SUPPLEMENTARY ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED HIGH LEVEL BRIDGE ACROSS PULICAT LAKE, TAMIL NADU WITH SPECIAL FOCUS ON BIRDS

Final Report Submitted to

Highways Department, Thiruvallur





Sálim Ali Centre for Ornithology and Natural History (A Centre of Excellence under the Ministry of Environment, Forest and Climate Change, Government of India) P.O. Anaikatty, Coimbatore – 641108, Tamil Nadu

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EXECUTIVE SUMMARY

We conducted a two month study to document the impact of the proposed High Level Bridge on the avian diversity and composition across Pulicat Lake. Bird sampling was conducted at 86 vantage points of variable radius. We also conducted boat surveys and opportunistic encounters. Overall, we recorded a total count of 30,007 individuals belonging to 86 species of birds from 28 families and 13 orders across all surveys. Family Laridae had the highest proportion of individuals (46.5%) Charadriidae followed bv (32.3%) and Scolopacidae (11%). Ardeidae. Phalacrocoracidae and Ciconiidae had relative proportions less than 4% while the remaining 22 families had the least proportion. The Little Ringed Plover Charadrius dubius had the highest proportion of abundance (22.35%) followed by both species of Terns (Lesser Crested Tern Thalasseus bengalensis and Greater Crested Tern Thalasseus bergii (11%), Common Sandpiper Actitis hypoleucos (10%), Pacific Golden Plover Pluvialis fulva (9.55%), Caspian Tern Hydroprogne caspia (8.41%), Black Headed Gull Chroicocephalus ridibundus (8.02%), Brown Headed Gull Chroicocephalus brunnicephalus (6.3%), and Little Egret Egretta garzetta (2.63%) while other species had low relative abundance (≤1.8%). Thirty-seven species were residents, 17 species were residents with local movements, 14 species were winter migrants, while a small proportion included residents with altitudinal movements, summer movements, and partial migrants. Out of 86 species recorded, six species of water birds; Great Thick-knee Esacus recurvirostris, Black-Tailed Godwit Limosa limosa, Eurasian Curlew Numenius arguata, Painted Stork Mycteria leucocephala, Spot-billed Pelican Pelecanus philippensis and Black-headed Ibis Threskiornis melanocephalus were categorised as "Near Threatened" according to the International Union for Conservation of Nature (IUCN) Red List. Five species of raptors Black-winged Kite Elanus caeruleus, Oriental Honey Buzzard Pernis ptilorhynchus, Shikra Accipiter badius, Brahminy Kite Haliastur indus and Whitebellied Sea eagle Haliaeetus leucogaster were categorised as "Schedule I" according to the Wildlife Protection Act 1972. The maximum bird count ranging from 1952 to 4765 was recorded within a radius of 1.5 km close to the proposed High Level Bridge (HLB) site as well as existing Chennai-Pulicat Bridge. Particularly, the "Near-threatened species" like Painted Stork, Black-headed Ibis and Eurasian Curlew were observed foraging barely 50 m from the HLB site. Particularly, these species could be most vulnerable to the operation and construction phases of the bridge for which we have provided necessary guidelines to minimize the impact of the bridge on the avifauna.



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