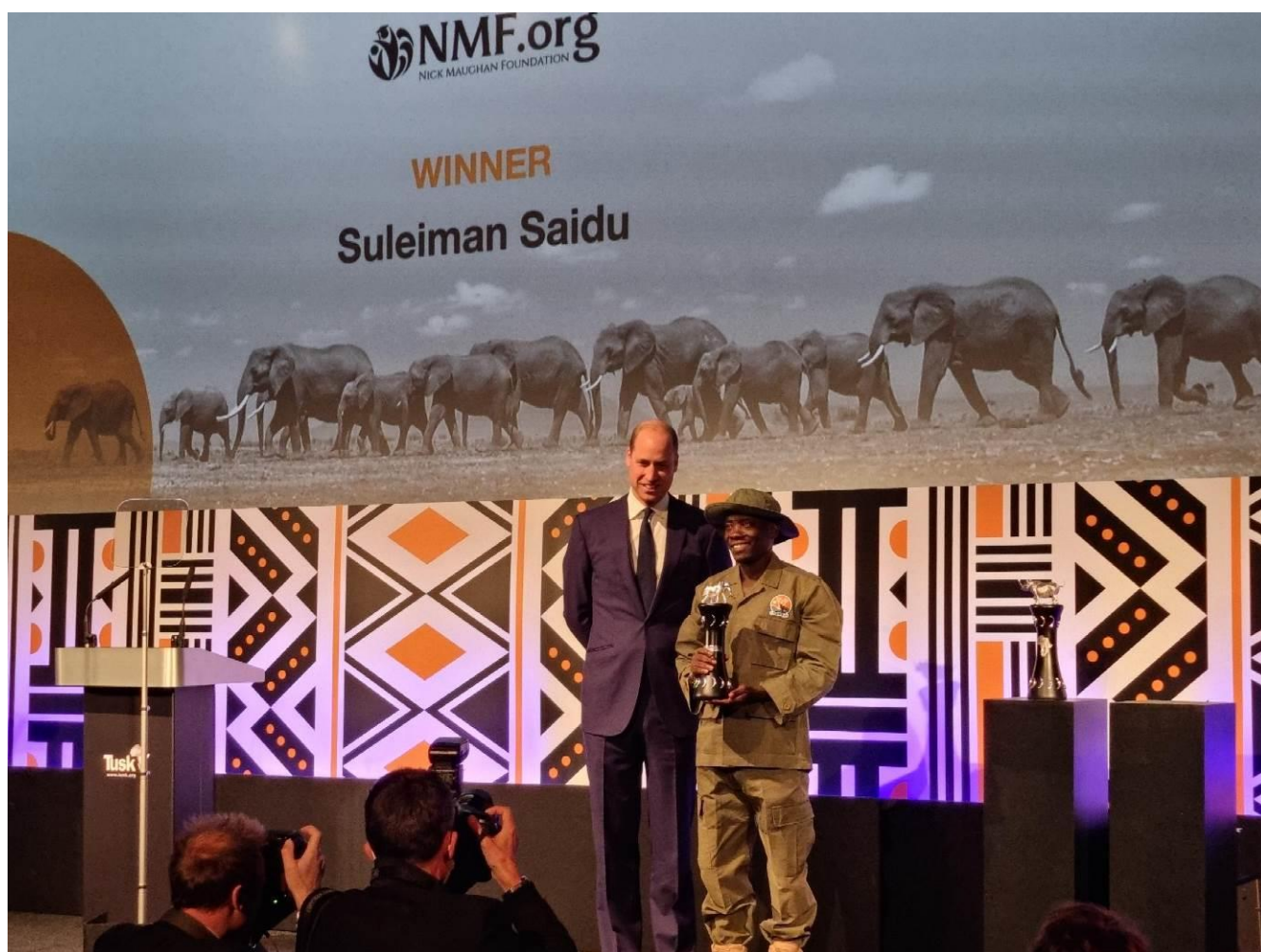




YANKARI GAME RESERVE

WCS QUARTERLY REPORT: OCTOBER-DECEMBER 2021



WCS Nigeria

A Wildlife Conservation Society Program

Report Prepared By:
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SUMMARY

This report describes conservation activities by WCS in Yankari Game Reserve for the period October to December 2021. A total of 1,416 patrol man days (27 patrols) were completed by rangers covering a total distance of 2,824km and as a result eight people (5 hunters and 3 firewood collectors) were arrested during the period. No elephant carcass was reported during the reporting period. Elephant crop raiding declined and was only reported from Shaffa community during the period. To help the communities mitigate HEC, four watchtowers were built in two communities (Mainamaji and Kuka) to help farmers stay safe and better protect their farms from marauding elephants. We continue to track the elephants with the aid of the satellite collars put on them to provide better protection and mitigate human elephant conflict issues.

A total of 15 aerial patrols (37 flying hours) were completed during the period using a small Cessna plane hired from Private Flyers International, Kaduna (see picture below). The plane was used to monitor the elephants, and to identify area of illegal livestock grazing in the reserve. The aerial patrols also help to improve levels of security in neighbouring communities by discouraging the presence of bandits and kidnappers in the area. Some community members reported that kidnappers released two people they had kidnapped because the plane flew over them several times in December. Three joint patrols with the army were completed to further strengthen ranger morale and to discourage any criminals that might want to use the reserve as a hiding place.

Refresher training for the rangers led by Robertson Chigwenembe from Conservation Outcomes was completed and a total of 59 rangers successfully completed the training. The importance of regular refresher training cannot be over emphasized so that rangers don't forget their skills and to help them remain physically fit. It also helps to reinforce rank structure, build team spirit, and to teach the rangers about uniform etiquette and remind them about respecting human rights. The training also covered organizing patrols, patrol formations, hand signals, first aid, and tactical skills (ambushes, camp attacks, tracking and anti-tracking signs).

Six school visits for 120 schoolchildren and 24 teachers was completed. The purpose of the visit is to expose the children and their teachers early to the rich biodiversity of Yankari and to develop long-term support for conservation.

A workshop on the Bauchi State wildlife law was organised for 17 local judges and magistrates. The purpose of the workshop was to provide much needed training to judges and magistrates from Alkaleri and Kirfi Local Government Areas about the Bauchi State Wildlife Law. The workshop also discussed the ongoing review of the existing law. Another workshop on environmental education for 10 schoolteachers from ten primary schools surrounding Yankari to help these teachers understand how to incorporate wildlife and conservation into their teaching curriculum was completed. It also provided us the opportunity to understand their needs and see ways that they can be supported. The VHF radio system that was destroyed by heavy winds in 2019 have been installed and is operational. From the ops room all patrols and vehicles are monitored and coordinated appropriately. Yankari ranger (Suleiman Saidu) won the Tusk Africa Ranger award for 2021 (see picture on cover page) and travelled to London to receive the award from Prince William. The Tusk Africa Ranger award recognises the dedication and commitment of an exceptional ranger on the front line and was a major achievement for Yankari and Nigerian rangers.



Yankari ranger leaving the plane after an aerial patrol, October 2021

RESULTS AND DISCUSSION

A total of 27 SMART-based patrols were organized during this period covering a total distance of 2,824 km and 1,416 patrol man-days (see Appendix 1 for more details). Levels of protection *within the areas patrolled* are adequate but some areas of the reserve were left unprotected (see Map 1 below) during this reporting period due to shortage of funds and firearms to organize more patrols. A total of five hunters and three firewood collectors were arrested. Levels of hunting have reduced and most hunters now enter the reserve for a few hours only to reduce the risk of being detected by rangers. Three joint patrols with the army were completed to boost ranger morale and to assure the surrounding communities of our commitment and partnership with other security agencies to work together and keep Yankari and the surrounding communities safe. Fifteen aerial patrols using a Cessna hired from Private Flyers International, Kaduna was carried out during the period. The purpose of the aerial patrols was to help monitor elephant movements, detect any illegal cattle grazing, and to help improve security for neighbouring communities by discouraging the use of Yankari as a hiding place by kidnappers and bandits.

PATROL STRATEGY AND CAMPING PATROL SCHEDULE

The resources available limits the current patrol strategy and currently we can only organize four camping patrols each week. Four teams consisting of 6-7 rangers per team are sent out on camping patrol each week. With only limited resources available, the current patrol strategy targets vulnerable areas rather than trying to cover the entire reserve. However, SMART enables us to see which areas of the reserve haven't been patrolled and we ensure that patrols are sent to those areas as well. Additionally, the VHF radio also enable us to monitor the patrols in real time. This strategy has also enabled us to focus more attention on the remaining elephants. There were no fixed camping locations, instead rangers continuously change their location overnight both to

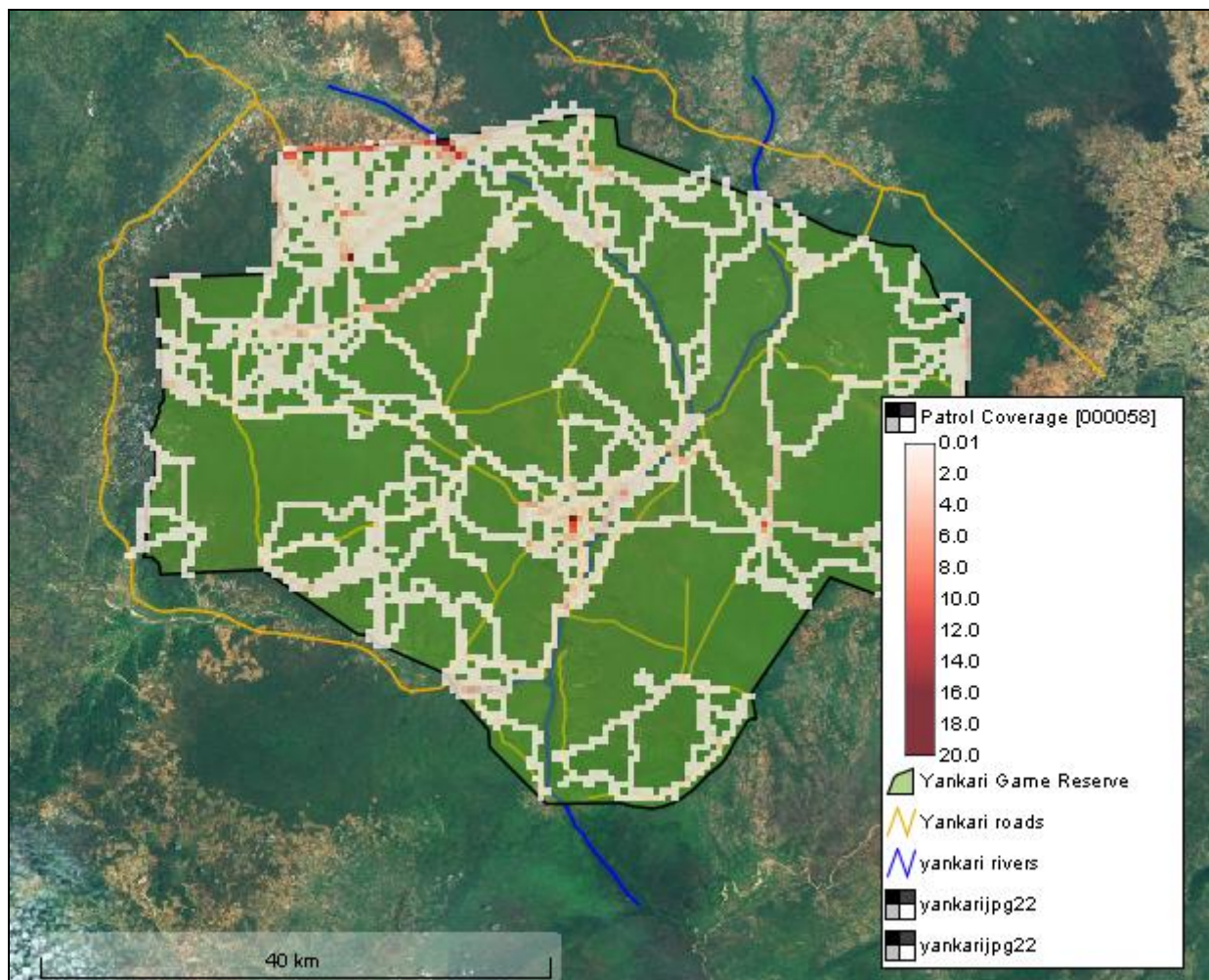
increase the area coverage but also to minimize the risk of the camp being discovered by poachers and attacked. Data is collected using handheld computers running CyberTracker software which automatically records GPS coordinates for every observation. Data were analyzed using SMART software. Table 1 below summarizes the patrol data for the period.

PATROL EFFORT

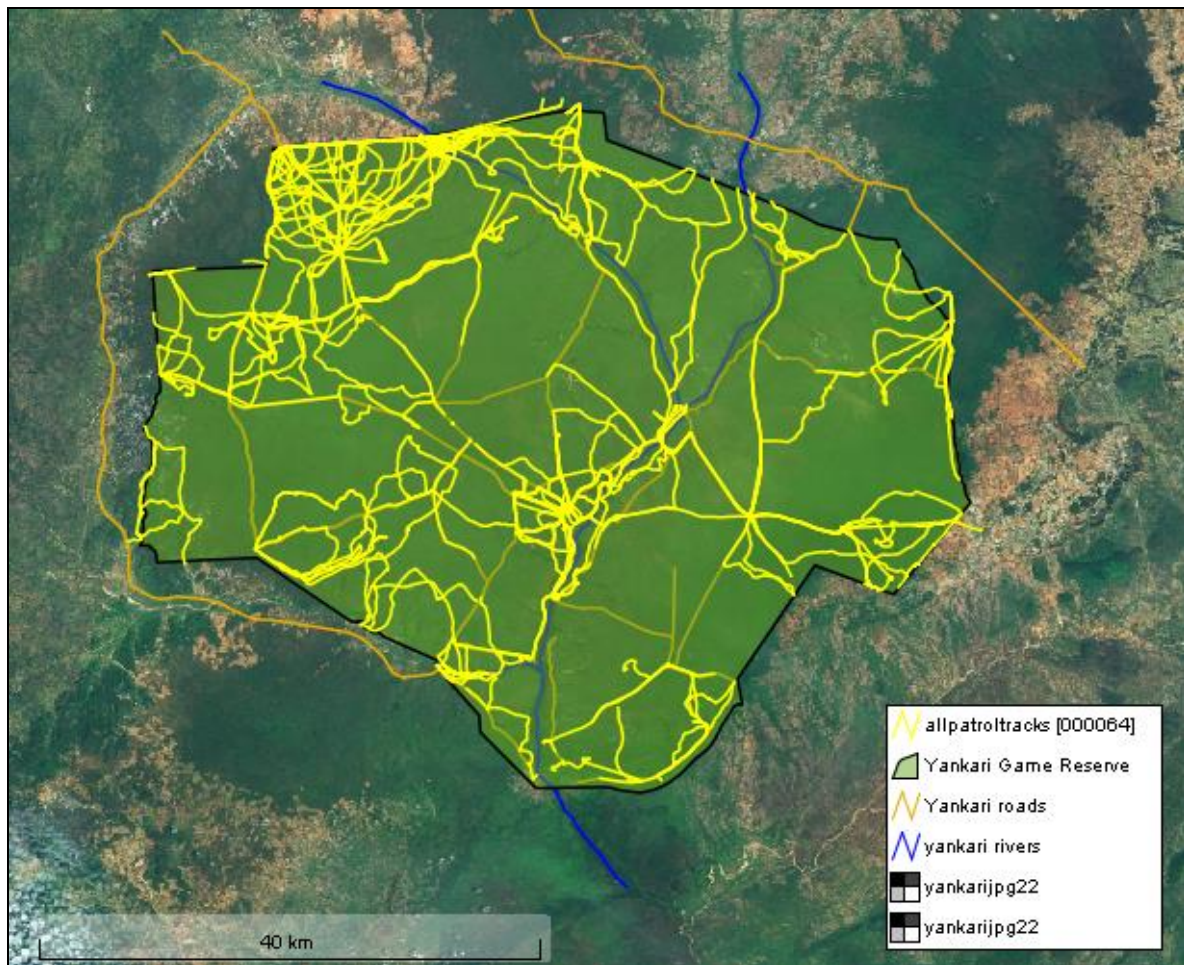
In *Map 1*, the darker red part of the grid map indicates areas that have been more frequently patrolled, the grey portions represent areas that were less patrolled while the un-shaded parts of the grid represents areas that were not patrolled during the reporting period.

Table 1. Summary of patrol effort for the period October to December 2021

<i>No of Patrols</i>	<i>Distance (km)</i>	<i>Hours</i>	<i>No of Days</i>	<i>Patrol Man Days</i>
27	2,824	1,745	205	1,416



Map 1: Patrol effort in km walked per grid cell for October-December 2021. Darker red colour indicates areas of more intense patrol coverage.

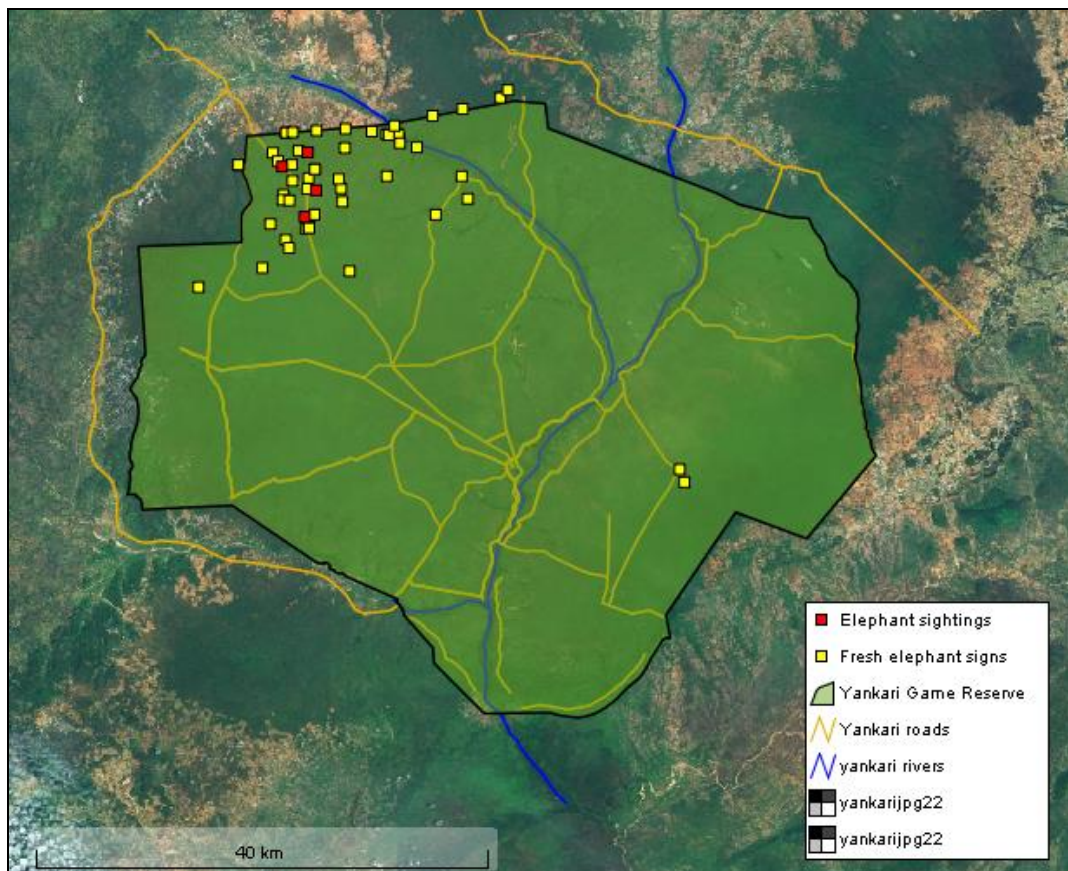


Map 2: Patrol track logs for October-December 2021

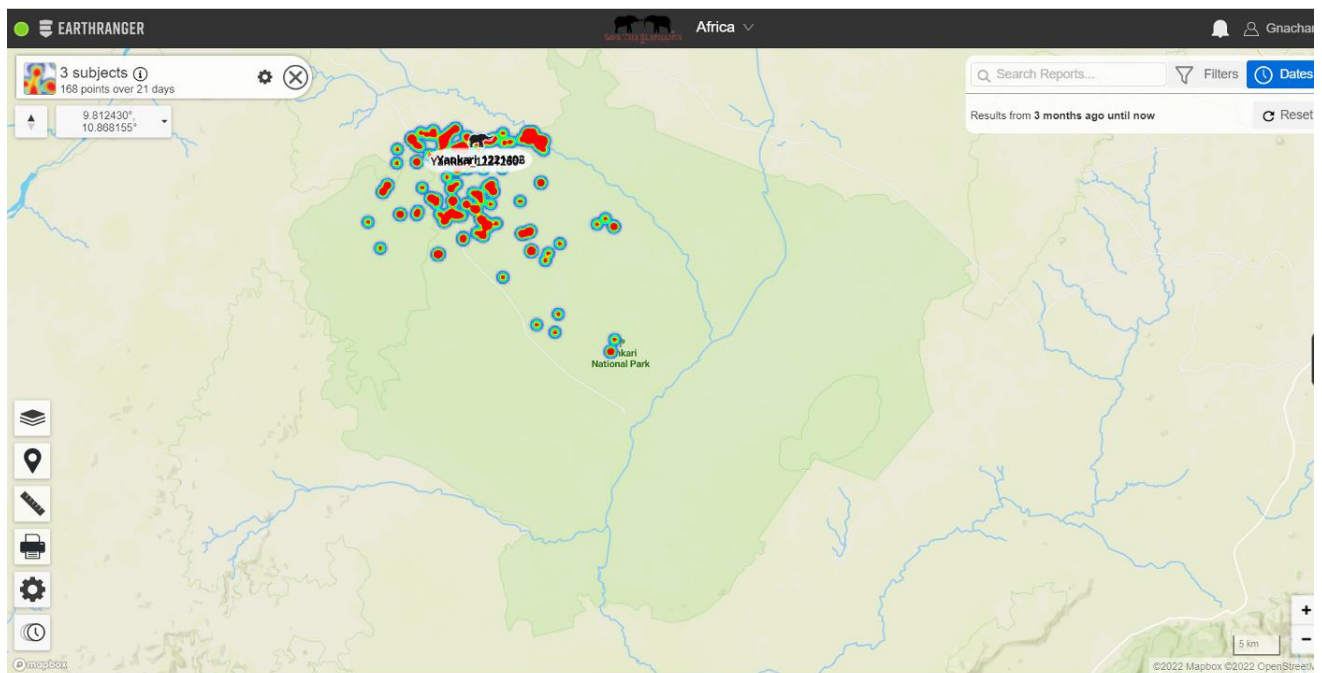
ELEPHANT CONSERVATION

Fresh (1-3 days old) elephant sign and elephant sighting was recorded in the reserve during ranger patrols, see Map 3 below. Crop raiding by elephants was reported from Shaffa community only during the reporting period. Rangers were sent to the area concerned, although typically elephants raid crops overnight and by the time the rangers arrive the following morning the elephants have already left and returned to the reserve. We have helped installed four watchtowers in two of the most affected communities as a pilot to enable the farmers stay safe while they guard their farms (see picture below). Reports from the farmers using the watchtowers says that it is very convenient and comfortable and enables them to see a wider distance. We continue to track the elephants with the aid of the satellite collars put on them to provide close protection and mitigate human wildlife conflict issues. Data from the collars on the heat map 4 below shows that collared elephants stayed only in the NN part of the reserve this period. We are learning more about the habitat utilization of these pachyderms as it relates to the seasons. During the rainy season, the elephants spend most of their time in the NW part of the reserve when there are watering holes all over. This is likely because the rains are over and there is no water for them in the NW part of the reserve but there is water in the NN part of the reserve. The heat map is very informative since it is able to show us where the elephants have spent more or less time over the period. Collared elephants did not go to other parts of the reserve during the period although there are two fresh

signs recorded by ranger patrols in the eastern part of the reserve; these are likely from a herd that is not collared.



Map 3: Elephant Activities Recorded by All Ranger Patrols October-December 2021



Map 4: Heat Map for Elephant Movement from Satellite Collar Recorded during October-December 2021



Collared elephants taken from the plane, October 2021



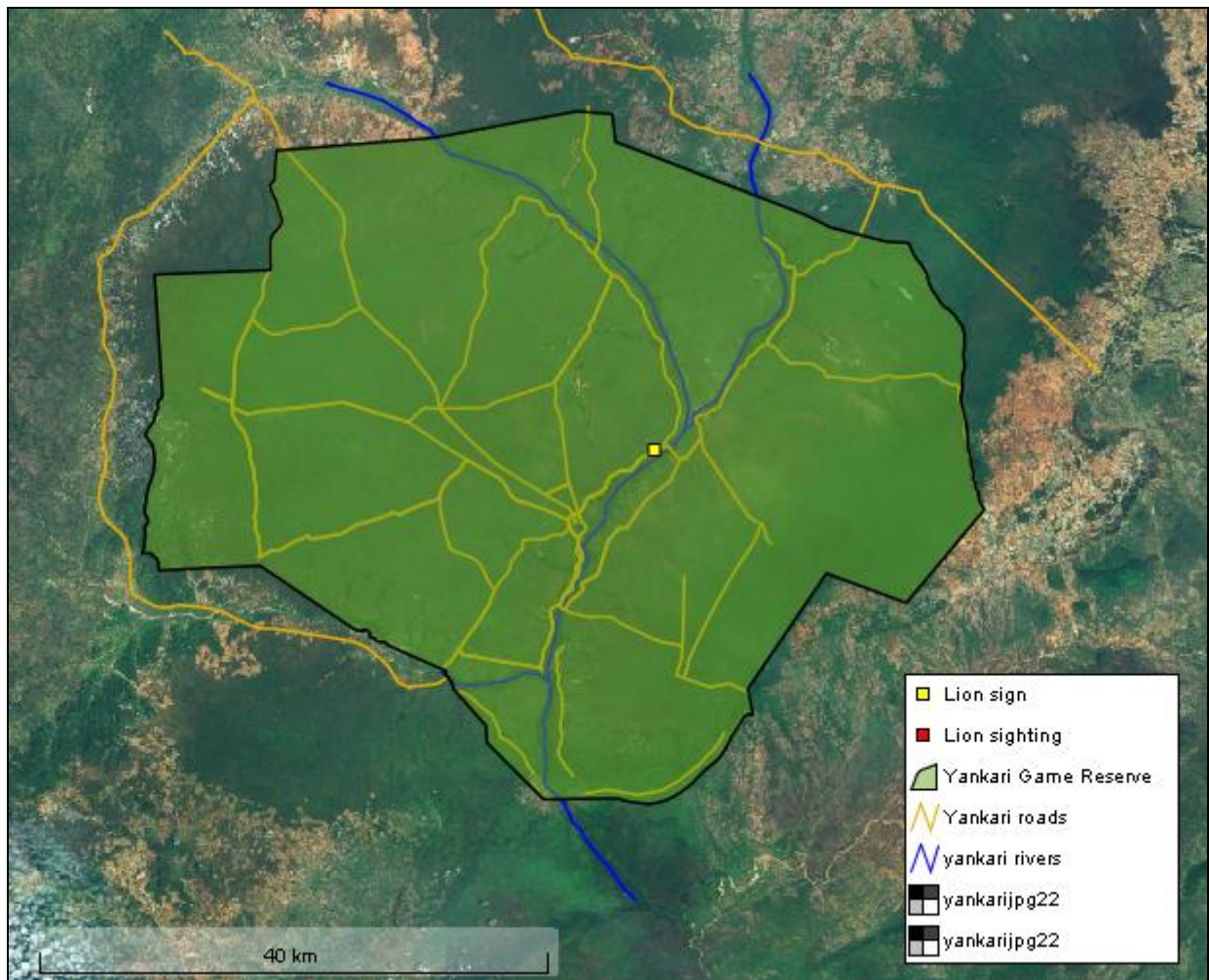
Collared elephants taken from the plane, October 2021



Watchtower with farmers in them guarding their farms against elephants in Mainamaji community, December 2021

LION CONSERVATION

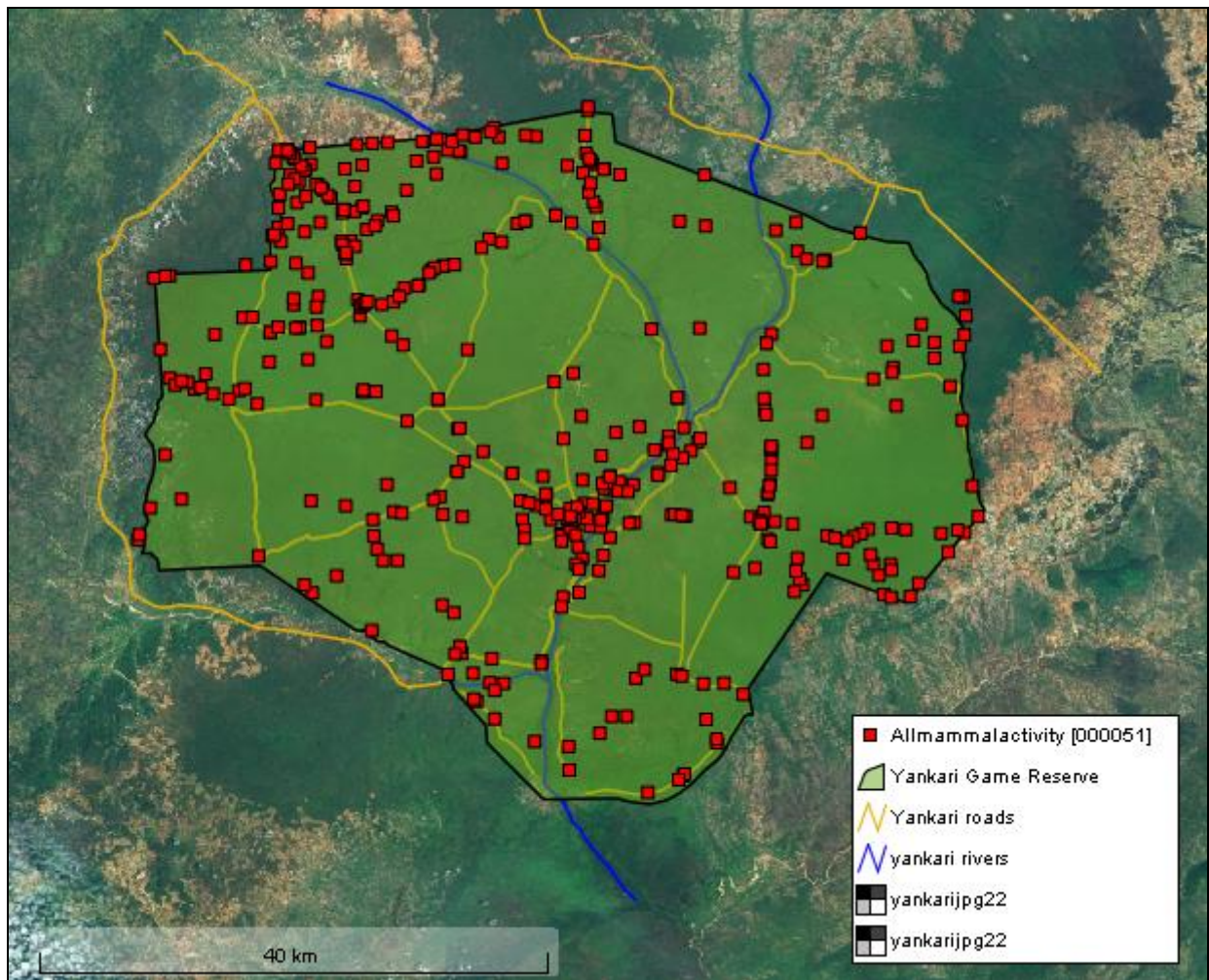
Only one fresh lion sign was recorded by ranger patrol during the month. Fresh lion sign means lion sign that is 1-3 days old (see map 5 below). No roaring was reported during the period as compared to two roaring reported twice at night from the previous quarter. Lion collaring is planned for the dry season in 2022. The collars have already been purchased waiting the availability of the vet.



Map 5: Lion Sightings and Fresh Signs during October-December 2021 Patrols

ALL OTHER MAMMAL SIGHTINGS

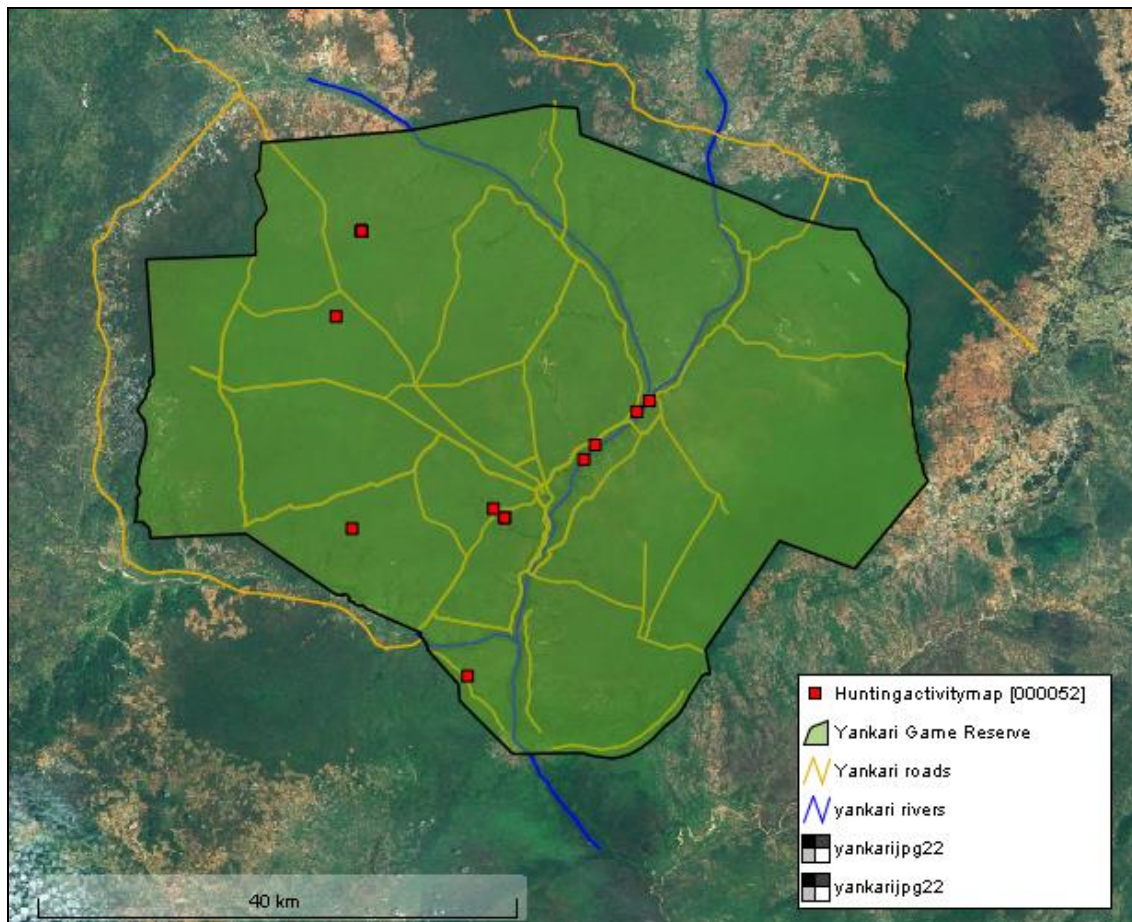
Various other large mammals were sighted within the reserve (see Map 6 below) including hippos, baboons, waterbuck, roan antelope, buffalo, hartebeest, patas monkey, tantalus monkey, bushbuck and warthog.



Map 6: Location of All Other Mammal Sightings October-December 2021

HUNTING EVIDENCE

Although five (5) hunters were arrested during the period, hunting pressure has significantly been reduced in the reserve see Map 7 below. The hunters now only hunt opportunistic and are afraid of staying for long periods hunting in the reserve. Continuous ranger training and the provision of allowances, bonuses, food rations, kits and equipment has built the morale of the rangers. Additionally, the importance of intelligence and the VHF radio enables us to send patrols where it is needed most. Unfortunately, the outdated wildlife law does not provide sufficient deterrent to offenders that is why we are assisting the Bauchi state government to revise the wildlife law to provide tougher punishment that will serve as deterrent.



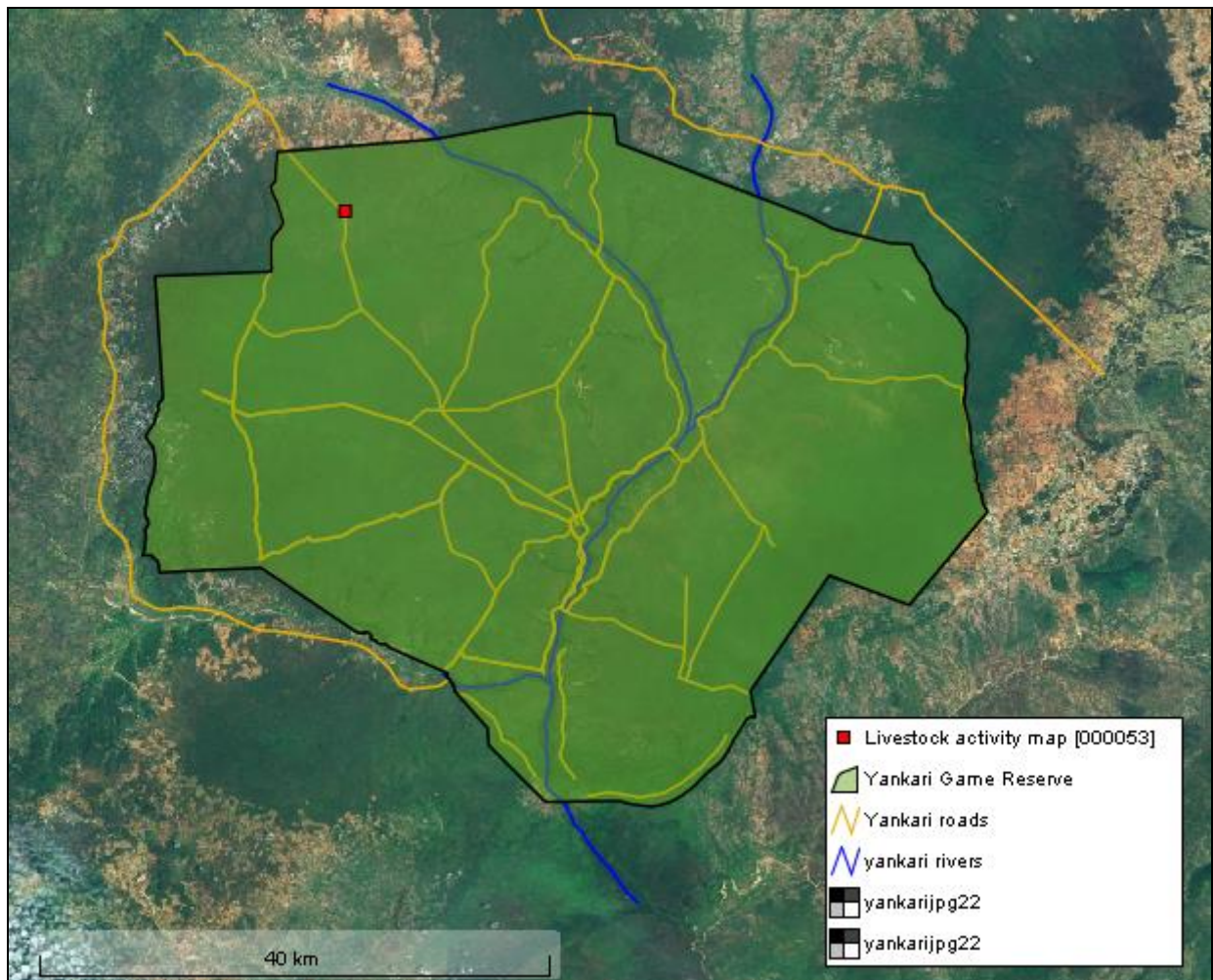
Map 7: Hunting Activity Recorded by All Ranger Patrols October-December 2021



Smoked waterbuck and firearms confiscated from poachers, November 2021

LIVESTOCK GRAZING

Several livestock grazing were recorded from the plane but only one livestock grazing activity in the reserve was recorded by foot patrols during the period (see map 8 below). No arrests were made for livestock grazing offences in the reserve during the reporting period because livestock are sent in unaccompanied by humans. The rate of livestock grazing in the reserve has also reduced because of the season and because rangers have dominated the reserve with continuous patrols, aerial support, constant supervision and zero tolerance to corruption.



Map 8: Livestock Grazing Activity Recorded by All Ranger Patrols October-December 2021

WOKRSHOP ON WILDLIFE LAW FOR JUDGES

As part of our ongoing effort to support the judiciary, a workshop was organized for 17 judges and magistrates from Alkaleri L.G.A and Kirfi L.G.A. The objective of the workshop was to discuss the current Bauchi state wildlife law that is obsolete and some of them are not very familiar with it and the need to review it. All the participants expressed appreciation about the workshop and said that it is the first one ever since their career and promised to support the review process and work according to the law whenever presented with cases from Yankari to ensure that offenders get the toughest punishment that will serve as deterrent.



Judges & magistrates with the WCS Yankari Landscape director after the workshop, December 2021

Workshop for Primary School Teachers

To assist primary school teachers around Yankari incorporate environmental education into their teaching curriculum, a workshop for 10 schoolteachers from ten primary schools surrounding Yankari (Dagudi Primary School, Kafi Primary School, Duguri Primary School, Pali Central Primary School, Yalo Primary School, Kuka Primary School, Alkaleri Girl Child Primary School, Kashara Primary School, Futuk Primary School, Digare Primary School) was completed. Teaching aids from the Pan African Conservation Programme (PACE) was used for the workshop (see picture below). Textbooks were also donated to the teachers to aid them with teaching.



School teachers during the workshop, December 2021

SCHOOL VISITS

The communities surrounding Yankari are key stakeholders for the long-term survival of the reserve. As part of our ongoing engagement with these communities, we organised field trips to Yankari for six schools during the period involving a total of 120 pupils and 24 teachers. The purpose of the visit was to expose the children and their teachers to the rich biodiversity of Yankari and to develop a long-term support for conservation. The children enjoyed free transportation, free shirts, books, lunch at the restaurant and visit to the museum, Wikki warm spring and game viewing. Though they live right on the edge of the reserve, 100% of them said they had never been to Yankari until this visit.



Pupils with their teachers posing with their shirts and books, December 2021

CHALLENGES FACED

- **Outdated wildlife law and the lack of deterrent.** The Yankari protection law is outdated and the penalties need strengthening to act as a deterrent. If there are tough enough jail sentences to offenders as deterrent, hunting pressure would be mitigated. WCS is currently helping to review the law. A workshop was held for all the Judges from Alkaleri LGA and all the magistrates from the both Alkaleri and Kirfi LGA to discuss the current law and the review process that is being led by a private law firm. We hope to get a new wildlife law in 2022.
- **Problems with Patrol Vehicles.** Some of the existing patrol vehicles break down frequently while on patrol. Only two of the vehicles used to support ranger teams while on patrol are reliable. This is due to overuse, bad road network and frequent breakdown.
- **Lack of Payment of Counterpart funding by the Bauchi State Government (BASG).** WCS is still waiting to receive counterpart funding from the BASG for over forty eight (48) months now. The lack of payment of the funds by the state government has put pressure on the limited funds WCS has and made it tough to sustain current patrols and impossible to increase the patrols.

RECOMMENDATIONS

1. Complete the revision of the wildlife law.
2. Bauchi State should provide some financial support to augment WCS's effort so that Yankari can be better protected.
3. Buy additional patrol vehicles.
4. Provide additional livelihood support to the communities.
5. Collaring of the remaining Yankari lions to monitor their movements and provide closer ranger protection
6. Government salaries for Yankari rangers are very low. Funds permitting we would like to supplement salaries of Yankari rangers with a small top-up allowance each month to supplement their existing meagre salaries
7. Repair the road network and bridges within Yankari Game Reserve.

ACKNOWLEDGEMENTS

We are grateful to the Elephant Crisis Fund, the United States Fish and Wildlife Service, Lion Recovery Fund, Tusk Trust, North Carolina Zoo, Omaha Zoo, Indianapolis Zoo, the Illegal Wildlife Trade Challenge Fund (DEFRA), the A.P. Leventis Conservation Foundation, the Conservation Leadership Program, and the UNEP African Elephant Fund, for their support.

APPENDICES

Appendix 1: Eight Arrests Made and Court Outcome October-December 2021

Date	Name	Location	Offence and exhibit	Village	Outcome
23/10/21	1. Ali Mohammed 2. Garba Ibrahim 3. Yusuf Musa	Buri	Arrested for hunting in the reserve with 3 Dane guns, ammunition, 3 cutlasses, 3 knives, and food items	Alkaleri	Sent six months in jail
29/10/21	4. Adamu Isa 5. Idris Mohammed 6. Jibrin Isa	Mainamaji	Arrested for collecting firewood in the reserve with 3 motorcycles, 3 axes, and firewood	Mainamaji	Sent six months in jail
25/11/21	7. Buba Hassan 8. Ashiru Isa	Garangaran	Arrested for hunting in the reserve with 2 Dane guns, ammunition, 2 cutlasses, 2 knives, 2 cellphones, 45.18kg smoked waterbuck and food items	Gobur	Sent four months in jail.

Appendix 2: 27 Camping Patrols Completed October-December 2021

No	Area patrol	Patrol Start	Patrol End	Patrol Man Days
1.	Shaushau, Kwanan Kirya, Malla, Ruwan-Gogo, Kariyo, Jada, Belle-Yibi, Tungan-Kiyashi	04/10/21	11/10/21	64
2.	Batta, Buri, Mainamaji, Kuka, Maikonkoni	04/10/21	11/10/21	64
3.	Mainamaji, MAikogo, Jibrin-Naya, Bajoga	12/10/21	16/10/21	40
4.	Shaman, Farar-Kasa, Kuka, Mainamaji	17/10/21	21/10/21	35
5.	Malla, Jada, Shaushau, Tungan-Baki	17/10/21	21/10/21	35
6.	Kuturun Kuks, Tonglong, Nata'ala, Duguri	22/10/21	29/10/21	64
7.	Dagudi, Shaman, Kalban, Garangaran	29/10/21	06/11/21	48

8.	Dagudi, Mainamaji, Jibil-Nayaya, Shaman	07/11/21	16/11/21	70
9.	Garangaran, Daban Maje, Borkono, Adamu Jumba, Guruntum	10/11/21	17/11/21	48
10.	Faliyaram, Buri, Kwafa, Shafan-Duguri	19/11/21	26/11/21	56
11.	Kariyo, Gale, Mawulgo, Gwambaza, Boga	20/11/21	26/11/21	56
12.	Buri, Bata, Libline, Boga, Yalwan-Duguri	27/11/21	04/12/21	64
13.	Jarkasa, Jada, Shaushau, Kwala, Bogga	27/11/21	04/12/21	64
14.	Dogon-Ruwa, Tukuruwa, Hawan-Kantana	27/11/21	04/12/21	56
15.	Batta, Buri, Jada	05/12/21	07/12/21	24
16.	Jarkasa, Adamu Jumba, Guruntum, Buri, Bata, Kariyo, Malla, Wolakerol, Shafale	08/12/21	15/12/21	48
17.	Borkono, Pali, Rendel, Giwa, Mawulgo	08/12/21	15/12/21	48
18.	Dauda Usman, Batta, Buri, Gale, Mainamaji	08/12/21	15/12/21	48
19.	Jibrin Nayaya, Dogon-Kurmi, Buri, Batta	16/12/21	23/12/21	56
20.	Malla, Yalo, Rimi, Libji, Tungulum, Libline	16/12/21	23/12/21	56
21.	Shaman, Dorina, Gwambaza, Borkono, Kani	16/12/21	23/12/21	56
22.	Garangaran, KWala, Yalo, Kariyo, Dogon Kurmi	26/12/21	31/12/21	36
23.	Pali, Shaushau, Bultu, Kwanan Kirya	24/12/21	31/12/21	56
24.	Mainamaji, Kuka, Buri, Yalwan Duguri, Kuka	24/12/21	31/12/21	56
25.	Batta, Shaushau, Dogon Kurmi, Tungan Kifi	01/01/22	08/01/22	56
26.	Garangaran, Tungulum, Kariyo, Shafale, Bultu	01/01/22	08/01/22	56
27.	Kuka, Debigi, Batta, Mainamaji, Kuka	01/01/22	08/01/22	56