



ANNUAL REPORT **2016**

GEORGE ADAMSON WILDLIFE PRESERVATION TRUST
For the board directors of the Suzuki Rhino Club

**Working plan for the Mkomazi Rhino Sanctuary
and the African Wild Dog programme for 2017**

22nd January 2017

Dear Board of Directors of Suzuki Rhino Club,

It was very good to see the Board in November and thank you very much indeed for the invitation to the Suzuki dinner. It was really good to see all the dealers together and see the camaraderie that plays such a big part in the whole company. The dinner show was wonderful as was the fact that we brought in the ambassadors.

We are in touch with your offices regarding the ambassadors trip to Tanzania and that seems to be just about confirmed for end March / early April.

Back to work here in Mkomazi. After the big meeting with the Director General of TANAPA and his senior directors in November 2016, we have spent the past three weeks preparing the draft documentation that is now necessary for TANAPA. Central government is reviewing partnership agreements and we have been advised that we have to review and update the MOU. We will also work on this with advice from a firm of lawyers who can help advise the Trust. TANAPA are supportive of this project and all the work and achievements that have taken place over many years and are keen for this to be reflected in a draft document, they described our partnership as follows:-

"The partnership with TANAPA will be beneficial to Tanzania and the world in terms of conservation and contribution to national economy through tourism."

The projects here continue to develop.

They also noted that the work here in Mkomazi is a special case and confirmed at the meeting that the Mkomazi Rhino Sanctuary is a success story and that there was nothing like it in Tanzania and that it is the template for the development of rhino sanctuaries in other national parks in Tanzania. They have said that they need to learn how to build and manage rhino sanctuaries as part of a national plan to further their rhino conservation efforts. And as we know from the discussions over the past few years, the first TANAPA small rhino sanctuary will be built in Mkomazi NP.

We now have 28 rhinos in the Rhino Sanctuary. The last calf was born to Suzi at the very end of December 2016.

We have close to 50 African wild dogs in the breeding compounds. We undertook two releases in 2016 and have three releases planned for 2017.

The Vocational Training Centre is looking good. It still has teething problems and the Diocese still needs to accept full ownership of the project. We will go in to that in a bit more detail later in a separate report but we feel a few more months should go by before we re-address how we can help, based on what they have done to date. It was really good to have that meeting in The Netherlands with you and get advice on the next stage going forwards from the perspective of your board.



In the meantime, we now look forwards to 2017 and our plans and upcoming projects, for discussion at your board meeting.

Much of the narrative to follow is based on last year's plan as so much of the daily life here is about continuity, maintenance, operating systems and physical field-work.

Please find attached our target operating budgets for 2017 as follows for your perusal and thank you for giving us this opportunity to present this to your board for consideration.:-

- a) Mkomazi Rhino Sanctuary General Operating Costs
- b) African Wild Dog Programme
- c) Summary 2017

As always, from the overall 'ideal world' target budget we have once again extrapolated a suggested amount for the Suzuki Rhino Club column, based on your generous donations of last year 2016.

And of course we make no assumptions on these very generous amounts but as we are already in to 2017, we felt it would be sensible to budget based on these figures.



Mkomazi Rhino Sanctuary – General Operations

For many years SSRC has been a mainstay of our work who has helped bring us to where we are today. The funding of salaries, and the general operations, the fence repair and replacement, the spare parts and maintenance - all the components that are the fundamental make-or-break of any project.

The new fencing configuration for the external fence is now underway. This has been funded through the US trust and has been a massive learning curve for us all. Peter Hays of Instarect Ltd has made three visits here over the past few months and has brought down a site technician to work on the fence and train our guys.

Eliska arrived from Dvur Kralove Zoo, Czech Republic in June 2016 and is settling down and adjusting to her long rehabilitation back to the wild.

The SmartParks system installation was a fantastic job, and the installation of the 3G and getting the LoRa system in working order for when it is ready with the GPS horn implants. The team will be able to report on the technical side of all that has been achieved.

Pepijn Steemers of Greenlink came to work on the solar power requirements for the new fencing configuration. He has done a very good job here in Mkomazi.

We had everyone in together; Instarect, Greenlink; and SmartParks all looking at what the power requirements were going to be needed for all the new equipment for the new fence configuration and the security upgrades. This helps ensure that we are not always behind the curve on power requirements. It was very good indeed to have everyone here together, all highly skilled and practical people working out how best support the protection of these rhinos.

We are in the process of putting in an internal fence to divide up the 'bulls-only' section of Jabu and Monduli to form two breeding sections and they will be given a female each. The

1979 model CAT D4D bulldozer helped clear that internal fence line and will also be used for the creation of new water sources in the breeding sections and also development of water sources in the main sanctuary.

We have done well to date, and without incident in the Rhino Sanctuary, but the challenges are always ever present and we are very aware of this. To date there have been no poaching attempts on Mkomazi's rhinos, but it is vital that Mkomazi's continuing high levels of security be maintained in order to prevent poaching attempts. We will continue to keep all systems in good shape to ensure the rhinos are secure and breeding and work in close partnership with TANAPA on these efforts. With 28 animals, the Mkomazi population is an integral part of Tanzania's efforts to breed and recover numbers of black rhino.

The ever-present threat of sophisticated and well-armed poachers is always there, but we have always felt with enough presence, activity, functional kit, a disciplined workforce, a well-run workshop and a serious looking perimeter fence that is well maintained, it acts as a great deterrent against potential poachers. Touch wood, there have been no incidents to date, but it could happen any time and we are always on edge about it and ready to move at a moment's notice. Everyone is on the radio 24 hours a day and we feel without going in to something approaching a nuclear lock-down, the rhinos are as well protected as they could be and will hopefully be left in peace for as long as we can keep this up.

Thank you, Suzuki Rhino Club, for underscoring all of these efforts with your support over all these years.

Personnel

The operations manager and sanctuary manager continue to manage and oversee the many disciplines of the daily operations of the Rhino Sanctuary. Over the next year, all personnel (Operations manager, Rhino Sanctuary manager, rhino tracker team, fence maintenance teams x 2, mechanics and tracker dog handlers) will continue their working duties according to the normal systems and protocols. As always, we will continue to support their salaries and food costs. We continue to have a good medical insurance in place for the managers, the machine operators and drivers, including air evacuation and ambulance support and we support staff medical costs.

TANAPA continue to support the salaries of the security team. Two of the older security team were retired this year by TANAPA. We have worked with TANAPA to work out the new system with three TANAPA rangers. We were also advised we could carry on recruiting. To this end we assembled a group of recommended ex-serving personnel with distinguished service careers that were interviewed in Dar es Salaam. Out of the assembled group, 6 personnel were found to be highly suitable and we are in the process of working out the next steps towards possible probationary employment to see if they will fit in with the existing team and conditions. We have also received a visit from the Regional Security Officer.

A few months ago, we hired more fence maintenance personnel as the burden of work is so heavy and is carried out 24/7. We made a decision to keep the existing fence maintenance team going on their normal daily fence repair and replacement duties and bring in a young

team to carry out the new fencing configuration. Instarect is training them in this. We obviously have to be very careful in bringing in more staff and there are only a certain number of people that we can employ. Our employees are carefully chosen and we feel that they are trustworthy but we have to keep it very tight and it takes time to find the right men for the job who will last the course in a remote place like Mkomazi. Also every time a new employee joins, such as the new fencing crew, it takes time for them to settle and for us to feel comfortable with them. They need to become part of a bigger team and a tight unit working towards the security, welfare and health of the rhinos in the MRS.

Instarect can send in technicians to train our men at alignment and fence construction using the new configuration.

Fuel and Engine Oils

The underground and overground fuel tanks are operational. We have brought in a few deliveries of bulk fuel and will continue to do so as the heavy plant machinery is working pretty much constantly, fuel consumption is increasing. The good news is that with the new solar system established in camp, generator useage is virtually non-existent, except during July and August. Puma Energy continues to supply the bulk fuel ex-Dar es Salaam and the equipment and vehicles are fueled from the pumps. Detailed books on fuel useage are kept by the camp manager and checked weekly by the operations manager. Wambi Oils supplies the drums of engine oils in bulk ex-Dar es Salaam.

Equipment / Maintenance / Spares

We know we always say this, but civilization is maintenance. We are, once again, enormously grateful to Suzuki Rhino Club for their support of the workshop, which is the heart of all of our operations. As usual, the big workload is the ongoing maintenance and this work will continue through 2017. We miss our workshop manager enormously, but he does come back every now and then for a few days and we go through all the systems and it is good to have him working through everything with me. A lot of hours were spent getting the new SmartParks equipment up the hills and looking at the installation systems so he could bring himself up to date. Wiring in the offices was done to put fixed internet points in all the important rooms.

The two new mechanics are slowly beginning to find their feet and work along with another mechanic who is back to tidying up, checking batteries and filters and tyres and greasing, and the ever-ongoing hyrax checks, who seem to prefer hiding under the bonnet of a vehicle rather than holes in rocks – less snakes maybe.

With the increase in rhinos and personnel, the requirements for the useage and general maintenance of the big machines and project vehicles has also increased. As you are all so aware, just on the resupply trips for spare parts, there is an 700km round trip to the suppliers in Arusha. Some of these spares are fake and have to be returned, part numbers don't help and a sample has to be taken in to show the suppliers. We thank you for helping us with these essential costs so that we can order spares from reputable suppliers.

With the general daily operations of the MRS, the big machines are out clearing roads and tracks, working on the new internal fence line, collecting water and generally keeping

everything in good order. Without tarmac roads, we have to continuously grade the peripheral fence line. Without bridges, wash-aways have to be repaired. Drainage ditches have to be created on and cleared on an annual basis. The bulldozer, JCB and grader have been out clearing the new internal fence line and also the main external sanctuary fence line. TANAPA have asked for help with road network maintenance and also to rebuild the road to the Zange HQ from the main road which washed away annually during the rains.

We will continue to buy in more tyres for the Fastrac, JCB and Grader in staged replacements as they are so expensive.

The Suzuki Jimny is now stationed at the tracker dog camp. Freddie (the older dog) goes in the passenger seat with the driver, and the other dog, Bo, goes in the back with two or three handlers. The back is meshed to prevent tsetse getting in and Freddie meanwhile has his own air conditioning.

The Grand Vitaras still fantastic for road trips, chugging away with a few creaks and groans, and as we now have to drive at 50kms an hour for many kilometres on the tarmac, the Vitaras are nicely reliable and neat. They really are great vehicles for the trips for spares, work in town and all the other necessary trips we have to do.

The bikes are of course a bonus to everything, moving around the place quickly and things get done so quickly because of them. They are getting a little bit worked on these days and are spending a bit of time off the road whilst spares are being ordered in. I now have to get in the vehicle to go around the Rhino Sanctuary and travel to all the different work points and water holes to see what is going on. It takes three times as long.

It is always great to be able to call Morad or Gert Jan for advice when we come to a bit of a dead-end here on maintenance problems and we really hope we will see them back here again one day. Thank you all.

Security. Mkomazi Rhino Sanctuary Fence. Infrastructure, Upgrade and Maintenance.

The daily general repair work continues with the original fence maintenance team. They carry out the general replacement of fence posts and also the on the spot repairs and keep the fence operating in the bigger sections. They will continue doing this until such time as the new team brings in the new fencing configuration as they slowly work their way around the whole Rhino Sanctuary peripheral fence. We are estimating that the new teams can cover 10kms per year with the new configuration if they move fast. So we have a three year project underway which will probably end up being four years. We have gone into more detail about this new configuration in the Special Projects section.

The daily general repair and replacement and maintenance of the fence is an absolutely crucial part of the daily security of the Sanctuary which continues to have a number of layers of security in place. Aerial surveillance, security team, tracking team and fence maintenance team, the electrified and alarmed fence, the communications, the tracker dog unit, a TANAPA ranger outpost close to the Kisima base camp, and the TANAPA intelligence

network. The community programmes (the vocational training centre and the environmental education programme) play a great part in winning the hearts and minds of the communities neighbouring Mkomazi.

The mobile teams check the entire fence twice a day on foot. This ensures that they do not miss any problem or potential problem. Repairs are undertaken on the spot and there is always a stock of fence posts and wire in the stores for major repairs. Fence repair teams also slash the grass to keep the line clear and check for any animal or human footprints. Every time the fence repair team go out, their presence and patrols provides additional security and observation.

In 2016 we put in three new security outposts; one at the Environmental Education Centre; one at the tracker camp; and one in the Czech / UK rhino section (which holds Deborah and Jamie and their offspring). We are in the process of working out whether we can bring more security outposts down over 2017. Currently, they have to be sourced in Kenya where they are manufactured and the freight system is now bureaucratic and we will need to hire a lorry and freight agent to help us do this so we haven't yet made a decision on this.

TANAPA continue to staff the ranger outpost close to Kisima Camp and these rangers are there should we need them. The Sanctuary personnel often undertake joint patrols with these TANAPA rangers, significantly on torches or illegal activity seen at night.

Solar Power, Electrical Power

With thanks to Pepijn Steemers of Greenlink, we now have a fantastic solar engineer helping us in both the base camp and the Rhino Sanctuary. He has contracts all over East Africa but is also a wildlife enthusiast and is keen to help the project.

He has installed a 2V battery system in the main base-camp which runs the communications, the monitors for the rhino sanctuary data system, the radio chargers, everything in the operations room that is now so much part of Rhino Sanctuary operations. He is also in the process of installing this 2V battery system in the Rhino Sanctuary.

The background to this new installation can be summarized as follows. As you are aware, Peter Hays of Instarect Ltd has been down in Mkomazi working on all the new fence systems. I was working with him and saw him adding all the new equipment going in which needed powering as well as the wireless monitoring systems with the antenna dishes and a relay station on top of the main mountain in the rhino sanctuary where a substation was built. It was getting seriously beyond my capabilities to work it all out and I was really concerned about it all - especially if the whole new fencing electrics system has to hold up at night and in bad weather. Pepijn/Greenlink came in and spent some time with Pete Hays and me looking through all the systems. He said that there would be problems ahead with simply upgrading the existing solar systems (ie., adding more 12V batteries and panels) on the fence because it is a 24 hour a day operation with current-drawing inverters on the new system to bring the power up to 220 volts, even through the night. What was needed was more battery storage because it was the battery storage that was letting the whole system down, especially during the nights. This was because the storage on one x 12V 220 amp hour sealed battery was not

large enough. Not only that, but the existing batteries at that point would only have had a 2 year life. He recommended that we installed instead between 2 - 4 extra solar panels at each outpost (depending on the length of the fencing section) and then change the batteries to 2V batteries x 6 per outpost. This means that we then have many more batteries, each with their own storage capability, so the storage capability overall would be much higher than that of 1 x 12V battery. This will keep the power high during the night and during cloudy days. The batteries are very high quality and they have a guaranteed 15 year life with lead acid cells.

The voltage on the fence is now just below 10,000 volts which is a massive improvement and we are continuing in the process of installing this system for each security outpost.

Water

With the increase in rhinos and personnel, the supply of water to the MRS has almost doubled. Water collection goes on apace in the dry season. The Scania undertakes the 90 km round-trip to Zange TANAPA HQ twice a day to fill up with water from their overground tanks there. It fills up all the storage tanks at the base camp. The water bowser then fills up from the storage tanks and goes round to each water pan and Sanctuary outpost to fill up their individual water storage tanks. Then the Scania comes in to the workshop for maintenance.

However, the Scania is requiring more and more maintenance and I will have to look for another flatbed truck and a new water tanker to take over the main water collection. A couple of months ago it had stopped near the Zange TANAPA HQ with a boiled engine and we had to bring a 'fundu' in from Arusha to repair it on site, along with all the requisite spares. Before that it was the brake system and three months before that it was a complete rear axle the chassis that had to be welded. And we are buying second-hand but expensive spares here. It was originally a second-hand ex-UK truck which we found in Arusha. A wildlife foundation had it rebuilt in Arusha with a maintenance facility who brought in scrap Scania's from the UK and rebuilt them. With a bit of luck we can keep the old truck going for another six months. The actual water tanker on it is OK but the truck itself is old and we have had it for 15 years and it really is in need of maintenance.

It is also slightly under-powered for us to be able to fill the whole 11,000 litre tank right up at Zange HQ (we fill it up to about 9,000 litres max), so we are looking at getting a slightly bigger truck that could haul a full 11,000 litres with little effort.

As it does the entire water supply for the whole Rhino Sanctuary, personnel, rhinos, water pans, storage tanks, it is a crucial piece of machinery. Two x 90km round-trips to Zange HQ every day in the dry season and on it trundles, day after day and year after year. So we will continue to look for a new truck here with a flatbed plus a new water tanker with larger capability. The tanker can be manufactured in Arusha. We are looking at trucks that are already here in Tanzania.

The bulldozer is a good addition to the creation of new water sources both within the Rhino Sanctuary and in the wider National Park. We have currently sent it out to the Superbowl with the machine operator to work on the creation of a water dam there, in conjunction with TANAPA, for the elephant herds and other wildlife of the Mkomazi / Tsavo ecosystem. After

the April May rains, we might bring it in to the Rhino Sanctuary to put a couple more water catchments in to the 'bulls-only' area which is now being divided in to two.

The water gully ('koronga') running through the Sanctuary is now fenced. This created a dam in black cotton soil, which is quite sheltered and has the capacity to hold quite a bit of water for useage in the Sanctuary. We had just got used to it holding water for at least a couple of months after the rains, but this year we have had hardly any rain so there is no standing water and the Scania is working harder than ever.

Communications

This system is generally working well and it is really effective for management purposes to have overall picture as to where everyone and everything is. A cursory glance can give an overall summary picture and this is very valuable for management. There have been software and firmware problems but the advantages of the system have increased staff and managers' capacity to react to any poaching threats or incidents through the immediate analysis of personnel whereabouts and distribution, as well as the ability to monitor link-ups between various groups. This gives the security team, trackers, fence teams and managers the ability to deploy quickly and change a rendezvous depending on the situation. Management of the Rhino Sanctuary has been strengthened via these features.

However problems started with the computer screen blanking intermittently and then the radio repeater in the MRS started malfunctioning. We spent many days trying to get to the cause of the problem. It was thought that the root cause of the computer-screen problem was due to the power supply, despite all the upgrades and inputs. The computer tower was taken in for service. One of the problems faced in the past was the supply of new equipment and spares, which often took months. In a recent development, this equipment is now in stock so supply of such will be much faster. We had to undertake a full system review and upgrade which required a thorough job on all the systems.

We also bought more radios last year and fitted one in the Scania and one in the Rafiki wa Faru environmental eduation bus, plus vehicles have also been fitted with them. We are always in need of more because of all the breakdowns and spares that are needed, increasing numbers of men in the field and the need to have back-ups ready to go.

As mentioned above, we are well on the way to a full installation of a new SmartParks observation system to help enhance security and management operations. This is a great addition to security and operations here with such a huge effort made by the team. We are still looking at putting two more towers in for triangulation for the GPS positions on the aforesaid tracking devices.

Existing security outposts, uniforms, consumable supplies

Personnel move around on duty shifts and the outposts must operate at full capacity at all times. The manager checks each outpost regularly. We will continue to maintain the existing security outposts and continue to tailor two sets of uniforms per person for all sanctuary personnel. Boots are purchased from Arusha and we will buy two pairs of new boots per person.

Veterinary

We have a total of over 400 tsetse targets to maintain and this is a crucial task to keep them active, either every month or after the rains. TANAPA have supported this endeavour. The tracker dogs have proved to be vulnerable to tsetse and we are putting in a concerted effort to keep the tsetse numbers as low as we possibly can in a wild environment such as this. Also it is imperative that the zoo-bred and raised rhino are exposed very slowly to tsetse over a number of years and these targets have really helped us achieve that.

It was great to have Dr Morkel and Dr Macha with us in Mkomazi for a couple of weeks, post-translocation of Eliska, plus a veterinary nurse to help with boma care for the rhino. Dr Morkel spent a lot of time with us and Dr Macha working out the next stage of development of the rhino sanctuary and breeding possibilities.

The female rhino, Eliska, arrived in to the Mkomazi Rhino Sanctuary at the end of June. Thanks to the efforts and support of the Suzuki Rhino Club for the translocation of rhino from Dvur Kralove Zoo in 2009, we have a good relationship with Dvur Kralove Zoo, Czech Republic. Suzuki Rhino Club also plays a major part in the professional running and security of the Mkomazi Rhino Sanctuary so that it is in a position to receive a zoo-bred rhino. So our thanks to you all. Dr Morkel did the translocation from Czech Republic and it was incredibly professional and went very smoothly. DHL transported her from Dvur Kralove Zoo to Leipzig Airport in Germany and from there they flew to Kilimanjaro, landing at Bergamo in Italy to refuel. There was a worrying delay at Bergamo as there was a massive storm preventing take-off at the designated time. The Director General of TANAPA was at the airfield to greet everyone on the flight and the full TANAPA team of vets and escorts were there at Kilimanjaro Airport to help escort her to Mkomazi. She settled down well in her compounds, although missed the company of a bull rhino that she had been raised with in Dvur Kralove. Jiri Hrubry who is also Curator for Ungulates at Dvur Kralove Zoo, helped enormously along with our three main trackers (Evans, Godfrey and Emmanuel). After a couple of weeks, Jiri and the sanctuary manager thought she was ready to make her first steps into a small holding paddock. They opened up the compound and after only a minute or so, she got spooked by a tsetse flag which was flapping in the breeze and broke straight through the small electric fence and into the main rhino sanctuary where all the 'wild' rhinos are. The one thing we know from black rhinos is that anything can happen, very often the least expected thing. Rehabilitation back to the wild can take years and we also did not know if the wild rhinos would fight with her. We had to immediately bring in Dr Macha to recapture her, which took about a day and a half. Jiri and our manager and all of our trackers were involved in this. They set off immediately to track her and stayed out at night close to her. She walked for many miles, sometimes on the trot, and ended up in a gully close to one of the security outposts. It was a tense operation and there are no better rhino trackers in Tanzania than the Mkomazi trackers. Dr Macha managed to dart her in difficult conditions and she was loaded back into her crate and brought back to the holding compounds. But this sort of thing can cause a lot of stress to the rhino and stress can be very detrimental to their health (and sometimes fatal), so we were very worried and once we had got her back in to her compounds, we held her for nearly two months to ensure she got her full strength back. She was then released again and this time the JCB had opened up a huge pathway leading her straight into the middle of her section where there

was standing water and food. The trackers were close by (but not evident to her) for 24 hours a day for the first month. She is currently adjusting slowly to life in the thick bush of Mkomazi. She rests up in the heat of the day under the trees and browses in the early mornings and late afternoons / early evenings. She gets a brush down from one of her trackers every evening and some specialized feed (lucerne and horse nuts). Having first come back to her holding compound for the nights, she now spends the nights out too. She has also been fitted with a telemetry horn transmitter.

Jamie went for Zawadi's face but also her stomach, which was a real worry. Dr Macha came in along with Dr Ernest Eblate of TAWIRI (Tanzanian Wildlife Research Institute). They carried out a very professional job and it was a heartening to see how well they work.

We were absolutely devastated to lose a tracker dog, to Tryps, which is an invariably fatal disease from tsetse flies. We thought we had covered as many aspects as were possible, although we cannot completely eradicate the tsetse fly here. She had had two prophylactic vaccinations over a six month period, she was dipped once a week in a solution to protect her against tsetse, she was covered in Jungle Formula repellent on every single patrol, 200 tsetse flags were installed around the tracker dog patrol area, and the vehicle that moved her around to peripheral areas was fully meshed to stop any tsetse getting in. She was taken to the vet twice when she first showed signs of illness, but nothing was found in her blood tests. We are now working closely with a tracker dog trainer in Arusha who is helping us find the weak link in our chain. He runs tracker dogs in other tsetse areas in Tanzania and he thinks he can help us sort out this devastating problem. The tracker dogs also need constant veterinary attention. This is either undertaken by Dr Macha or Dr Lieve Lynen in Arusha.

Freddie and Bo, the two Belgian Malinois shepherd dogs, arrived from the UK on KLM in August. They were handled at Schipol Airport by a company called Animals To Fly. We have put in new systems to keep them protected against Tryps, which includes fully screening their kennel runs. We are about to receive another Belgian Malinois shepherd dog, this time a female, from the UK. The kennels have been expanded too.

The Suzuki Jimny has been converted and placed at the tracker dog unit on a full time basis so that they can react immediately to any emergencies. We removed the rear of the body and kept two seats in the front and fitted a screened cage at the back for the tracker dogs with two benches. We then built two more seats at the top in the middle of the car for two extra personnel (either tracker dog handlers or rangers). This gives an excellent observation platform for patrols. The converted car has given the tracker dog handlers the ability to react rapidly to any perceived threat around the Rhino Sanctuary fence line without having to delay as the drivers and vehicles be deployed from our base-camp which is many miles away. They have gone out on patrol on a number of occasions and meet the larger vehicle at a logistically agreed place. Freddie sits in the passenger seat in the front with the air conditioning on, and Bo goes in the back in the meshed cage with two handlers.

I am attending a Canine Summit hosted by Will Powell in Arusha in late February. This is a Tanzania-specific summit and he will be looking very practically at what makes a conservation dog unit work and the challenges facing working with dogs in conservation in Tanzania. This is also focused at managers rather than handlers and apparently it will be attended by the

Director of Wildlife, the TANAPA Director of Conservation and the Police Commandant from Dar, amongst others.

The dogs have been highly effective in anti-poaching work and have already cleared a large area just by their very presence. Meat poachers were caught on two occasions and both times, the dogs didn't have to be released; the poachers just gave up on seeing the dogs. The tracker dog unit has therefore been a new and effective way to patrol the Rhino Sanctuary area, maintain security and increase the level of deterrent. We continuously have to upgrade security to match the poaching threat and come up with effective projects that either surprise everyone or that are able to fill the gaps in the protection of a large area with enough (but minimum) personnel. The benefit of having tracker dogs in operation is massive. Just by their very presence, they are an incredibly strong deterrent and it keeps us in line with our non-lethal deterrent policy and adds to the overall security of the rhinos in the Rhino Sanctuary. Tryps remains a big concern and we are trying with best efforts to minimize the threat.

Tracker dogs are also becoming more popular amongst wildlife authorities in Tanzania, especially as Will Powell is there to advise and train.

Aircraft.

We will continue to fly sometimes a few times daily on patrols in and around the Rhino Sanctuary and the National Park. Information on any illegal activities will be immediately relayed to TANAPA HQ with GPS positioning. TANAPA then deploy its ranger teams to the specified area for follow-up.

The aircraft had to undergo a pre-Certificate of Airworthiness inspection, which was done by two aircraft engineers. They checked the pitot static and they did a radio check. The maintenance facility in Arusha did the 100-hour check, which was a brief and easy check because we had changed the oil and the aircraft had recently been serviced and we knew intimately the state that the aircraft was in and what needed to be looked at.

When it arrived back, we were back in the air again on a regular basis, sometimes four times daily! When the aircraft is in use, the patrols back up the security not only of the Rhino Sanctuary but of the entire National Park as well. These general patrols were focused over the past three months on the drying up water pans in the Park, the tracker dog camp and the work going on there and the northern half of Mkomazi that we have a bit of a handle on.



Rhino Sanctuary Special Projects

a) Internal Fence Line

This is still ongoing. The internal fence line is cleared, bulldozed and graded. Fence post holes have been drilled by the auger on the JCB and the strainer posts and access gates are going in this month. Also the bulldozer that we have brought in was in need of a low-loader to move it around (now acquired) and also then in need of a whole range of spares. This has now been fixed up and instead of taking weeks to clear a new line, we can now do it in days. I have been out at the internal line with the fence team. Quite a bit of time was spent correcting the line, which had gone a bit banana-shaped when I took my eye off it, but that was no big deal.

b) New Fencing Configuration

The new fencing configuration includes:

- Energizer system upgrade
- Perimeter patrol software and wifi communication links
- 40 km full fence renovation and reconstruction in correct configuration.

Instarect have visited and this will continue all through 2017. We have a newly employed fencing team carrying out this work and they are being trained by the team. New energizers and alarms have been fitted which have increased the voltage 3 to 4 fold to the fence. All the 'shorts' on the fence have been pinned down and fixed. The bottom half of the fence is being configured with a solid mesh construction which involves linking wires with droppers and anti-tamper loops which helps stop the ingress of predators and makes it more secure against people. The new configuration presents a much more solid construction. We are trying to reduce our dependency on wooden posts and are now placing metal posts intermittently.

It is a hard, slow task to install it all, time-consuming and labor-intensive but is a very necessary upgrade to the original 13-strand fence. The worst of this is the bending of the tensile wire to link up all the wires that need to be joined together and then ensuring that it is all earthed properly and the rings down the middle of the system have to be more or less the right size and uniform throughout the fence's length. We are also using some of the old fence

posts that we have taken out, and are cutting them down to use as the 'short' four foot posts in the new configuration. The fence posts breaks are now handled by putting in a short 'slave' pole on the inside of the fence which is bound with wire against a broken post. It's a very effective use of recycled resources, it's neat and it saves cutting the wires to replace fractured posts and all in all a good use of old posts which will give, with luck, another 10 years of life.

All the old fencing wire needs to be replaced. Not only is it slightly tarnished after 20 years but it also has very many knots in it from where it has been cut in the past when the fence maintenance gang were replacing broken or disintegrating fence posts. It was then knotted back again and because of this the current did not have a free flow. So the old voltage 'blocks' are being removed. New coated wire has been imported, slightly thinner than the original wire and easier to work with if wearing gloves. This new wiring is an incredibly necessary upgrade. The team has helped train the staff and advise on the next stage of the programme.

After all the new systems were underway, they then implemented a wireless surveillance system for the whole fence. Each security outpost now contains the energizers and alarms for the system, has a short tower built with a dish on, and this now sends signals back to the main Rhino Sanctuary entrance gate screen monitor as well as in the base camp above the GPS tracker scheme. It shows if the sections of fence are on or off and gives us control from the base camp to arm and disarm the various sections. It also records every single time the fence is switched on or off for whatever reason. Over the next year, we will get an alarm for each section of fence (approx 5 kms) and we will initially be able to pin down to which half of that particular section has the 'short'. Hopefully in the future, we will be able to monitor to every half km of fence when the alarms sound. This gives fast response a whole new meaning.

c) Rhino Horn Transmitters on the Microwave System

In progress right now and it is difficult for us to budget this out. R&D is also still being completed.



African Wild Dog Programme

All is going well with the wild dog programme. We have had a good year overall, with two new litters of pups and two reintroductions back to the wild. Wild dog sightings have been made recently across the border in Tsavo West National Park and we have also recently seen a pack of wild dogs hunting impala in the Rhino Sanctuary.

We built a new breeding compound. This compound (bringing the total up to seven compounds) is really hidden in the bush at the back of our camp, which is great for the dogs. We were able to use good-quality wire for the fencing and we have put in a steel crush tunnel, as per the new designs we are now using. The new compound also has a secondary fence, to prevent any jackals, hyenas, bat-eared foxes etc coming up to the actual fence and possibly passing on a disease.

We have put new steel-framed crush tunnels in to every breeding compound, lined with strong steel wire and with proper concrete floors for faster and safer inoculations. A new double line of fencing has been constructed at each compound that lacked it.

A new breeding pair were put together in August – they were both subordinates in their natal packs and were beginning to be pushed to the bottom of the feed chain by two years' worth of new litters – all of whom have priority at the feed. The male and female are now an alpha pair in their own compound and are fully settled together. We hope that there will be a litter of pups early next year.

We are continuing with the vaccination programme. TANAPA and TAWIRI will prepare the paperwork to work with the manufacturer's labs in France so that they can run the tests.

At the time of writing, the number of wild dogs in the breeding compounds total fifty. This includes two litters which are both about eight months old. We have three pregnant females.

We now bring in five cows a week and now have added two goats to the order for the two compounds that have large litters of pups. We mix the cow meat, rice, fish and eggs, but they

can never have enough meat. The old Landrover was rebuilt to do this meat supply run.

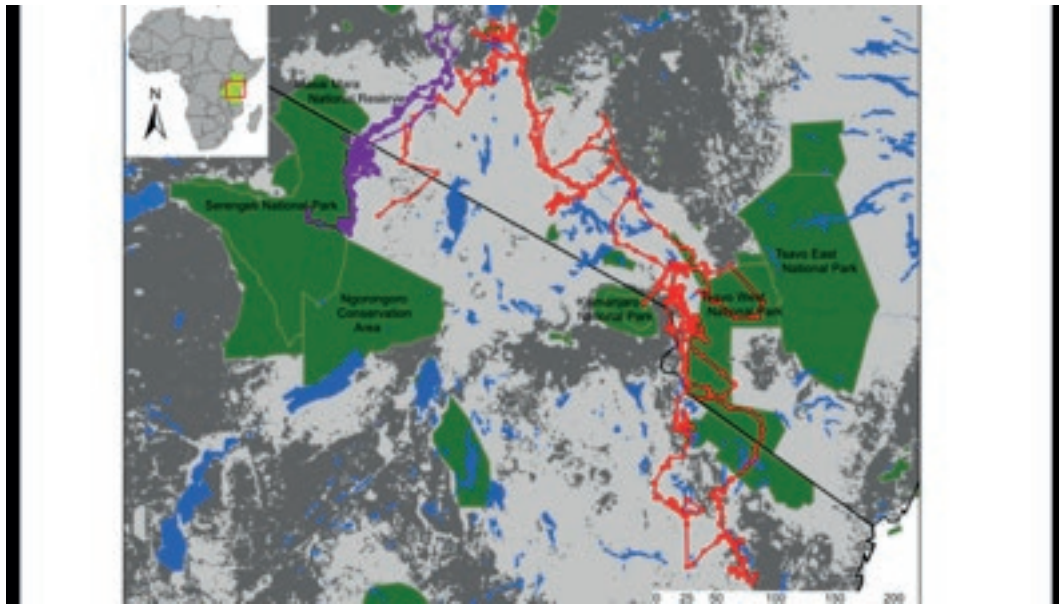
We have reintroduced two packs of wild dogs to the wild over the past year. The first was a family pack of eight wild dogs; the second was a sibling pack of eleven wild dogs. The reintroduction compound we used was a different one to the one used previously. This one is close to the Maore water pan, which is a preferable choice as it is hidden in thick bush and close to the water pan on the border of Tsavo West National Park (TWNP) in Kenya.

On the second release, the TANAPA vet team fitted a GPS collar to one of the dogs. We had already fitted a VHF telemetry collar to another dog in the pack. They came in and did this with us and the following day, the dogs were released. The GPS collar gave six sightings per day. The dogs immediately split up into two groups shortly after release which often happens and both the VHF and GPS collars were tracked. The dogs came and went from the Maore water pan and one group was seen on an impala carcass shortly after release. The dogs then moved north in to TWNP. After three weeks, the signal from the GPS collar became static deep in TWNP. We sent a message to the Kenya Wildlife Services (KWS) warden of TWNP and two patrols (one from KWS and one from TANAPA) were sent out to the site. Two dogs were found poisoned by illegal Somali stock herders in Tsavo. We were pretty devastated as you can imagine, and we have been in touch with the KWS authorities in TWNP but the situation with the cattle herders in the park is political in nature. The other dogs seem to be doing well. A pack of between 5 – 7 of them have been visiting Kisima recently – all in very good shape, hunting every day, the female that we fitted with her VHF collar looks good. They came in when our small water pan held water. They rest up either close to their mother's compound or at the furthest compound from the camp. Now that the water pan has dried up, we have built them a small cement water hole near where they rest.

Together with TANAPA, we have three releases scheduled for 2017. For at least one of these, we would like to fit an even more updated GPS radio collar on one dog as well as to continue using the existing VHF collars. We do hope the newly designed GPS collars are getting more lightweight as the technology improves, which is what we have been waiting for. Currently the collars weigh 350gms and we still think that is quite heavy. A couple of years ago, a GPS collar weighed at least 1kg which was far too heavy and bulky for a wild dog. We now understand from the manufacturers that they are producing a 250gm collar next year, which we are really interested in trying, and these give up to 12 GPS readings per day, although we wouldn't need that many. The only thing with the 250gm collar is that we would also like to add on a collar-release mechanism so that we can remotely unlock the collar after a year via the Iridium satellite but that is an extra bolt-on unit, which increases the weight. But in any case, we will look for the lightest and smallest collars on the market.

We will have the keepers out on foot and in vehicles on the next release and I will continue to fly on follow up. This is intensive by air in the first few months and then after that, when the aircraft is airborne, I put in the frequencies for the dog collars and see if anything is received. The pilot for a wildlife conservation trust based in Tsavo West National Park has agreed to help fly on post-release follow up in the Tsavo part of the ecosystem. The warden for Tsavo West National Park, Capt Ken Ochieng, is supportive of the Tsavo side follow-up on the released wild dog packs.

Dr Emmanuel Masenga working in the Serengeti / Loliondo area of Tanzania collared two wild dogs that he released with GPS collars and herewith a map of where these dogs travelled. It really is incredible.



GPS locations and routes travelled by two dispersing groups of African wild dogs (purple and red circles and lines) overlaid onto a land cover map

There are always challenges with this wild dog programme. One particular challenge at this point is the increase of illegal domestic stock on the Tsavo-side of the border and the political nature of this problem. Release areas might have to change. We would also like to breed up a more genetically diverse population with slightly larger dogs. More wild dogs may have to be brought in from captive populations elsewhere.

We do feel we are making good progress and sightings of African wild dogs have continued to increase in the Mkomazi / Tsavo ecosystem.

We are enormously grateful to Suzuki Rhino Club for all their incredible support for this endangered species programme.



Vocational Training Centre

We are indebted to the board of Suzuki Rhino Club for the wise advice and maybe we live a bit too close to it all here. The board was right on suggesting that the Diocese shows a much stronger sense of ownership of this wonderful gift that we have made to them and certainly the signs are there, but a bit of stepping back from the whole operation and my resignation as Chairman of the board will maybe go some way towards giving them the incentive.

I have had two very lengthy phone calls with the Bishop and have been in email contact with him, but since Christmas he just hasn't been available when I have been available. It has just been one of those messy periods in both of our lives, especially with the huge amount of paperwork that we are now having to do. He has gone to Rome and I will meet with him when he gets back.

Recruitment of new fee-paying boarding students from further away seems to be one of the main problems.

The containers with all the incredible equipment arrived in slightly jumbled shape and we spent a day there off-loading everything and putting it in locked stores for Jos to sort out when he came. We really enjoyed Jos's company and he started off really well but sadly both his health and the isolation and lack of services made it difficult for him to continue. In any case, I do feel it could possibly be a job for a couple of young volunteers with some experience in East Africa to put both the teaching programmes and the energy of the school in a better direction. This is something I will discuss with the Bishop when he is back from Rome.

Two teachers' houses have been constructed in the fenced spare plot, so at least the VTC has taken ownership of that piece of land.

With Jos coming in and the new change overs made by the Bishop, a fresh start was needed all round. However, apart from a mound of paperwork and rebuilding an old motorcycle, the contribution from the previous advisor was not what we expected.

It was very good indeed that SSRC was represented at the last board meeting as a major sponsor of the whole school, and to give it a sense of corporate direction. It was important to SSRC that a clear analysis and plan was needed and that hadn't been evident at the meeting. It was disappointing that there was no clear analysis that addressed the root cause of problems and how to handle them. The idea had been that Jos would help draw up this plan but the feeling of SSRC was that should other NGO's be brought in, the feeling of ownership could drift away from the Diocese and the village, which could be a mistake. The role of the SSRC was also made clear, and it was underlined to the board not to expect substantial and long-term financial support from them. It was made clear that we do really do need the Diocese to accept full ownership of the school and move forwards on getting it moving in the right direction.

The Watoto Foundation came back in for this last board meeting, where we were presented with a wish list from Father Matthias which was not that focused on the actual running of the VTC neither on the future, except turning it in to a joint vocational training centre / secondary school. This was along our original lines, so that everybody would get a school certificate along with their VTC training which would ultimately stand them in better stead. This is something that we will pursue with Father Matthias.

At the board meeting, Father Matthias felt it should be a boarding-only school and this was supported by the other priests present, to avoid what they felt was the unsettling influence of some of the day students. I am conflicted on that idea, and I will go and see what they have done in the meantime on this matter.

The girls dormitories are obviously on hold right now, although a site has been chosen to both construct and fence the proposed dormitory buildings.

So now, three months after the meeting, and now that the lengthy school holiday break is over and school has recently started again, the time is now good to go back and see what has been happening. We will firstly go to see Father Matthias in the next few days to see what changes have been made, how many students have returned from the long Christmas break and pay the fees for a few students. I will see the Bishop as soon as he is back from Rome. As a couple of weeks have passed since the return of the students after the Christmas break and things will be settling down a bit and I will get a better picture. I will send you a report as soon as I have had a meeting with the Bishop.

On a wildlife front, protecting these endangered species is a difficult and complicated task that needs a team of full-time, dedicated people, one chain of command and a disciplined approach to all the various tasks involved. Suzuki Rhino Club have underscored all this work for so many years and we remain sincerely grateful for the tremendous support which has enabled us to meet these objectives and we look forward to a busy 2017.

Tony Fitzjohn
Field Director - George Adamson Wildlife Preservation Trust