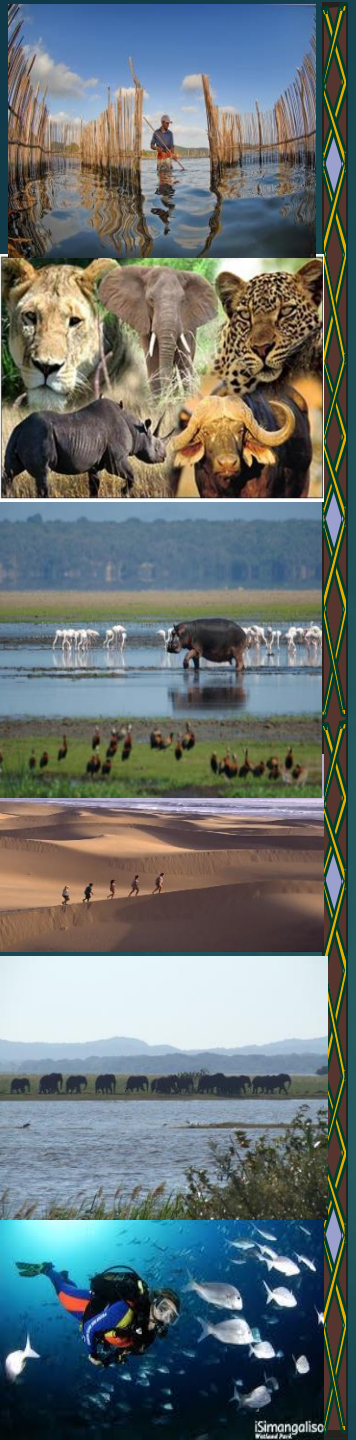


iSimangaliso
Wetland Park

KOSI BAY COASTAL FOREST LAKE SIBAYA SODWANA BAY UMKHUZE FALSE BAY CHARTERS CREEK LAKE ST LUCIA CAPE VIDAL MAPHELANE

PRESENTATION TO THE PORTFOLIO COMMITTEE

CHIEF EXECUTIVE OFFICER – MR SIBUSISO E. BUKHOSINI

08 February 2022

PRESENTATION OUTLINE

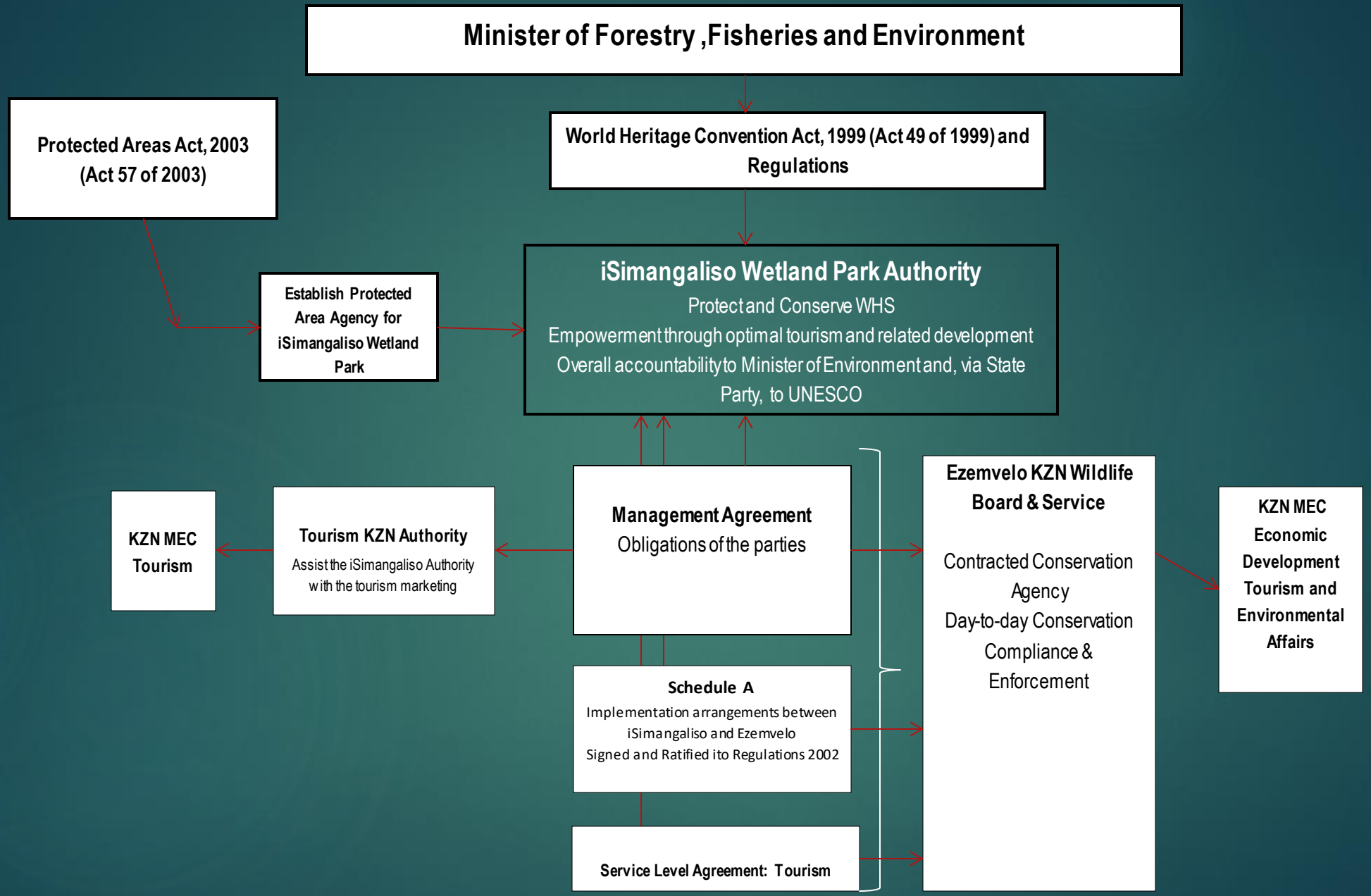
- The inscription of iSimangaliso as a World Heritage Site,
- Management Structure
- Regulatory framework,
- Historical Background of the St. Lucia Estuary;
- Fundamental reasons for the inscription of iSWPA as a World Heritage Park;
- Regulatory Framework underpinning the operations of the Park;
- The Global Environment Fund (GEF5) Project, problem statement, objectives and recommendations;
- Estuarine Management tools;
- Court case and Relief sought against iSWPA and the Court ruling;
- The St.Lucia Estuary Symposium and its resolutions;
- The ecological challenge of the St.Lucia Estuary;
- The socio-economic impact of the opening of the St. Lucia Estuary Mouth; and
- The Reported shooting incident by Ezemvelo KwaZulu Natal Wildlife (EKZNW) field rangers within iSimangaliso wilderness area.






ISIMANGALISO AS A WORLD HERITAGE SITE

- In 1999 iSimangaliso was inscribed onto the World Heritage List.
- iSimangaliso is listed as a World Heritage Site under the following criteria:
  - Ecological and biological processes;
  - Superlative natural phenomena, and
  - Biological diversity.


Minister of Forestry ,Fisheries and Environment
Protected Areas Act, 2003 (Act 57 of 2003)
World Heritage Convention Act, 1999 (Act 49 of 1999) and Regulations
Establish Protected Area Agency for iSimangaliso Wetland Park
iSimangaliso Wetland Park Authority
Protect and Conserve WHS
Empowerment through optimal tourism and related development
Overall accountability to Minister of Environment and, via State Party, to UNESCO
KZN MEC Tourism
Tourism KZN Authority
Assist the iSimangaliso Authority with the tourism marketing
Management Agreement
Obligations of the parties
Ezemvelo KZN Wildlife Board & Service
Contracted Conservation Agency
Day-to-day Conservation
Compliance & Enforcement
KZN MEC Economic Development Tourism and Environmental Affairs
Schedule A
Implementation arrangements between iSimangaliso and Ezemvelo
Signed and Ratified ito Regulations 2002
Service Level Agreement: Tourism

Regulatory Framework

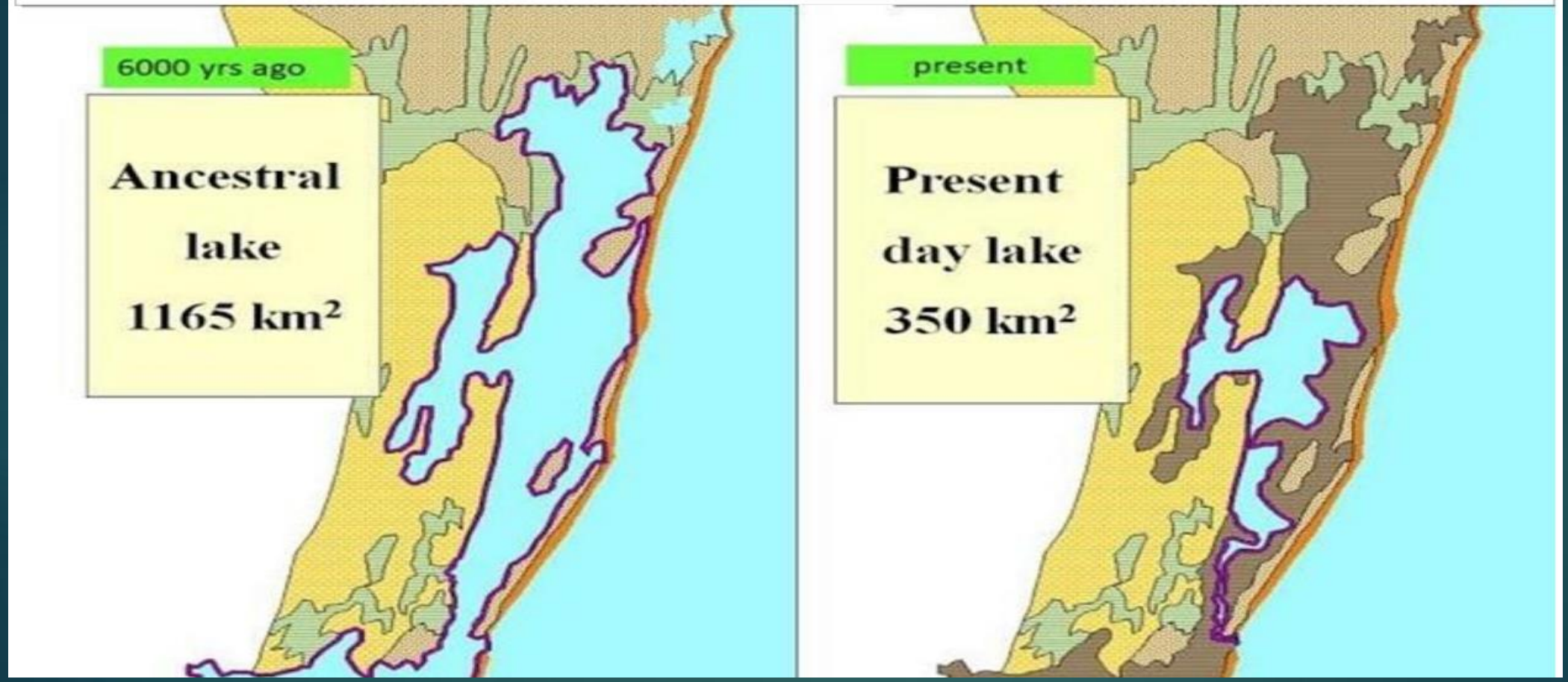
- World Heritage Convention Act, 2000
- World Heritage Regulations,2000
- NEMA(National Environmental Management Act, 1998
- NEMPAA (National Environmental Management: Protected Areas Act, 2004)
- NEMBA (National Environmental Management: Biodiversity act,)
- Marine Living Resources Act, 2004
- Integrated Coastal Management Act, 2008

BACKGROUND INFORMATION OF ST LUCIA ESTUARY

- Estuarine ecosystems are complex systems that are subjected to influences from marine, riverine and terrestrial ecosystems;
- **Estuaries** are home to unique plant and animal communities that have adapted to brackish water - a mixture of fresh water draining from the land and salty seawater;
- St Lucia Estuary is the **largest estuarine** lake in Southern Africa, covering an area of approximately 350 square kilometres (140 sq mi).

BACKGROUND INFORMATION OF ST LUCIA ESTUARY

6000 years ago it was a deep estuary 3x the present size.



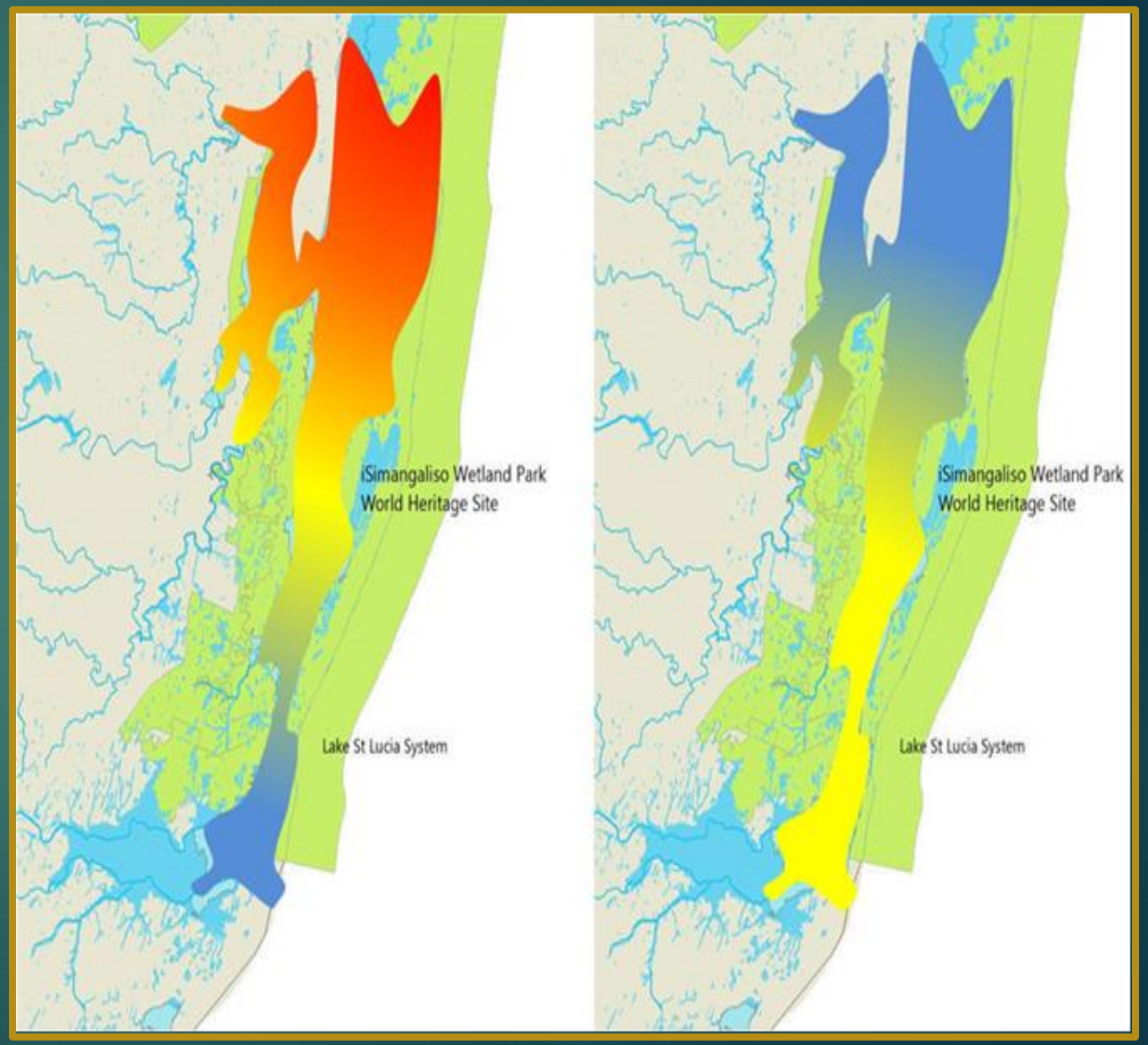
The system has always been dynamic and changing but exacerbated by human activities in modern times.

OPENING OF THE MOUTH

- For various reasons including agriculture in iMfolozi river flood plains, by the mid of 20th century, a government management decision to continuously dredge the mouth to channel iMfolozi river water into the sea was taken;
- Ezemvelo KZN Wildlife was assigned by the government to undertake the operations;
- The operation resulted in iMfolozi being separated from the St Lucia Estuary for a considerable number of years;
- This also limited the system from operating naturally, thereby continuously manipulating what happens to the mouth and the Estuary.

BREACHING IN THE 1950'S

- There was reduced injection of fresh water from the main river iMfolozi, resulting in high salinity levels in the estuary;
- High salinity led to extirpation of specific estuary biota;
- Shallow waters impacted negatively to species survival & tourism operations;
- This resulted in negation of natural processes in the whole system;



PROBLEM STATEMENT FOR GEF5 PROJECT

- High salinity of the estuary;
- System coerced to operate unnaturally through the separation of iMfolozi river with the St. Lucia Estuary;
- Estuary Biota struggling to survive;
- Drought.

GEF GRANT NO. TF096152 (GEF5)

- There were three components of the Project:
- 1. Hydrology and Ecosystem functioning of the iSimangaliso Wetland Park
  - 1.1 Recommend and Evaluate Options
  - 1.2 Implement preferred option

2. Promoting conservation compatible local economic and cultural development

2.1 Conservation Compatible Rural Entrepreneur and Enterprise programme

2.2 Higher Education Access Programme

2.3 Capacity Building for co-management

3. Institutional capacity building for Biodiversity Conservation

OVERALL OBJECTIVES OF THE STUDY

1. Using existing information, limited data collection and model
    i. Understand the physical functioning of the system and how changes have come about;
    ii. Assess how different interventions will:
        a) Change hydrodynamics
        b) Impact on the system ecology and biodiversity
        c) Impact on society and economy
2. Undertake a cost-benefit analysis and make recommendations for restoration actions

RECOMMENDATIONS

1. **Implement Option 3: Facilitate joined mouth**
   - Remove Dredge spoil separating Lake St Lucia Mouth and Umfolozi mouth

2. **Do not open the mouth(s) artificially**
   - Natural breaching at a high-water level ensures better flushing of sediments and creation of relatively large mouth

3. **Rehabilitate the floodplain areas of the Umfolozi and uMkhuze by removing alien vegetation and unnatural structures thus creating riparian buffers in the agricultural areas upstream**

4. **Increase the protection of natural resources by curbing illegal fishing and improving management of recreational fishing**

5. **Secure water requirements for the estuary by establishing environmental flows for all the inflowing rivers, reducing forestry and addressing land degradation in the catchments**

6. **Carry out Comprehensive Monitoring**
   - Ecologically-quality and quantity of river flow, mouth condition, water level and water quality, sediments, biota(micro algae, vegetation, invertebrates, fish, birds, reptiles, mammals.
   - Tourism, status and activities of local communities, compliance monitoring.

GEF 5 RESTORATION PROJECT - POSITIVES

- Redirection of iMfolozi river to the estuary was undertaken;
- Removed dredge spoil separating iMfolozi River from St Lucia Lake;
- That fresh water will charge the estuary and at a certain stage of time the mouth will open into the sea naturally.

BACKGROUND ON GEF 5 AS IT RELATES TO SUGAR CANE FARMERS

- In July 2010 iSimangaliso Authority published the Background Information Document (BID) called: 'Lake St. Lucia, understanding the problem and finding the solution'
- This document focused on the Ecological functioning of the lake St. Lucia by allowing the following:
    I. Fresh water to continue flowing from iMfolozi River;
    II. The iMfolozi and and St. Lucia mouth to be combined; and
    III. The system to operate natural .

The Management Strategy, informed by GEF 5 research and was part of BID, recognized that back flooding of some of the low-lying sugarcane farms might occur as a consequence of not artificially breaching the mouth.

The GEF 5 funded scientific research confirmed that the policy of keeping the estuary mouth open permanently was having devastating impact on the biodiversity of the St. Lucia Estuarine Functional Zone.

BACKGROUND ON GEF 5 AS IT RELATES TO SUGAR CANE FARMERS…continued

- In September 2020, the mouth opened and breached into the sea naturally, it remained opened for 27 months then closed as the result of low rains;
- Rainfall in March and April 2015 caused the rise to the Umfolozi river water levels resulting in the back flooding to some farms. After the submission by the affected farmers; iSimangaliso Authority breached the mouth in May 2015, however a week later the estuary mouth closed naturally;
- When further attempts were made by the affected famers to breach again had come to naught, the affected farmers approached the KwaZulu Division of the High Court, Durban in August 2015

ESTUARINE MANAGEMENT TOOLS

1. Integrated Management Plan(IMP)

- Overarching Plan that governs iSimangaliso Wetland Park that is approved by the Minister.

2. Estuarine Management Plan

- This guides how the Estuary should be managed, provides for the breaching but specific in saying breaching can only be done for ecological reasons. Together with the IMP, this plan is approved by the Minister.

3. Environmental Maintenance Plan

- This provides for the mouth maintenance and the maintenance plan is approved by Environmental Impact Assessment Unit in DFFE.

THE RELIEF SOUGHT AND COURT RULING

RELIEF SOUGHT:

Part A: Urgent Interdictory relief to

That pending the outcome of the relief sought in Part B of the Notice of Motion, that the first respondent is directed to open or to allow the First Applicant to open the Umfolozi Estuary to drain down current flooding level and to prevent further back flooding of the farmland of the Second and the Third applicant and the other shareholders of the First applicant

Part B:Application

Declaration that the First Respondent (iSimangaliso) has failed to develop and implement the statutory policies, protocol, procedures, rules and plans including the Global Facility (GEF) Project in terms of the regulatory framework underwhich it holds authority to the management of uMfolozi River Mouth.

The matter was launched on an urgent basis but was adjourned by consent to 15 October 2015.

Further applications were brought in December 2015 and March 2016. Applicants claiming Contempt of court.

Part A and Part B application was dismissed with cost,

Both Contempts of Court application we also dismissed.

This Decision afforded iSimangaliso space to Manage the Estuary through ecological beneficiary means and develop management tool for the whole Estuarine Functional zone.

ST LUCIA ESTUARY SYMPOSIUM

Attendees included:

- Farmers (commercial and small scale);
- Neighboring communities (Sokhulu, Dukuduku and Zwenelisha);
- Scientists, including those involved in the GEF5 project;
- Fishermen (Commercial and small scale/ Fishing Cooperatives);
- Business people;
- Non-Governmental Organisations, etc.

ST LUCIA ESTUARY SYMPOSIUM RESOLUTIONS

- The St Lucia system is a complex dynamic socio-ecological system, the natural functioning of which is critically important for its natural assets (biodiversity and natural resources) as well as to the many other ecosystem services that it provides to the diverse stakeholders that depend on it (tourism, agriculture, fishing).
- All participants have a strong interest in the restoration and effective management of the St Lucia system, and to work collaboratively, making compromises, to find the best solutions to challenges faced by all stakeholders.
- Embark on an inclusive, co-operative and communicative management path, to all
- Work together to implement and achieve a collaborative governance approach. All affected stakeholders need be consulted about the decisions.
- A multi-sectoral multi-disciplinary Task Team should be convened as soon as possible to take solutions forward and develop a time-bound Action Plan by the end of the year, with identified short-term solutions implemented by 31 March 2021.

ESTUARINE MANAGEMENT AND MAINTENANCE PLANS

- As much as these two documents allow for breaching but they limit the breaching in that it must be for ecological purposes only.
- iSimangaliso further requested confirmation from DFFE-EIA that, indeed the breach constitute maintenance, this was accordingly confirmed to be in line with the above-mentioned plans.

Reason for not heeding to the breaching call by the farmers

The affected farmers are on the flood plain and flooding on farms if water levels in Umfolozi rises cannot be avoided and iSimangaliso will be going against GEF5 recommendations, Estuarine Management Plan and the Maintenance Plan if it breaches everytime the Umfolozi river rises as a result of farm flooding. This will reverse the gains done by GEF5 projects to date.

ST LUCIA ESTUARY TASK TEAM SCIENTIFIC MEMBERS

- Dr Jean Harris – Wild Oceans
- Dr Ricky Taylor - Ecologist
- Prof Alan Whitfield – South African Institute of Aquatic Biodiversity
- Werner Illenberger – coastal sediment consultant
- Santosh Bachoo – Ezemvelo KZN Wildlife Marine Scientist
- Craig Mulqueeny – Ezemvelo KZN Wildlife Ecologist
- Prof Leon Vivier – University of Zululand – Zoology Department

SO, WHAT IS THE ECOLOGICAL CHALLENGE?

- **Accelerated sedimentation** – while the restoration project was successful in getting fresh water into the system following prolonged drought conditions, the sediment-rich Mfolozi water has resulted in the Estuary Bay area, Honeymoon Bend and the Narrows becoming silted-up.
- Creating a skim that will produce a breach that will reduce the accumulation of sediments – especially of the high load carried by the initial stages of a flood.
- It will also remove suspended sediments from the Narrows and some of South Lake – by removing lake water carrying these sediments (as fines which are held suspended by their colloidal nature).
- It will also scour away some of the uMfolozi sediments deposited immediately behind the beach berm (but this may not be very much). Sediment removal from the Narrows and Honeymoon Bend via this method will have limited success as flows in this area, even in flood, is not sufficient to move significant amounts of sediment.

SO, WHAT IS THE ECOLOGICAL CHALLENGE?

- **Nutrient accumulation** (fertilisers as well as human waste) has increased (Monique Nunes, PhD thesis). Allowing the system to breach will flush out some of these nutrients. It is possible that these nutrients are promoting an increased vegetation response in St Lucia and the lower uMfolozi floodplain. The nutrients as well as increased sediments may facilitate the proliferation of alien plants and animals.
- **Proliferation of Vegetation** – the system has become freshwater dominated from Fani's Island southwards, with a proliferation of vegetation in the Narrows and in the Estuary mouth region which is further consolidating sediment. This proliferation is also very likely driven by nutrient accumulation in the system. The introduction of seawater in this region is expected to chemically "prune" the vegetation, especially the reeds in the Narrows. However, the root stock is expected to remain, and that root stock will still consolidate the sediment at Honeymoon Bend and the Narrows.

SO, WHAT IS THE ECOLOGICAL CHALLENGE?

- **Invasive Alien Species** –Inundation by sea water may hinder their development. Other freshwater alien plants such as *Pistia striates* are occurring in the St Lucia Bay and these also may succumb to sea water flooding. Alien Invasive plants seem to be thriving in the nutrient and silt rich environment that continuously becoming a freshwater system by nature (reeds etc are key indicator species of change)
- **Loss of Estuarine Function** - The intervention is also anticipated to re-instate some of the natural functioning of the estuary. While it is natural for the St Lucia to have periods of no marine exchange, the assisted breach of the joint uMfolozi/St Lucia mouth is an attempt to facilitate connectivity and allow a resumption of marine exchanges with the largest estuarine system in southern Africa. By restoring the marine nursery function for many estuary-associated fish and invertebrate species, this will promote overall aquatic biodiversity and species richness. It will also provide a more complete range of ecological functions within the system for marine, estuarine and freshwater biota in different parts of the estuary/lake – which is why St Lucia is a World Heritage Site and Place of Wonder!

SO, WHAT IS THE ECOLOGICAL CHALLENGE?

- Continuous periods of high rainfall events were still unable to breach the Estuary Mouth naturally (May 2017 – 2.18m; May 2018 – 2.08m; Nov 2019 – 2.19m; Dec 2020 – 2.28m) but still no breach

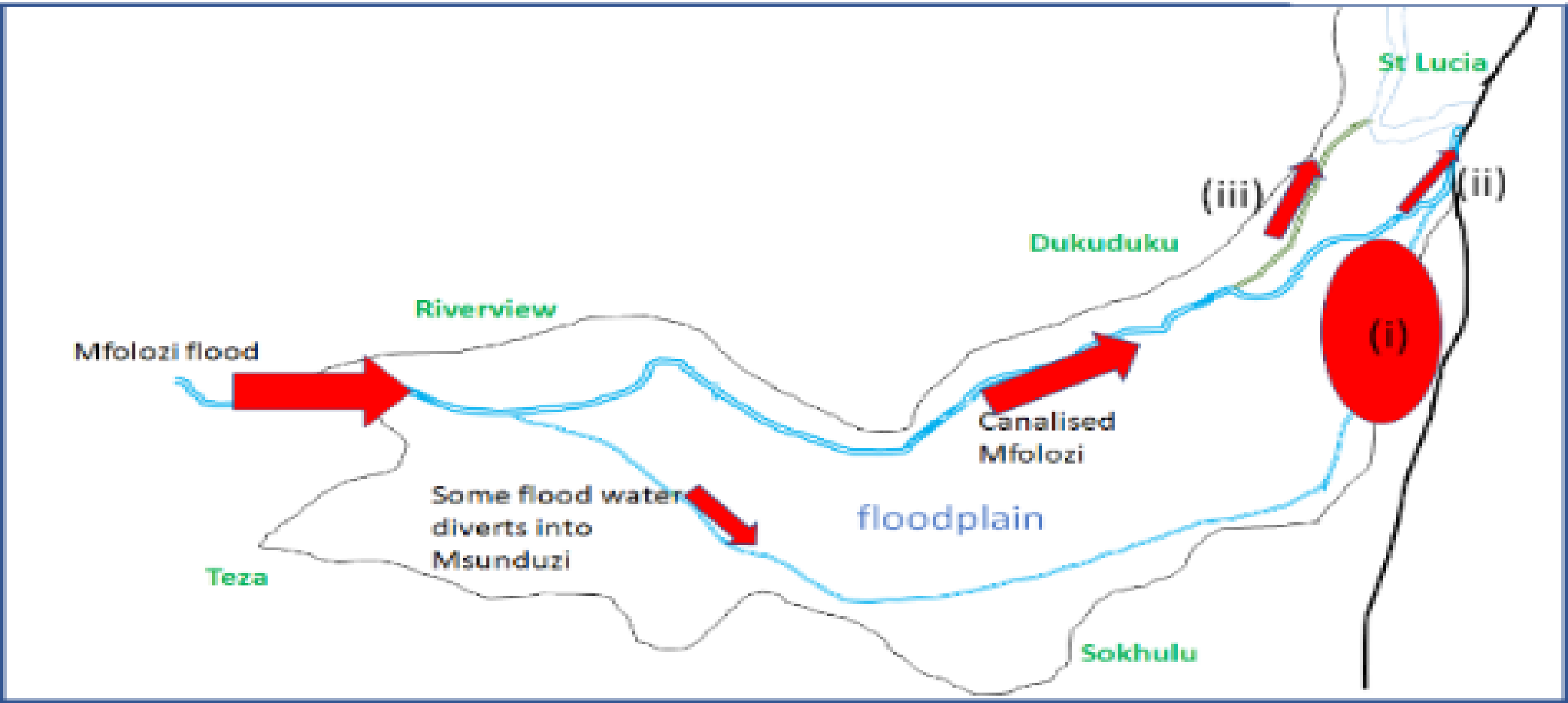
EFFECTS OF THE RESTORATION

- Water levels raised in the estuary;
- Siltation from iMfolozi canalization and natural migration through river function started clogging the estuary;
- Estuary converted to fresh lake system due to lack of saline water charges from the sea;
- Fresh water species infested the estuary (reeds, catfish, tilapia, etc);
- Estuary species started to die out;
- Reeds and siltation impeded tourism operations;
- Despite recent rains of high severity, no natural mouth opening took place.

NUDGING OF THE SYSTEM

- Symposium was scheduled and scientists together with interested parties invited and deliberated of what to do with the situation;
- Estuarine management plan gives provision for breaching only for ecological reasons;
- The need for restoring the estuary back to its natural functioning was adopted which included assisting the mouth to open;
- Decision to skim the high berm to aid the system to join with the sea was taken and subsequently implemented accordingly.

Schematic summary of the movement of flood water: (i) Water in 'storage'; (ii) Water moves via the Beach Canal and (iii) Water moves via the Link Canal



SOCIO-ECONOMIC IMPACT OF THE MOUTH OPENING TO COMMERCIAL FARMERS

- Because of the fact that assisted breach was for ecological reasons, it did not bring any relief to the farmers.

- Commercial farmers are still inundated with water every time there are floods.

SOCIO-ECONOMIC IMPACT OF THE MOUTH OPENING TO SMALL SCALE FARMERS

- No relief was seen by the farmers and this was explained as a possibility in the engagements between iSWPA, commercial and small scale farmers prior to the artificial breaching;
- Farm plots within the Mfolozi river floodplain and Msunduze river floodplain continue to be inundated with water due to their location and,
- High water levels with high sediment from flood events continue to be deposited on the farms.

SOCIO-ECONOMIC IMPACT OF THE MOUTH OPENING TO FISHERMEN

- Connectivity of the lake to the ocean thus facilitating migration of estuarine species;
- Increasing water levels in the lake thus improving fishing conditions,
- Nkundusi, Qakwini and Nibela community started fishing again.

HOW THE PARK OPERATED BEFORE

- A decision was taken by National and Provincial Government of KwaZulu Natal was taken that the protected area was going to be jointly managed between iSimangaliso Wetland Park Authority (iSWPA) and the KwaZulu Natal Nature Conservation Board, Known as Ezemvelo KwaZulu Natal Wildlife (EKZNW);
- The Minister under section 44 of the World Heritage Convention Act made regulations which clearly state division of institutional responsibilities as follows:
  - Ezemvelo KZN Wildlife shall be responsible for conservation management and regulatory enforcement related to conservation.
  - iSimangaliso Authority shall be exclusively responsible for commercial activities and related planning and zoning including but not limited to the provision of accommodation and activities for visitors to iSimangaliso Wetland Park and carrying on business or trade primarily for the convenience of visitors to the Park.

PRINCIPLE ARRANGEMENTS

Board shall: be responsible for the biodiversity management of iSimangaliso Wetland Park, including policing and law enforcement activities in terms of World Heritage Regulations,2000 18 (3a)(i)and (ii)

Authority shall: promote, manage, oversee, market and facilitate tourism and related development within the iSimangaliso Wetland Park in terms of World Heritage Regulations,2000 18 (3c)(i)to (Viii).

INSTITUTIONAL ARRANGEMENTS

- A **Management Agreement** between Ezemvelo KZN Wildlife, iSimangaliso Wetland Park Authority and Tourism KZN was signed on the 3rd of September 2001.
- **Schedule A Agreement** was signed during 2002 and Chinese Wall in 2003.
- **Hunting Agreement** was signed in June 2006.
- **Service Level Agreement** was signed in September 2009 and terminated in 2020.
- **Oceans and Coast Agreement** was signed in March 2004 and renewed in March 2007.

EZEMVELO KZN WILDLIFE SHOOTING INCIDENT

- EKZNW reported that on Friday, 12 November 2021 at about 09h30, field rangers who were on duty at Eastern shores section of iSimangaliso Park, in the Wilderness where rhino poaching frequently occurs.
- EKZNW reported that field rangers heard a sound of a firearm shot and decided to call for back a up.
- EKZNW reported that additional field rangers were deployed using the helicopter as the wilderness area can only be accessed by either boat or helicopter.
- EKZNW reported that during their search, field rangers discovered a hidden spot with evidence of cooking and people sleeping (camp). At the edge of the lake, there were two homemade boats.
- EKZNW reported that field rangers hid in the close proximity with homemade boats with an intention of arresting owners as they return to them and this is common practice in the law enforcement sector.
- EKZNW reported that at about 15h30, field rangers observed 4 suspects approaching the homemade boats and attempted to effect an arrest by announcing their presence and ordering the 4 suspects to stop and surrender themselves for arrest.
- EKZNW reported that one of the four suspects, fired to the field rangers. In self defence, field rangers retaliated with shooting and allegedly wounding one suspect. The body has not been found to date.
- The case of attempted murder and missing person were opened in Mtubatuba Police Station Mtubatuba (CAS 94/11/2021) by field rangers.

SOCIO- ECONOMIC CONDITIONS

- uMKhanyakude District Municipality is one of the poorest Districts in the country, hence it was earmarked as a Presidential Node. The KwaNibela Community is part of this district and levels of unemployment, poverty and inequality are high; and

- Whereas illegal activities, especially poaching and illegitimate fishing activities, i.e., Gillnetting, can not be condoned it is likely that poverty is one of the key attributes of the situation that prevails in the area.

- It is on these basis that iSWPA has decided, after numerous engagements with the Traditional Leadership of KwaNibela to intensify the creation of economic and employment opportunities through the Expanded Public Works Programme of Working for Water, implementation of the Youth Employment Services (YES) Programme and Groen Sebenza targeting unemployed graduates in the area.

ISWPA INTERVENTIONS SINCE THE INCIDENCE

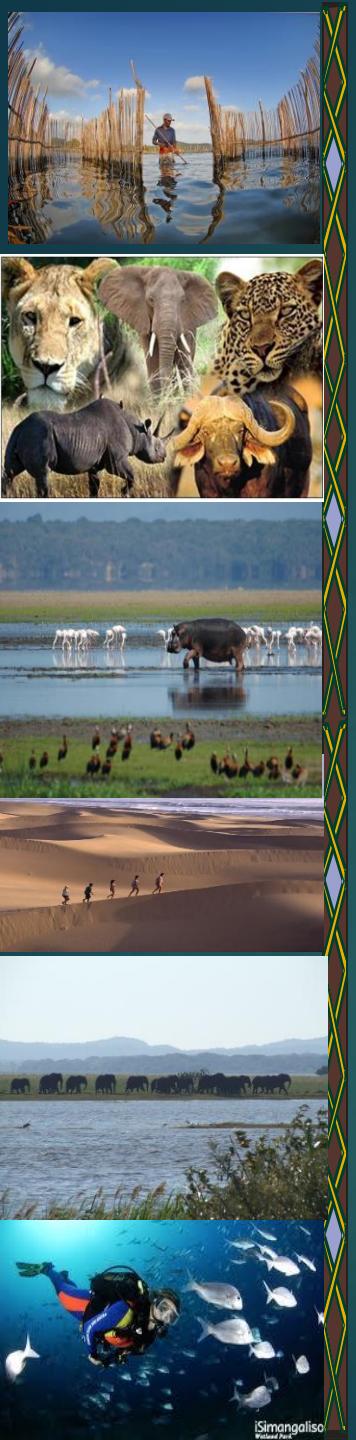
- iSimangaliso, upon being made aware by EKZNW about the reported shooting incident in the wilderness area ,visited the family on the 13th of November 2021 for more information;
- Family requested to be taken to the scene where their family member was reportedly shot at by the EKZNW Field Rangers and this was successfully coordinated by iSimangaliso, working with EKZNW, on behalf of the family;
- Search and Rescue Unit commenced their assignment on the 13th of November 2021 for at least more than ten (10) days, using sniffing dogs as well;
- On the 29th of November 2021, the CEO of iSWPA met with the family, accompanied by the local iNkosi Mdluli, and foul play suspicions were made by the family against EKZNW Field Rangers;
- Mdluli family appreciated the visit by the CEO and made two requests, namely:

1. **To have the EKZNW field rangers involved on this matter to be removed from the area;**
2. **The case to be investigated by an independent investigator.**

- EKZNW has reported that the field rangers involved have since been removed from the area and relocated to another working station within EKZNW.
- On the 3rd of December 2021, iSWPA CEO met with EKZNW Acting CEO to deliberate on the suspected foul play;

INTERVENTIONS BY ISWPA TO DATE

- Four local contractors, who will in turn appoint not less than twelve (12) people each have since been appointed from KwaNibela area;
- There are urgent planned meetings to be held with the Fishing Cooperatives after the meeting that was held in December 2021, to discuss their concerns and raise awareness on ethical fishing activities;
- Even though that is the case, iSimangaliso CEO committed to use Expanded Public Works Programme like Working for Water, Groen Sebenza Internship Programme to deal with socio economic challenges in KwaNibela area;
- It is also worth mentioning that this is the second incident in the same family where a member of the family was killed inside the Park when he was reportedly to be in contact with field rangers.



iSimangaliso
Wetland Park

Thank you

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