SALT RIVER PROJECT

SOCIAL BASELINE ASSESSMENT AND STAKEHOLDER ANALYSIS

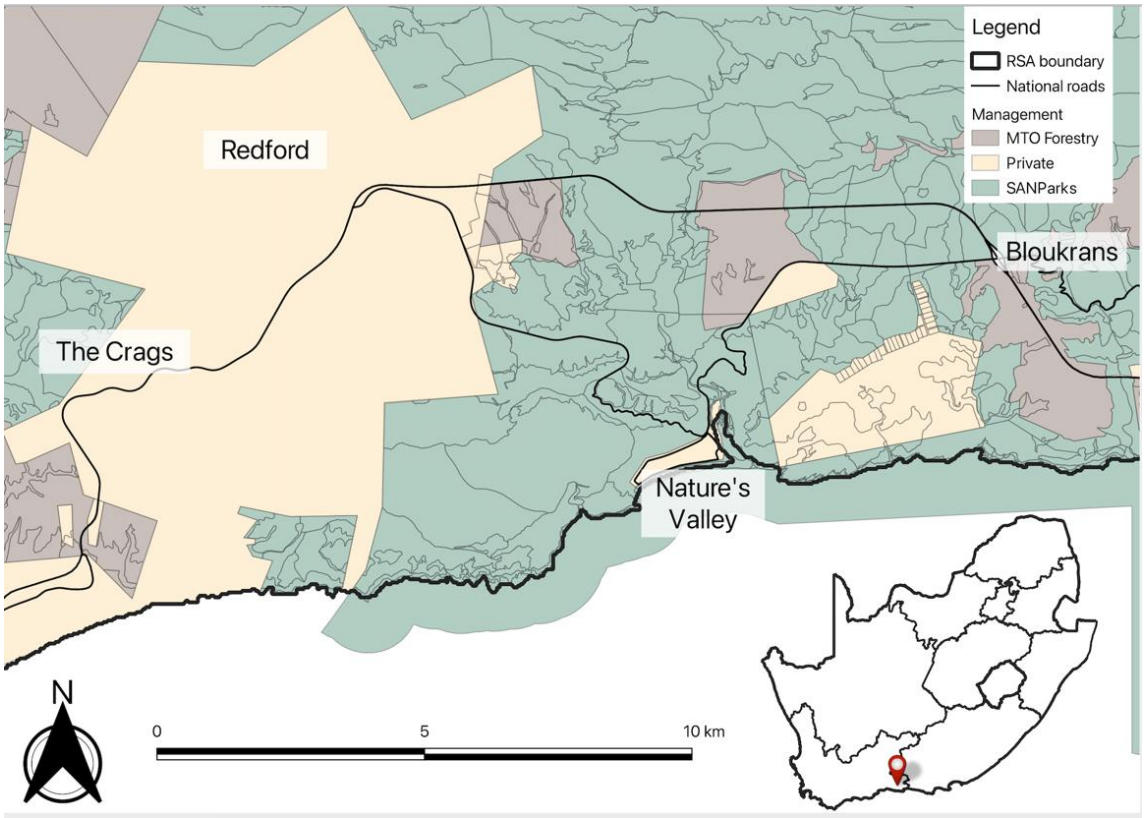
REPORT 2023

Table of Contents

1. INTRODUCTION

The Salt River region is home to valuable natural resources that provide vital ecosystem services to various communities of people. As such, sustainable management of these resources is essential for the well-being of the people who live in the vicinity of the basin.

The Natures Valley Trust (NVT) Salt River project aims to understand the complex socio-ecological system of the Salt River from its source to the sea. The overarching goal of the project is to develop an integrated stakeholder effort to proactively address issues impacting the environmental resilience of the area. A crucial aspect of the first phase of the project is the social baseline assessment, which utilised participatory approaches to assess the Salt River resource regime. The social baseline assessment process included an integrated stakeholder analysis which is a requirement under objective 2 of the funding agreement, which is to "Understand the challenges and map the stakeholders". Overall, this project represents a significant step toward the sustainable management of the Salt River system, essential for the long-term health and prosperity of local communities and ecosystems in the Salt River region.



Map 1: The greater region of the Salt RIver

Source: SANParks (2019)

2. BACKGROUND AND CONTEXT

The Salt River region, is characterised by diverse land uses including Polo and equine farming, sheep farming, wine cultivation, and nature tourism, representing a diverse and intricate ecosystem. The Salt River region's economy, livelihoods, and overall well-being are connected to the sustainable use of the region's natural assets. The agricultural sector and tourism are key sources of employment in the Salt River region. Culturally, the region holds historical significance, reflecting artefacts from the Middle Stone Age, and from the Khoisan and Khoekhoen communities who were the first to settle in the region (Cape Nature, 2023; Western Cape Government, 2021).

Amidst the diverse land uses, the Salt River region operates under the jurisdiction of the Bitou Local Municipality. This administrative umbrella covers a range of activities, from safeguarded natural areas and serene nature zones to evolving urban developments and varied agricultural practices (Cape Nature, 2023). The economic challenges in the Salt River region are evident, with 64.1% of households in Bitou reported to live close to or below the poverty line (2011 Census) and a 17.8% unemployment rate (2020 census) (Bitou, 2021, Bitou 2022). These challenges stem from limited formal employment opportunities and a heavy reliance on seasonal tourism (Cape Nature, 2023). Increasing numbers of individuals and households in the region depend on social grants, leading to reduced spending in the local economy and diminished tax and rates revenue for the district and local municipality (Bitou 2013; Bitou 2016; Cape Nature, 2023).

These socioeconomic dynamics highlight the complexity of the social-ecological system in the Salt River region, highlighting the need for strategic and adaptive management approaches to navigate the intricate interactions between diverse stakeholders.

The Salt River is a vital resource for local residents and visitors, providing not only water for drinking, agriculture, and industry but also serving as a source of recreation and beauty. However, the Salt River is also subject to various environmental pressures which impact both the ecological health of the river and the well-being of the human communities that depend on it. These include environmental hazards like drought and climate change impacts, land-use and infrastructure development in the upper catchments that sometimes lead to pollution, water quality and quantity issues due to increasing development, and exploitation of natural resources such as recreational and subsistence fishing at the estuary mouth, and disturbance caused by hikers who visit the area (SANParks, 2022, Cape Nature, 2023). Alien trees are prolific in the region of the Salt River, the most notable species being Australian wattles (Acacia mearnsii, A. cyclops, A. saligna), pines (Pinus pinaster, P. radiata), and river gums (Eucalyptus camaldulensis). These invasive plants are adapted to fire, and therefore outcompete native species, posing a threat to the overall health of the Salt River ecosystem (Bond *et al*, 1984, Kraaij *et al*, 2012; Jacobs *et al*, 2017; Kraaij *et al* 2011; Vlok & Yeaton, 1999; Vlok, & Yeaton, 2000). Urban areas are expanding, and housing and holiday developments are rapidly increasing and putting pressure on natural resources (Cape Nature. 2023). This leads to habitat fragmentation and transformation. Furthermore, the region is facing increasing threats of poverty and resource degradation, ineffective forms of governance, and undeveloped markets and opportunities to valorise natural resources and ecosystem services (SANParks, 2020).

Notably, there are no subsistence communities directly relying on the natural resources of the Salt River estuary for their livelihoods or income generation (SANParks, 2022). The estuary's primary value lies in its pristine, unspoilt, and remote environment in Natures Valley, attracting tourism to the area (SANParks, 2020; SANParks 2022). Consequently, there are limited livelihood opportunities at the estuary, necessitating urgent employment creation tourism initiatives in the region. Challenges to enhancing the socio-economic value of the lower river parts in the protected area include the undeveloped nature of the region (lacking infrastructure or facilities) and extremely limited access (restricted to footpaths only) (SANParks 2022). On the other hand, the middle parts of the river offer economic opportunities for landowners and residents, especially in the Southern Crags And Redford region, where the pristine and tranquil environment, makes it an ideal destination for nature tourism.

3. THE SOCIAL BASELINE ASSESSMENT

The social baseline assessment investigated the availability, use, and enjoyment of ecosystem services in the Salt River basin. A stakeholder analysis was integrated into the social baseline assessment. Stakeholders were broadly defined as any group impacting or being impacted by the Salt River system. The integration of a stakeholder analysis into the social baseline assessment allowed for a broader understanding of the relevant stakeholders and their significance for the project while providing an understanding of the environment where stakeholders live and operate. Furthermore an integrated approach provided knowledge about the relations of the stakeholders and their specific roles while determining the social context of the Salt River system to understand their needs, challenges and opportunities.

Overall we aimed to identify and assess the significance of individuals, groups, or institutions influencing the Salt River project's success in the long term. It is however acknowledged that powerful players or influential stakeholders may have been unintentionally overlooked, a limitation apparently inherent in stakeholder mapping. We also sought to identify threats to the ecosystem and the underlying drivers of these threats.

The results of the assessment presented in this report provide critical insights into how collaborations between different disciplines, stakeholders, and decision-makers in the region can be established going forward. The outcomes of the baseline assessment will guide the second phase of the project; the design of Nature-Based Solutions (NBS) tailored to target identified drivers to address threats and optimise the use of available ecosystem services in the area. The implementation of these Nature Based Solutions (NBS) is expected to play a crucial role in regional efforts to future-proof the Salt River for both people and nature.

The key components of the Social Baseline Assessment included the following:

- ✓ **Understanding the situation of each stakeholder group:**
  Through a situation analysis, we were able to understand the unique circumstances, historical context, and future aspirations of each stakeholder group located in the vicinity of the Salt River. This understanding about where they have come from, where they currently stand, and their envisioned future, forms a baseline for the development of relevant and effective strategies and initiatives for the region.

- ✓ **Collaboration Opportunities**
  We assessed relationships of each stakeholder group with other organisations and partners. This evaluation is important for understanding what these relationships look like, which organisations are important, and with whom each stakeholder group has strong connections. This understanding is important for understanding the current social dynamics and exploring opportunities for collaboration and mutual benefit.

- ✓ **Vision for the Future**
  An opportunity was given to participants of each stakeholder group to share their insights and perspectives on the vision for their own community. This gives the opportunity to participants to actively contribute to shape the future direction of their community or conservancy and its mission.

- ✓ **Understanding Ecosystem Services**
  By directly engaging with stakeholder groups that are located in the vicinity of the Salt River, we enhanced participants' understanding of what ecosystem services are, why they are crucial, and how they play a vital role in the community's context.

- ✓ **Understanding stakeholder interests in the region**
  We conducted a thorough exploration of the interests held by various stakeholder groups within the region. This analysis aided in aligning initiatives with stakeholder expectations and aspirations.

- ✓ **Understanding resource trends over time**
  The assessment involved tracing the historical trends in key resources over time, providing valuable insights into the evolution of these resources and their impact on the community.

- ✓ **Identifying Drivers of Change**
  We explored the various factors and forces causing changes in the region (the drivers of change), especially those negatively impacting ecosystem services in the region. This understanding is fundamental to finding effective solutions.

✓ **Developing Solutions**
Time was dedicated to brainstorming and discussing potential solutions for the specific issues and challenges identified by participants during the final workshop.

4. APPROACH

The social baseline assessment was designed as a five-step process as illustrated in Figure 1 below.

Figure 1: Five-Step Approach

Safeguarding the Salt River for the future requires an adaptive approach that considers the diverse problems and challenges faced, the organisational landscape, and the local context. The approach of the baseline assessment was tailored to fit the unique characteristics of the region, accounting for its political, social, economic, and cultural dynamics.

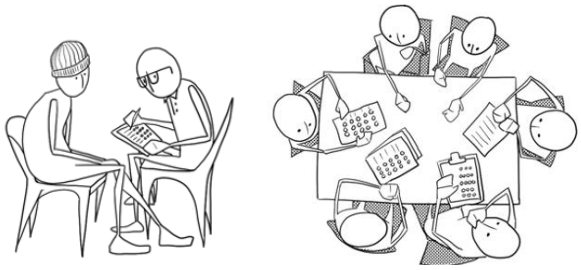
To achieve this the primary strategy used for the social baseline data collection revolved around participatory processes actively engaging stakeholders. This inclusive approach ensured that the assessment's findings are enriched with perspectives from individuals residing in the region. By involving stakeholders from the outset, the aim is to create sustainable strategies that safeguard the environment in collaboration with the community. The idea of Nature-based solutions (NBS) originated as a practical method for environmental management which bridges insights from nature with human ingenuity (Zingraff-Hamed, 2020). Departing from traditional top-down approaches, collaborative planning involving various stakeholders is recognised as an effective means of for managing public goods (Ostrom, 1999). Collaborative governance models therefore generally play a pivotal role in the success of initiatives employing NBS for nature and environmental process conservation (Frantzeskaki *et al* 2019).

Furthermore for the stakeholder mapping process, instead of using a standardised one-size-fits-all stakeholder mapping approach to identify the "right" stakeholders, the social baseline study invited all stakeholder groups to participate to co-produce the knowledge contained in this report. A participatory processes was used for this process, motivated by the expectation that this will increase the legitimacy and efficiency of the Salt River Project. This process, referred to as "social innovation" or "co-creation" promotes inclusive, proactive participation. The participatory approach ensures accurate information dissemination, communication opportunities, understanding-building, and meaningful input into visioning processes that can be specifically tailored to the Salt River region. Furthermore it helps for the project to identify potential veto players. Lastly, public acceptance, collaboration, and consideration of distributional equity are central to

successful NBS design and implementation (Ershad *et al*, 2019). This approach integrating scientific and local knowledge can be used as a replicable blueprint for other projects in the region, emphasising collaborative management of resources and knowledge integration.

5. METHODS

The social baseline assessment made the use of semi-structured interviews, focus group sessions, oral history sessions, and participatory workshops to gather information.



During the participatory workshops the following methods were employed –

- ✓ History of the stakeholder group/conservancy/community through use of timelines to record key historical events in some chronological order. Elders contribute significantly by remembering key events from earlier years.
- ✓ What helps and hinders the progress of the stakeholder group/community group or helps and obstacles to the community
- ✓ A vision for the community group for their future
- ✓ A Venn diagram for identifying organisations in relations with the community group and their value to the members. The diagram uses different size circles for importance and proximity to the community group for closeness of the relationship.
- ✓ Changes in resources over time and drivers of change, with changes in abundance of resources representing trends. Elders contribute significantly by remembering the state of resources in earlier years.
- ✓ Resource map to create a visual representation of all important resources in the community scenario building using forum theatre to look at impacts and drivers to current land practices and brainstorming solutions for these.

Women in Kurland in a focus group brainstorming solutions to environmental issues flagged in the workshop

6. RESULTS

The social baseline assessment results are presented in three sections:

Section 1: The situational analysis

Section 2: The stakeholder analysis

Section 3: Scenario building

SECTION ONE: SITUATIONAL ANALYSIS

For the purpose of gathering data, situational analysis workshops were conducted with key stakeholder groups to identify: i) stakeholder history, challenges, helps, relationships with other stakeholders in the region. Also through the use of participatory methods in workshop sessions we asked stakeholders to specify the benefits they receive from ecosystem services; how and where they access them, and their perspectives on their conditions and trends. Lastly, forum theatre was used to discuss possible drivers of change to these services, and brainstorm solutions to combat some of these drivers.
The objective of the situational analysis is to provide a clear understanding of the historical evolution, present-day dynamics, and future interests and aspirations of the stakeholders in the Salt River region. The situational analysis serves as the foundation of the social baseline assessment, offering a exploration of the relationships, challenges, and stakeholder aspirations shaping the socioecological context in the Salt River region.

1. History

1.1 Oral History

Oral history was used as a method to collect baseline data on the traditional uses of the Salt River system by various communities in the region. Oral history provided valuable insights into the historical and cultural significance of the river system, and how it has been used for livelihoods, recreation, and spiritual practices. Obtaining stories and perspectives from diverse communities in the community including marginalised groups, helped to identify potential impacts and inform decision-making for the development of the river system. Additionally, conducting these oral history sessions recognises and respects the cultural heritage and knowledge of marginalised communities in the region so that their perspectives can be incorporated into the management and conservation of natural resources.

1.1.1 Kurland Elders: Oral History

1. **Early Years and Living Conditions:**
    - No houses in Kurland initially, only shacks, and the beginning of the location.
    - Peaceful environment and safe to walk in the dark.
    - No electricity, using night buckets collected by a tractor.
    - Traditional house cleaning using cow dung on floors with grass brushes.

2. **Economic Changes Over Time:**
    - Reflection on the affordability of goods and the simplicity of life in the past.
    - Salaries in the 197os gave the ability to purchase various items.
    - Shift from affordability to the challenges of expensive living and electricity today.
3. **Work and Contributions:**
    - Work experiences range from cleaning the coastline to employment in forestry, while community building initiatives, such as the development of the "Kids Explosion" organisation and a soup kitchen in 2001, reflect a commitment to communal well-being.
    - The establishment of community activities for the elders like physical exercises and dominoes
4. **Challenges Faced:**
    - Initial lack of electricity and water, leading to resourcefulness in daily tasks.
    - Current struggles with the cost of living, electricity expenses, and challenges during load shedding.
    - Economic hardships and the need to work for additional income.
5. **Community Building:**
    - Early community building activities, sharing responsibilities, and caring for newcomers.
    - Community engagement in the past, with established taps on every street.
6. **Cultural and Social Changes:**
    - Transformation from addressing individuals as 'Baas' in the past to using names freely.
    - Descriptions of peaceful times, children playing games, and love within the community.
    - Changes in addressing people by their names rather than racial distinctions.
7. **Positive Transformations:**
    - Positive developments like the integration of beaches and the disappearance of racial separations.
    - Improved safety with the presence of lifeguards.
    - Personal enjoyment of the Crags and appreciation for Nature's Valley.

8. **Coping Strategies:**
    - Coping with economic challenges, including the high cost of living and unaffordable electricity.
    - Working multiple jobs for financial stability.
    - Nostalgia for simpler times and resourcefulness in dealing with water shortages.
9. **Family and Social Celebrations:**
    - Family gatherings during December holidays.
    - Celebrating birthdays under the bridge at the pass.
    - Stress relief and health benefits from sitting on the beach.
10. **Cultural Practices:**
    - Traditional practices like smearing floors with cow dung and using clay for paint.
    - Making torches from tins with candles and utilizing sacks for various purposes.
    - Historical aspects related to “Die Rots' area being designated for Whites in the past.

An elder of the Kurland Community being interviewed

> ***“There were only 3 houses. There was no road, only a small foot path but things changed. A school was bult. If we wanted to see the nursing sister we had to walk through a kloof to get to her. There was only a communal tap where we got our water from”.***
> ***(71 year old woman in Kurland Village, October 2023)***

> ***“When we came here there was no electricity. We had to collect wood in the forest and made holes in tins to make fire in so we could put our pots on to cook our food. That was how we lived. We also had no water. We had to fetch water with a drum***

down at the river and carry it on our heads up back again to do our washing, cooking and for drinking water.
Later we got electricity. We were thankful, but now it is so expensive. We cannot afford it. With all the load shedding we again have to make fire outside. Sometimes it rains which make it very difficult. But we try our best. We do not have money. We only get little. Sometimes I do work for someone and the next day for someone else to earn a little money. I have to buy food, pay my funeral policy. I have to work carefully with the money but I manage".

(63 year old women in Kurland Village, November 2023)

"We were of the first people that came to live here. We had good times, but in the process we became despondent. Originally we came from a small community where we got our water from the mountain and from the Salt river. It was free. In 1976 every street got a tap or more. If we forgot to fetch water we had to go before 5pm because my father wanted to get ready for bed".

(58 year old woman living in Kurland Village, October 2023)

The oral history accounts of the elders trace their historic reliance on the Salt River, initially fetching water directly from its banks, to the transformative introduction of taps in the streets in the 1970s. This shift from a direct, nature-dependent connection to the Salt River to a more detached one captures the Kurlands' community's changing relationship with the Salt River over time.

Furthermore the oral history accounts collectively paint a picture of the changes, challenges, and cultural evolution within the Kurland community over the years. The oral history reflects both the struggles and the resilience of the community, indicating how individuals adapted to economic shifts while preserving cultural practices and community bonds.

1.1.2 Covie Anglers: Oral History

The oral history from the interviews with seven Covie anglers reveals a rich past where the community of Covie thrived, relying on the abundant resources of the Salt River estuary. An elderly individual born 65 years ago in Covie, recounted the vibrant community life in the past centred around fishing, agriculture, and communal activities.

According to the Covie anglers who participated in the oral history session, the Salt River estuary was a thriving fishing ground, where the people of Covie caught various fish species such as leer fish, kabeljou, and steenbras. The community engaged in both boat fishing and net fishing, using smaller fish and crayfish as bait. Fish were primarily caught for personal use, and surplus was exchanged for agricultural products with those who couldn't fish.

The landscape changed when SANParks took over the jurisdiction of the Salt River, restricting access and fishing activities in the estuary. Forestry activities further dispersed the community to Coldstream and the Crags, leaving only a few people behind. Despite the return of land to the community through the successful land claim, challenges persist, such as restrictions on accessing the river and difficulties in obtaining permits.

The community face obstacles in reclaiming certain areas, such as the Otter trail, which was given to SANParks. The struggle for regain their historical rights to fish off Covie land due to protected area restrictions continues, as does the frustration of the Covie anglers not being able to freely access fishing grounds like Groot River and Salt River due to dune restrictions.

The oral history from Covie anglers also touches on the changes in fishing practices and the decline in fish population. Traditional methods, like curing fish in saltpetre, have given way to modern practices. The nostalgia for the old ways is evident, as the anglers express a longing for the past when fishing trips were communal events and the Salt River estuary was a source of abundance.

A shift in community dynamics over time was highlighted in the oral history sessions, revealing a sense of loss in communal spirit and support. The younger generation expresses a desire to revive traditions from the past, and expressed disappointment in the decline of cultural practices like homemade ginger beer and communal activities. Economic challenges, relocation struggles, and a changing cultural landscape have contributed to the erosion of the once-strong community bonds.

In conclusion, the oral history of Covie fishermen highlights the challenges faced by the Covie community, both in terms of accessing their traditional fishing grounds and in preserving their cultural heritage. The interviewees express a mix of nostalgia for the past and stories of the hardships they currently face.

One of the Covie anglers telling his stories about the Salt River during an oral history session.

"We mainly fished in the Sout River. That was the best place for fishing. Leer fish, kablejou, steenbras.
For years we went out in boats and also caught fish with nets. The smaller fish we used for bait.
We only caught for own use. We worked fields, and those people who could not go out to seas exchanged a bag of potatoes, onions or 'patats' for fish. We never sold fish. Today it is not the same. The fish don't bite so often as previously.
We caught with fishing rods from the side of the river too, If you get fish today you are lucky. The fish don't bite like they used to".

1.2 Timelines of key historical events

Method:

Participants collaboratively constructed a historical timeline to visually represent important historical events in Kurland Village that have significantly impacted the Kurland Community. Participants were invited to identify these significant events and peg these onto a designated timeline. "Pegging up words" makes participants' thoughts and ideas visible by displaying them. This approach reflects our commitment to representing the community's viewpoints and contributions and ensuring that every participant's voice is respected and acknowledged throughout the process.

Kurland Historical Timeline

1. 19th Century: Curby Wood marks the earliest milestone in the timeline.
2. 1880: Construction of the first Afrikaans church reflects cultural and religious growth.
3. 1970: Introduction of Kurland Brick brings an industrial aspect.
4. 1974-1975: Installation of electricity modernizes the community.
5. 1976: Initiation of the first houses expands the community.
6. 1980: School in Kurland is built, emphasizing the commitment to education.
7. 1986: Church is established.
8. 1993: Community Hall is built.
9. 1994: Clinic is initiated.
10. 1996: Bloekom Street is developed.
11. 2010: Library is added, promoting learning.
12. 2010-2011: Fire Station improves safety measures.
13. 2012: Completion of the 2nd Phase Houses continues residential expansion.
14. 2014: New sawmill contributes to economic development.

15. 2021: Engen Garage & Steers provide more job opportunities, reflecting Kurland's transformation from a rural to a semi-urban community.

2.1.1 Significant points in Kurland Village's history :

1. Economic Transformation: The establishment of the new sawmill in 2014 and the Engen Garage & Steers in 2021 according to interviewees represent important moments in Kurland's economic transformation. These developments according to Kurland participants not only provide job opportunities but also signify a shift towards a more diverse and dynamic local economy.
2. Educational Commitment: The construction of the school in 1980 highlights Kurland's commitment to education. This dedication to learning has likely contributed to the community's overall development and well-being.

Kurland historical timeline completed during the situational analysis workshop.

Covie Historical Timeline

1. 1854: Railway workers settle in the area, seeking permission from Queen Victoria to establish Covie; families like Boesac, Davids, and Pedros played a crucial role.
2. Early 1920s: School building constructed, serving as both a school and church on weekends; Covie residents independently build all houses despite the lack of municipal assistance.
3. Late 1960s to early 1970s: Covie has a fishermen's boat in the Salt River until fishing is halted; indigenous trees are harvested, and residents face forced removal for plantation development.

4. 1976: Otter Trail establishment brings challenges, including a persistent fishing ban; apartheid government designates the land as colored people's land, complicating the community's struggle.
5. 1984: Toll gate construction provides employment opportunities.
6. 1995: Water infrastructure development improves living conditions.
7. 2000s: School closure leads children to attend schools in Kurland or Knysna; land claim process initiated in 2003 by Irene Barnardo; electricity infrastructure established in 2005.
8. 2012: Community hiking trail and library established for community development.
9. 2019: Kindergarten established, emphasizing the community's commitment to education and growth.
10. Ongoing: Struggle for more benefits from communal land title deed and development aspirations; Covie's history reflects resilience, self-reliance, and an ongoing pursuit of justice and empowerment

2.1.2 Significant apsects of Covie's history :

1. Self-reliance in housing: Covie's unique history includes residents independently building all houses despite the lack of municipal assistance. This self-reliance speaks to the resourcefulness and resilience of the community over time.

2. Struggle for justice: The struggles against forced removals in the 1970s and their efforts for communal land title deeds highlight Covie's persistent pursuit of justice and the desire for autonomy over their land.

3. Economic opportunities: The toll gate constructed in 1984 provided employment opportunities, highlighting how infrastructural developments can positively impact the local economy.

Covie community members participating in the historical timeline

Southern Crags Historical Timeline

1. Kaaiman's Cave evolved into a human dwelling site by 1000 AD, and is now safeguarded as a private area in the region.
2. There was infrastructural progress in the Crags region in the 1800s with the construction of a bridge over Keurbooms River.
3. Forest Hall was built in 1864 and served as the inaugural Victorian Manor House. It was declared a Historical Monument by the South African Heritage Authority in 1992 and today is considered a prominent historic feature in the Southern Crags Conservancy.
4. A catastrophic Great Fire of 1869 in the Southern Crags region left a devastating mark on the landscape at the time. Many stories are still remnant today about the great devastation in the Crags region from “the Big Fire”.
5. Conservation in the Crags region gained momentum in the late 20th century with the development of the Otter trail in the 1950s, and the creation of the Tsitsikamma National Park in 1964.
6. In the 1980s, a number of landowners and residents became more settled in the area, forming a more prominent community known as “The Crags”.
7. In 1982 the Groot Rivier/Bloukraans R102 road was built.
8. In 1994 the land for Kathumba was bought. Kuthumba Eco Village was established in 1997.

Stakeholders participating in providing key events for Southern Crags historical timeline.

2.1.3 Significant aspects of Southern Crags history:

1. Conservation legacy: The establishment of the Tsitsikamma National Park in 1964 and the official designation of the Southern Crags as a conservancy in 2002 underline the region's commitment to conservation and preserving its natural heritage.
2. Community-driven initiatives: The formation of Kurland-Crags in the 1980s and the acquisition of Kathumba land in 1994 demonstrate the power of community-driven initiatives in shaping the region's development and conservation efforts.
3. Tourism recognition: The recent recognition of the Otter Trail as the "Best Trail" in 2022 highlights the growing importance of tourism in the region, underlining the need for sustainable practices to preserve its appeal.

These points add to the depth of understanding the background to each stakeholder group and provide insights into their experiences, values, challenges, and contributions to the overall socio-ecological system of the Salt River region.

2. Participatory Mapping

Participatory mapping is a methodological approach utilised to collaboratively create spatial representations of geographic areas, incorporating the collective knowledge and insights of community members. This process involves the active involvement of stakeholders in mapping out essential features, landmarks, and resources within their environment. The aim is to capture both the physical and cultural dimensions of the landscape, enhancing the understanding of community dynamics and spatial relationships. By integrating local knowledge into the mapping process, participatory mapping contributes to a more comprehensive and contextually rich representation, offering valuable insights for informed decision-making and sustainable community development.

2.1 Participatory Mapping Using An Orthophoto

Method:

A large aerial map (orthophoto) of the Salt River region was used for participatory mapping of the region, that includes key landmarks, vital natural resources, and ecosystem services. Stakeholders involved in the workshop, as well as those interviewed individually, contributed their insights by marking and providing input directly onto the map.


Locations such as clean water sources, farming areas, natural forests, and recreational spaces were indicated by stakeholders in participatory workshops and during individual meeting sessions on the map. The mapping activity not only visually captured the richness of the Salt River region's natural surroundings but also served as a platform for sharing individual connections and insights related to the region's essential features and eco-system services.




Orthophoto of the Salt River region showing the Southern Crags Conservancy boundary and pin pointed important resources and eco system services as depicted by stakeholders from Southern. Crags and Redford Conservancy

The locations and notes have been added to a google earth map can be viewed or added to through this link:

https://drive.google.com/open?id=1KVcpFC0duke-Iu3oPAvAWp5iUFBUMvcQ&usp=drive_fs

2.2 Participatory Ground Mapping

Participatory ground mapping, involves collaborative engagement with community members to visually represent and analyse the physical and social aspects of their environment.

2.2.1 Ground mapping of Kurland Village

During the situational analysis workshop conducted in Kurland Village, community members created a physical, cartographic representation of their community and its natural surroundings on the ground using available resources such as cardboard stones, leaves, sticks, string, and cardboard to represent infrastructure, landmarks, and natural resources and geographical features.

Participatory ground mapping in Kurland using various objects on the ground to represent resources

Large settlement of Kurland in the Salt River landscape and surrounding private land owners.

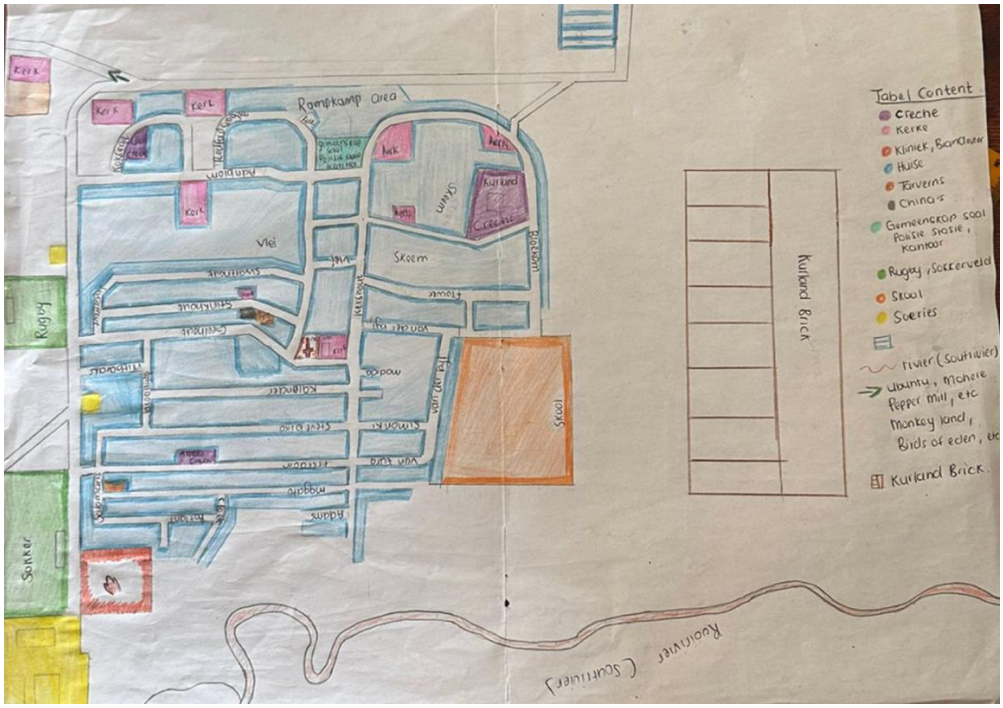


Figure 1: Map of Kurland transcribed from the ground map.

Drawn by: Andoline Davids

2.2.2 Ground Mapping of Covie Community

Covie Community members engaged in a ground mapping process, utilising natural resources and figurines to represent infrastructure, topography, and landmarks. The main road, originating from the mountains to the ocean, was outlined first, emphasising its north-south orientation. The map featured a road leading west to Nature's Valley, an indigenous forest, and the sea, with the Klip River running along the eastern boundary. The church, primary housing area, domestic fruit trees, and dogs were situated to the west of the river. Another housing area, the cemetery, water tank, and a disused quarry for road building were marked, along with a zone for domesticated animals. Natural landmarks like fynbos areas, wild animals (leopards, bush pig, bush buck), and the Otter Trail near the ocean were highlighted. Fishing spots such as "Number 12," "Baboon Cliff," and "Covie Rocks" were also indicated.

Covie community participating in ground mapping.

3. Helps and Hindrances

3.1 Helps and Hindrances identified by Kurland Community

Participants engaged in an activity to identify the factors that have either facilitated or hindered the progress of the stakeholder group/community.

Method:

Participants were divided into four sub groups, each sub group gathering separately to discuss "helps" and "hindrances" and write them on flash cards. The cards were pinned up in the front of the room so that each group could share their responses with the other. Additionally, sub-groups constructed four tableaus depicting two positive and two negative community influences. Note: Tableaus are "living pictures" that depict a relevant concept or significant event by creating a scene using body positioning.

Facilitators at the Kurland Situational Analysis workshop writing participants responses of "helps" and "hindrances" onto cards to acknowledge participant inputs.

KURLAND COMMUNITY	
HELPS	**HINDRANCES**
Community Infrastructure and Services: A library has provided vital access to the internet, enabling online registration and promoting educational opportunities. Facilities such as the sports field and rugby field are instrumental in engaging and keeping the community's children active, contributing to their overall well-being.	**Community Safety and Services:** Kurland faces significant challenges in ensuring community safety and essential services. High crime rates impact the safety and well-being of residents, exacerbated by the absence of a fire station during shack fires. The lack of an ambulance service leads to delayed emergency responses, while concerns about accessible law enforcement persist due to the absence of a police station. Safety issues extend to an open dam and non-functional public toilets, further emphasising the need for comprehensive measures to address these pressing concerns.
Local Businesses and Accessibility: The addition of Steers and the new garage not only offers access to fast food but also enhances accessibility through the provision of accessible ATMs. Spaza shops have proven vital for the community, offering an alternative to town for essential food items. These local businesses contribute to the overall well-being of the community by providing essential services and employment opportunities.	**Healthcare and Accessibility:** The community struggles with healthcare challenges as the small clinic cannot meet all the residents' needs. Lack of nearby dental services necessitates long travels for such essential care. Additionally, clinic-related issues such as staff's long tea breaks affecting access to nurses, and insufficient clinic space, compound the healthcare challenges. Concerns about doctors smoking add complexity to the already strained healthcare system in Kurland.
Temporary Housing and Community Support: The Community Hall serves as temporary housing for fire victims, offering shelter during difficult times. This facility highlights the importance of community support structures in times of crisis, providing a safe place for those affected by emergencies.	**Housing and Infrastructure:** Housing shortages and inadequate road infrastructure compound the difficulties faced by Kurland's residents. The presence of unaddressed cracks in houses further aggravates persistent housing issues. These infrastructure challenges underscore the need for targeted interventions to improve living conditions and community infrastructure.

Employment Opportunities and Economic Support: The introduction of Steers, the new garage, the sawmill, and Kurland Brick has generated employment opportunities. The sawmill, in particular, has played a pivotal role by offering employment, contributing to house construction, and making valuable donations to the community. Kurlandbrik has similarly contributed to employment and the construction of houses, positively impacting the economic landscape of the community.	**Unemployment and Economic Challenges:** Unemployment overall however persists as a pervasive issue, hindering community members despite possessing skills. The inadequacy of Bitou municipality equipment further limits its ability to assist the community effectively. These economic challenges demand targeted strategies to promote sustainable employment opportunities and bolster the local economy.
Cultural and Recreational Contributions: The sports field, rugby field, and other recreational facilities contribute to the cultural and recreational vibrancy of the Kurland community. These spaces play a crucial role in fostering community engagement and providing opportunities for residents to stay active and connected.	**Elders' Group and Housing Issues:** The Elders' Group in Kurland requires more operational space, indicating a need for community infrastructure development. Additionally, housing issues persist, with unaddressed cracks in houses reflecting the broader housing challenges faced by the community.
Community Infrastructure and Services: Several key factors have significantly contributed to the progress of the Kurland community. As mentioned above the library has provided the community vital access to the internet, enabling online registration and promoting educational opportunities. Facilities such as the sports field and rugby field are instrumental in engaging and keeping the community's children active, contributing to their overall well-being.	**Streetlights and Road Maintenance:** Challenges related to streetlights and road maintenance contribute to the overall difficulties faced by Kurland. Insufficient street lighting and road upkeep compound safety concerns and hinder the community's mobility. Addressing these issues is crucial for creating a safer and more accessible environment for Kurland's residents.

	Safety Concerns: Safety concerns in Kurland include the presence of drug houses and the availability of alcohol to underage individuals contribute to broader community issues. Other challenges include the presence of pit bull dogs in the community which are considered a safety concern.
	Education: Educational challenges arise from the absence of a local high school, forcing children to undertake long journeys for their education. The lack of accessible educational resources in the immediate vicinity places an additional burden on families and impedes the academic progress of the younger generation in Kurland

A group of participants the Kurland Situational analysis workshop using a tableau (living picture) to represent the challenges of poor health care in the village.

3.2 Helps and Hindrances identified by Covie Community

COVIE COMMUNITY	
HELPS	**HINDRANCES**
Historical: ▪ The discovery and founding of Covie	Historical: ▪ Forced removal from Covie in 1970's ▪ Opening of the Otter Trail (prevented access to ocean)
Infrastructural: ▪ The acquisition of running water and electricity ▪ The repair of the roads ▪ The library ▪ The church/school building ▪ The mobile clinic ▪ Transportation for children to travel to Kurland for school	Infrastructural: ▪ Lack of housing ▪ Lack of sanitation ▪ Lack of public transportation ▪ Lack of playgrounds for children ▪ Lack of shops ▪ Lack of permanent medical care infrastructure
Social: ▪ Fishing Club ▪ The hiking trail through the local fynbos	Social: ▪ Drug and alcohol abuse
Economic: ▪ Honeybush tea harvesting (no longer practiced, illegal) ▪ Backpackers (private revenue) ▪ Possible jobs at Platue Hotel ▪ Jobs at Bloukrans Bungy ▪ Job opportunities at the tollgate ▪ King Fisher Accommodation Bed and Breakfast	Economic: ▪ Unemployment ▪ Loss of rights to the sea ▪ Lack of work opportunities ▪ Lack of well-paid jobs ▪ Lack of development (Covie receives no assistance from government concerning building development)
Educational: ▪ Kindergarten ▪ Transport available for kidsto go to school in Kurland	Educational: • Lack of after school activities • Closing of the local school (kids now are transported to Kurland)

3.3 Helps and Hindrances identified by Southern Crags and Redford Conservancies

SOUTHERN CRAGS AND REDFORD CONSERVANCIES	
HELPS	**HINDRANCES**
Community Collaboration: The conservancies benefit significantly from strong community collaboration. Good collaboration among members allows for effective teamwork, while local community cohesion also plays a pivotal role. The strong sense of community in the Crags encourages collaboration, facilitating knowledge-sharing among members and fostering a culture of continuous learning.	**Logistical Challenges:** The geographical spread of members and properties poses logistical challenges for effective collaboration and communication.
Environmental Assets: The region's rich natural environment and wildlife serve as valuable assets for the conservancies. Nature reserves and corridors enhance the conservation landscape, and the presence of wildlife sanctuaries raises awareness and educates the community about nature. Additionally, restoration projects contribute to the overall well-being of the environment.	**Resource Constraints:** Significant time and funds are required for noticeable impact, and funding limitations for specific initiatives pose challenges. Financial constraints among landowners also affect conservation initiatives.
Passion and Commitment: The shared passion and commitment of like-minded individuals strengthen the conservancies' conservation efforts. Residents' deep passion for nature and conservation fuels collective endeavours,	**Continuity and Participation:** The need for continuity in efforts for sustainable results is crucial, but challenges arise from some members lacking enthusiasm, fatigue causing a decline in efforts, insufficient members coming

and the overall positivity of members contributes to a constructive atmosphere.	together, and busy lives making it challenging to address conservation challenges
Expertise and Knowledge: The conservancies benefit from the presence of knowledgeable conservationists, providing valuable expertise. The diversity of knowledge and backgrounds among conservancy members enhances problem-solving, that fosters a comprehensive and well-informed approach to conservation challenges	**Community Engagement:** Community buy-in is essential but challenging, and issues include ignorance of newcomers about conservation issues, lack of leadership, apathy among landowners, ignorance among landowners and residents, and self-interest impeding collaborative conservation projects.
External Support: External support from entities such as Natures Valley Trust (NVT), SANParks, and Cape Nature has been crucial. Opportunities for funding have supported various conservation initiatives, and SANParks' involvement in maintaining rules protects nature. Access to resources from Cape Nature provides valuable support,	**Collaboration and Integration:** Pooling resources and integration remain ongoing challenges, requiring strategic efforts to enhance collaborative initiatives
Generational Involvement: The active involvement of the younger generation in Southern Crags has injected vitality into the conservancy's conservation efforts, diversifying participation and ensuring a sustainable future for the organisation.	**Knowledge and Skills:** Loss of institutional knowledge poses a challenge, along with insufficient knowledge to deal with various conservation issues and a lack of skills and background to address specific challenges.
Leadership and Perspective: New leadership in Southern Crags has brought fresh perspectives, rejuvenating the conservancy's strategic outlook. Recognizing the importance of wisdom	**Environmental Impact:** Various environmental impacts pose challenges, including urbanization affecting natural surroundings, regional growth and development impacting the natural

keepers has added depth and a historical perspective to the organization.	environment, threats from domestic animals and snares harming wildlife, persistent challenges from alien species and managing fynbos in the area presenting difficulties. Additionally, invasive species and population growth in the region impact conservation efforts, increased monoculture is a concern, and domestic animals pose threats to natural resources.
Environmental Education: Access to beautiful walks encourages appreciation of the natural surroundings, while education initiatives about the region and natural surroundings promote awareness among community members.	
Active Conservation Efforts: The conservancies actively engage in clearing alien species, demonstrating the community's dedication. Local residents play an active role in contributing to the care of their environment. Being part of a community of like-minded people strengthens collective conservation endeavours,	

Image theatre depicting conservancy members "busy lives" as an hindrance to the progress of the Southern Crags Conservancy.

Comparisons between stakeholder groups regarding helps and hindrances:

The comparison between the more economically challenged communities of Covie and Kurland with the relatively affluent communities of Redford and Southern Crags and Natures Valley provides insights into the socio-economic differences and their implications.

Economic Disparities: Covie and Kurland villages, characterised by high unemployment rates, limited infrastructure, and housing challenges, reflect economically disadvantaged communities. In contrast, Natures Valley, Redford and Southern Crags communities exhibit a more affluent profile with better economic stability, evident in their conservation efforts, land ownership, and potential for sustainable development.

Access to Resources: The communities in Covie and Kurland villages face resource shortages, including limited healthcare facilities, educational opportunities, and infrastructure. The lack of well-paid jobs, housing, and accessible amenities further accentuates the economic challenges. On the contrary, Natures Valley, Redford and Southern Crags communities benefit from better access to resources, enabling initiatives focused on conservation.

Conservation and Environmental Stewardship: Redford and Southern Crags and Natures Valley communities, with their relative affluence, demonstrate a greater capacity for conservation efforts. The conservancies actively engage in environmental stewardship, actively addressing issues like invasive species, wildlife protection, and sustainable resource management. This reflects the influence of economic stability in development of environmental initiatives.

Community Engagement and Collaboration: Economic disparities influence community dynamics and collaboration opportunities. In Covie and Kurland, challenges such as crime, safety concerns, and limited resources contribute to more complex community dynamics.

Skill Development: Covie and Kurland face challenges related to access to skill development opportunities, contributing to the cycle of unemployment and economic struggles. In Redford and Southern Crags, where economic stability prevails, there is greater potential for investing in skill development, fostering a more empowered and knowledgeable community with regards to environmental conservation.

Implications for Solutions: The economic disparities highlight the need for tailored solutions. In Covie and Kurland, conservation initiatives should also connect to fundamental needs like housing, healthcare, and employment. In Redford and Southern Crags conservancies and Natures Valley community, conservation initiatives are already highly prioritised and often self- initialised.

In conclusion, the economic differences between Covie and Kurland communities and Redford, Southern Crags and Natures Valley communities significantly impact the challenges and opportunities within these communities. Recognising these disparities is important for developing effective and equitable solutions that address the unique needs of each stakeholder group.

Conclusions regarding helps and hindrances

1. **Diverse Challenges:** All stakeholders groups experience diverse challenges ranging from safety concerns, housing shortages, and economic challenges to education and community engagement issues.
2. **Community Strengths:** Community support structures, collaboration, passion, and commitment are strengths shared by both, fostering resilience in the face of challenges.
3. **Economic Impact:** While Kurland emphasises local businesses for economic growth, Southern Crags focuses on environmental assets and conservation efforts, reflecting diverse priorities.
4. **Collaboration Challenges:** Both communities face challenges in collaboration, either due to geographical spread in conservancies or obstacles like crime rates in Kurland.
5. **Integration and Resource Management:** Southern Crags grapples with resource constraints and integration, while Kurland experiences challenges in resource management.

In conclusion, understanding the unique challenges and strengths of each community is essential. Collaborative efforts, resilience, and targeted interventions that align with the community's values are vital for safeguarding the Salt River system for the future. The comparative analysis emphasises the importance of adaptive strategies that consider the specific socio-environmental context of each community.

Image Theatre: Participants at the Southern Crags Conservancy situational analysis workshop using a tableau (living picture) to depict a nature scene in the Crags.

4. Mapping Stakeholder Relations

A Human Venn Diagram was created to examine the relationships between the stakeholder group and various other organisations.

Method:

Each organisation was symbolically represented by a participant holding a circle. The size of each circle in the diagram represented the importance of each respective organisation to the Southern Crags Community:

- A large circle signifies high importance.
- A medium-sized circle indicates medium importance.
- A small circle indicates low importance.

The distance of the person from the centre reflected the closeness of the relationship between the organisation and the stakeholder group/community group—essentially, how closely the organisation works with the stakeholder group./community group.




Note: Low importance does not equate to 'not important'; it simply means less critical than those of higher importance.

4.1 Stakeholder Relations In the Southern Crags Conservancy

List of organisations in relationship with Southern Crags Community

Organisation	Function
Cape Nature	Conservancy Management
Kathumba HOA	Support of HO
CFMN	Fire Management
San Parks	Conservation
NVT	Conservation / Education
Redford Conservancy	Neighbour / Support
Bitou Municipality	Connection to cut funding infrastructure / services
Dept. of Environment	Regulating use of environment
Plett Environmental Forum	Support
Police and Security	Safety and Security
Crags Rate Payers Association	Conduit to Municipality
Eskom & SAMRAI	Electricity & Roads





The following organisations were depicted as being of high importance to Southern Crags Conservancy/Community:

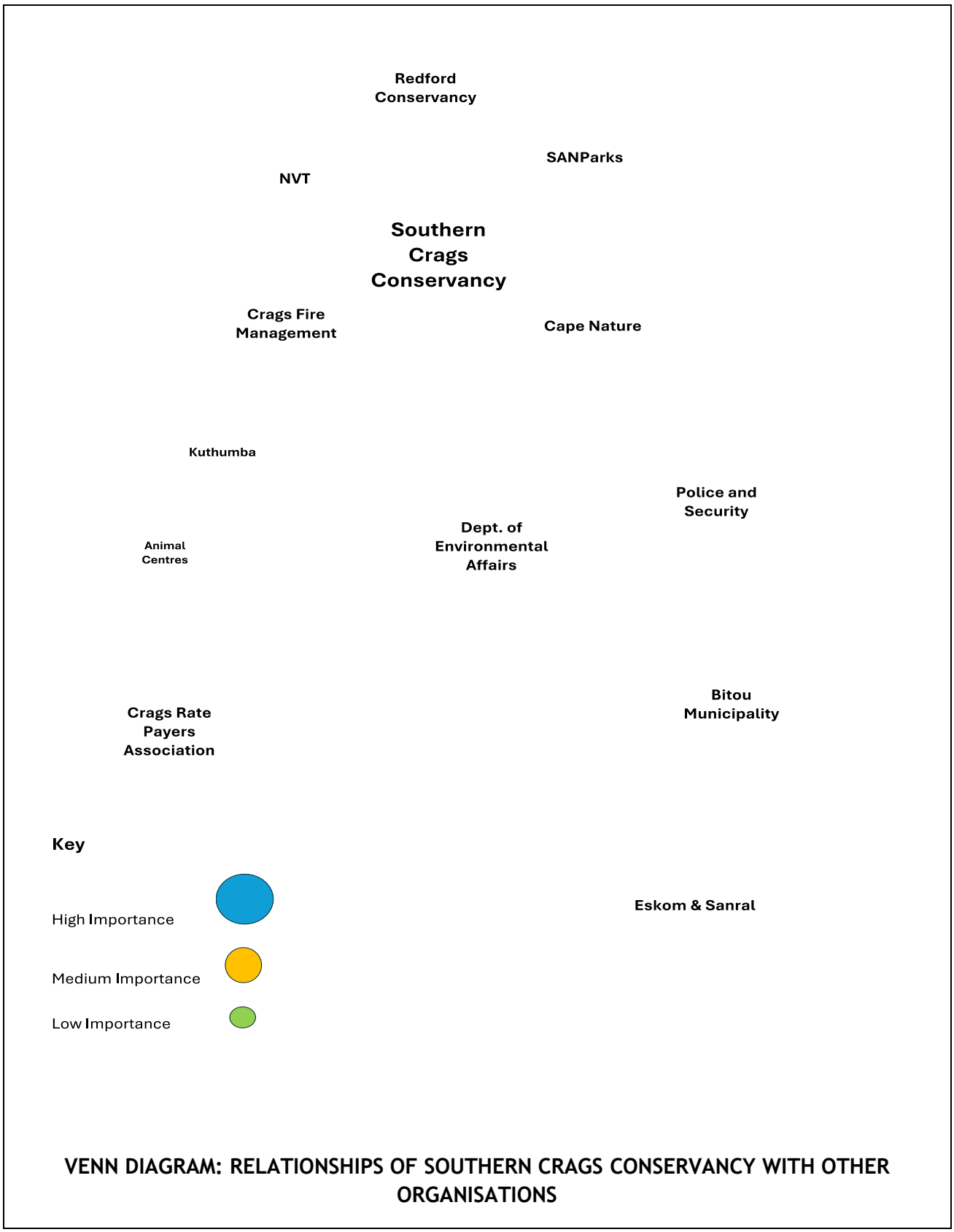
- Natures Valley Trust (NVT)
- Redford Conservancy
- SANParks
- Cape Nature
- Crags Fire Management
- Department of Environmental Affairs
- Police and Security
- Bitou Municipality
- Eskom and Sanral

The following organisations were depicted as being of medium importance to the Southern Crags Conservancy:

- Crags Rate Payers Association

The following organisations are depicted as being of low importance to the Southern Crags Conservancy:

- Kuthumba
- Animal Centres

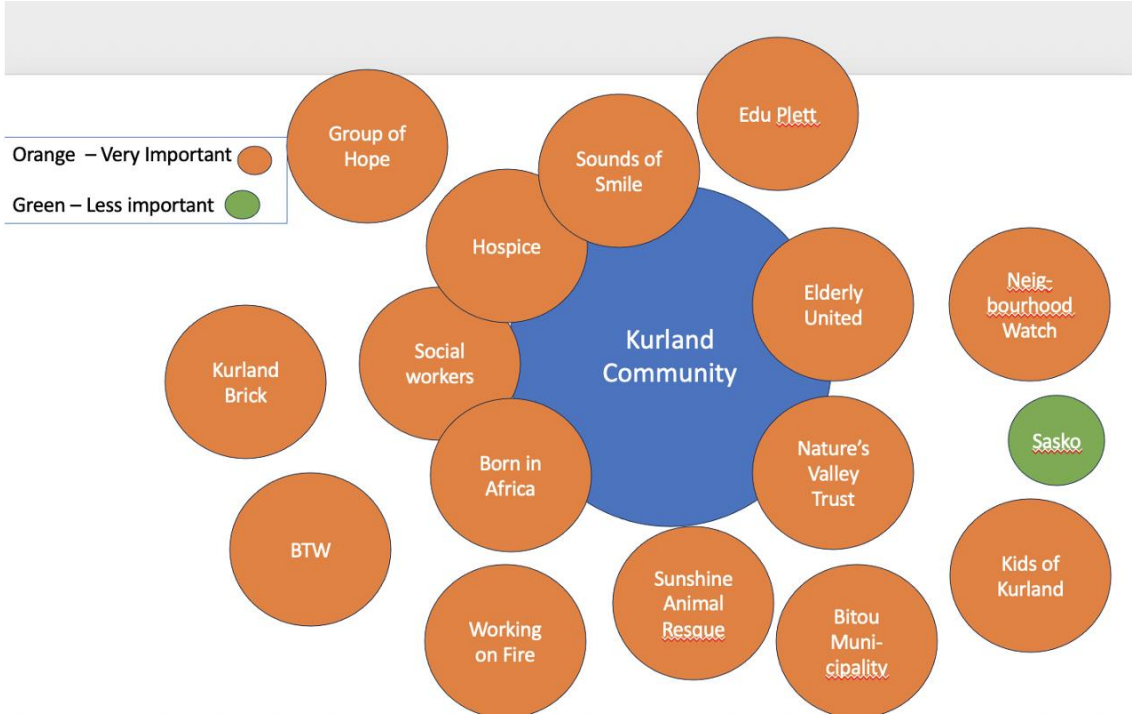


VENN DIAGRAM: RELATIONSHIPS OF SOUTHERN CRAGS CONSERVANCY WITH OTHER ORGANISATIONS

4.2 Stakeholder Relations in Kurland Village

List of organisations in relationship with Kurland Village

Organisation	Function
Bitou Municipality	Service Delivery
Elderly United	Sports, Field trips, Activities
Social Workers (Social Development)	Salaries for Teachers, Food for the Creches
Dept. Agriculture	Funding Tools, Skills Development, Land Recreation
NVT	Provide Trees for Schools, Tools and Seedlings, Education
Sunshine Animal Rescue	Help Dogs and other Animals
Working With Water	Job Creation, Skills Development
Working With Fire	Job Creation, Skills Development
Hospice	Outreach Services Delivery
Kurland Brik	Job Creation, Skills Development
Sounds of Smile	Help with Building Projects
Born in Africa	Support Youth
Edu Plett	Education for Youth
BTW	
Neighbourhood Watch	Safety and Security
Kids of Kurland	Sponsor Kids Schooling and Uniforms



VENN DIAGRAM: RELATIONSHIPS OF KURLAND VILLAGE WITH OTHER ORGANISATIONS

The following organisations were depicted as being of high importance and have a very close relationship with Kurland Community:

- Sounds of Smile
- Hospice
- Social Workers
- Born in Africa
- Nature's Valley Trust
- Elderly United

The following organisations were depicted as being of high importance and have a close relationship with Kurland Community:

- Edu Plett
- Group of Hope
- Kurland Brick
- BTW
- Working on Fire
- Sunshine Animal Rescue
- Bitou Municipality
- Kids of Kurland
- Neighbourhood Watch

The following organizations were depicted as being of low importance but still a working relationship with Kurland Community:

- Sasko

4.3 Stakeholder Relations in the Covie Community

Importance Levels of Covie's Relationships (2019 situational analysis)

Large importance

- SANParks
- Department of Sea and Forest
- Municipality
- Rural Development and Land Affairs

Medium importance

- Tollcon

Little importance

- Nature's Valley Trust

Activity Levels (2019 situational analysis)

Little activity

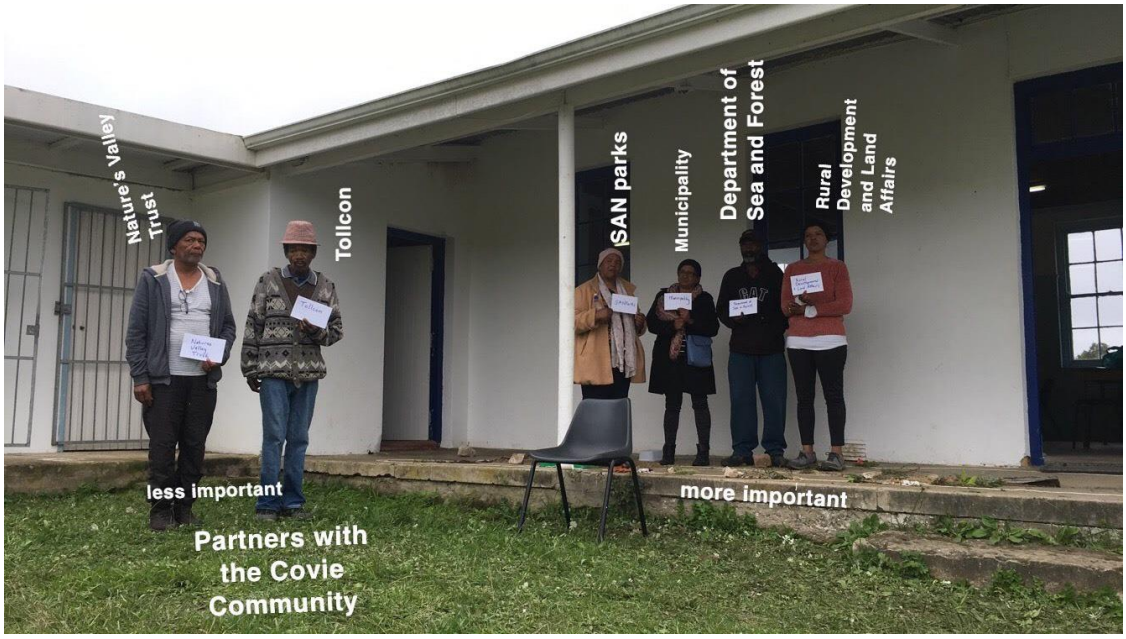
- Rural Development and Land Affairs
- Department of Sea and Forest
- Tollcon

Medium activity

- SANParks

High activity/close relationship

- Nature's Valley Trust
- Bitou Municipality



Human Venn Diagram representing stakeholder relations in Covie Community (2019 Situational Analysis).

5. Changes in Natural Resources Over Time

Method:

The participants engaged in a group discussion to look at the changes in natural resources over time and the reasons behind these changes (drivers). This method facilitated a shared understanding of the factors shaping the trends observed in the region.

5.1 Change in natural resources over time in Southern Crags and Redford Conservancies

The perceived trends or changes in natural resources over time in Southern Crags and Redford Conservancies were discussed by the group of participants. Through open dialogue, perspectives where shared on whether these key natural resources are increasing, decreasing, or are remaining stable. The drivers of these changes were also discussed and recorded.

Inputs from Southern Crags and Redford Conservancies: Negative trends and key drivers

Water source areas /catchment areas = Negative trends

Drivers include: Dams, abstraction, pollution, run-off of herbicides etc, raw sewerage (from Kurland Village, municipality, storm water drainage – industry/timber/bricks)

Forests = Unsure about the trends

Concern about alien vegetation (Noticed increase!), bug weed new to the Crags, fellow deer increasing (contentious topic – hunting of fellow deer)

Wetlands = Negative trends

Drivers include: Land use such as macadamia nuts, polo fields, vineyards (*increased monoculture). Other drivers include development issues such as illegal housing, housing developments in Kurland Village, agriculture (irrigation etc), and dams.

Fynbos = Negative Trends

Drivers include: Land uses, macadamia nuts, polo fields, vineyards (* increasing monoculture). Fynbos does not burn as often as it should and personal removal of the vegetation.

Wildlife = Negative Trends (It is noticed that there is a decrease in wildlife overall).

Drivers include: Snares, poaching, (increase with development), relocation of honey badgers (or shoot genet etc as they prey on livestock, chickens, etc). Despite an overall decrease in wildlife there may be specific species which have seen an increase.

Alien Trees - Upward Trend

Alien trees have increased in general but some areas have decreased because of control and efforts by land owners. Melton farm was all pine ~25 years ago. Starting in 2005 there was more awareness and protection of natural resources. Lack of funding for clearing aliens can be an issue, and when funds are available, it's not always sustainable and becomes a burden when funds for clearing aliens run out.

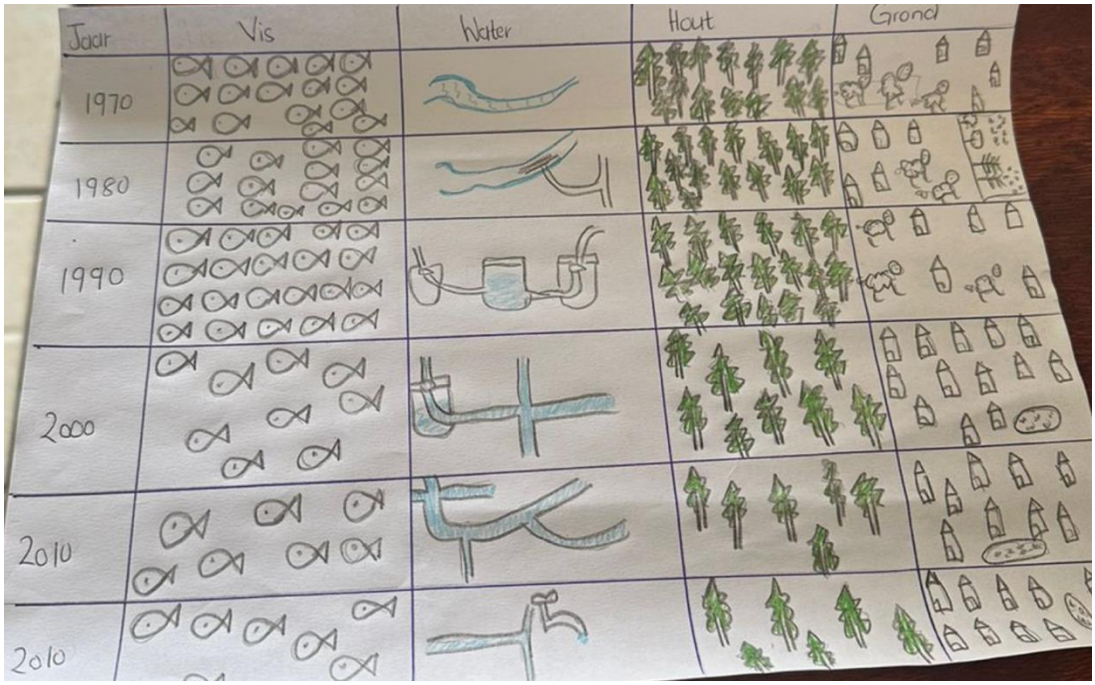
5.2 Changes in natural resources over time in Kurland Village

The Kurland community members noted the steady drop in fish population from form the 1970s to now. They also indicated that in the 1970s there were a lot fewer restrictions on the fishermen and also a lot fewer fishing boats.

They also indicated that the process of urbanisation saw a change from having to collect water from the river by hand in the 1970s. They spoke about how the water system was modernised and improved by the municipality, purifying the water and connecting the village to a modern water system to what it is today. The village members did, however, indicate that the river in the 1960s was a lot cleaner and that they were able to drink from the river. Today the river is a lot more polluted and they can no longer drink directly from it. In the early 2000s, they started to experience water restrictions.

The community members also highlighted a decline in available forest for wood as a resource from the 1970s to now. As Kurland Village expanded more trees were cut down to build houses and to use as firewood.

Similar to the fish and wood resources, the community highlighted the decline in usable land due to urbanisation and the expanding private farms in the area. Not only was there less usable land but they noted that the soil they have is far less fertile than it was in the past. One reason the members give for the less fertile soil is that in the past they had their own livestock and used the dung as fertiliser.

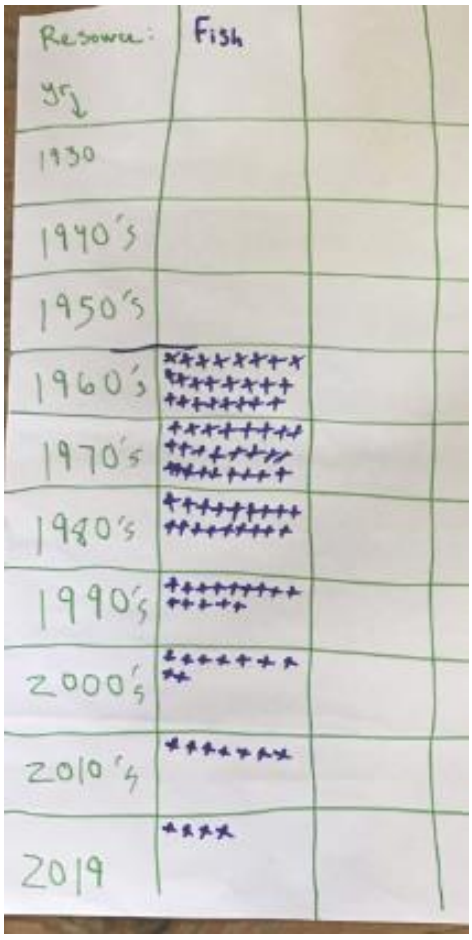


Kurland Village matrix chart depicting the changes in natural resources over time in Kurland

Drawing by: Andoline Davids.

5.3 Changes In fish abundance over time in the Salt River estuary - according to Covie anglers

Covie anglers traced the decline in fish abundance over the decades. In the 1960s, fish, including Shad (Alosa sapidissima), Blacktail (Diplodus sargus), and Galjeon (Dichistius capensis), were plentiful, but by the 1980s, due to trawlers, abundance dropped. The trend continued in the 1990s, worsened by overfishing and changing climate conditions. Fish abundance continued to decrease iin the 2000s, with a notable increase in plastic pollution. The decline persisted in the 2010s, reaching its lowest point in 2019, affecting angling fish like Shad (Alosa sapidissima), Blacktail (Diplodus sargus), and Galjeon (Dichistius capensis). Legal restrictions and fines were noted for fishing in restricted areas.



Changes in fish abundance over time in the Salt River mouth as depicted by Covie anglers (2019)

6. Drivers of Change

Participants in workshops identified several key drivers of change in natural resource abundance. Understanding and addressing these drivers are crucial for preserving the

integrity of the river system. Image theatre was utilised in the participatory workshops to depict each driver of change. Below provides a summary of these:

Decline in Water Quality and Pristineness of the Salt River and surrounding wetlands:

Drivers:

Stakeholders pointed out that the quality and pristineness of the Salt River faces multiple challenges. The brick and timber industries and agricultural activities such as macadamia and almond cultivation contribute to the alteration of wetland ecosystems, posing challenges to their sustainability. Additionally the presence of cows, raw sewage discharge, stormwater drainage, and various land use practices all contribute to the degradation of water quality of the Salt River and surrounding wetlands. Pollution and improper waste disposal further exacerbate these issues. Damming also emerged as a significant factor, as it influences the ecological balance by regulating water flow. General development in the region, alongside urban expansions such as the housing developments in Kurland Village, further compounds the stress on wetland environments. There were many concerns reported by Southern Crags and Redford conservancy members regarding the new housing development plans in Kurland Village.

Decline in Natural Fynbos in the Salt River Region:

Drivers: Stakeholders highlighted several drivers impacting the natural fynbos in the Salt River region. The encroachment of vineyards, establishment of polo fields, land use for macadamia and almond plantations, deforestation, monoculture practices, and irregular burning patterns collectively contribute to the alteration of the fynbos ecosystem. Recognising and mitigating these drivers are pivotal for the conservation of this unique and biodiverse habitat.

Decline in Wildlife in the Salt River Region:

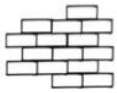
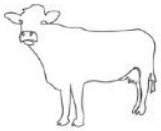
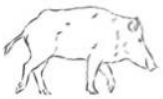
Drivers: The stakeholders identified key drivers impacting wildlife in the Salt River region. These include the presence of snares, poaching activities, human-wildlife conflicts involving livestock and agriculture, the impact of fences, the increase of certain species like fallow deer (exotic deer) and bush pigs, and the influence of dogs in protected areas. Addressing these drivers requires a multifaceted approach that considers both ecological and socio-economic factors, emphasizing the need for conservation efforts to balance the needs of wildlife and human activities.

Image theatre: Participants depicting "fences blocking pathways of wildlife in the Southern Crags Conservancy".

Increase in Alien Trees in the Salt River Region

Drivers: Stakeholders pointed out specific drivers contributing to the proliferation of alien trees in the Salt River region. The introduction of new tree species, the challenging landscape that makes clearing difficult, and the impact on waterways have been identified as key factors. These drivers highlight the complexity of managing alien vegetation, requiring targeted strategies that consider the unique characteristics of the landscape and the species involved.

Refer to Figure below for a picture depiction of the various stakeholder responses regarding drivers of impact on the natural resources

Wetlands	Alien Trees	Quality of Water	Fynbos	Wildlife
Damming 	New species 	Kurland Brick 	Vineyarld 	Snares 
Agriculture 	Landscape hard to clear 	Cows 	Polo fields 	Poaching 
Development 	Waterways 	Timber industry 	Land use – Macadamian nuts 	Human – Wildlife conflict: livestock and agriculture vs wildlife 
Illigal Housing 		Raw sewage 	Deforestation 	Increase of some species: Fellow deer & Bush pigs 
Kurland village 		Land use – Macadamian nuts 	Monoculture 	
		Water extraction 	Does not burn as often as should 	
		Pollution 		

7. Vision

VISION OF SOUTHERN CRAGS AND REDFORD CONSERVANCIES

1. We envision wildlife and creatures thriving, wildlife populations increasing, viable populations of species
2. Larger wildlife species, such as leopards, thriving alongside the protection of smaller creatures, such as spiders.
3. We envision numerous environmental educational events organised with active participation.
4. Securing funding, including significant international contributions, to support our conservation efforts.
5. We envision member-driven initiatives to promote awareness of our conservation efforts in the region.
6. We envision a functional communication system, utilising social media for informed and updated sharing of our values, vision, and progress.
7. We envision community cohesion, positive connections among members, and friendly WhatsApp messages.
8. We envision more forest and less aliens species!
9. Development of a network of corridors through natural forests, facilitating the free movement of wildlife between properties.
10. We envision more residents and conservancy members helping remove alien plants.
11. We envision more residents offering their time to help with the conservancies and unity amongst our members.
12. We foresee ourselves offering support to the conservancies conservation efforts.
13. We envision an active, enthusiastic and well supported conservancy committees.

Image theatre was a method used to depict the participants collective vision for the Southern Crags Conservancy.

VISION OF COVIE COMMUNITY

- To support our schools and in Covie's case bring a school back to the community
- An improvement to infrastructure in the form of permanent clinics, proper roadways, additional residences, and a small industry park.
- Being able to put food on the table, live in nature, and create nurseries.
- Improved neighbourhood security, as break-ins currently pose a major problem for the community.
- Provide a tranquil and safe home for our children to grow up in.
- To have a greater church turnout and have a farther reach into the community.
- To reduce drug and alcohol abuse.
- Gardening and harvesting our own crops to sustainably harvest our own food and sell the excess as an additional source of income to provide for our families.
- Opening restaurants, eateries for children and/or stores to bring jobs and more opportunities for home-makers to work outside of their homes.

Covie Anglers' Vision: That the restricted zones be removed from our own shore To be able to fish in our own boats with no worry. To catch enough fish to provide for our families and bring excess to market.

Covie fishermen's skit depicting their vision of fishing from their own boat with no worry and providing their family with fish.

VISION OF KURLAND COMMUNITY

Group 1: Ladies Sewing Team ***Current Situation:*** The ladies' sewing team currently operates from someone's house due to a lack of dedicated space for their sewing machines and work. *Vision:* In the short term, our vision is to secure a space for the ladies' sewing team by acquiring a Wendy house or structure through donations from

outside organizations. Volunteers will actively participate in setting up the building and maintaining a clean and conducive work environment.

Groups 1's skit illustrates community volunteers approaching local churches for donations to support the construction of the structure for the ladies sewing group.

Group 3: Active Volunteers and Community Needs *Current Situation:* There is a lack of active volunteers in the community and a lack of understanding of needs or a disconnect between the needs of community organizations and outside organizations and support. *Vision:* Our vision involves expanding the group of community volunteers to actively assess and respond to the needs of different community groups and organizations within Kurland. We aim to collaborate with external organizations to provide necessary support to community organizations to help support their needs. We want to nurture more active youth involvement, not just in assessing community needs but also in developing their skills to contribute meaningfully to the community.

Group 2: 5 to 10 Years Vision - Youth Skills and Learning Centre *Vision:* In the next 5 to 10 years, our aim is to establish a comprehensive youth skills and learning centre that focuses on skill development in different areas such as carpentry, electrical work, computer literacy, learning, and reading support. This centre will also house a dedicated learning and reading section equipped with computers. The youth centre will serve as a holistic hub for educational and vocational growth, fostering a conducive environment for the youth to acquire various skills and engage in learning activities.

Group 4: Women's Communal Food Garden *Current Situation:* A group of women with planting experience in their own gardens aspires to start a communal food garden in Kurland but requires support from the municipality for a piece of land. *Vision:* Our vision includes securing a piece of land from the municipality for the community food garden. The ultimate goal is to sell the produce to the community, reducing their reliance on external sources. Furthermore, part of the vision involves growing seedlings

to sell to community members interested in cultivating their vegetable gardens at home, promoting sustainability and self-sufficiency. Additionally, the group envisions approaching restaurants in the area to establish partnerships for the purchase of their produce, creating a sustainable market for their goods.

Group 4's skit illustrates the clearing of the allocated land for the communal food garden.

SECTION TWO: STAKEHOLDER ANALYSIS

8. Characterisation of Stakeholders

An Influence-Interest Grid (refer to Table 1 below) was used to prioritise engagement with key stakeholders based on their influence and interest in the Salt River project. The grid was utilised to categorise key stakeholders into different quadrants, indicating the level of engagement and the level of collaboration required.

Refer to the Influence/Interest Grid tool below. Stakeholders' influence and interest in the Salt River Project are depicted on the grid, with influence ranging from low to high along the vertical axis and interest from low to high along the horizontal axis. The upper right quadrant typically houses key stakeholders, as it indicates both significant interest and influence.

Table 1: Influence -Interest Grid categorising some of the key players in the region and associated management strategy for each type of category.

High Influence, Low Interest *(Latents)* *Keep Satisfied* **DEA&DP, Biodiversity** **Western Cape Government** **Non-resident Homeowners in NV** **Following can shift quadrants depending on influence and interest of majority of members:** **Kurland Club** **NVRA and NVSA** *MANAGEMENT STRATEGY:* *Potential Conversion:* *-Convince them of the effort's importance.* *-Shift them towards a supportive role if possible*	*High Influence, High Interest* *(Promotors and Key Players)* *Manage Closely* **Southern Crags Conservancy** **Redford Conservancy** **Bitou Municipality** **Garden Route Biodiversity Reserve & SWSA Working Group** **WWF (SWSA)** **Plett Environmental Forum** **SANParks** **South African National Biodiversity Institute** **Cape Nature** *MANAGEMENT STRATEGY:* *-Address concerns to prevent them from turning negative.* *-Periodic updates to maintain awareness.* *-Avoid unnecessary engagement to prevent interference.*
Low Influence, Low Interest *(Apathetics)*	*Low Influence, High Interest* *(Defenders and Ambassadors)*

Monitor with Minimum Effect	*Keep Informed*
	Sunrise Caravan Park
Kurland Village Public Library	**Lily Pond Country Lodge**
	Business Owners & Permanent Residence in NV
BGCMA	
	Rainforest Ridge Lodge
	Crags Primary School
DFFE	**Firefly Falls**
	Tsitsikamma Fishermen Institute
	Ekologik (Pty)
	Nature's Way
MANAGEMENT STRATEGY	**Endangered Wildlife Trust**
Periodic updates to maintain awareness.	**Tenikwa**
Avoid unnecessary engagement to prevent interference.	**Independent Researchers**
	Lily Pond Country Lodge
Aim to shift them to the right (promoter or defender)	**Bitou Municipality**
	Keurbooms Ecological Infrastructure Network
	Africanyon
	Forest Nature and Spa Lodge
	Trogon House and Forest spa
	Kuthumba
	Orca Foundation
	Blue Rocks Café
	Kurland Park Horse Trails
	That Wine Demesne (Wine farm in Crags)
	Kurland Park
	Kurland Gardening Club

	Kurland Elderly United **Kurlandbrik** *MANAGEMENT STRATEGY* *Defenders and ambassadors are valuable volunteers and possible ambassadors and can contribute towards outcomes.* *Make use of their interest through involvement* *-Listen to their opinions* *Keep them informed; leverage their volunteer support.*

9. Stakeholder interests and perspectives

We interviewed key stakeholder in the region to determine (i) their positions towards ecosystem services, (ii) their interests in the project, (iii) the benefits they receive from ecosystem services; (iv) how and where they access them, (v) their perspectives on their conditions and trends, (vi) their relationships with other stakeholders in the region, (vii) their views of the Salt River eco system services, (viii) possible drivers of change to these services, and also (viiii) their ideas of solutions. These one-on-one semi structured interviews were conducted with various individuals in the Salt River region from July-December 2023 utilising a matrix to capture the responses (refer to Table 2 below).

Table 2 : Matrix used to interview key stakeholders

Interests / Eco-system services What are your own key interests in the Salt River region (might be farming,	**Impacts** What impacts do you see on the natural system in the surrounding region?	**Drivers of impact** Can you identify the main drivers (what are the causes) of change to the river system and	**Change in natural resources over time** Have you noticed any significant changes in these	**Interests in project and solutions** Natures Valley Trust (NVT) are initiating a Salt River Project focused on	**Recommendations or ideas for solutions** Do you have any specific recommendations or suggestions for addressing impacts on the Salt River and its

business, tourism?) Are there any natural resources in the surrounding (Salt River) region that you find important or serve you or your business (eco system services)? Explain importance to you. Can you describe how you use and manage these resources?	Do you feel your own business or personal activities has a positive or negative on no impact on the surrounding ecological system ?(Explain).	surrounding natural areas?	ecosystems over time? If so, what changes, when did they occur, and over what period?	the Salt River and trying to develop nature based solutions to safeguard the river and its surroundings for the future. Could you indicate your level of interest in this project (high, medium, low)? (Explain why)	surrounding ecosystems? Who needs to get involved to make these solutions work?

Summary of stakeholder responses to the questions:

The data in the matrix provides an understanding of stakeholders' perspectives, problem orientations, and knowledge of the Salt River system. The responses are presented below:

1. **Awareness of NVT and Conservation Work:**

   Stakeholders exhibit varying levels of awareness regarding Nature's Valley Trust (NVT) ranging from moderately aware, acknowledging NVT's presence to high awareness – especially those residents in Natures Valley who were interviewed.

2. **Interest in Salt River Project:**

   The stakeholders' interest in the Salt River Project varied from medium interest to high interest. For example wine farmers who although prioritise grape farming reported recognising the importance of conservation and the project. Most tourism operators and lodge owners demonstrated a high interest in the project, aligning with their core values. Kurland Park express varied interest in the project, balancing conservation with the demands of their Polo business.

3. **Key Interests in Salt River Region:**

   Examining specific examples of key interests of stakeholders interviewed include grape farming practices using sustainable viticulture practices water conservation, and soil health. Lodge owners generally prioritise maintaining biodiversity on their properties for eco-tourism, and implementing eco-friendly practices. Kurland Park, focusing on hospitality, stressed sustainable tourism practices for successful tourism.

4. **Important Natural Resources and Ecosystem Services:**

   All stakeholders interviewed agreed to the importance of natural resources. A wine farmer reported to rely on water for irrigation and soil quality for grape cultivation. Lodges like Rainforest Ridge place value on their diverse ecosystems on the property for attracting tourists. Kurland Park benefits from clean water and scenic landscapes.

5. **Use and Management of Resources:**

   Specific examples of grape farming practices by “That Wine Demesne Wine Farm” include precision irrigation systems, cover cropping, and organic fertilisers, showcasing sustainable resource management. A number of land owners and lodge owners in the Crags express their interest in implementing responsible tourism practices to minimise environmental impacts. Kurland Park suggested farmers focus on waste reduction and sourcing local produce.

6. **Impact on Ecological System:**

   It was reported by one of the wine farmers that grape farming will positively impact soil health if organic practices are used. A local farmer in the Crags suggested that residents who source local produce can contribute positively to conservation in the region.

7. **Observations of Other Stakeholders' Impact:**

   Lodge owners in the region reported witnessing positive actions like eco-conscious tourism but also noted observations of negative impacts from irresponsible visitors. Sone farmers reported observing neighbouring farms adopting sustainable practices and others reported engaging in practices harmful to the environment. Examples of practices of neighbours reported that were considered harmful were neighbours erecting fences on properties in Redford area that inhibit wildlife movement between the properties in the conservancy and also illegal damming of water on the river system in Redford. Neighbours removing large sections of fynbos to develop agricultural practices was also reported by some stakeholders as concerning.

8. **Changes in Ecosystem Over Time:**

   Stakeholders' gave some insights into changes in ecosystems in the region over time. It was noted by wine farmers in the region that there has been a shift in grape ripening times, potentially linked to climate change. Land owners in the

Crags reported negative changes in wildlife numbers which they point out will directly impact stakeholders in the region dependent on eco-tourism. Kurland Park noted some changes in local flora as well as changes to the water quality in the smaller tributaries of the Salt River over time.

9. **Main Drivers of Change to River System:**

Specific examples of drivers of change emerge from stakeholders' responses. Wine farmers in the region noted climate fluctuations affecting water availability. Rainforest Ridge noted tourism impacting riverbank erosion. Kurland Park identified pollution from upstream sources affecting water quality.

10. **Relationships and Conflicts with Other Stakeholders:**

Stakeholders experience cooperation and conflict with each other in the region. “That Wine Demesne’ wine farm collaborates with neighbouring farms on water-sharing initiatives. Some of the land owners operating small tourism business in the Crags region mentioned collaborating with local conservation groups but also face conflicts with irresponsible visitors. Some of the farmers mentioned engaging in partnerships with other stakeholders but have also experienced conflicts over resource usage.

11. **Conflicts with Other Stakeholders:**

Conflicts of interest sometimes arise between stakeholders in the Salt River region. Some reported clashing with neighbouring farms over water allocation. Others reported clashing with developers impacting nearby ecosystems. Others have experienced disputes with their neighbours over land use affecting natural surroundings. These include difference in opinions about use of dams, fences, and mono culture. Understanding these conflicts provides a basis for targeted resolution strategies.

12. **Challenges or Issues Related to Ecosystem Services:**

Wine makers highlighted challenges on their properties such as water scarcity, impacting irrigation for grape farming. Farmers highlighted issues with invasive species, affecting the biodiversity crucial for eco-tourism. Sheep farmers point out challenges in waste management within the hospitality sector.

Summary of prioritisations of stakeholders:

These examples illustrate the decision-making processes and trade-offs involved in resource utilisation within the Salt River context, considering the perspectives of various stakeholders

1. Resource Extraction

Stakeholders in the Salt River region engage in diverse resource extraction practices tailored to their specific needs. The owner of That Wine Demesne, wine farm, for example relies on rainwater for her vineyards, practicing sensible farming techniques and collaborating with neighbouring farmers to ensure sustainable water usage. Kurlandbrik, involved in clay brick manufacturing, reports utilising dam water for production, minimising surface runoff through on-site management, and tries to combat pollution stemming from Kurland. An owner of renowned restaurant in the area, sources fresh produce locally, emphasised a farm-to-table approach. A number of eco lodge owners in the Crags owned by conservation enthusiasts, like Rainforest Ridge utilise the natural beauty of the landscape for eco-tourism, showcasing the delicate balance between tourism and preserving the environment.

Goods and services extracted in the region encompass a variety of products, including grapes and wine, clay for brick manufacturing from Kurlandbrik, fresh produce for restaurants in the region, and the natural beauty of the landscape for tourism. Challenges are encountered, such as restrictions related to water availability and quality, pollution concerns affecting brick manufacturing, invasive species impacting the natural ecosystem, and the delicate balance required for sustainable tourism. Legal rights to water extraction are recognized based on regulations, property ownership, and compliance with environmental guidelines. Some individual stakeholders, such as Rainforest Ridge and Kurland Park, ensure their water extraction practices align with sustainability objectives.

2. Resource Management Strategies

Stakeholders employ various resource management strategies to mitigate environmental impacts and comply with regulations. Sensible wine farming practices by “That Wine Demesne” contribute to positive ecological impacts, maintaining a balance between agriculture and conservation. Kurlandbrik’s efforts in minimising surface runoff and pollution highlight the importance of responsible manufacturing practices. Restaurant owners interviewed prioritise supporting local farmers and sustainable agriculture practices to ensure a steady supply of fresh produce for their restaurants. A number of eco lodges in the Crags focus on low-impact tourism, implementing guided eco-tours that educate visitors about the local ecosystem. These strategies result in positive outcomes, demonstrating the feasibility of balancing economic activities with environmental sustainability. However, concerns persist, including pollution issues from manufacturing, conflicts over water usage, and the impact of invasive species, necessitating ongoing efforts by all stakeholders to refine and adapt resource management approaches.

3. Stakeholder Activities:

Stakeholders actively engage in activities aligned with their interests, reflecting the economic, ecological, and social dimensions of resource utilization. Stakeholders reported collaborating with neighbouring farmers to address shared challenges, emphasising the importance of community engagement in resource management. Kurlandbrik emphasises the significance of water and environmental considerations in the brick manufacturing process, showing some form of environmental responsibility.

One of the private land owners who owns a tourism lodge supports local agriculture. Local eco-tourism operators organise educational eco-tours, aligning their activities with the conservation of the area's unique natural assets. A number of stakeholders in Redford through the effort of the conservancy collectively navigate challenges, ranging from pollution concerns, responsible waste practices to invasive species management, which requires coordinated efforts for sustainable resource use.

4. Perceptions and Interactions

Perceptions among stakeholders vary based on their roles and interests. While newer businesses, receive positive acknowledgment for contributing to the local economy and promoting sustainable practices, conflicts do sometimes arise over their water usage and environmental impacts. Open communication channels were suggested as essential, to facilitate collaboration in activities such as alien clearing, and so that stakeholders are able to work together to address common challenges.

Interactions involve positive collaborations with conservation-focused organisations, such as Southern Crags Conservancy and Redford Conservancy partner with local environmental groups like SANParks and Cape Nature in their conservation efforts. Conflicts, however, highlight the need for ongoing dialogue and conflict resolution mechanisms to address conflicting interests and perspectives among wine farmers, manufacturers, restaurant owners, and tourism enthusiasts.

5. Trade-offs in Decision-Making

Trade-offs in decision-making involve careful consideration of ecological, economic, and social factors. Stakeholders in interviews weighed tangible and intangible costs and benefits, acknowledging both immediate gains and long-term sustainability. For instance, decisions to prioritise local sourcing for her restaurant may incur higher costs but contributes to the support of local farmers and sustainable agriculture. Specific examples include ‘That Wine Demesne’ commitment to sensible farming, Kurlandbrik focus on minimising surface runoff, Kurland Park’s emphasis on supporting local agriculture, and Rainforest Ridge's dedication to low-impact tourism.

Recommendations by stakeholders for addressing impacts:

- Stakeholders offered targeted recommendations based on their personal experiences in the region. One of the wine farmers interviewed suggested collective water management agreements among farmers to address water scarcity issues. A polo and sheep farmer interviewed proposed stricter guidelines to mitigate the impact of invasive species. Small scale farmers also advocate for community-based waste disposal initiatives.
- In addition to agricultural concerns, a number of tourism owners expressed challenges related to the degradation of natural landscapes due to increased foot traffic. Small business owners in the region who were interviewed highlighted difficulties in waste disposal and pollution affecting the overall aesthetic appeal.

They stressed the importance of responsible tourism practices and suggest implementing designated paths to minimize environmental impact.

- Business owners interviewed proposed community-driven clean-up initiatives and advocate for stricter waste disposal regulations.

Involvement for Solutions:

- The collective perspective on who needs to get involved in solutions is diverse. Grape farmers (wine makers) emphasised the importance of collaboration amongst farmers, conservation groups, and governmental bodies to collectively manage water resources. Polo and sheep farmers call for the involvement of the local municipality and policymakers to enforce responsible tourism practices. Kurland Park highlighted the important role of businesses in adopting sustainable practices, emphasising a holistic approach involving various stakeholders. This integrated involvement ensures comprehensive solutions for the conservation of the Salt River region.
- Tourism owners emphasised the importance of collaborative efforts between tourism operators, local communities, and conservation organizations to implement sustainable tourism practices. Business owners highlighted the need for regulatory bodies, businesses, and local communities to work together to enforce environmentally conscious practices.

The following provides the summarised results from interviews with key stakeholders

1. Water Management and Conservation:

Stakeholders involved in wine farming and mixed agricultural practices highlighted water as a critical resource. A focused initiative on implementing sustainable water management practices, such as rainwater harvesting or efficient irrigation systems, was suggested to address concerns and contribute to overall water conservation.

Southern Crags and Redford conservancy members also expressed concerns about the proposed housing developments in Kurland and sewage issues. Concerns of the conservancy members include resistance from developers and the need for comprehensive planning to avoid negative environmental impacts. To address these interests, the project can focus on efficient sewage solutions, water management plans, and collaborative efforts with local authorities to ensure sustainable development in the region.

2. Nature Tourism

In addition to the identified interests, stakeholders in the Salt River system display a keen interest in nature tourism as a potential income source. Stakeholders, particularly in Southern Crags, Redford Conservancy, and Natures Valley, express a desire to actively

participate in nature tourism activities such as hiking through forests, coastal fynbos, and along the coast. Their interest stems from seeking peace and a connection to nature, reflecting their choice to reside in the region. For some, the connection is integral to well-being, while for others, it serves economic purposes through eco-friendly lodge developments that attract tourists to the tranquillity of the forests and open landscapes.

3. **Collaborative Conservation Efforts:**

The horse trails and lodge stakeholders expressed that there are positive impacts through low-impact activities. Collaborative initiatives, such as joint conservation projects or eco-friendly events, can leverage these positive practices to enhance the overall environmental stewardship in the region.

4. **Community Engagement and Awareness:**

Example: The restaurant stakeholder in Natures Valley collaborates positively with NVT. This success can be replicated by creating community engagement programs that involve local businesses, fostering a sense of shared responsibility for the environment through workshops, and awareness campaigns.

Community representatives stresed the importance of community engagement. Initiatives like workshops, awareness campaigns, and joint projects can enhance community involvement and shared responsibility for conservation. Concerns may include communication challenges, misinformation, or lack of interest from some community members.

5. **Infrastructure Development:**

Local residents in Southern Crags noted their concerns about river pattern changes. A specific initiative can focus on riverbank restoration and stability projects, involving relevant experts and authorities to address environmental shifts and ensure the long-term health of the water ecosystem.

6. **Economic Sustainability:**

The mention of positive impact from newer businesses suggests economic opportunities. Developing a platform for business collaboration or exploring eco-tourism ventures can contribute to the economic sustainability of the Salt River Project, aligning with both conservation goals and economic development.

7. **Government and Municipality Engagement:**

Stakeholders emphasised the need for municipal involvement. Collaborative dialogues with local government bodies can lead to the establishment of a task force or committee dedicated to addressing specific issues, such as sewage overflow or waste management, ensuring effective and timely interventions.

8. **Seasonal Considerations:**

The mixed agricultural practices stakeholders mentioned the limitations during the Polo Season. Planning community led conservation projects and other engagements and other conservation interventions during periods of lower activity, or offering flexibility in

conservation project timelines, can enhance stakeholder participation and project effectiveness.

9. Monitoring Progress:

To measure the impact of interventions, a monitoring system should be established. This may involve periodic assessments of water quality, ecological changes, and community adherence to recommended practices, providing valuable data for adaptive management strategies.

10. Educational Programs:

A number of stakeholders expressed interest in education. Initiatives like workshops, webinars, or school programs designed to educate the community on sustainable practices, environmental significance, and the long-term benefits of their contributions to the Salt River Project.

By incorporating these specific examples into the next phase, the Salt River Project can tailor its strategies to address identified challenges and capitalise on opportunities, fostering a more sustainable relationship between the community and the environment.

11. Conservancy Revival and Wildlife Corridors:

Redford Conservancy committee members emphasised the importance of conservancy member's participation and efforts, wildlife corridors, and invasive species management. They recommend collaborative initiatives, educational events, and community engagement in the Salt River region to support these conservation goals. Concerns of these conservancy committee members include erection of fences inhibiting wildlife movement in the Redford Conservancy, land owners building illegal dams in the Salt River and potential conflicts with new land owners who have agricultural practices and are not pro-conservation.

SECTION 3: SCENARIO BUILDING

On December 18, 2023, the final participatory workshop of the social baseline assessment was conducted in Natures Valley, The objective of this workshop was to use scenario building to collaboratively explore solutions to address negative resource trends in the region. The workshop began with a theatrical performance by the Grade 7 members of the Crags Primary School Eco Club in Kurland Village. These children, who had trained for 10 consecutive weeks under Lunch Box Theatre, demonstrated their newfound theatrical skills while sharing their perspectives on community life in Kurland Village and the surrounding environment.

Steve McGown, the second-longest surviving Al Qaeda hostage in the world, the keynote speaker for the workshop, shared his story of survival in the North African desert and provided important perspectives on problem-solving and solution-making. Next, the participants of the workshop examined five scenarios and their corresponding drivers impacting resources, identified in previous situational analysis workshops. Using forum theatre as a tool for participatory scenario building, stakeholders discussed potential solutions to promote the sustainability of natural resources in the region.

Crags Primary Eco Club training for their theatre production about their lives in Kurland Village and their connection to nature.

The outcomes of the collective brainstorming session at the final workshop include the following proposed strategies to address the flagged issues in the region:

Trend: Decline in Quality of Water

Driver: Raw Sewage

Proposed Solutions: Enhancing the efficiency of the municipal treatment plant was suggested as a primary solution, ensuring that sewage is effectively treated before entering the water system. Additionally, the implementation of eco-friendly alternatives, such as biodegradable long-drops and composting toilets, can significantly reduce the impact of raw sewage on water quality. While the privatisation of sewerage treatment is an option, it was not explored during the workshop.

Participants' Implementation Ideas:

1. Negotiation with Municipality: Negotiate with the municipality for the execution of proposed solutions.
2. Community Involvement: Involve community volunteers, conservancies, and organizations like NVT to strengthen the collective voice advocating for improved water quality.
3. Specific Information Gathering: Gather specific information about sewage sources and routes as a necessary preliminary step.
4. Local Municipal Engagement: Engage local municipal offices for effective water quality management.

Summary of participant inputs: Collaboration with local authorities and strategic initiatives, including the adoption of alternative water sources and fencing, to mitigate the issues related to raw sewage and its impact on water quality.

2. *Trend: Decline in Wetlands*

2.1 Driver: Damming

Proposed Solution: Regulating dams to ensure ecologically sustainable water levels for wetlands is a key proposal. By balancing water use through stringent regulations, the wetlands can thrive without compromising their ecological integrity.

Implementation Ideas: Implementation involves gathering baseline water information for wetlands, ensuring a comprehensive understanding of their water requirements. Extensive education on the importance of wetlands will be crucial for fostering compliance with regulations. Ensuring universal adherence to these regulations will contribute significantly to wetland conservation.

2.2 Driver: Agriculture

Proposed Solutions: Promoting organic farming and permaculture can mitigate the adverse impact of agricultural practices on wetlands. Separating farms from wetlands is another proposed solution to safeguard these vital ecosystems.

Participants' Implementation Ideas: Educating farmers on sustainable practices is imperative for the success of these solutions. The involvement of private industry can provide essential support in implementing and maintaining these changes.

2.3 Driver: Housing Development

Status: This driver was not explored in detail due to time constraints during the workshop.

Summary of participant inputs: The emphasis lies on regulated dam usage, organic farming, and diverse agricultural practices as essential components of wetland conservation, offering a holistic approach to address these challenges.

3. Trend: Decline in Fynbos

3.1 Driver: Monoculture

Proposed Solutions: Making fynbos economically viable for farmers was a proposed solution, to encourage them to protect this valuable ecosystem. Establishing fynbos corridors on farms was another strategy proposed to enhance the interconnectedness and resilience of these natural habitats.

Participants' Implementation Ideas:

1. Farmer Education: Educate farmers about the value of fynbos and the importance of good farming practices.
2. Shareholder Group Creation: Create a shareholder group that plans and enforces conservation measures, with active involvement from the community and government.
3. Collaborative Initiatives: Financial incentives, education, and collaborative initiatives emerge as effective tools to preserve fynbos and its associated ecological benefits.

Summary: Financial incentives, education, and collaborative initiatives emerge as effective tools to preserve fynbos and its associated ecological benefits.

4. Trend: Decline in Wildlife

4.1 Driver: Snares and Poaching

Proposed Solutions: Addressing the socio-economic factors contributing to poaching, providing alternative employment opportunities, and introducing food banks were some of the proposed solutions. Implementing patrolling and bush cameras to monitor and prevent poaching activities, along with community-wide education initiatives, were identified as crucial steps to combat wildlife threats effectively.

Participants' Implementation Ideas:

1. **Partnership Exploration:** Explore partnerships with experienced groups like the Cape Leopard Trust for valuable insights and solutions.
2. **Strategic Planning:** Effective utilisation of patrolling and bush cameras but requires strategic planning and resources.
3. **Community Engagement:** Engage the community in educational initiatives to build a shared commitment to wildlife conservation.

Summary of participant inputs: The consideration of socio-economic factors, community involvement, and strategic partnerships, was considered essential to combat the various threats faced by wildlife in the Salt River region.

5. Trend: Increase of Alien Trees

Drivers: New species introduction, difficulty in clearing landscapes covered by alien trees, and impact on waterways.

Proposed Solution: The management and control of alien trees in the Salt River region require a multifaceted approach to address the diverse challenges associated with their proliferation.

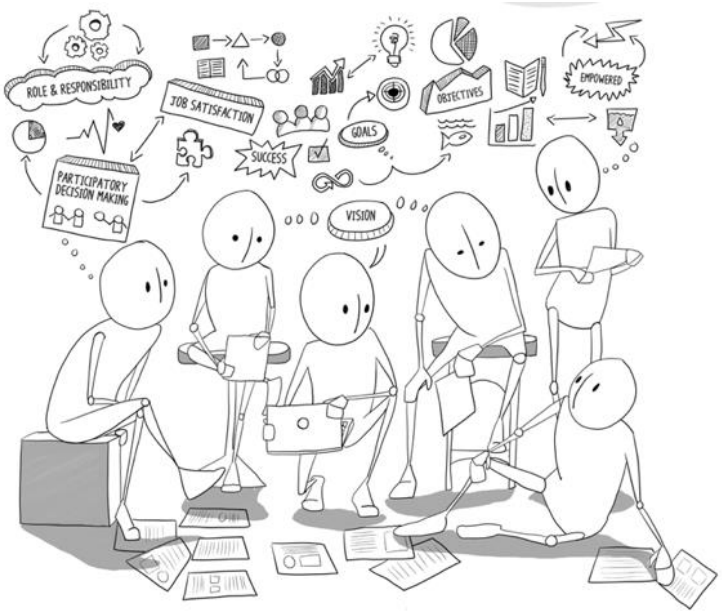
Participants' Implementation Ideas:

1. **Species Assessment and Monitoring:** Conduct a thorough assessment of new alien species introduced to the region. Regular monitoring was proposed to help identify and address invasive species issues in the region.
2. **Strategic Clearing Initiatives:** Developing and implementing strategic plans for clearing landscapes dominated by alien trees. Prioritisation of areas where the landscape poses a significant challenge to removal efforts.

3. **Waterway Protection Measures:** Implement measures to protect waterways from the adverse effects of alien trees, involving buffer zone creation, erosion control, and strategic removal near water sources.
4. **Community Involvement:** Engage the community in awareness campaigns about the impact of alien trees on the local ecosystem. Encourage participation in clearing initiatives, fostering a sense of shared responsibility.
5. **Collaboration with Support Organisations:** Form partnerships with environmental organisations and conservation groups to leverage expertise and resources for effective alien tree management.

Summary of participant inputs: Combating the increase of alien trees in the Salt River region requires proactive measures, including species assessment, strategic clearing, waterway protection, volunteer community involvement, and collaboration with support organisations.

Potential collaborative pathways to sustainability:



The Salt River Project aims to address the those environmental challenges that were identified by stakeholders, to promote sustainability, resilience, and community well-being in the Salt River region. The broad strategies presented in this report serve as potential pathways for the Salt River Project to navigate the complex social-ecological system of the region and contribute to its long-term resilience and sustainability. The emphasis on partnerships highlights a collaborative approach taken to address the challenges effectively.

The following presents a broad framework of strategies built around the baseline data derived from participant inputs, which can be used to guide the planning and development of NBS aimed to specifically address the identified drivers of impact on the Salt River system. These strategies will involve collaborative efforts and partnerships with key stakeholders and encompass wetland conservation, water quality improvement, fynbos preservation, and wildlife protection.

Wetland Conservation and Dam Management:

Driver: Damming

- **Proposed Solution:** Regulating dams to ensure ecologically sustainable water levels. Balancing water use through regulations allows the river system to thrive without compromising its ecological integrity.
- **Implementation:**
    1. ***Baseline Water Information:*** Gather baseline water information for the Salt River system to understand its water requirements.
    2. ***Education on wetland Importance:*** Extensive education on the importance of wetlands to promote compliance with regulations.

3. ***Invasive Alien Plant Control:*** Effective control of invasive alien plant species.

- ***Overview:*** Invasive alien plant species are found throughout the Salt River region. These plants are adapted to fire, and outcompete native species, posing a threat to the overall health of the Salt River ecosystem.
- ***Strategy:*** Implement focused alien plant clearing programs in collaboration with trained teams and secure funding. Develop partnerships to ensure coordinated and sustained efforts in invasive alien plant management. Establish a good monitoring and evaluation system to assess the impact of clearing projects on biodiversity, ecosystem services, and water security.

  Summary: Emphasis on regulated dam usage and education on water use for agricultural practices forms and alien plan control an essential approach to the conservation of the Salt River.

Water Quality Enhancement:

Driver: Water Abstraction:

- ***Overview:*** Increasing water demands from housing developments and agriculture areas are presenting challenges. Weirs reported by some stakeholders on neighbouring private properties divert water, hindering natural flows during dry months and affecting downstream areas. Climate change can intensify groundwater abstraction, straining the freshwater ecosystem of the Salt River further. Impacts from climate change are hence flagged as a potential issue for the region.
- ***Objective:*** **Promote responsible resource extraction and processing to minimise environmental impact.**
- ***Strategy:*** Implement measures to minimise water consumption from the Salt River and measures to safeguard water quality, addressing ecological health concerns.
- ***Possible Collaboration:*** Collaborate with the Department of Water & Sanitation, Affairs and Development Planning, and develop partnerships with academic research institutions to develop strategies for monitoring and managing these water-related issues and to determine the impact of groundwater abstraction on groundwater-dependent ecosystems.

2. Climate Change Effects:

- ***Overview:*** Anticipated increased frequency of droughts and storms due to climate change may exacerbate the existing flagged pressures. Adaptive management, guided by long-term monitoring, is needed. The ecological baseline study and further ongoing data collection, including hydrological

information, is crucial to understanding linkages between surface water, groundwater, and rainfall conditions.

- ***Strategy:*** Develop adaptive strategies informed by the ecological baseline study and further ongoing water quality assessments and investigate means of monitoring of the flow regime of the Salt River. Utilise data from the Salt River ecological baseline and other research projects to address current and future effects of climate change.

3. Unsustainable Land Use:

- ***Overview:*** Threats linked to agricultural practices, developments in the Southern Crags and Redford areas and urban expansion and housing developments around Kurland Village contribute to habitat fragmentation and transformation at specific sites in the Salt River region.
- ***Strategy:*** Engage in community awareness programs to educate residents, tourists, and developers about preserving natural habitats and sustainable development planning practices to mitigate habitat fragmentation.

4. Agricultural Vitality:

- ***Objective:*** Engage in community awareness programs to promote sustainable agricultural practices associated with wine farming, dairy farming, and Polo that balance productivity with environmental conservation.
- ***Key stakeholders:*** Collaborate with the Department of Agriculture: Western Cape (LandCare) for addressing agricultural and urban water use, pollution incidents.

5. Enhancement of Natural Capital and Tourism Appeal:

- ***Objectives:***

  Engage in community awareness programmes that promote sustainable tourism initiatives that capitalise on the natural and cultural assets of the Salt River system.

- ***Key stakeholders:*** Strengthen partnerships with conservation organisations like the Department of Forestry, Fisheries and the Environment: Oceans and Coasts, Bitou Tourism, SANParks, and Cape Nature.

Fynbos Preservation and Sustainable Agriculture:

Driver: Monoculture

- Proposed Solutions: Making fynbos economically viable for farmers is a proposed solution, encouraging land landowners to protect this valuable habitat. Promotion of the establishment of fynbos corridors on farms is another strategy to enhance the interconnectedness and resilience of these natural habitats.
- **Implementation Steps:**

  Farmer Education: Educate land owners about the value of fynbos and the importance of good farming practices.

  Key stakeholders: Land owner, residents in the region and Southern Crags and Redford conservancy committees.

Driver: Raw Sewage

- **Proposed Solutions:** Enhancing the efficiency of the municipal treatment plant stands as a primary solution, ensuring that sewage is effectively treated before entering the water system. Additionally, the implementation of eco-friendly alternatives, such as biodegradable long-drops and composting toilets, can significantly reduce the impact of raw sewage on water quality.
- **Implementation Steps:**

  1. ***Community Involvement:*** Involve community volunteers, and conservancies, to strengthen the collective voice advocating for improved water quality.
  2. ***Specific Information Gathering:*** Gather specific information about sewage sources and routes as a necessary preliminary step.
  3. ***Local Municipal Engagement:*** Engage local municipal offices for effective water quality management.

  - ***Possible collaboration****: Bitou Municipality:* The municipality to execute proposed solutions and engage with Southern Crags and Redford conservancy committees as well as private land owners like Kurland and Kurland Park and other private farm owners to strengthen the collective voice for advocating water quality in the region.

    4. **Summary:** Bitou Municipality, to mitigate issues related to raw sewage and its impact on water quality in the Salt River.

Responsible Management of Water Resources:

- ***Objectives:***

    1. Implement measures to minimise the consumption of water resources in the region.

    2. Safeguard water quality and availability to support the ecological health of the Salt River system.

    3. Promote responsible resource extraction and processing to minimize environmental impact.

    Possible collaboration: Department of Water & Sanitation, Affairs and Development Planning, and research institutions so that strategies to monitor and manage water-related issues can be developed. The Department of Environmental Affairs and Development Planning and collaborations and partnerships with research institutions to determine the impact of groundwater abstraction on groundwater-dependent ecosystems.

Efficient Resource Consumption and Disposal:

- ***Objectives:***

    1. Through education programmes to promote reduced resource consumption extending to all stakeholder groups in the region including Southern Crags and Redford residents, Kurland residents and Nature Valley residents.

    2. Bitou municipality to Implement proper waste disposal practices to mitigate environmental impacts on the river system.

- ***Possible collaboration:*** Bitou municipality to address illegal and unsustainable resource utilisation practices within the region, other key stakeholders include Department of Fishery, Forestry and Environment: Oceans and Coasts, SANParks, and the South African Police Service.

Conservation of Scenic Assets and cultural heritage

- ***Objectives:***

    1. Promote through education programmes the region's unique landscapes and cultural heritage to maintain a sense of place in the Salt River system.

2. Through education programmes encourage responsible practices that respect and enhance the natural and cultural heritage of the Salt River region.

   Possible collaboration: Ensure the conservation of biodiversity and ecosystems through the development and strengthening of partnerships with organisations like SANParks, relevant academic institutions, the Department of Environment Affairs and Development Planning, Kurland Village, Covie fishermen, Natures Valley residents and Southern Crags Conservancy and Redford Conservancy members.

Community Well-being and Inclusivity:

Objectives:

3. Through community engagement, ensure that the benefits of the Salt River region's assets are inclusive and equitable.

4. Promote environmental education and awareness to empower local residents in the Salt River region.

   Possible Collaboration: Collaborate with communities like Southern Crags, Redford, Kurland Village, Covie and Natures Valley for inclusive decision-making and engage with relevant local and regional authorities such as the Department of Environment Affairs and Development Planning.

Wildlife Corridor Development through Conservancy Areas:

Objectives:

Promote the development of wildlife corridors through conservancy areas, facilitating the monitoring movement of wildlife using camera traps.

Possible Collaboration: Collaborate and engage with Conservancy members, such as Southern Crags and Redford Conservancy members, and develop partnerships with academic research institutions interested in wildlife monitoring projects and gain support from Cape Nature and SANParks to monitor wildlife.

- **Camera Traps and Monitoring:**

Set up camera traps strategically within conservancy areas to monitor wildlife movement. Collaborate with SANParks and Cape Nature and relevant academic research institutions to access technology and expertise for effective monitoring. Regularly analyse

data to understand species movement patterns and the success of wildlife corridors.

- **Conservancy Education Programmes:**

Conduct educational programmes for landowners and residents within conservancies to raise awareness about the importance of wildlife corridors. Provide information about the ecological significance of uninterrupted movement for species survival and the overall health of the ecosystem.

- **Impact of Fences:**

Educate landowners and residents about the impact of fences on wildlife movement. Investigate wildlife-friendly fencing designs that allow for the passage of smaller animals while maintaining necessary boundaries for land use.

- **Conservancy Workshops:**

Organise workshops in collaboration with conservation experts to discuss the ecological benefits of wildlife corridors and address concerns or misconceptions related to potential conflicts between wildlife and human activities. Engage in open dialogue with conservancy members to find solutions that balance conservation goals with the needs of landowners and residents.

- **Best Practices for Land Use:**

Provide guidelines on responsible land use practices within conservancies, emphasising the importance of maintaining connectivity between natural habitats. Encourage sustainable land management that considers both human needs and wildlife conservation objectives.

In the second phase of the Salt River Project baseline information presented in this report will be used to develop of Nature-Based Solutions (NBS) to address key environmental challenges. Nature-based solutions (NBS) are, in the context of river and coastal system protection, increasingly recognised worldwide as effective means to address hydro-meteorological risks, including flooding, landslides and coastal erosion (Wantzen *et al*, 2016). Nature-Based Solutions (NBS) refer to solutions to mitigate risks that are inspired by nature, and provide environmental, social, and economic benefits concurrently (Cohen-Shacham *et al*, 2019). A NBS approach involves integrating nature-friendly solutions into landscape, seascape settings and even urban through locally adapted, resource-efficient, and systemic interventions (Raymond *et al*, 2017).

11. CONCLUSION

In summary, the Social Baseline Assessment provides a solid foundation for the next phases of the Salt River Project. The findings of the social baseline assessment highlight pressing environmental challenges and focuses on collaboration with key stakeholder groups such as Southern Crags, Redford, Kurland Village and Natures Valley to address these. As the Salt River Project progresses into the next phase, the baseline results will steer the development of a management strategy to safeguard the river for the future. The project aims to develop strategies to monitor and manage the highlighted issues. The strategies, developed in the next phase of the project complimented with monitoring and adaptive management, aim to achieve resilient ecosystems and community well-being in the Salt River region. Aligned with the Salt River Project's purpose, these strategies will balance persuasion, negotiation, and education in stakeholder management. Prioritising the identified influential and interested stakeholder groups, alongside strategic engagement with low-interest groups for potential conversion, will be integral to the overall approach. Through ongoing research, collaboration, and adaptive management, the Salt River Project ultimately aims to set a standard for sustainable development and conservation in the region.

12. REFERENCES

Bitou Municipality. 2013. Bitou Local Municipality Spatial Development Framework. Bitou Local Municipality, Plettenberg Bay.

Bitou Municipality. 2016. Bitou Local Municipality Integrated Development Plan (2016/2017). Bitou Local Municipality, Plettenberg Bay.

Bitou Municipality. 2021. Bitou Local Municipality Spatial Development Framework (2021-2026). Bitou Local Municipality, Plettenberg Bay.

Bitou Municipality. 2022. Bitou Local Municipality Integrated Development Plan (2022-2027). Bitou Local Municipality, Plettenberg Bay.

Bond, W.J., Vlok, J. & Viviers, M. 1984. Variation in seedling recruitment of Cape Proteaceae after fire. Journal of Ecology 72: 209-22

CapeNature. 2023. Garden Route Complex World Heritage Site & Nature Reserves: Protected Area Management Plan 2023-2033. Internal Report, CapeNature. Cape Town.

Cohen-Shacham, E.; Andrade, A.; Dalton, J.; Dudley, N.; Jones, M.; Kumar, C.; Maginnis, S.; Maynard, S.; Nelson, C.R.; Renaud, F.G.; et al. Core principles for successfully implementing and upscaling Nature-based Solutions. Environ. Sci. Policy 2019, 98, 20–29.

Ershad, Han, Q.L; Romme, A.G.; de Vries, B.; Wendling, L. Key Enablers of and Barriers to the Uptake and Implementation of Nature-Based Solutions in Urban Settings: A Review. Resources 2019, 8, 121.

Esler, K.J., Pierce, S.M. & De Villiers, C. (eds). 2014. Fynbos: Ecology and management. Briza, Pretoria.

Frantzeskaki, N.; McPhearson, T.; Collier, M.J.; Kendal, D.; Bulkeley, H.; Dumitru, A.; Walsh, C.; Noble, K.; van Wyk, E.; Ordóñez, C.; et al. Nature-Based Solutions for Urban Climate Change Adaptation: Linking Science, Policy, and Practice Communities for Evidence-Based Decision-Making. BioScience 2019, 69, 455–466.

Jacobs, L.E.O., Koopman R., Schutte-Vlok A. & Forsyth T. 2017. Plants and Vegetation. In: Turner, A.A., (ed.). Western Cape State of Biodiversity 2017. CapeNature Scientific Services, Stellenbosch, ISBN 978-0-621-45962-3.

Kraaij, T., Cowling, R.M., & Van Wilgen, B.W. 2011. Past approaches and future challenges to the management of fire and invasive alien plants in the new Garden Route National Park. S Afr J Sci 107(9/10): Art. #633.

Kraaij, T., Baard, J., Cowling, R.M., Van Wilgen, B.W. & Das, S. 2012a. Historical fire regimes in a poorly understood, fire-prone ecosystem: eastern coastal fynbos. International Journal of Wildland Fire.

Ostrom, E. Coping with tragedies of the commons. Annu. Rev. Political Sci. 1999, 2, 493–535.

Raymond, C.M.; Frantzeskaki, N.; Kabisch, N.; Berry, P.; Breil, M.; Nita, M.R.; Geneletti, D.; Calfapietra, C. A framework for assessing and implementing the co-benefits of nature-based solutions in urban areas. Environ. Sci. Policy 2017, 77, 15–24.

SANParks, 2020. Garden Route National Park Management Plan. SANParks. Pretoria.

Sout (Oos) Estuary Management Plan. 2022. South African National Parks.

Vlok, J.H.J. & Yeaton, R.I. 1999. The effect of overstorey proteas on plant species richness in South African mountain fynbos. Diversity and Distributions 6: 233- 242.

Vlok, J.H.J. & Yeaton, R.I. 2000. Competitive interactions between overstorey proteas and sprouting understorey species in South African mountain fynbos. Diversity and Distributions 6: 273-281.

Wantzen, K.M.; Ballouche, A.; Longuet, I.; Bao, I.; Bocoum, H.; Cissé, L.; Chauhan, M.; Girard, P.; Gopal, B.; Kane, A.; et al. River Culture: An eco-social approach to mitigate the biological and cultural diversity crisis in riverscapes. Ecohydrol. Hydrobiol. 2016, 16, 7–18.

Western Cape Government. 2021. Western Cape Recovery Plan. Western Cape Government, Cape Town.

Zingraff-Hamed, Aude; Hüesker, Frank; Lupp, Gerd; Begg, Chloe; Huang, Josh; et al. Sustainability; Basel Vol. 12, Iss. 20, (2020): 8625.