DAKSHINBANGA MATSYAJIBI FORUM (DMF)

Trade Union Regn. No.20474/92. Affiliated to National Fishworkers' Forum (NFF)

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Sub: Representation regarding the Rampal Thermal Power Project in Bangladesh

Sir,

We are an organization of small and traditional fishers and fish workers of Southern West Bengal, India. Dependent as we are on the natural water based fish resources of Sundarban, we are very much perturbed by the proposed thermal power plants near the Bangladesh part of Sundarban. We are submitting this representation to convey our concerns and views regarding the proposed Rampal and Orion coal-fired power plants on the fringe of the Bangladesh Sundarban.

The Sundarbans is world's largest estuarine wetland and the only mangrove tigerland, spread over India and Bangladesh.Besides the high number of mangrove tree species, accounting for one third of the global total, the high biodiversity in the Sundarbans is also represented by more than 200 additional plant species, more than 400 species of fish, over 300 species of birds, 35 species of reptiles, 42 species of mammals, as well as countless benthic invertebrates, bacteria, fungi, etc.[1]It is also an extremely sensitive habitat. Out of forty nine extant species recorded (eight orders: twenty three families), four are globally endangered, four vulnerable and two near threatened as per IUCN Red List. The rivers and near-shore waters are the abode of five aquatic mammals: the dolphins and porpoises. Among them, the Gangeticdolphin (Platanistagangetica) and Irrawady dolphin (Orcaellabrevirostris) are common along the upper part of the rivers.

The Sundarbans constitute a contiguous coastal wetland system. Although the Bangladesh and Indian portion of the forest are listed in the UNESCO world heritage list separately as the Sundarban and Sundarban National Park respectively, the two are closely connected by a complex network of tidal waterways, mudflats and small islands of salt-tolerant mangrove forests, and presents an excellent example of ongoing ecological processes.[2]The biodiversity of the Sundarbans is also fluid, and moves across natural streams and political borders. Most significantly, there are studies which have indicated that the Royal Bengal Tiger has adapted to the coastal ecosystem to cross large channels (>5 km width) and recorded territorial shifting from India to Bangaldesh.[3]The inter-connected nature of the Sundarbans also means that activities on any part of the forests or around the forests will affect the entire ecosystem.

The World Heritage Commission has encouraged the Governments of Bangladesh and India to cooperate with the purpose of a joint inscription of the Sundarbans World Heritage Site of Bangladesh and the Sundarbans National Park of India as a single entry of the World Heritage List. While this process is undertaken through the relevant diplomatic and administrative channels, there is scientific and general recognition of the ecological unity of the entire Sundarbans – and its Outstanding Universal Value (OUV).

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[1]Ghosh, A. et.al., "The Indian Sundarban Mangrove Forests: History, Utilization, Conservation Strategies and Local Perception" Diversity, ISSN 1424-2818. 2015. Vol. 7, pp. 149-169

[2]The Sundarbans. Factsheet, World Heritage List. Available at http://whc.unesco.org/en/list/798

[3]Mallick, J., "Status of the Mammal Fauna in Sundarban Tiger Reseve, West Bengal – India" TAPROBANICA, ISSN 1800-427X.October, 2011. Vol. 03, No. 02: pp. 52-68

The Sundarbans are under stress due to anthropogenic pressures, within and immediately outside the forests. The mangrove ecosystem is so fragile that any interference may lead to extinction of various components and also the ecosystem as a whole in the long run. States, therefore, have a responsibility to proactively ensure that the Sundarbans are protected from any further deterioration.

In this context, we would like to highlight potential threat posed by the Rampal[4] and Orion[5]coal-fired power plants, proposed to be constructed near the boundary of the Sundarbans in Bangladesh. It is anticipated that the project will impact not only the Sundarbans World Heritage Site of Bangladesh, but affect the ecological integrity of the entire Sundarbans, and endanger the ecologically significant species to which the Sundarbans provide a habitat.

The two projects would produce over 1.4 million tons of coal ash each year, much of which would be used for local landfill at the power plant sites, and which contains hazardous levels of arsenic, lead, mercury, cadmium, chromium and selenium.[6]In a study conducted of the Singrauli region (of Sonbhadra district of Uttar Pradesh) in India – which has a high concentration of thermal power plants – the results of the water, soil and fish samples indicates pollution due to mercury, arsenic and fluoride.[7]

Mercury and heavy metal contamination of the aquatic food chain downstream from the power plants would affect migratory birds and fish that travel as far as Sundarbans National Park. Bengal tigers are also 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.[8]

The Environment Impact Assessment (EIA) Report for the Project is highly inadequate on several grounds. Some of the main issues, which should have been considered in the EIA include

The impact of air pollution – including dust, fugitive emission, SO2, etc on the mangroves needs to be carefully assessed. Airborne mercury from coal burning is particularly worrisome, as it can remain airborne for hundreds of kilometers, but significant amounts are also deposited close to its source.[9] Mercury deposition increases with proximity to sources such as power plants, coastal salt spray, forest cover, and high levels of ground level ozone.[10] Conversion of inorganic mercury to methyl mercury is highest in ecosystems with variable water levels, abundant shoreline wetlands, forest cover, forest clearcutting, shallow flowpaths, waters impacted by acid rain, and small lake to watershed ratios.[11] With acid rain and ground level ozone increasing in the region,[12] all of these factors could affect mercury deposition and bioaccumulation in the Sundarbans.

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[4] Officially called the Bangladesh India Friendship Power Company Ltd'sMaitree/Khulna Project at Rampal.
[5] Officially called Orion Power Khulna Ltd. at Burirdanga, Mongla.
[6]EIA for the Rampal project volume 1, p. 378.
[7]Sahu, R. et. al, "Mercury Pollution in Sonbhadra District of Uttar Pradesh and its Health Impacts" Centre for Science and Environment (2012).
[8]Jayanta Kumar Mallick , Status Of The Mammal Fauna In Sundarban Tiger Reserve, West Bengal – India , Taprobanica, 3, 2, (October 2011), http://www.academia.edu/3446134/STATUS_OF_THE_MAMMAL_FAUNA_IN_SUNDARBAN_TIGER_RESERVE_WEST_BENGAL_-_INDIA at 65.
[9] Hubbard Brook Research Foundation, *Mercury Matters* (2007), http://hubbardbrookfoundation.org.s113055.gridserver.com/wp-content/uploads/2010/12/mercury-matters1.pdf at 9,
[10]Ibid at 9.
[11] Ibid. at 18.
[12]SunitaBhargava&SharadBhargava, *Ecological Consequences of The Acid Rain*, IOSR Journal of Applied Chemistry (September 2013), http://www.iosrjournals.org/iosr-jac/papers/vol5-issue4/D0541924.pdf?id=7284 .

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Such intense industrialization – and associated activities – will also result in severe disruption of the core areas and the sensitive ecological processes in the Sundarbans. This includes the heavy ship movement, dredging for maintenance of water channels, disposal of bilge and ballast water and other waste.

We seek to highlight that the cumulative impacts and the transboundary impacts of the proposed projects have not been adequately considered. The WHC had requested a Strategic Environment Assessment (SEA) to assess the indirect and cumulative impacts from the power plants, in Decision 38 COM 7B.64. It is recommended that this should include the transboundary nature of the impact of the Indian Sundarbans as well. Likewise the monitoring and mitigation measures taken for the project should also include the direct and indirect impacts on the Indian

Sundarbans ecosystem and biodiversity. The full findings of the SEA and cumulative impact assessment on the entire contiguous wetland ecosystem should be taken into consideration to inform the viability of the Project.

The WHC had also requested Bangladesh to invite a joint World Heritage Centre/IUCN Reactive Monitoring mission to the Sundarbans in Bangladesh to review the site and the potential impacts of the thermal power plant development and dredging of Pashur River [Decisions adopted by the World Heritage Committee at its 39th session (Bonn, 2015) WHC-15/39.COM/19, page 70]. It is recommended that this should include representatives of the Sundarbans National Park (of the Indian site); and that the site visit should include both the Sundarbans (in Bangladesh) and the Sundarbans National Park (in India).

Pradip Kumar Chatterjee,
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Dakshinbanga Matsyajibi Forum