Journal of Social and Political Sciences

Abdihaad, A. K., Nour, A. A., Nour, A. A., & Osman, K. M. (2025). The Effect of Sagar Cyclone on Community: Awdal, Somaliland. *Journal of Social and Political Sciences*, 8(3), 10-20.

ISSN 2615-3718

DOI: 10.31014/aior.1991.08.03.579

The online version of this article can be found at:
https://www.asianinstituteofresearch.org/

Published by:
The Asian Institute of Research

The Asian Institute of Research *Social and Political Sciences* is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of Social and Political Sciences, which include, but are not limited to, Anthropology, Government Studies, Political Sciences, Sociology, International Relations, Public Administration, History, Philosophy, Arts, Education, Linguistics, and Cultural Studies. As the journal is Open Access, it ensures high visibility and the increase of citations for all research articles published. The *Journal of Social and Political Sciences* aims to facilitate scholarly work on recent theoretical and practical aspects of Social and Political Sciences.

ASIAN INSTITUTE OF RESEARCH
Connecting Scholars Worldwide

The Asian Institute of Research
Journal of Social and Political Sciences
Vol.8, No.3, 2025: 10-20
ISSN 2615-3718

DOI: 10.31014/aior.1991.08.03.579

The Effect of Sagar Cyclone on Community: Awdal, Somaliland

Abdirahman Khadar Abdihaad[1], Abdiaziz Ali Nour[2], Abdishakur Aidid Nour[3], Khalid Mahad Osman [4]

[1,2,3,4] Frantz Fanon University, Hargeisa, Somaliland

Abstract
In May 2018, Cyclone Sagar swept across the Horn of Africa, hitting Awdal in northwestern Somaliland with unex-pected force. As one of the strongest tropical cyclones ever recorded in the region, it caused widespread damage to homes, livelihoods, and essential services. This study explores how the cyclone affected the local community econom-ically, socially, environmentally, and in terms of public health with the aim of supporting better preparedness and re-sponse strategies in the future. Using a combination of primary field data and verified reports from agencies like NADFOR, the research offers a de-tailed picture of the cyclone's impact. Data were gathered from 20 settlements across three districts through interviews with community members, local officials, health workers, and educators, along with focus group discussions. The find-ings show extensive damage: thousands of livestock were lost, farms were destroyed, roads and schools were damaged, and access to healthcare was severely disrupted. In the aftermath, communities faced growing health risks, including outbreaks of waterborne diseases and rising mental health challenges. While the study provides rich insight, it also recognizes certain limitations such as difficulty accessing some remote areas and gaps in available data. Even so, the results highlight the urgent need for stronger disaster preparedness, par-ticularly in regions vulnerable to climate-related shocks. Ultimately, this research underscores the importance of both institutional coordination and community resilience. It points to the need for targeted investments in infrastructure, early warning systems, and public health services. The les-sons drawn here offer practical value not only for policymakers and aid organizations in Somaliland, but also for other regions at risk of similar climate-driven disasters.

Keywords: Cyclones, Community Impact, Disaster Management, Socio-Economic Disruption, Environmental Damage, Health Consequences, Resilience

1. Introduction

The coastal regions of Somaliland have been severely impacted by the landfall of tropical cyclone Sagar, which originated in the Gulf of Aden. Appropriate preparations were not made beforehand because of the brief early warning period. Limited resources for recovery and rehabilitation, a lack of community awareness, and a lack of resilient infrastructure all contribute to the issue. Increased inequality and social instability result from the disproportionate impact on vulnerable groups, such as low-income families, women, children, and the elderly (Perk et al., 2012).

However, this research paper was created by combining, evaluating, and calibrating various data on the cyclone's effects that were gathered by the government sectors. With input from the relevant stakeholders, a

technical team comprising NADFOR, the Minister of National Planning and Development, and NDRA has examined, compiled, and analyzed the information currently available regarding the effects of the Sagar cyclone. This work has been technically validated (NADFOR, 2018).

Coastal communities are increasingly vulnerable to the devastating effects of Sagar cyclones, which cause significant casualties, property damage and long-term socio-economic damage. The intensity and frequency of these cyclonic events are aggravated by climate change, which leads to increased risks for coastal communities. According to the Intergovernmental Panel on Climate Change (IPCC), global warming is expected to contribute to more intense tropical cyclones and to put low-lying coastal areas at greater risk (IPCC, 2021). These threats do not only affect physical infrastructure, but also threaten livelihoods, especially for community's dependent on agriculture and fisheries. Therefore, understanding and mitigating the impact of cyclones on coastal communities through better planning, resilience strategies and early warning systems is essential.

Among the most destructive natural disasters, cyclones cause extensive infrastructure damage, fatalities, and long-term socioeconomic disruptions. Communities in areas that frequently experience cyclones are especially vulnerable, dealing with ongoing issues like home and livelihood damage, displacement, and restricted access to basic utilities like electricity, clean water, and healthcare (NADFOR, 2018). Even with improvements in early warning systems and preparedness for disasters, many communities still lack adequate measures. In this study we will examine the effect of Sagar cyclone on community: Awdal, Somaliland with the specifications on socio economics and environmental impacts.

2. Materials and Methods

2.1. Study design

A structured post-disaster assessment methodology was adopted to ensure consistency across sectors and comparability in defining key concepts such as damage, loss, and recovery needs. This approach integrated analytical tools and techniques commonly applied by international agencies including the World Bank, United Nations, and affiliated research institutions for recovery planning following disasters (Nadfor Government Somaliland, 2018). The methodology provided a comprehensive framework for evaluating the social, economic, and environmental impacts of natural disasters, specifically Cyclone Sagar. In this context, "damage" referred to the physical destruction caused by the cyclone, while "loss" encompassed the reduction in economic activities experienced at the household, community, and national levels.

2.2. Setting and sample

The assessment of damages, losses, and recovery needs was conducted using both primary and secondary sources of data. Primary data were obtained through field visits by relevant government agencies, utilizing tools such as focus group discussions with community members and village elders, key informant interviews, and on-site observations of affected areas. Secondary data were compiled through desk reviews of existing reports and databases related to the impact of the cyclone (Nadfor Government Somaliland, 2018).

2.3. Data Validation

Data was validated by cross-referencing the available assessment reports, speaking with subject-matter experts in the relevant institutions and sectors, and attending technical validation meetings.

3. Results

3.1. Human Death Induced Economic Loss

The socioeconomic and demographic details of the 53 victims killed by the Sagar, including their income, are unknown, but it is possible to estimate the approximate economic losses resulting from their deaths. On the one hand, Somalis are expected to live an average of 57 years, based on the demographic data currently available. However, among rural dwellers, children as young as 7 help support their families by caring for livestock and helping their parents with farming. Rural residents can therefore be economically active for 50 years, but let's take 25 years, which is half of that average active age. The total estimated economic loss, assuming a 25-year average GDP per capita of $444, is $31,180,000. In order to prevent double counting of the 53 deaths, the time-based necessary eligibility under which the children to be produced by those victims must grow before they become economically active was not taken into consideration. Based on the population growth rate of 2:9 percent5, the 53 human loss can be projected as 105 persons after 25 years (Nadfor Government Somaliland, 2018).

Table 3.1.1: Human death related economic loss in USD

Type of loss	**Units**	**Unit description**
Human deaths	53	Persons
Life expectancy	57	Years
Average years in the labor force	50	Years
Half of the active age	25	Years
GDP per capita	444	USD
Total economic loss	31,180,000	USD

3.2. Production Sector

And then, the devastating heavy rain, it caused colossal and still continuing losses to the region, in pasture and the farm too; the floods uprooted the crops and also drowned several boats, and many houses and unestablished infrastructures were submerging. The hardest-hit areas were Awdal, Zalal and Maroodi Jeeh and Sahil. As such, significant financial losses are anticipated from the manufacturing industry not only over the next five years but also in the next year. Two of the sectors that are the main economic drivers in Somaliland, namely, production and trade, were the most affected by recent cyclone Saghar and hence economic downturn can be anticipated. These 2 sectors amount to approximately 70% of the GDP. Somaliland National Development Plan, 2017- 2021, the production adds to the GDP livestock. The cyclone has killed thousands of livestock, and created economic destitution as the people affected by the cyclone was predominantly relying on livestock.

3.3. Livestock Damage

Along with a few donkeys and horses, the storm killed 310,000 heads of livestock, of which 2–3% were cattle and camels. It is possible to simplify the computation by converting the value of the 7,000 non-shoat heads into shoats using the ratio of 20 shoat heads to one camel and cattle head, which equals 443,000 shoat heads. While the majority of these animals were killed by the storm in Baki, Lughaya, and Zeila, livestock losses occurred in the majority of the districts affected by the cyclone and heavy rains (Nadfor Government Somaliland, 2018). The cyclone's intense rains, which lasted for up to 36 hours straight, caused massive destruction in grazing land in addition to killing hundreds of thousands of livestock heads, wildlife, and reptiles. severe flooding in an area of land that covered 120,000 km², or 800 km between east and west and 150 km between north and south. The fauna and fodder of roughly 60,000 km², or 6,000,000 hectares of grazing land, were also destroyed by the severe floods. One hectare of grazing land can yield two loads of fodder, or 5,600 kg or 280 bundles of grass, according to fodder experts7. According to this estimate, the cyclone may have caused Somaliland to lose roughly 36,600,000 tons of fodder (Nadfor Government Somaliland, 2018).

Table 3.3.1: Grazing land damage in hectares and fodder destruction in metric tons and loads

No	Type of damages	Number of units
1	Grazing land in hectares	6,000,000
2	Fodder production per hectare in tons	5.6
3	Total lost fodder production in tons	36,600,000
4	Fodder production per hectare in bundles	280
5	Lost fodder production in loads	120,000

Due to the depletion of both forest and rangelands and the degradation of water supplies, animals will suffer from a lack of pasture and water, creating a dire situation. Because trees play a crucial role in preventing flooding, deforestation in coastal areas of Somaliland resulted in less forest cover, which increased the amount of flooding. Based on the average market price of $50 per head of shoat and $145 each load of fodder (grass), the overall damage to livestock feed is about USD 39,550,000 (Nadfor GovSomaliland, 2018).

Table: 3.3.2: Livestock and grazing damage in monetary value

Type of damages	**Units**	**Price/unit in USD**	**Total damage in USD**
Livestock in heads	443,000	50	22,150,000
Lost fodder in loads	120,000	145	17,400,000
Total			**39,550,000**

3.4. Fishing Damage

The 850-kilometer Somaliland coastline, which extends from Elayo in the east to Lowya Addo in the west, was hit by the storm with intense wind and rain. About 40 fishermen were at sea prior to the cyclone alarm being issued, and numerous fishing boats vanished in the area, according to local authorities. According to the Somaliland Ministry of Livestock and Fishing Development, at least ten large fishing vessels were destroyed. The fishermen lost their fishing nets and hooks, and the majority of these destroyed boats were Sri Lank models with 8.5-meter valves and 30-horsepower engines. Additionally, the east and west coasts of Somaliland suffered damage to five small fishing jetties (Nadfor GovSomaliland, 2018).

Table: 3.4.1: Fishing damage estimates in number of boats and fishing gears

No	Description of the damage	Number of units
1	Sri Lank model fishing boats equipped with 30 horse power engine	10
2	Fishing gears, i.e. fishing nets and hooks	10

3.5. Crop Production

There have been serious consequences for agricultural productivity, such as loss of crop production, damage to irrigation equipment, and destruction of farmland. In total, 8,823 farms totaling 17,646 hectares of arable land, 1,720 irrigation engines, and 5,160 meters of irrigation pipes and canals were impacted by the Sagar storm. Approximately 123 thousand metric tons of grain production were lost, costing Somaliland USD 187 million a year and USD 937 million over the following five years. The economic loss amounted to USD 190 million in the 12 months after the storm date and USD 940 million over the next 5 years, when the entire anticipated cost of the suggested interventions as destruction replacement is taken into account (Nadfor GovSomaliland, 2018).

3.6. Crop Production Damage

According to table 3.3, the storm had an impact on about 2,823 irrigation farms, of which 1,151 were totally destroyed and 1,672 were partially damaged. 1.0, below. Strong winds and floods brought on by the Sagar cyclone caused these irrigation farms to lose both their agricultural lands and their farming equipment (Nadfor Government Somaliland, 2018). However, of the 400 settlements and 10 districts affected by the storm, the data collection teams only went to 20 settlements and 3 districts. Thus, the averages of the four rain-fed farms that the data collection teams visited in the Gabiley district were used to estimate the crop production damage of the remaining 280 settlements affected by the cyclone (see table 3.3). 1point 3 (see below). The average Somaliland farm is 4 hectares in size, with agro-pastoralist households using the other half of their land for livestock grazing and the remaining 2 hectares typically being under cultivation, according to local agricultural research experts. It is assumed that each of the 2,823 farms that were totally destroyed or partially damaged lost at least 2 hectares of arable land because of the area of farmland that is adjacent to springs, shallow wells, and low land that is typically under cultivation. Thus, 5,646 hectares of total arable land were destroyed by the Sagar (Nadfor Government Somaliland, 2018).

Table: 3.6.1: Number of Sagar destroyed irrigational farms by district and settlement

District	Settlement	Completely destroyed	Partially damaged	Total Irrigation farms
Baki	1. Ruqi	169	81	250
	2. Baki	228	122	350
	3. Xeego	13	37	50
	4. Xamarta	80	35	115
	5. Xoorey	165	75	240
	6. Carrowayn	20	50	70
	Total	**675**	**400**	**1,075**
Lughaya	1. Tuurka	100	400	500
	2. Balleyga	400	0	400
	3. Waraabe Dareeray	143	57	200
	4. Hul-xudhuunle	150	30	180
	5. Qundhaanjaale Galbeed	33	37	70
	6. Qudhaanjaale Bari	27	23	50
	7. Garbo	27	23	50
	8. Habar –dugaag	95	70	165
	9. Damasha	7	3	10
	10. Gol-caydheed	15	15	30
	Total	658	997	1,655
Gabiley	1. Agabar	0	38	38
	2. Caada	0	25	25
	3. Af-weyne	0	20	20
	4. Ceel-bardaale	0	10	10
	Total	0	93	93

Somaliland	All	1,333	1,490	2,823

Table: 3.6.2: Total destroyed cultivated land in hectares

District	Total affected farms	Destroyed cultivated land in hectares
Column 1	Colum 2	Column 3 = Column 2 x 2 hectares
Baki	1,075	2,150
Lughaya	1,655	3,310
Gabiley	93	186
Total	**2,823**	**5, 646**

Even though there was very little land damage in the highland regions, the cyclone also destroyed the output of the rain-fed farms in the ten districts that were impacted, in addition to the irrigation farms. However, the data collection teams only visited four settlements in Gabiley out of the 422 settlements impacted by the storm; in those four settlements, they noted that the harvest of 61 rain-fed farms had been destroyed. On average, the harvest of fifteen rain-fed farms was lost in each of those four settlements (Nadfor Government Somaliland, 2018). Assuming that 15 rain-fed farms in each of the 422 settlements lost their harvest, 6,150 rain-fed farms were impacted by the Sagar. Given that each farm typically has two hectares under cultivation,

District	Settlements	Rain fed farms	Rain fed land in hectares
Column 1	**Column 2**	**Column 3 = column 2 x 15**	**Column 4 = column 3 x 2**
Baki	52	780	1,560
Borama	64	960	1,920
Lughaya	41	615	1,230
Zeila	29	435	870
Berbera	59	885	1,770
Hargeisa	90	1,350	2,700
Gebiley	27	405	810
Sallahley	5	75	150
Eil Afwayn	9	135	270
Ceerigaabo	24	360	720
Las Qorey	5	75	150
Caynabo	5	75	150
Total	**422**	6,150	12,300

it is possible to estimate that, in addition to the 5, 646 irrigational hectares that were harvested, the storm also destroyed 12,300 rain-fed hectares.

Table 3.6.3: Destroyed cultivated irrigation and rain fed farms and land m hectares

Based on the above stated assumptions and calculations; the cyclone destroyed harvest of a total 8,973 farms, which equivalent to the expected production of 17,946 hectares.

Table: 3.6.4: Total affected under-cultivation irrigation and rain fed farm land

Column 1	Irrigation farm land		Rain fed farm land		Total cultivated farm land	
	No of farms	Cultivated land in hectares	No of farms	Cultivated land in hectares	No of farms	Cultivated land in hectares

Baki	1,075	2,150	780	1,560	1,855	3,710
Borama	-	-	960	1,920	960	1,920
Lughaya	1,655	3,310	615	1,230	2,270	4,540
Zeila	-	-	435	870	435	870
Berbera	-	-	885	1,770	885	1,770
Hargeisa	-	-	1,350	2,700	1,350	2,700
Gebiley	93	186	405	810	498	996
Sallahley	-	-	75	150	75	150
Eil Afwayn	-	-	135	270	135	270
Ceerigaabo	-	-	360	720	360	720
Las Qorey	-	-	75	150	75	150
Caynabo	-	-	75	150	75	150
Total	**2,823**	**5, 646**	**6,150**	**12,300**	**8,973**	**17,946**

The cyclone didn't only affect crops and the land, but it also destroyed most of the farming implements and irrigation supporting systems. As per table 3.2.1.4; the storm wiped out 1,720 irrigation engines and destroyed 5,160m of irrigation pipes (Nadfor GovSomaliland, 2018).

Table: 3.6.5: Total destroyed cultivated irrigational land in hectares

District	Number of engines lost (Pcs)	Number of pipes wiped out (m)
Baki	650	1,950
Lughaya	1,070	3,210
Total	1,720	5,160

3.7. Environmental Damage

Large-scale soil erosion, gully formation, and forest clearing brought on by the intense flash flooding have altered the natural topography by converting hills into valleys and valleys into hills. Denudation and the spread of aridity have altered the land's natural attractiveness (Nadfor Government Somaliland, 2018).

Several forest species are uprooted and eventually washed out in the field due to extreme deforestation. Potential grazing regions had eroded vegetation. Additionally, the huge floods washed away the top soil that supported palatable trees, creating large, deep gullies that would hinder future vegetation and tree regeneration. with the rangelands, a sizable treeless plain was covered with sand dunes (Nadfor GovSomaliland, 2018).

Large gullies have also been created by the floods, which will result in a semi-permanent loss of land and have a negative impact on human life, cattle, and the environment.

In terms of numbers, roughly 50 dry rivers (Tog in Somaliland) were made 50 m larger with a 1 m depth increase. Since a tog's average length in Somaliland is 30 km, 7,500,000 metric cubic meters of land have been damaged overall (Nadfor GovSomaliland, 2018).

Table: 3.7.1: Damage of dry rivers in KM

Dimension of damage dry rivers	Units
Number of dry rivers	50
Average length of dry river in meters (30 km)	30,000
Average width increase per dry river in meters	5

Average depth increase per dry river	1
Total damage in metric cubic	7,500,000
Land degradation damage cost per metric cubic in USD	95
Total land degradation damage in USD	712,500,000

The majority of the wild creatures that resided in the cyclone-affected areas perished as a result of the cyclone's flash floods and cold, high winds. These regions are experiencing habitat destruction, which has made the loss of wildlife species worse. The seashores and places devastated by flooding were littered with enormous carcasses of various wildlife species. Elders in the community reported seeing the remains of numerous wildlife species, including spotted hyenas, tortoises, ostriches, foxes, Geranug, spekes gazelles, sumaring gazelles, and many more, in addition to the reptiles that were washed away.

3.8. Education

The education sector was severely impacted by Cyclone Sagar. It is the first natural disaster in Somaliland's history to severely harm the educational system, particularly schools, all at once. Twelve districts' educational facilities were primarily impacted, but eight districts' schools were also damaged. In addition to purchasing classroom furniture, teaching and learning materials, textbooks, psychosocial trainings for teachers and community educational committees (CECs), campaigns to return to schools, and incentives for unpaid teachers, the main suggested interventions include school reconstruction and rehabilitation, school water supply, and school restrooms (Nadfor Government Somaliland, 2018).

The cost of the required reconstruction and rehabilitation interventions for 28 schools was estimated to be $780,178, despite the fact that various assessments indicated 40 schools were impacted by the Sagar. According to Nadfor Government Somaliland (2018), approximately $272,298 is needed for school reconstruction, $210,180 for textbooks and instructional materials, $138,000 for the school's water and restroom requirements, and $70,000 for school furnishings.

Table: 3.8.1: Estimated school reconstruction and rehabilitation cost in USD

Priority intervention	Units	Description	Cost/Unit	Total cost
Reconstruction and rehabilitation of schools	28	Schools		272,298
Construction & Rehabilitation of water sources	15	Berkeds	5,000	75,000
Latrine facilities	25	Latrines	2,500	62,500
Furniture of Schools (70 Classes * 15 Sets)	70,000	Sets	1,000	70,000
TLM and Textbooks	7,256	Text books	20	210,180
Psychosocial teachers and CEC trainings	4	Trainings	5,000	$20,000
Incentive for 60 unpaid teachers for 6 months	360	Person months	600	52,200
Go-back to Schools campaigns	6	Campaigns	3,000	18,000
Total cost of the 28 assessed schools				780,000

3.9. Health Sector

In addition to one health facility impacted by the intense rain, approximately ten health facilities were impacted by the Sagar, including five severely damaged and five partially damaged health infrastructures. The availability and accessibility of health services for these underprivileged communities will suffer if these public health facilities in those areas lose their operational status (Nadfor Government Somaliland, 2018). In the days following the cyclone, cases of malaria and diarrhea have been reported in every district, particularly in displaced communities, where 21 and 120 cases, respectively, have been confirmed. The Sahil region and the districts of Zeila and Lughaya saw an increase in mosquito populations, which increases the risk of

malaria disease transmission. In Berbera town, three cases of malaria have been confirmed thus far.

Poor sanitation and the spread of disease can result from the cyclone's residual stagnant water along the coastline (Nadfor Government Somaliland, 2018). By carrying out a thorough evaluation of the health conditions in the impacted areas and sending Rapid Response Teams equipped with medical supplies to temporarily assist those communities, the Ministry of Health Development has begun emergency interventions. By setting up meetings, the ministry's partners began to mobilize their resources. The Ministry of Health determined that adequate sanitary facilities are also desperately needed. Another top priority area of concern is the restoration and repair of healthcare facilities. as the restoration of medical facilities.

3.10. Health Infrastructure Damage

MCHs in Gargaara, Eil Sheikh, and Lughaya, as well as public hospitals in Lughaya and Zeila district headquarters, suffered significant damage. The rains in the two districts also had an impact on three health posts and two more MCHs.

Sagar Cyclones have profound and multifaceted impacts on communities, affecting physical infrastructure, economic stability, environmental health, social cohesion, and individual well-being. This study has highlighted the immediate and long-term consequences of Sagar cyclone, emphasizing the disproportionate burden on vulnerable populations and the challenges of recovery and resilience-building.

Key findings from this research include:

1. Physical and Economic Devastation: Sagar Cyclones cause widespread destruction of homes, infrastructure, and livelihoods, with recovery often hindered by financial constraints and inadequate resources.
2. Environmental Degradation: The damage to ecosystems and natural resources exacerbates the vulnerability of communities to future disasters.
3. Social and Psychological Trauma: Displacement, loss of life, and the disruption of social networks contribute to long-term mental health challenges and community fragmentation.
4. Health Risks: Increased exposure to waterborne diseases and limited access to healthcare further compound the suffering of affected populations.

The findings underscore the urgent need for comprehensive disaster preparedness and response strategies. Investments in resilient infrastructure, early warning systems, and community education are critical to reducing the impact of cyclones. Additionally, addressing the root causes of vulnerability, such as poverty and inequality, is essential for building long-term resilience.

In conclusion, while Sagar cyclones pose significant challenges to communities, a combination of proactive measures, equitable policies, and sustained international cooperation can mitigate their impacts and foster more resilient societies. By learning from past experiences and prioritizing the needs of the most vulnerable, we can better prepare for and respond to the growing threat of cyclones in a changing climate.

Authors contributions: Abdirahman Khadar Abdihaad: wrote the paper, conducted the data analysis and interpretation, and developed and designed the research design; Abdiaziz Ali Nour: wrote the paper, carried out the design, evaluated and interpreted the data, and contributed materials, data, and analysis tools; Abdishakur Aidid Nour: Investigating, writing-review, editing and data curation; Khalid Mahad Osman: Investigating, writing-review, editing and data curation and proof reading.

Funding: No specific grant from a public funding agency, non-profit organization, or private sector organization was obtained for this paper.

Data availability: The article content includes data are available online. You can contact the corresponding author with any additional questions. Data can be found here https://nadfor.govsomaliland.org/article/sagar-cyclone-somaliland-damage-economic-loss-necessary-inte

Declaration: The authors declare no competing interests.

Limitations: This study relies solely on secondary data source, lack of primary, community-level insights restrict the depth of understanding regarding localized impacts and adaptive responses. Temporal gaps in data and the potential for outdated information further constrain the analysis.

Declaration of Generative AI and AI-assisted Technologies: This study has not used any generative AI tools or technologies in the preparation of this manuscript.

References

Republic of Somaliland. 'National Development Plan (NDP III, 2023-2027)'. 2023. Accessed 15 December 2023. (https://slmof.org/wp-content/uploads/2023/05/NDP-III.pdf)

Weather Underground. 'Sagar Pounds Somalia; New Cyclone May Threaten Oman'. Accessed 17 November 2023. (https://www.wunderground.com/cat6/sagar-pounds-somalia-new-cyclonemay-threaten-oman)

Watson, Elizabeth E. and Hassan Hussein Kochore. 'Religion and Climate Change in Northern Kenya: New Moral Frameworks for New Environmental Challenges?'. Journal for the Study of Religion, Nature & Culture 6/3 (2012): 319–43.

Sheikh, Ahmed A, Funke F. Fakunle and Adebayo A. Fashina. 'The status quo of building codes and construction practices in Somaliland: Practitioners' perceptions'. SPC Journal of Environmental Sciences 2/1 (2020): 4-11.

—. 'Agricultural Damage Assessment by Cyclone Sagar'. May 2018. Accessed 19 November 2023. (https://www.eutm-somalia.eu/wp-content/uploads/2018/06/Agricultural-Damage-Assessmentby-Sagar-Storm-1.pdf)

Radio Dalsan. 'UAE, Djibouti Send Rescue and Medical Team to Cyclone Hit Somaliland'. Accessed 29 October 2023. (https://www.radiodalsan.com/uae-djibouti-send-rescue-medicalteam-to-cyclone-hit-somaliland/)

Norwegian Refugee Council. 'Restoring Hope to Recover after Cyclone Sagar'. Accessed 12 November 2023. (https://www.nrc.no/news/2018/december/restoring-hope-to-recover-aftercyclone-sagar/)

National Disaster Preparedness and Food Reserve Authority. 'Sagar Cyclone in Somaliland: Damage, Economic Loss, Necessary Interventions and Financial Needs'. Sagar Cyclone Final Report, August 2018. Accessed 15 December 2023. (https://www.nadfor.govsomaliland.org/ article/sagar-cyclone-somaliland-damage-economic-loss-necessary-inte)

Mattinen, Hanna and Kate Ogden. 'Cash-based interventions: Lessons from southern Somalia'. Disasters 30/3 (2006): 297–315.

Lazzolino, Gianluca. 'Following Mobile Money in Somaliland'. Research Paper, Rift Valley Institute, 2015. Accessed 15 November 2023. (https://riftvalley.net/publication/followingmobile-money-somaliland)

Hartmann, Ingrid, Ahmed J. Sugulle and Ahmed Ibrahim Awale. 'The Impact of Climate Change on Pastoral Societies of Somaliland'. Report, Candlelight for Health, Education and Environment, 2009. Accessed 14 November 2023. (https://www.unisdr.org/files/13863_ FinaldraftEffectsofclimatechangeonp.pdf) (https://toda.org/policy-briefs-and-resources/ policy-briefs/collaboration-conflict-and-mobility-local-responses-to-climate-change-insomalilan)

Nadfor.govsomaliland.org (NADFOR, 2018)