power: air pollution*, http://www.ucsusa.org/clean_energy/coalvswind/c02c.html#.VqQjTsYrKUK.

[9] Ibid.

[10] Statement of OUV.

[11] *See Case concerning Gabkicovo-Nagymaros Project (Hungary/Slovakia)* [1997] ICJ Rep 7 (the ICJ confirmed that environmental risks must be assessed by states operating projects that have the potential to damage the environment); *Case concerning Pulp Mills on the River Uruguay (Argentina v Uruguay)* [2010] ICJ Rep 14, [204] (the ICJ found that EIAs are required under general international law "where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context."); *Construction of a Road in Costa Rica along the San Juan River (Nicaragua v Costa Rica)* 'Application instituting proceedings submitted by Nicaragua' (22 December 2011);

Indus Waters Kishenganga Arbitration (Pakistan v India) (Final Award of 20 December 2013).