



Government of Nepal
Ministry of Forest & Soil Conservation
Department of National Parks & Wildlife Conservation



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31 December, 2016

The World Heritage Center

UNESCO Office

Paris, France

Subject: Report on State of Conservation of Chitwan National Park

Dear Sir/Madam,

It is my pleasure to submit the report on state of conservation of the world heritage property, Chitwan National Park, prepared by the Department of National Parks and Wildlife Conservation based on the 39th World Heritage Commission's Decision 39 COM 7B.15.

Thank you so much for your kind cooperation.

Sincerely yours

Man Bahadur Khadka

Director General

Director General



Report on State of Conservation of Chitwan National Park (Nepal) (N 284)
2037

Report submitted to
World Heritage Centre
United Nations Educational, Scientific and Cultural Organization
Paris, France

Report prepared and submitted by
Government of Nepal
Ministry of Forests and Soil Conservation
Department of National Parks and Wildlife Conservation
Babarmahal, Kathmandu, Nepal

December, 2016

Executive summary

The Chitwan National Park (CNP), a world heritage property since 1984, is renowned for its unique diversity of habitats, flora and fauna and outstanding natural features. The park is home to several endangered and rare species of wildlife including Greater one-horned Rhinoceros, Royal Bengal Tiger, Asiatic Elephant, Gangetic Dolphin, Gaur, Great Hornbill, Bengal Florican, Gharials. The Beeshazari and Associated Lake, a Ramsar Site in buffer zone, add the significance of the park. CNP provides a natural linkage to the lesser Himalayas on its north through the Barandabhar, the Siwalik hills and the Tarai forests towards the south, the Parsa Wildlife Reserve in the east. The Tarai habitat of Chitwan bordering India makes the trans-boundary linkage with the Valmiki Tiger Reserve, Udaipur Sanctuary and Sohagibarwa Sanctuary.

The World Heritage Committee in its 39th session in the year 2015 has raised issues about potential impacts of the proposed East-West Electric Railway, Tarai Hulaki Highway, Balmikiashram – Trivenidham Trail suspension bridge, Optical Fibre Project, on its Outstanding Universal Values (OUV) of the property, CNP. In decision 39 COM 7B.15, the committee has requested the State Party to submit an updated report on the state of conservation of the property and on the implementation of its recommendations. In this context, this report is an update on state of conservation of the natural world heritage site, Chitwan National Park.

During 17 to 20 March 2016, an IUCN reactive monitoring mission visited the property, Chitwan National Park, as requested by the World Heritage Committee. The mission provided thirteen recommendations on proposed infrastructures development and other conservation issues which may impact the property. Alignment of the proposed East-West Electric Railway has been changed as requested by Department of National Parks and Wildlife Conservation (DNPWC) which shall not cross the property. Feasibility Study of Nijgad-Hetauda-Bharatpur section of East-West Railway is completed. CNP/DNPWC has requested to deviate the alignment of Tarai Hulaki Highway. Department of Local Infrastructure Development and Agricultural Roads has been preparing the Environmental Impact Assessment (EIA) report for the proposed suspension bridge (Balmikiashram-Tribenidham). EIA report on laying optical fiber project, prepared by Ministry of Information and Communication, is under the process of final approval. Different stakeholders propose different road projects, which may cross the property, CNP; are Dumkibas-Tribeni road, Bharatpur-Thori road (upgrade), Madi-Balmiki Ashram road, the State 3 proposed Chine-India Trade Link. Construction of Dumkibas-Tribeni road, Madi-Tribeni road and Madi-Balmikiashram road are totally objected by CNP/DNPWC. Due to successful park management and anti-poaching activities, CNP has achieved the four years of zero rhino poaching in 2011, 2013, 2014 and 2015; a remarkable achievement in biodiversity conservation.



1. Introduction

The Chitwan National Park (CNP), established in 1973 as a first National Park of Nepal, is situated in southern sub-tropical climatic region of central Nepal (Figure 1). CNP extends across four districts viz. Chitwan, Nawalparasi, Parsa and Makawanpur. The park covers an area of 932 km² while the buffer zone extends to 750 km² areas. The park established as the IUCN Category II of Protected Area System for the conservation of indigenous Tarai fauna particularly the most endangered species (Rhinoceros, Tiger, Gaur, Gangetic dolphin, Gharial) in their unique natural habitat. The CNP is a World Natural Heritage property and it also contains a Ramsar Site - 'Beeshazari and Associated Lakes' in its buffer zone. The park is renowned for its unique diversity of habitats, flora and fauna and outstanding natural features. UNESCO designated CNP as a World's Natural Heritage Site in November 1984 under the World Heritage Convention recognizing its unique biological resources of outstanding universal value.

The park comprises rich ecosystem diversity that encompasses different types of forest, wetland sites and grassland ecosystems across the core area and buffer zone as well. Approximately 70% of the park is covered by Sal forest followed by 20 % grassland. Many rare and endemic plants; the Tree fern, Cycas, Screw pine, and animals; the Greater one-horned rhinoceros, Royal Bengal tiger, Asiatic elephant, Gaur, Gangetic dolphin, Great hornbill, Bengal Florican, Gharials, etc and endemic species like Maskey's burrowing frog occur in the CNP.

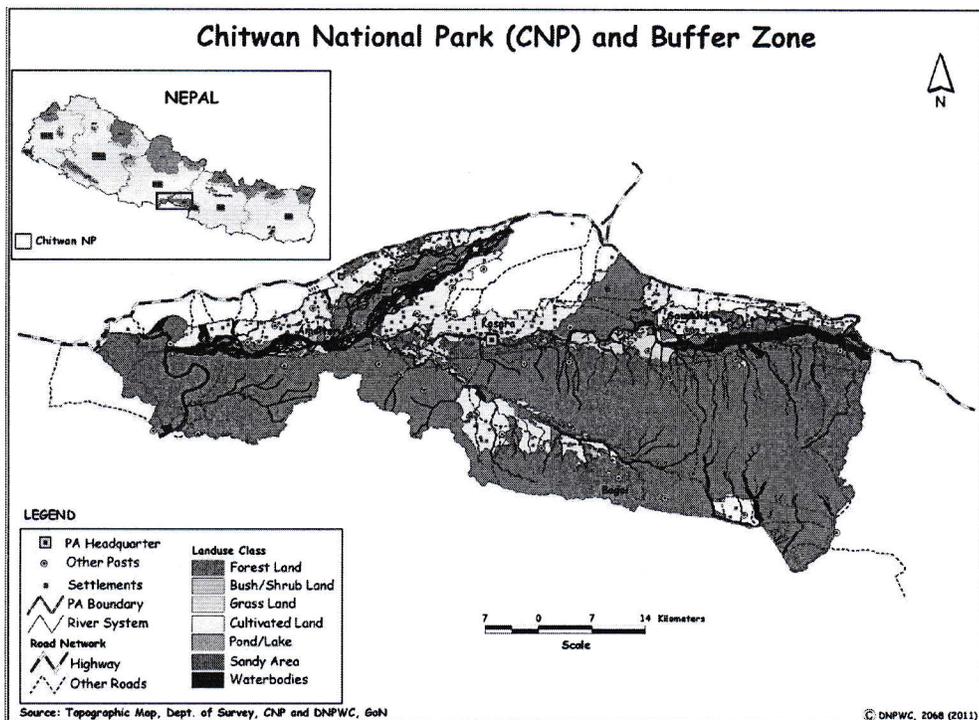


Figure-1: Location map of Chitwan National Park





CNP provides a natural connectivity to the lesser Himalayas on its north through the Barandabhar forest, the Siwalik hills and the Tarai forests towards the south, the Parsa Wildlife Reserve (PWR) in the east. The Tarai habitats of Chitwan bordering with Indian protected areas viz. Valmiki Tiger Reserve, Udaipur Sanctuary and Sohagibarwa Sanctuary makes the trans-boundary linkages. Overall management of CNP and its buffer zone mainly focused on habitat management, tourism and livelihood improvement activities. Due to sustained conservation efforts, the population of terrestrial endangered species has improved over time; especially the rhino and tiger population has increased with a positive growth index. The CNP has developed a noticeable growing alliance between conservation and tourism agencies and stakeholders. About 50% of revenue generated by the protected areas of Nepal comes from the CNP.

2. Response to the Decision of the World Heritage Committee

2.1 Having examined Document WHC-15/39.COM/7B.Add,

Response – NA

2.2 Recalling Decision 38 COM 7B.69, adopted at its 38th session (Doha, 2014),

Response – These concerns and requests are reiterated by the committee at its 39th session (Decision 39 COM 7B. 15).

2.3 Notes with significant concern that the proposed East-West Electric Railway and Tarai-Hulaki Highway, if constructed, would result in the fragmentation of the property in four locations, all of which contain important habitat for key species, including elephant, rhino, tiger and gaur, and increase the risk of poaching;

Response – Considering the likely negative consequences of proposed East-West Electric Railway, alignment of the East-West Electric Railway has been changed as requested by CNP/Department of National Parks and Wildlife Conservation (DNPWC) which shall not cross the property. Likewise, the construction of Tarai Hulaki Highway, which crosses the CNP, is objected by CNP/DNPWC and requested to deviate the route alignment.

2.4 Requests the State Party to undertake an Environmental Impact Assessment (EIA) for the proposed Suspension Bridge (Balmikiashram-Trivenidham), and submit the EIAs for the East-West Electric Railway, the Tarai Hulaki Highway and the optical fibre project crossing the property to the World Heritage Centre, for review by IUCN, ensuring that the EIAs include a specific assessment of the impacts on the Outstanding Universal Value (OUV) of the property, as well as an assessment of cumulative impacts and alternative alignments that do not cross

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the property, as recognized under all its inscription criteria in conformity with IUCN's World Heritage Advice Note on Environmental Assessment;

Response – Department of Local Infrastructure Development and Agricultural Roads has been preparing the EIA for the proposed suspension bridge (Balmikiashram-Tribenidham). DNPWC will send the EIA report to world heritage center for review after finalization of EIA.

Ministry of Forests and Soil Conservation (MFSC) has given the permission to carry out the EIA of East-West Electric Railway with alternative alignments (option-1: Simara/Pathalaiya-Hetauda-Tamsariya; and option-2: Chandranigahapur/Nijgad-Hetauda-Narayangadh-Tamsariya). Department of Railway has changed the route alignment as suggested by CNP/DNPWC/MFSC. Feasibility study of alignment of Nijgadh-Hetauda-Bharatpur section of East-West Electric Highway, which shall not cross the property, is completed. Department of Railway has been preparing the EIA. DNPWC will send the EIA report (if alignment cross the property) to World Heritage Centre for review after finalization of EIA.

The proposed Tarai Hulaki Highway runs close and parallel to the existing east-west highway. Its construction along this alignment would be likely to result in the fragmentation of the property (Madi-Kasara and Bhosarghat - Tamsariya portion of the CNP). The construction of Tarai Hulaki Highway, which crosses the CNP, is objected by CNP/DNPWC and requested to deviate the route alignment. CNP/DNPWC has optioned and recommended that Thori-Madi and Madi-Kasara section should have sky bridge with green infrastructures.

EIA report on laying optical fiber network at CNP-Madi is prepared by the Ministry of Information and Communication and submitted to the Ministry of Population and Environment for its final approval. On 28th September, 2015, Department of National Parks and Wildlife Conservation submitted the EIA report to the World Heritage Center for review. After approval from the Ministry of Population and Environment, the proponent will implement an environmental management plan (EMP) of EIA report as per the rules and regulations.

2.5 Also requests the State Party to submit these EIAs and further details on the proposed projects to the World Heritage Centre, for review by IUCN, in accordance with Paragraph 172 of the *Operational Guidelines*, and to ensure that no construction of infrastructure will be permitted if it could negatively impact on the OUV of the property;

Response – After the visit of IUCN Reactive Monitoring Mission, Ministry of Forests and Soil Conservation/Department of National Parks and Wildlife Conservation has not given the



permission for the construction of any infrastructure crossing the property, which could negatively impact on the OUV of the property.

2.6 Recalling the two recent years of zero rhino poaching in the property (2011 and 2013), further requests the State Party to provide an update on the status of poaching of rhino and other wildlife inside the property, in order to demonstrate the continued success of anti-poaching operations;

Response – CNP is successfully managing to conserve world’s second largest population of Greater One-horned Rhinoceros (*Rhinoceros unicornis*), source population of Royal Bengal Tiger (*Panthera tigris*) and remnant population of Critically Endangered Gharial Crocodile (*Gavialis gangeticus*). Due to effective park management and antipoaching activities, Nepal has achieved the four years of zero rhino poaching in 2011, 2013, 2014 and 2015; a remarkable achievement in biodiversity conservation. In 2016, till now, no Rhino has been killed from poaching in the property, CNP. Population of Rhino has been increased from 503 in 2011 to 605 in 2015 in the CNP. The park management has been successfully mobilizing communities, youth in particular, to create conservation awareness and effective participation.

2.7 Requests furthermore the State Party to invite an IUCN Reactive Monitoring mission to the property, in order to review potential impacts from the abovementioned developments on its OUV, and to provide advice on alternative options for infrastructure development that would not have a negative impact on OUV;

Response – By a corresponding letter to the Director General of the World Heritage Centre on 3rd September, 2015; Department of National Parks and Wildlife Conservation invited IUCN Reactive Monitoring Mission in order to review potential impacts of the proposed East-West Electric Railway, Tarai Hulaki Highway and Balmikiashram – Trivenidham Trail suspension bridge, on its outstanding universal values. During 17 to 20 March 2016, an IUCN reactive monitoring mission visited the property, CNP and submitted the report to world heritage centre. The mission provided thirteen recommendations on proposed infrastructures development and other conservation issues which may impact the property.

2.8 Requests moreover the State Party to submit to the World Heritage Centre, by 1 December 2016, an updated report, including a 1-page executive summary, on the state of conservation of the property and the implementation of the above, for examination by the World Heritage Committee at its 41st session in 2017.



3. Other Current Conservation Issues identified by the State Party which may have an Impact on the property's Outstanding Universal Value.

Response - CNP at present faces several complex challenges which need to be addressed carefully for biodiversity conservation in general and ensure viable population of the species of conservation significance in particular. Human-wildlife conflict, habitat management, invasive alien species have been identified as the issues of major concern.

The Park has been able to manage only smaller portion of grassland every year but declining of grasslands continues due to both natural processes and human induced disturbances. The annual normal flood is a regular phenomenon which helps in maintaining a variety of habitats suitable for many threatened species on one hand, but sometimes it creates negative impacts on habitats on other hand. In monsoon season (June through September), the Narayani and Rapti rivers deposit large amounts of boulders, sands and silts in plain area that triggers the susceptibility of high flood, expansion of river, cutting the river banks and sweeping away of number of wildlife. The Narayani, Rapti and Rew Rivers frequently change their courses that creates land degradation, and depletion of forest and grassland habitats.

Climate change has been one of the most serious challenges for biodiversity conservation over the last decades. One of the most likely impacts of climate change is shift in spatial and temporal pattern in availability of suitable habitats for terrestrial species. The main potential impact of climate change to CNP is related to invasion of alien species, degradation of habitats such as grasslands, wetlands and shrinkage of riverine mixed forests.

Forest fire is another threat to maintain park biodiversity. The trend shows that fire incidents have been increasing mostly in the hot summer seasons. Local buffer zone user committees are closely working with park authority to control the forest fire in the core and buffer zone as well.

4. In conformity with Paragraph 172 of the *Operational Guidelines*, describe any potential major restorations, alterations and/or new construction(s) intended within the property, the buffer zone(s) and/or corridors or other areas, where such developments may affect the Outstanding Universal Value of the property, including authenticity and integrity.

Response: Proposed road projects by different stakeholders for different purposes, which may cross the property, CNP; are Dumkibas-Tribeni road, Bharatpur-Thori road (to upgrade), Madi-Balmiki Ashram road, the State 3 proposed China-India Trade Link. The alignment of the State 3 proposed China-India Trade Link follows the same alignment as the Bharatpur-Thori road. These developments may affect the OUV of the property if implemented as proposed. Construction of



Dumkibas-Tribeni road, Madi-Tribeni road and Madi-Balmikiashram road are totally objected by CNP/DNPWC.

The proposed road development between Bharatpur-Thori does not represent the new development but is an upgrading of an existing road. This existing road passes through the property at two locations i.e. from north to south between Kasara and Bankatta, and along the southern boundary of the property from Bagai Madi to Dipaknagar. District Road Office, Chitwan has called the tender for initiating black topping of the CNP portion.

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