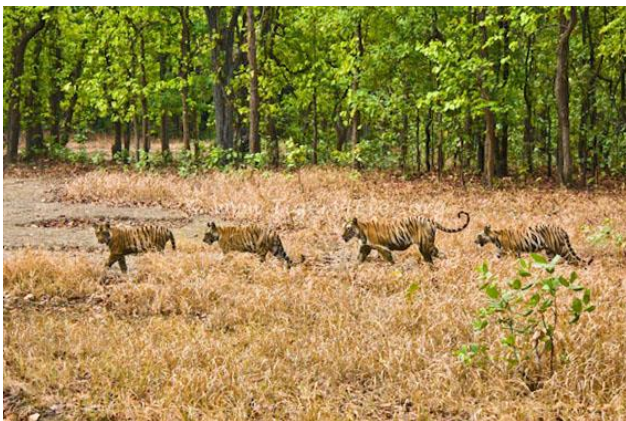


Tigers4Ever Waterhole Projects – Saving Tigers Reducing Conflict

The original goal of Tigers4Ever was to provide a wildlife waterhole in Bandhavgarh so that the burgeoning numbers of tiger cubs who had nowhere else to go, because of a lack of water, could have a wild future within the relative safety of the confines of the protected area of the National Park. In 2018, Tigers4Ever fulfilled this promise by providing year-round permanent water for wildlife at two separate sites. These waterholes provide water for at least 12 tigers (including cubs) and countless other wildlife.



Tigers often have 3 or 4 cubs so when all survive it puts tremendous pressure on an already condensed habitat.

Why is water so necessary and how does it prevent human-animal conflict?

Tigers need a few basic components to thrive in the wild:

1. Adequate prey –Tigers need 500 prey animals each for annual adequate food;
2. Space – An adult male tiger has a territory of 100 square kilometres with females needing 10 square kilometres each. Female territories overlap with those of the alpha male. Males do not share their territories with other males – conflict occurs when males encroach this frequently ends in the death of one;
3. Water – this provides somewhere for tigers to cool-off whilst giving drinking

water for tigers and their prey. This also provides somewhere for them to hunt.



A young tigress with her prized kill – a chital

When there is inadequate water to sustain prey, numbers fall as the mating season is delayed until there is adequate food and water to feed their young. Adult deer, etc., search for water to sustain themselves leading them into villages where they raid crops and drink from human water sources. This leads to human-animal conflict. Tigers and leopards follow their prey into the villages but when the prey absconds the predators kill livestock leading to further human-animal conflict. Angry villagers are known to lay traps/snares to prevent crop raiding/livestock predation which leads to the death of wildlife including tigers. Villagers are also known to poison carcasses so that the tiger and its cubs will die when they return to finish their meal.



An alpha male tiger resting in a dry river bed in May

Poor monsoon rainfall in each of the last 3 years has depleted all natural water sources in

Bandhavgarh causing severe droughts to start as early as February and thus increasing the incidence of human-animal conflict for 4 months until the start of the next monsoon rains in July. This has led to a reliance on manmade waterholes around Bandhavgarh with the forest department constructing many cement lined water saucers to provide drinking water for wildlife. When filled by rainfall these saucers become dry as the temperatures increase to 45°C and above. Refilling these water saucers with tankers has provided a short term solution but animals including the tigers become habituated to the tankers leading to an increased risk of tigers being poached and an increased risk of human-animal conflict as wildlife loses its fear of humans.



Manmade water saucers provide somewhere cool for tigers to rest and drink.

Providing solar powered borehole pumps for permanent year-round water for wildlife

Providing Solar-powered borehole pumps which tap into underground water channels is both an environmentally friendly and wildlife friendly solution to reducing human-animal conflict by keeping wildlife in the core protected area of the forest. In order to avoid waste of any surplus water pumped to the surface, soak away systems maximise the return of water to the underground strata. In addition the solar pumps can be used to fill the water tankers which fill water sources in other areas where there is inadequate underground water at an accessible depth or the

funds are unavailable for a solar pump system to be installed.

Sites such as the two below have been identified in arid areas for future waterhole construction. These sites have been chosen because tigers, leopards and other predators roam in the area but there are no natural water sources nearby. This brings wildlife in conflict with humans as animals enter the villages to drink water, whilst there the prey raids the crops and predators take livestock.....



Potential site for a solar powered borehole pump sourced waterhole in the Bandhavgarh core zone.



Another potential site for a solar powered borehole pump sourced waterhole in the Bandhavgarh core zone.

In February 2018, Tigers4Ever funded the installation of a solar-powered borehole pump system to fill two manmade waterholes providing water for three orphaned tiger cubs and other wildlife (including up to 3 other adult tigers). This waterhole ensured that the

orphaned cubs would not become habituated to human invention (water tankers) and will provide long term year-round water for other wildlife in an otherwise dry area. Without this waterhole tigers and other wildlife would enter the villages in the nearby buffer forest in search of water and food.



A tigress with 2 of her 3 cubs at a manmade waterhole.

Work on this waterhole was completed in March 2018.



Drilling the borehole at the Tigers4Ever funded waterhole in February 2018.



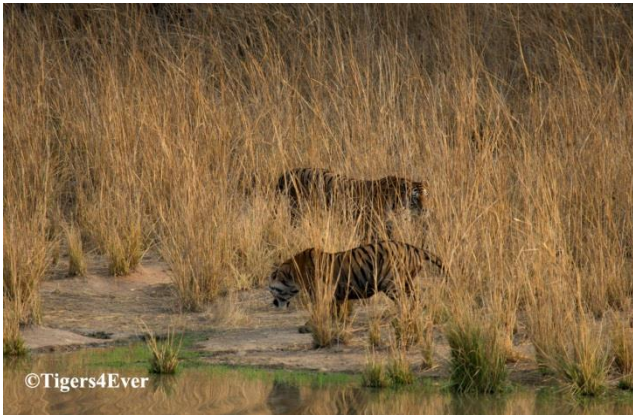
One of the orphaned cubs in the Tigers4Ever funded waterhole in June 2018 (the leg of the tiger's kill: a deer can be seen top right).

On completion of the waterhole project in March 2018, Tigers4Ever was asked to help with another waterhole in an extremely dry area. This was a naturally occurring waterhole which was completely dry by February for the first time in our memory. In fact, although very little water was usually left by June it hadn't previously been completely dry in over 11 years. At least five tigers were completely dependent on this waterhole with a further three tigers occasional visitors because of territory overlaps. One of the tigresses who uses the waterhole was also due to have cubs in May 2018. Countless other wildlife is also dependent on this waterhole as it is in one of the driest areas of Bandhavgarh. Tigers4Ever was asked to fund the cost of a solar powered borehole pump at this site as a matter of urgency. Work commenced at this waterhole site, funded by Tigers4Ever, and was completed on 05 April 2018.



Solar Installation at the large natural waterhole site in April 2018.

In May/June 2018 Tigers4Ever visited the waterhole sites and saw four different tigers at the large waterhole alongside countless other wildlife.



An adult tigress (left) and an unrelated sub-adult cub (female, right) at the large Tigers4Ever funded waterhole in June 2018.

As a result of Tigers4Ever funding the two waterholes, the forest department was able to seed two grasslands (with funds which would otherwise been spent on the waterholes), providing food for thousands of prey. This in turn helps to reduce human-animal conflict as prey does not need to look elsewhere for grazing. The Field Director said that the large waterhole had saved the lives of at least 5 tigers which otherwise would have entered villages in the nearby buffer in search of prey and water.



An adult tigress walking past the solar panels and borehole pump funded by Tigers4Ever at the large waterhole (June 2018).

The next stage – More Waterholes are still needed

The Field Director and his deputy have reiterated the need for more wildlife waterholes all over Bandhavgarh National Park especially with so many sub-adult tigers and cubs which will need their own territories in due course. Tigers4Ever has been asked to raise funds to provide permanent wildlife waterholes at two further locations in the core protected area at an estimated cost of up to £10100 (US\$14000) each.



This waterhole was completely dry on both sides of the dam wall in May 2018.

Tigers4Ever now needs to raise funds for to start this work which it would hope to complete by January 2019 (for at least one more if not both waterholes requested). Each of the waterholes will provide much needed water for wildlife in 2 separate areas and seek to reduce the incidents of human-animal conflict from straying predators following prey in search of water, thereby achieving the objectives of Tigers4Ever.

Dr. Corinne Taylor-Smith
06 July 2018