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His Excellency Prakash Javadekar
Minister of State (Independent Charge)
Ministry of Environment, Forests & Climate
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Indira Paryavaran Bhavan
Jor Bagh Road
New Delhi

19 May 2016

Subject: Environmental impacts of the National Waterways Act 2016 on endangered riverine biodiversity

Excellency,

We are writing to you on behalf of IUCN, the International Union for Conservation of Nature, regarding the National Waterways Act 2016 enacted by the Government of India, with the intention of converting 111 reaches of 106 rivers to inland waterways for transport of cargo, coal, and industrial raw materials, and tourism. We understand the importance of implementing this Act for the growth of the Indian economy. However, while the imperatives of economic growth are understandable and important, negative impacts on the ecology of India's rivers and on the survival of unique and endangered biodiversity, as well as fisheries vital to the food security of the country, should also be taken into account in a careful and sensitive manner.

- It is our understanding that workshops have been held earlier this year by the Inland Waterways Authority of India, inviting various stakeholders to express their views and give suggestions on ways to mitigate the environmental and social impacts of the Waterways Development Projects. We know that scientists working in various institutions in India have raised concerns on the possible negative impacts these developments may have, since India's rivers support high levels of biodiversity, including globally Endangered species such as the country's National Aquatic Animal, the Ganges River Dolphin, the Gharial Crocodile, and numerous freshwater turtles, fishes, and birds. These species are already threatened by reductions in their populations, and by alterations and barriers to river flow. In many areas, their populations have been locally extirpated or persist only in very small numbers.

The proposed scale of waterway development has the potential to cause the extinction of several Endangered species, including the Ganges River Dolphin: it is certain to degrade the habitat of this species and fragment its populations. There have been promises given in earlier meetings that all possible mitigation measures would be put in place to save the dolphin. IUCN welcomes these reassurances and requests that consideration also be given to mitigating the environmental impacts of river traffic on the aquatic fauna of the Ganga River basin, and India's rivers in general.

We strongly recommend that before proceeding further, a panel of scientific experts is convened to assess the ecological impacts of planned waterway development and define measures that should be taken to avoid, mitigate and minimize the impacts on ecological features of the rivers.

A few critical aspects to be considered during this proposed assessment must include:

- *Lack of water* - Existing demand for fresh water in India has caused many rivers to dry up completely or be left with very little flow during the dry season. The lack of river flow is already a severe problem for freshwater fisheries and biodiversity and further waterway development will aggravate existing threats to fish and Endangered riverine species more generally.
- *Capital dredging* - Capital dredging will be required for deepening, widening and straightening waterways. This practice reduces the complexity and variability of the river habitat which is what supports productive fisheries and the prey of Ganges River Dolphins and Gharials. Dredging also increases the velocity of river flow and can create risky conditions for human life. This will also

exacerbate the problem of lack of water described above. Additional problems for riverine wildlife caused by capital dredging are high levels of noise and the disturbance of river-bed sediments.

- *Barrages* – Implementation of the National Waterways Act might require the construction of barrages along the river length. However barrages built in the Ganges River system have already resulted in a significant decline in the range of Ganges River Dolphins and in the stocks of many fish species, due to habitat loss, blocked migratory routes, and fragmented populations. Barrage construction has profound, lasting consequences for biodiversity.
- *Vessel Traffic* – Endangered riverine wildlife, including Ganges River Dolphins, will be at increased risk of being struck by vessels and of being displaced from critical habitat by vessel-induced disturbance and underwater noise.
- *Pollution* - Fuel leaks and oil spills would be unavoidable given the planned traffic load. Also, plans to transport through the waterways 300 million tonnes of coal per year (by 2020) to power plants and states are a major concern due to pollution from coal dust.

IUCN understands the role that waterways can play in economic development. However, experience from other parts of the world where development of inland navigation has been significant, including Europe, the United States and China, has shown that the environmental impacts have actually been rather costly. There can be large-scale risks to human welfare, including for livelihoods dependent on fishing, food security and access to safe drinking water. We strongly encourage the Government of India to ensure that comprehensive environmental impact assessments are carried out before waterway development is planned. These should ensure that the costs and risks from the loss of ecosystem services are incorporated into decision making, and therefore avoided or mitigated through project selection, planning and management.

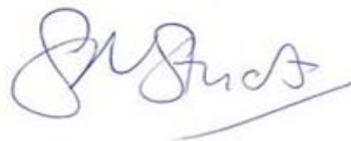
IUCN respectfully requests your consideration of riverine biodiversity, the welfare of local human communities and environmental risks in the planning and implementation of any aspect of the Water National Waterways Act. IUCN extends to the Government of India an invitation to take advantage of the expertise (including numerous Indian scientists) on riverine wildlife available through the IUCN Species Survival Commission, which includes Specialist Groups on cetaceans, crocodiles, freshwater turtles, and fish species. IUCN is also available, through our Asia and Global Water Programmes, to support convening an independent scientific and technical review and providing advice on best practices in waterways development and how the management of riverine systems can optimize both biodiversity conservation and economic development.

Thank you for your attention to this issue.

Sincerely,



Inger Andersen
Director General



Simon N. Stuart, PhD
Chair, Species Survival Commission

Copies to:

Mr. Vinay Srivastava, Principal Secretary, Ministry of Environment, Forests & Climate Change,

Mr. Ajay Narayan Jha, Secretary, Ministry of Environment, Forests & Climate Change

Sushri Uma Bharati, Minister for Water Resources, River Development and Ganga Rejuvenation

Mr. Shashi Shekhar, Secretary, Ministry for Water Resources, River Development and Ganga Rejuvenation,

Mr. Amitabh Verma, Chairman, Inland Waterways Authority of India