

CENTRAL EMPOWERED COMMITTEE

REPORT REGARDING RELEASE OF WATER FROM PANCHANA DAM TO THE KEOLADEO NATIONAL PARK IN RAJASTHAN

Application No. 592 has been filed before the CEC by Tourism and Wildlife Society of India through its Hony. General Secretary, Mr. Harsh Vardhan, seeking intervention for release of water from Panchana Dam to Keoladeo National Park in Bharatpur in Rajasthan. This report is being filed after examining the matter during the hearing-cum-meeting held on 31.1.2005 and 21.2.2005 (list of participants is at **ANNEXURE-A Colly.**) and site visit carried out between 1st and 2nd March, 2005 by Mr. P.V. Jayakrishnan, Chairman, CEC, and Mr. Mahendra Vyas, Member, CEC.

Keoladeo National Park

2. Keoladeo National Park, Bharatpur (KNP) is one of the world's most renowned wetlands. This 28.72 sq. kms. Park is located at the confluence of River Gambhir and the River Banganga. The area was designated as Keoladeo Ghana Sanctuary in 1965 and was upgraded into Keoladeo National Park in 1981. The KNP comprises of three major eco-systems namely wetland, grassland and woodland. The

wetland area has been divided into various unequal compartments by means of dykes. A masonry wall separates the KNP from surrounding population and agricultural fields in villages.

3. Around 370 species of birds and 375 species of flowering plants have been recorded in the KNP. The Park is renowned globally for its heronries as also for the concentration of migratory species. 91 species of aquatic vegetation have been recorded in this Park. Hundreds of thousands of birds visit it annually. It is one of the finest bird sanctuary in the world and known as 'Mecca of Bird Watchers'. It attracts about one lakh Indian and foreign tourists and bird watchers annually.

Keoladeo National Park – a Ramsar Convention Site

4. The Convention on Wetlands of international importance commonly known as the Ramsar Convention is an inter-governmental treaty which provides framework of international cooperation for the conservation of wetlands habitats. The Convention came into force in 1975 and has 133 contracting parties throughout the world including India. The Convention enjoins upon the contracting parties to protect and preserve the identified wetlands eco-system for posterity.

Ramsar sites are selected on account of their international importance on the basis of ecological, botanical, zoological, limnological or hydrological criteria. KNP has been selected as a Ramsar site because of its great ecological value, the huge congregation of birds and wide variety of species. As a signatory of Ramsar Convention, India has therefore made a global commitment to protect the KNP.

Keoladeo National Park – a World Heritage Site

5. The KNP has been designated as world heritage site by the UNESCO in the year 1985 on account of its unique conservation value and rich biodiversity. This clearly demonstrates the great importance of KNP not only at national level but also at international level.

National Wildlife Action Plan – KNP to be notified as an “Ecologically Fragile” area

6. In the National Wildlife Action Plan (2002-2016) approved by the Indian Board for Wildlife during the meeting held under the Chairmanship of the Prime Minister in January, 2002, it has been resolved to notify all identified world heritage sites and Ramsar Site in India as “Ecologically Fragile” areas under the Environment

(Protection) Act, 1986. Since KNP falls under both these categories, it qualifies to be given the status of an “Ecologically Fragile” area.

Water requirement of Keoladeo National Park

7. As earlier stated the KNP comprises of three eco-systems namely wetland, grassland and woodland. Of these three ecosystems, grassland and wetland are the most sensitive ones and need to be managed properly. Both the grassland and wetland through the process of succession will emerge as woodland. To prevent this succession process, it is important that these two ecosystems are manipulated and maintained. This is always what has happened here. Regular flooding and flushing the wetlands is the only way to manage the wetlands. Any shortage in availability of water will lead to severe damage of the wetland. This is exactly what is now happening in KNP. KNP today is facing huge shortage of water. There is only a large pool of water left which uses tube wells to replenish its level. All domestic and migratory birds have left the park in search of new wetlands and new breeding areas. There are reports that many have been killed in different unprotected water bodies and lakes. The reduction in bird population has reached a giant proportion. A dry degraded woodland with rapidly expanding

Prosopis juliflora has enveloped the park. Hundreds of thousands of birds are missing. KNP is like a ghost of what it was hardly two years ago.

8. Bharatpur receives about 25 to 50 cm of rainfall during July-August annually which is not sufficient to meet its requirement. Therefore, a system has been evolved to supply river water to the KNP from Ajan Bund which is about half a km south of the Park. The Ajan Bund used to receive water from the river Gambhir (originating in Karauli district and flowing south of this Park in Bharatpur district) and river Banganga (emerging North of Jaipur district and having a confluence with Gambhir River towards south of the Park). The water from Gambhir River is brought into the Ajan Dam through the Pichuna canal. The water brought into Ajan Bund is retained there for a few days for the silt to settle down and then released into the KNP during the month of July-August through Ghana canal and it is then let into various compartments by means of series of gates. The release of river water is absolutely necessary for the sustenance of the Park's wetland ecosystem. Over a period of time, River Gambhir has become the only source of water for the Park.

9. For maintenance of wetland eco-system in KNP ideally about 550 million cubic feet (mcft) water is required through Ajan Bund between July to September every year. The minimum water requirement is about 350 mcft. The KNP cannot survive if less than 350 mcft water is made available. Availability of less than 350 mcft of water not only be insufficient for maintaining the complex wetland eco-system but will also result in the woodland ecosystem creeping into the wetland area which will destroy the very existence of the Park. It is therefore desirable that 550 mcft of river water is normally made available to the Park and in exceptionally lean period at least 350 mcft of water is made available. The water is required to be released during July-October because this is the breeding season of most of the local water birds.

10. The quantity of water supplied to the KNP through Ajan Bund since 1975-76 is given at **ANNEXURE-B** to this report. It may be seen that from 1975-76 upto 1999-2000 every year more than 300 mcft water has been made available to the KNP through Ajan Bund barring 1986-87, 1987-88, 1989-90 and 1997-98 when 61, 141, 197 and 180 mcft water was released respectively. There is not even a single year upto 2001-2002 when no water was released. Even in

the years of severe drought the water requirement of KNP was met to the maximum possible extent. During the last 11 years on an average annually about 300 mcft water has been made available to the KNP which has ensured the survival of the Park.

Panchana Dam

11. Panchana Dam has been constructed near Karauli town which is about 90 kms upstream from KNP on river Gambhir. The construction of this Dam commenced in January, 1979. The sluice gates of the Dam were reportedly installed during July, 2003. It may be seen that the release of water to the KNP had progressively decreased as the construction was nearing completion and has now practically become nil.

Present status

12. In the command area of the Panchana Dam 9985 ha. area has been developed for irrigation which requires almost the entire water available from the dam leaving no water for the KNP.

13. In the meeting convened by Chief Secretary, Government of Rajasthan on 21.6.1991 (**ANNEXURE-C**) it was decided to release water from the Panchana Dam to Ajan Dam so that water becomes

available to the KNP in time and the breeding of the birds is not affected. On 4.12.2001 in the meeting convened by Principal Secretary, Irrigation Department (**ANNEXURE-CC**), it was decided to supply the water from Panchana Dam to save the Park. As per the decision taken in the meeting held on 12.8.2004 by the Chief Secretary, Rajasthan 320 mcft water was released from Panchana Dam. But because of erratic release of water, losses on account of percolation, transmission etc. only 20 mcft water reached Ajan Bund and 18 mcft was actually released to the KNP.

14. After a reported agitation it has now been decided that no water will be released from Panchana Dam except when the Dam over flows due to excessive rainfall or flash flood. It has been reportedly stated that any water for the KNP could be released only after fully meeting the irrigation requirement of the farmers in the command area of the Panchana Dam.

Public outcry to save the Park

15. The plight of the KNP has received wide media coverage. The applicant has filed representations in favour of release of water to KNP signed by thousands of persons from various walks of life. The

issue has received unprecedented attention at national as well as international level. Copy of the Resolution passed by the World Wide Fund – India (WWF) after a workshop held on 27th January, 2005, Recommendations of the Asian Wetland Symposium, 2005 held in Orissa from 6th to 9th February, 2005 and First Annual Research Seminar organized by the Department of Forest, Government of Rajasthan between 22-23 December, 2004 on KNP are enclosed as **(ANNEXURE-D Colly.)** to this report. Some of the media coverage given in national newspapers is enclosed at **(ANNEXURE-E Colly.)** to this report.

Chambal-Dholpur-Bharatpur Drinking Water Project – commitment of water for KNP

16. The State Government has planned to implement Chambal-Dholpur-Bharatpur Drinking Water Project through Public Health Engineering Department (PHED). Since the said project contemplates use of land falling within Chambal Ghariyal Sanctuary, approval of this Hon'ble Supreme Court is required. For this purpose an Application has been filed by the PHED before the CEC. During the course of examination of the Application a commitment has been made by the State of Rajasthan that from the project about 310 mcft

of water will be made available to the KNP till the year 2010 and thereafter 62.5 mcft every year.

Proposed dedicated pipe line scheme for meeting the water requirement of KNP

17. As an alternative to release of water from Panchana Dam for the KNP, the State of Rajasthan has prepared a scheme for bringing water from Chambal river through a dedicated pipeline at an estimated cost of Rs. 100 crores. The said project is expected to provide about 350 mcft water to the KNP through a 80 km long dedicated pipeline.

18. Since the water brought through pipeline will be devoid of fish and other organisms, it is proposed that the pumped water will be stored in Block J&K of the KNP over an area of about 2.5 sq. kms. This water is proposed to be enriched with fish fingerlings raised in these blocks before releasing it in the wetland area of the park. The Government of India has been requested by the Government of Rajasthan to fund the capital and recurring cost of the project. The possibility of international funding is also being explored.

19. Since an alternative for providing practically the same quantity of water without any additional cost is already available through the drinking water supply scheme to be implemented by the PHED, it is

not clear how the proposed KNP pipeline scheme will be beneficial to the Park. No satisfactory explanation in this regard has been given.

20. The pumped water is proposed to be stored in J&K blocks of the KNP. The inundation of water in this area will result in further reduction of wetland area of KNP. No impact assessment study has been made about feasibility of storing the piped water, its effect on the wetland ecosystem, practical possibility of raising fish and micro organism in the stored piped water etc. No satisfactory explanation was given about the reliability of the assessment made about total quantity of water that could be stored, its utility etc.

Views of the State Government:

21. The State of Rajasthan is of the view that:

- (i) in view of the urgent requirement of water for irrigation purposes, it will not be possible to release the water from the Panchana Dam for KNP except when the Dam over flows;
- (ii) there is no reservation of water for KNP from Panchana Dam;

- (iii) very high transit losses take place due to long distance between Panchana and the KNP because of sandy terrain of river course;
- (iv) release of water from Panchana to KNP is likely to lead to serious law and order situation as already witnessed during September, 2004;
- (v) livelihood of about 9,000 families living in 35 villages depends on water released from Panchana Dam;
- (vi) release of water from Panchana for KNP will adversely affect the irrigation facilities in the already developed command area;
- (vii) as an alternative source of water, a scheme amounting to Rs. 100 crores has already been prepared and submitted to the MoEF for funding. International funding is also proposed to be explored; and

(viii) the catchment area of Panchana Dam is 622 sq. km as against 1926 sq. km of Sewla Head (down stream of Panchana Dam). The Ajan Bund also has an independent catchment area of 206 sq. km. Thus the water requirement of KNP can be met independent of Panchana Dam.

Site Inspection

22. Mr. P.V. Jayakrishnan, Chairman, CEC and Mr. Mahendra Vyas, Member, CEC carried out site visit between 1-2 March, 2005. During the visit they were accompanied by Mr. R.P. Kapoor, PCCF, Rajasthan Forest Department, Mr. L.K. Agrawal, Additional Chief Engineer (Irrigation), Mr. Arun Sen, Chief wildlife Water, Rajasthan Forest Department and other officials as well as the applicant. The Committee visited Panchana Dam, Sewla Head (Sewla Bundh), Pichuna canal, Ajan Bund, KNP canal and the Park. Detailed discussions were held with the State Officials, NGOs, permanent citizens, hotel owners, entrepreneurs, guides, rickshaw pullers etc.

Constitutional and legal provisions

23. Article 253 of the Constitution of India provides that the State Governments are bound to implement the provisions of International

Treaties and Conventions to which India is a Party. Accordingly, the States have a constitutional responsibility thrust upon them to protect the sites identified and listed under the Ramsar Convention such as the Keoladeo National Park.

24. The provisions of Section 35(6) of the Wild Life (Protection) Act, 1972 prohibits any person from stopping or enhancing the flow of water into or outside the National Park except by a permission from the Chief Wild Life Warden. It further states that no such permit shall be granted unless the State Government is satisfied in consultation with the National Board that the change in the flow of water into or outside the National Park is necessary for the improvement and better management of wildlife therein.

Observations of the CEC

25. After considering the submissions made by the applicants/WWF/interveners, the State Government during the meeting-cum-hearings, representations received from prominent residents of Bharatpur town and NGOs, bird watchers, experts, guides/rickshaw pullers working in Keoladeo National Park, the Committee is making the following observations :

- (i) the Keoladeo National Park is a valuable national and international natural heritage that needs to be preserved at all costs;
- (ii) the KNP has been given the highest degree of protection as it has been declared as a National Park under Section 35 of the Wild Life (Protection) Act, 1972. It is a Ramsar Convention Site as well as a World Heritage Site;
- (iii) the release of water from Panchana Dam to the KNP through Ajan Bundh is critical for the survival of the KNP. It brings along with it micro-organisms, zoo and phyto-plankton, amphibians, millions of fish fingerlings, turtles and other organisms which not only provide feed for the birds and other animals and which is vital for the maintenance of the wetland ecosystem of the KNP. Since piped water is totally devoid of the above stated organisms, it will not serve any purpose;

(iv) the proposed scheme of Rs. 100 crores for supply of water from Chambal river through a dedicated 100 km long pipeline will be an exercise in futility because;

(a) as stated above it will provide lifeless inert water and will serve no purpose in maintaining the complex wetland ecosystem;

(b) almost equal amount of water will otherwise also be available upto 2010 through the proposed Drinking Water Scheme being implemented by the PHED. No useful purpose will be served by spending Rs. 100 crores when without any additional expenditure the same quantity of water is being made available;

(c) for storing the water a substantial part of the wetland will be used which will further lead to substantial reduction in the extent of the existing wetland;

- (d) no impact assessment has been made about utility and effect of converting part of the wetland into a water storage system; and
 - (e) no techno-economic feasibility study or impact assessment study has been made.
- (v) the view of the State Government that the catchment area lying downstream of Panchana Dam upto Sewla Head and that of the Ajan Bundh of 1926 and 206 sq. km. respectively is adequate to provide water to KNP does not appear to be convincing. Due to the soil/rock strata of the said area, these catchment areas are not efficient catchment areas as compared with that of Panchana Dam which comprises of rocky strata which efficiently drains most of the water into the Dam without seepage losses attributed to sandy soil. Downstream of Panchana the soil being sandy, it is prone to seepage losses and absorption

hence can be classified as an inefficient catchment;
and

- (vi) the State Government's view that the water if released from Panchana Dam would be 'lost' as it would be absorbed in the dry sandy soil of Gambhir river and would not reach the KNP, does not appear to be correct as the so called 'loss' helps in recharging the ground water on either side of the river and contributes in the agricultural productivity and fulfills the essential water requirements of the people of this area. Total stoppage of flow of the water of Gambhir is likely to cause incomprehensible negative impact upon the life supporting river system. It is for this very reason the concept of maintaining minimum flow in the rivers has been treated as sacrosanct. Besides, the loss is partly due to poor maintenance of water delivery system such as Pichuna canal etc.

Conclusion and recommendations

16. The CEC is of the considered view that release of water from Panchana Dam for KNP is absolutely necessary for its survival. The various alternatives being considered will not serve any purpose in rejuvenating and maintaining the wetland ecosystem of the Park.

27. In case the decision for release of adequate water through Panchana Dam is not immediately taken it will tantamount to writing an 'obituary' for the Park which is a unique ecosystem, a Ramsar Site and also a World Heritage Site.

28. Though it is not denied that human needs are required to be given due consideration, the preserving of our natural heritage is equally important. The lone hope for the survival of the Park is thus to receive water from the Panchana Dam. No other alternative is feasible. The water is urgently required to be released from the month of July 2005 onwards.

29. In the above background the CEC is humbly placing this report before this Hon'ble court for passing appropriate orders/directions in the matter.

Before parting, the Committee would like to quote from the Book “Gardens of God. The Water bird Sanctuary at Bharatpur” authored by the renowned naturalist Late Mr. Kailash Shankhala:

“All wetlands are fragile, but this Bird Sanctuary, being an incomplete ecosystem and its basic inputs – water being totally controlled by human hands, is extra fragile. The success of its management depends on the cooperation of more than one authority, the collaboration of more than one country, and a thorough understanding of its diversified components and their functions. the slightest non-cooperation, lack of coordination, complacency, negligence or even over enthusiastic action can result in setting up an irreversible ecological equation, leading to the loss of the Bird Sanctuary”.

This Hon’ble Court may please consider the above Report and may please pass appropriate directions in the matter.

M.K. Jiwrajka
(Member Secretary)

Dated: 11th March, 2005