Muizenberg Beachfront upgrade Socio-economic Impact Study



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Abbreviations

€	Euro	m ²	Square meter
\$	United States dollar	NMT	Non-Motorised Transport
Avg.	Average	R	Rand
СТ	Cape Town	POPI	Protection of Personal Information Act
ССТ	City of Cape Town	SAM	Social Accounting Matrix
CMT	Coastal and Marine tourism	SLR	Sea Level Rise
COVID-19	Coronavirus disease 2019	StatsSA	Statistics South Africa
FTE	Full time Equivalent	MB	Muizenberg
GDP	Gross Domestic Product	WC	Western Cape
На	Hectare	UA	Universal Access
ICMP	Integrated Coastal Management Programme	UE	Urban-Econ Development Economists

Key terms¹²³⁴⁵

Assumption	Necessary condition for success	Interests of the whole community	Adopting and prioritising a long-term perspective that takes into account future generations
The City	City of Cape Town	Impact	Long term effects of an intervention
Dune rehabilitation	The process of restoring or reconstructing a dune after it has been damaged due to natural processes or human activities or a combination of both	Maintenance	Actions performed to keep a structure or system functioning or in service on the same location, capacity and footprint
Economic agglomeration	A concentration of businesses and people that results in increased productivity	Monitoring	Collecting, analysing & reporting data on inputs, activities, outputs and impacts
Evaluation	Systematic collection and objective analysis of evidence to assess performance	Resilience	The capacity of social, economic, & environmental systems to cope with hazardous events, trends or disturbance

¹https://www.dpme.gov.za/publications/Guides%20Manuals%20and%20Templates/Generic%20Roles%20and%20Organisationa l%20Design%20Considerations%20For%20M%20and%20E%20Components.pdf

²https://www.dpme.gov.za/publications/Policy%20Framework/National%20Evaluation%20Policy%20Framework.pdf

³https://resource.capetown.gov.za/documentcentre/Documents/City%20strategies%2c%20plans%20and%20frameworks/Blaauw berg_District_SDF_EMF_Technical%20Annexures.pdf

⁴https://resource.capetown.gov.za/documentcentre/Documents/City%20strategies%2C%20plans%20and%20frameworks/CCT_Dunes_and_beaches-MMP.pdf

⁵ https://www.gov.za/sites/default/files/gcis_document/201409/31884138.pdf

Executive Summary

This study considers potential socio-economic impacts arising from proposed upgrades to the Muizenberg Beach Front and compares these with a no-go alternative.

Relevant literature from applicable reports (academic studies and research reports from public sector and civil society entities) as well as binding planning imperatives (national, provincial and city level legislation, plans, strategies, policies, by-laws and frameworks) was reviewed. The documentation analysed all emphasises the primacy of maintaining and expanding coastal access, amenity and protection measures. Local literature further reiterates the problem-statement of Muizenberg's beachfront underperforming in terms of realisation of its tourism and broader economic performance, such documents indicating the overdue need for upgrades to coastal infrastructure. The literature review presents evidence which prefaces the socio-economic rationale for the upgrades, and its findings indicate the undesirability of the no-go option.

The study area's spatial dimensions are considered, including the beachfront's sea level rise risk, tourism sector interactions and property sector characteristics. A high density of tourism related businesses such as restaurants and accommodation establishments are located at and near the beachfront. These businesses leverage the area's popularity with recreational activities such as surfing, events and content creation. The local tourism and property sectors are highly sensitive to public perceptions of beach quality (as revealed in the literature review) and are at risk of declining over time if the no-go option is pursued. The proposed beachfront upgrade would help to arrest capital flight from the area and may stimulate retention and attraction of more investment into the local tourism and property sectors.

In addition to the secondary data used in profiling the local economy, the study also generated primary data from 170 survey respondents with beach users (local residents, tourists, community organisations formal businesses and informal businesses. The overall sentiment from the sample cohort was of dissatisfaction with the status quo, or no-go alternative. As a corollary, the majority of survey respondents indicated support for the proposed upgrades.

An econometric model built upon the Social Accounting Matrix approach was utilised to assess potential impacts on the broader economy and on various sub-sectors that are prominent in the Muizenberg economy. This made use of data provided by the City of Cape Town and was forecast based on StatsSA datasets. Where possible, disaggregation was made to separate direct, indirect and induced impacts on Production, Gross Geographic Product, Income and Employment.

In a synthesis of findings from the literature review and publicly available data on the local economy, potential impacts from the proposed upgrade and no-go alternative were identified and quantified. The proposed upgrade would yield positive economic benefits on the local production, Gross Geographic Product, Employment and Incomes. Similarly, the no-go alternative is likely to result in negative economic impacts on local tourism, events, content creators and property owners.

The below Table provides a summary of the potential impacts from both the no-go alternative and the proposed upgrade.

Impact area or type	No-go alternative	Proposed upgrade
Property value	-R55m	No impact
Property tax	-RO.48m annually	No impact
Economic activity: <i>Content creation</i>	-30.91 m / 28 jobs	No impact
Economic activity: <i>Events</i>	-R16.8m / 22 jobs	No impact
Economic activity: infrastructure	No impact	R376.06m /
planning, construction & maintenance		464 jobs
Socio-economic: Accessibility	Negative impact	Positive impact
Socio-economic: <i>Amenity</i>	Negative impact	Positive impact
Socio-economic: Perception	Negative impact	Positive impact
Socio-economic: <i>Opportunity</i>	Negative impact	Positive impact
Planning framework: <i>National</i>	Discordant	Aligned
Planning framework: <i>Provincial</i>	Discordant	Aligned
Planning framework: <i>City</i>	Discordant	Aligned
Planning framework: Area/ suburb	Discordant	Aligned
Stakeholder engagement : Survey	Not supported	Supported

The study thus concludes by indicating support for the proposed upgrade on the basis of its potential socio-economic impacts.

1. Scope

1.1. Study background, purpose and scale

Urban-Econ Development Economists (UE) was appointed by the City of Cape Town (CCT) to assess the potential impact of proposed upgrades of infrastructure along the Muizenberg (MB) beachfront in comparison to a do-nothing approach. This report forms part of a larger set of studies undertaken by the City⁶ in pursuance of the proposed upgrades and is to be read in conjunction with these.

Map 1: Study area⁷



The study area is presented in the above map. The study area or precinct includes labels for the main promenade (A), Surfer's Corner steps (B), St James Walkway connection area (C) as well as the Eastern (D) and Western (E) parking areas. Throughout this report, maps highlight the precinct in a shaded polygon in order to orient the reader.

⁶ Scope of Work WP 375C/2018/19 WP 118

⁷ Source: City of Cape Town

The proposed refurbishment of the beachfront is in response to

- Key infrastructure such as the seawall operating past its design life & beginning to fail
- Limited ad hoc maintenance that has failed to maintain the precinct's value
- Incomplete components in the precinct such as the informal gravel parking area

As such, the proposed upgrades include replacement of the aging coastal defence structures and promenade along the beachfront to protect the landside infrastructure, provide easier access to the beach and maintain the sense of place. This will increase universal accessibility of the promenade. A stepped revetment will provide coastal protection by replacing the old wooden seawall and degraded stone steps.

Other planned upgrades include refurbishment of recreational areas (with a new skating area and play park), landscaping (hard and soft) and ablutions. Parking areas will be formalised, optimised, reconfigured and surfaced as part of the upgrades. Where required, underground services (including but not limited to sewer and storm water pipelines) are set to be realigned. The design style in all the above is stated as intended to maintain a sense of place. Further detail on the proposed upgrades is found in the Muizenberg Beach Front Refurbishment Phase 1 Feasibility report⁸ (hereafter referred to as 'the feasibility report'

The purpose of this study is to:

- 1. Determine the social and economic impact of a do-nothing approach with regards to the coastal defence and landside infrastructure on the local Muizenberg communities and economy, as well as the expected benefits of executing the project and who would directly benefit from the project.
- 2. Capture the key economic activities and events in the project area, to discuss the socio-economic loss and benefit for the two cases (do nothing and execute project).
- 3. Quantify the possible socio-economic losses and benefits for the two cases.

In pursuance of the above objectives, it is recognised that this study is in a large part dependent on secondary data from providers such as Statistics South Africa (StatsSA) and the City of Cape Town. The reader is advised that in some instances, data from these sources is not always published at the disaggregated level (i.e., at the City or suburb level). In other instances, assumptions have to be made where data is not availed locally or regularly. Where possible, primary data is utilised to supplement this, insofar as the project scope allowed for its generation. The approximations, estimates, forecasts and analyses presented in this report are thus subject to assumptions asserted and must be read in conjunction with the original source cited via footnotes. It is also noted that some of the data sources cited in this study are not publicly available and may be subject to proprietary models of Urban-Econ or based on confidential documentations and databases supplied by the City of Cape Town.

⁸ City of Cape Town, 2022. Feasibility report -Muizenberg Beach Front Refurbishment: Phase 1 CPX.0016740.

1.2. Methodology

An inception meeting between Urban-Econ and the City of Cape Town was undertaken. The purpose of this meeting was to create a common understanding on the study's scope, methods and limitations. Relevant documentation pertaining to the study was shared by CCT. A site visit also allowed the research team to gain understanding of the area's geographic context, spatial dynamics and economic drivers, whilst also considering the state of the beachfront.

A review of pertinent literature encompassed published journal articles, academic studies, publications by research institutions, as well as guiding policies, strategies, plans and legislation. The purpose of this step was to understand different factors that influence the beachfront economy, whilst also acknowledging binding informants at the local, provincial and national scales.



Extensive stakeholder engagement was undertaken in line with local best practice⁹¹⁰. A survey questionnaire was administered physically in Muizenberg as well as online, with a total of 170 responses received in May and June of 2022. In accordance with ethical research practices, enrolment was voluntary and based on informed consent. The data generated was collected, processed, stored and managed in line with the provisions of the Protection of Personal Information (POPI) Act¹¹. The survey link was emailed to 77 contacts provided by the City. Additionally, the link could be completed by others beyond the initial mailing list. The in-person survey was primarily to capture responses from tourists and informal traders, while the online survey was aimed at residents, formal businesses and community organisations. The majority (72%) of survey respondents self-identified as residents living near the beach, with the rest of the sample made up of tourists, informal traders, formal businesses, community organisations and residents not living near the beach. The purpose of the survey was to gauge public sentiment, and this was captured through a series of structured and open-ended questions. Respondents in the survey were also provided with an opportunity to list their contact details for future updates on the proposed upgrades.

A baseline profile of the local beachfront economy was then developed, with a view towards various indicators being tracked by the CCT in future years as a

means of measuring the success of planned upgrades. Potential impacts arising from the proposed upgrades were then identified and quantified through the use of economic input-output models which are based on

through the use of economic input-output models which are based on the Social Accounting Matrix and Tourism Satellite Accounting approaches.

⁹ Lucrezi, S., Geldenhuys, L. L., Merwe, P. V. D., & Saayman, M. (2018). Utility of user's data and their support for differential beach management in South Africa. In *Beach Management Tools-Concepts, Methodologies and Case Studies* (pp. 933-960). Springer, Cham.

¹⁰¹⁰ Sowman, M., Scott, D., Green, L. J. F., Hara, M. M., Hauck, M., Kirsten, K., ... & Turpie, J. K. (2013). Shallow waters: social science research in South Africa's marine environment. *African Journal of Marine Science*, *35*(3), 385-402.

 $^{^{11}} https://www.gov.za/sites/default/files/gcis_document/201409/3706726-11act4of2013 protection of personal inforcorrect.pdf$

2. Literature

2.1. Binding informants

A range of policies, plans, strategies, frameworks and laws of relevance to this study are presented along various themes. These provide a lattice which guides proposed upgrades to coastal infrastructure.

Amenity

Muizenberg is rated as a major attraction in the City's tourism database¹², with the City's Coastal Management Programme¹³ going further and describing the area as providing a sense of cultural diversity and coastal recreation. It is recognised that activities such as surfing in Muizenberg are associated with significant positive¹⁴ economic, social and community multipliers, while Muizenberg beach is identified by the City as a high priority Scenic Drive route. The City's Scenic Drive Network Management Plan¹⁵ lists landscaping as a planned capital project for the Muizenberg beach. The City's 2019 Tourism Development Framework¹⁶ lists improvements to beaches as a priority initiative that is critically important for sustainable tourism growth. A skate park was identified as the most frequently cited type of facility that respondents in a previous study¹⁷ stated they would like to see constructed at the Muizenberg beach.

Implication

The Muizenberg beachfront generates utility (through bequest, use-based and passive contingent values and options). While this is often often impossible to accurately measure, it still places a responsibility on the City to provide sustainable management.

The proposed upgrade would allow different user groups to continue deriving different benefits from the Muizenberg beachfront, while initiatives such as the skating area would help to unlock latent value for new user groups.

^{12h}https://resource.capetown.gov.za/documentcentre/Documents/City%20research%20reports%20and%20review/Tourism%20 Database%20Spatial%20Analysis%20November%202017.pdf

¹³https://resource.capetown.gov.za/documentcentre/Documents/City%20strategies%2c%20plans%20and%20frameworks/Coasta I%20Management%20Programme%20%28CMP%29.pdf

¹⁴ Stroehlein, L. V. (2021). The increased feminization of the surfing economy: An exploration of the lived experiences of female surfers in Muizenberg, South Africa (Master's thesis, Faculty of Commerce).

¹⁵https://resource.capetown.gov.za/documentcentre/Documents/City%20strategies,%20plans%20and%20frameworks/Scenic%2 ODrive%20Network%20Management%20Plan,%202003.pdf

¹⁶https://resource.capetown.gov.za/documentcentre/Documents/City%20strategies,%20plans%20and%20frameworks/Tourism% 20Development%20Framework%20for%20the%20City%20of%20Cape%20Town.pdf

¹⁷ Du Plessis, M. (2019). Flexing the Flux: Re-Appropriating Muizenberg Beachfront as a response to contextual dynamism (Master's thesis, Faculty of Engineering and the Built Environment).

Spatiality

Muizenberg is defined in the City's Spatial Development Framework¹⁸ as an anchoring metro-significant mixed-use coastal tourism development node. The beachfront, coastal edge and surrounding precinct is also delineated as part of the Coastal Management Line (CML) gazetted¹⁹ in 2021. The CML is a planning tool that seeks to²⁰:

- Protect coastal development against destructive forces of coastal erosion and high seas
- Enhance Cape Town's natural coastal aesthetics and sense of place
- Optimise the economic potential that Cape Town's coastline provides
- Create space to allow for naturally occurring dynamic coastal processes such as migrating dune systems and estuary mouths – to take place without such processes impacting on coastal public and private infrastructure

The City of Cape Town 2020 Coastal By-Law²¹ seeks to provide measures to mitigate and manage the impacts of coastal erosion and storm surge events, while promoting safe and sustainable access to the coastal zone. It also provides delegated officials with powers to close or restrict access to the beach and coastal area for coastal rehabilitation as well as construction repair and maintenance of infrastructure.

Implication

Protection of public & private infrastructure and assets at the Muizenberg beachfront from natural processes is considered paramount in most of the planning documentation and legislation cited in this literature review.

The proposed upgrades note that the current coastal protection measures are operating past their designed durations, which creates risks. The proposed upgrades seek to mitigate this risk.

Opportunity

The promotion of sustainable economic and recreational activities at beaches is a directive within the City's Environmental Strategy²². According to the City's Economic Growth Strategy²³, its role in the management of beaches is that of a custodian.

The Muizenberg beachfront is noted in the 2022 Southern District Environmental Management Framework²⁴ as exhibiting significant under-utilised potential which could

²² https://resource.capetown.gov.za/documentcentre/Documents/Bylaws%20and%20policies/Environmental%20Strategy.pdf ²³https://resource.capetown.gov.za/documentcentre/Documents/City%20strategies,%20plans%20and%20frameworks/Economic

¹⁸https://resource.capetown.gov.za/documentcentre/Documents/City%20research%20reports%20and%20review/SDF_Technical __Report_2012_Interactive.pdf

¹⁹ https://archive.opengazettes.org.za/archive/ZA-WC/2021/provincial-gazette-ZA-WC-no-8401-dated-2021-03-19.pdf ²⁰https://www.capetown.gov.za/Media-and-

news/Cape% 20 Town's% 20 coast line% 20 protected% 20 through% 20 Coastal% 20 Management% 20 Line?fbclid = IwAR30h61G1cMNEQTIIAJ2ZZjZYM8DcOMqmvPj6n4NZzY0TU8-g2UihIfl84U

²¹ https://resource.capetown.gov.za/documentcentre/Documents/Bylaws%20and%20policies/Coastal_By-law.pdf

²⁴https://resource.capetown.gov.za/documentcentre/Documents/City%20research%20reports%20and%20review/Southern_DSD F_EMF_Vol_1_2022.pdf

be unlocked through infrastructural renewal. Other research presented in the City's Resilience Assessment²⁵ noted 'fostering economic prosperity' as an area of weakness identified by Muizenberg residents.

The coast is viewed as a common asset in the City's 2014 Integrated Coastal Management Policy²⁶, From this policy, access to coastal economic, recreational and social opportunities must be safely and securely optimised, whilst managing and mitigating risks associated with natural coastal processes.

Implication

The Muizenberg beachfront is recognised as having significant untapped economic potential, and latent heritage and social capital. As a custodian of this shared asset, the City has an important role to play in ensuring that all can benefit from what the beachfront has to offer.

The proposed upgrades would improve the Muizenberg beachfront's investment attractiveness and support the local economy.

Access

The Muizenberg beachfront is often²⁷ visited by elderly or disabled pedestrians, highlighting the importance of Universal Access (UA). Recommendations to improve UA at the beachfront as part of the City's Non-Motorised-Transport (NMT) Implementation Programme include:

- Improvements to wheelchair ramps
- Increased disabled parking
- More frequent sweeping of beach sand from the walkway.

The Southern District Plan²⁸ identifies the retention and protection of public access as a key concern for the Muizenberg beachfront. Similarly, the City's 2020 Tourism Development Framework²⁹ identifies universal access at Muizenberg Beach as a project for implementation. Paving at the beachfront is identified as needing repairs in the City's 2013 Pedestrian Routes³⁰ study. In the Southern District Spatial Development Framework³¹, NMT at Surfers Corner in Muizenberg is noted as in need of proactive support.

²⁵https://resource.capetown.gov.za/documentcentre/Documents/City%20research%20reports%20and%20review/CCT%20Preli minaryResilienceAssessment.pdf

²⁶https://resource.capetown.gov.za/documentcentre/Documents/Bylaws%20and%20policies/CCT_Integrated_Coastal_Manageme nt_Policy_2014-09.pdf

²⁸https://resource.capetown.gov.za/documentcentre/Documents/City%20research%20reports%20and%20review/Southern_Distri ct_Plan_Technical_Report.pdf

²⁹https://resource.capetown.gov.za/documentcentre/Documents/City%20strategies%2c%20plans%20and%20frameworks/Touris m%20Development%20Framework%20for%20the%20City%20of%20Cape%20Town.pdf

³⁰https://resource.capetown.gov.za/documentcentre/Documents/City%20research%20reports%20and%20review/MUIZENBERG %20Tourism%20Pedestrian%20Routes%202013.pdf

³¹https://resource.capetown.gov.za/documentcentre/Documents/City%20research%20reports%20and%20review/Southern_DSD F_EMF_Vol_2_2022.pdf

The 2O22³² Draft Western Cape Provincial Coastal Management Programme identifies infrastructure upgrades and maintenance as an important means of reaching its goal of promoting coastal access. It motivates for capital intensive built infrastructure investments where these protect vulnerable livelihoods. This draws on the national Integrated Coastal Management Amendment Act³³ which indicates that among the purposes of coastal property is improvement of public access to the seashore.

The 2020 Provincial Coastal Access Strategy and Plan³⁴ provides minimum requirements for the aged and persons with disabilities, these include (but are not limited to):

- Ramps and guard rails on all access points
- Stabilised areas where wheelchairs or crutches can be used so that they do not sink into the sand

The plan's minimum requirements also state that formalised public recreation areas should have ablutions, erosion control measures and fencing to limit lateral movements.

Implication

Access for all residents, and especially for those with impaired abilities is mentioned in multiple planning and research documents compiled for and about the Muizenberg beachfront.

By addressing aspects such as stairs, paving and parking, the planned upgrades seek to ensure that universal access is not impaired (either directly as a result of infrastructure failure, or indirectly as a result of the upgrades themselves).

Conclusion

The proposed beachfront upgrade is in line with all applicable planning conventions at the micro-, meso- and macro levels. From the documents reviewed, the no-go option is not favoured, as it would not abate the deterioration of public infrastructure at the beachfront. It is evident that the proposed upgrade is in accordance with various planning imperatives (some adopted by council, and others enshrined in legislation).

 $[\]label{eq:20} \end{tabular} 3^{2} https://www.westerncape.gov.za/eadp/files/atoms/files/DRAFT%20Western%20Cape%20Provincial%20Coastal%20Management%20Programme%202022-2027.pdf$

³³ https://www.gov.za/sites/default/files/gcis_document/201501/3817131-10act36of2014integratedcoastalmanagema.pdf ³⁴https://www.westerncape.gov.za/eadp/files/atoms/files/WC%20Provincial%20Coastal%20Access%20Strategy%20and%20Plan %20-%20Summary_Sep2017_UPLOAD.pdf

2.2. The beachfront economy

When interpreting the values presented in this section, it is important to note that they denote correlational and not causality. As such, they depict statistically significant relationships between variables, but do not definite indicate that one factor solely causes another to change.

There is a dearth³⁵ of local studies that investigate the following aspects of the beachfront economy:

- Value of the marine and coastal economy (considering tourism, property values, aesthetic utility, etc)
- Economic value of coastal protection measures (i.e., how the construction/ absence/ maintenance of sea walls and similar measures have directly and indirectly contributed to income, production and employment)
- Impact of beachfront quality on property values (this also being associated with SLR)
- Relationship between tourism and the state of the beach (i.e., what influence does this have on visitor numbers, willingness to pay, etc)
- Monetary value of ecosystem³⁶ services provided by the beach and coastal dunes (it is noted that South African studies have however considered terrestrial inland ecosystem services). An example of such a study would consider how unabated coastal erosion can lead to infrastructure damage, as in the case of Monwabisi beach³⁷.

Welfare costs from poor beach quality are low up to a threshold, and then increase sharply³⁸. Research in South Africa has found that tourists and visitors are more sensitive to beach quality than residents³⁹. Investments that upgrade or maintain infrastructure quality such as this are thus important for increasing resilience⁴⁰ of the coastal zone. In this regard it is noted that the Western Cape has the highest density⁴¹ of coastal infrastructure in the country (inclusive of armouring structures⁴² and parking lots).

Valuing the coastal economy

Non-market techniques are typically used in valuing resources such as beaches. These include revealed preferences (e.g., hedonic and travel cost methods) and stated

³⁵ Bob, U., Swart, K., Ngalawa, H., & Nzimande, N. (2018). Methodological challenges in assessing the economic impacts of coastal and marine tourism in South Africa: Reflections from a piloting project. *EuroEconomica*, *37*(2).

³⁶ Pérez-Maqueo, O., Martínez, M. L., Lithgow, D., Mendoza-González, G., Feagin, R. A., & Gallego-Fernández, J. B. (2013). The coasts and their costs. In *Restoration of coastal dunes* (pp. 289-304). Springer, Berlin, Heidelberg.

³⁷ Fourie, J. P., Ansorge, I., Backeberg, B., Cawthra, H. C., MacHutchon, M. R., & van Zyl, F. W. (2015). The influence of wave action on coastal erosion along Monwabisi Beach, Cape Town. *South African Journal of Geomatics*, *4*(2), 96-109.

³⁸ Ranson, M. (2012). What are the welfare costs of shoreline loss? Housing market evidence from a discontinuity matching design. *Housing Market Evidence from a Discontinuity Matching Design (May 15, 2012). Harvard Kennedy School Environment and Natural Resources Program Discussion Paper, 7.*

³⁹ Lucrezi, S., & van der Walt, M. F. (2016). Beachgoers' perceptions of sandy beach conditions: demographic and attitudinal influences, and the implications for beach ecosystem management. *Journal of coastal conservation, 20*(1), 81-96.

⁴⁰ Remmel, A. (2017). *Coastal tourism in Cape Town, South Africa-Integrated Coastal Zone Management as an approach to increase resilience of the coastal zone* (Doctoral dissertation).

⁴¹ Claassens, L., de Villiers, N. M., & Waltham, N. J. (2022). How developed is the South African coast? Baseline extent of South Africa's coastal and estuarine infrastructure. *Ocean & Coastal Management, 222*, 106112.

⁴² Described in the article as coastal defence infrastructure inclusive of walls (concrete/ rock), beach hardening and dolosse

preferences (e.g., choice experiments and contingent valuation). This is because of the absence of robust markets for intangible factors associated with the beach such as views.

Meta-analysis⁴³ of 253 studies estimated the worldwide coastal economy as producing a mean value of R116 528/ha/year (original study indicated \$4 698 at 2003 prices) and a median value of R11 224 /ha/year (original study indicated \$453 at 2003 prices). This approach recognises that the length and area of coastal land is mutable. Cape Town's coastline is estimated as contributing R40bn per annum to GDP⁴⁴.

For a given sea level rise scenario, land with an elevation of +2m relative to Land Levelling Datum and lower in sheltered environments, has been found at risk of (has caused?) an estimated R4.9bn⁴⁵ of damage to Cape Town's tourism, property sector and infrastructure.

Implication

There is a severe shortage of local studies that seek to measure the value of the coastal economy in Cape Town and South Africa more broadly. While it is recognised that such studies are methodically contested, it is important that first-attempts, albeit flawed be made. This dire research need is heightened by the impending impacts of SLR.

Section 3.2 of this study attempts to assign numerical values to some components of the local economy. While gaps in the approach are fully caveated, the estimates provide a useful baseline from which more rigorous stand-alone studies maybe undertaken in the future.

A preliminary recommendation is for annual studies similar to this one to be conducted in order to compile and update the informational baseline which would help decision makers in evaluating different upgrade/no-go scenarios

Property values

A South African study⁴⁶ has estimated a 14% premium in property values from proximity to the coast. Beach quality is found⁴⁷ to have the greatest effect on properties located within 200m-300m from the shore.

Hedonic pricing models in the USA have shown that increasing the width of a beach by 0.3 metres positively affects property values within 800m of the coastline⁴⁸. Some⁴⁹ models estimate that a metre increase in beach width increases property value by 0.2%, while others indicate that a one percent increase in beach width leads to a 0.19% increase

⁴³ Ghermandi, A., & Nunes, P. A. (2011). A Global Map of Costal Recreation Values: Results From a Spatially Explicit Based Meta-Analysis. FEEM Working Paper No. 39.2011,

⁴⁴ http://awsassets.wwf.org.za/downloads/wwf_oceans_facts_and_futures_report_oct16.pdf

⁴⁵ https://ee.co.za/wp-content/uploads/legacy/posit11/PositionIT_Oct11_34-36.pdf

⁴⁶ Turpie, J. K., Clark, B. M., Hutchings, K., Orr, K. K., & De Wet, J. (2009). Ecology, value and management of the Kogelberg coast. *Report prepared for WWF-CAPE Marine Programme, Cape Town*.

⁴⁷ Landry, C. E., & Hindsley, P. (2011). Valuing beach quality with hedonic property models. *Land Economics*, *87*(1), 92-108.

⁴⁸ Pompe, J. J., & Rinehart, J. R. (1995). Beach quality and the enhancement of recreational property values. *Journal of Leisure Research*, *27*(2), 143-154.

⁴⁹ Gopalakrishnan, S., Smith, M. D., Slott, J. M., & Murray, A. B. (2011). The value of disappearing beaches: a hedonic pricing model with endogenous beach width. *Journal of Environmental Economics and Management*, *61*(3), 297-310.

in property value. Conversely, severe beach erosion is estimated as potentially reducing beachfront property values by 26%-⁵⁰. This must however be contextualised by the fact that ocean bordering properties have been found to command a 74% premium⁵¹.

Coastal protection in general has been found to increase property values by 13%⁵². In one study, sea walls or revetments as a means of coastal protection have been found to increase property values in close proximity (within 50 metres) by 10%⁵³. Another study found this effect to be 11%⁵⁴ (it is noted that this study did not compute proximity to the seawall as a variable). Sea walls have also been found⁵⁵ to yield statistically significantly lower coastal flood insurance premiums than areas without this form of coastal defence.

Implication

From the studies considered, failure of the coastal defence mechanisms at Muizenberg Beach is likely to result in a reduction of property values. Such a reduction is likely to be most pronounced in proximity to the beachfront.

While the proposed upgrade is unlikely to increase property values (given the multifactor determination of the locality's coastal premium), the no-go option is likely to be associated with a long-term reduction in beachfront property values.

Coastal and Marine Tourism (CMT)

CMT contributes approximately R26 billion⁵⁶ to national income, Cape Town accounts for 41% of CMT expenditure in South Africa⁵⁷. Ocean sports and associated activities have been estimated⁵⁸ as contributing R1.3 bn and 3 500 jobs to the Western Cape economy per annum.

⁵⁸http://www.westerncape.gov.za/assets/departments/economic-developmenttourism/wc ocean economy final report jan2020.pdf

⁵⁰ Catma, S. (2021, March). The Price of Coastal Erosion and Flood Risk: A Hedonic Pricing Approach. In *Oceans* (Vol. 2, No. 1, pp. 149-161). Multidisciplinary Digital Publishing Institute.

⁵¹ Fout, H., & Smith, B. C. (2017). Returns to ocean-bordering properties over the housing cycle. *Journal of Housing Research*, *26*(1), 53-78.

⁵² Dundas, S. J., & Lewis, D. J. (2020). Estimating option values and spillover damages for coastal protection: Evidence from Oregon's Planning Goal 18. *Journal of the Association of Environmental and Resource Economists*, 7(3), 519-554.

⁵³ Jin, D., Hoagland, P., Au, D. K., & Qiu, J. (2015). Shoreline change, seawalls, and coastal property values. *Ocean & Coastal Management*, *114*, 185-193.

⁵⁴ Atreya, A., & Czajkowski, J. (2014). Housing Price Response to the Interaction of Positive Coastal Amenities and Negative Flood Risks. In *2014 Annual Meeting, July 27-29, 2014, Minneapolis, Minnesota* (No. 180098). Agricultural and Applied Economics Association.

⁵⁵ Chen, X., Gao, Z., & Bi, X. (2022). Measuring heterogeneous preferences for adaptation strategies in response to sea-level rise: Evidence from Miami-Dade County. *Land Economics*, 062620-0093R1.

⁵⁶ Turpie, J., & Wilson, G. (2011). Cost/benefit assessment of marine and coastal resources in the western Indian Ocean: Mozambique and South Africa. *Report prepared for Agulhas and Somali Current Large Marine Ecosystems Project by Anchor Environmental Consultants, Cape Town, 44.*

⁵⁷ Rogerson, C. M., & Rogerson, J. M. (2019). Emergent planning for South Africa's blue economy: Evidence from coastal and marine tourism. *Urbani izziv, 30,* 24-36.

South African research⁵⁹ from 1 267 respondents in the Western Cape reveals the following findings about coastal and marine tourism operators:

Figure : Average values for Coastal and Marine Tourism businesses in the Western Cape

		Restaurants	Accommodation	Tour operators	Other CMT businesses
How many permanent employees do they employ in the Western Cape ?		9	11	8	5
How many temporary employees do they employ in the Western Cape ?		8	8	8	4
Number of other businesses supported (other service providers such as suppliers)		4	3	3	2
How many years has the typical business been operating for?	X	12	11	13	10

From the above, it is evident that CMT makes a significant contribution to permanent and seasonal employment and has linkages with a range of upstream and downstream businesses in other sectors (e.g., transport, agriculture, personal services, etc).

A profile⁶⁰ of visitors to CMT locations in Cape Town revealed that respondents found the City's beaches to be well maintained. The same study however found that users had relatively low levels of satisfaction with parking adequacy at beaches. Respondents to a recent study⁶¹ that covered 586 Cape Town respondents indicated that beach quality (defined in terms of management) was their most important motivation when selecting which beach to visit. The same study also found that accessibility (inclusive of parking) was the third most important factor when selecting a beach to visit. Beach quality and accessibility were thus found to be more valued by respondents than popularity (e.g., blue flag status), swimming conditions (e.g., wave & water safety, water quality), availability of activities (e.g., events) and other factors. A national survey⁶² of 1 138 beachgoers similarly found beach quality, connectivity and accessibility to be the most important values in beach selection. Another⁶³ South African study found access to be

⁵⁹

https://www.tourism.gov.za/CurrentProjects/Documents/Framework%20to%20assess%20the%20economic%20impact%20of%20Coastal%20And%20Marine%20Tourism%20(CMT)%20in%20SA_University%20of%20KwaZulu-Natal.pdf

⁶⁰ Munien, S., Gumede, A., Gounden, R., Bob, U., Gounden, D., & Perry, N. S. (2019). Profile of visitors to coastal and marine tourism locations in Cape Town, South Africa. *Geo Journal of Tourism and Geosites*, *27*(4), 1134-1147.

⁶¹ Eagleton, M. (2020). *Travel motives of visitors to South African beaches* (Doctoral dissertation, North-West University (South Africa)).

⁶² Saayman, M., & Saayman, A. (2019). Who are the big-spending beachgoers and what is important for them? *Journal of Economic* and *Financial Sciences*, *12*(1), 1-12.

⁶³ Lucrezi, S., & Saayman, M. (2015). Beachgoers' demands vs. Blue flag aims in South Africa. *Journal of Coastal Research*, 31(6), 1478-1488.

the second most important criteria when selecting which beach to visit. Additionally, South African tourists over the age of 50 have been found⁶⁴ to be highly sensitive to the quality of beach infrastructure.

Beach protection structures such as seawalls, breakwaters and groynes have been found to reduce average hotel prices by 8-15% as they may be perceived to be unsightly⁶⁵. It is noted that this study was undertaken in Thailand where 'natural' sandy beaches are prized and a core part of Thailand's international marketing strategy, which may not be the case in Cape Town⁶⁶. Choice experiments⁶⁷ reveal that tourists' willingness-to-pay for sea walls increases when it is coupled with supporting infrastructure that enables recreational activities such as walking along a promenade.

Another study however found that (non-waterfront) beachfront property values may decline⁶⁸ when armouring measures such as sea walls and rip rap reduce lateral access to the shoreline.

Implication

CMT is highly sensitive to subjective intangible variables such as perception and sentiment. While these are difficult to measure, factors which influence them are often known. In this case, the decision to visit and spend money at a beach is often related to factors such as access, accessibility, and connectivity.

The proposed upgrades specifically seek to improve access, accessibility, and connectivity at the Muizenberg beachfront, and thus are in line with the necessary conditions outlined in this section for 'good quality' experiences.

Conclusion

Based on the literature discussed, it is expected that not pursuing the proposed coastal upgrade will have a negative impact on the local tourism and property sectors. While this negative impact is unlikely to be pronounced in the short-to-medium term, unabated deterioration of coastal infrastructure will inevitably trigger a tipping-point at which its state of disrepair will lead to residents, visitors, tourists and investors actively avoiding the area. This will be accelerated by increasing climate-change-driven risks.

⁶⁴ Friedrich, J., & Stahl, J. (2019). *Beach tourism and climate along South Africa's coastline* (Doctoral dissertation, Master thesis, University of Göttingen. doi: 10.13140/RG. 2.2. 19690.98248 (accessed 21 March 2021)).

⁶⁵ Kriesel, W., & Friedman, R. (2002). *Coastal hazards and economic externality: implications for beach management policies in the American South East*. Heinz Center Discussion Paper.

⁶⁶ Somphong, C., Udo, K., Ritphring, S., & Shirakawa, H. (2022). An estimate of the value of the beachfront with respect to the hotel room rates in Thailand. *Ocean & Coastal Management, 226*, 106272.

⁶⁷ Omori, Y. (2021). Preference Heterogeneity of Coastal Gray, Green, and Hybrid Infrastructure against Sea-Level Rise: A Choice Experiment Application in Japan. *Sustainability*, *13*(16), 8927.

⁶⁸ Brucal, A., & Lynham, J. (2021). Coastal armoring and sinking property values: the case of seawalls in California. *Environmental Economics and Policy Studies*, 23(1), 55-77.

3. Locality

Data presented in this chapter is at the City, ward, main place ,sub-place and suburb level, depending on its provenance. Any such use of proxies in only where contextually relevant and applicable, noting the importance of the Muizenberg Beachfront to the overall area's economy and recreational landscape. For the purposes of data analysis, the study area covers ward 64, and is defined as including the sub-places shown in the below maps, namely:

- Muizenberg 1
- Costa da Gama
- Muizenberg 2
- Capricorn



3.1. Spatial context

Vrygrond

Marina da Gama

Map 2: Tourism related business ⁶⁹

Map 2 ⁷⁰ shows the location and density of tourism-related businesses and separates these into those located at the beachfront and those located 'inland'. It is seen that the beachfront is associated⁷¹ with a high concentration of tourism business. Tourism related businesses in this context⁷² refers to:

Restaurants (handling, preparation, sale and supply of meals or foodstuff)

Entertainment (including nightclubs, bars, and establishments with limited pay-out machines)

Personal services (spas, massage parlours, etc)

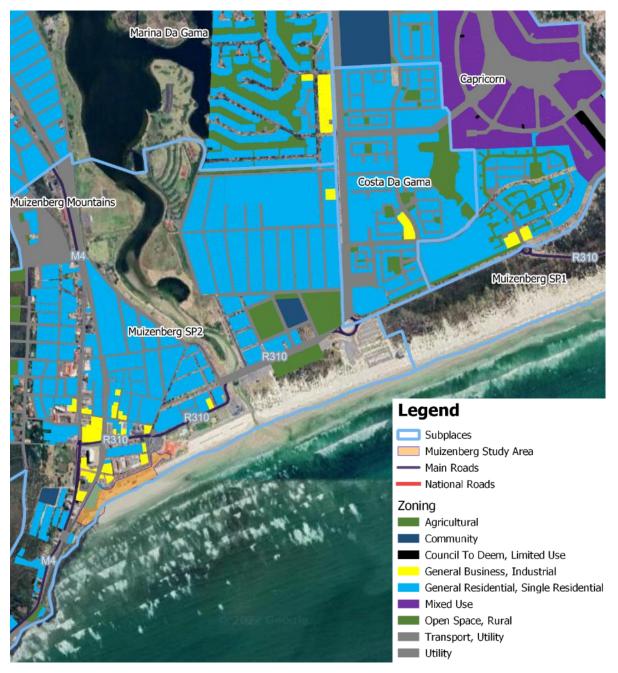
⁶⁹ Source: Urban Econ GIS, based on data provided by City of Cape Town: https://web1.capetown.gov.za/web1/OpenDataPortal/DatasetDetail?DatasetName=Business%20licenses

⁷⁰ The map is based on City Data which was not fully spatialised . the data also contained duplicate entries which were removed by UE. As such, the dots in the map only represent 54% of all business licences issued in the study area (Erf numbers were missing for 91 of the 199 records shared by the City.)

⁷¹ When interpreting Map 2, it is important to note that the database provided by the City covers business licences issued between 2009 and 2022. This does not however indicate that all the businesses issued with licences were still operating at the time this report was compiled.

⁷² While other tourism businesses such as those supporting water sports are acknowledged, these do not require licenses from the City in o, unlike the other businesses shown in the map.

Map 3: Muizenberg Land Use Zoning ⁷³



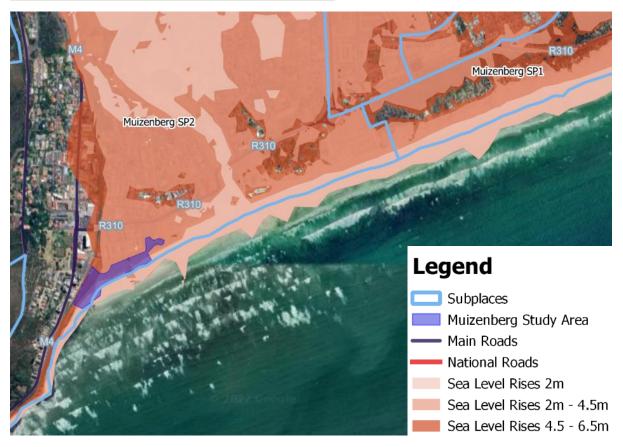
The location of tourism related businesses is directly influenced by the zoning scheme as presented in Map 3 above. Most business⁷⁴ activity within the study area is clustered near the beachfront . this places an onus on the beachfront to perform optimally since most erfs approved for business activity are located in its proximity. From Map 3 it is also observed that the majority of land in the area is used for residential purposes⁷⁵.

⁷³ Source: Urban Econ GIS, based on data provided by City of Cape Town:

https://www.capetown.gov.za/Work%20and%20business/Planning-portal/Online-planning-and-building-resources/Online-zoning-viewer

⁷⁴ The map combines general business 1-7; General Industrial 1-2; Local Business 1-2 and risk industry for illustrative purposes

⁷⁵ The map combines General residential 1-6 and single residential 1-2 for illustrative purposes



Map 4: Muizenberg Sea Level Rise estimates ⁷⁶

Residential and business property in the area at risk of SLR, is presented in Map 4. The map shows contour indicating that x m of sea level rise may cause the indicated flooding. The purpose of the proposed upgrade is however not to eliminate the effect of SLR but to increase resilience during storm events that will help to minimise SLR flooding related effects.

Implication

The beachfront is utilised by a high number of local residents and visitors (tourists). If the no-go alternative is pursued, it is likely that a large number of property owners and business operators would be affected. This emphasises the need for coastal protection as a means of mitigating the effect of storm surges and climate-change induced SLR.

https://www.capetown.gov.za/Work%20and%20business/Planning-portal/Online-planning-and-building-resources/Online-zoning-viewer

⁷⁶ Source: Urban Econ GIS, based on data provided by City of Cape Town:

3.2. Local economy snapshot

This section considers the local economy from the perspectives of the property sector, informal trade, tourism, events and content creation. Whilst it is recognised that the local economy is much broader than this, the information presented is based on available data. The local economy snapshot presented herein is largely informed by City data. StatsSA does not publish GDP and employment data at a suburb level, and thus it is not possible to profile all sectors.

Property

Map 5: Property valuation⁷⁷



Table 1 : Average prop	perty valuations
------------------------	------------------

Suburb name	2018
Capricorn	R1.2m
Costa da Gama	R1.1m
Lakeside	R2.2m
Muizenberg	R1.6m
St James	R2,8m
Vrygrond	RO.2m
Zandvlei	R2.1m

Property valuations in the area are presented in Map 5. As was shown in Map 3, the majority of property in the area is residential

dwellings. The adjacent table shows average property prices in the broader study area. The table utilises values from the latest⁷⁸ City General Valuation Roll. The values include residential (single freestanding units and multiple dwelling units such as apartment blocks) and commercial properties. From the Table, it is evident that a wide range of income

cohorts reside in proximity of the beachfront. In this regard, the Muizenberg beachfront was noted in the planning documents considered in the literature review as providing a cosmopolitan space for people from different socio-economic backgrounds.

⁷⁷ Source: Urban Econ GIS, based on data provided by City of Cape Town

⁷⁸ https://web1.capetown.gov.za/web1/gv2018/

A draft⁷⁹ development proposal to upgrade the Muizenberg CBD by constructing a mixed use (retail and residential units) facility and relocating some of the City's civic offices is noted. The data presented in this section however only considers the current built stock and approved future plans.

Implication

Average property prices for surrounding suburbs as presented in Table 1 are indicative of household income levels. These in turn provide insight on the mix of users that visit the Muizenberg beach i.e., high-, middle- and low-income cohorts.

The proposed upgrades are important insofar as they would allow the Muizenberg beachfront to preserve its amenity and recreational value, particularly for lower-income residents that may not be able to afford other comparable beachfronts (or the transport costs incurred to get there)

Informal trade



At the time this report was compiled, the City had issued 11 permits for informal trader at the Muizenberg beachfront. The majority 9/11) of these permits have been in place for at least three years (since 2019), indicating both stability and reliance. Informal trade mostly takes place near the

promenade, surfer's corner, municipal swimming pool and the parking areas. Approximately half of the permits issued allow mobile or roving trade, while the other half are for fixed locations. Traders typically prepare food for sale (e.g., burgers), and also sell snacks (e.g., soft serve), beverages (such as coffee and cold drinks) and beach toys.

It is also important to note that, whilst not located at the Muizenberg Beachfront, one of the biggest open-air flea markets in Cape Town⁸⁰ operates 1.5km away from East Beach. This provides a lucrative opportunity for other informal traders to earn a livelihood, whilst simultaneously attracting visitors to the Muizenberg beach.

Implication

While the study area has a number of commercial properties zoned for business (as shown in Map 3), informal trade remains an important part of the local beachfront tapestry. This allows the Muizenberg beachfront to provide a range of offerings at affordable price points, which is important given the area's household income profile.

Since traders are located near parking areas and the promenade, they are likely to be adversely affected by the upgrades during the construction phase. Similarly, it is important that adequate provision be made for them once the upgrades have been completed.

⁷⁹ Innovative Transport Solutions, 2019. Muizenberg CBD Transport Study: Transport impact assessment.

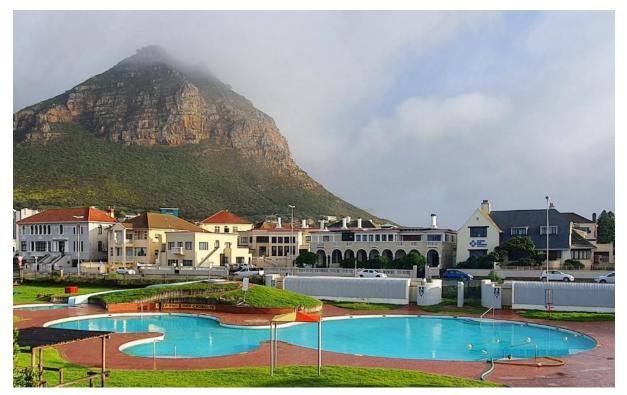
⁸⁰ https://www.capetown.travel/wp-content/uploads/2022/04/CTT-Visitors-Guide-2022-V11-DIGITAL-FINAL_compressed-1.pdf

Tourism



The Muizenberg beachfront (inclusive of Surfer's Corner beach) has blue flag status, parking, lifeguards, shark-spotters, law enforcement offices and toilets. The nearby train station provides affordable transport access for surrounding communities. This assortment of amenities and facilities sets it apart from other surrounding beaches.

Image⁸¹ : Muizenberg municipal swimming pool



As seen in the above image the beachfront also has supporting recreational activities in its vicinity including a municipal swimming pool, waterslide, mini-golf and walkway. While the municipal pool and waterslide are mainly open during the summer months, the mini golf operates throughout the year, and provides an alternate entertainment option on windy days. Other factors attracting visitors to the beachfront include the 117 unit⁸² Zandvlei Holiday resort, Zandvlei Nature Reserve (which hosts weekly park runs).



The Muizenberg beachfront stands out from other Cape Town beaches in its offering of facilities and equipment geared to promote UA for persons with disabilities. This includes a beach access mat, amphibious wheelchair, demarcated ablutions & parking, and ramps⁸³. As a result, Muizenberg is a leader in terms of adaptive surfing⁸⁴.

⁸¹ Credit: Tatenda Mzezewa

⁸²https://resource.capetown.gov.za/documentcentre/Documents/City%20research%20reports%20and%20review/City%20of%2 OCape%20Town%20Resort%20Evaluation%20Report%2027%20July%2009.pdf

⁸³ https://www.capetown.gov.za/Media-and-news/Beach%20access%20made%20easy

⁸⁴ Lopes, J. T., Masdemont, M., & Cruz, G. M. V. (2018). Adaptive surfing: leisure, competition or therapy? *Cadernos de Educação Tecnologia e Sociedade, 11*(1), 148-159.

Image⁸⁵: Surfers & dogwalker at Muizenberg beachfront



Muizenberg is rated⁸⁶ as being among the three most competitive beaches in Cape Town for sports tourism (out of a total of 49 beaches considered). It is a beginner-friendly beach for surfing, which results in a high concentration⁸⁷ of surfing related shops, schools, manufacturers, and related businesses around the beachfront. This in turn supports cultural industries such surf-rock-music and film⁸⁸. A range of Corporate Social Investment initiatives by these surfing businesses (and also by stand-alone Non-Profit Organisations) further support hundreds of local community members of different abilities and income cohorts. These initiatives include adaptive surfing⁸⁹, swimming lessons⁹⁰, beach clean-ups⁹¹, surf therapy⁹²

There are an estimated 73 establishments licenced to sell food and similar items at or near the beachfront, as presented in Map 2. The majority of these have historically been local cafes and restaurants, but in recent years, national and international chain brands have increasingly taken up retail space.

⁹⁰ https://surfpop.co.za/wp-content/uploads/2021/12/Surfpop-Impact-Report-2020-2021 small.pdf

⁸⁵ Credit: Tatenda Mzezewa

⁸⁶ Martín-González, R., Swart, K., & Luque-Gil, A. M. (2021). Tourism Competitiveness and Sustainability Indicators in the Context of Surf Tourism: The Case of Cape Town. Sustainability, 13(13), 7238.

⁸⁷ https://blue-cape.co.za/wp-content/uploads/2020/06/Ocean-Sports-Profile-Final-Rev-22-July-2019.pdf

⁸⁸ Thompson, G. (2015). Surfing, gender and politics: Identity and society in the history of South African surfing culture in the twentieth-century (Doctoral dissertation, Stellenbosch: Stellenbosch University).

⁸⁹ https://roxydavisfoundation.org/wp-content/uploads/2021/08/RDF-Annual-Report-30-July-2021-Version-2.pdf

⁹¹ https://www.thebeachcoop.org/wp-content/uploads/2018/08/BeyondHorizon_Consumer-and-restaurant_hospitality-industryapproaches-to-tackling-marine-plastic-debris.pdf ⁹² https://waves-for-change.org/wp-content/uploads/2021/08/2020_21_W4C-Annual-Report_final_compressed.pdf



A search⁹⁴ within the study area on Airbnb reveals approximately⁹⁵ 65 listings. While Airbnb is not the

only tourism accommodation platform, it is currently the most popular⁹⁶ option for both local and international tourists (and hosts). The high number of beachfront listings in comparison to those located more inland is indicative of the value of the beachfront to the local tourism sector. The average daily rate of

Airbnb suburb name ⁹³	# of listings	Average per night
Muizenberg	8	R1 108
Muizenberg beachfront	21	R1 523
St James beachfront	27	R2 600
St James	9	R2 645
Total	65	R2 075

Table 2 : Study area Airbnb listings

R2 075 is higher than Cape Town average of R1 427⁹⁷. The study area has 7 beachfront accommodation establishments registered with the Tourism Grading Council of South Africa⁹⁸. This is made up of 2 hotels, 3 guest houses, 3 self-catering establishments and 1 bed breakfast. It is acknowledged that not all accommodation establishments are properly registered, and thus the total supply is likely to be higher.

When considering the area's tourism attributes, it is important to note that study area is part of the Muizenberg Improvement District. This organisation annually⁹⁹ dedicates significant human and financial resources towards cleansing, environmental upgrading, law enforcement, public safety CCTV and social upliftment.

Implication

It is important to highlight the large local component of tourists that make use of the Muizenberg beachfront (i.e., by residents of neighbouring areas and the city at large vs international visitors). Such a lens allows one to consider the multi-faceted utility of the beachfront to local communities.

Any investments that support overall functionality of the Muizenberg beachfront precinct will support a wide range of users that make space of the broader space throughout the year. In this regard, the no-go option is unlikely to advance socioeconomic justice as it pertains to access to various opportunities for livelihoods and recreation

accommodation/# gprovince D = 1 gtown ID = 718 gpage No = 1

⁹³ It is noted that these suburb names do not necessarily correspond entirely with suburb names used by the city of Cape Town in its planning documents.

⁹⁴ Map based search undertaken on 31 May 2022 for the following parameters: Area = Muizenberg; Date = Flexible June 2022; Duration = 1 week.

⁹⁵ It is recognized that the number of listings in an area change on a daily basis and is also dependent on the search parameters used.
⁹⁶https://genesis.imgix.net/uploads/files/Genesis-Analytics-Airbnb-The-foundations-of-inclusive-tourism-13-Sept-2021-Final-report.pdf

⁹⁷ https://www.airdna.co/vacation-rental-data/app/za/western-cape/cape-town/overview

⁹⁸ https://www.tourismgrading.co.za/find-a-graded-establishment/search-for-graded-

⁹⁹https://resource.capetown.gov.za/documentcentre/Documents/Agreements%20and%20contracts/Muizenberg_Improvement_Di strict_Business_Plan_2020-25.pdf

Events

Data on events permits in the study area issued by the City is presented in the below table. While not all of these events were located at the beachfront, there is a high likelihood that many of the attendees would have then also visited the beachfront. Examples of events in the study area where permits were issued by the City between 2018 and 2021 include

- Sport
 - □ Fun runs and walks □ Surfing competitions
- Recreational & cultural □ Concerts & festivals

Image¹⁰⁰: Kite surfers in Muizenberg



Table 3: Events permits issued by CCT in Study Area

Event size	2018	2019	2020	2021
Small (200- 2000 attendees)	7	7	3	1
Medium (2001- 5 000 attendees)	1	2	1	-
Large (5 000- 10 000 attendees)	1	-	-	-
Very large (10 001 + attendees)	-	1	-	-

¹⁰⁰ Credit: Tatenda Mzezewa

It is estimated (using median values) that the events requiring permits in 2018 attracted over 15 000 attendees to Muizenberg. In 2019, this declined as risk-averse tourists opted to defer visits (and organisers were similarly reluctant to book large events as they were uncertain about attendee numbers) as the post-drought reality set-in. events attendance in 2020 and 2021 further deteriorated due to Covid-19 and its associated restrictions. Events at the Muizenberg beachfront are estimated as generating an annual average of R8.01 million of income during the period under review.

The data presented in Table 3 does not include events with less than 200 attendees, as these do not require permits from the City¹⁰¹. Data provided by the City also excludes bookings for the 873-person capacity¹⁰² Muizenberg civic centre, which is a highly utilised¹⁰³ popular venue for community and charity functions, private events such as weddings and birthday parties, commercial bookings such as year-end functions and free-usage activities. Between 2017-2019, the Muizenberg civic centre averaged 10 000 attendees and 336 events per year¹⁰⁴.

Events at and near the Muizenberg beachfront attract visitors from other parts of the country, and further afield (such as the Cape Town International Kiting festival). This in turn has multipliers as such visitors would typically stay in nearby accommodation and make use of local restaurants and other associated stores. The quality of the beachfront and its amenities is thus directly linked to the area's ability to successfully host events.

Implication

The ability of organisers to host events is in part affected by the presence of supporting infrastructure. These supporting forms of coastal infrastructure are enablers that allow activities such as events to take place. While their presence does not necessarily cause more events to take place, their absence (or poor quality) does influence an organisers willingness to host an event in Muizenberg.

Content creation

Table 4 shows the number of film permits issued for ward 64 by the City. While not all the permits presented in the Table will have been for the Muizenberg beachfront, it is likely that a large percentage of them will. Average daily spend per film type is based on UE industry benchmarks and informed by stakeholder inputs. Estimated annual contribution to local economy is based on the 4-year average of permit issuances. An average of 98 film permits are issued by the City each year in the Muizenberg study area (noting that the low number for 2020-21 reflects restrictions associated with the Covid-19 lockdowns).

facilities/Community%20centres/Muizenberg%20Civic%20Centre

¹⁰¹ Unless structures must be erected or sound must be amplified, as per:

https://www.capetown.gov.za/Local%20and%20communities/Events-and-your-City/Hosting-events-in-the-City/hosting-a-small-event

 $^{^{102}} https://www.capetown.gov.za/Family\%20 and\%20 home/See-all-city-facilities/Our-recreational-interval of the second secon$

¹⁰³https://resource.capetown.gov.za/documentcentre/Documents/City%20research%20reports%20and%20review/EvaluationOf CommunitySocialFacilitiesRevDec2010%20(1)%20copy.pdf

¹⁰⁴ City of Cape Town, 2019. Muizenberg Pavilion problem statement. Unpublished internal report.

Media permit type	2018	2019	2020	2021	Average daily spend ¹⁰⁵	Estimated annual contribution to local economy ¹⁰⁶
Commercial film	49	81	25	22	R300 000	R13 200 000
Documentary film	1	1	0	2	R30 000	R30 000
Feature film	5	0	3	5		
Micro-shoot	32	46	15	11	R10 000	R260 000
Music video	2	2	1	2	R8 000	R16 000
Stills photography	13	45	4	8	R15 000	R270 000
TV series	2	2	2	1	R20 000 ¹⁰⁷	R40 000
TV films & productions	1	1	0	1	R20 000	R20 000
Student projects	2	0	0	5		
Total	107	178	50	57		R13 836 000

Table 4: Film permits issued by City of Cape Town in Study Area



Image¹⁰⁸: Content creators in Muizenberg

An average of 98 film permits are issued by the City each year in the study area (noting that the low number for 2020-21 reflects restrictions Covid-19 associated with the lockdowns). It must also be noted that not all monetisable film projects will apply for permits from the City (e.g., social media influencers earn income on their videos but may not necessarily have acquired a permit to film at the beachfront). The estimates in the Muizenberg area are conservative, as they assume that each permit was only associated with 1 day of filming. As such the true value of the film sector to the local economy is significantly

higher. The media creation economy has multiple linkages with other economic activities, for example food catering, and also serves to 'advertise' the area's latent attributes.

Implication

The state of the beachfront is inextricably linked to the ability of Muizenberg to directly attract media creation activity (with associated income generation), and through this, to indirectly attract visitors to the area based on the content subsequently published.

¹⁰⁵ Estimates informed by interactions with Nico Dekker, Niq Studios (and former CEO at Cape Town Film Studios

¹⁰⁶ Based on average number of permits

¹⁰⁷ This value is for local TV series. It is noted that international TV series would be associated with higher spend

¹⁰⁸ Credit: Tatenda Mzezewa

3.3. Beachfront user perceptions

This section discusses some of the findings from the survey completed by 170 respondents regarding their perceptions of the Muizenberg beachfront.

Satisfaction levels with the beach experience

Table 5: Responses to the survey question 'Please indicate your current satisfaction levels with the following aspects of the beachfront experience in Muizenberg'

Respondents satisfied ¹⁰⁹ with	Satisfied	Dissatisfied	Neutral / do not know
Universal access (for persons with disabilities or the elderly	37%	38%	25%
Access points (e.g., stairs)	44 %	36 %	20%
Parking space provision & configuration	3 1%	55%	14%
Pedestrian infrastructure (width, continuity & quality of wooden boardwalks, brick walkways and verges)	39 %	45%	16%
Recreational facilities (e.g., play areas)	30%	43%	26%
Access to ablution facilities	42%	34%	24%
Pedestrian safety (crossing points and traffic calming	43%	38%	1 9 %
Coastal protection measures (e.g., sand dune vegetation)	29 %	33%	37%
Management of wind-blown sand	33%	41%	26%
State of the beach (e.g., availability of sizeable quality space)	55%	26%	1 9 %

Respondents to the survey indicated overall low levels of satisfaction with the beach experience (only one of the categories was deemed to be satisfactory by more than half of

respondents). Regarding governance, over a fifth of respondents rated the City as poor at being trustworthy to provide services at Muizenberg beach (26%) and its overall performance in providing services at the beach (22%).

Respondents who indicated that a member of their household either has a disability or is elderly registered significantly lower levels of satisfaction for universal access (28%), access points, (14%), pedestrian infrastructure (28%) and pedestrian safety (21%) in comparison to the above table. It is noted that the proposed Muizenberg beachfront upgrades will improve accessibility.

While not part of this phase of beachfront upgrades, multiple survey respondents mentioned heritage value from the beachfront's colourful beach huts as a special and unique feature of the area¹¹⁰. In this regard it is recognised that a range of stakeholders are involved in raising awareness, repairing, maintaining and managing these huts¹¹¹.

¹⁰⁹ Defined as those respondents indicating 'slight satisfaction' or 'significant satisfaction'. Other response options not presented in the Table included 'I do not know'; 'Neutral'; 'slightly dissatisfied'; and 'significantly dissatisfied'

¹¹⁰ Open ended question asking 'In your opinion, what makes this location special and unique'

¹¹¹ https://beachhuts.org.za/about/

4. Impacts

4.1. Overview of economic modelling

Economic impact refers to the effect on the level of economic activity in a given area as a result of some form of external intervention in the economy. In the case of this study the local impacts will be modelled on a regional level. These impacts are measured as a result of the capital investment in the proposed upgrades. The analysis focuses on the changes that could be expected in the economy and community and can be estimated by using a technique called the Social Accounting Matrix (SAM) Model.

Social Accounting Matrix

While there are many methods of regional economic impact analysis, the SAM modelling approach has proven to be a particularly effective method for evaluating the implications of introducing an exogenous change to the economy. The modelling approach is recognised and accepted both nationally and internationally. The model utilised as part of this report was based on the national model and it has been adapted to reflect local economic dynamics and local forward and backward linkages.

A SAM represents flows of all economic transactions that take place within an economy (regional or national). It is at the core, a matrix representation of the National Accounts for a given country, but can be extended to include non-national accounting flows, and created for whole regions or areas – as has been done in this case.

SAMs refer to a single year providing a static picture of the economy, based on national accounting statistics and Input-Output tables that are compiled and published by Statistics South Africa (StatsSA), using primarily South African Reserve Bank Accounts data. The sectoral parameters utilised in the model are therefore strictly compatible with the macro national accounting data published by the South African Reserve Bank and StatsSA on a regular basis. However, the model has been amended to include the local conditions.

Impacts considered

The economic impacts during construction and operational phases can be viewed in terms of a change in the following:

- Job creation- the number of additional jobs created. This includes jobs in planning & constructing the infrastructure. Indirect and induced job creation will also occur in surrounding businesses as the improved quality of the beachfront attracts more visitors.
- Personal income this relates to the job creation mentioned above and indicates the increased household income of the new jobs created by this development.
- Value-added (or GDP) the value of all final goods and products produced during one-year period within the study area, as a direct, indirect and induced result of activities for/at the precinct during planning, construction and operation.

Any of these measures can be an indicator of improvement in the economic well-being of residents, which is generally the goal of any investment project. The net economic impact is usually viewed as the expansion or contraction of an area's economy, resulting from the induced changes. The precise quantum of these impacts will be influenced by changes in the project (such as precise land-use mix, technologies employed, imported vs. local goods and services, timing and funding options, amongst others) and changes in the project environment (such as property market cycles, interest rates, legislation, the structure of the economic sectors primarily influencing and affected by the development and the labour market, amongst others).

It should also be noted that the different measures of economic impact (jobs, GDP and new business sales) cannot be added together and should be interpreted as separate economic impacts. The model quantifies direct and indirect economic impacts for a specific amount of time. Therefore, the estimates that are derived do not refer to gradual impacts over time. Three types of economic impacts can be measured, namely, direct, indirect and induced impacts:

- Direct Impacts changes in local business activity occurring as a direct result or consequence of public sector capital expenditure. Direct economic effects are generated when the new business creates new jobs and purchases goods and services to operate the new facility. Direct impacts result in an increase in job creation, production, business sales, and household income.
- Indirect Impacts occur when the suppliers of goods and services to the new business experience larger markets and potential to expand. Indirect impacts result in an increase in job creation, GDP, and household income.
- Induced Impacts represent further shifts in spending on food, clothing, shelter and other consumer goods and services as a consequence of the change in workers and payroll of directly and indirectly affected businesses. This leads to further business growth/decline throughout the local economy. Examples include income arising through the backward linkages of this spending in the economy.



4.2. Impacts from the proposed upgrades

Modelled impacts

The below table outlines impacts on the economy associated with the construction and related expenditure¹¹² set out in the following city documentation:

- 2 March 2022 Consultant scope discussion *PowerPoint presentation*
- Appendix G Schedule and cashflow Rev 4
- Appendix F Cost estimate Rev 4
- The feasibility report

Table 6: Modelled impacts from proposed upgrades

Type of impact	Direct impact	Indirect impact	Induced impact	Total impact
Production	R147.45 million	R151.37 million	R77.25 million	R379.06 million
Gross Domestic Product	R32.15 million	R57.46 million	R31.12 million	R121.74 million
Employment	102 FTE	260 FTE	102 FTE	464 FTE
Worker income	R19.31 million	R25.56 million	R12.53 million	R5.41 million

It is assumed that the project schedule period associated with proposed upgrades will run from FY2022-FY2027, whilst OPEX¹¹³ is understood to be an ongoing amount. This is reflected in the above table.

The proposed upgrade would result in significant and measurable positive impacts on production, employment, worker income and Gross Domestic Product as set out above. The applicable corollary thus infers that the no-go alternative would result in the impacts presented in the above Table not being realised. Phrased differently, the modelled impacts of the no-go alternative are RO production, RO GDP, O employment opportunities and RO income. It may then be concluded that the upgrade will result in significantly more positive modelled impacts than the no-go option.

The value of the above table is in revealing how the upgrade's initial investment (and labour requirements) is likely to unlock multipliers in other sectors of the economy, and also in other parts of the City. The upgrade would initially benefit the construction sector, with subsequent and induced impacts filtering through to all sectors of the economy.

Implication

It is recommended that the proposed upgrades be undertaken based on their contribution to the local economy.

While it is recognised that not all inputs would be available in Muizenberg, local content (suppliers, contractors, etc) must ideally be utilised in order to ensure that 'economic leakage' of value to other areas is minimised.

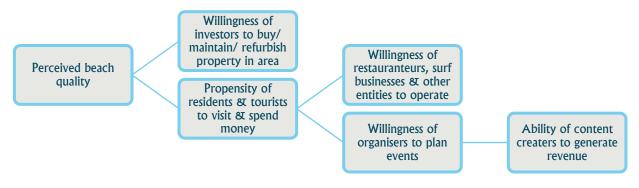
¹¹² As the project progresses through the scoping, feasibility, inception, concept, detailed design, procurement, construction and commissioning phases.

¹¹³ It is assumed the costs associated with the following maintenance items will not change significantly: beach lowering, park & lawns, play equipment, maintenance of pathways, sewer, parking areas/ kerbs/ road surfacing

4.3. Potential socio-economic losses from the no-go scenario

Modelled impacts

The diagram below seeks to illustrate interrelations between the impact areas considered (it is however noted that economic processes are often not linear as depicted but in fact circular looped systems)



The below Table outlines maximum losses that would result if the beachfront economy deteriorated to an extent of not being usable for content creation, tourism and events. This presents an unlikely worst-case scenario but is important in its proxy values of revealing the value of different components of the local economy.

Table 7: Potential impacts¹¹⁴ of no-go

Area of impact	Maximum potential loss of no-go on production	Maximum potential loss of no-go on GDP	Maximum potential loss of no-go on employment	Maximum potential loss of no-go on income
Content creation (film sector)	-30.91 million	-R 12.96 million	-28 jobs	-5.06 million
Events	-R16.80 million	-8.83 million	-22 jobs	-R4.15 million

Actual modelled impacts resulting from the no-go are likely to be moderated values of those presented in the above Table, but the table's value is in revealing the current contribution of the listed activities to the Muizenberg Economy.

¹¹⁴ 2022 prices; Western Cape SAM 2006 model updated to 2022

Potential impacts on property sector

This sub-section considers potential impacts on properties presented in Map 5.

Table 8: I	Potential	impacts ¹¹⁵	of no-go	on	property	sector	

Variable	Value
Total number of beach properties	502 ¹¹⁶
	(196 commercial, 298 residential ¹¹⁷ , 8 vacant)
Total property value	R918 671 000 ¹¹⁸
Total estimated property tax	R8 000 475 ¹¹⁹
Anticipated loss in value	R55 000 560
Anticipated loss in property tax	R480 029

From the above table it can be seen that the no-go alternative would have a negative impact on property values.

Non-modelled impacts

Whilst not quantified, it is important to note that under the no-go alternative:

- Capital flight (diminished ability to retain investment) to more 'competitive' destinations (i.e., other beachfronts whose potential is deemed by residents, entrepreneurs and property owners as being realised) is likely to accelerate over time as the state of coastal infrastructure further deteriorates.
- Accessibility of the beachfront (access points, pavements, walkways, etc) will fall below the minimum standards set out by the WCG. This will disproportionately affect vulnerable population groups (persons with disabilities and the elderly).
- Negative user perceptions about the City's governance at the beachfront will ultimately affect the area's ability to attract new activity and retain existing activities (this accounts for reputational understandings of beach quality as discussed in the Literature review).

https://resource.capetown.gov.za/documentcentre/Documents/Financial%20documents/Valuations Property Rates.pdf Commercial property tax rate = 0.01206; Residential property tax rate = 0.00603; Vacant property tax rate = 0.01154 The residential rebate of R285 000 is also applied on erfs zoned for residential uses.

¹¹⁵ 2022 prices; Western Cape SAM 2006 model updated to 2022

¹¹⁶ Excludes parking lots, public open spaces, municipal properties and properties designated for transport uses.

¹¹⁷ Freestanding and sectional title units

¹¹⁸ Based on 2018 City of Cape Town General Valuation roll

¹¹⁹ Annual, based on 2021/22 rates, available at

4.4. Stakeholder views

Sentiment regarding no-go alternative

Respondents agreeing ¹²⁰ with no-go alternative	%
Coastal infrastructure currently attracts residents to the beachfront	72%
Coastal infrastructure currently attracts tourists & residents from other parts of the City to the beachfront	71%
Coastal infrastructure currently encourages residents to spend at or near the beach	66 %
Coastal infrastructure currently encourages tourists to spend near or at the beach	61%
Coastal infrastructure currently encourages residents to invest near or at the beachfront	44%
Coastal infrastructure currently encourages tourists to invest near or at the beachfront	44%

Table 9: Responses to the survey question 'To what extent do you agree with the following statements about the current state of coastal infrastructure in Muizenberg'

From the survey results presented in Table 9, respondents are of the opinion that while the beachfront currently attracts visitors, it does not convert this 'foot traffic' into investment. This is indicative of an asset which is currently still functioning sufficiently, but in whose future potential and current investors have low confidence levels. The proposed upgrades may thus be taken by investors as a stimulus signal, indicating that the City views the precinct as a priority. While not guaranteed, it is thus possible that the proposed upgrades may set in motion a

virtuous cycle of private sector investment into the area's property and business sector. An overwhelming majority of respondents were of the opinion¹²¹ that the no-go alternative would impart negative impacts¹²² on the local beachfront economy (68%), the local beachfront property sector (61%) and visitor numbers to the beachfront (60%)¹²³.

Muizenberg beach has to fight hard for every Rand it gets, the city apportion a small budget where suburbs such as Sea Point and Green Point got multi million projects over the last 15 years! Yet Muizenberg has failing infrastructure at every turn (pavements, parking bays, the promenade). It is mismanaged and unloved by the city.



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¹²⁰ Defined as those respondents indicating 'partial agreement' or 'full agreement'. Other response options not presented in the Table included 'I do not know'; 'Neither agree nor disagree; 'partially disagree'; and 'strongly disagree'

¹²¹ Q: If coastal infrastructure (e.g., pedestrian walkways, stairs to access the beach, parking bays, etc.) in Muizenberg beach stays as it is (and is not upgraded), what do you think would be the impact on...

¹²² Defined as 'significant negative impact' and 'slightly negative impact'. Other response options to this question included 'no impact'; 'I do not know'; slightly positive impact'; and significant positive impact'

¹²³ Q: "If Coastal infrastructure (e.g., pedestrian walkways, stairs to access the beach, parking bays, etc.) in Muizenberg beach stays as it is (and is not upgraded) what do you think would be the impact on....)

¹²⁴ Survey respondent open-ended comment in response to the question "Are there any points you'd like to elaborate on"

Sentiment regarding upgrade

Respondents agreeing that project will have long term positive impact and short-term negative impact on ¹²⁵	Short term negative Impact of limited access ¹²⁶	Long-term positive impact of upgrade ¹²⁷
Formal businesses at or near the beachfront	71%	78 %
Informal business at or near the beachfront	67 %	68 %
Organisers of events at or near the beachfront	70%	80%
Residents	65 %	73%
Visitors and tourists	78 %	82%
Persons with disabilities & the elderly	75%	81%

Table 10: Perceived impact of upgrade on different groupings

Respondents acknowledge that during the construction phase, the upgrades will negatively affect all user groups, particularly tourists and visitors from other parts of the city. Despite these transitory challenges, respondents overwhelmingly concede that an upgrade to the beachfront would result in positive benefits for all groups. Survey respondents expected the magnitude of these long terms positive benefits to supersede that of the long-term construction-phase losses.

Respondents anticipate that benefits accruing to informal traders will however be significantly lower than those expected for other groupings. It is thus imperative that measures be explored so ensure that this marginalised grouping may be better integrated into the social and physical infrastructure.

Potential benefits for persons with impaired mobility abilities are cited as a potential long term positive impact from the upgrades. In this regard, it is important the City engage closely with UA recommendations for precinct as referred in the literature review section of this report. Similarly, it is important that the City engage with applicable stakeholders such as organisations involved in adaptive surfing to ensure that the final approved design align with the needs of this important user group.

The Muizenberg Beach Front is in SERIOUS need of regeneration, upliftment, improved accessibility, modernisation and a complete revamp to bring out the beauty and sense of place of the areas

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¹²⁵ Response options included 'significant negative impact'; 'slightly negative impact'; 'no impact'; 'not applicable'; 'I do not know'; slightly positive impact' i

¹²⁶ If beach access & space were limited for several months in order for these upgrades to be undertaken, what would the impact of this limited access be on

¹²⁷ Q: In your opinion, how would upgrades to coastal infrastructure (e.g., more accessible walkways, optimisation of parking, etc.) affect the following groups?

¹²⁸ Survey respondent open-ended comment in response to the question "Are there any points you'd like to elaborate on"

Beachfront upgrade Socio-Economic Impact Muizenberg

5. Synthesis5.1. Summary of findings

Image¹²⁹ : Perspective from Muizenberg Beachfront



Input	No-go alternative finding	Upgrade finding
Literature	Inconsistent with legislative	Aligned with applicable planning
review	imperatives (including the City's	framework, & supported by evidence in
	by-law) and planning frameworks	cited local & international studies
Activity	Investment into current	Would allow not just retention but also
audit	beachfront uses (recreation,	possible attraction of investment into local
	sport, etc) unlikely to be retained	economy
Stakeholder	Majority of survey respondents	Overwhelming support for improvements
input	rated various aspects of the	to and maintenance of facilities,
	beachfront as highly unsatisfactory	infrastructure and coastal defence
Impact	Indirect potential losses to	Direct positive impact from construction
modelling	economy	क्ष maintenance

The beachfront is long overdue for an upgrade. The historic buildings are in a state of disrepair and disuse, and the play areas are unsafe. Given the huge popularity of this beachfront for residents and tourists alike, a much greater investment should be made!

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¹²⁹ Credit: Tatenda Mzezewa

¹³⁰ Survey respondent open-ended comment in response to the question "Are there any points you'd like to elaborate on"

5.2. Recommendations

Short-term

- It is recommended that the upgrades be approved and implemented based on the netpositive socio-economic benefits expected to accrue
 - □ Such upgrades must seek to maximise local content (supply of labour, inputs and ancillary services)
- The no-go-alternative is not recommended, given the potential long term negative impact on the local economy from further deterioration of public infrastructure and community access to the beachfront
- Significant stakeholder engagement is proposed as a means of
 - □ Soliciting public buy-in regarding the upgrades
 - Communicating on-going progress on the planning and implementation phase of the upgrades (a large cohort of survey respondents stated a desire to be kept informed about the project and accordingly shared their contact details)

Medium term

- Incorporation of TDA Muizenberg UA Assessment recommendations for beach
- Exploration of means by which informal traders may be better integrated into current and longer-term plans to upgrade the beachfront
 - Temporary trading spaces may be allocated to traders affected by the construction (especially those operating from fixed spots, and whose permits do not allow roving or mobile operations)
- Significant implementation capacity must be devoted towards maintenance of the upgrades in order to prevent reversal of gains
- Annual monitoring of the impact of beach upgrades should be undertaken throughout the construction phase of the project. Ideally this would also seek to quantify net losses resulting from temporary limitations of access to the beach on different groups (e.g., informal traders)
- Upon completion of the upgrades, annual surveys should be undertaken to measure and monitor user satisfaction with their beachfront experience. These may be administered across all the City's beaches in order to allow comparison across locality and time. Such surveys must also focus on the maintenance of upgraded facilities

Long term

- Commissioning of stand-alone studies to better understand some of the gaps identified in this study e.g.
 - Impact of coastal defence infrastructure on property values, tourism performance and similar metrics
 - Value of the Muizenberg beachfront economy, its components, contributions & linkages

Annexure 1: Construction impact tables

Production Impact

IR millions. 2022 Prices

[R millions, 2022 Prices]	Event OPEX Community, Social and Personal Services						
	Direct	Indirect	Induced	Total	Percentage (Total)		
Agriculture	R-	R 0.36	R 4.25	R 4.61	1.2%		
Mining	R -	R 0.49	R 0.09	R 0.57	0.2%		
Manufacturing	R - R	R 45.82 R	R 22.44 R	R 68.26 R	18.2%		
Electricity	-	1.25	1.13	2.38	0.6%		
Water	R -	R 0.57	R 0.56	R 1.13	0.3%		
Building and Construction	R 147.45 R	R 45.31 R	R 2.69 R	R 195.45 R	52.0%		
Trade and accommodation	- R	к 11.16 R	к 8.10 R	к 19.26 R	5.1%		
Transport and storage	-	11.60	6.50	18.11	4.8%		
Financing	R -	R 3.05	R 6.25	R 9.30	2.5%		
Real estate and business services	R -	R 22.25	R 19.16	R 41.41	11.0%		
General Government and community	R	R	R	R	11.070		
services	-	9.51	6.07	15.58	4.1%		
Total	R 147.45	R 151.37	R 77.25	R 376.06	100.0%		
Production/New Business Sales per R1.00 investment	R 1.00	R 1.03	R 0.52	R 2.55			

Impact on Gross Domestic

Product	Community, Social and Personal Services								
[R millions, 2022 Prices]	Direct	Indirect	Induced	Total	Percentage (Total)				
Agriculture	R - R	R 0.16 R	R 1.84 R	R 1.99 R	1.6%				
Mining	- R	0.25 R	0.04 R	0.30 R	0.2%				
Manufacturing	-	14.12	5.17	19.29	15.8%				
Electricity	R -	R 0.62	R 0.57	R 1.19	1.0%				
Water	R - R	R 0.19	R 0.18 R	R 0.37 R	0.3%				
Building and Construction	к 33.15	R 10.30	R 0.61	R 44.06	36.2%				
Trade and accommodation	R - R	R 5.83 R	R 3.88 R	R 9.71 R	8.0%				
Transport and storage	- R	4.93 R	2.76 R	7.70 R	6.3%				
Financing	-	2.21	4.54	6.75	5.5%				
Real estate and business services	R -	R 12.70	R 7.61	R 20.31	16.7%				
General Government and community services	R -	R 6.14	R 3.92	R 10.06	8.3%				
Total	R 33.15	R 57.46	R 31.12	R 121.74	100.0%				
Gross Geographic Product per R1.00 investment	R 0.22	R 0.39	R 0.21	R 0.83					

Impact on Employment <i>[Number]</i>	Direct	<i>Community,</i> Indirect	Social and Persona Induced	<i>al Services</i> Total	Percentage (Total)
Agriculture	-	0.55	11.44	12.00	2.6%
Mining	-	0.47	0.08	0.56	0.1%
Manufacturing	-	58.43	15.04	73.46	15.8%
Electricity	-	1.06	0.97	2.03	0.4%
Water Building and	-	0.04	0.04	0.09	0.0%
Construction Trade and	102.04	82.70	4.91	189.66	40.8%
accommodation	-	26.05	22.15	48.20	10.4%
Transport and storage	-	7.07	4.41	11.48	2.5%
Financing Real estate and business	-	1.75	3.59	5.34	1.1%
services General Government	-	40.33	12.72	53.06	11.4%
and community services	-	42.03	26.83	68.86	14.8%
Total	102.04	260.51	102.18	464.74	100.0%
Full time employment per R1 million					
investment	0.69	1.77	0.69	3.15	

Impact on Income	Community, Social and Personal Services						
[R millions, 2022 Prices]	Direct	Indirect	Induced	Total	Percentage (Total)		
- · ·	R	R	R	R			
Agriculture	-	0.05	0.55	0.59	1.0%		
	R	R	R	R			
Mining	-	0.09	0.02	0.11	0.2%		
	R	R	R	R			
Manufacturing	-	6.46	2.38	8.83	15.4%		
	R	R	R	R			
Electricity	-	0.22	0.20	0.43	0.7%		
	R	R	R	R			
Water	-	0.07	0.07	0.13	0.2%		
	R	R	R	R			
Building and Construction	19.31	5.91	0.35	25.58	44.6%		
	R	R	R	R			
Trade and accommodation	-	2.79	1.85	4.64	8.1%		
	R	R	R	R			
Transport and storage	-	1.83	1.03	2.86	5.0%		
	R	R	R	R			
Financing	-	0.75	1.54	2.30	4.0%		
	R	R	R	R			
Real estate and business services	-	4.32	2.59	6.91	12.0%		
General Government and	R	R	R	R			
community services	-	3.07	1.96	5.03	8.8%		
	R	R	R	R	0.070		
Total	19.31	25.56	12.53	57.41	100.0%		
Worker income per R1.00	R	R	R	R			
investment	0.13	0.17	0.08	0.39			

Annexure 2: Film impact tables

Production Impact

[R millions, 2022 Prices]	Event OPEX								
		Community, Social and Personal Services							
	Direct	Indirect	Induced	Total	Percentage (Total)				
Agriculture	R -	R 0.02	R 0.42	R 0.44	1.4%				
	R	R	R	R					
Mining	-	0.01	0.01	0.02	0.1%				
Manufacturing	R	R	R	R					
Manufacturing	- R	2.08 R	2.24 R	4.32 R	14.0%				
Electricity	к -	к 0.15	к 0.11	к 0.26	0.8%				
	R	R	R	R	0.070				
Water	-	0.04	0.06	0.10	0.3%				
	R	R	R	R					
Building and Construction	-	0.09	0.27	0.36	1.2%				
Trade and accommodation	R	R	R	R	7.00/				
	- R	1.33 R	0.83 R	2.16 R	7.0%				
Transport and storage	13.84	4.73	0.64	19.21	62.2%				
	R	R	R	R	02.270				
Financing	-	0.19	0.66	0.85	2.8%				
.	R	R	R	R					
Real estate and business services	-	0.60	1.88	2.48	8.0%				
General Government and community	R	R	R	R					
services	-	0.09	0.64	0.72	2.3%				
Total	R	R	R	R	400.00/				
	13.84	9.32	7.75	30.91	100.0%_				
Production/New Business Sales per	R	R	R	R					
R1.00 investment	1.00	0.67	0.56	2.23					

Impact on Gross Domestic

Product	Community, Social and Personal Services							
[R millions, 2022 Prices]	Direct	Indirect	Induced		Total	Percentage (Total)		
Agriculture	R - R	R 0.01 R	R 0.18 R	R	0.19	1.5%		
Mining	- R	0.00 R	0.00 R	R	0.01	0.1%		
Manufacturing	- R	0.58 R	0.52 R	R	1.10	8.5%		
Electricity	- R	0.07 R	0.06 R	R	0.13	1.0%		
Water	- R	0.01 R	0.02 R	R	0.03	0.2%		
Building and Construction	- R	0.02 R	0.06 R	R	0.08	0.6%		
Trade and accommodation	- R	0.70 R	0.40 R	R	1.09	8.4%		
Transport and storage	5.86 R	2.02 R	0.27 R	R	8.14	62.9%		
Financing	- R	0.14 R	0.48 R	R	0.62	4.8%		
Real estate and business services General Government and	- R	0.34 R	0.75 R	R	1.09	8.5%		
community services	R	0.06 R	R 0.41 R	R	0.47	3.6%		
Total	к 5.86	к 3.95	к 3.15	R	12.96	100.0%		
Gross Geographic Product per R1.00 investment	R 0.42	R 0.29	R 0.23	R	0.94			

Impact on Employment <i>[Number]</i>	Direct	<i>Commu</i> Indirect	<i>nity, Social and Pers</i> Induced	<i>sonal Servi</i> Total	<i>ices</i> Percentage (Total)
Agriculture	-	0.03	1.13	1.15	4.0%
Mining	-	0.01	0.01	0.02	0.1%
Manufacturing	-	2.24	1.50	3.74	13.0%
Electricity	-	0.12	0.10	0.22	0.8%
Water	-	0.00	0.00	0.01	0.0%
Building and Construction	-	0.17	0.49	0.66	2.3%
Trade and accommodation	-	3.06	2.28	5.34	18.6%
Transport and storage	8.75	2.29	0.44	11.49	40.0%
Financing	-	0.11	0.38	0.49	1.7%
Real estate and business services General Government and	-	1.10	1.27	2.38	8.3%
community services	-	0.38	2.82	3.20	11.2%
Total	8.8	9.5	10.4	28.7	100.0%
Full time employment per R1 million investment	0.63	0.69	0.75	2.07	

Impact on Income	Community, Social and Personal Services							
[R millions, 2022 Prices]	Direct	Indirect	Induced	Total	Percentage (Total)			
	R	R	R	R				
Agriculture	-	0.00	0.05	0.06	1.1%			
	R	R	R	R				
Mining	-	0.00	0.00	0.00	0.1%			
	R	R	R	R				
Manufacturing	-	0.26	0.24	0.50	9.9%			
	R	R	R	R				
Electricity	-	0.03	0.02	0.05	0.9%			
147 ·	R	R	R	R				
Water	-	0.00	0.01	0.01	0.2%			
	R	R	R	R				
Building and Construction		0.01	0.03	0.05	0.9%			
T	R	R	R	R				
Trade and accommodation		0.33	0.19	0.52	10.3%			
Turner aut and standed	R	R	R	R				
Transport and storage	2.21	0.75	0.10	3.06	60.4%			
Financina	R	R	R	R	1.00/			
Financing	-	0.05	0.16	0.21	4.2%			
Real estate and business services	R	R	R	R	7 404			
	-	0.12	0.26	0.37	7.4%			
General Government and	R	R	R	R				
community services	-	0.03	0.21	0.23	4.6%			
	R	R	R	R				
Total	2.21	1.59	1.27	5.06	100.0%			
Worker income per R1.00	R	R	R	R				
investment	0.16	0.11	0.09	0.37				

Annexure 3: Tourism (restaurant) impact

	Beachfront upgrade CAPEX								
Production Impact		Trade							
[R millions, 2022 Prices]		Direct	Indirect	Induced	Total	Percentage (Total)			
Agriculture	R	-	R 0.43	R 7.67	R 8.10	1.7%			
Mining	R	-	R 0.11 R	R 0.16 R	R 0.27 R	0.1%			
Manufacturing	R	-	21.73 R	40.71 R	62.44 R	13.0%			
Electricity	R	-	1.56 R	2.07 R	3.62 R	0.8%			
Water	R	-	0.64 R	1.03 R	1.67 R	0.3%			
Building and Construction	R	-	7.35 R	4.87 R	12.22 R	2.5%			
Trade and accommodation	R	213.08	17.52 R	14.82 R	245.42 R	51.1%			
Transport and storage	R	-	34.68 R	11.76 R	46.44 R	9.7%			
Financing Real estate and business	R	-	6.22 R	11.55 R	17.78 R	3.7%			
services General Government and	R	-	34.82 R	34.45 R	69.27 R	14.4%			
community services	R	-	R 1.86 R	R 11.24 R	к <u>13.11</u> R	2.7%			
Total Production/New Business Sales per R1.00	R	213.08	126.93	140.34	480.35	100.0%			
investment	R	1.00	R 0.60	R 0.66	R 2.25				

Impact on Gross Domestic Product				Trade		
[R millions, 2022 Prices]	Direct	Indirect	li	nduced	Total	Percentage (Total)
Agriculture	R -	R 0.18	R	3.32	R 3.50	1.6%
Mining	R - R	R 0.06 R	R	0.08	R 0.14 R	0.1%
Manufacturing	- R	6.09 R	R	9.38	15.48 R	6.9%
Electricity	- R	0.78 R	R	1.03	1.81 R	0.8%
Water	- R	0.21 R	R	0.33	0.54 R	0.2%
Building and Construction	- R	1.67 R	R	1.11	2.78 R	1.2%
Trade and accommodation	111.85 R	8.97 R	R	7.09	127.91 R	56.7%
Transport and storage	- R	14.75 R	R	5.00	19.75 R	8.8%
Financing Real estate and business	- R	4.52 R	R	8.39	12.90 R	5.7%
services Government	-	18.43	R	13.71	32.14	14.3%
Government	R -	R 1.20	R	7.26	R 8.46	3.8%
Total	R 111.85	R 56.87	R	56.70	R 225.41	100.0%
Gross Geographic Product per R1.00 investment	R 0.52	R 0.27	R	0.27	R 1.06	

Impact on Employment [Number]	Direct	Indirect	<i>Trade</i> Induced	Total	Percentage (Total)
Agriculture	-	0.74	20.64	21.37	3.2%
Mining	-	0.11	0.15	0.26	0.0%
Manufacturing	-	19.09	27.25	46.34	7.0%
Electricity	-	1.33	1.76	3.09	0.5%
Water	-	0.05	0.08	0.13	0.0%
Building and Construction	-	13.42	8.89	22.31	3.4%
Trade and accommodation	312.74	42.62	40.61	395.96	59.8%
Transport and storage	-	19.88	7.99	27.87	4.2%
Financing	-	3.57	6.63	10.20	1.5%
Real estate and business services General Government and	-	53.58	23.08	76.65	11.6%
community services	-	8.23	49.70	57.93	8.7%
Total	312.74	162.61	186.77	662.12	100.0%
Full time employment per R1 million investment	1.47	0.76	0.88	3.11	

Impact on Income	Trade								
[R millions, 2022 Prices]	Direct	Indirect	Induced	Total	Percentage (Total)				
	R	R	R	R					
Agriculture	-	0.05	0.98	1.04	1.0%				
	R	R	R	R					
Mining	-	0.02	0.03	0.05	0.1%				
	R	R	R	R					
Manufacturing	-	2.79	4.31	7.09	7.1%				
	R	R	R	R					
Electricity	-	0.28	0.37	0.65	0.7%				
	R	R	R	R					
Water	-	0.08	0.12	0.20	0.2%				
	R	R	R	R					
Building and Construction	-	0.96	0.64	1.59	1.6%				
	R	R	R	R					
Trade and accommodation	54.36	4.29	3.39	62.04	62.3%				
_	R	R	R	R					
Transport and storage	-	5.48	1.86	7.34	7.4%				
	R	R	R	R					
Financing	-	1.54	2.86	4.39	4.4%				
	R	R	R	R					
Real estate and business services	-	6.27	4.67	10.94	11.0%				
General Government and	R	R	R	R					
community services	-	0.60	3.63	4.23	4.2%				
	R	R	R	R	-τ. Ζ /0				
Total	54.36	22.36	22.84	99.56	100.0%				
Worker income per R1.00	R	R	R	R					
investment	0.26	0.10	0.11	0.47					

Annexure 4: Events impact tables

Production Impact				Trade		
[R millions, 2022 Prices]	Direct		Indirect	Induced	Total	Percentage (Total)
Agriculture	R	R	0.04	R 0.30	R 0.34	2.1%
Agriculture	- R	ĸ	0.04	0.30 R	0.34 R	2.170
Mining	-	R	0.00	0.01	0.01	0.1%
Manager at a structure of	R	_		R	R	
Manufacturing	- R	R	1.10	1.63 R	2.73 R	16.2%
Electricity	-	R	0.07	0.08	0.15	0.9%
-	R		0101	R	R	01070
Water	-	R	0.03	0.04	0.07	0.4%
Building and Construction	R -	R	0.11	R 0.20	R 0.31	1.9%
building and Construction	R	к	0.11	0.20 R	0.31 R	1.9%
Trade and accommodation	-	R	0.43	0.60	1.03	6.1%
-	R			R	R	
Transport and storage	-	R	0.62	0.48	1.09	6.5%
Financing	R -	R	0.07	R 0.48	R 0.55	3.3%
Real estate and business	R	IX.	0.07	R	8.00 R	0.070
services	-	R	0.55	1.46	к 2.01	12.0%
General Government and	R		0.00	R	R	121070
community services	8.01	R	0.02	0.47	8.50	50.6%
-	R			R	R	
Total	8.01	R	3.04	5.76	16.80	100.0%
Production/New Business						
Sales per R1.00	R			R	R	
investment	1.00	R	0.38	0.72	2.10	

				Trade		
Impact on Gross Domestic Product		Direct	Indirect	Induced	Total	Percentage (Total)
	R	-	R 0.02	R 0.13	R 0.15	1.7%
Mining	R	-	R 0.00 R	R 0.00 R	R 0.01 R	0.1%
Manufacturing	R	-	к 0.32 R	к 0.38 R	к 0.70 R	7.9%
Electricity	R	-	0.03 R	0.04 R	0.08 R	0.8%
Water	R	-	0.01 R	0.01 R	0.02 R	0.3%
Building and Construction	R	-	0.02 R	0.05 R	0.07 R	0.8%
Trade and accommodation	R	-	0.20 R	0.29 R	0.49 R	5.6%
Transport and storage	R	-	0.26 R	0.20 R	0.47 R	5.3%
Financing Real estate and business	R	-	0.05 R	0.35 R	0.40 R	4.6%
services Government	R	-	0.43	0.58	1.01	11.5%
Government	R	5.12	R 0.01	R 0.30	R <u>5.44</u>	61.6%
Total	R	5.12	R 1.37	R 2.33	R 8.83	100.0%
Gross Geographic Product per R1.00 investment	R	0.64	R 0.17	R 0.29	R 1.10	

Impact on Employment [Number]	Direct	Indirect	<i>Trade</i> Induced	Total	Percentage (Total)
Agriculture	-	0.09	0.81	0.90	4.1%
Mining	-	0.00	0.01	0.01	0.0%
Manufacturing	-	1.12	1.10	2.22	10.0%
Electricity	-	0.06	0.07	0.13	0.6%
Water	-	0.00	0.00	0.01	0.0%
Building and Construction	-	0.19	0.37	0.57	2.6%
Trade and accommodation	-	1.20	1.64	2.84	12.8%
Transport and storage	-	0.31	0.32	0.64	2.9%
Financing	-	0.04	0.28	0.32	1.4%
Real estate and business services General Government and	-	1.79	0.96	2.75	12.4%
community services	9.59	0.09	2.06	11.75	53.1%
Total	9.6	4.9	7.6	22.1	100.0%
Full time employment per R1 million investment	1.20	0.61	0.95	2.76	

			Trade		
Impact on Income	Direct	Indirect	Induced	Total	Percentage (Total)
	R	R	R	R	
	-	0.01	0.04	0.04	1.1%
	R	R	R	R	
Mining	-	0.00	0.00	0.00	0.0%
	R	R	R	R	
Manufacturing	-	0.15	0.17	0.32	7.7%
	R	R	R	R	
Electricity	-	0.01	0.01	0.03	0.7%
	R	R	R	R	
Water	-	0.00	0.00	0.01	0.2%
	R	R	R	R	
Building and Construction	-	0.01	0.03	0.04	1.0%
	R	R	R	R	
Trade and accommodation	-	0.10	0.14	0.24	5.7%
	R	R	R	R	
Transport and storage	-	0.10	0.08	0.17	4.2%
—	R	R	R	R	
Financing	-	0.02	0.12	0.14	3.3%
	R	R	R	R	
Real estate and business services	-	0.15	0.20	0.34	8.3%
General Government and	R	R	R	R	
community services	2.67	0.01	0.15	2.82	68.0%
	R	R	R	R	
Total	2.67	0.55	0.94	4.15	100.0%
Worker income per R1.00	R	R	R	R	
investment	0.33	0.07	0.12	0.52	

Annexure 5: Survey Questionnaire

Your participation is very important, as it ensures that all important community voices are heard. Enrolment in this survey is entirely voluntary, and you may opt-out at any point. No personal identifiers are asked as part of this questionnaire. All data generated will be reported in aggregated format & managed in line with provisions of the POPI act.

Should you have any questions about this research please do not hesitate to contact Meindertjan.Rebel@capetown.gov.za or tatenda@urban-econ.com

This survey asks questions regarding the Muizenberg beach experience. If you would rather answer questions about the Muizenberg beach experience, please click here

- 1. In which capacity are you completing this survey?
 - Informal trader/ informal business
 - Formal business
 - Resident living near the beach
 - Resident not living near the beach
- Tourist
- Community organisation
- Other

2. Do you or any person in your household have any disabilities?

• Yes

No

•

3. Please indicate your current satisfaction levels with the following aspects of the beachfront experience in Muizenberg

	Significantly dissatisfied	Slightly dissatisfied	Neutral	Slightly satisfied	Significantly satisfied
Universal access (for persons with disabilities or the elderly)					
Access points to the beach (e.g., stairs)					
Parking space provision & configuration					
Pedestrian infrastructure (width,					
continuity & quality of wooden					
boardwalks, brick walkways and verges)					
Recreational facilities (e.g., play area)					
Access to ablution facilities					
Pedestrian safety (crossing points and					
traffic calming)					
Coastal protection measures (e.g., sand					
dune vegetation)					
Management of wind-blown sand					
The state of the beach (e.g., availability					
of sizeable quality space)					

	4.	То	what	extent	do	you	agree	with	the	following statements	
--	----	----	------	--------	----	-----	-------	------	-----	----------------------	--

The current state of coastal infrastructure in Muizenberg (e.g., pedestrian walkways, parking & stairs to access the beach	0,	l partially agree with the statement	I neither agree nor disagree with the statement	l partially agree with the statement	-	l do not know
Attracts local residents to the beachfront						
Attracts residents from other parts of the City and tourists to the beachfront						
Encourages local residents to buy goods and services at or near the beachfront						
Encourages residents from other parts of the City and tourists to buy goods and services at or near the beachfront						
Encourages local residents to invest near the beachfront						
Encourages residents from other parts of the city and tourists to invest near the beachfront						

5. If coastal infrastructure (e.g., pedestrian walkways, stairs to access the beach, parking bays, etc.) in Muizenberg beach stays as it is (and is not upgraded), what do you think would be the impact on

	Significant negative impact	Slightly negative impact	No impact	l do not know	Slightly positive impact	Significant positive impact
The local beachfront economy						
The local beachfront property sector						
Visitor numbers near the beachfront						

6. In your opinion, how would upgrades to coastal infrastructure (e.g., more accessible walkways, optimisation of parking, etc.) affect the following groups?

	Significant negative impact	Slightly negative impact	No impact	l do not know	Slightly positive impact	Significant positive impact
My beachfront business						
Formal businesses at or near the beachfront						
Informal businesses at or near the beachfront						
Organisers of events near and at the beach						
Residents						
Visitors and tourists						
Persons with disabilities or the elderly						

7. If beach access & space were limited for several months in order for these upgrades to be undertaken, what would the impact of this limited access be on

	Significant negative impact	Slightly negative impact	No impact	l do not know	Slightly positive impact	Significant positive impact
My beachfront business						
Formal businesses at or near the beachfront						
Informal businesses at or near the beachfront						
Organisers of events near and at the beach						
Residents						
Visitors and tourists						
Persons with disabilities or the elderly						

8. Please rate the City of Cape Town's provision of services at the Muizenberg Beachfront

	Poor	Fair	Good	Very good	Excellent
Overall performance of the City of Cape Town in providing					
services at the Muizenberg beachfront					
Trust in the City of Cape Town to provide services at the					
Muizenberg beachfront					
Maintaining and cleaning amenities at beaches					

9. In your opinion, what makes this location special and unique?

10. Are there any points you'd like to elaborate on ?

11.Your inputs are greatly appreciated. If you would like to be kept informed about this project, please provide your contact details:

Phone	Email	