

UNESCO World Heritage Centre - IUCN

## **Mission Report**

***Reactive Monitoring Mission  
Selous Game Reserve (United Republic of Tanzania)***

***23-30 November 2008***



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## LIST OF ACCRONYMS

CBC	Community Based Conservation
DAWASCO	Dar es Salaam Water and Sewerage Cooperation
EIA	Environmental Impact Assessment
GMP	General Management Plan
GTZ	German Cooperation
NCA	Ngorongoro Conservation Authority
PSA	Production Sharing Agreement
SGR	Selous Game Reserve
SoOUV	Statement of Outstanding Universal Value
TAHOA	Tanzania Hunters and Outfitters Association
TANAPA	Tanzania national Parks
TAWIRI	Tanzania Wildlife Research Institute
TPDC	Tanzania Petroleum Development Cooperation
WD	Wildlife Division
WMA	Wildlife Management Area

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## EXECUTIVE SUMMARY

From 23 to 30 November 2008, a joint World Heritage Centre/IUCN monitoring mission visited the Selous Game Reserve (SGR) and World Heritage property in accordance **Decision 32 COM 7B.4**, adopted by the World Heritage Committee at its 32nd session (Quebec City, 2008). The mission was a follow up to the earlier mission undertaken in 2007, which, because of logistical constraints, had only been able to visit the part of the property north of the Rufiji river, which is open to photographic tourism. At its 31st session (Christchurch, 2007), the Committee therefore recommended that a further monitoring mission be organized to focus on the area south of the Rufiji river, which is open to regulated sports hunting. The current mission looked into the effectiveness of management of wildlife populations as well as a number of key threats and conservation issues, in particular the on-going uranium prospecting within the SGR and in the wildlife corridor, proposed oil and gas exploration and exploitation within the property, and progress towards implementation of the recommendations of the 2007 monitoring mission, especially the recommendation requesting the State Party to reinstate the Revenue Retention Scheme. The main conclusions and recommendations are summarized below.

On the basis of the information gathered, the mission concludes that the Outstanding Universal Value of the property is currently being maintained. However, monitoring of its state of conservation is being hampered as no Statement of Outstanding Universal Value (SoOUV) is currently available for the property. To assist the State Party, the mission team prepared a first draft SOUV, based on the material available in the nomination file and the IUCN evaluation, as well as other relevant scientific data available on the property. This draft is attached to the mission report and was presented in a training workshop for periodic reporting in African developing States of OUV held in Dar es Salaam in early March.

The mission expressed concern on a number of activities, currently on-going or planned within the property, which are not compatible with its World Heritage status. These include the on-going uranium exploration activities, planned oil and gas exploration, and proposed dams. The mission noted that the State Party had not informed the World Heritage Committee of these activities and had not provided information on their expected impact on the values and integrity of the property, as required under article 172 of the Operational Guidelines.

The mission team was able to visit a uranium exploration concession on the southern boundary of SGR, of which 75 km<sup>2</sup> is located with the Property. The mission concluded that while the on going activities are having a clear impact on the local environment, these impacts are not irreversible and ecological restoration will be possible at the end of the exploration phase. The mission noted that mining is incompatible with the World Heritage status. In the case of SGR, given its extremely large size, the mission team expressed the view that in this particular case the State Party could argue for redesigning the boundary and of the property to avoid conflicts between mining and World Heritage, although this would require a thorough evaluation, including an EIA, and the provision of compensatory habitat through the inclusion of additional areas to the property. In this case, the State Party would need to request a change in its boundaries, in accordance with art. 163-165 of the Operational Guidelines. However, even if the Committee would agree to such a boundary change, it would be necessary for the State Party to demonstrate through a proper EIA process that the mining activities in the immediate vicinity of the new boundaries will have no significant impact on the values and integrity of the property. The mission team recommended that, if a boundary change is requested by the State Party, the newly proposed boundary should be defined in the context of the overall

Selous ecosystem. IUCN notes that the boundaries of World Heritage properties should not be modified with the primary objective of facilitating mining, as this would not be in line with the “no-go” commitment to mining in World Heritage properties.

The mission team was informed that the Government of Tanzania in 2005 and 2006 attributed 2 exploration concession blocks for oil and gas, to two companies, Dominion Oil and Gas and Heritage Oil. These concession blocks cover almost the entire property (a map is available in the mission report). So far, the Wildlife Division, in charge of the management of the property, has not granted permission to start the exploration activities in the property but continues to be under heavy pressure from other Ministries and Departments to give the clearance. Earlier oil exploration activities in the 1980s in SGR had a significant negative impact on the integrity and values of the property, with cut lines still clearly visible today, and coincided with a steep increase in poaching and a dramatic decline in wildlife populations, in particular elephants.

The mission also looked into the issue of the Kidunda dam. This dam is planned to meet increasing water demand for Dar-es-Salaam. The mission was informed that the original proposal for a 9 billion m<sup>3</sup> reservoir, which would have permanently inundated an important area of SGR, had been scaled down significantly and that the current proposed design for a 150 million m<sup>3</sup> reservoir would result in the permanent flooding of 2 km<sup>2</sup> of the property. The mission team was able to get a copy of the summary of the EIA, which concludes that the impact on SGR will be limited and that the reservoir will not significantly disrupt wildlife migration routes. The EIA proposes to de-gazette the 2 km<sup>2</sup> area that will be inundated from SGR. The mission noted that this will require the State Party to request a boundary change of the Property. However, the EIA also reported that the current design will fall short of the required 150 million m<sup>3</sup>, but only have a capacity of 60 million m<sup>3</sup>. It therefore seems likely that the design will have to be reviewed, with any new design requiring a new EIA.

The mission did not receive new information on plans for a hydroelectric dam in Stiegler’s Gorge, inside the property. This dam project has been under consideration for a long time but the mission was unable to get confirmation of reports that the project is again under consideration. On the issue of the Tunduru-Songea road, the mission was informed that it is situated 60 km south of the SGR and therefore will not impact on the Property and that measures have been taken to ensure that the wildlife corridor to the Niassa Game Reserve in Mozambique is maintained, although no detailed assessment of this was done by the mission.

With regard to the question of the effective management of wildlife populations, the mission noted that the hunting industry plays an indispensable role in the management of the SGR, and its surrounding buffer zones, through the development of infrastructure, patrolling of hunting blocks, provision of information on wildlife and human activities, and the generation of significant amounts of income for the Government of Tanzania, local communities and potentially for the management of the SGR. The mission considers that the future management of hunting requires a number of improvements to ensure sustainable management of the wildlife resources. The mission further concluded that in spite of the fact that the legal framework for community management of wildlife resources has been created a decade ago, examples of successful community based wildlife management around SGR remain rare. The mission report includes a number of concrete recommendations on improving wildlife management and monitoring, which are also integrated into the draft decision. The mission reviewed the results of the different wildlife surveys that have taken place since the inscription of the property and noted with concern that, despite the recent increases in the Selous elephant population,

significant declines were reported for several other wildlife species during the 2006 aerial survey. However there seems significant evidence to suggest that this may be related to technical problems with the set up and implementation of the survey, rather than real population declines. The mission received reports from different stakeholders that poaching pressure is again on the increase, in particular elephant poaching. However, the elephant population is stable and there is no evidence that the reported poaching incidents are having a negative impact on the overall population.

The mission also reviewed progress in the implementation of the recommendations of the 2007 mission. The most important impediment to ensuring proper management of the Property and the implementation of the recommendations, continues to be the lack of sufficient funding, mainly due to the interruption of the Revenue Retention Scheme since 2004, which ensured a 50% retention of revenue accrued from tourism and hunting. In addition, SGR has been receiving less donor support, in particular as a result of the termination of the GTZ project which supported the rehabilitation of the Reserve. This is resulting in a reduced management capacity of the Wildlife Division, which is lacking human and financial resources, equipment and infrastructure at the time outside pressures seem again on the increase. Senior staff of the Wildlife Division and the Ministry for Natural Resources and Tourism informed the mission that discussions are underway with the Ministry of Finance to restore the Revenue Retention Scheme.

The mission is concerned with the different ongoing and planned activities inside the property which are incompatible with its World Heritage Status. The Government of Tanzania should make a clear commitment not to allow such developments and to comply with the requirements of the Operational Guidelines. The mission team considers that any decision to allow for oil exploration inside the property would be a clear case for inscribing SGR on the List of World Heritage in Danger. While satisfied that the Outstanding Universal Value of SGR continues to be maintained, the mission team is concerned that the capacity of the Wildlife Division to manage the Property is decreasing, mainly as a result of insufficient financial resources, at the time when outside pressures are increasing.

## 1. BACKGROUND TO THE MISSION

The Selous Game Reserve (SGR) was inscribed on the World Heritage List in 1982 under natural criteria (ix) and (x).

Covering almost 50,000 km<sup>2</sup>, SGR is one of the largest areas in the world set aside for wildlife conservation. The Reserve was established in 1905 following the amalgamation by the German colonial administration of four reserves to form SGR Sanctuary. The boundaries of the Reserve were enlarged several times to include elephant migration routes. The Reserve comprises largely undisturbed open woodlands and floodplains in the north and miombo woodlands, interspersed with several rivers and sand rivers in the south. The SGR is part of the larger Selous Ecosystem, which includes, apart from the property, the Mikumi National Park, Udzungwa National Park, Kilombero Game Controlled Area/Ramsar site, several Wildlife Management Areas and the Selous Niassa Corridor, totaling almost 106000 km<sup>2</sup>. The corridor links the Selous ecosystem with the Niassa Game Reserve of 36000 km<sup>2</sup> in northern Mozambique. The entire area is without doubt the largest remaining and almost undisturbed wilderness area in eastern/southern Africa. The area contains one of the most important large mammal populations in Africa, including the largest elephant population in the world, estimated at 75000 animals.

During the eighties, the area suffered from serious poaching, which seriously diminished its elephant population and decimated the black rhino population, but surprisingly, it was never inscribed on the List of World Heritage in Danger. From the early nineties onwards and with support from the German cooperation (GTZ), the management was strengthened and poaching was brought under control. Large parts of the SGR are used for tourist hunting activities, which generates important revenues for the Government. Through a revenue retention scheme, 50% of these revenues were ploughed back into the management of the property until 2004.

At the time of its inscription on the World Heritage List, SGR was described by the IUCN as being: an outstanding area representing ongoing biological evolution and man's interaction with his natural environment; ongoing processes in the development of communities of plants and animals; and as a vast area containing habitats for threatened, rare endemic and endangered species of animals of outstanding universal value. The IUCN evaluation report raised a number of integrity issues but underlined that the area is so large that it can absorb all but the most severe pressures on its resources.

At its 30th session (Vilnius, 2006), the World Heritage Committee expressed its concern about reports of increased poaching, the interruption of the income retention scheme that had provided the necessary resources for the rehabilitation and management of the property, the granting of licenses for mineral exploration, and planned dam developments. The Committee requested the State Party to invite a monitoring mission to assess the State of Conservation of the property and the mentioned threats.

The requested joint UNESCO/IUCN monitoring mission visited the property from 2 to 7 June 2007. The report of this mission is available at the following web address:

<http://whc.unesco.org/en/list/199/documents/>.

Because of logistical constraints, the mission was only able to visit the part of the reserve north of the Rufiji river, open to photographic tourism. The mission therefore

recommended that a further monitoring mission be organized to focus on the management and operation of the hunting activities. The mission developed a number of recommendations, which were adopted by the Committee at its 31st session (Christchurch 2007).

In line with the recommendations of the 2007 mission, the Committee at its 33rd session (Quebec, 2008) requested the State Party to invite a joint UNESCO/IUCN mission to the property (decision 32 COM 7.B.3 – see Annex A). This mission was asked to report on the state of conservation of the property, with particular attention to: (a) uranium prospecting within the property and in the wildlife corridor; (b) development of dams and roads within or on the boundary of the property; (c) the effective management of wildlife populations and the impact of hunting activities; (d) the need to develop a Statement of Outstanding Universal Value for the property that provides a clearer definition of its natural values, as well as specific baseline information, against which the State Party and future reactive monitoring missions would be able to more effectively assess the state of conservation of the property; (e) progress towards implementation of the recommendations of the 2007 monitoring mission, especially the recommendation requesting the State Party to reinstate the Revenue Retention Scheme to ensure that the SGR management team has the resources required to maintain the World Heritage values and integrity of the property.

The mission team was comprised of Mr. Guy Debonnet, of the UNESCO World Heritage Centre, and Mr. Ed Wilson, an Independent Consultant, representing IUCN. The Terms of Reference of the Mission can be found in Annex B. The mission was undertaken from 23 to 30 November, 2008. In spite of the logistical challenges, the start of the rainy season, and thanks to the aerial support provided by the Wildlife Division, the mission was able to visit many different parts of the Reserve, including the south western sector (Seka) where the mining exploration concession was visited, the Kibaoni hunting camp, the Kingupira station in the north eastern sector and Matambwe headquarters in the northern sector. A map of SGR can be found in Annex E. A detailed schedule of the mission is attached as Annex C and the list of individuals/organizations consulted during the mission is attached as Annex D. It needs to be noted that the 2007 mission and the present mission have been the only reactive monitoring missions undertaken to the property since its inscription in 1982.

## **2. NATIONAL POLICY FOR THE PRESERVATION AND MANAGEMENT OF THE WORLD HERITAGE PROPERTY**

SGR and the World Heritage property are managed by the Tanzanian Wildlife Division (WD), within the Ministry of Natural Resources and Tourism (MNRT), which has the ultimate responsibility for this property. The Reserve is divided into eight sectors for decentralized administrative control, each under a Sector Manager. Forty-two of the forty-five management blocks are allocated as hunting concessions (92% of the surface area) while three are reserved for photographic tourism (8% of the surface area). A map of SGR can be found in Annex E.

SGR has the status of a Game Reserve under the Wildlife Conservation Act of 1974 (amended in 1978). The Wildlife Policy of 2007 states that “the government is committed to ensure that wildlife and wetlands areas remain pristine to safeguard in-situ biodiversity and tourism products. Accordingly, all major development activities, including mining are prohibited inside core wildlife protected areas and selected Ramsar Sites.”

The SGR General Management Plan (GMP) 2005-2015 was adopted in 2006 and provides the framework for the management of the Reserve.

### **3. IDENTIFICATION AND ASSESSMENT OF ISSUES**

The 2007 mission identified a number of management and conservation issues, including the implementation of the GMP, the Revenue Retention Scheme, the status of wildlife populations, and tourism issues. The present mission reviewed the status of the issues/threats highlighted in the 2008 Committee Decision, additional issues/threats identified during the current reactive Monitoring Mission as well as the implementation of key recommendations of the 2007 mission.

#### **3.1 Uranium Prospecting within the Property and in the Wildlife Corridor**

Concerns were raised by the Committee at its 32 session (Quebec, 2008) about reported on-going uranium exploration activities within the property and on its southern boundary (see Decision in Annex A). Additional exploration areas outside of the SGR are partially within the designated wildlife corridor that connects SGR to Niassa Game Reserve in Mozambique. The mission met with the Managing Director of MANTRA Resources Ltd., the company holding the exploration license inside the property, at the company's offices in Dar es Salaam at the start of the mission. During the meeting the mission was provided with detailed information concerning the exploration activities. As can be seen from the satellite image the main Nyota Prospect covers an area of 75 sq. km. on the southern boundary in the Seka Sector of the SGR (See maps in annex F used in the MANTRA presentation to the mission).

Other potential uranium deposits have been identified in the Madaba range, in the north eastern sector of SGR. The Madaba range is a priority conservation area as it is one of the few areas of SGR where a remaining presence of black rhino is documented. However, according to the information provided to the mission, for the moment no exploration permit has been granted or is under discussion for this deposit.

The mission carried out aerial and on-the-ground reconnaissance of the exploration site in the Seka Sector of the SGR together with WD staff and the MANTRA management/field staff. During the site visit the SGR Sector Warden noted that the MANTRA camp and equipment base servicing the Nyota Transect site were located inside the boundaries of the SGR World Heritage property, not outside as stated in the presentation made by MANTRA during the Dar es Salaam meeting with the mission.

The mission notes that the Government of Tanzania has not followed the correct procedure under the World Heritage Convention, as laid out in art. 172 of the Operational Guidelines, with regard to informing the World Heritage Committee of activities which could impact the values and integrity of the SGR, including specifically the active exploration of uranium deposits within and on the southern boundary of the SGR and the construction of a camp to support the exploration activities within the boundary of the property.

The World Heritage Committee on several occasions took a firm position against any mineral exploration or exploitation activities and that this position is endorsed by the major companies in the industry, represented by the International Council on Mining and Metals (ICMM).

Based on the initial reconnaissance carried out during the mission, the team is of the opinion that the impacts of the exploration activities and associated infrastructure are not irreversible and ecological restoration should be possible at the end of the exploration phase. The State Party should take appropriate actions to ensure that existing exploration sites are restored to international standards and the State Party should make a clear public statement that the current exploration permit was a one-off exception that does not set a precedent for future mineral exploration in Tanzania's protected areas. This should include a commitment **NOT** to further explore and develop the Madaba uranium deposits in a priority conservation area in the heart of the property.

Given the firm position of the World Heritage Committee on the incompatibility of mining within the boundaries of World Heritage properties, full scale mining of uranium should not go ahead considering the current boundaries of the property. The mission team expressed the view during the mission that, **in this particular and exceptional case**, it could be possible for the State Party to argue for a change in the boundaries in the Seka section of the property, in accordance with art. 163-165 of the Operational Guidelines. The mission team considered that this could be argued given (a) the potentially limited area affected (understood to be a maximum of 75 km<sup>2</sup> of an exceptionally large property whose total area is c.50,000 km<sup>2</sup>), (b) the mission team's assessment of the marginal biological significance of this area of the property, (c) its location at the extreme limits of the property, and (d) the potential to enhance the overall values of the property through the extension of the property to include areas of conservation significance. However, even if the Committee would agree to such a boundary change, following its evaluation by IUCN, it would be necessary for the State Party to demonstrate through a proper EIA process that the mining activities in the immediate vicinity of the property would have no significant impact on the values and integrity of the property. The mission recommends that, if a boundary change is requested by the State Party, the newly proposed boundary should be defined in the context of the overall Selous ecosystem. Such a revised boundary of the property should include significant additional areas of biological significance that more than compensate for and reduction in area on the southern boundary of the property.

IUCN notes that the boundaries of World Heritage properties should not be modified with the primary objective of facilitating mining, as this would not be in line with the "no-go" commitment to mining in World Heritage properties, and that any further work in line with the commentaries of the mission team during the mission should ensure that this principle is fully respected.

#### The Mission:

**R1:** *Notes that the State Party has not followed the correct procedure under the World Heritage Convention, as laid out in art. 172 of the Operational Guidelines and therefore recommends the State Party to inform the World Heritage Centre of all activities inside or in the vicinity of the property, which will potentially impact its values and integrity, and submit EIA's for these planned activities;*

**R2:** *Recalls that previous decisions of the World Heritage Committee have found exploration and extraction of minerals and oil and gas incompatible with the World Heritage Status and therefore recommends that the State Party takes appropriate actions to ensure that existing exploration sites are restored to international standards and that the State Party commit **NOT** to further explore and develop the Madaba uranium deposits in a priority conservation area in the heart of the Selous;*

### 3.2 Oil and Gas Exploration and Extraction

The mission discussed the issue of oil and gas exploration with WD, the Tanzanian Petroleum Development Corporation (TPDC) and various other stakeholders. In the meeting with TPDC, they stated their intention to proceed with exploration activities anywhere in Tanzania that appeared to have potential oil and gas reserves. TPDC officials provided the mission with the latest version (July 2008) of the “Tanzania Exploration Activity Map” which indicates that significant portions of the SGR are covered by exploration licences. In addition to the SGR, a number of other protected areas in Tanzania fall within areas for which TPDC has issued exploration licences.

In the 1970s, the first air magnetic work was done in the Selous sedimentary basin, demonstrating its potential for oil and gas. In the 1980s Shell undertook ground work to collect seismic data. To do this, a grid of cut lines was established, removing the natural vegetation and creating artificially small earthquakes through explosions to establish the thickness of the sediments above the basin. Two experimental wells were dug in Lukuliro and Ewale but no commercially exploitable oil was found and the activities were abandoned.

The exploration activities of the eighties had an important impact on the integrity and values of the Property. The cut lines remain visible until today. The dramatic increase in elephant poaching during this period, reducing the elephant population from more than 100,000 in 1980 to around 30,000 in 1989, has also been linked to the improved accessibility of the property to poachers via the cut lines.

In 2005 the Tanzanian Government and the Tanzanian Petroleum Development Corporation (TPDC) signed a Production Sharing Agreement (PSA) with Dominion Oil and Gas Ltd<sup>1</sup> and Heritage Oil<sup>2</sup> Ltd for the Kisangire PSA. The PSA includes the Lukuliro licence. In 2006, a PSA was signed with Dominion for the Selous PSA, to the south of the Lukuliro licence. Both the Lukuliro licence and the Selous PSA overlap with a large part of the SGR (see map in annex G).

In the PSA, the Government commits to provide an exploration licence with the 30 days following its signature. However, the terms of the agreement also stipulate that an EIA is mandatory “prior to any major petroleum operations”. The agreement further stipulates that “in environmentally sensitive areas, the EIA must be undertaken prior to seismic acquisition”.

Currently, Dominion and TPDC are pressing to start with further exploration activities in both the Lukuliro and Selous block. These would include additional seismic explorations and possibly the drilling of one or more experimental wells. To enable to start the exploration phase, the companies are seeking to start with the EIA process.

The mission was also informed that a stakeholder meeting was held in June 2008. Various stakeholders, including conservation NGO and the hunters association, that expressed their opposition to the proposed exploration in the meeting, based on fears that it would lead to similar impacts on the ecology of SGR as the earlier activities by Shell. The mission was informed that the report of the stakeholders meeting was still under preparation by WD.

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<sup>1</sup> Dominion Oil and Gas is a subsidiary of Dominion Petroleum, a UK company. The company website provides information on its Tanzania based activities at <http://www.dominionpetroleum.com/onshore-tanzania.asp>

<sup>2</sup> Heritage Oil is a Canadian company. The company website also provides information on its Tanzania operations at <http://www.heritageoiltd.com/tanzania.cfm>

The mission was informed by WD that so far it had not granted any permission to conduct exploration activities or even start the EIA process, based on the fact that the current legislation prohibits mining and oil exploration inside game reserves. However there continues to be pressure on the Ministry of Natural Resources and Tourism from other government ministries/departments to allow the exploration to go ahead. The mission was also informed that the Government is in the process of reviewing and amending the 1974 Wildlife Act. It is unclear if this revision would allow for mining and oil exploration within the protected areas.

During the field visit the mission was informed by WD staff in the SGR that individuals from the Tanzanian Petroleum Development Corporation (TPDC) and Dominion Oil and Gas Company had been to the SGR to take soil/rock samples on several occasions in 2007/2008. The mission team explained to the various stakeholders it met that the World Heritage Committee had always taken a very strong stand against any form of oil exploration or exploitation within World Heritage properties and that this position had been endorsed by major companies in the industry such as Shell and BP. It also pointed out that the granting of oil exploration rights had been one of the reasons leading to so far the only case of delisting of a property from the World Heritage List.

Under the Wildlife Regulations, the WD or the Ministry of Natural Resources and Tourism would need to issue permits to allow for exploration within protected areas and they are currently under growing pressure to approve permits to explore within the SGR and other protected areas in Tanzania. The mission recommended the WD to notify UNESCO World Heritage Centre and IUCN immediately if any permits appeared to be going forward for approval.

The mission:

**R3:** *Regrets that the Government of Tanzania has attributed exploration licenses for blocks situated with the World Heritage Property and considers that any decision to go forward with oil exploration would be a clear case for inscribing SGR on the List of World Heritage in Danger and commends the Wildlife Division for not granting permission to start oil exploration permits within the property.*

**3.3 Development of the Kidunda and Stiegler's Gorge Dams within or on the Boundary of the Property**

The anticipated growth in demand for water and energy in Tanzania poses potential challenges to the integrity of the property. Two potential dam projects with implications for the SGR were already reported.

Following the 2007 mission report, the World Heritage Committee at its 32 session (Quebec, 2008) expressed concern about a proposal to develop a dam on the Ruvu River at Kidunda, outside of the north-eastern corner of the reserve, to supply water to Dar es Salaam. The original proposal was to create a 9 billion M<sup>3</sup> reservoir which would have flooded significant areas within the reserve boundary. The 2007 mission was informed that the original proposal had been modified to a 150 million M<sup>3</sup> reservoir and that the new design which was proposed would have a limited impact on the Selous. The Committee at its 31 session (Christchurch 2007) requested the State Party to assess the potential impacts of the dam and to report the outcomes to the Committee, in line with paragraph 172 of the Operational Guidelines. No report was received prior to the mission.

The mission team requested a meeting with DAWASCO, the government parastatal that has proposed the dam, but the meeting did not take place due to the unavailability of DAWASCO management at the time of the mission. Following the mission, several requests for a written statement from DAWASCO have received no response. The mission was however able to do an flight over of the area where the dam is planned. In the State Party report received on 17 February 2009, it states that the newly proposed dam will cover between 25 and 30 km<sup>2</sup> and that the EIA concluded that the impact on SGR will be minimal. The report includes a table from the EIA study showing that only 2 km<sup>2</sup> of SGR will be flooded, and proposing the de-gazettement of this area. A copy of the EIA was not sent with the report. The mission stresses that before the de-gazettement, the State Party will need to request a change in boundaries of the property in accordance with art. 163-165 of the Operational Guidelines. The mission team was able to acquire a copy of the 66 page executive summary of the Environmental Impact Assessment, dated March 2008. According to the EIA, the current design will result in a permanent flooding of 2 km<sup>2</sup> of SGR, and in a seasonal flooding of 4 km<sup>2</sup>. In addition 10 km<sup>2</sup> of the Mkulazi Forest Reserve and 13 km<sup>2</sup> of the Gonabis Wetland and Jukumu WMA north of SGR will also be permanently inundated. The report concludes that while the flooding will cause some disruption in the migration routes, wildlife will be able to go around the dam. Given the limited flooding of SGR, compared to its total area, the report estimates that impacts on SGR will be minimal.

However, the report states that the currently proposed reservoir of 27 km<sup>2</sup> will only yield 60 M<sup>3</sup> and that a much larger dam covering at least 43 km<sup>2</sup> would be necessary to provide the planned 150 M<sup>3</sup> capacity. The EIA did not investigate the impacts of this alternative, for which a new EIA will have to be prepared.

The mission was unable to gather more information on the proposed Stiegler's Gorge hydroelectric dam, also mentioned in the 2007 mission report. Several stakeholders reported rumours that this project was again under discussion, but the mission was not able to get any confirmation of this. The mission was able to do an aerial reconnaissance of the area and confirms that if this project would go ahead, it would definitely have very serious implications for the integrity of the property.

The mission:

**R4:** *Regrets that, during the mission, the team was not provided with the information requested on the current status of the planned Kidunda dam or the Stiegler's Gorge hydropower project, and therefore requests the State Party to provide detailed information on the current status of these two projects as soon as possible;*

**R5:** *Recommends that the State Party ensures that all Environmental Impact Assesments (EIAs) for development activities in the vicinity of the property that are likely to have an impact on the World Heritage values of the SGR will be conducted to the highest standards and will be independently reviewed;*

### **3.4. The Effective Management of Wildlife Populations and the Impact of Hunting Activities**

At the start of the mission, the team met with representatives of the Tanzanian Hunters and Outfitters Association (TAHOA) in Dar es Salaam to discuss their views on the current situation concerning the management and regulation of the hunting industry in Tanzania and to arrange for a field visit to several hunting camps in the SGR. The TAHOA representatives welcomed the mission and stated that TAHOA members operated under a code of conduct that provided an additional level of

“quality control” over the activities of its members, in addition to the WD regulations. Arrangements were made for the mission to carry out field visits to two camps in the southern and central sectors of the SGR. Unfortunately the heavy rains encountered during the mission only allowed for one camp to be visited.

The mission visited the Kibaoni Hunting Camp of Pasanisi Safaris Ltd. and interviewed the camp manager. The camp had two French hunters in residence at the time of the visit and the mission team were shown the trophy room of the camp where trophies of various species were being prepared for shipping to clients (see photos – annex I).

Later in the mission, the team was able to discuss the results of the 2006 Aerial Census of the Selous ecosystem with WD and Tanzanian Wildlife Research Institute (TAWIRI) staff. It was noted that the estimate of the Selous elephant population had increased from a low point of 30,889 in 1989, to 63,039 in 2002, and continued to increase to an estimated population of 70,406 in 2006. This does not mean that elephants are not being poached in and around the Selous, but there is no evidence to show that poaching is having a negative impact on the Selous elephant population.

#### Wildlife population estimates trend in Selous ecosystem 1994-2006

Dry Season	1994		1998		2002		2006		d-test
Area km <sup>2</sup>	91,981		98,725		94,009		80,883		
Species	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	2002/06
<b>Declining populations</b>									
Buffalo	206,177	37,369	154,858	19,853	280,701	61,278	113,463	25,613	<b>-2.518</b>
Hippo	29,451	6,756	41,530	6,656	66,925	13,817	23,553	5,768	<b>-2.897</b>
Kongoni	17,806	2,951	24,297	4,250	18,830	4,942	5,605	2,140	<b>-2.456</b>
Sable	4,697	1,259	10,138	1,020	3,892	1,524	162	155	<b>-2.435</b>
Warthog	6,633	1,097	9,872	1,620	5,236	1,342	1,246	332	<b>-2.886</b>
G.hornbill	5,364	978	4,079	527	3,319	743	582	269	<b>-3.464</b>
Duiker	1,427	379	1,773	243	602	175	81	59	<b>-2.821</b>
<b>Stable populations</b>									
Greater kudu	1,140	425	206	119	1,344	804	24	26	<b>-1.641</b>
Eland	3,826	1,284	4,965	1,185	3,892	1,936	6,479	5,291	<b>0.459</b>
Elephant	47,989	5,973	55,954	10,234	75,781	9,305	70,392	10,913	<b>-0.376</b>
Giraffe	2,696	758	4,138	158	6,712	2,879	3,163	1,074	<b>-1.155</b>
Impala	33,546	5,860	25,952	3,299	54,130	14,557	25,543	6,193	<b>-1.807</b>
Puku	46,516	17,830	53,324	4,985	28,692	12,478	15,610	7,127	<b>-0.910</b>
Waterbuck	12,970	4,685	7,241	357	5,706	2,361	2,653	1,186	<b>-1.156</b>
Wildebeest	73,929	23,089	115,338	19,429	66,925	14,979	33,081	8,845	<b>-1.946</b>
Zebra	33,889	7,419	35,234	4,648	22,891	6,517	20,738	4,592	<b>-0.270</b>
Baboon	2,427	1,105	4,965	1,954	3,554	2,560	534	523	<b>-1.156</b>
Crocodile	2,381	1,785	3,192	761	273	233	534	358	<b>0.611</b>
Bushbuck	185	80	147	64	38	33	185	141	<b>1.015</b>
<b>Indeterminate population estimates</b>									
Dik-dik			29	28	169	117	-	-	-
Elephant bones	130	68	59	40	902	867	-	-	-
Roan			88	48	2,247	961	-	-	-
Reedbuck	2,427	1,612	2,423	568	235	135	-	-	-
Topi			177	172	66	66	-	-	-
Lion			59	58	169	119	-	-	-

Source: TAWIRI, 2009

A report by TAWIRI analyzing the results of the 2006 aerial census of the Selous ecosystem was received after the mission. The report shows that despite the positive trend in elephant numbers, the results for a number of other species, including buffalo, hippo, kongoni, sable, wildebeest and impala show significant declines between the 2002 and 2006. The mission is concerned that this could indicate that the reduction in the Selous operating budget is leading to renewed poaching activities and a general decline in the level of management of the SGR. However, there is significant evidence to suggest that the declines in numbers of several species may be related to technical problems with the set up and implementation of the survey, rather than real population declines.

The mission notes that the hunting industry plays a indispensable role in the management of the SGR, and its surrounding buffer zones, through the development of infrastructure, patrolling of hunting blocks, provision of information on wildlife and human activities, and the generation of significant amounts of income for the Government of Tanzania, local communities and potentially for the management of the SGR, but considers that the future management of hunting requires a number of improvements to ensure sustainable management of the SGR's natural resources.

Important measures to further optimize the management of the SGR include:

- developing a transparent system for allocating hunting blocks;
- establishing hunting quotas based on improved scientific and technical information systems;
- improving ecological monitoring systems (as planned in the GMP), including the development of integrated databases that capture and analyze existing information from: trophy reports provided by professional hunters, ranger patrol reports, anti-poaching unit reports and aerial surveys;
- where necessary, developing new systems to fill information gaps in order to provide a better scientific/technical basis for management/utilization of the SGR's natural resources, as well as to better understand the impacts/benefits of consumptive and non-consumptive tourism; and

The mission:

**R6:** *Reiterates the recommendation of the 2007 mission that a detailed tourism strategy for the SGR be developed in line with the framework and principles outlined in the GMP. The strategy should clearly state the vision for both consumptive (i.e. hunting) and non-consumptive (i.e. photographic) tourism in the SGR and its buffer zones.*

**R7:** *Considers that the future management of hunting requires a number of improvements to further optimize the management of the SGR , in particular: the development of a transparent system for allocating hunting blocks; establishing hunting quotas based on improved scientific and technical information systems; and improving ecological monitoring systems and developing new systems to fill information gaps in order to provide a better scientific/technical basis for management/utilization of the SGR's natural resources, as well as to better understand the impacts/benefits of consumptive and non-consumptive tourism;*

**R8:** *Recommends that the next regular aerial survey of the Selous ecosystem, scheduled for 2010, should be carried out to a high standard and that certain portions of the survey should involve technical support from the international conservation community (including, among others, the IUCN SSC, wildlife research institutes,*

*universities and NGOs with expertise in aerial surveys/management of African natural resources), with the objective of further refining the survey techniques and data analysis. The mission Team suggests that the 2010 survey should be developed as a capacity building exercise for SGR, WD, Tanzania National Parks (TANAPA), Tanzania Wildlife Research Institute (TAWIRI) and Ngorongoro Conservation Area (NCA) staff;*

### **3.5 Legal and Regulatory Issues**

The Mission notes that there have been significant delays in the implementation of the provisions of the Tanzanian Wildlife Policy (1998), which includes important measures concerning community ownership of wildlife in the Wildlife Management Areas (WMAs). This is a key component of the Community Based Conservation (CBC) programme in the communities surrounding the SGR. In March 2007 the revised policy was approved and it is now being implemented.

The mission met with the Chair and 18 members of the Ngarambe WMA Committee on the boundary of the Kingupira sector of the SGR. The WMA was initiated in 1998 with support from the GTZ project and since 2003 has received technical support from WWF. The Committee employs 20 village game scouts to manage the WMA and are currently earning US\$30,000 per annum from tourist hunting. In addition the Committee sets aside part of the WMA quota for local villages to utilize for meat and other animal products. One of the female committee members stated that “villagers in the WMA’s have benefited from the WMA through better housing, access to electricity, safe/clean water and other lifestyle improvements.”

In addition to wildlife management the WMA Committee is involved in a wide range of activities, including developing school programmes on conservation issues (fuel efficient stoves, tree planting, soil conservation and fish farming).

#### The mission:

***R9: Strongly recommends that the State Party speeds up the process of developing community ownership of wildlife in WMAs by engaging with other African countries such as Namibia which have successfully developed community managed wildlife areas in order to profit from the lessons they have learned in addressing the legislative, institutional and operational constraints, both in theory and practice.***

### **3.6 Progress in the implementation of the recommendations of the 2007 mission**

The main recommendations of the 2007 monitoring mission were included in Decision 31 COM 7B.3 (Christchurch, 2007) of the World Heritage Committee.

The mission noted in its meeting with the Director of Wildlife at the start of the current mission that there had been no State Party response to the recommendations made by the 2007 mission. The Director instructed the staff of the Wildlife Division to prepare a report on the recommendations of the 2007 mission as soon as possible and a report was submitted in February 2009.

A number of recommendations from the 2007 mission that continue to require attention were dealt with in the previous sections (analysis of the results of the 2006 annual census, the question of the potential dams,...), but the current mission wishes to emphasize that there is one issue that is critical to the future of the SRG and

therefore is highlighted for urgent attention, namely the urgent reinstatement of the Revenue Retention Scheme.

One of the most critical issues identified by the 2007 Reactive Monitoring mission was the decline in funding for the management of the SGR following the suspension of the Revenue Retention scheme in 2004. Over the period 1994 to 2004 the retention scheme provided the Selous management team with an annual operational and development budget that increased from US\$ 928,000 to US\$2,800,000.

Following the suspension of the Revenue Retention Scheme the MNRT reduced the operational and development budget, from US\$2,800,000 in 2004 to a budget ceiling of US\$800,000 in 2008.

The 2007 mission noted concern that the improved state of conservation achieved in the Selous during the period 1994-2004 (when the Revenue Retention Scheme was in place) was not being maintained under the current budget restrictions and urged the Government of Tanzania, the Ministry of Natural Resources and Tourism and the international donor community to ensure that the SGR management team have the resources required to maintain the integrity of this important World Heritage property.

At the time of the mission, the Revenue Retention Scheme was not yet restored and the mission believes that it is evident from its field visit that the SGR management team is lacking the resources to ensure a successful implementation of the SGR General Management Plan and to deal with the increasing threats to the property. The State Party report, submitted in February 2009 following the mission, noted that “the Ministry in collaboration with the Ministry of Finance are in the process of restoring retention scheme.”

The mission:

***R10:*** *Reiterates the different recommendations of the 2007 mission, in particular the recommendation requesting the State Party to reinstate the Revenue Retention Scheme to ensure that the SGR management team has the resources required to maintain the World Heritage values and integrity of the property.*

### **3.7 Other Issues**

#### **3.7.1 Tunduru-Songea road**

The Tunduru-Songea road is situated 60 km south of the property and crossing the Selous – Niassa corridor. Following discussions with WD staff and other stakeholders, the mission is of the opinion that the on-going upgrading of the road is not a significant threat to the Property itself and only a limited threat to the wildlife corridor linking the SGR to Niassa Game Reserve in Mozambique. The upgrading of the road could result in increased human immigration into the corridor area. However through the Selous – Niassa Wildlife corridor project, efforts are underway to ensure that the natural vegetation in certain areas along the road is preserved to ensure that wildlife can continue to migrate between SGR and Niassa Game Reserve.

### 3.7.2 Invasive species

The mission received information after the field visit that SGR is increasingly affected by invasive species. The main problems that are reported are the infestation of water courses and rivers with water lettuce (*Pistia stratiotes*) and to a lesser extent Red Water Fern (*Azolla filliculoides*). There are also reports of *Mimosa pigra*, just outside the SGR. Although it has not yet been documented inside SGR, it is highly likely that it can also be found there. *Mimosa pigra* is known to invade floodplains, developing dense impenetrable thickets and destroying the grazing habitat.

## 4. ASSESSMENT OF THE STATE OF CONSERVATION OF THE PROPERTY

SGR was inscribed on the World Heritage List in 1982 under natural criteria (ix) and (x). However no detailed Statement of Significance was adopted which clearly stated the values for which SGR was being inscribed under these criteria. This is the case for most of the properties inscribed in the early days of the Convention. Currently the Committee has started a process, as part of the new periodic reporting cycle, to develop retrospectively "Statements of Outstanding Universal Value (SOUV)" for all properties inscribed on the World Heritage List.

In order to assess the Outstanding Universal Value of the property, the mission team developed a first draft of the Statement of Outstanding Universal Value, based on the elements available in the nomination file, the IUCN evaluation, as well as other scientific information available on SGR. As this statement is drafted retrospectively, efforts were made to reflect the Outstanding Universal Value (values, integrity, protection and management) at the time of inscription. The draft prepared by the mission team can be found in Annex H. The mission team stresses that this is a working draft and encourages the State Party to further develop the SOUV and submit it to the Committee for adoption.

The mission concludes that **the Outstanding Universal Value of the Property is currently being maintained.**

Values for which the property is inscribed: The diversity of ecosystems of the property is being maintained and SGR remains one of the largest remaining wilderness areas in which undisturbed ecological processes can take place (criterion (ix)). At the same time, the diversity of the flora and fauna is maintained (criteria (x)). SGR continues to harbour the largest world populations of African elephant, wild hunting dog, buffalo and hippopotamus. The elephant population has declined since the time of inscription but has seen a remarkable recovery since the low of 1989 and the population now seems stable. However, the black rhino population, estimated at 3000 at the time of inscription, has suffered a lot. Nevertheless, a viable remnant population exists and recovery seems on-going, though it will be difficult to return to the earlier numbers.

Integrity of the property: is currently being maintained. The mission estimates that the 75km<sup>2</sup> mining exploration concession in the south of the SGR, while having a localised impact, is not affecting the overall integrity of the property. Several stakeholders mentioned that poaching incidents are again increasing, but based on the evidence presented, the mission feels that current poaching levels are not beyond the replacement capacity of the species and are not affecting the integrity or values of the property.

To ensure the long term integrity of the property, the mission recommends that the SGR should be managed as part of a larger landscape. Such an approach could have the World Heritage property as the core conservation area of the Selous

ecosystem, surrounded by buffer zones and wildlife corridors<sup>3</sup> that are managed to provide a sustainable future for the wider area's natural resources and people (see Selous Ecosystem Schematic below). The mission notes that a well managed Selous ecosystem could provide significant benefits to the wider region, the Tanzanian nation and, potentially northern Mozambique as well.

The mission stresses that if the State Party would go ahead with the oil exploration and exploitation activities or other major developments inside the property, such as the Stiegler's Gorge hydroelectric dam, this would have serious impacts on the integrity of the property and would constitute a clear case for inscribing SGR on the List of World Heritage in Danger.

The mission is concerned that the high level of management and protection of the property that was put in place with support of the GTZ project is no longer being maintained. The mission considers that the main reason for this is the inadequate funding for the management of the property, as a result of the interruption of the retention scheme. The mission is concerned that if the issue of adequate resources for the property is not solved urgently, WD will have increasing problems to contain the threats and pressures, in particular poaching.

The Mission suggests that a workshop designed to assist with the implementation of the above recommendations related to improved scientific and technical input to the management of the property would be useful. Such a workshop could consider:

- Carrying out a Strategic Environmental/Economic Assessment of the Selous ecosystem, including the development of a sustainable financing mechanisms for the SGR;
- Analyzing the results of the regular aerial surveys that have been carried out since 1976, assisting with preparations for the 2010 aerial survey, and preparation of a plan for an ecological monitoring programme;
- Assisting with a review of the implementation of the GMP, including the further development of a Tourism Strategy;
- Making recommendations on the revision of the WH boundary and the designation of buffer zones.

The mission:

**R11:** *Recommends that the SGR should be managed as part of a larger landscape (i.e., the greater Selous ecosystem) and that the State Party consider a review and possible extension of the boundary of the property and/or the strengthening/creation of buffer zones/corridors.*

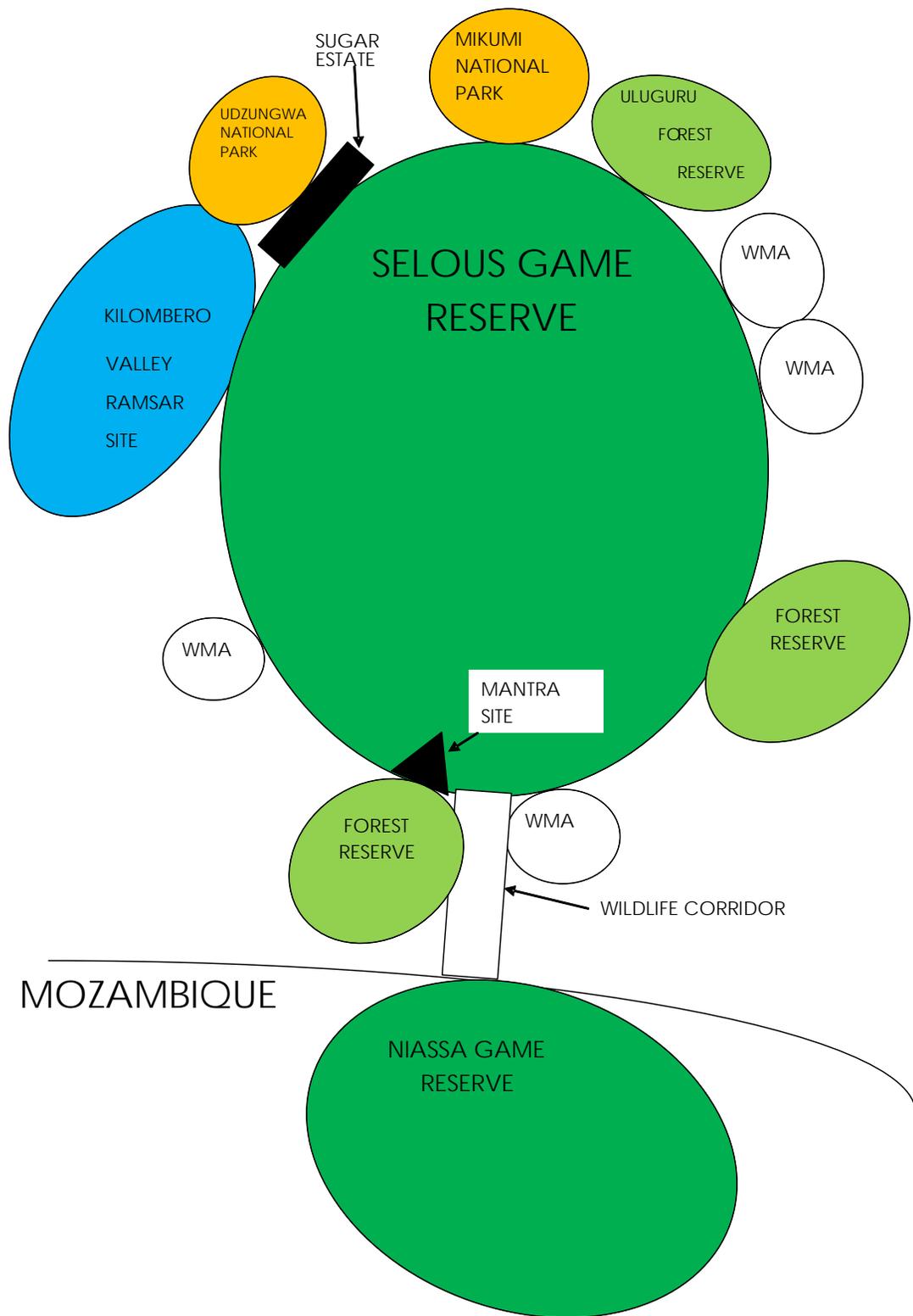
**R12:** *Recommends that the State Party further develops the Statement of Outstanding Universal Value drafted by the mission team and submits it to the World Heritage Committee for adoption.*

**R13:** *Recommends that the State Party organize, in cooperation with UNESCO, IUCN and other interested parties, a workshop designed to assist with the implementation of the above recommendations related to improved scientific and technical input to the management of the property. The mission proposes that the State party would request assistance from the World Heritage Fund for this workshop.*

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<sup>3</sup> The larger Selous ecosystem, includes Mikumi National Park and Kilombero Ramsar Site/Game Control Area (GCA). In addition, the surrounding community managed Wildlife Management Areas (WMAs), other GCAs/Open Areas, forest reserves, the Selous-Niassa Wildlife Corridor and, possibly, Udzungwa National Park

# SELOUS ECOSYSTEM



## 5. CONCLUSIONS AND RECOMMENDATIONS

On the basis of the evidence seen by the mission, the mission concludes that the natural values, as currently stated (i.e. those which led to the SGR being inscribed as a World Heritage Site in 1982), would appear to be being maintained. However, in relation to future management and monitoring of the site the proposed SoOUV should provide a clearer definition of the site's natural values, as well as specific baseline information, against which the State Party and future reactive monitoring missions would be able to more effectively assess the state of conservation of the site.

The mission has the following conclusions and recommendations, based on the issues identified in the preceding sections:

### The mission:

**R1:** Notes that the State Party has not followed the correct procedure under the World Heritage Convention, as laid out in art. 172 of the Operational Guidelines and therefore recommends the State Party to inform the World Heritage Centre of all activities inside or in the vicinity of the property, which will potentially impact its values and integrity, and submit EIA's for these planned activities;

**R2:** Recalls that previous decisions of the World Heritage Committee have found exploration and extraction of minerals and oil and gas incompatible with the World Heritage Status and therefore recommends that the State Party takes appropriate actions to ensure that existing exploration sites are restored to international standards and that the State Party commit **NOT** to further explore and develop the Madaba uranium deposits in a priority conservation area in the heart of the Selous;

**R3:** Regrets that the Government of Tanzania has attributed exploration licenses for blocks situated with the World Heritage Property and considers that any decision to go forward with oil exploration would be a clear case for inscribing SGR on the List of World Heritage in Danger and commends the Wildlife Division for not granting permission to start oil exploration permits within the property.

**R4:** Regrets that, during the mission, the team was not provided with the information requested on the current status of the planned Kidunda dam or the Stiegler's Gorge hydropower project, and therefore requests the State Party to provide detailed information on the current status of these two projects as soon as possible;

**R5:** Recommends that the State Party ensures that all Environmental Impact Assessments (EIAs) for development activities in the vicinity of the property that are likely to have an impact on the World Heritage values of the SGR will be conducted to the highest standards and will be independently reviewed;

**R6:** Reiterates the recommendation of the 2007 mission that a detailed tourism strategy for the SGR be developed in line with the framework and principles outlined in the GMP. The strategy should clearly state the vision for both consumptive (i.e. hunting) and non-consumptive (i.e. photographic) tourism in the SGR and its buffer zones.

**R7:** Considers that the future management of hunting requires a number of improvements to further optimize the management of the SGR, in particular: the development of a transparent system for allocating hunting blocks; establishing hunting quotas based on improved scientific and technical information systems; and

*improving ecological monitoring systems and developing new systems to fill information gaps in order to provide a better scientific/technical basis for management/utilization of the SGR's natural resources, as well as to better understand the impacts/benefits of consumptive and non-consumptive tourism;*

**R8:** *Recommends that the next regular aerial survey of the Selous ecosystem, scheduled for 2010, should be carried out to a high standard and that certain portions of the survey should involve technical support from the international conservation community (including, among others, the IUCN SSC, wildlife research institutes, universities and NGOs with expertise in aerial surveys/management of African natural resources), with the objective of further refining the survey techniques and data analysis. The mission Team suggests that the 2010 survey should be developed as a capacity building exercise for SGR, WD, Tanzania National Parks (TANAPA), Tanzania Wildlife Research Institute (TAWIRI) and Ngorongoro Conservation Area (NCA) staff;*

**R9:** *Strongly recommends that the State Party speeds up the process of developing community ownership of wildlife in WMAs by engaging with other African countries such as Namibia which have successfully developed community managed wildlife areas in order to profit from the lessons they have learned in addressing the legislative, institutional and operational constraints, both in theory and practice.*

**R10:** *Reiterates the different recommendations of the 2007 mission, in particular the recommendation requesting the State Party to reinstate the Revenue Retention Scheme to ensure that the SGR management team has the resources required to maintain the World Heritage values and integrity of the property.*

**R11:** *Recommends that the SGR should be managed as part of a larger landscape (i.e., the greater Selous ecosystem) and that the State Party consider a review and possible extension of the boundary of the property and/or the strengthening/creation of buffer zones/corridors.*

**R12:** *Recommends that the State Party further develops the Statement of Outstanding Universal Value drafted by the mission team and submits it to the World Heritage Committee for adoption.*

**R13:** *Recommends that the State Party organize, in cooperation with UNESCO, IUCN and other interested parties, a workshop designed to assist with the implementation of the above recommendations related to improved scientific and technical input to the management of the property. The mission proposes that the State party would request assistance from the World Heritage Fund for this workshop.*

## **ANNEXES**

Annex A	Decision of the 2008 WH Committee SGR.
Annex B	Terms of Reference of the mission
Annex C	Itinerary for the Mission
Annex D	Individuals/Organizations met during the Mission
Annex E	Map of Selous Game Reserve
Annex F	Maps of the mining exploration area
Annex G	Map of the Lukuliro and Selous PSA
Annex H	Draft Statement of OUV
Annex I	Photographs

## Annex A - Decision of the 2008 WH Committee on Selous Game Reserve.

### Decision: 32 COM 7B.3

#### Selous Game Reserve (United Republic of Tanzania) (N199)

The World Heritage Committee,

1. Having examined Document *WHC-08/32.COM/7B.Add*,
2. Recalling Decision **31 COM 7B.3**, adopted at its 31st session (Christchurch, 2007),
3. Expresses its sincerest condolences to the family of the game reserve officer who was killed recently;
4. Regrets that the State Party did not submit a report on the state of conservation of the property and on the implementation of the recommendations of the 2007 mission;
5. Expresses its utmost concern about reports received by the World Heritage Centre and IUCN of uranium prospecting within the property and in the wildlife corridor; and reiterates its position that mining is incompatible with the World Heritage status of the property;
6. Urges the State Party to halt any prospecting or other mining developments within the property and calls upon the holders of any mining or exploration permit covering the property to respect international standards with respect to mining in World Heritage properties, as outlined in the International Council on Mining and Metals Position Statement on Mining and Protected Areas (2003) and not to mine or explore within World Heritage properties;
7. Notes with concern other potential developments within or in the vicinity of the property which might impact its Outstanding Universal Value and integrity, in particular planned dam developments and the proposed upgrading of the Tunduru- Songea road and also urges the State Party to submit information to the World Heritage Centre on the status of these projects and their potential impact on the property, in accordance with Paragraph 172 of the *Operational Guidelines*;
8. Further urges the State Party to implement the recommendations of the 2007 monitoring mission;
9. Requests the State Party, in consultation with the World Heritage Centre and IUCN, to develop a draft Statement of Outstanding Universal Value, including the conditions of integrity, for examination by the World Heritage Committee at its 33rd session in 2009;
10. Also requests the State Party to invite a joint World Heritage Centre / IUCN Reactive Monitoring mission to the property as foreseen in Decision **31 COM 7B.3**, to take place during the 2008/2009 dry season in order to assess the state of conservation of the property, in particular the effective management and impact of hunting activities on the Outstanding Universal Value and integrity of the property;
11. Further requests the State Party to submit to the World Heritage Centre, by **1 February 2009**, a detailed report on the state of conservation of the property, including the status of wildlife populations, the levels of hunting and poaching, status of the planned and on going mining and development projects with potential impact on the property and on progress in the implementation of the recommendations of the 2007 monitoring mission, for examination by the World Heritage Committee at its 33rd session in 2009.

## **Annex B : Terms of Reference of the Mission**

Undertake the joint UNESCO-WHC / IUCN Reactive Monitoring Mission from 23 - 30 November to the **SGR** World Heritage property in United Republic of Tanzania. The mission should:

- (i) Assess the state of conservation of this property and the factors affecting the Outstanding Universal Value of the property, in particular the status of the ecosystem and key/endangered wildlife populations and the causes of the reported declines in their populations;
- (ii) Assess the status of the issues identified as potential threats to the Outstanding Universal Value and integrity of the property particularly those identified in previous reports including:
  - a) Management and development of hunting tourism;
  - b) Poaching;
  - c) Mineral and hydrocarbon prospecting and mining;
  - d) Insufficient funding and revenue retention scheme
  - e) Proposed cattle driving route;
  - f) Potential and proposed dam development and proposed upgrading of the Tunduru-Songea road
- (iii) Assess progress in implementing the recommendations of the joint UNESCO/ IUCN mission carried out in June 2007 (see Annex A to the terms of reference);
- (iv) Hold consultations with the Tanzanian authorities and relevant stakeholders to examine and evaluate the progress made since the last World Heritage Committee with the requested EIAs of all proposed mineral mining and dam development and any other activities that could potentially affect the integrity of the World Heritage property (see Decision 30 COM 7B.3 attached);
- (v) Request from and review with the Tanzanian authorities data on hunting including target species and number of animal killed and revenue raised; and any other relevant studies and data on wildlife and habitat in the property;
- (vi) Discuss progress towards carrying out regular independent evaluations of the implementation of the Selous GMP (see Decision 31 COM 7B.3);
- (vii) Request a progress report on the analysis of the 2006 Aerial Census of Selous ecosystem by an independent team of experts and the submission of results of the analysis to the World Heritage Centre and IUCN (see Decision 31 COM 7B.3);
- (viii) Hold consultations with the Tanzanian authorities and relevant stakeholders to examine the changes in the income retention scheme from commercial hunting that should support conservation and management of the World Heritage property and evaluate the progress made in relation to this issue since the last World Heritage Committee (see Decisions attached in Annexes B-D);

- (ix) On the basis of the foregoing findings, make recommendations to the Government of Tanzania and the World Heritage Committee for improving the conservation and management of the property;
- (x) Prepare a mission report on the findings and recommendations of this Monitoring Mission following the attached format (see Annex E), and submit it to the UNESCO World Heritage Centre and IUCN Headquarters by 20 January 2009 at the latest in an electronic version. This report should be prepared jointly with the other World Heritage Centre and Advisory Body participants involved in the mission, with the IUCN expert focusing on the natural values of the property. IUCN representatives to the mission will originate the first draft of mission reports, unless other arrangements are agreed at the time of the mission.

## **Annex C – Itinerary for the mission**

- 23/10 Flight to Dar-es-Salaam
- 24/10 Meeting at the UNESCO office with the Specialist for Culture, Tim Curtis
- Meeting with Wildlife Division, Antiquities Department and Ministry of Natural Resources and Tourism (MNRT) to discuss the programme of the mission
- Meeting with representatives Tanzania Hunting Operators Association (TAHOA)
- Meeting with the Director and Senior Staff of the Wildlife Division, MNRT
- Meeting with Country Manager MANTRA Resources Ltd.
- Meeting with Dr Sosovele (WWF/U of Dar es Salaam - Inst. of Res. Assessment - IRA)
- 25/10 Flight to Lukuyu (Seka – South Western Sector, SGR) with Cessna 206 Wildlife Division Aircraft
- Meeting Sector Warden, Seka
- Travel to Namtumbo. Meeting with Rudi Hahn, Technical Advisor UNDP/GTZ project for the Selous-Niassa Wildlife Corridor
- Return to Lukuyu. Meeting with Principal Community Based Conservation Training Centre (CBCTC)
- 26/10 Field Visit to Seka Sector and to MANTRA field camp. Site visit to the uranium mining exploration activities and discussion with MANTRA staff.
- 27/10 Aerial flight over uranium mining exploration area; low altitude flight to Kibaoni Hunting Camp (Ilonga – Western Sector, SGR) with Wildlife Division Cessna 206 aircraft
- Visit of the Kibaoni hunting camp of Mr Pasanisi. Discussion with camp manager and staff.
- Low altitude flight to Kingupira (North Eastern Sector SGR) with Wildlife Division Cessna 206. Meeting with Sector Warden Kingupira and game officers
- Meeting with village chairman Ngarambe Village. Arrangements to meet Ngarambe Wildlife Management Area (WMA) Committee
- 28/10 Meeting with staff TAWIRI research station Kingupira
- Meeting with Ngarambe Wildlife Management Area Committee
- Field visit North Eastern Sector, SGR
- 29/10 Departure delayed because of rain (plane could not arrive from Dar)
- Visit TAWIRI library
- Travel by car to Mtemele gate (Northern Sector SGR). Arrival 9 pm.

30/10 Short meetings with Station Manager Mtemele and Fraser Smith (Selous Rhino Project)

Low altitude flight to Matambwe (SGR Headquarters)

Meeting with Acting Project Manager and staff, Matambwe HQ.

Planned visit to Kadai (rhino sector) and overflight of rhino areas cancelled because of rain

Short game drive around Matambwe area including visit to Gonabis WMA

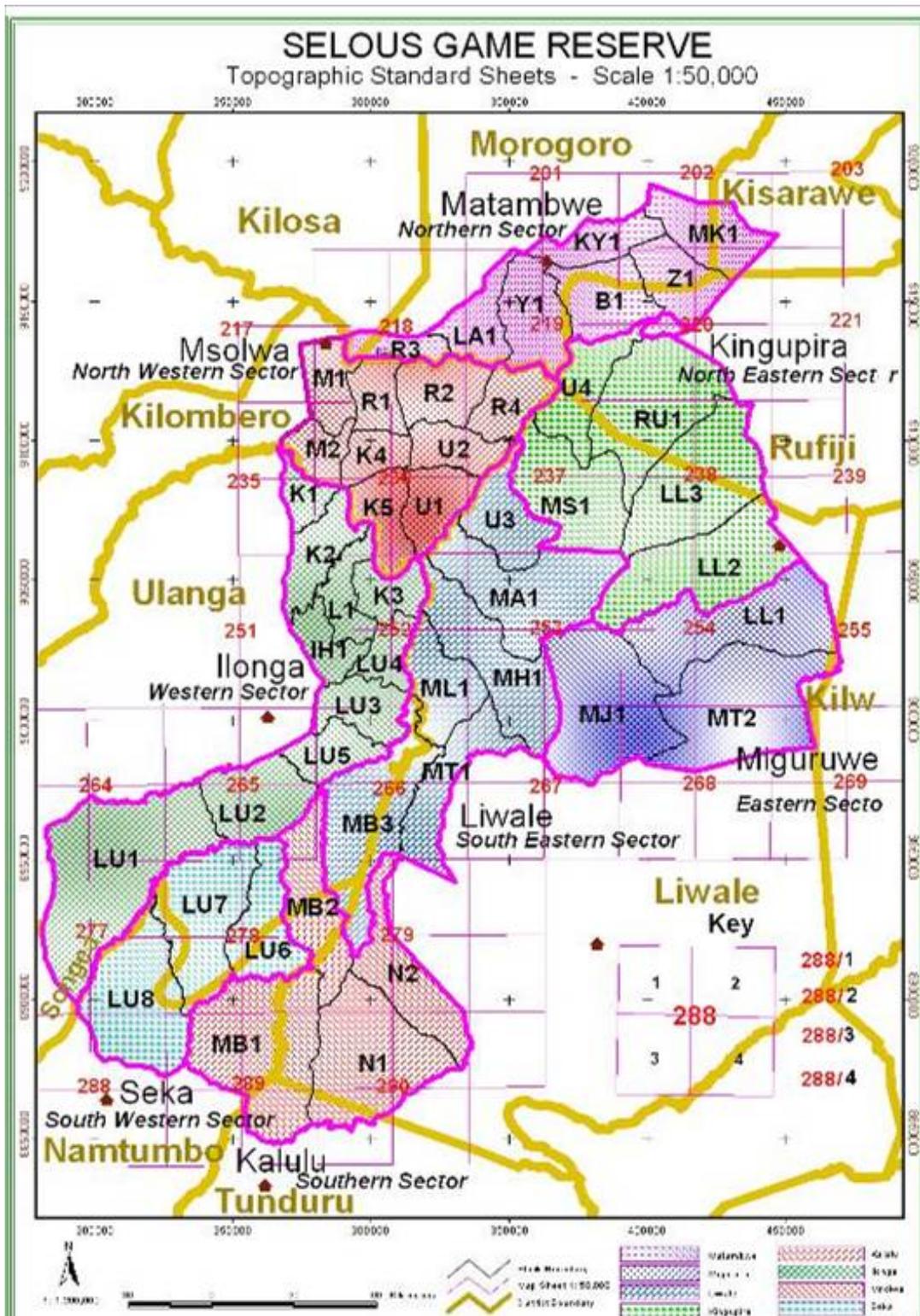
1/12 Flight over northern sector to look at rhino project area, area threatened by proposed Kidunda dam, Stieglers Gorge hydroelectric project and Behobeho Valley tourism area

Flight to Dodoma with Wildlife Division Cessna 206 for handover to Ngorongoro pilot and aircraft

## ANNEX D - LIST OF INDIVIDUALS / ORGANIZATIONS MET DURING THE MISSION

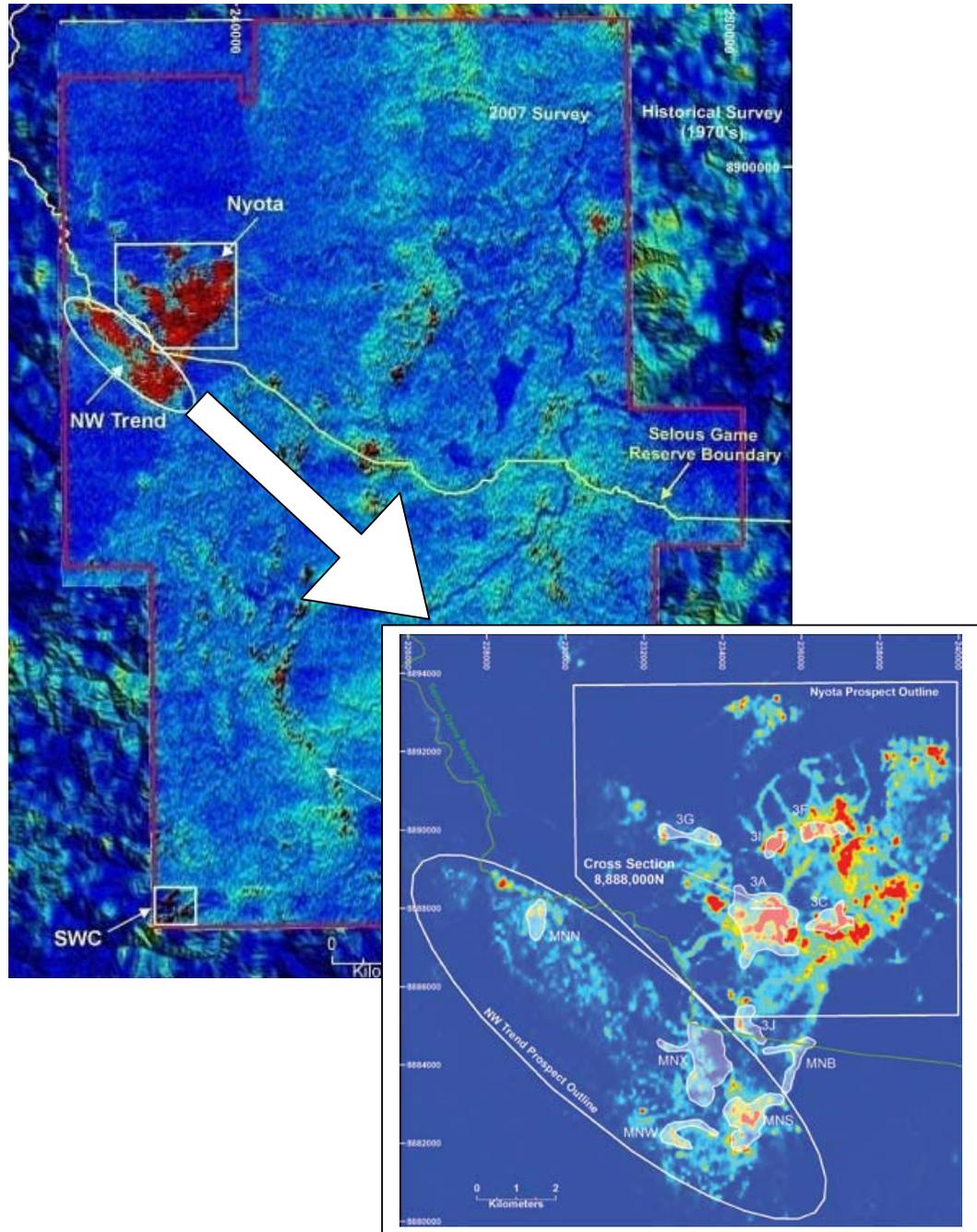
Donatius Kamamba	(Acting) Permanent Secretary, Min. of Nat. Res. and Tourism (MNRT) and Director, Antiquities Department
Erasmus Tarimo	Director, Wildlife Division (WILDLIFE DIVISION), MNRT
John Mbwiliza	Project Manager, SGR (SGR), WILDLIFE DIVISION
B. M. C. M. Midala	Assistant Director – Antipoaching, WILDLIFE DIVISION
Joas Makwati	Ecologist, SGR
Tim Curtis	Programme Specialist Culture, UNESCO Dar es Salaam
Eliwasa Maro	Principal Conservator, Antiquities Department
Tim Clarke	Ambassador, European Union
Obed Mbangwa	Asst. Dir. Wildlife Utilization, WILDLIFE DIVISION
C.M. Masanta	(Acting) Asst. Dir., W D
J.E. Kaaya	(Acting) Asst. Dir. RTS, WILDLIFE DIVISION
Bernard Shayo	Chief Pilot, Wildlife Division
Rajabu Amasi	Sector Manager, Seka, SGR
Johnson Msellah	Principal, CBCTC
Egidius Wabuga	Sector Manager, Kingupira, SGR
Azori Migeza	Game Officer, Kingupira, SGR
Abraham Jullu	Game Warden, Kingupira, SGR
Kassimus Kayoyo	(Acting) Project Manager, Matambwe, SGR
Patrick Kutondolana	Kadai Warden, SGR / Selous Rhino Project
Fraser Smith	Selous Rhino Project, Rhino Conservation Trust
David Hoyle	WWF Coastal East Africa Initiative
Rudolf Hahn	TA GTZ/UNDP/GEF Selous-Niassa Wildlife Corridor Proj.
Tony Devlin	Country Manager, MANTRA Resources Ltd.
Andrew Boyd	Geologist & Camp Manager, MANTRA
Joaquim Bonaventure	Finance & Administration Manager, MANTRA
Wilson Mutagwaba	MTL Consulting Co. Ltd. (MANTRA Environmental Adv.)
Gérard Pasanisi	President, TAHOA/ MD, Pasanisi Safaris
Addulkadir Mohamed	Secretary General, TAHOA/ Chair. Tourism Confed. of TZ
James Nyansika	Camp Mgr., Kibaoni Hunting Camp, Pasanisi Safaris
Ernest Mtuya	Camp Mgr., Hippo Camp, Mtemere Gate, SGR
19 Committee Members	Ngarambe WMA Committee
Simon Mduma	(Acting) Director General, TAWIRI
Nicephor Lesio	Kingupira Research Centre, TAWIRI
Honori Maziti	Researcher, TAWIRI
Michel Allard	Wengert Windrose Safaris &
Leon Lamprecht	Tanzania Wildlife Company (previously -TAWICO)
Halfani Halfani	Director Exploration, Prod. & Tech. Serv., TPDC
Omary Mtunguja	Principal Geophysicist, TPDC
Herry Kejo Kajato	Chief Exploration Geologist, TPDC
Sebastian Shana	Principal Petroleum Geologist, TPDC
Stella Rwechungura	Support Staff, UNESCO Office, Dar es Salaam

Annex E Map of Selous Game Reserve

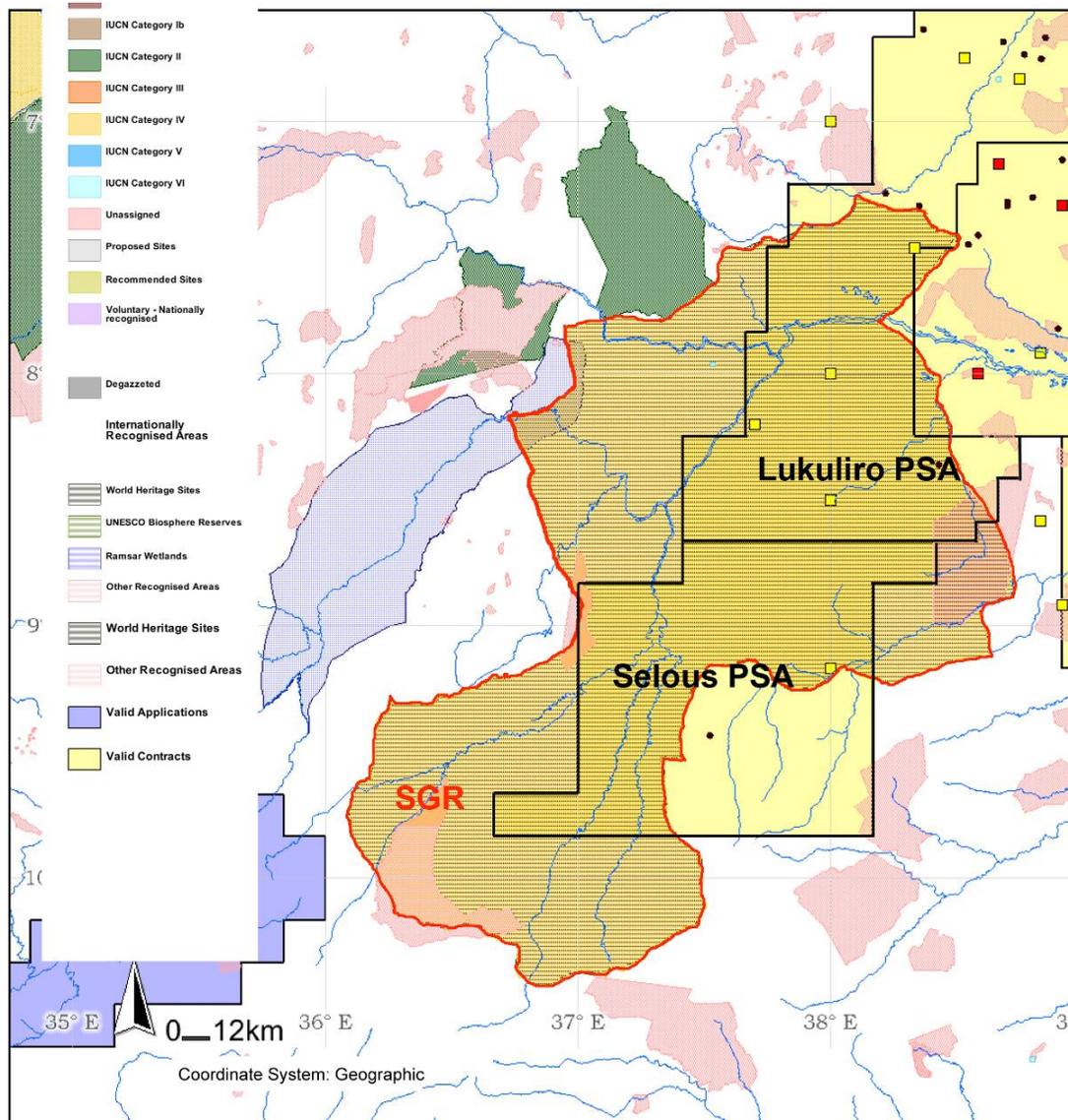


Annex F Maps of the mining exploration area

Satellite Image with Mantra Site and SGR Boundary Highlighted



## Annex G Map of the Lukuliro and Selous PSA



Copyright 2008, IHS , all rights reserved - Map generated using EDIN-GIS - Date: July 2008 - Author: James Leaton

## **Annex H : DRAFT Statement of Outstanding Universal Value Selous Game Reserve (United Republic of Tanzania)<sup>4</sup>**

### **Brief Synthesis**

The SGR (SGR) is the largest protected area in Africa, covering 50,000 square kilometres of wildlife-rich woodlands, grasslands and swamps. The SGR has no human occupation inside its boundaries and this minimal human influence together with its large size makes the SGR a unique laboratory for on-going ecological and biological processes. The Reserve protects the best example of “Miombo” woodlands and harbours one of the most significant concentrations of large mammals in the world.

### **Criteria**

#### **Criterion (ix): Ecological and biological processes**

The SGR lies at the heart of the 90,000 km<sup>2</sup> Selous ecosystem<sup>5</sup>. It is therefore the cornerstone of one of the largest remaining wilderness areas in Africa, with relatively undisturbed ecological and biological processes, including a diverse range of predator/prey relationships. The Reserve is predominately deciduous Miombo woodlands with open wooded grasslands and seasonally flooded woodlands dominated by *Borassus* palms north of the Rufiji River. South of the Rufiji River the vast area of Miombo woodlands is interlaced by a network of sand rivers that provide an unsurpassed example of African wilderness. The SGR also contains a great diversity of other vegetation types, including rocky acacia-clad hills, gallery and ground water forests, swamps and lowland rain forest. The Miombo woodlands present a fire-climax vegetation, with soils that are subject to erosion by the heavy November rains. The result is a network of normally dry rivers of sand that become raging torrents during the rains. These sand rivers are perhaps the most unique feature of the Selous landscape. As a result of the in-flow from its southern tributaries, large parts of the wooded grasslands of the northern Selous are seasonally flooded by the rising waters of the Rufiji river, creating a very dynamic ecosystem.

#### **Criterion (x): Biodiversity and threatened species**

The dominant Miombo woodlands and the diverse range of other habitats of the Selous result in a high plant diversity: more than 2100 plant species have been recorded and more are thought to exist in the remote forests in the south but have not yet been recorded. The reserve protects an impressive large mammal fauna and has a higher density and species diversity than any other miombo woodland. The SGR contains the largest populations in the world of African elephants (*Loxodonta africana*), black rhinoceros (*Diceros bicornis*) and wild hunting dog (*Lycaon pictus*)<sup>6</sup>. It probably also includes the world's largest known populations of hippopotamus (*Hippopotamus amphibius*) and buffalo (*Syncerus caffer*). The Miombo woodlands also host important populations of ungulates including sable antelope (*Hippotragus niger*), Lichtenstein's hartebeest (*Alcelaphus lichtensteinii*), greater kudu (*Tragelaphus strepsiceros*), eland (*Taurotragus oryx*) and Nyassa wildebeest (*Connochaetes albobatus*). 350 species of birds are recorded in the reserve,

<sup>4</sup> The Selous Game Reserve was originally inscribed on the WH List in 1982 before Statements of Outstanding Universal Value (SoOUV) were part of the nomination file. This retrospective SoOUV was developed and approved by the WHC in 2009.

<sup>5</sup> Ecosystem concept has developed since the SELOUS GAME RESERVE was inscribed in 1982 but was certainly part of the wilderness concept dealt with in the original nomination.

<sup>6</sup> ADD INFO ON NUMBERS AT TIME OF INSCRIPTION, AS WELL AS HISTORICAL AND CURRENT FIGURES

including the endemic Udzungwa forest partridge (*Xenoperdix udzungwensis*) and the rufous winged sunbird (*Nectarinia rufipennis*). Note these species to be verified with bird expert.

### ***Integrity***

With its vast size, the SGR contains relatively undisturbed on-going ecological and biological processes which sustain a wide variety of species and habitats. The integrity of the property is further enhanced by the fact that the Reserve is embedded within a larger 90,000 km<sup>2</sup> Selous Ecosystem, which includes national parks, forest reserves and community managed wildlife areas (WMAs). In addition the SGR has a functioning wildlife corridor with the 42,000 km<sup>2</sup> Niassa Game Reserve in Mozambique<sup>7</sup>. With no permanent habitation inside its boundaries, human disturbance is low. Wildlife off-take for tourist hunting is regulated by a quota system and should have no impact on the large resident animal populations.

### ***Management and Protection Requirements Necessary to Maintain OUV***

The property is managed as a game reserve, with a small area (10%) in the north dedicated to photographic tourism while most of the SGR (90%) (Percentages not verified) is managed as a hunting reserve. As long as quota are established and controlled in a scientific manner, the level of off-take should not impact wildlife populations and, in fact, generates substantial income which needs to be made available for the management of the reserve in order for the system to be sustainable. The very size of the Reserve presents important management challenges in terms of the levels of staffing and budget required to manage the SGR effectively. A functioning management plan is a critical requirement and was put in place at Date to be confirmed. Key management issues that need to be addressed are: control of poaching, in particular of elephants and black rhinoceros; ensuring sufficient benefits for the local communities through the wildlife management areas (WMAs)<sup>8</sup> and the improved management of hunting and photographic tourism. The long term integrity of the site would benefit from the further development and maintenance of ecological monitoring systems, and in particular the management of the SGR as part of a wider Selous ecosystem.

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<sup>7</sup> As with the ecosystem concept, wildlife corridors existed at the time of inscription but were not formally recognized.

<sup>8</sup> WMAs are a modern version of a system that allowed for resident populations to hunt wildlife under administrations in both independent and colonial times.

## ANNEX I – Photographs



Typical view of the Miombo Woodland sector of SGR with a group of Roan Antelope.



Typical view of Miombo Woodlands in the Seka sector of SGR.



Rufiji River in the tourism sector of SGR



Access roads in Mantra mineral exploration site, Seka Sector, SGR (note impact compared to previous image).



Rufiji River floodplain at the start of the rainy season, northern tourism sector of SGR



Road rehabilitation at Mantra mineral exploration site



Mission team with Selous Rhino Project Manager and the project aircraft, and the SGR pilot.



Students from Tanzania Tourism College carrying out practical studies within SGR.



Mission team meeting with the Kingapira Conservation Committee, one of the Community Conservation Committees established for SGR.



Meeting of the Kingapira Conservation Committee.