

District	Location	Date	Type of Stakeholders	Female Participants	Male Participants	Issues Raised/Points discussed
Galmudug, Mudug, Hobyo	Hobyo	March 3	Hobyo Municipality	-	Deputy commissioner	<p>Lack of Resilient Infrastructure like roads and bridges, Poverty, lack of other sources of income than cutting trees, Limited Knowledge on the climate issues, these barriers and others are often intersected and reinforce each other</p> <p>Misuse of the Land, Rapid urbanization and environmental deforestation exacerbating the impacts of the Climate change</p> <p>Lack of coordination between the local authorities and the Ministries of Environment both State and federal levels, resource scarcity, risk perception, weak legislation and most important thing limited funds</p> <p>Insufficient funding for community mobilization, conflict resolution processes, implementation of land use plans, and monitoring activities</p> <p>the difficulty identifying underlying causes of resource-based conflicts and the relationships between different stakeholders.</p> <p>Hobyo District faces a critical water shortage, currently receiving only 20% of its water needs,</p> <p>The district has limited water infrastructure, with only three functional reservoirs (Hafir-dams) and a scarcity of wells. Notably, Hobyo city itself relies on a well located 20 kilometers away, highlighting the severity of the water shortage</p> <p>Most farmers in the area cultivate watermelons and kidney beans, primarily using seeds provided by NGOs, However, there is a lack of awareness among farmers whether these varieties are drought resilient or not</p>

					<p>Farmers in Xero-dhagaxley, Sanku yaal, Laam xarar, Gawaan, Qararow, Waable, Qoryaale, Dhex-xiran, Gabdhaale, Saqiirro, and Xin-barwaaqo all practice mixed farming, relying on both crops and livestock</p> <p>This diversified approach is essential due to their dependence on rain-fed agriculture, as livestock provides an alternative source of income and subsistence during periods of low crop yields</p> <p>At district level, there are periodic awareness campaigns about Climate Change but no specific laws or regulations</p> <p>While the district has a dedicated climate change department, a lack of financial resources was always an issue,</p> <p>With appropriate support, the possess the capacity and skills necessary to address climate challenges effectively</p> <p>Currently, there are no active organizations or institutions working on climate change in Hobyo district</p> <p>There are no coordination mechanisms between stakeholders on the climate change issues, except periodic visits from officials from the state & federal Ministries of Environment.</p> <p>Measures to be implemented to address Climate Change</p> <ul style="list-style-type: none"> - Capacity building to the farmers and the community of Hobyo at large - Introducing technology in the agriculture - Address the shortage of water in the district <p>Yes, 100% the district officials are eager to actively participate in climate coordination platform on a regular basis</p> <p>Enhancing the skills expertise of the Department of the climate change would greatly help the local administration to adopt and perform well in planning and implementation of any project related to this sector</p>
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Galmudug, Mudug, Hobyo	Hobyo	March 6	Communities	3	7 (2 Youth)	<p>Livelihoods: Livestock production is the primary source of income for the community, followed by small businesses, remittances, and limited crop cultivation.</p> <p>Food Security: Food security has improved in recent years due to interventions and national trends.</p> <p>Livestock: The number of livestock, primarily sheep and goats, has increased in the past decade. However, challenges include animal diseases, limited access to water and fodder, and low market prices.</p> <p>Rangelands: Land degradation and changing weather patterns have negatively impacted rangelands, leading to decreased grazing areas and altered grazing routes.</p> <p>Land Use: Land ownership is informal, and land use practices lack clear guidelines.</p> <p>Natural Resources: The community lacks formal initiatives for natural resource conservation.</p> <p>Water: Deep wells are the primary source of drinking water, although accessibility remains a concern.</p> <p>Conflicts: Land and livestock-related conflicts persist, but traditional conflict resolution mechanisms help mitigate their impact.</p> <p>Implement land use planning and resource management strategies.</p> <p>Enhance veterinary services and promote fodder production to support livestock health and productivity.</p> <p>Develop awareness and capacity-building programs on climate-smart agriculture practices.</p> <p>Explore options for sustainable fuel sources and efficient cookstoves to reduce reliance on charcoal.</p>
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Hirshabelle, Middle Shabelle, Calad	Calad	March 12-17	Local authorities	-	District Commissioner	<p>The local authority declared that they have clear mandate protection of forestry cutting down and preparation of range land conservation establishment of Nursery shed seedling plants such as windbreak trees and resistant varieties seeds of the climate resilience agriculture and climate change adaptation and increasing vegetable growing cover the needs community of Adale district but the local authority facing limited resources</p> <p>The local authority mentioned that the main barriers that preventing their population/ community from addressing of Impact of climate change establishing green house and to creation of community awareness campaigns</p> <p>Establishing resistant variety seeds to adapt climate change, soil conversation preparedness and community awareness of climate change.</p> <p>The local authority stated that there needs preventing cutting down forests, burning fossil fuel (charcoal)</p>
Hirshabelle, Middle Shabelle, Calad	Calad	March 12-17	Communities	2	6	<p>The main livelihood of Adale communities are fisheries, agropastoral and pastorals.</p> <p>There is also urbans holding small business operators and and those in the urban who receives assistance from the relative in abroad.</p> <p>In the last decade there has been food insecurity in the urban and rural area since there was a consecutive drought and shortage of water and pasture.</p> <p>Since the drought and shortage of pasture the livestock mortality estimate increased according to the communities.</p>

						<p>The main livestock herds by the communities are sheep/goats and camel, the cattle is too little in the area because of not been drought resistance.</p> <p>The communities practice animal migration looking water and pasture in the different routes in the region and the neighboring regions.</p> <p>the main crop cultivated in the Adale district is cowpea with minimal sorghum cultivation, grown mainly during Deyr season due to its resistance water stress: the two crops are intercropped with watermelon in addition cultivates of finger-millet are popularly in the district.</p> <p>There is no irrigated farms or crops in Adale district villages instead there is rainfed crops or farms and season of plantations are GU (April to June) and Dey (October to December each year.</p>
Jubaland, Lower Juba, Kismayo	Kismayo	March 12	Local authorities: MoECC	-	DG MoECC	<p>Main barriers preventing the population/community from effectively addressing the impact of climate change: (i) Lack of Awareness and Understanding, (ii) Limited Access to Information, (iii) Financial Constraints, (iv) Institutional and Policy Barriers, (v) Social and Cultural Factors, (vi) Limited Technological Capacity</p> <p>Non climate drivers exacerbating Climate Change: (i) Conflict and Insecurity, (ii) Limited Infrastructure and Basic Services, (iii) Poverty and Food Insecurity, (iv) Displacement and Migration, (v) Limited Institutional Capacity</p> <p>Adaptation measures that you would like this project to address regarding to climate change: (i) Diversification of Crops and Livestock, (ii) Water Management and Irrigation, (iii) Soil Conservation and Sustainable Land Management, (iv) Agro-ecological Approaches, (v)</p>

					<p>Climate Information and Early Warning Systems, (vi) Capacity Building and Farmer Empowerment, (vii) Access to Finance and Insurance, (viii) Market Access and Value Chain Development</p> <p>Capacity limitations that target community face : (i) Knowledge and Awareness, (ii) Technical Expertise, (iii) Weak community institutions and governance structures, (iv) Limited financial resources and access to funding, (v) Inadequate communication channels and limited stakeholder engagement, (vi) Limited access to reliable data and information, (vii) Socio-cultural barriers, such as power dynamics, unequal gender representation, and traditional norms and practices</p> <p>Effectiveness of water infrastructure in Lower Jubba can vary based on several factors: (i) lack of maintenance can result in infrastructure deterioration, reducing its effectiveness, (ii) the infrastructure is insufficiently designed or unable to handle the water demand, it may lead to water shortages, inefficient water distribution, or system failures, (iii) certain communities or groups face barriers in accessing the infrastructure, it can result in unequal access to water resources and potential conflicts, (iv) Robust design features, such as appropriate drainage systems, flood protection measures, and water storage capacity, can enhance the resilience of the infrastructure and its ability to withstand extreme weather events (droughts and floods), (v) the involvement and ownership of local communities in the design, implementation, and management of water infrastructure can significantly impact its effectiveness</p> <p>Farmers may not have the necessary information or expertise to differentiate between different seed varieties and determine which ones are specifically bred or selected for climate resilience.</p>
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	Kismayo	March 12	Local Authorities: MoAI	-	Advisor to the Minister	<p>Main barrier is that communities lack awareness about Climate Change and the concept of Climate Smart is new to them</p>

					<p>of Agriculture</p> <p>Resources available to Jubaland state are limited and therefore, they cannot address the needs to address climate change</p> <p>Natural calamities such as floods and drought are cyclical, it is difficult the state to deal with it and the state requires external to deal with the challenge of climate change</p> <p>Main adaptation measures are : (i) To train farmers the best way to handle farm activities including no till farming approaches, (ii) Growing crops that are more resistant to temperature and precipitation extremes, (iii) MOAI need to know the temperature regime (historical recorded temperatures) and the long term amount of precipitation in your region can help you determine which crops thrive there</p> <p>In addition, due to climate change crop production become increasing difficult for traditional farmers to benefit due to successive droughts and flood seasons: there is a need to introduce appropriate technology for sustainable production for farmers</p> <p>Water infrastructure is in bad condition in Jubaland region</p> <p>Seeds used are unreliable and uncertified seeds. However, efforts are underway to establish seed production and certification agency</p> <p>Crop supports usually are provided more to riverine area while the support to agro pastoral farmers is very rare</p> <p>Challenges are : (i) limited rainfall, (ii) limited tools for crop production, (iv) limited good quality seeds for production and, (v) also good agriculture extension services</p>
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	Kismayo	March 12	Local Authorities: MoLF	-	Departmental Director	<p>Indirect impact of climate change on the livestock sector are: (i) rising demand for food (including livestock) and products, (ii) can lead conflict over scarce resources, (iii) losing livestock assets could trigger a collapse into chronic poverty and have a lasting effect on livelihoods,</p> <p>Direct impact of climate change on livestock: (i) increased spread of existing vector-borne diseases and microparasites, accompanied by the emergence and</p>

					<p>circulation of new diseases, (ii) drought may worsen land production Land systems that could modify animal diets and compromise the ability of smallholders to manage feed deficits,</p> <p>Main barriers that are preventing your population/community from addressing the impact of climate change: (i) Lack of livestock facilities and infrastructure for climate change adaptation, (ii) Capacity building gaps and shortage of production techniques capacity, (iii) lack of empirical information about climate impacts to interpret climate change projection for the local area to support planning, (iv) no contingency plan for financial allocation on matters climate resilience</p> <p>Main non climate drivers: (i) Land degradation, (ii) Urbanization and (iii) Pollution and wasting environment, throwing of plastic bags, drug residue, are the most thinks leads for environmental degradation</p> <p>Adaptation measures : (i) improving fodder production facilities and establishment of stakeholders' linkage on maters of fodder market accesses, (ii) enhance the capacity of the public and private sector to enable climate smart adaptation, (iii) vector and disease control measures for livestock disease control (lab center, clinical center and tick trypanosome control),</p> <p>Limitations that target community face: (i) Lack of financial resource, (ii) Political instability, (iii) Lack of infrastructure and, (iv) Lack of technical consultancy or expertise</p> <p>The livestock water infrastructure are: wells, water catchments, dams, Bohol and in some places have no water infrastructure facilities and need establishment of water facilities</p>
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Jubaland, Lower Juba, Kismayo	Jeerinley	March 13	Communities	1	9	<p>Rangeland area has decreased over the last 10 years: Grazing routes have changed. Due to numerous settlements, deforestation and charcoal burning</p> <p>Main crops grown are : maize, cowpeas, sesame, watermelon, and groundnuts</p> <p>Farm by-products such maize stover, legumes stalks and maize husks are used as fodder but farmers do not grow fodder</p> <p>95% own land in this village as its rainfed farming land. Challenges is only topography for one get a suitable farming/settlement land. However, this situation is different from riverine areas where land is scarce</p> <p>Main causes of Land degradation are : (i) Recurrent droughts and floods, (ii) Ploughing , (iii) Overgrazing, (iv) Settlement, (v) Deforestation and, (vi) Increased sunshine (Global warming)</p> <p>There are no soil conservation structures in rangeland areas</p>

					<p>No community initiatives for conserving natural resources and land use is mostly grazing and farming</p> <p>The main water source for drinking water are deep wells</p> <p>Main impacts of droughts on crops and livestock are: (i) poor pasture/vegetation production, (ii) livestock poor body condition thus lost of quality, (iii) Poor yield,</p> <p>Anticipatory action should take place and includes traditional seasonal situational analysis such as wind direction changes, environmental temperature changes, traditional astrology, broadcasting from radio stations</p> <p>Coping mechanism to climate change include migration to areas with relatively better pastures, change to drought resistant livestock e.g camel rearing, water trucking – delivering water to areas with better pasture but distant from regular water sources</p> <p>The effects of floods are : (i) Devastation/destruction of crops, (ii) but if floods are limited, it has positive impact on livestock as it regenerates vegetation and pastures</p> <p>Floods can be anticipated with the frequency and intensity of the rain and Livestock can be moved to higher areas</p> <p>Less investment in Livestock because of Climate Change</p> <p>Water resources are less available and less accessible</p> <p>Minor conflicts are addressed/solved through traditional elders system</p> <p>To conserve Natural Resources in the area, there is a need to establish permanent water source such deep well/bore hole and tree nursery for reforestation</p> <p>There is a degraded range and forest near the village: the range and forest reserve are moderately degraded</p> <p>To anticipate the negative effects of floods and droughts, Early warning system connected/accessible to communities timely</p>
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						To improve Natural Resources Management: (i) Effective protection, (ii) Management including community participation, (iii) Reseeding, (iv) Reforestation
Puntland, Nugaal, Eyl	Eyl	March 16	Local authorities	-	District Mayor	<p>Main barriers preventing the communities to address Climate Change: (i) Financial constraints within the district community, (ii) Limited capacity and expertise in responding to climate change events, (iii) Insufficient community knowledge and skills regarding climate change, (iv) Impact of Tropical Cyclone Gati in 2019, leading to widespread devastation, (v) Limited community knowledge and capacity to address the impacts of climate change, (vi) Weak enforcement of existing environmental protection regulations and customary norms for conserving natural resources in the district, (vii) Absence of a district Police for Range Management Unit, (viii) Need for improved waste management and sanitation, (ix) Land disputes arising from competition for scarce resources, (x) Inadequate road infrastructure, hindering donor access to the district and (xi) Encroaching and desertification posing challenges to the district, including coastal resources , road infrastructure and badey urban settlements</p> <p>Non-climate drivers of change that exacerbate the (potential) impacts of climate change: (i) Socioeconomic factors: Communities are increasingly exposed to the effects of climate change due to poverty, lack of access to resources, and social inequality, (ii) Overgrazing, unsustainable farming methods, and deforestation, (iii) The area's natural resources are scarcely impacted by the frequent bush fires, (iv) Cutting down trees for fence around farms and animals, (v) The productivity of the fishing industry, which depends on marine resources, is dropping, (vi) Passing without a permit on rangelands , (vii) The wild side of hunting, (viii) Ineffective law enforcement, (ix) Gully erosions that are negatively impacting the condition of rangelands, (x) Human</p>

					<p>encroachment on rangelands and increased urbanization and, (xi) Plastic water bags that are mostly used to create pathways that affect rangeland resources.</p> <p>Main Adaptation measures are : (i) Educating farmers on integrated pest control and sustainable and good agricultural practices (GAP), (ii) Advocating for the use of modern irrigation methods to boost agricultural output, (iii) Teaching the local population, the most effective methods for stabilizing sand dunes that negatively affect the district's livelihood sectors, (iv) Endorsing initiatives to conserve water and soil, such as installing stockpiles, gabions, and other conservation structures in valleys prone to gully erosion, (v) Planting trees, particularly in sand dunes' impacted areas, (vi) Implementing and enforcing existing legislation to improve environmental conservation and, (vii) Proper Rain water harvesting through construction of dams , drilling boreholes and encouraging smart irrigation systems.</p> <p>Capacity limitations that target community face: (i) capacity limitations that target communities might face when addressing resource-based conflicts and implementing land-use plans, (ii) Forming a committee for dispute resolution and offering assistance, including equipment and knowledge, (iii) Inadequate ability to plan and execute land use, (iv) Limited availability of technical assistance and extension services, (v) Weak community organizations for managing resources, (vi) Poor community organizations for resolving conflicts, (vii) In sufficient information management and data for the resources at hand, (viii) Limited understanding of conflict resolution techniques in the community and, (ix) Limited financial resources may hinder communities' ability to invest in land management initiatives, conflict resolution mechanisms, and capacity-building activities</p>
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						<p>In the Eyl district, the water infrastructure comprises plays a crucial role aimed at providing access to water for domestic, agricultural, and livestock use: some common types of water infrastructure in the district include natural springs, and dug wells.</p> <p>Main challenges for the water infrastructure are related to maintenance, design, and resource constraints that affect its effectiveness</p> <p>Farmers practice mixed farming methods as it has a benefits of Enhanced productivity: Livestock may graze on crop wastes, and crops can benefit from the use of animal dung as fertilizer : (i) Diversification is achieved by having both animals and crops. Livestock may still be a source of revenue if crops fail owing to drought, and vice versa, (ii) Including livestock can help keep the organic matter and fertility of the soil stable, (iii) Unpredictable rainfall patterns and frequent droughts can threaten both crops and livestock, (iv) Access to water, veterinary services, and high-quality seeds can be limited, hindering productivity, (v) Poor storage facilities and transportation networks of the district can lead to post-harvest losses for crops and difficulties getting livestock to market</p> <p>As a district, they would like to be involved in climate coordination platforms</p>
Puntland, Nugaal, Eyl	Eyl	March 12-18	Communities Smallholder farmers	-	6	<p>Decrease in food security, attributed to the crises affecting much of the world, including climate change and the COVID-19 pandemic.</p> <p>In addition, the majority of the farms in the Eyl district, crucial for sustaining people's lives, were submerged due to flooding.</p>

					<p>Over the last 10 years, reduction in the rangeland areas, leading to the urbanization of many locations where animals previously grazed and lack of rainfall</p> <p>Major crops are : Lemon, Water melon, Green Tomatoes , Red Onion, Green vegetables</p> <p>Decline in crops yields, because of both diseases and changes in climate. Moreover, floods took place in 2015, 2019, and 2021</p> <p>Geographically, the Eyl District is surrounding by mountains and streams, resulting in 60% of the residents owning land, while 40% lack available land for building or farming</p> <p>The major causes of land degradation are : (i) Deforestation, (ii) Soil <i>Erosion</i> and, (iii) climate Change</p> <p>Community initiatives for conserving your natural resources are: (i) Water and rangeland Conservation Awareness Campaigns, (ii) Rangeland Management Committees consist of community members, livestock owners, and relevant stakeholders collaborating to manage rangeland resources collectively and, (iii) Overall, community initiatives play a vital role in conserving natural resources like water and rangeland, fostering stewardship, resilience, and sustainability in local ecosystems</p> <p>There are a number of Community committees including 40% women and 20% youth : (i) Village committee, (ii) Education committee , (iii) Natural resource committee,</p>
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					<p>(iv) Livestock committee and, (v) Rangeland Management Committee</p> <p>Sources of irrigation are natural wells and streams</p> <p>In the past 15 years Eyl district has faced droughts, particularly evident in 2011, 2015, 2017, 2019, and 2021</p> <p>Impacts of droughts : (i) Reduced Crop Quality, (ii) Water Scarcity, (iii) Livestock Forage Shortages, (iv) Livestock Health Issues and, (v) Long-term Environmental Degradation</p> <p>Drought coping mechanisms are: (i) Water Conservation Practices, (ii) Drought-Tolerant Crop Varieties and, (iii) Rangeland and Pasture Management</p> <p>Over the last 15 years, the Eyl district has witnessed significant flooding events resulting in destruction of farms, residential buildings, and roads, leading to loss of life and financial hardship, particularly pronounced in 2019, 2015, and 2021</p> <p>Flood coping strategies are: (i) providing clear and accurate information to residents about flood risks, preparedness measures, and evacuation procedures through public awareness campaigns, community meetings, (ii) Building community capacity and resilience through training programs, workshops, and skill-building initiatives that empower residents to take collective action, support each other, and effectively respond to flood emergencies</p> <p>the combination of livelihood diversification, water management strategies, early warning systems, disaster</p>
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						<p>preparedness plans, and social support networks enables the village to adapt and respond effectively to various stresses, including droughts and floods.</p>
<p>Puntland, Nugaal, Garowe</p>	<p>Cuun Village</p>	<p>March 18-22</p>	<p>Communities : Cuun Cooperative</p>	<p>1</p>	<p>4</p>	<p>More than 400 Farmers,100 pastoralists and 50 small business holders are in this village</p> <p>Food security decreased significantly over the last decade due to a several factors, including prolonged drought, environmental degradation, the spread of endemic diseases, and the negative effects of climate change</p> <p>Livestock populations in Cuun village have decreased due to various factors, notably epidemics, prolonged droughts, and fodder shortages</p> <p>Over the last decade, a number of factors including low rainfall, widespread disease, food shortages and persistent drought have reduced milk production of cows, goats and camels</p> <p>Livestock herders face a number of obstacles shaking livestock production: Lack of water, diseases, lack of fodder and pasture, low prices for livestock in the market, labor problems, necessary support from the government and donors</p> <p>Rangeland changed over the last decade: dozens of trees and herbicious species that have disappeared or declined, including Qurac (Acacia tortilis), Dureemo (Chrysopogon aucheri), Hareeri (Terminia prunioides), Canjeel (Mimusops Engel), Dhuur (Tamarix aphylla), Garas (Dobera glabra), and Galool (Acacia bussei)</p>

					<p>Ten years ago, a goat's milk per lactation was 2 liters, now it is less than 0.5 liters</p> <p>In the past, local people kept large numbers of cattle and camels. However, currently, the livestock population in the village has decreased</p> <p>All crops are irrigated and crop yields have declined due to several factors, including limited rainfall, a lack of water sources, soil erosion, disease outbreaks, and poor agricultural practices (Sorghum and Tomatoe)</p> <p>70% of farmers have their own land, while the remaining farmers do not have land and cultivate and live on rented land and they cultivate fodder</p> <p>Local communities faced challenges such as gully formation, rill and sheet erosion, and reduced productivity in the rangeland which major causes are : (i) Deforestation, (ii) Overgrazing, (iii) Rainfall pattern , (iv) Cutting tree for livestock and farm (fencing) , (v) Flood, (vi) Urbanization , (vii) Population Growth , (viii) Transportation and, (ix) Poor agricultural practice</p> <p>The local elders play a crucial role in environmental awareness campaigns, conflict resolution and in the management of natural resources, including water and pasture</p> <p>Several committees, such as the cooperative farmer, water management committee, livestock committee, health committee, and organizations that contribute to various aspects of community development and management</p>
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	Cuun Village	March 18-22	Small farmers' community	3	13	<p>The primary concern for those facing diminishing food security is the impact of climate change. Moreover, the economic crisis and reduced food security have contributed to a downturn in both livestock and agricultural production markets</p> <p>Over the past 10 years the milk production of Cuun village is decreased due to prolonged droughts and diseases in livestock for example: (i) 10 years ago, one goat per lactation was 3 litters, but now it is less than 2 litter and, (ii) 10 years ago, one camel per lactating was 5 but is less than 3 liters per camel .</p> <p>Because of droughts, reduction in the quality of pastures due to the effects of drought and climate change, leading to the depletion of numerous trees in the vicinity</p> <p>Presently, there are significantly fewer goats in the village, and the number of camels has also decreased due to constraints such as limited pasture and water availability and diseases</p>

					<p>Farmers in the Cuun village cultivate fodder and pasture during the rainy season and they utilize these resources for livestock consumption during the dry season</p> <p>60% of Households have their an own land and 40% do not have due to the high price of land</p> <p>Major causes of land degradation are: (i) Droughts , (ii) Soil erosion and, (iii) Overgrazing</p> <p>Elders’ group fulfils a pivotal function in orchestrating environmental awareness initiatives and overseeing the management of natural resources, notably water and grazing land</p> <p>There are : (i) a Village committee, (ii) a Natural resource committee and, (iii) an Agricultural cooperation committee with 30% women and 20% youth</p> <p>Main water sources for irrigation : (i) 100 Shallow wells (5-20 m) and, (ii) deep well (80 m)</p> <p>Occurrence of Droughts increased over the years 2022, 2017, and 2016</p> <p>Main impacts of droughts on crops and livestock in Cuun village include reduced crop yields due to lack of water for irrigation, leading to food shortages and economic losses for farmers</p> <p>Drought management strategies might be: (i) Rainwater harvesting: Collecting and storing rainwater during wet seasons to use during drought periods, (ii) Crop diversification: Planting a variety of drought-resistant crops to ensure some level of agricultural productivity even in dry conditions, (iii) Water conservation practices: Implementing measures such as drip irrigation, mulching,</p>
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					<p>and soil moisture retention techniques to optimize water usage in agriculture and, (iv) Livestock management: Providing supplementary feed, finding alternative grazing areas, and ensuring access to clean water sources for livestock during drought</p> <p>Floodwaters can contaminate grazing areas and water sources, increasing the risk of diseases among livestock. Furthermore, infrastructure damage caused by floods, such as bridges and roads being washed away, hinders transportation and access to markets for both crops and livestock products</p> <p>Coping strategies to overcome flood negative impacts : (i) Avoiding flood prone areas, (ii) Utilize plastic bags as a protective measure for livestock to shield them from the cold, (iii) Crop diversification and, (iv) Changing irrigation time.</p> <p>Substantial land degradation, influenced by various factors, which include: (i) Floods: Periodic floods worsen soil erosion, leading to the depletion of fertile topsoil and degradation of agricultural land, (ii) Recurrent droughts: Extended drought periods contribute to soil degradation by reducing vegetation cover, escalating soil erosion, and depleting water resources, (iii) Sand dunes: The encroachment of shifting sand dunes triggers soil erosion and degradation, negatively affecting agricultural productivity and natural habitats and, (iv) Unplanned urbanization: Rapid and unplanned urban expansion in the district results in the loss of cultivable land, heightened pollution, and disruption of natural ecosystems, thereby contributing to land degradation.</p>
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						<p>Sources of conflicts : (i) land, (ii) water, (iii) grazing areas</p> <p>Such conflicts frequently result in disputes, displacement, and damage, leading to decreased access to vital resources and hindering agricultural productivity, livestock farming, and overall economic growth</p> <p>Conflict resolution : (i) Local elders address minor issues, (ii) arbitration by third parties, (iii) Mediation by district administration and, (iv) Resolution of major conflicts by the district court</p>
Somaliland, Toghdeer, Odweyne	Odweyne	March 9-12	Local Authorities	-	Regional represent ative/coor dinator	<p>However, they stated that their office periodically raises awareness and mobilizes the rural community concerning the sustainable use of common natural resources such as water, forests, livestock, and rangelands to achieve longer-term higher productivity, climate change adaptation, and farm incomes under climate change</p> <p>Main barriers to address impacts of Climate Change: (i) Lack of knowledge and skills, (ii) Insufficient infrastructure, (iii) Natural resource constraints, (iv) Improper mitigation programs, (v) Economic barriers, (vi) Limited financial and inadequate funding and, (v) Limited local information</p>

					<p>Main non climate drivers exacerbating impacts of Climate Change: (i) Cutting down trees, (ii) charcoal production, land degradation, land use change, invasive plant species, and prolonged droughts</p> <p>It is recommended to address issues associated with climate change such as drought and water scarcity by harvesting rainwater, conserving soil and water, and cultivating drought-tolerant and rainfed crops like maize, sorghum, and sesame</p> <p>Gaps include inadequate institutional coordination, a lack of technical, and managerial skills for establishing and carrying out adaptations to climate change, a lack of funding for climate change actions, and a lack of capacity for adaptation planning</p> <p>Furthermore, the main obstacles to an effective response to climate change are the lack of understanding about climate change, instability in politics, and the effects of climate change all occurring at simultaneously</p> <p>Adaptation measures are : (i) planting drought-tolerant crops, (ii) planting crops earlier, and improving agronomic practices, (iii) proper rainwater harvesting, (iv) developing meteorological forecasting capability, (v) farmer training on good agricultural practices and climate-smart agriculture, (vi) knowledge transfer at the regional level, (vii) replanting forests, and restoring damaged rangelands</p> <p>There is no resource-based conflict among the communities living in the target villages</p>
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					<p>The target villages receives water from shallow wells, berkedes, and water catchments lacking a plastic geomembrane</p> <p>The majority of these water sources require rehabilitation, while several others, particularly berked, are currently inoperable</p> <p>A few locally adapted varieties are available to farmers</p> <p>Institution at district level lacks the technical expertise, the required skills, and sufficient funding to carry out climate change adaptation activities</p> <p>when there are climate-related issues, such as droughts, Somali businessmen, the diaspora, and the community form committees, which are frequently supported by the government, to raise funds and coordinate the funding to help disaster-affected communities across the country</p> <p>Planning, implementation, and adaptation to climate change all depend on developing institutional coordination and the ability at the national level</p> <p>In existing climate change forums or coordination mechanisms, experiences, challenges, and report on the progress of our task comprise government ministries, educational institutions (Universities), NGOs, and researchers were shared</p> <p>Strengthening climate change adaptation at the regional and federal levels is essential, as it aids the government in eliminating obstacles to climate change adaptation, since the whole country and communities need to find adaptation</p>
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						solutions and put them into action to tackle the effects of climate change both now as well as in the future.
Somaliland, Toghdeer, Odweyne	Qaloocato and Abdi Farah Villages	March 11	Communities	10	20	<p>Five of the respondents owned more than ten hectors, whereas the majority of respondents (25) owned 5-10 hectares,</p> <p>Rangeland areas have been decreasing over the last ten years due to: Native grasses and bushes disappeared as a result of prolonged dryness and a shortage of rain: (i) The climate change, global warming and increasing temperature, (ii) Weeds and invasive plants dominated rangelands, (iii) Desert Locust challenges, (iv) Constant/endless social conflicts and disputes, (v) fencing of rangeland for private use, (vi) Overgrazing and overstocking, (vii) Inadequate government rangeland management policies, (viii) Mismanagement of the rangelands, (ix) The presence of extremely water-consuming plants, such as Prosopis species, (x) Natural constraints include soil erosion and droughts, (xi) Insect pests and plant diseases, (xii) growing urbanization and no environmentalist available</p> <p>This region was home to a variety of native species ten years ago. Some of these trees were utilized to collect fruits, which the villagers transported and sold in the Burco market. Some of the natural trees were also used to feed livestock. Many of those trees are no longer present in the area</p> <p>when the spring and autumn (Gu and Dayr) rains start each season, people grow crops including sorghum, sesame, beans, maize, and watermelon,</p>

					<p>Additionally, when they have adequate water on their berkeds, wells and other water sources, they perform irrigated farming by planting various vegetables such as tomatoes, okra, carrots, lettuce, cabbage, onion, beets, and peppers</p> <p>Irrigated farms, on the other hand, exist in limited numbers.</p> <p>The targeted villages are among the greatest producers of fodder in the country</p> <p>Furthermore, during droughts, this fodder is sold and transported to Berbera City to feed livestock before being shipped to Arab countries. It is also sold to pastoralist groups in neighbouring areas</p> <p>The level of groundwater is further lowered when more wells are required due to frequent water shortages</p> <p>Overgrazing causes desertification and soil erosion by destroying the plant cover</p> <p>Major causes of land degradation: (i) Deforestation, (ii) Desertification , (iii) Overgrazing, (iv) extreme weather events such as recurrent droughts and lack of rain, (v) firewood use , (vi) charcoal production, (vii) Irresponsible use of natural resources, (viii) Overstocking, (ix) Lack of land use planning, (x) Erosion and, (xi) Unsustainable agricultural practices</p> <p>There are community owned organizations conserving natural resources, notably rangelands and water resources, which are vital to the preservation of biodiversity and the protection of forests and rangelands</p> <p>Both the villages have a management committee, and they are : (i) Chairman of the village (Village head), (ii) Deputy Chairman, (iii) Secretary and, (iv) Four committee members</p>
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					<p>In Qaloocato village, youth and women make up 30% of village committees and are represented in governance bodies, whereas all committee members in Abdi Farah village are men.</p> <p>The main sources of irrigation water are berkedes, wells, and water catchments</p> <p>Prolonged droughts and shortages of water caused livestock deaths and crop failures</p> <p>Furthermore, vulnerable rural people frequently face severe food insecurity because of droughts; many have left their villages in search of water and pasture for their livestock</p> <p>However, a shortage of clean water raises the risk of cholera and other illnesses.</p> <p>to minimize the effects of drought water conservation, store hay and grain storage , and sale weakened livestock are needed</p> <p>Because of the decline of the rainfall, Crop growth and production is reduced, livestock death due to the lack of pasture and water</p> <p>Additionally, coping strategies such as growing of drought tolerant crops and multiple cropping is the best option.</p> <p>The community of both villages indicated that many trees have been declined over the past 15 years compared to earlier times : (i) The grasses, acacia (Specifically Qudhac and Galool), and (ii) shrubs are the trees that have declined in this area.</p>
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						<p>They agreed that droughts and floods and change in rainfall pattern affecting them more than conflicts.</p> <p>natural resource conservation is <i>essential for livelihoods</i> :</p> <p>(i) Solar and wind energy are examples of alternative power sources, (ii) Plant trees to reduce soil erosion and combat climate change, (iii) Practicing water conservation in the villages, (iv) Growing vegetation in water catchment areas, (v) Rainwater Harvesting, (vi) Prevent deforestation and charcoal producing operations and, (vii) Managing livestock grazing.</p> <p>There is a community range near the village that is highly degraded</p>
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