



Tsavo Trust is an action orientated, field-based, Kenyan not-for-profit conservation organization that recognizes the importance of a holistic approach to biodiversity conservation. www.tsavotrust.org




Tsavo Trust film clip: <https://www.youtube.com/watch?v=qGgM6-ggZOE&t=270s>

NOVEMBER 2022 MONTHLY REPORT



***Goodbye Lugard.** Super Tusker Lugard's 3-day old carcass was located by Tsavo Trust on 21/11/2022 during a routine reconnaissance flight. Lugard was first named and recorded into the Big Tusker Project database on 01/01/2014. He had been physically observed on 373 separate occasions since. This equates to an average observation of Lugard nearly once every week for the last 9 years! Considering the Tsavo parks, where Lugard roamed, cover an area of 22,000km², this presence and track record is something that has undoubtedly contributed to Lugard living out a full life. This is a rarity in today's elephant world, and especially with an elephant that has carried such impressive ivory for so many years. Lugard died naturally of old age hastened by prevailing drought. Photo credit Tsavo Trust – James Lewin.*

WILDLIFE CONSERVATION PROGRAM: Big Tusker Project – Aerial & Ground Activities

Activity	Hours Flown	Kilometers Covered
 Aerial Unit	48 (612 for year) Average 127km p/h of low-level flight	8,165 (79,807km for year) Flights carried out jointly with KWS staff
 Rhino Aerial Patrols	Aerial Patrols: 15 (6 TWP; Nil TENP) (215hrs for year to date)	Aerial: 1,648 (25,384km for year)
	Field Patrol Days	Kilometers Covered
Ground Protection Activities (Joint with KWS / TT & Community Scouts)	Protection teams: 180 days (1,756 to date) Monitoring teams: 60 days (610 to date)	Vehicle patrols: 17,660km (134,267km to date) Foot patrols: 899km (10,838km to date) Monitoring teams: 7,514km (83,721km to date)
 Big Tusker Project	12 Tuskers - 6 Super Tusker bulls (10 sights), 5 emerging bulls (10 sights), 1 cow Tuskers (1 sight): 21 individual observations	
Collared Elephant Sightings: Joint KWS/STE/TT program	8 sightings: record forms submitted to STE (aerial and ground observations)	
Ivory recovered	36 elephant tusks (94 for year to date)	
Elephant mortality	Fresh: 17 (c of d: 14 natural, 2 unknown, 1 poached) (Less than 3 weeks old)	Recent: 1 (c of d: Natural) (Less than 3 months old)
		Old: 2 (c of d: All unknown) (More than 3 months old)
High Value Species Monitoring	Ongoing partner with KWS TCA Research / WRTI: Monitoring Hirola, Grevy's zebra, large carnivores, Roadkill Surveys, Southern Ground Hornbill etc	
Wildlife - Treatment & Translocation	Venomous snakes re-located from communities: 1 Boomslang and 1 Small-scaled burrowing Asp Others: Nil	
Poacher camps/hides	Fresh – 1 (12 to date)	Recent – 1 (5 to date)
Arrests – joint KWS/TT	67 – 1 illegal herder; 6 bushmeat poachers; 50 illegal entry and 10 illegal immigrants (202 for year to date)	
Snares/traps recovered	137 by Tembo Teams: 1,646 snares to date 2022 (1,323 small; 274 medium; 49 large)	
Bushmeat recoveries (wet & dried)	50kg (2,216kg for year to date) 9 Dik-diks; 1 Impala	
Poachers Equip. Recvd.	6 pangas; 3 bicycles; 2 knife; 13 lamping horns; mobile phones and cooking equipment	
Night Ambushes	Joint KWS / TT: 18 (Murondo Ranch; athi River; Mtito River; Kishushe; Kulalu Ranch; KMC Ranch; Kilifi dam)	
Firefighting	Nil - (Fire outbreaks greatly reduced by rainfall experienced in Nov)	
Human Elephant Conflict	Joint TT-KWS team: 10 elephants driven from farmlands east of Mtito Andei (184 elephants pushed from farms – Jan-Oct22 compared to 1,679 in Jan-Oct21 = 89% reduction from TT fence)	
Illegal Livestock (only in PA)	10 active cattle boma (5,800 cows; 330 shoats; 5 donkeys; 29 people)	
Written reports to KWS	74 (daily Situation reports, various communications & 1 monthly report)	
TT Staff Training activities	3 TT Officers Masters training; 1 KWS Officer Masters training; HWC community training; Community livelihood training on Climate Smart Agriculture.	
TT HQ Rainfall figures	113mm. Total rainfall to date for 2022: 193mm	

Significant notes	<ul style="list-style-type: none"> 21/11/2022. Super Tusker Lugard's carcass was located from the air. His tusks (119 & 109lbs) were retrieved and put under safe custody in TWP. Lugard's movement data was crucial in convincing Standard Gauge Railway engineers to leave out an elephant underpass that hadn't been included in their plan. The underpass is at Manyani and benefits elephants and other wildlife crossing between Tsavo West and Tsavo East National Parks. The much-awaited rains finally came in November. Though unevenly distributed the rains offered a huge relief from the prolonged dry spell. By the end of Nov, a good number of water pans were holding water with vegetation recovering in certain areas.
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COMMUNITY CONSERVANCY PROGRAM:

 Kamungi Conservancy ➤ Located: Northern boundary TWP Triangle ➤ TT has played a stewardship role and partnered with KC since 2014	 Shirango Community Conservancy ➤ Located: Southeast boundary TENP ➤ TT has played a stewardship role and partnered with SCC since 2016
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FORMAL FIELD CONSERVATION PARTNERS PROGRAM: (Full list of supporters/partners shown on last page)

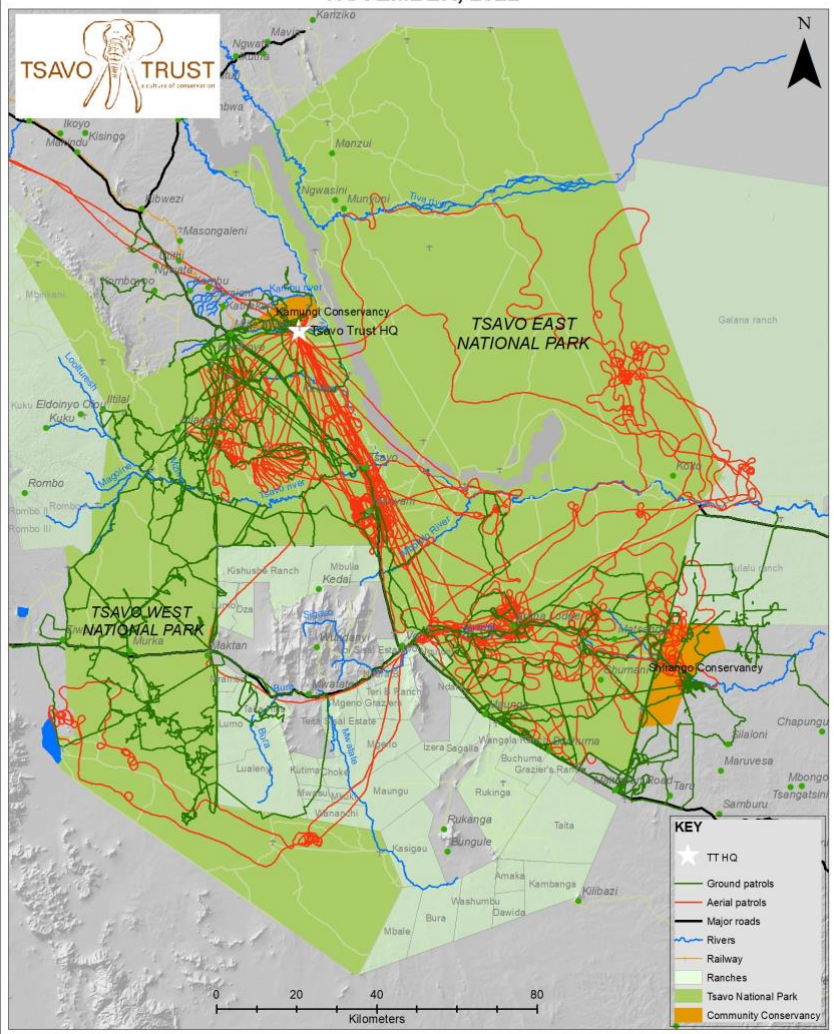




Aerial Reconnaissance and Ground Patrols - Areas Covered:

- Aerial patrolling is a vital conservation tool providing “**eyes in the skies**” and directional guidance to ground units who provide “**eyes and ears**” on the ground. The combination of both is effective.
- All aerial patrols and ground patrols are carried out jointly - KWS/TT and recorded with all relevant real-time observations relayed to KWS daily for rapid actions and for their records.

**TSAVO TRUST'S AERIAL AND GROUND PATROLS COVERAGE
NOVEMBER, 2022**



*The map shows Tsavo Trust's flight paths in **RED** and ground patrol paths in **GREEN** over the TCA this month.*

***Note:** The Tsavo Parks are huge comprising 22,000km² (TENP, TWNP & CHNP) and then a further 20,000km² totaling 42,000km² to form the Tsavo Conservation Area (TCA).*

***Aerial:** 48 hours flown covering 8,165 kilometers over Tsavo in support of KWS.*

***Ground:** 899 kilometers of foot patrol and a further 25,174 kilometers of vehicle patrol in Tsavo to support KWS.*

***Activities covered:** Air & ground security patrols; Big Tusker monitoring; Rhino related activities; Locating illegal activities; Wildlife monitoring; Aerial census & telemetry tracking & Community Conservancy aerial and ground activities.*

***Below:** 18/11/22: Photo shows Mbololo sand dam B overflowing with water from the recent rains. Contrary to the thinking of many, sand dams are constructed to trap sand and not water. Over time, layers of sand back fill upstream of the dam wall. This sand then acts as a sponge, holding water during the rainy seasons and releasing it in small amounts downstream of the sand dam wall. Wildlife such as elephants, dig into the sand to access the water during the dry season.*



Field Key Notes & Observations:

● **Table 2: Elephant Carcasses Observed: Shows fresh and recent elephant carcasses observed:**

Date	No.	Fresh	Recent	Old	Cause of Death	Location
01/11/2022	1	1	-	-	Natural, KWS/TT recovered 2 tusks	TENP – Aruba
01/11/2022	1	-	-	1	Unknown, 2 tusks retrieved by KWS/TT	TENP – Aruba
04/11/2022	1	1	-	-	natural, KWS/TT recovered 2 tusks	TENP – Aruba
04/11/2022	1	1	-	-	Natural, KWS recovered 2 tusks	TENP – Punda Milia
04/11/2022	1	1	-	-	Natural, KWS/TT retrieved 2 tusks	TWNP – Kishushe
05/11/2022	1	-	1	-	Natural, KWS/TT retrieved 2 tusks	TENP – Mukwaju
08/11/2022	1	1	-	-	Natural, Ele calf, Tusks not developed.	TENP – Aruba
10/11/2022	1	1	-	-	Unknown, KWS/TT recovered 2 tusks	TWNP – Mgange
11/11/2022	1	1	-	-	Natural, KWS/TT recovered 2 tusks	TWNP – Mzima pipeline
15/11/2022	1	1	-	-	Unknown, KWS/TT recovered 2 tusks	TWNP – Ngulia
18/11/2022	1	1	-	-	Natural, KWS recovered 2 tusks	TWNP – Mgange
18/11/2022	1	1	-	-	Natural, KWS recovered 2 tusks	TENP – Aruba
19/11/2022	1	1	-	-	Natural, KWS/TT recovered 2 tusks	TWNP – Mzima pipeline
19/11/2022	1	1	-	-	Natural, KWS/TT recovered 2 tusks	TENP – Satao
21/11/2022	1	1	-	-	Natural, KWS/TT recovered 2 tusks	TWNP – Manyani
23/11/2022	1	1	-	-	Natural, KWS/TT recovered 2 tusks	TWNP – Kawai
26/11/2022	1	1	-	-	Natural, KWS recovered 2 tusks	TENP – Snagakalama
26/11/2022	1	1	-	-	Natural, KWS recovered 2 tusks	Galana – NIB
26/11/2022	1	-	-	1	Natural, KWS recovered 2 tusks	TENP – Durusirkale
29/11/2022	1	1	-	-	Opportunistic poaching, Tusks missing.	Taita Ranches – LMD
Month Total	20	17	1	2		
Total 2022	57	39	9	9		

● **Table 3: Poachers Activities Observed: Shows fresh and recent poachers' blinds/hides/platforms observed:**

Date	No	Fresh Poachers hide, blind, camp	Recent Poachers hide, blind, camp	Location
04/11/2022	1	-	1	TWNP – Kishushe GPS Ref 37M 0406810 9657186
28/11/2022	1	1	-	Kishushe Ranch – Ndolwa GPS Ref 37M 0406518 9632865
Month Total	2	1	1	-
Total 2022	16	11	5	
Not included	Charcoalers camps close to TENP boundary – Kulalu Ranch, and cattle bomas outside the Parks			

● **Table 4: Illegal livestock grazing: Shows aerial & ground observations - active livestock bomas & estimated number livestock inside the Parks only:**

TCA Park	Active Bomas	Cows	Shoats	Herders/People	Others / Notes
TENP	2	1,590	230	25	Illegally grazing within boundary with Galana
TWNP	8	4,210	100	24	Illegally grazing in mainly TWNP southern sector
TOTALS	10	5,800	330	29	

Table 5: Shows some examples of joint KWS/TT activities and outcomes from aerial patrols:

Date	Incident	Location
<i>Routine & Monthly</i>	<i>Regular aerial patrols carried out to complement KWS Park field operations & management</i>	<i>TENP, TWNP, and dispersal areas</i>
09/11/2022	Routine Ngulia Rhino Sanctuary Monitoring flight – 21 rhinos sighted	TWNP – NRS
21/11/2022	Carcass of Super Tusker LU1 sighted with both tusks intact.	TWNP – Manyani

Field Mobile Units:

Tembo 1, 3, 5, 7, 9 teams, Kamungi & Shirango Scouts are habitat protection / de-snaring focused.

Tembo 2 (TENP) & 4 (TWNP) teams are wildlife monitoring dedicated.

All teams work alongside KWS daily and provide further “eyes and ears in the field”.



Habitat Protection / De-snaring teams:

Table 7: Shows outcomes from field activities from Tembo 1, 3, 5, 7, 9 Kamungi & Shirango Scout teams:

De-snaring teams	No. Field days	No. Arrest	No. Ivory recvd	No. Snare recvd	Bushmeat recvd. Kg	Poacher equip. recvd.	No. Poacher camps	No. HWC Cases	Vehicle mileage km	Foot Patrol km
Tembo 1 (TENP) & Shirango Scouts (6 TT Scouts + 3 KWS Rangers)	30	3 bushmeat poachers	-	13 5 small 8 medium	10 kg Dik-dik	3 panga, 3 bicycle, 3 lamping horn and cooking equipment	-	1 HEC. 8 elephants driven from homesteads at night	2,595	214
Tembo 3 (TWNP) (6 TT Scouts + 3 KWS Rangers)	30	1 Illegal herder	2	6 All small game snares	-	2 lamping horns	-	-	2,807	149
Tembo 5 (TWNP) 6 TT Scouts + 3 KWS Rangers	30	13 10 Illegal immigrants, 1 bushmeat poacher, 2 illegal entry	6	-	30 kg Dik-diks and Impala	3 lamping horns	2 1 active 1 recent	-	2,586	132
Tembo 7 (Kulalu/TENP) 5 TT Scouts + 3 KWS Rangers	30	-	-	66 52 small 12 medium 2 large	6 kg Dik-diks	2 pangas, 3 lamping horns	-	1 HEC. elephant driven from a homestead at night	2,868	105
Tembo 9 (Kulalu/TENP) 5 TT Scouts + 3 KWS Rangers	30	48 All for illegal entry (Mainly illegal herders)	-	2 medium game snares	-	1 panga, 2 knives, 2 lamping horns and mobile phones	-	-	4,780	120
Kamungi Scouts 4 Scouts	30	2 Bushmeat poachers	-	50 46 small 4 medium	4 kg Dik-dik	2 lamping horns and cooking equip.	-	6 3 HEC & 3 HCC	2,024	179
TOTALS	180	67	8	137	50 kg	As above	2	8	17,660	899
Total 2022	1,756	202	28	1,646	2,216 kg	-	18	86	134,267	10,838

Monitoring & Evaluation teams:

Table 8: Shows activities carried out by Tembo 2 & 4 teams – monitoring & evaluation:

Monitoring teams	No. Field days	Activities	Endangered species records/sightings	Operating locations	Vehicle mileage km
Tembo 2 (TENP) (3 TT staff + 2 KWS) 	21	-Tusker monitoring -Hirola monitoring -Grevy's zebra monitoring -Carnivore monitoring -Carnivore scat analysis: hair content -Highway & SGR roadkill surveys -Camera trap surveys -Fixed point photos -Collared elephant reporting	-Tuskers – 5 sightings -Hirola – 7 sightings -Grevy's Zebra – 1 sighting -Large Carnivores – 20 sightings Ground Hornbill – 2 sightings -Road & Rail kills – Nil -Elephant carcasses – 7 -Ivory recovered. – 3 -Rain gauge readings -Collared elephants – 1	Tsavo East Nat. Park – mainly southern, central, and eastern sections including, Voi River & Shirango Conservancy	3,022
Tembo 4 (TWNP) (2 TT staff + 4 KWS) 	30	-RHINO monitoring – TW IPZ -Camera trap surveys - rhino -Big Tusker monitoring -Large Carnivore monitoring -Collared elephant reporting	-IPZ Rhinos – 21 -Tuskers - Nil -Large Carnivores – 1 sighting -Collared elephants – Nil -Elephant carcasses – 4 -NRS Rhino night census – N/A	Tsavo West Nat. Park – IPZ and Triangle	4,492
TOTALS	51	As above	As above	As above	7,514
Total 2022	610	-	-	-	83,721

COMMUNITY CONSERVANCY PROGRAM:

ACTIVITY	KAMUNGI Conservancy	SHIRANGO Community Conservancy
Ongoing partnership between Tsavo Trust & KC & SCC	North boundary of TWNP – Triangle, since 2014. Total area approx. 100km ² Makueni County; Kibwezi Sub County; Mtito Andei Division; Mtito Andei Sub-location; Ngiluni Village.	South boundary of TENP – Voi River area, since 2016. Total area 270km ² . Kilifi County; Ganze Sub-location; Bamba Ward; Mitangani location; Gede Sub-location.
Employment (Through Tsavo Trust)	Between Tsavo Trust & partners 45 permanent staff & 15 casual staff employed generating over \$12,000 (Ksh.1,320,000) of income into Kamungi monthly.	Tsavo Trust employs 14 staff from SCC including a Community Liaison Officer (CLO) to spearhead activities. Salaries generate over \$3,000 (Ksh.330,000) of income monthly.
Community Mobilization and Sensitization Meetings	14 community meetings held <ul style="list-style-type: none"> ➤ 28/11/2022. MADET capacity building workshop held in Nairobi. ➤ Kamungi Conservancy Board meeting held on 29/11/2022 at the Ngiluni water tank. ➤ Kamungi Conservancy Monthly meeting held on 26/11/2022 at Kamunyu. ➤ 22/11/2022. Management Effective Tracking Tool (METT) workshop at Taita Hills lodge facilitated by USAID through IFAW. ➤ 17/11/2022. A tree planting event at Iviani Earth Dam Cultural Centre. The event was organized by Makueni County Government. 30 trees planted. ➤ Chief's/Local administration meeting to share security related reports held on 10/11/2022. 	5 community meetings held <ul style="list-style-type: none"> ➤ 22/11/2022. Interviews for the Shirango Conservancy Manager were conducted, and the most suitable candidate selected. ➤ 19/11/2022. Tsavo Trust Chief Community Officer had a meeting with the ACC Bamba on Shirango Board elections. ➤ 19/11/2022: Tsavo Trust Chief Community Officer and Tembo 2 driver attended the Shirango AGM. A total of 126 members from Shirango attended the meeting and elected a new office comprising of 5 executives and 7 officials. ➤ Six-day training on Climate smart agriculture. 60 farmers benefited from the training done by KALRO.
Membership	Through a registered CBO KC membership represents 140 families & over 1,400 individuals from 2 villages, mainly from the WaKamba community. Considerable interest for more membership from villages to the west towards Mtito	Through a registered CBO SCC membership represents at least 2,300 individuals from 5 villages, mainly from the Watha and Giriama ethnic groups.
Water Project	43,810 litres of water issued. (925,900 litres for year to date) Ngiluni Primary School connected to piped water.	Borehole, pump, and solar panels are in place, but saline water. Construction of an earth dam completed.
Basic Health care	378 patients attended (3,162 for year to date).	There is a need to support this project
Constructions	Honey processing room completed and opened by Governor Makueni C. on 25/01/22	Scouts HQ completed Construction of an Earth dam completed
Education	Paid for 2 teachers (1-Ngiluni & 1-Kamunyu School in KC) for the last 9 years. Ongoing.	None at present
Bursary Scheme	Started on April 22 5 needy students selected being supported.	None at present
Village Saving & Loan Associations – VSLA's	5 women-run VSLAs are in progress: partnership between ZSL / KC & TT	None at present
Poultry Project	3 poultry projects: partnership between ZSL / KC & TT	None at present
Training	VSLA livelihoods, HWC Mitigation, Climate Smart Agriculture, permaculture	Climate Smart agriculture by KALRO.
HWC Mitigation	7 x 1-acre bee fences, total 105 beehives with 9 currently occupied.	N/A yet
10% Fence Plan	10% fence plan completed Phase 2 completed: Total 12 plots (HWC electric fencing of 10% of individual land). There are issues with plots/land being purchased by a local NGO in this area that is threatening this innovative project, but mitigating measures are in place	N/A yet
Predator Proof bomas	7 predator-proof bomas set up: by TT/ZSL	N/A yet
Mtito 32km fence line	Completed 30/11/21 with 95% HEC reduction	N/A yet
Human Wildlife Conflict (HWC)	18 cases recorded: 6 elephant; 5 lion; 2 leopard; 2 baboon; 1 buffalo; 1 snake and 1 spotted hyena.	4 cases were recorded: 1 hyena; 1 lion and 2 elephant.
Land Tenure	Ongoing	SCC land is currently a traditional communal mode of ownership, not legally protected. Efforts are underway to ensure the local communities legally own their land.
Wildlife Census Transects	1	None
Operations and Security	➤ See the Field Units table above	➤ See the Field Units table above

Unusual Photo of the Month:



The photo above shows a maned Tsavo lion strolling across a dry riverbed in Tsavo East National Park. For the dry scrub lands of TENP, this is a heavily set mane as normally the famed lions of Tsavo are often maneless. (Photo Tsavo Trust - Nick Haller) taken during a routine reconnaissance flight.

With sincere thanks and appreciation:

Organizations: Kenya Wildlife Service; Government of Makueni County; USAID / DOI; US Fish & Wildlife Service; CITES / MIKE Programme-funded by the European Union; Cheyenne Mountain Zoo; Leopardess Foundation; JM Foundation Africa; Save The Elephants (STE); Elephant Crisis Fund; Re:wild; Tusk Trust; Rhino Recovery Fund (WCN); Lion Recovery Fund (WCN); International Elephant Foundation (IEF); Disney/Wildlife Conservation Society (WCS); IUCN Save Our Species; Zoological Society of London (ZSL); The Glassybaby Foundation; Maliasili; EU-Biopama Programme; Tofauti Foundation; Chesbro Foundation; Milkywire; Satao Camp & Southern Cross Safaris (Msa); Origins Safaris; Ker & Downey Safaris; Ndovu Trust (UK); Tropical Ice Ltd; OnSafari-Kenya; Askari Project–Australia; Exodus Travel; Maasai Wilderness Conservation Trust (MWCT); Off Piste Africa; Empowers Africa; 51 degrees-Vulcan; Conservation Alpha; Lewa Canada; Prints for Conservation; twio, Remembering Wildlife Books and many more anonymous donors.

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Report compiled by Richard Moller (C.E.O) and the Tsavo Trust Team.

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