

# Case Study

Application of the  
precautionary principle to  
biodiversity conservation

## Evaluation of irrigation tunnel project through Pench Tiger Reserve in India

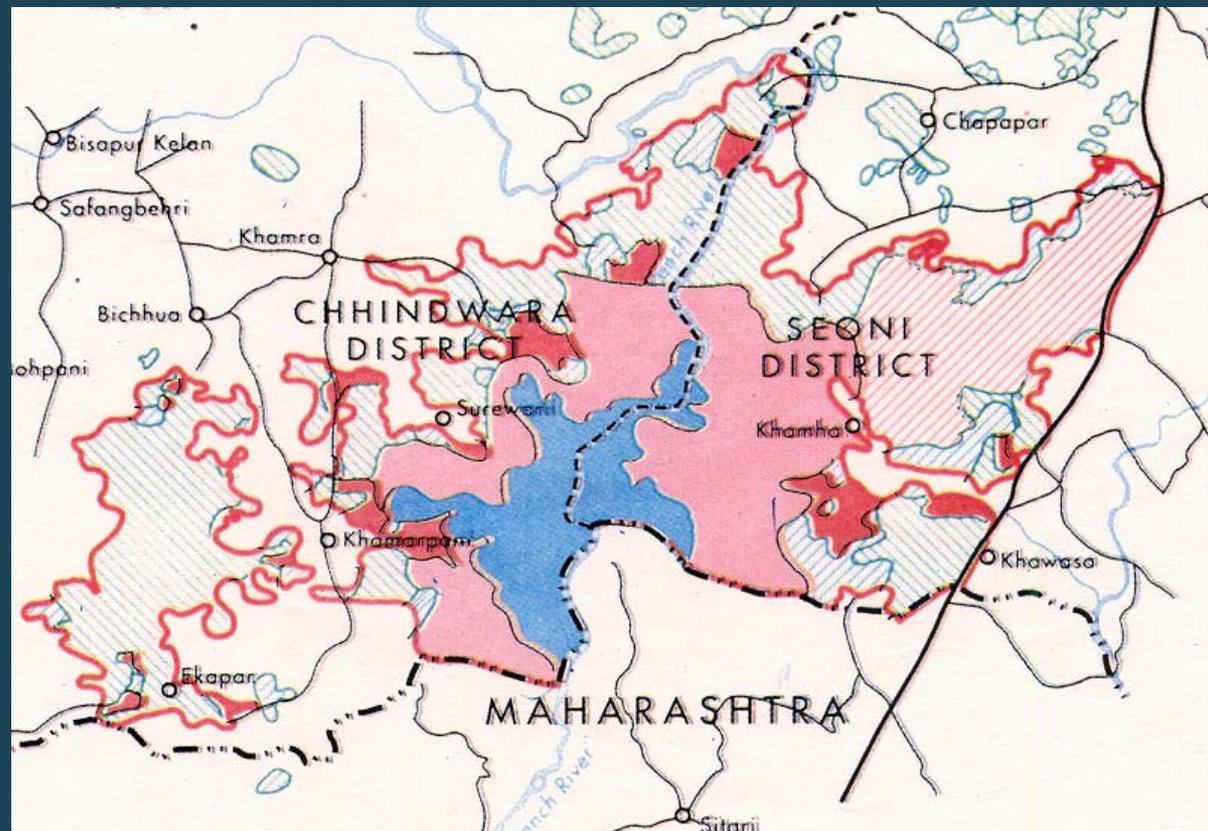
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# Location of Pench Tiger Reserve

- PTR was declared as one of the 25<sup>th</sup> Tiger Reserve of India in Satpura landscape in 1999.
- This is only interstate Tiger Reserve (758sq.km)



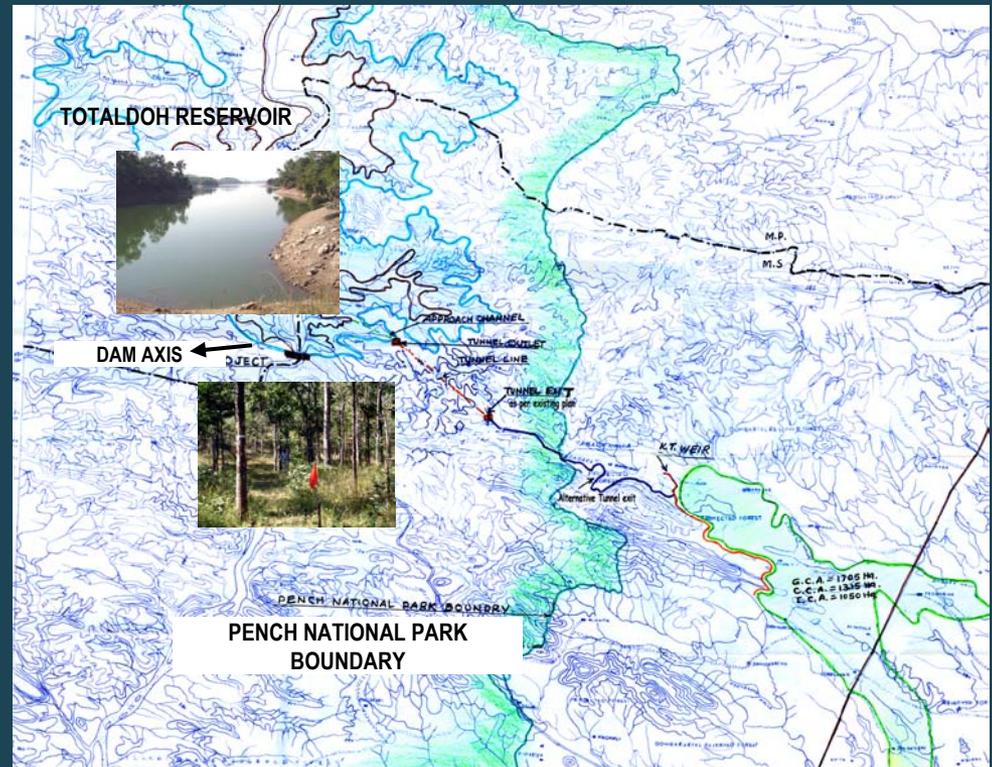
# Conservation importance

- PTR commands great ecological significance as it represents the floral faunal wealth of Satpura Maikal range
- Characterize by southern tropical mixed deciduous forest
- Provides regional connectivity to other Protected Areas and important wildlife habitats
- Supports sizable population of breeding tigers
- Other important species include leopard, hyena, chital, four horned antelope, Indian bison, flying squirrel, mongoose



# Project location and details

- The project envisages utilization of water from reservoir in PTR for irrigation benefits to 10 tribal villages.
- The project involves the construction of 2.88 km of tunnel through the Pench Tiger Reserve.
- This will require diversion of 15.79 ha of forest of which 4.56 ha is a part of a Tiger Reserve.

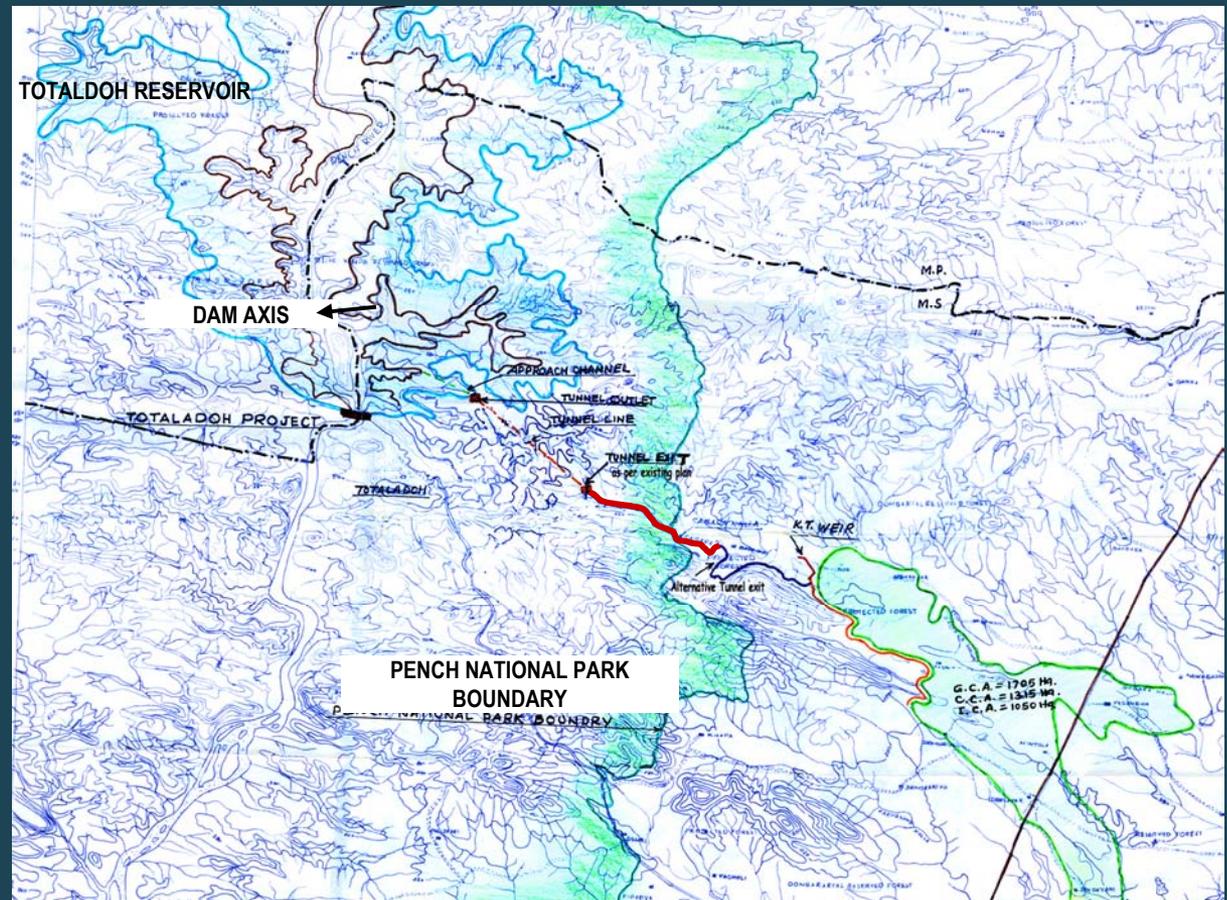


## Implication of the project on conservation values of PTR

- The routing of underground tunnel through the linear corridor of PTR is likely to create physical disturbance associated with construction works for a period of two years.
- The tunnel exit will open into the Sagara rivulet within the Pench Tiger Reserve.
- This section of the PTR would be subjected to considerable disturbance associated with construction of road infrastructure and other masonry work that may cause disruption in movement, reduction in habitat quality and use by animals.

# Consideration of alternatives

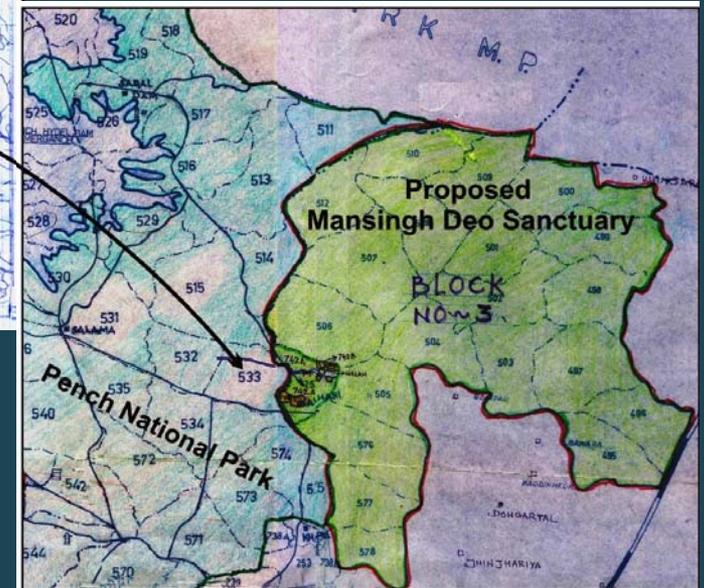
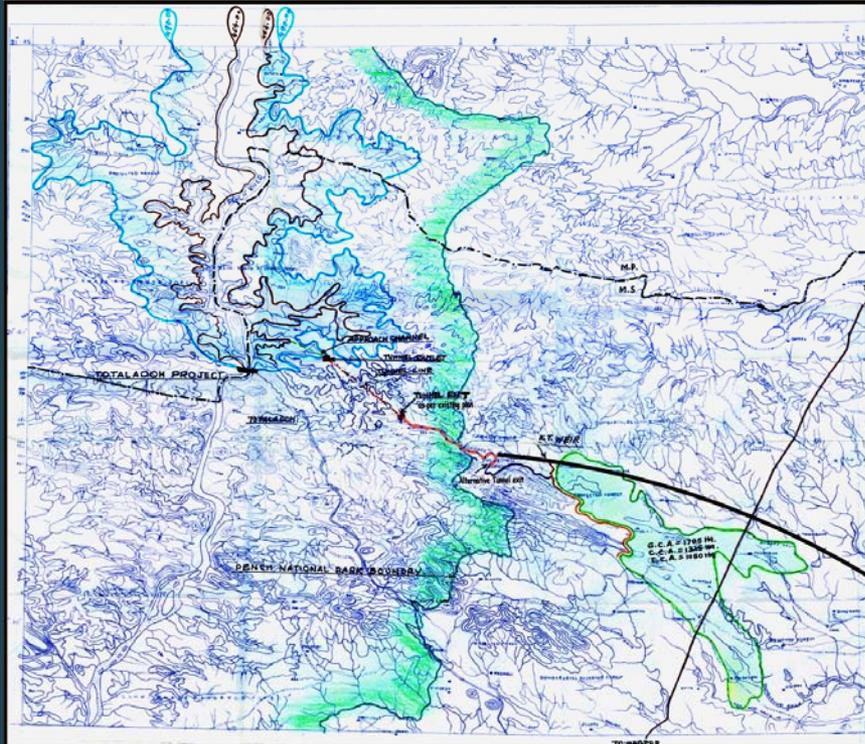
- Increasing the length of the tunnel by 1.75 km to locate the tunnel exit outside the Pench Tiger Reserve



# Implications of increasing the length of the tunnel on conservation values



# Further implications



The alternative to locate the tunnel exit point outside the boundary of Pench Tiger Reserve will also induce major impacts on the ecology of the area falling within the proposed Mansingh Deo Sanctuary

## Impact analysis

- The project is likely to jeopardize the integrity and quality of a prime wildlife habitat for small gains of irrigations.
- The conservation priorities of Pench Tiger Reserve are far too important to be compromised by this project.
- The project also likely to pose threats to future conservation efforts and prospects.

## Decision making

- This project could not be granted authorization in view of its irreversible negative consequences.