

Report of Site Inspection of Diversion of 79.474 ha of Forest Land in Kutch Desert Wildlife Sanctuary for Construction of Gaduli to Hajipir – Odma - Khavda-Kunaria - Dholavira - Maovana - Gadakbet - Santhalpur Road (S.H. Road) Gujarat

Preamble

The proposal for this road was recommended at the 4th meeting of The Gujarat State Wildlife Board held on 4.07.2009 with the following conditions: “(i) Subway of height 8 mts or more and length of 5 kms or more will be provided in consultation with the Forest Department officials at an interval of every 5 kms. (ii) For the outflow of rain water and movement of wildlife, culverts on the road at every kilometer will be provided for free flow of water, (iii) Speed breakers will be provided at appropriate distances to control speed of vehicles, (iv) If any toll tax gate is to be made, it should be in the village limits and Forest Department vehicles will be exempted from payment of toll tax.”

This proposal came up for a decision of the Standing Committee of the National Board for Wildlife on 12th April 2010. The decision of the Standing Committee in this regard was as follows:

“The Committee while discussing the proposal was of the view that a large area of the Kutch Desert Sanctuary was being diverted for the purpose of this road. Principal Secretary (Forests) Gujarat, informed the Committee that the project proponents during discussions with the State Government recently had decided to reduce the total area of diversion to only 80 ha and thereby reducing the impact on the wildlife in the area.

In this background, the Committee, after discussion decided that a revised proposal in this regard be submitted by the State Authorities correcting the area.”

The proposal came up again before the Standing Committee of the National Board for Wildlife at its 22nd meeting held on 6th May 2011. At this meeting;

“The Member Secretary informed the Committee that the proposal was for construction of Gaduli to Hajipir-Odma-Khavda-Kunariya-Dholavira-Maovanna-Gadakbet-Santalpur Road (S.H. Road) passing through the Kutch Desert and Wild Ass Sanctuaries. The Principal Secretary, Environment and Forests, Government of Gujarat informed that this project was to be taken up as per the decision of the Planning Commission for the development of border roads to meet security needs of the Border Security Force (BSF).”

After a discussion, The Standing Committee decided that the site be inspected by three of its members:

1. Dr. M.K. Ranjitsinh
2. Dr. Divyabhanusinh Chavda
3. Dr. Asad Rahmani

Inspection

The inspection was done by the three-member team from 1st September to 4th September 2011. The team met/ had discussions with the following officials of the Government of Gujarat:

Administration

1. Shri M. Thenarasan, Collector, Kutch

Environment & Forests Department

2. Shri. Dinesh K. Sharma, CCF, Kutch
3. Shri. D.T. Vasavda, Dy. C.F., West Division Kutch
4. Shri. L.N. Jadeja, Dy. C.F., East Division Kutch
5. Shri. A. Sampat, Dy. C.F., Vigilance
6. Shri. I.K. Barad, A.C.F., Bhuj West
7. Shri. M.V. Patel, R.F.O

Road & Buildings Department

8. Shri. N.H. Patel, Exec. Engineer, Mehsana & Kutch
9. Shri. A.K. Patel, Superintend Engineer, Circle II, Ahmedabad
10. Shri. B.B. Chavda, Dy. Exec. Engineer, Kutch

Consultant

11. Shri. P.S. Pandit, Wapcos Ltd., Gandhinagar. A Government of Gujarat undertaking

Route Travelled

At the outset, we place on record our thanks to the above-mentioned Officers and others of their departments of the State Government for their support and contribution during our visit. This enabled us to complete the inspection in a short time.

The team travelled from Bhuj to Pachcham and went past Khavda to go to Kunariya to the edge of the Rann to see the alignment towards Khadir Bet. On the return journey, the team went past Khavda further south to Ludia and Lavwara, to see the alignment westwards towards Odma. Then the team travelled further southwards and then took the road westwards to Nakhatrana and Moti Virani to reach Hajipir and then went on to Bhitara Mota. We could not see the section between Gaduli and Hajipir for lack of time.

On a second circuit, the team went from Bhuj to Rapar then northwards past Fatehgarh, past Bela eastwards to Movana and beyond to the edge of the Rann, on the border of the Wild Ass Sanctuary, to see the alignment towards Gadkabet and beyond to the Vauna road going to Santhalpur. One member of the team inspected the section westwards from Maovana to Khadir Bet via Bela, as well.

Gaduli-Hajipir- Odma - Ludia Section

There is a road already constructed on hard ground between Gaduli and Hajipir. The question is only of upgrading the existing road. The team has no objection to this proposal. From Hajipir to Bhitara Mota, the existing road is partly "Kucha". The team has no objection to its repair/ upgradation. The road from Bhitara Mota to the site of the Tent City of the Desert Festival could also be upgraded/ constructed as required. The team has no objection to this.

The proposed road beyond Bhitara Mota to Ludia on the Bhuj/ Khavda road, however, would partly pass over a submerged area through protected forest land, for a distance of 25.823 kms. There is no road here at all at the present. The construction of a new road would involve construction with raised ground at a height of 1.5, mts with supporting guard walls, etc. throughout its length. This involves considerable cost and it would have a significant impact on the desert ecology and hydrology of the area, as it would result in impounding of sea and fresh water on the two sides of the proposed alignment, with its own ecological consequences. The team could see that it would have to cut across a very substantial water body, which could be seen from The Pachcham side(Ludia).

However, with regard to the Tent City site, there is already a road connecting it to the road to Dhordo which can be upgraded, as this is the most important site for the annual Desert festival of which Dhordo is the centre for tourist visitation. The helipad is also connected. It is recommended that the proposed alignment be altered from Bhitara Mota to the Tent city site and then to Bhirandiyara via Hodka. It would meet the existing highway between the Khavda and Bhuj at this point. This would only imply upgradation of an existing road, thus considerably reducing the cost involved. And what is more, it would upgrade the Tent City/ Dhordo/ Bhirandiyara road which is the most important tourist route during the month long Desert Festival. For the BSF, it would only be a detour of 13 kms between their posts at Dhorda and Khavda. The altered alignment may not have a very significant ecological impact, as it would not be over the submerged / semi submerged part extending to over 25kms and would avoid the impounding of water with the adverse impact involved. Since the road passes through forest areas, prior permission under the Forest (Conservation) Act, 1981 would have to be obtained.

It is evident that a main purpose of the proposed road is to encourage tourism, since the traffic of the local communities of the area traversed is not towards Santhalpur to the east, but towards Bhuj, Bhachau, Gandhidham, Saurashtra and Gujarat. To these destinations there are existing excellent road connections. This lack of west-east traffic is evident from the fact that there are only 3 buses daily to Rapar from Khadir Bet, over an excellent existing road, and there is no bus service today between Bela and Santaipur even in the dry season, when heavy vehicles can pass over the dried out Rann.

Kunaria to Dholavira (Khadir) Section

This section cuts across the Kutch Wildlife Sanctuary. It is the most problematic and ecologically, totally unacceptable. A length of 31 kms would be submerged in water to a depth of 3 mts in the monsoon, according to the project proponents. The road would thus have to be built on a raised embankment of a minimum height of 3 meters, with boulder pitching on the flanks. Only 300 mts would be on hard ground of Tangdi Bet. This “bet” is, in fact the main refuge of the only surviving herd of the endangered Wild Ass (a Schedule I of Wildlife Protection Act animal), in the entire Great Rann region of Kutch and where they seek shelter during the monsoon.

The proposed alignment would result in the stoppage of the free flow of water within the Rann portion of the Sanctuary and it would undoubtedly have a very serious impact. Southward of the alignment and within the Rann portion of the Sanctuary lies the unique mangrove grove at Shravan Kavadia. It is the only such site in the world, away and cut off from the sea. Amazingly, the Avicennia mangroves stand high in a cluster, resembling in height banyan trees and are dependent for their survival on the underground supply of saline water, which in turn is dependent on the annual influx from the sea and which would be unquestionably affected if the proposed road is built.

Equally important is the “Flamingo City” to the north & in proximity the proposed alignment of the road. This is the only breeding ground of the Lesser and Greater flamingoes in the Indian Subcontinent and is one of the main reasons for the creation of the Kutch Wildlife Sanctuary, to start with. Due to the presence of the Flamingo breeding areas, popularly called Flamingo City, this Sanctuary was identified

as an Important Bird Area by the Bombay Natural History Society and the BirdLife International.

The proposed road would entail the construction of an embankment over 3 mts. height over the length of 31 kms, for which material including earthwork would have to be brought from outside, entailing a huge cost. It would also involve the construction of guard walls on both sides of the road, which would need a foundation of 3 mts and a height of 3 mts and would be of cement concrete. The total length of these two side walls thus would be 62 kms. Since the layer of silt below the surface is of about 3mtrs. depth according to the project proponents, the height of this wall of 62kms would have to be 6 meters, 3 meters of foundation below the surface and 3 meters above it.

The embankment of the proposed road provides for culverts of 2 mts x 2 mts at a distance of every 500 mts. However, the project proponents do not have a full assessment of the hydrology of the area. They have, indeed, taken account of the high flood level of the sea at various points and the height of the embankment, which is purported to be above 3 mts on this section, is on that basis. It is important to note, however, that this area does not only get saline water from the Kori and Sir creeks side of the Arabian Sea. A very significant amount of water comes from Luni river in Rajasthan into the Great Rann, which also receives water from north Gujarat, Jalore district of Rajasthan and from Tharparkar and other areas of Pakistan on the north flank of the Sanctuary, and from Kutch itself in the south. This fresh water inflow is very substantial and it has not been taken into account at all. The height of the proposed road therefore, cannot be deemed to be safe under these circumstances, nor the efficacy of the guard walls to protect it. What is also very important is that the outlets as proposed under the aligned road; have been worked out on an ad hoc basis. These culverts/ aqueducts do not appear to be adequate and in any case they would result in artificial impounding of water on both sides of the proposed road, which, would have a very serious impact on the water regime of the area and the food chain dependent on it.

The flamingoes build their 'city' in the Sanctuary dependent upon the quantum of rain, which itself shows the importance of fresh water influx which, as noted above, has not been taken into account in the dynamics of the proposed road. The impounding of water which is inevitable, will not only affect the building of the flamingo 'city', but it would also seriously affect the food chain of the marine ecosystem, which is the very basis of the location of the Flamingo City. A very pertinent question is: why the flamingoes have been selecting this particular site over millennia of time, when they have the vast expanse of the Great and Little Ranns to choose from? It is obviously because of the availability of food for themselves and their chicks. Interestingly, white pelicans have also bred communally with the flamingoes in the past. Since the food of the pelicans is fish as distinct from the food of flamingoes, which is Crustacea, the selection of the pelican nesting here is a clear indication that it is an important repository of fish resources and it is also a fish breeding ground. This is obviously because of the salinity gradient of the water body, which has an admixture of saline and fresh water and any tinkering with it will seriously impact the quantum and quality of the food chain.

The team is of the considered opinion that if the proposed road is allowed to be constructed, it would in all probability result in the abandonment of this breeding site and thus India would lose the only breeding site of flamingoes, which in turn could spell doom to the population of these birds in the Indian Subcontinent. The impounding of water and its impact can be seen in the road which has already been made between Khadir and Bela and indeed between Suraj Bari and Maliya in Saurashtra, in the Little Rann Sanctuary. **The team, therefore, is of the unanimous opinion that this road must not be constructed under any circumstances.**

Maovana- Gadakbet – Santhalpur Road Section

This proposed road is 17 kms long, of which 15 kms is proposed to be built on a submerged area and

some 2 kms the of road would be on the hard ground of Gadakbet. The proposed road would have an embankment of 1.5 mts height, with guard walls on both sides i.e. of a total length of 30 kms, with a foundation depth of 3 mts and a height of 1.5 mts. The proposed road is just above the “chicken neck” where the Great and Little Ranns meet. Its construction would impound the water of the Great Rann, including fresh water from the Luni and other streams, from going into the Little Rann. A little to the south of it on the “chicken neck” itself, runs the NH15 and a railway line. This is already an existing construction. The Little Rann receives considerable amount of fresh water from Kutch and Saurashtra and semi-saline water from the Great Rann, which determines the hydrology of its water which in turn is essential to its aquatic life. The little Rann is a principal breeding site for prawns and other marine life and on which the local fishing industry depends. The Little Rann is also the last stronghold of the Wild Ass. The water passage into the Little Rann from the Gulf of Kutch is already obstructed by one railway line, one water pipeline and two road bridges of NH8A, at Surajbari. It is reported that the crustacean density has already gone down considerably over the years, in this region.

The project proponents do not appear to have a full assessment of the hydrology of the area. They have taken into account the high flood level of the sea at various points. But, what impact it would have on the wildlife and the aquatic life forms of the region, has not been considered at all. The Little Rann’s saline inflows have already been obstructed at both of its inlets, as has been noted above. This proposed road would be yet one more obstruction. **It is the unanimous opinion of the team that this 17km section of the road proposed to be made over the Rann portion of the Sanctuary and going over Gadka Bet, linking Bela with Vauva, must not be built.**

Related Issues

On the team’s our travel from Rapar to Maovana, it passed Fatehgadh. The road passes though a Rann portion of the Wild Ass Sanctuary. It appears that no sanction was ever taken from the Standing Committee of the National Board for Wildlife, for the length of the elevated section of the road which is approximately 6 kms, and which cuts a substantial portion of the Rann & traverses over the Wild Ass Sanctuary. MoEF may kindly take note of this transgression.

Furthermore, the region is very rich in archaeological finds – the importance of Dholavira cannot be overstressed. Similarly, the area is equally rich in fossils of trees, ammonites, gastropods, bivalves & nautilus etc. The entire region should have been surveyed for both these cultural and geological deposits and clearance from the Archaeological Survey and other relevant authorities should have been taken, prior to making the proposal. This has not been done & should be done now for the portions of the road that this Committee is approving.

The Rann sections of the proposed road, particularly between Kunaria to Dholavira and Maovana to Gadakbet and to the Santhatpur Road, are open to the BSF for about seven months of the year when it is dry. During the monsoon it is impassable for all kinds of vehicles, including any from across the border . The team, therefore, is of the opinion that this proposed road entailing a huge financial cost and an ecologically unacceptable cost, would at best be of only periodic help and would also involve immense expenditure for its maintenance.

Conclusion

The unanimous recommendation of the team is as follows:

1. Gaduli to Hajipir to Bhitara Mota Section. The team has no objection if this sector is upgraded, but this will require a clearance from the FCA and the Archeological Survey, etc . The team has recommended an alternate alignment which is feasible, cost effective and easy to build and would

serve a greater use, would not have a significant adverse impact and would increase the patrolling route for the BSF by only 13kms on a far better and more dependable all-weather road, with no danger of subsidence, which has plagued the BSF roads in the Great Rann. This is the - Tent City - Dhordo - Bhirandiyara Route. The government of Gujarat may kindly consider this option.

2. Kuneria to Dholavira Section. The team is of the unanimous opinion that this road must not be built over the 17km segment which is proposed over the Rann portion of the Wild Ass Sanctuary.
3. Maovana to Gadakbet to Santhalpur Section. The team is of the unanimous conclusion that this road must not be built
4. As regards the existing length of road on the Khadir Bet proper in the Kutch Desert Wildlife Sanctuary and the portion of the existing 8.27km Vauva-Santalpur Road which falls within the Wild Ass Sanctuary, MoEF has laid down norms of road making /repair / upgradation of roads, which need to be followed. It is pertinent to point out that the present proposal in respect of these segments of the proposed road only mention the length and width of the roads which passes through the two sanctuaries. The proposal does not mention as to where the material meant for the repair/upgradation of the roads, such as boulders, metal and earthwork, is going to be extracted from the precincts of the two sanctuaries and the areas involved in that regard, which have to be shown in the maps of the 2 sanctuaries. Then, if need be, a separate proposal in this regard can be submitted. Clearance from the Archeological Survey would be necessary before the re-submission of a proposal for the segments, especially since the Khadir Bet segment of the road passes close to the Dhola Vira site and Khadir is also rich in fossil deposits.

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