

**STEPS TO MITIGATE THE WILDLIFE MORTALITY IN THE PAP CANAL AND TO  
MAKE THE CANAL MORE ACCESSIBLE FOR THE WILDLIFE  
– FIELD NOTES ON SURVEY & RECOMMENDATIONS –**

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**Introduction:**

The Contour canal forms the backbone of the Parambikulam – Aliyar project which was commissioned during 1965. This canal spans from Sarkarpathy powerhouse till Thirumurthi reservoir for 49.30 Kms passing through pristine forests, valleys and tunnels of Anamalai Tiger Reserve. The Thirumurthi reservoir in the Udumalpet of Tiruppur district is in the fag end of the canal and the canal waters irrigate over 400000 acres of land in Coimbatore and Tiruppur districts. The canal, because it is passing through the forests and tunnels has developed breaches in several areas through which several gallons of water seeps through. There is a longstanding demand from the farmers of the region to plug the leakages in order to contain water loss. The state government initially did approach the World Bank for funds. However, because of the delays from the World Bank, the state government came forward to fund the repair works out of its own funds which was estimated around 185 cr. Rupees.

The canal indeed is an Engineering marvel and serves the purpose it is intended to serve. The wildlife of the region however did suffer enormously when the forest of Anamalais through which the canal passes through was tampered to commission the canal. Even presently the wildlife has to contend with the permanent trench cut across the habitat. Large mammals such as the elephants are the worst sufferers. Occasionally the wildlife getting washed away in the canal is reported as the banks are not scalable. To assess the current state of wildlife near the canal and the current survey is done. During the course of the survey several viable wildlife friendly measures have been identified and recommended to be taken up during the course of proposed repair.

**Stretch – I (From Powerhouse till entrance of Tunnel # 1):**

- The open canal commences near the Sarkarpathy Power house. The water from the power house gushes out through two sluices.  
Water gushes out of Sarkarpathy power house
- The service road is well maintained and runs parallel to the canal.
- At 0.955KM, there is a bridge across the canal. The bridge is intentionally aborted by about a metre to facilitate water draining from the forest to drain in to the canal.
  1. Sloth bear scat was abundant both on the road and on the bridge.
  2. Small Indian Civet scat was recorded.

**Recommendation:** As it is down further downstream near Nagaruthu settlement, provision should be made in this bridge for the wildlife to cross over the bridge. Now there is a risk of wildlife falling in to the canal.

Wildlife may fall in to the canal fatally through these cuts meant for streams to flow over the canal.

This bridge is near Nagaruthu settlement. Wildlife uses this slab laid across the bridge

- The road tapers up while the canal enters the baby tunnel.

Species	Direct Sighting	Indirect signs	Abundance
Sloth Bear	-	Scat	High
Small Indian Civet	-	Scat	High

### **Stretch –II: (Entrance of TUNNEL # 1)**

- Baby tunnel starts at 1km (GPS coordinates: 10.46812, 76.86655). The water forces in to the tunnel.
- The span of the tunnel is only 200mts.
- The sides of the canal are a sheer steep wall and are precarious. An unwary creature will fall in to the canal here from a height of about 10M.
- The wildlife signs were plentiful here.

**Recommendation:** railings should be erected in vantage points here to prevent wildlife from falling in to the canal.

Species	Direct Sighting	Indirect Signs	Abundance
Sloth Bear	-	Scat	High
Small Indian Civet	-	Scat	High
Wild dog	-	Scat	High
Elephant	-	Dung	High
Jackal	-	Scat	Low
Mongoose	-	Scat	High
Gaur	-	Dung	Moderate

### **Stretch –III (Exit from Tunnel # 1 till Entrance of Tunnel # 2):**

- Baby tunnel ends at 1.2KM and canal gets open.
- There is step on the road side in to the canal. The steps are meant for canal maintenance. Wildlife cannot use these steps as they are narrow and steep.
- Metal slab of 1M width was laid across the canal. Lesser carnivores and monkeys have left their signs of using this metal slab.
- Steps similar to the one stated above were found. These steps too cannot be used by wildlife.
- At 1.673KM, there is a shutter on the road side of the canal through which water flows to the valley below. (GPS coordinates: 10.46798, 76.87187)
- At 1.89KM, another metal slab of 1M was laid across the canal (GPS coordinates: 10.46791, 76.87325)
- Steps on the road side. Wildlife cannot use this step.

- At 3.1KM a bridge of 3 meters width is laid across the canal. A stream from the forest pours in to the canal through this bridge. As there is a settlement of **Malai Malasars called Nagaruthu** near this area, a 1 meter concrete slab is laid on the bridge to facilitate their movement. Wildlife is also benefitted and is found using this slab. (GPS coordinates: 10.46797, 76.87134)
- At 3.4KM there is a sluice.
- At 4.2KM the Tunnel # 2 begins. (tunnel begins from 4.277 till 5.407). **Over the tunnel there is a well used elephant track and elephants are known to use this hill to cross over the canal and reach the other side of the forest.**

**Stretch –IV (Exit from Tunnel # 2 till Entrance of Tunnel # 3):**

- Tunnel # 2 opens and water gushes out in to open canal. The area is a grassy glade with many animal signs. The hill where the tunnel remains is known as Sottakkal malai. ( GPS coordinates: 10.48532, 76.89783)
- At 5.6Km there is a bridge with sluice. (GPS coordinates: 10.47555, 76.90263)
- Under tunnel @ Uppar central arm. (GPS coordinates: 10.47545, 76.90493)
- 6R slope on either side – predominantly on the road side. The steep banks are vulnerable for wildlife to fall in to the canal.
- Uppar pallam (a cascade) bye-passes the canal and the canal pass through the bridge. The sides of the cascade are gentle and undulating and the large mammals such as elephants can use this cascade banks to cross over the canal. There were many animal signs here. Elephant and Sambar signs were plentiful.
- The flow in the canal gets normal from 6R. (GPS coordinates: 10.47489, 76.90599)
- Metal slab is laid across the canal. A leopard scat was located on the road side of this slab.
- The ridge gets very steep on the forest side. Here was there a troop of bonnet macaques.
- Another metal slab. (GPS coordinates: 10.47908, 76.91398)
- Another metal slab. (GPS coordinates: 10.47906, 76.91599)
- Another metal slab. (GPS coordinates: 10.47940, 76.91865)
- Tunnel # 3 begins. (Tunnel details: 7.642Km to 8.425Km. Velocity: 6 ~ 9.76 ft/sec) (GPS coordinates: 10.47940, 76.91865)

Species	Direct Sighting	Indirect Signs	Abundance
Sloth Bear	-	Scat	High
Small Indian Civet	-	Scat	High
Wild dog	-	Scat	High
Elephant	-	Dung, pads	High
Jackal	-	Scat	Low
Mongoose	-	Scat	High
Gaur	-	Dung	Moderate
Leopard	-	Scrap marks	Low
Sambar	-	Hoof marks	Moderate
Bonnet macaques	Yes. 1 troop of 10+ animals	Droppings	High

Porcupine	-	Quills, droppings	High
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**Stretch –V (Exit from Tunnel # 3 till Entrance of Tunnel # 4):**

- There is a well laid elephant track with plenty of dung piles – Elephants reach from Thanigundu and Kombanalli
- The service road is well used by the animals leaving behind lots of signs.
- The feeder canal too passes through the fringe of the forest for a while and the service road which reaches the main canal has plenty of animal signs.
- Tunnel # 3 Ends and open canal begins. Aliyar Reservoir is visible from the canal. (GPS coordinates: 10.47423, 76.92404, 453M)
- Metal slab is laid across the canal. (GPS coordinates: 10.47267, 76.92393, 441m)
- In 9<sup>th</sup> KM, the water is impounded by a stream cascading down from the forest side. The wildlife can negotiate the canal from the forest side in this place.
- Metal slab is laid across the canal. (GPS coordinates: 10.47022, 76.92528, 441m)
- Water is impounded again. The wildlife cannot use the canal yet in the area too as the banks are not scalable.
- At 9.4KM, water is impounded again. The wildlife can use the forest side of the canal as the banks have given away. (GPS coordinates: 10.47022, 76.92523)
- Water is impounded again. (10.46816, 76.92981)
- River Mangarai cascades through the canal and there is a bridge & a shutter in the point. (GPS coordinates: 10.46779, 76.98420)
- Metal slab is laid across the canal. (GPS coordinates: 10.46967, 76.93973)
- Water gushes in through the Tunnel # 4 (GPS coordinates: 10.47179, 76.94771, 455m)

**Recommendation:** 1) Wherever the water is impounded, the access point with scalable slopes and railings to prevent wildlife from falling in to the canal should be provided.  
2) In areas where the water is impounded, there is space even in the road side. Water access point for wildlife should be provided in these areas.

Species	Direct Sighting	Indirect Signs	Abundance
Sloth Bear	-	Scat	High
Small Indian Civet	-	Scat	High
Wilddog	-	Scat	High
Elephant	-	Dung, pads	High
Jackal	-	Scat	Low
Mongoose	-	Scat	High
Gaur	-	Dung	Moderate
Leopard	-	Scrap marks	Low
Sambar	-	Hoof marks	Moderate
Bonnet macaques	Yes. 1 troop of 15+ animals	Droppings	High
Porcupine	-	Quills, droppings	High

**Stretch –VI (Exit from Tunnel # 4 till Entrance of Tunnel # 5):**

- Tunnel # 4 ends and water gushes out in the open canal. (GPS coordinates: 10.47179, 76.94619, 447m)
- Metal slab is laid across the canal. (10.47182, 76.94771, 455m)
- Metal slab is laid across the canal. (10.47141, 76.95356, 455m)
- Tunnel # 5 (‘V’ shaped tunnel starts). (GPS coordinates: 10.46721, 76.95580). (Tunnel details: 13.143 to 13.676)

Species	Direct Sighting	Indirect Signs	Abundance
Bonnet macaques	Yes. 1 troop of 15+ animals	Droppings	High

**Note: Because both sides of the canal are precipitous, there is less animal movement here.**

**Stretch –VII (Concrete bridge):**

- In this stretch of tunnel, a concrete bridge is laid atop Chinnar river which flows through in to the Aliyar reservoir near tribal settlement.
- The bridge is basically constructed to carry waters from one hill to the other.

**Stretch – VIII (Exit from ‘V’ shaped tunnel # 5 till Entrance of Tunnel # 6)**

- Tunnel ends and water flows through open canal. (10.46550, 076.95667)
- The banks of the canal are very steep and precipitous on either side.
- Sambar pellet was very common.
- A metal slab is laid across the canal and wildlife uses this for crossing. (10.46554, 076.95668)
- There are presently few breaches in the canal and these breaches are in fact now wildlife friendly.
- Water gushes in to tunnel # 6

Species	Direct Sighting	Indirect Signs	Abundance
Sloth Bear	-	Scat	High
Small Indian Civet	-	Scat	High
Sambar	-	Hoof marks	Moderate
Bonnet macaques	-	Droppings	High
Porcupine	-	Quills, droppings	High

**Stretch – VIII (Exit from Tunnel # 6 till Entrance of Tunnel # 5):**

- Water gushes out of tunnel # 6 and flows through open canal.
- Pollachi – Valparai State highway (# 78) cuts through the canal.
- The metal slab is laid across the canal (10.45601, 76.97825)
- Metal slab is laid across the canal (10.45625, 76.98005)

- Metal slab is laid across the bridge (10.45708, 076.98605)
- Attakatti river over passes the canal (10.44611, 076.99512)
- Attakatti river drains in to the Aliyar reservoir.

**Recommendations in this stretch:**

- 1) Earth section begins. Here the shores are wide and facility for wildlife to access water can be provided. (10.45625, 76.98005)
- 2) Shores are wide and facility for wildlife to access water can be provided. (10.45741, 76.98704)
- 3) Shores are wide and facility for wildlife to access water can be provided. (10.46525, 76.99304)
- 4) Shores are wide and facility for wildlife to access water can be provided. (10.45389, 76.99725)
- 5) Shores are wide and facility for wildlife to access water can be provided. (10.45106, 76.99683)
- 6) Shores are wide and facility for wildlife to access water can be provided. (10.44979, 076.99601)
- 7) Shores are wide and facility for wildlife to access water can be provided. (10.44753, 076.99545)
- 8) Shores are wide and facility for wildlife to access water can be provided. (10.44611, 076.99512)

Species	Direct Sighting	Indirect Signs	Abundance
Sloth Bear	-	Scat	Medium
Small Indian Civet	-	Scat	Medium
Elephant	-	Dung	Medium
Common Langur	10 +	Scat	High
Leopard	-	Scat	High
Sambar	-	Pellets	High
Bonnet macaques	10 +	Droppings	High
Porcupine	-	Quills, droppings	High