SECURITY MANUAL FOR GAME RESERVES AND PROVINCIAL NATURE RESERVES CARRYING RHINO POPULATIONS

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With the increase of wildlife smuggling worldwide and especially in Africa, the security of our wildlife is at risk. The increase in rhino poaching in Southern Africa, and especially South Africa has set alarm bells ringing, if the trend continues the loss of rhino numbers will negatively affect breeding programs for the critically endangered Black Rhino and the very existence of the White rhino.



East German mpikm (AKM) 7.62mm x 39mm

During September of 1994 a Symposium was held at Onderstepoort to discuss Rhinos as Ranch Animals, At the symposium LT Col Piet Lategan then commander of the Endangered Species Unit of The South African Police, discussed the success of the EPSU in closing down organized rhino poaching syndicates operating out of Botswana, Zambia and South Africa. Lt Col Lategan called for increased regional police and wildlife intelligence co-operation to continue the successes of the ESPU and to keep rhino and elephant syndicates in check. In December 1992 The Lusaka Agreement proposed a regional task force to carry out cross border investigations effectively. He also proposed that law

enforcement budgets be placed on the same level as Wildlife Research budgets in game reserves and not at the lower end of the scale as has normally been the case. He also reported that dehorning rhino as an Anti- poaching measure had been a dismal failure, In September 1993 a total of 332 rhinos were dehorned in Zimbabwe, by December 1993 80 of these rhinos had been killed.

In 2009 the number of rhino poached started to increase with 2010 proving to be one of the worst years on record with a total 333 rhinos poached at year end.

It is sad that many of LT Col Lategan's statements and warnings were largely ignored and not taken seriously by other players in the conservation industry and even worse was the decision by police chief Jackie Selebi 's decision to close South African Police Specialist Units, looking back at Selebi's recent conviction for involvement in organized crime, the decision makes sense, those units were a big threat to his crime partners.

During 2011 and appeal was made by I.U.C.N Richard Emslie for increased funding for Wildlife Intelligence Gathering to counter the very threat facing our rhino populations.

Interpol, tracking increased worldwide wildlife smuggling called for increased co-operation between government wildlife intelligence agencies and private wildlife intelligence groups worldwide.

With the massive upsurge in of rhino poaching in South Africa during 2010 many conservation bodies expressed their concerns, after numerous approaches and private initiatives a conference was held involving some but not all stakeholders.

Many conservation organizations were never invited to participate or attend, in 2010 the NWRU was formed, the minister pledged closer co-operation and sharing of expertise, amongst all players. Mergers of private companies are complex and involved, and take many years before they are executed, in these cases control comes from a central point. So to expect two parastatal parks boards a government run SAN parks and numerous private rhino owners to all work together and co-operate is a big ask. Sources indicate iniatives between Ezemvelo KZN Wildlife and San Parks, Crime scene investigation courses have been conducted by Ezemvelo KZN Wildlife with Anti- Poaching units and investigators in Zimbabwe.

San Parks Corporate Investigation services have connected with many private intelligence groups at a very low level of contact, and not with other private organizations, as trust levels are at a very low level. San Parks cant be blamed as who wants to share confidential intelligence only to have it published in the media a few days later.

Funding for private and semi parastatal intelligence groups is so low as to be almost non- existent, and effectiveness of South African Police intelligence is known to be at a very low level although Police Organized Crime Units have had some good successes during 2010 in regards to rhino poaching crime syndicates.

Increased co-operation between South African Police Organized Crime Units, Police Stock Theft Units, Various intelligence networks of San Parks, Ezemvelo KZN Wildlife, North West Parks Board, Nature conservation Intelligence Networks and private intelligence groups is urgently needed. Urgent cultivation of regional Intelligence Networks is not only desirable but critical, to stop the highly organized crime syndicates plundering our rhino horn stocks, and decimating our Black and White rhino populations.

China's demand for rhino horn as a component in Traditional Chinese Medicine can never be satisfied. South African Stockpiles held by various Parks boards and Provincial Nature Conservation are in danger of being plundered and are of concern as any leakage can fuel continued onslaught of our rhino populations.

So while we are right in the middle of a "rhino war" we also face the looming trade war of those who want to trade rhino horn, and stockpiles. The question remains that those who advocate trade, are they just interested in massive profits as speculators of rhino horn as a commodity. Or do they have the very survival of a two species of rhino at heart? only the future will tell.

Security of game reserves centres on basic principles of that if carried out in a regular and aggressive manner can largely prevent incursions of poachers into game reserves.

PERIMETER SECURITY;

The first layer of perimeter security is the fence, fence lines must be maintained and kept clear of all vegetation. Perimeter roads running next to fence lines must also where possible be maintained and swept on a regular basis.

Patrols of fence lines must be carried out on a daily basis but not at regular times, so any poachers trying to work out patrol times cannot establish patterns.

Security patrols on fence lines must check for tracks of poachers entering or exiting the game reserve, checks must also be done to establish any parts of the fence have been cut or tampered with in any way. Electric fences must be checked for current and that they are "live", solar panels, inverters and batteries voltages must also be checked with a multi-meter, and replaced if necessary.

Perimeter patrols should be carried out by game scouts on foot, but should also be supplemented by vehicle patrols. Vehicle patrols can be used for the dual purpose of fence patrol, checking on game scouts patrol logs, and resupplying game scouts in the field with food and water.

In Game reserves, Nature reserves not having the large predators such as lion, but containing populations of rhino, horseback patrols can be very effective for perimeter and roving patrols.

Use of electronic security systems can also supplement regular security patrols of perimeter fences, sensitive ground sensors can be linked to security control rooms, and have been used in one Limpopo game reserve. Beams and C.C.T.V. cameras can be radio linked to control rooms to detect intruders

In very large game reserves such as Kruger National Park air patrols can be very effectively used to supplement foot and vehicle patrols to spot incursions by poachers. Slow flying S.T.O.L. aircraft such as Pilatus PC-6 are best, MICROLIGHTS are very effective and cheap to operate. Ground units should be in radio contact where ever possible with patrolling aircraft.

Observation posts should be sited at known crossing points used by poachers, these should ideally identified by a team leader, and sited to provide good coverage of an area, and good cover for the game scouts. Game scouts in observation posts should be in constant radio contact with controllers and should make hourly SITREP reports. Scouts conducting observation posts should be equipped with binoculars and night vision equipment where ever possible.

Spoor discipline of security teams conducting observation posts must be emphasized, routes in, routes out, silence, no smoking, latrine areas, antitracking, call signs, cover, emergency drills, must be covered in briefing of those conducting observation posts.

All game scouts conducting perimeter patrols, vehicle perimeter patrols and observation posts must compile daily patrol reports.

Patrol reports should contain the following;

- 1) Human tracks (spoor) found, age
- 2) Description or photograph of tracks, e.g. barefoot, sandals, boots, shoes,
- 3) Predators seen or tracks found
- 4) Antelope seen, type, and numbers
- 5) Rhino seen or tracks found

- 6) Elephant seen or tracks found
- 7) Reptiles seen
- 8) Damage to perimeter fence and cause, e.g. animal or human
- 9) Solar panels and batteries tested
- 10) Waterholes troughs visited, full or empty, tracks found at waterholes
- 11) Aircraft seen or heard, description, registration numbers, colour, type.
- 12) Vehicles seen or heard
- 13) Rivers, flowing or dry
- 14) Bridges, state of bridge, (flood damage)
- 15) Grid references of start of patrol, end of patrol
- 16) Vegetation of area patrolled.
- 17) Carcasses found, and probable cause of death, predator, poaching.
- 18) Gunshots heard , number, direction, investigated or not. Reported by radio to controller O.B. Number.
- 19) Vehicle tracks found, type, age
- 20) Date of patrol start and finish

Roving vehicle patrols;

Roving vehicle patrols have the benefit of being able to cover large areas in short amount of time, while as mentioned they can be used to supplement perimeter fence patrols, they can also serve to replenish observation posts and foot patrols with food, water and ammunition. In the event of a medical emergency to game scouts on foot patrol they can also used in the CASEVAC role.

The negatives of vehicle patrols is the noise of vehicles can be heard from a long way off by poachers, therefore vehicles can be used as roving observation posts, by driving into thick cover every now and then, switching off the motor and watching and listening.

Vehicles have the benefit of carrying heavy loads and can be used for extended patrols in remote areas, with very little water.

When conducting extended patrols, and observation posts, some of the game scouts should conduct fan patrols while vehicle has stopped. Sweeps should be conducted on game paths and all waterholes for snares and tracks of poachers.

Undercover vehicle patrols

In larger game reserves undercover patrols should be conducted by members of anti- poaching security teams using unmarked civilian vehicles posing as tourists, during the poaching surge in South Africa in 2007- 2011 crime syndicates have entered game parks as "tourists" and shot rhinos using high powered hunting rifles, undercover vehicle patrols could shadow any suspicious vehicles loitering close to rhinos.

Access control

Access control points are of vital importance, often security control of other areas is good, and access control points at gates is weak, security personal should be selected and briefed what is expected of them at access control points, job descriptions should be handed to personal.

Searching procedures should be discussed and formulated by security manager and park management, so no misunderstandings occur. Vehicle registration numbers should be recorded, make and type of vehicle, colour, and number of occupants.

Use should be made of C.C.T.V. systems with continuous recording

capability, to record vehicle registrations, and face of driver.

Specially trained dog and handlers could be used to detect wildlife products, in lieu of full searches at tourist gates. All vehicles on entering and leaving game reserves should be searched at access control points.

Provision should be made and special gates allocated only to contractors and suppliers, the same rigorous search procedures, and recording of entry and exit times, vehicle registrations, number of occupants should be carried out on a daily basis.

Declaration of Firearms should be requested of all visitors, and storage safes and registers should be provided by game reserve, only senior security personal should carry out this task, and hourly reports on a selected private radio channel of firearms booked in and out should be

made to a security control centre.



Dashprod Variant of LM6 Assault rifle 5.56mm

Selection of Security Personnel;

Security personnel used at game reserves should be specially selected as they require many skills that the mainstream security companies based in cities and towns do not have.

Local people that have been raised in wildlife areas are preferable as most have good bush skills, most have tracked wildlife for most of their lives, so average tracking skills are good. Good tracking skills take many years to master, and anyone from a city environment would never be able to catch up and be an effective tracker.

Basic recruits should be selected for language skills, educational skills, tracking skills, basic fitness, ex - military or police service is a definite advantage.

A Selection course should be held of prospective applicants to identify prospective recruits, and weed out unsuitable applicants, training staffs past experience will give them a good idea of what they are looking for. Fitness test and route marches with kit, and time limits will normally sort out those suitable candidates.



LM5 Semi auto version of R5 Assault rifle 5.56mm, A South African copy of the Israeli Galil Assault Rifle Produced under license for The South African Police and South African National Defence Force.

Skills taught to Game scout trainees:

Patrol formations
Vehicle patrols
Map reading and compass navigation
Use of GPS Unit
Night navigation
Intelligence gathering
Operational security
The clock method of target indication
Habits of dangerous game
Tracking and anti- tracking techniques

Tracking follow up techniques, leapfrogging trackers, use of 360 to find lost tracks, Track interpretation, Knowledge transfer of skills by older experienced trackers to new young recruits.

Bush craft & camouflage and concealment

Food and water cache placement

Routes in, routes out, emergency R.V.

Immediate ambush drills

Night ambush drills

Emergency action drills

Fire and movement

Observation posts

Patrol reports and contact reports

Weapon training, Field stripping and reassembly, cleaning and maintenance, and safety

Knowledge of the Firearms control act of 2000

Knowledge of section 49 criminal procedure act

Shooting range rules and safety

Shooting tables

Basic Ballistics

Jungle lane shooting exercises

Communications, radios, and radio nets, phonetic alphabets, call signs, radio procedures

Basic First aid

Vehicle maintenance

Parade ground drills

Kit inspections

Basic hygiene

Preservation of crime scene's , and preservation of evidence collected Chopper drills, and Cas- evac procedures

Helicopter drills and safety procedures.

Firearm Training: firearm training must be of a very high standard, game scouts will trained with heavy calibre hunting rifles, pump action shotguns, handguns, they will trained on the R5/ Lm5 Assault rifle 5.56mm, F.A.L semi auto Assault rifle 7.62×51 mm, and be familiar with the AK/ AKM Assault rifle 7.62×39 mm.

A very high degree of marksmanship is required for anti –poaching units, this is expensive as large amounts of ammunition are required.



LM5 Civilian Version of R5 Assault rifle 5.56mm, many rhino have been poached with R5 Military and police assault rifles stolen from "leaky armouries"

Medical First Aid Training:

All members of anti-poaching units will be trained in basic first aid, but higher levels will be required. Those members who obtain good standards in Level 1, will be encouraged to complete Level 2, and a few will proceed To Level 3, treatment of snakebite will also be covered in the first aid courses.

Communications;

Good communications are vital to any security / anti –poaching operation a 24 hour manned control room, with suitably trained controllers is a must. Occurrence books O.B. must be maintained, and all incidents recorded with accompanying date, time, and O.B. number, guard commanders must check and sign occurrence book on a regular basis,

While large game reserves have many departments that must all be in radio contact, different departments should all operate on different channels, Anti- poaching units should have a dedicated channel that can not be monitored by other departments, but security/ anti -poaching units should be able to monitor all other departments radio traffic. All access control points must be in radio contact, signal strengths must be checked on a regular basis.

All access control points must make contact with the control room on an hourly basis, and units in the field must make contact at predetermined times.

Various areas in the game reserve must be checked for radio comms and in areas of bad reception repeaters can be installed. Units in the field can make use of mobile repeaters erected in an area, of bad radio reception.

Units in the field must carry spare batteries, or solar panel chargers to recharge their batteries so communications are always possible.

Intelligence Gathering;

The key to successful anti- poaching operations and game reserve security is the production and analysis of intelligence that be used to plan successful anti- poaching operations in the area.

Ideally the people that are selected to work full time in this area should be specially selected and have previous intelligence gathering experience.

Informers should be identified and approached, this must always be done on a one to one basis, never with others present, the safety of the prospective informer must always be guaranteed and must never be compromised, trust must be gained by any informer before he will deliver raw intelligence to you.

Never identify your informers to other members of the anti- poaching unit and keep your database of informants very secure, cellphones are very useful way of keeping in touch with your informers, and in turn they can communicate intelligence to you by means of SMS or call you.

Your informer base should never remain static, as some informers will not produce much intelligence, so you should be constantly expanding and on the lookout for new prospective informants.

Large concentrations of local people living next to borders of large game reserves, should be targeted as prospective informants. As while many of these people, will be employed in lodges and restaurants within the game

reserve, experience has proved that a large percentage of poachers will come from within this same community.

Many South African game reserves, contain private lodges leased by concessionaries, these lodges bring in much needed revenue for the game reserve. The managers and staff are very good source of intelligence and should be recruited.

Petrol service stations, hotels, local pubs situated outside the borders of the game reserve are also good recruiting grounds for informers. Waitresses and waiters at bush pubs are very good places to recruit informers.

Very little news escapes the eyes of the local population, any strangers new to the area will soon be detected, so treat local village chiefs, headman as goldmine of intelligence.

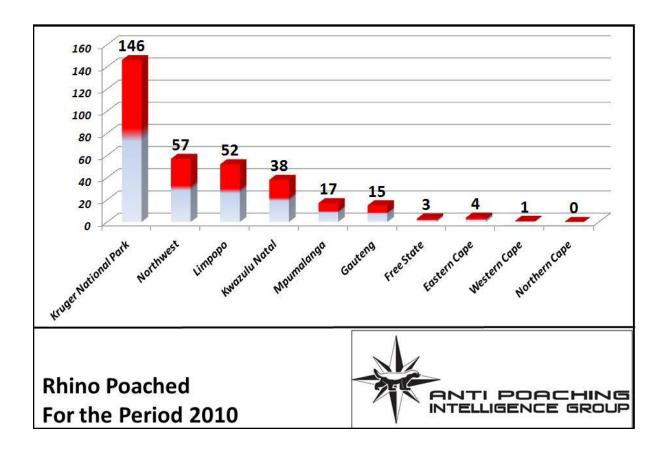
Operational security is vital, so when recruiting prospective informers, use a non-game reserve vehicle, preferably a private vehicle and dress in civilian clothing.

Reward System:

Some game reserves offer large cash rewards for information on rhino poachers. Informers that are producing continuous and important poaching intelligence should be rewarded with meat, rations or pre- paid cell phone vouchers. In my experience cash rewards never produce and informers think they are onto "A good wicket" and invent intelligence, when this is analysed costs time and resources, to prove it is of no value.

Testing of informers:

The rule of thumb, in intelligence is when information on poachers is obtained from a few different sources in an area, it is worth investigating further. Intelligence received from a particular source that never amounts to anything, the informant should be "red flagged" and incentives should be discontinued.



Connecting the Dots:

Analysis and grading of raw intelligence should carried out by a persons experienced in the collection and analysis of intelligence. The raw intelligence is then separated into Operational Intelligence, which is acted upon immediately or Strategic Intelligence which is used in planning future operations or changing current strategies. Strategic Intelligence may also necessitate improved training of existing anti- poaching units.

Trends identified poaching can then also be passed onto other regional partners operating in the same field of Anti- Poaching operations.

Graded intelligence should be only be shared with those persons authorized to receive it, in the various parks boards. And should under no circumstances be shared with other departments.

The entry of sophisticated crime syndicates into rhino poaching and the involvement of game reserve staff has necessitated this decision, as trust levels are very low, in the past intelligence shared amongst various parks boards has been leaked to the press, compromising on-going investigations.



White Rhino Pilanesberg Game Reserve North West Province, Photo Kevin Bewick (pictures taken during rhino monitoring)

Counter Intelligence:

Sophisticated criminal syndicates are heavily involved in rhino poaching, their intelligence is very good as they "recruit" insiders (game reserve staff). So very experienced intelligence operators should conduct some form of counter intelligence, suspected staff members should be kept under surveillance, polygraphs should be taken of anti- poaching unit members if possible, and police clearances should be updated.

All members of anti-poaching units, must be security registered with Psira, (The South African Security Authority) and must have completed their security grades.

Those tasked with Counter Intelligence must monitor operational security of all anti –poaching units, and ensure that "leaks" do not occur.

Communications of anti-poaching units must be conducted on closed Radio Nets, available only to those these units, other game reserve departments radios should not be able to operate on the same channels as anti-poaching units.

Strict controls should be placed on Cell phone communications of unit members, pre anti-poaching patrols, and during actual patrols. During 2010 a team leader of an anti-poaching unit posted on Facebook where he was about to conduct observation posts in his game reserve.

Increased networking and co-operation of various state, South African Police Intelligence, San Parks, KZN Ezemvelo, and North West Parks Board And private anti- poaching intelligence groups are encouraged and Interpol Environmental Section has called for increased regional and

international agencies co-operation to counter increased global wildlife trade.



White Rhino Pilanesberg Game Reserve North West Province. Photo Kevin Bewick (the pictures were taken during rhino monitoring)

D.N.A Fingerprinting:

Efforts to increase D.N.A. fingerprinting of Southern African rhino populations have been stepped up, and improved technology will definitely assist wildlife investigators to increase the conviction rate of arrested rhino poachers.

Crime Scene Analysis:

Many South African Anti- poaching Units have been retrained in improved crime scene analysis, collection and preservation of evidence techniques.

Where ever possible photographic evidence should obtained, any evidence found on scene such as cartridge cases, pangas, axes, clothing, cartridges, magazines, clear imprints of tracks, and of course pictures of poached rhino, bullet entry and exit wounds. This incentive included with training in the preparation of criminal case dockets, should assist National Prosecuting Authority in the prosecution of rhino poaching incidents. The scene of the crime must be guarded, no members of the public should be allowed near, till trained crime scene investigators are on scene. Vehicle, and human tracks should be preserved as far as possible. No articles found on scene should be handled by anyone as fingerprints can be lifted by police.

Co-operation with local South African Police Force;

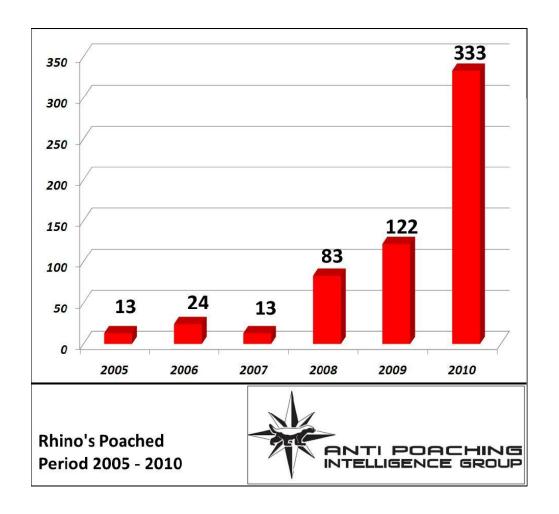
Close links should be cultivated with local Police units, meetings should be held to discuss operational tactics, and joint operations with anti-poaching unit members assisting police in follow up tracker operations, unit members can also assist police with roadblocks, held close to wildlife areas. It is vital that contact be made with South African police Stock theft units, so intelligence can be shared, and joint operations planned.

South African Police Air-wing:

The police air-wing is equipped with Robinson R44 Ravens, Eurocopter B 3 Squirrel helicopters equipped with very sophisticated night vision and thermal imaging equipment.

I had pleasure of working with certain members of the Polokwane air-wing in the prevention of casino robberies, in Polokwane. One of their complaints was that they can only scramble if summoned for assistance, closer links should be forged, meetings should be held with commanders of local Police Air-wings and joint operations discussed. While they often assist with traffic monitoring and other police crime operations, they have indicated that they would very keen to assist in properly planned anti – poaching operations.

As intelligence reports indicate that most poaching incidents occur at dusk, with poachers escaping under cover of darkness, the thermal imaging cameras of the South African Police Air-wing could be a definite advantage in tracker follow up operations.





Lm5 Assault Rifle, Semi Auto 5.56mm Front sight and Flash hider.

Planning of Anti-poaching operations:

Planning of anti-poaching operations should be carried out by experienced team leaders/ commanders.

Intelligence gained can increase chances of successful operations against poachers.

Topographical maps are very useful in planning and executing successful anti-poaching operations as terrain, roads, game paths, waterholes, rivers, bridges, cell-phone towers, food caches can be plotted.

R.V. points can be indicated on maps, siting of observation posts can be plotted using contour lines.

Google Earth maps can be a very useful aid in planning anti- poaching operations as small pans, waterholes, vegetation and well used game paths are visible on Google Earth maps. GPS co-ordinates of an area are also given and can be used for pick up points.

During planning stages of operation team leaders and N.C.O. game scouts should be included in all briefings. Once a plan has been devised, the full team should be briefed on all aspects when orders are given.



Poached critically endangered Black Rhino, Zimbabwe 2010 Picture Mark Brightman Zimbabwe Anti- Poaching Unit

Pre patrol Briefings:

Area

Terrain

Vegetation

Type of poacher snare, commercial meat, rhino/elephant

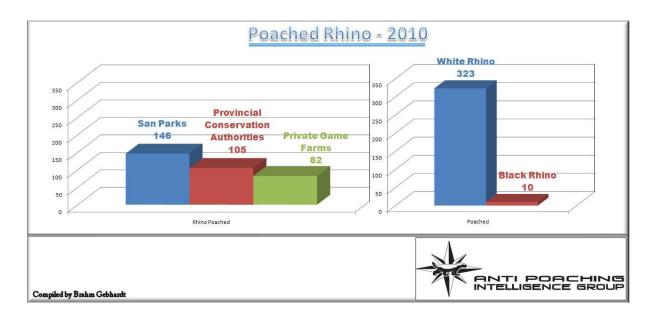
Weapons

Observation post

Fan patrols

Perimeter patrols

Vehicle patrol
1 day patrol
10 day extended patrol
Food & water resupply
Immediate action drills
Casualty evacuation
Radio reporting times
Patrol reports
Handcuffs. Cable ties
Equipment checks



Rhino Populations South Africa:

Rhino populations in South Africa are contained in various national parks governed by San Parks, large concentrations are under the care of Ezemvelo KZN Wildlife based in the Kwazulu Natal Province, and further populations are under the care of North West Parks Board Parks based in the North West Province of South Africa. These various parks boards are partners in lodges based within their borders and receive good annual income from the tourist industry.

Further populations are contained in various smaller Nature Reserves scattered throughout South Africa various provinces and are under the control of Provincial Nature conservation Departments, that are not as well supported as the bigger game reserves by overseas tourist industry as many do not contain the Big Five and therefore do not have the appeal that the larger game reserves do.

Limpopo Province also contains various privately owned game reserves that contain rhino populations. Welgevonden Private Game Reserve, Shambula Private Game Reserve, Kaingo Private Game Reserve, all contain rhino

populations these are high end game lodges are largely well run with small management teams and are well financed, and supported by the overseas tourist industry.

Many Game Farms that contain tourist lodges are privately owned and contain rhino populations, many have been able to afford security teams to protect their rhino populations, many others have not contracted security teams to protect their rhino, and are largely expecting local police and nature conservation departments to protect their rhino.

Under various Black and white rhino range expansion projects, rhino have been relocated and donated to various tribal trust projects, these projects are not heavily funded, some have formed partnerships with large safari operators to run lodges on their behalf, some have received enough income to be able to afford security teams to protect their rhino populations. Many others receive very little income from government grants or income from lodges and their rhino populations are at risk of being poached.

Many Anti- Poaching Units are seriously underfunded and lack the equipment, expertise and budgets to be effective in any way. While many private security, Anti –Poaching Units are highly organized, extremely well trained, equipped and funded from large security contracts they have managed to negotiate with various game reserves or private rhino owners.

Most Provincial Nature reserves with rhino populations have serious budget shortfalls, and my recommendation is that they should be placed under administration by San Parks, who have the necessary expertise to recruit, train and manage Security teams.



R4 Assault rifle fitted with night-vision scope 5.56mm. many rhino have been poached with these assault rifles stolen from police and SANDF armouries.

While the civilian population has effectively been disarmed, South African police and South African National Defence force continue to lose thousands of weapons.

Intensive Rhino Protection Zones;

Very detailed studies have been carried out by various scientists over the years on Black and White rhino, many of these were to determine range, breeding intervals, vegetation preference, and many other factors in regard to calving intervals and carrying capacity.

With regard to the critically endangered Black Rhino, Intensive Rhino Protection Zones were recommended, to prevent poaching of these very endangered Black rhino, expansion programs were also recommended.

Very high concentrations of Black Rhino in small areas resulted in in negative growth rates due to high calf mortalities, deaths of sub adult males by dominant bulls and reduction in preferred vegetation species by over browsing.

An IPZ is defined unfenced area on private or communal land, or within a larger State –run protected area, where law enforcement staff are deployed at a moderate to high density (ideally one field ranger between 10 and 30 $^{\rm m2}$) specifically to protect rhino. The concentrations of rhinos within an IPZ reflects natural patterns of distribution and movement and is not the result of fencing or other methods of confinement. The key principle behind IPZ is the concentration of anti – poaching effort in a specific areas rather than spreading available resources inadequately over huge areas.

Rhino Sanctuary:

A Sanctuary is a small area of State –Protected, Private or communal land in which rhino are deliberately confined through perimeter fencing or other methods, and where law enforcement staff are deployed at a high density (one field ranger per 10- 30 km²) to protect rhino populations. The confinement of rhino within a sanctuary allows close observation and relatively intensive management of the population. As with the IPZ model, the sanctuary approach is based on the principle of concentrating law enforcement activity.

Rhino Conservancy

A conservancy is a medium to large fenced area of private land, though possibly with some State-run protected land, in which rhino live on land units that are under the control of two or more landowners. Staff are deployed at a moderate to high density to protect and monitor rhino population. Conservancies are ring fenced and all internal fences have been removed to allow free movement of game within the conservancy. Approaches under unified management obligations and policies that support conservation and attempt to counter poaching.



AKM receiver of a Hungarian variant of AKM, the AMD. Large quantities of various variants of the AK/AKM are still available in Southern Africa. South African Police Task Force operations such Operation Rachel 1,2,3,4,5, to seek out arms caches and destroy them, in exchange for food have been discontinued in Southern Africa. Thankfully MAG Demining group are conducting stockpile destruction and in 2010 reported destroying 30 000 Kalashnikov Assault rifles in the central African region of Rwanda. Estimates of total weapons still available in Southern and central Africa are not available but are believed to be in the millions, not boding well for African Elephant and rhino populations.

Rhino ranch

A Rhino ranch is a small to medium area of private land in which rhino are deliberately confined. Through perimeter fencing or other methods, but where

law enforcement effort or other human presence in the area is not oriented specifically towards rhino protection. The human presence might include labourers who daily check fence line, rhino monitors, eco- tourism staff, or wilderness trail operators. Because rhino-specific law enforcement effort is limited in these areas, these reserves do not qualify as rhino sanctuaries. However, the fence lines of rhino ranches are usually regularly, and there may be sufficient human activity (associated with eco- tourism or legal hunting) to act as a deterrent to poachers. Sadly during 2009 – 2010 many rhino were poached on rhino ranches. A number of rhino ranches have implemented increased security measures and have been upgraded to the status of sanctuary.

Outlying Rhinos- non-intensive protection

Outlying rhinos are defined as solitary rhinos occurring in highly dispersed situations at a very low densities outside an area where any form of protection is offered. As a result, rhinos will be under threat of illegal exploitation or habitat loss and may not be in regular breeding contact with other rhinos. In some countries many" outliers" as they are known have been darted and moved to better protected population. If these outliers had not been trans located they would have been poached.

South Africa pioneered the private ownership of white rhinos in the late 1960s. However, it was only in 1989 that the main supplier the then Natal Parks Board started selling its rhinos at market value. By 1997, a fifth of Africa's southern white rhino were conserved on 163 private reserves in South Africa. The move to private ownership has increased the land area available to rhinos and increased the revenue of parastatal State Parks boards from the sale of rhinos.

In Kenya, Namibia and Zimbabwe the private sector is allowed to own Southern White Rhinos, whereas the ultimate management authority for all black rhinos remains the State.

In 1990 in South Africa, the first Black Rhinos were sold by auction to approved buyers, In 1995, Namibia also sold black rhinos for conservation reasons to South Africa for the first time. While the number of privately owned black rhino have grown, the total number in private ownership is still small.

In South Africa it was estimated that a park of 500 square metres needs to spend \$1000/ Km 2 per year to keep poaching in check (Conway in Litt, Herbst and Emslie in LITT), However with government funds for conservation diminishing, and the cost of conservation increasing it remains to be seen how much longer many conservation bodies can continue to successfully maintain high standards of field management and protection.

Dehorning of rhino as a security precaution to prevent poaching:

Observations of countries that have dehorned rhinos in an attempt to prevent poaching have proved, it is no deterrent, and may have many other negative effects such as loss of calves where large predators such as lion and spotted hyena are present. Many cases are on record that where rhinos were dehorned but were tracked down and killed by poachers, a) to recover the small amount of remaining horn b) or killed and then left by poachers so they would not track the same dehorned rhino another day.

Rhino cows use their horns to protect their calves from large predators and other rhinos, they have also being observed using their horns to dig for natural minerals and salts, that they require.

Only in very high risk situations where rhino populations are very exposed to large local populations of people and adequate security is not affordable should private rhino owners dehorn their rhino, but this is no deterrent and some form of security should be negotiated, with local police and farmer blockwatch groups, in these scenario's it is vital that an area informer network is set up as soon as possible, with as much community involvement as is possible to give early warning of problems. Movements of owners, farm managers should be kept as secret as possible and a presence on the property must always be maintained.

Demand for rhino horn continues from China, Vietnam, Taiwan and many incentives and programs are in place. Funded by many worldwide rhino organizations, in an attempt to educate people in those countries that rhino horn has no medicinal properties at all. The saddest fact that our rhino are poached for a 'Myth' that detailed studies have proved beyond a doubt. Rhino horn composed largely of keratin has no medicinal or curative properties at all.

Diplomatic meetings with China failed when Chinese diplomats refused to discuss the rhino horn trade, with a South African Mission, further attempts with Vietnamese trade delegations have elicited the same response.

The Rhino horn trade and poaching in South Africa and our neighbours is fuelled by demand from the above countries, but an even sadder fact has come to light in intelligence reports received by our Anti- Poaching Intelligence Group Southern Africa. That a very small group of private rhino owners in South Africa have dehorned their rhinos, not for protection against poachers, but to be in on the ground floor as speculators in anticipation of a legal trade, intelligence reports indicate that some stocks held in private hands have already being traded

illegally. And it is our opinion that any further calls for trade by South African conservationists are just fuelling the fire.

It is sad while many conservationists are concerned about the very survival of the species, others see rhino and rhino horn as just another commodity, the same as gold, platinum, oil and coal. And sadly whenever there is large money to be made quickly there will always be speculators.

While South African and the World conservation community were shocked when the Groenewald Syndicate were arrested, they are certainly not the only ones involved in trading horn, They are the only ones that have been apprehended so far.

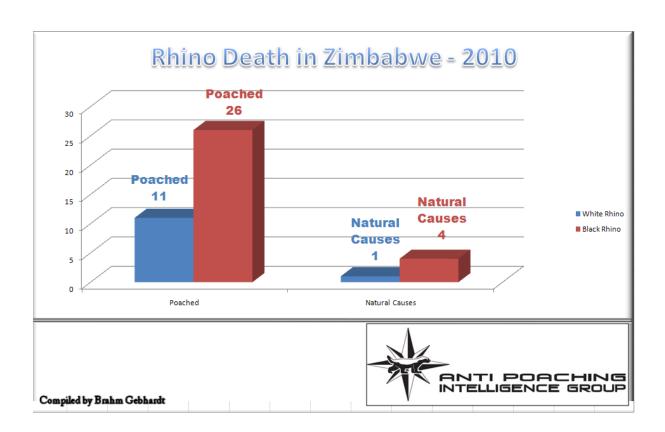


7.62mm x 39mm M43 Cartridges for the AK/ AKM Series of Assault Rifles

(That have been used to poach most African game including rhino and elephant, the steel jackets and metal cores give the medium powered cartridge extreme penetration.)

Reports from Zimbabwe sources have revealed that Dawie Groenewald started his rhino poaching spree in Zimbabwe, with Zanu PF involvement while he was on their radar for a number of years he was "untouchable", and only after many years was he declared "persona non grata" in Zimbabwe.

Accurate figures of how many free ranging rhino in Zimbabwe have been poached are not available, but most reports indicate that very few remain. Only those in some national parks, and private land remain. Anti –poaching units are very active in these areas, but rhinos have been poached although not as badly as in South Africa.



Rhino Monitoring

Most rhino populations in South Africa have been notched if they have been trans located or chemically immobilised. Recent iniatives now include D.N.A. sampling. Notched rhino are identified using the clock method of ear notching, it is advisable that all game scout or anti-poaching unit members are trained to monitor and identify rhino.

Skills taught on rhino monitoring courses:

White rhino age classes for calves

3 months

3 months – 1 year

1-2 years

 $2 - 3 \frac{1}{2}$ years

 $3\frac{1}{2}$ - 7 years

+7 years and older

Condition Assessment of rhino

Recording rhino I.D. kits

Sighting info

Key points

As game scouts will be working closely with rhino, training them in rhino monitoring and identification, can assist rhino researchers and game farm managers. During rhino monitoring, rhino with snares and bullet wounds are

Often identified, veterinary staff can then be called in to chemically immobilise and treat the rhino, many rhino have been saved this way.



Black Rhino shot while drinking, one shot kill indicates the poacher was a skilled marksman, the whole top of the skull and horns were removed. Zimbabwe 2010 picture Mark Brightman Victoria Falls Anti-Poaching Unit.



Poached White rhino Pilanesberg Game Reserve, North West Province, South Africa 2010. Picture Donald Sutton North West Parks Board, Anti-Poaching Unit. Poachers never returned to check snares in this case both horns were recovered small rear horn visible in picture.



Poached White rhino Pilanesberg Game Reserve, North West Province, South Africa 2010. Photo Donald Sutton, North West Parks Board, Anti-Poaching Unit

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For the hundreds of African Game Scouts who risk their lives on a daily basis, protecting not only our rhino populations. But all African wildlife against poaching and the illegal bush meat trade.

The comments and observations in this paper are those of the writer and Anti-Poaching Intelligence Group Southern Africa, and are not necessary endorsed by those with whom we have communicated.

References:

A special thanks to RHINO RESOURCE CENTRE for access their vast library of rhino scientific papers. www.rhinoresourcecentre.com

Is Dehorning African Rhinos Worthwhile? E.J. Milner-Gulland, N. Leader-Williams and J.R. Beddington

IS RHINO DEHORNING SCIENTIFICALLY PRUDENT? Joel Berger and Carol Cunningham

Announcing the RMG Carrying Capacity Model version 1.0 for black rhinos Keryn Adcock

Rhino Horn Stockpile Management: Minimum standards and best practices from east and southern Africa: Simon Milledge TRAFFIC East/Southern Africa

Interpol Environmental Crime Section: Various Newsletters 2010 – 2011

SADC Regional Programe For Rhino Conservation, RMG Black Rhino Carrying Capacity Model Version 1.0, Keryn Adcock

Status Survey and Conservation Action Plan, AFRICAN RHINO, Compiled by Richard Emslie and Martin Brooks

The Role of The Endangered Species Protection Unit (ESPU) of The South African in combating rhinoceros poaching and smuggling of rhino horn, 1994 Lt Col P. Lategan, 1994.

Symposium Rhinos as Ranch Animals, Onderstepoort 1994, Lt Col P. Lategan ESPU

Establishing Informer Networks, Unpublished paper Kevin Bewick Anti-Poaching Intelligence Group Southern Africa

Running Informer Networks, Unpublished paper Kevin Bewick Anti –poaching Intelligence Group Southern Africa

Operational Security, Unpublished paper Kevin Bewick Anti- Poaching Intelligence Group Southern Africa.

Intelligence Gathering for Anti-Poaching Operations. Unpublished paper Kevin Bewick Anti-Poaching Intelligence Group Southern Africa

Dehorning Rhino- Welfare, Ethics & Behavioural Issues Karen Trendler 'Working Wild' EWT Workshop March 2011

Rhino Summit EWT 2010 S.A. Mint.

The African Rhino Specialist Group (AfRSG) Richard Emslie

Media Statement National Prosecuting Authority, 7 May 2010

Animal Rights Africa, Special Report, 31 August 2009

I.U.C.N Guidelines for the 'Insitu' Re-Introduction and Translocation of African and Asian Rhinocerous. Edited By Richard H. Emslie, Rajan Amin & Richard Kock, First Edition 2009.

Monitoring African Rhino an AfRSG Update of "Sandwith's" Training Course for field rangers, 5th Edition Trainees Guide, Keryn Adcock & Richard Emslie

Various South African Police Press releases. 2009 – 2011

Convention On International Trade in Endangered Species of Wild Fauna and Flora. Fifteenth Meeting of the Conference of the Parties Doha (Qatar), 13-15 March 2010. Interpretation and Implementation of the Convention Species Trade and Conservation Rhinoceroses.

Field reports: Mag Demining Group, Stockpile Destruction

Communications Mechem Demining.

South African Police Reports Operation Rachel 1,2,3,4,5 : S.A.P. Special Task Force.