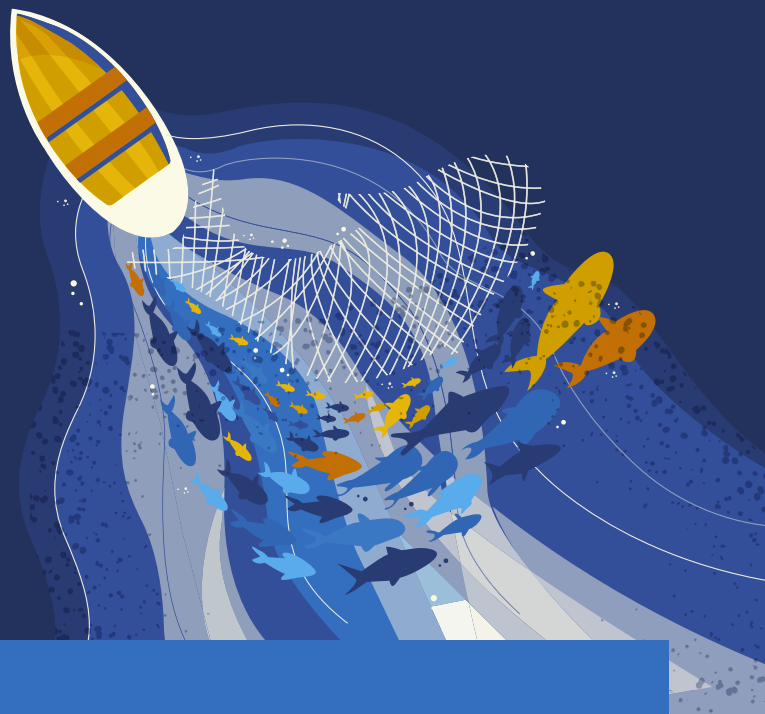


CASE STUDY

South Africa – UMGABABA



GEOGRAPHICAL CONTEXT

Umgababa is a peri-urban coastal community along KwaZulu-Natal's South Coast, home to an estimated 10,814 people across 2,905 households.^{1,2} Rich in natural resources including beaches, estuaries, wetlands, sand dunes, and intertidal zones, the area supports diverse livelihoods tied to the ocean.³ This coastal community relies on marine resources for their livelihoods and women play a significant role in harvesting intertidal resources such as mussels for both for income and sustenance.⁴

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ECOLOGICAL AND TERRITORIAL DISRUPTION FROM CLIMATE CHANGE AND HUMAN ACTIVITY

The fishing community of Umgababa has been increasingly exposed to the harsh realities of climate change:

- **EXTREME WEATHER AND HEAVY RAINFALL:** The April 2022 “rain bomb”, left widespread devastation across the province.⁵ The Government of South Africa declared a national state of emergency. Over just a few days, extreme rainfall led to the deaths of over 443 people across the KwaZulu Natal province, with damage extending from

1 eThekweni Municipality, *First Draft Umgababa Coastal Management Plan* (2009), https://www.coastkzn.co.za/wp-content/uploads/2019/02/Umgababa_Coastal_Management_Plan_1st-draft.pdf.

2 Statistics South Africa, *Census 2011: Main Place: Umgababa South (Place 599171)* (Pretoria: Statistics South Africa, 2011), <https://census2011.adrianfrith.com/place/599171>.

3 M. Gopaul, “The Significance of Rural Areas in South Africa for Tourism Development through Community Participation with Special Reference to Umgababa, a Rural Area Located in the Province of KwaZulu-Natal” (PhD diss., University of South Africa, 2006).

4 Mngomezulu, B., Ndzengu, N. & Sunde, J., 2024. *In the intertidal zone: Women in small-scale fisheries in times of climate emergency*. Fisher People Tribunal Case Report. Masifundise Development Trust. Available: https://www.masifundise.org/wp-content/uploads/2025/04/FPT-Case-6_in-the-intertidal-zone-women-in-small-scale-fisheries-in-times-of-climate-emergency.pdf.

5 P. Bond and D. D'Sa, “Who Dropped the Rain Bomb on Durban and Will They Pay Climate Reparations?” *Counterpunch*, May 20, 2022, <https://www.cetri.be/Who-dropped-the-Rain-Bomb-on?lang=fr>.

the major city of Durban to rural areas like Umgababa. The heavy rainfall caused floods, destroying more than 26,000 dwellings, and extensive damage to roads, schools, health facilities, and critical infrastructure,⁶ particularly in remote communities like Umgababa.⁷ Projections indicate that the likelihood and intensity of heavy rainfall events causing disasters has likely doubled due to human-induced climate change, with the intensity of the current event estimated to have increased by 4-8%.⁸

RISING SEA LEVELS AND COASTAL EROSION: Rising sea levels are having a profound impact on the Umgababa community, accelerating coastal erosion and reshaping their daily lives. The natural sand dunes that once served as protective barriers against the sea and storms have been damaged or flattened over time due to unregulated housing developments. Without these dunes, the coastline is increasingly exposed, and the shoreline continues to creep closer putting homes, fishing grounds, and essential infrastructure at risk. Many of the buildings were constructed without proper environmental oversight and in disregard of environmental legislation, heightening the community's vulnerability with every high tide. For local fishers, this means not only the loss of land, but also growing uncertainty, as the changing coastline makes access to the sea more difficult and unpredictable.⁹



THE IMPACTS OF CLIMATE CHANGE ON FISHER PEOPLES' HUMAN RIGHTS, LIVELIHOODS AND WAYS OF LIVING

Climate change, in particular, the rain bomb, has dramatically affected the human rights of the Umgababa community members:

RIGHT TO FOOD AND NUTRITION

Before the 2022 floods, women harvesters in Umgababa sustained their families' right to food and nutrition by collecting mussels, while men were involved in line fishing. Mussels were consumed by families, with women often selling excess mussels throughout the community. The income generated was used to buy essentials for their households and to take their children to school. Harvesting was often seen as an extension of their social reproduction role.¹⁰

6 B. Abdinor and M. Sithole, *Polluter-Pays for Climate Change Loss and Damage* (Centre for Environmental Rights, 2024).

7 European Civil Protection and Humanitarian Aid Operations (ECHO), "South Africa: Flooding and Landslides – DG ECHO, Government, IFRC – ECHO Daily Flash of 26 April 2022," *ReliefWeb*, 2022, <https://reliefweb.int/report/south-africa/south-africa-flooding-and-landslides-dg-echo-government-ifrc-echo-daily-flash-26>.

8 World Meteorological Organization (WMO), "South Africa Declares State of Emergency after Deadly Rains," *WMO*, 2022, <https://wmo.int/media/news/south-africa-declares-state-of-emergency-after-deadly-rains-0>.

9 CoastKZN, "Dune Destruction in Umgababa Leaves Homes Exposed to Floods," *CoastKZN*, 2022, <https://www.coastkzn.co.za/2022/08/coastal-dunes-destroyed-for-housing-in-umgababa/>.

10 Mngomezulu, Ndzengu, and Sunde, *In the Intertidal Zone*.

The April 2022 floods severely disrupted the intertidal ecosystems along the KwaZulu-Natal coast, stripping mussels off rocks and destroying traditional harvesting zones. Women harvesters, many of whom rely on mussel collection as a primary or supplementary livelihood, reported a complete loss of mussels and halt in sales after the floods. Likewise, due to beach closures and several incidents of fish die-offs, fishing activities were disrupted, thus resulting in the inability of fishers to bring food for the families on the table.¹¹

The inability to safely access and harvest mussels severely undermined communities' right to food and nutrition, particularly affecting households already experiencing food insecurity and women-headed households who relied on mussels as a key nutritional resource. Initially, flood damage made coastal areas largely inaccessible, but as months passed without any targeted relief for fishing communities or alternative livelihood options, women harvesters faced an impossible choice. Despite the visible pollution and contamination, they began risking their safety to venture into accessible coastal areas, hoping to find any remaining mussels to feed their families. The contamination stemmed from multiple sources: flood-damaged wastewater treatment plants that released raw sewage directly into coastal waters, along with plastic debris and other pollutants washed down from overwhelmed river catchments where poor waste management systems had collapsed under severe flooding. Community members reported falling ill after consuming contaminated mussels, highlighting the devastating dilemma between risking illness or facing hunger.¹²

This situation exemplifies the state's fundamental failure to respect and fulfill the right to food and nutrition during climate emergencies. The government provided no targeted relief for fishers or coastal communities and took no action to repair the damaged wastewater treatment infrastructure, leaving vulnerable communities to choose between starvation and poisoning themselves with contaminated food sources.

Today, the disruption of mussel harvesting has also impacted local food systems. The informal exchange and sale of mussels within the community declined, weakening local food networks that traditionally helped ensure that even non-harvesting households had some access to marine resources. As harvesting declines, communities are increasingly pushed toward more processed or purchased foods, undermining local food sovereignty and resilience. Declining local food networks also disrupt the intimate social fabrics which existed within the community.

Beyond the immediate impacts of flooding and infrastructure collapse, longer-term policy decisions have also contributed to the erosion of coastal communities' local food systems. Fishers reported losing access to Illovo Beach, a key traditional fishing site, after the designation of the Aliwal Shoal Marine Protected Area (MPA), which covers the nearby sea area. Framed as a climate adaptation and biodiversity protection measure, the MPA imposes permit requirements and restrictions on the types and amounts of species that

¹¹ Testimonies by women mussel harvesters, Fisher People's Tribunal, hosted by Masifundise Development, Cape Town, August 12–14, 2024.

¹² Mngomezulu, Ndzengu, and Sunde, *In the Intertidal Zone*

can be harvested. These rules have made it nearly impossible for small-scale fishers to continue their subsistence and livelihood activities in the area.^{13 14} At the same time, within the Aliwal Shoal MPA, scuba diving and marine tourism operations have expanded, benefiting from the very marine life that fishers are now restricted from accessing. Community members point to unchecked pollution, lack of reinvestment, and corruption as evidence that conservation efforts are serving elite interests rather than genuine environmental protection. This form of exclusion undermines food sovereignty and climate justice by limiting access to marine resources, dismantling traditional knowledge systems, and deepening poverty and marginalisation in communities like Umgababa.¹⁵

Even three years after the floods, women harvesters continue to report that the damage to local roads and pathways made it nearly impossible to access coastal areas. The increased physical distance to the shore, combined with daily caregiving responsibilities that became more demanding after the disaster, and the loss of safe transportation routes, disrupted their ability to collect mussels and other seafood, placing food security and livelihoods at risk.¹⁶

In response, women were forced to reduce or halt harvesting altogether, turning instead to precarious forms of support such as child grants or the Social Relief of Distress (SRD) grant. Although the SRD grant was originally introduced as a COVID-19 emergency relief measure, many families continued to rely on it due to ongoing socio-economic hardship. As of 2025, the SRD grant provides R370 (approximately USD 20) per month, while the Child Support Grant offers R530 (approximately USD 29) per child per month.¹⁷

With no viable alternative livelihoods provided, many women reported rising dependency on male partners, heightening risks of abuse and economic control. The transition from being a harvesting and fishing community, to relying on social grants, has undermined the community's sense of agency, leading to stress, loss of identity, and diminished mental wellbeing. Displacement from both their livelihoods and leadership roles further entrenched gender inequality, exposing the failure of disaster response and recovery plans to uphold women's socio-economic rights in small-scale fishing communities.¹⁸

RIGHT TO HEALTH

The floods exposed the deep vulnerabilities in KwaZulu-Natal's wastewater infrastructure. In eThekweni Metropolitan Municipality, of whose jurisdiction Umgababa fall under, nearly one-third of wastewater treatment facilities were critically damaged or left entirely

13 Department of Environmental Affairs, *Regulations for the Management of the Aliwal Shoal Marine Protected Area*, Government Notice No. R. 781, Government Gazette No. 42479 (May 23, 2019).

14 E.M. Francolini et al., "Stakeholder Perspectives on Socio-Economic Challenges and Recommendations for Better Management of the Aliwal Shoal Marine Protected Area in South Africa," *Marine Policy* 148 (2023): 105470.

15 Aliwal Dive Centre, "Welcome to Aliwal Dive Centre," 2025, <https://aliwalshoal.co.za/>.

16 Mngomezulu, Ndzengu, and Sunde, *In the Intertidal Zone*.

17 As of 2025, the SRD grant provides R370 (approximately \$20 USD) per month, while the Child Support Grant offers R530 (approximately \$29 USD) per child per month. National Treasury (2025a) 2025 Budget Review. Pretoria: National Treasury. <https://www.treasury.gov.za/documents/National%20Budget/2025Mar/review/Chapter%205.pdf>

18 Mngomezulu, Ndzengu, and Sunde, *In the Intertidal Zone*.

inoperable. As a result, untreated and partially treated sewage estimated at over 700 million litres per day continues – even today – to be discharged into rivers, estuaries, coastal waters and marine zones along the south coast, including areas near Umgababa.¹⁹

In response, the eThekweni Municipality only began taking action in 2023. It formed a formal partnership with uMngeni-uThukela Water to manage 10 wastewater treatment works, with plans to restore functionality over 12 to 24 months. The partnership includes conducting emergency repairs to partially restore plant operations and committing to an action plan under directives from the Department of Water and Sanitation.²⁰

Mussels, as filter feeders, are highly sensitive to water quality and accumulate pollutants such as *E. coli* and heavy metals. This contamination, coupled with the warm, stagnant waters left by the floods, also raised the risk of waterborne diseases and a spike in *E. coli* levels prompted beach closures. The cumulative impact of these conditions reduced the availability and safety of intertidal species, directly undermining the viability of women's small-scale harvesting activities.²¹

Women in Umgababa who harvest mussels are thus directly exposed to biohazards, facing the risk of long-term illnesses from handling and consuming contaminated shellfish. Although women are the primary harvesters, entire households including children and men also consume the mussels, placing all family members at risk. Community members also witness dead fish washing up in areas previously used for fishing. These events raised serious concerns about water quality and the safety of consuming marine life. The Government claims of improved water quality have been contradicted by independent reports showing elevated *E. coli* levels, particularly at public beaches like Country Club.^{22 23}

RIGHT TO GENDER EQUALITY AND PARTICIPATION

The crisis also deepened existing gender disparities. While men in small-scale fishing sectors may have greater access to boats or alternative fishing methods, women mussel harvesters are tied to specific intertidal zones that became inaccessible or unsafe. This gendered reliance on degraded spaces, combined with weak social protection such as insufficient disaster relief, lack of livelihood support failing to provide women with the financial or social resources needed to cope other than the precarious forms of support that were already available, limited women's autonomy during the crisis.²⁴

19 B. Enoch, "eThekweni Flooded with Sewage Due to Treatment Plant Failures," *GroundUp*, November 11, 2023, <https://groundup.org.za/article/ethekweni-flooded-with-sewage-due-to-treatment-plant-failures/>.

20 Rising Sun Newspapers, "eThekweni Municipality Partners with uMngeni-uThukela Water to Repair Wastewater Plants," *Rising Sun*, 2023, <https://risingsunnewspapers.co.za/275690/collaboration-with-umngeni-uthukela-water-to-manage-wastewater-treatment-works-affected-by-floods/>.

21 B. Enoch, "eThekweni Flooded with Sewage Due to Treatment Plant Failures," *GroundUp*, November 11, 2023, <https://groundup.org.za/article/ethekweni-flooded-with-sewage-due-to-treatment-plant-failures/>.

22 Ibid.

23 Testimonies by women mussel harvesters, Fisher People's Tribunal, hosted by Masifundise Development, Cape Town, August 12–14, 2024.

24 Mngomezulu, Ndzengu, and Sunde, *In the Intertidal Zone*.

RIGHT TO HOUSING

The proliferation of unregulated housing developments, often constructed on ecologically sensitive sand dunes without proper environmental oversight, has exacerbated the community's vulnerability to coastal hazards. These informal dwellings frequently built from inadequate materials like mud, cement, and corrugated iron were disproportionately affected during the floods, with many being washed away entirely. The lack of regulated urban planning and stormwater infrastructure not only compromised the physical safety of residents but also violated their right to adequate housing. Post-flood, many affected families remain in temporary shelters with no long-term housing plan, further reflecting the state's failure to uphold basic socio-economic rights in the face of climate disaster.^{25 26}

RIGHT TO EDUCATION

The disruptions have compounded over time: children are pulled out of school due to damaged facilities such as schools, forcing families to seek alternative schools further away – often at a transport cost they cannot afford because most households have to survive on social grants. At the same time, families face increasing difficulty in obtaining enough food to meet their daily needs. Yet, despite the scale of destruction and its disproportionate impact on marginalised communities, there has been little investment in long-term adaptation or community-based climate response strategies.²⁷



South Africa has adopted several policies to address climate change and manage coastal resources sustainably, such as the Integrated Coastal Management Act (ICMA) and the Durban Climate Change Strategy (DCCS).

The Integrated Coastal Management Act (ICMA) of 2008 provides the legal foundation for managing South Africa's coastal zones in a holistic and sustainable way.²⁸ Under this Act the National Coastal Management Programme (NCMP) is established, which recognises climate change as a serious threat to coastal systems and promotes the interest of diverse actors, including sustainable economic developments such as fishing. However, this programme falls short in practice. Responsiveness to changing environmental conditions is translated to the expansion of Marine Protected Areas as a climate adaptation strategy. In practice this has limited access for coastal communities, including Umgababa. Similarly, while the NCMP commits to supporting sustainable economic development including both

²⁵ Ibid.

²⁶ CoastKZN, "Dune Destruction in Umgababa Leaves Homes Exposed to Floods," CoastKZN, 2022, <https://www.coastkzn.co.za/2022/08/coastal-dunes-destroyed-for-housing-in-umgababa/>

²⁷ Mngomezulu, Ndzengu, and Sunde, *In the Intertidal Zone*.

²⁸ Republic of South Africa, *National Environmental Management: Integrated Coastal Management Act 24 of 2008* (Pretoria: Government Gazette, 2008), <https://www.gov.za/documents/national-environmental-management-integrated-coastal-management-act>.

fisheries and tourism, in practice this dual mandate has been unevenly implemented with a clear bias toward tourism, denying and limiting fishing communities' access to marine resources, as also seen in Umgababa.²⁹

The Durban Climate Change Strategy (DCCS), developed by eThekweni Municipality in 2014, acknowledges climate risks such as rising temperatures, increased flooding, and food security impacts on fisheries. It features a gender-differentiated approach, recognizing the disproportionate vulnerability of women-headed households.³⁰

Despite the municipality's early awareness of climate change risks dating back to a 2006 report warning of increasing floods, the response to the April 2022 floods was widely seen as inadequate. The women mussel harvesters in Umgababa reported that government support beyond temporary housing and basic provisions was minimal, with many residents still living in temporary shelters and critical infrastructure such as roads remaining unrepaired. These women, whose livelihoods depend on harvesting mussels from the estuary, received no assistance to recover their economic activities.³¹

This neglect starkly highlights systemic failures in disaster response and climate justice. Although small-scale fishing communities like Umgababa are among the most vulnerable to climate change and have contributed the least to its causes, there is no evidence that authorities have assessed the vulnerability of women mussel harvesters in KwaZulu-Natal or taken steps to support adaptation efforts. The broader institutional attitude reveals further marginalization, with small-scale fishers viewed primarily as threats to the recreational tourist fishery rather than as rights-holders deserving protection.³²



RESISTANCE OF FISHERS AND SOLUTIONS TO CLIMATE CHANGE

Despite being excluded from climate and environmental policies, small-scale fishers, especially women in Umgababa, are actively resisting and proposing local solutions. After the April 2022 floods, women mussel harvesters demanded not only basic support but also repairs to infrastructure and assistance to restore their livelihoods. Their public testimonies have highlighted the failures of state response and the need for recognition of their customary rights. Organisations like Masifundise and Coastal Links support these efforts by amplifying fishers' voices in climate-related dialogues and advocating for policies that centre local knowledge and customary rights.³³

29 Department of Environmental Affairs, *National Coastal Management Programme of South Africa* (Pretoria: DEA, 2014), https://www.dffe.gov.za/sites/default/files/docs/strategy.framework/oceans/nationalcoastal_managementprogramme_ofsouthafrica.pdf.

30 eThekweni Municipality, *Durban Climate Change Strategy* (eThekweni Municipality, 2022).

31 Mngomezulu, Ndzengu, and Sunde, *In the Intertidal Zone*.

32 Ibid.

33 Masifundise, "Resilience at Sea: The Struggles of Women Mussel Harvesters in KwaZulu-Natal," *Masifundise*, December 4, 2024, <https://masifundise.org/resilience-at-sea-the-struggles-of-women-mussel-harvesters-in-kwazulu-natal/>.



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