



## Climate-Sensitive City Development Strategy (CSCD) for Garowe, Somalia

CONNECTIVE CITIES IN COLLABORATION WITH THE PROJECT SEIPP (SOCIO-ECONOMIC INCLUSION OF EXTREMELY POOR INTERNALLY DISPLACED PEOPLE AND RESIDENTS OF HOST COMMUNITIES IN PUNTLAND, SOMALIA)

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Partners of Connective Cities









Commissioned by

Federal Ministry for Economic Cooperation and Development

## 1 The importance of a bottom-up CSCD approach

#### **1.1 INTRODUCTION**

Cities are increasingly implementing climate-sensitive strategies to tackle the challenges posed by climate change, focusing on areas such as water use, waste management, sustainable mobility, green spaces, renewable energy, and resilient infrastructure. However, many of these strategies need more input from local stakeholders, leading to more context-specific solutions and more buy-in.

> "Integrating the expertise of local experts, research organisations, civil society, and the private sector is crucial for developing more effective and inclusive climate strategies that incorporate business and social innovation opportunities."

The following strategy provides an overview of the design and analysis process of the CSCD strategy and its findings. Further detailed information can be made available on the participatory methodology, the tools used for analysis, and the team involved in the process. This CSCD strategy documentation will focus on the main steps of the process and findings.

The strategy is an important document that the Municipality of Garowe will further support and use as a guideline for the next concrete interventions with the local stakeholders in Garowe and Puntland.

#### About this document

Connective Cities was assigned by the GIZ project SEIPP to develop an integrated climate protection concept (adaptation and partial mitigation) for the city of Garowe, Puntland, Somalia. SEIPP supports the socioeconomic integration of extremely poor internally displaced persons and residents of host communities in Puntland, Somalia.

Connective Cities has supported the development of a bottom-up strategy for climate smart city development (CSCD), including a participatory methodology to identify and analyse key entry points for action. The city of Garowe was the first pilot project to test the methodology and draft the CSCD strategy.



In cooperation with:



RACCA Team members at a Capacity Bulding training event.

## 1.2 WHY IS A BOTTOM-UP CLIMATE-SENSITIVE CITY DEVELOPMENT STRATEGY (CSCD) DESIGN DIFFERENT FROM TRADITIONAL APPROACHES?



#### 1.3 WHAT IS THE RAPID APPRAISAL OF CLIMATE-SENSITIVE ADVANTAGES (RACCA)?

- A methodology to prepare an action-oriented diagnostic of main economic and social resilience and climate change aspects in a city.
- A methodology to motivate local stakeholders to take an active role in resilience-, adaptation and mitigation initiatives.
- A business, local knowledge and opportunity-driven approach of climate-sensitive city development.
- A focus on identifying short- and medium-term development initiatives that can start directly.
- Based on a concept of life quality as an inclusive, economically viable and environmentally sensitive process.
- A strategy approach that builds on change management, transformation research and endogenous development insights. Following the learning by doing and learning by implementing knowledge creation sand progress logic.

## 2 Overall findings on opportunities and challenges of promoting a climate-sensitive development in Garowe

Before the participatory analysis started, several relevant documents were considered that laid the groundwork for further action. This included documents like the water resource strategy from Somalia 2021-2025, Somalia's Strategy on the UN Framework Convention on Climate Change, Somalia's National Climate Change Policy, the National Determined Contribution Report and several other environmental, disaster management, and additional policies. Most emphasise the need for stronger stakeholder involvement, more bottom-up and context-specific data collection and action research, and the identification of similar topics like waste, energy, disaster risk management, water resource management, etc. All the strategies and identified objectives are in line with the CSCD strategy.

The process of concrete bottom-up analysis started with the development of an expert network (RACCA team) in which the main responsible representatives from Garowe and from Puntland were present. It included the following organisations: the Garowe Municipality, the Somalia Urban Resilience Project, Earth Future, the Federal Ministry of Environment and Climate Change, the Ministry Of Agriculture and Irrigation, private companies like the Jubba Water Bottling Company, the Puntland State University, the East Africa University, the University of

Bosaso, the Somali Women Vision Organization, the Kaalo Aid and Development Organization, and the Puntland Information management centre. All of these organizational representatives supported the process and were relevant resource people.

The RACCA team used this tool during workshops, which aided in prioritising the most important areas for action.

The tool was also used to collect data with the local expert- or RACCA team to prioritise intervention fields and gain deeper insights (see the tool and prioritisations.

#### 2.2 WHAT IS THE CSCD MAP

The CSCD map first analyses the main climate-related challenges and opportunities in the respective cities, in this case, Garowe. The topics outlined in Somalia's National Climate Policy and Nationally Determined Contributions (NDC) were considered and integrated into the process. The RACCA team used this tool during workshops, which aided in prioritising the most important areas for action.



Source: own elaboration.



The tool was also used to collect data with the local expert- or RACCA team to prioritise intervention fields and gain deeper insights (see the tool and prioritisations).

Source: CSCD Map developed by the RACCA team



DISASTER PREPAREDNESS AND RESPONSE				
Poor waste disposal and management prac- tices, such as waste segregation and sorting methods, as well as drainage system.	DRR policies are in place but lack implemen- tation	Low public awareness of disasters		
No early warning systems in place	Insufficient building construction guidelines	No active committees at the municipal level		
ADAPTATION	-	-		
Poor agricultural practices and use of tech- nology	High Pasture and water related conflicts due to drought and mismanagement.	Land degradation challenges.		
Lack of support system for shifting to relevant practices	Limited financial resources available for pro- ducers to invest in adaptation efforts	Lack of knowledge on how to deal with adap- tation opportunities		
MITIGATION				
Lack of sewage system	No regulations that control the solid/liquid/ air wastes	Lack of public transport system and high car pollution		
Failure to catch rainwater that runs to the ocean.	Lack of public transport system and high car pollution	Diesel as main source of energy		
SOCIAL DIMENSION				
Lack of public land use and ownership system	High gender vulnerability and discrimination	Lack of waste management and plastic management leading to health and aesthetic issues		
Lack of green recreational spaces	Poor IDP shelters for changing weather conditions	City design: Unplanned settlements causes sewage to leak out and contaminating sur- rounding water saving areas		
COMPETITIVENESS AND INNOVATION				
Lack of access to input products like e.g. fertilizers and machinery	Lack of government regulations for business- es	Shortage of innovative business ideas		
Lack of business support services	Lack of local production and reliance on imports	Focus on low added value production		

Main Challenges and opportunities

# 3 Findings from deeper analysis along four main areas based on RACCA tools and fieldwork interviews.

#### **3.1 IDENTIFYING CORE INTERVENTION FIELDS**

Based on the CSCD map, the expert team voted on four key areas to start with in Garowe (see a map above with voting dots and from a visualisation workshop on how Garowe could look in future for kids and adults). Centred on these two reflection processes, the RACCA team decided on four intervention fields for Garowe to start with.

#### **Intervention Fields**

- Water to overcome water scarcity and improve sewage challenges.
- Mobility to reach clean air and peaceful ways of traffic in the city.
- Waste to promote a clean and healthy city.
- Green spaces and infrastructure to reduce drought and increase recreational spaces.

This CSCD strategy started by focusing on these four intervention areas. Nonetheless, the other issues mentioned in the CSCD map should also be tackled later.



#### 3.2 GOING INTO A DETAILED ANALYSIS OF THE FOUR PRIORITISED INTERVENTION FIELDS FOR THE CSCD STRATEGY

For each of the four intervention fields, a hexagon framework was worked out (see graphic) with priority areas to analyse.

Primary relevant information was collected using different RACCA analytical instruments, fieldwork interviews and focus group discussions. It included e.g. tools to analyse the waste disposal chain, the city's water flow and loss sources, the mobility movement and main congestion root causes, and workshop concepts.



Hexagon Analysis Tool

The analysis for the four intervention areas was grouped around 5 main fields of deeper analysis requirements (see figure below). The hexagons (figure left) symbolise the same logic of the 5-box structure below, with more flexibility and the chance for the RACCA team to identify the main relevant questions that need to be answered first. The analysis framework below demonstrates the main areas that should be considered to understand better what is going on in the topic.



#### 3.2.1 WATER ANALYSIS FRAMEWORK AND FINDINGS

#### Core findings:

Waste

#### **Policies and implementation**

Waste management in Garowe is mainly coordinated and financed by the local government and a private company called the Daryeel company.

Technical knowledge and resources or local authorities and organizations are insufficient to address waste challenges.

Waste management and collection alternatives are narrow, i.e.: only one private company provides waste-related services.

Waste management policy is focused on waste collection and final disposal, resulting on lack of public awareness, non-segregation, reuse or recycling regulations or initiatives.

#### Waste disposal

Waste disposal methods are illegal dumping and burning areas, Togga (a water passage way during the raining season) and a single official landfill located near the Garowe Airport.

Street litter is mainly caused by disruptions from goats tearing bags, limited affordability of collection services and lack of interest from the public.

#### **Consumer perspective**

Waste collection is not affordable for everybody.

Informal waste pickers are usually women from the IDP community.

#### Waste composition

The main types of waste are: Plastic bottles, packaging materials, paper and tissue, food waste, broken kitchen utilities and machinery old furniture.

Lack of public awareness or policy about waste segregation and overcrowded dust bins and landfills reduces possibilities of recycling or reusing.

The predominant waste source in the city is from plastic water bottles.



#### Circular economy

Cartoon, plastic cooking oil bottles, and metals are the only materials recovered to be sold as an income.

No local businesses or organisations working on recycling or reusing.

A few agencies purchase collected plastic items, mainly from the IDP community and export them to Ethiopia for recycling.

#### **Summary of Key Entry Points**

1. Finding: Collection and disposal are the focus areas of the local waste management and are driven mainly by the local government.

Entry Point: Alternative strategies to manage waste. To improve local waste management, there is interest and some community practices taking place in some areas of the city that could be replicated or scaled in Garowe (i.e. village leaders, sharing bins or costs, reusing). Tackling these challenges could also be beneficial to governance, community risk management and resilience.

2. Finding: Informal waste pickers, dump sites and waste littering in the streets are symptoms of a waste management strategy that is not sufficiently effective, comprehensive, and inclusive.

Entry Point: Plastic waste littering. Plastic is seen to be a substance that ought to be improved on because it is the primary kind of waste that is left strewn across streets and poses a risk of contaminating both land and water. Initiatives for a circular economy and policies are being viewed as possible activities that a variety of stakeholders and organisations may find interesting to participate in. Furthermore, plastic trash can serve as a point of entry for discussing water-related issues and providing ideas for both mitigation and adaptation solutions to climate change.

3. Finding: Public awareness can help reduce unsafe behaviours and advance a more comprehensive waste management strategy and environmental, economic, and social benefits.Entry Point: Local economic initiatives related to reduce, reuse and recycling. Circular economy initiatives can bring together advantages and potential benefits in the economic, social and climate change adaptation spheres. The link between waste-related challenges and potential business opportunities is an entry point where institutional agendas and the attention of the local community can coincide seeking to solve problems and innovate. Mobility

#### 3.2.2 MOBILITY ANALYSIS FRAMEWORK AND FINDINGS

#### Core findings:

#### Mobility and infrastructure

- There are no designated bus stops and a good public transport system options.
- There are more Bajaj's than proper roads to operate them.
- The municipality and ministry of public works are responsible for road infrastructure, building and maintenance.
- There are some major budget constraints regarding improving the infrastructure.

#### Mobility modes and routes

- The most prominent mode of transport is TuK Tuks.
- There are very few buses, and they are mainly for long distance routes outside of Garowe.
- Most Tuk tuks are owned privately but not all the drivers are officially registered.

#### User and demand

- Tuk Tuks are in very high demand due to affordability and lack of other transport options.
- Most users include women and children. Most of the men have their own vehicles.
- There is a high security issue in the city and most Tuk Tuks can only be used during the daytime.

#### **Environmental impact**

- Due to the high number of Tuk Tuks and lack of public environmentally friendly transport system there is a high level of air pollution within the city.
- There is a risk for health issues for the residents of the city as a result of the pollution crisis.

#### **Connectivity and time**

- There is a lot of traffic in Garowe resulting in long travel times. This causes a lot of delays for residents in their daily activities.
- There is no designated pick up stops for Bajajs making them scarce in some areas of the city.

#### **Summary of Key Entry Points**

**1.** Finding: There is a need for better mobility infrastructure in the city.

Entry Point: Improved mobility Infrastructure. Improvements to the mobility infrastructure in the city, which includes building better roads and rail lines, bus stations, designated stops, and appropriate street and road signage, can help reduce traffic in the city of Garowe.

- 2. Finding: There are insufficient mobility regulations and some of the existing ones are quite harsh to the drivers thus Entry Point: Review of Mobility Regulations. There is a need to improve the mobility regulations in relation to driver policies such as working times and days, vehicle registration and security issues. This will help bring more order to the roads and less congestion in the city.
- 3. Finding: There is only one predominant mode of transportation in Garowe; Tuk tuks These have gone unregulated and resulted in a lot of congestion in the city leading up to pollution issues too. There have been attempts to introduce buses, but this was met with a lot of resistance. Entry Point: Introduction of cleaner mobility in Garowe. Since tuk tuks are the most common form of transportation in Garowe, the city has a high level of air pollution. Encouraging the adoption of cleaner transit options, such as electric buses or trains, will help to reduce chaos and traffic in Garowe. In order to reduce the likelihood of resistance, it is crucial to involve the drivers association in this process.





#### 3.2.3 WATER ANALYSIS FRAMEWORK AND FINDINGS

Core findings:

#### Governance and management

There is weak governance and a general sense of "no one is taking real action".

Limited resources or expensive technologies prevent local institutions to take a more active role for the improvement of water distribution and management.

There are insufficient strategies and policies for treatment, distribution, or storage.

#### Water flow

Water

Improving water distribution system is needed to enhance efficiency and prevent leakages.

Water quality is a critical concern for the community due to salinity and hardness.

Water scarcity and pollution during rainy season could be mitigated by an efficient waste management system, especially for plastic bottles and by the promotion of water caption and conservation systems.

#### **Risk and economic impact**

High costs of water treatment technologies that results in high prices for users.

Low water quality impacts community health and pushes citizens to buy water-plastic bottles.

#### Use efficiency and leakage

Lack of treatment and testing capabilities hinders water cycle closure, reuse strategies, and innovation in water companies. Low quality materials for the water distribution system and lack of technical capabilities result in water leakages that could be prevented.

#### Water use and demand profile

Lack of community awareness and knowledge on water savings or conservation.

Local practices of underground storage of water present issues of pollution by being contaminated.





#### Summary of Key Entry Points

1. Finding: Poor water quality is one of the main concerns and risks for Garowe habitants, causes are diverse including hardness and saline, mistreatment, and pollution.

Entry Point: Improve Water Quality. Since it's of high interest for Garowe citizens a wide range of initiatives can be adopted; from improving soften water procedures, to prevent pollution of water bodies or households' storage systems.

- 2. Finding: Water scarcity is a tangible impact of climate change, and it is increasing due of droughts.
- Entry Point: Awareness on water. In the face of necessary climate adaptation, both the community and local organizations need to be aware of the risks and challenges related to water. Furthermore, promoting innovative solutions for mitigation and adaptation can establish good practices that help address water-related issues and create new economic opportunities locally.
- 3. Finding: There is unequal distribution and expensive water prices. The current water management system is inefficient due to low-quality materials and outdated technologies used in the network infrastructure. The lack of technical knowledge leads to leaks and low efficiency, resulting in higher costs of water.

Entry Point: Mitigate Water Depletion. The region has long struggled with the high cost and lack of availability of water. To address this, studying local knowledge on rainwater harvesting, irrigation, and water conservation to replicate and innovate can provide feasible solutions.

4. Finding: Limited resources or expensive technologies prevent local institutions to take a more active role for the improvement of water distribution and management.

Entry Point: Promote water conservation, storage, and reuse solutions. As one of the growing climate change impacts in Garowe, raising awareness and promoting innovations can lead to cost-efficient improvement opportunities, social and ecological benefits, as well as incentivize local economic solutions.



- There are no designated green areas in the city plan.
- There exists a public nursery run by the Ministry of Environment and a few private Nurseries within the city.

Types of spaces

- School gardens
- Private and public nurseries
- There are a few roadside trees within the city

• There are no city parks or community woodlands in Garowe. Reuse opportunities

- Schools in Garowe are expanding their school gardens into proper green areas.
- The cost of seedlings in Garowe is high therefore green areas are not a priority.
- There are new species available in Garowe including Ficus Benjamina and Trichilia dregeana which would thrive in the Garowe microclimate.

Accessibility

- Most of the green spaces in Garowe are owned privately and not easily accessible by the public.
- Those that are available are only accessible on foot.

Demand and user profile

- Most of the users were students in schools and private sector owners.
- Uses in schools mostly for learning and play areas.
- The private nurseries used them mainly for business purposes.



RACCA Team members at a capacity workshop in Nairobi, Kenya.

#### **Summary of Key Entry Points**

Categorisation of different types of

public spaces and

quarters

What are plans for public spaces and quarters? Are their

certain policies in place?

What are different types of places? What are the different

types of quarters?

• Finding: There are few Green spaces in Garowe and no existing plan for them.

he park? What transports are used to arrive and ave the place? How far is

Accessability (bike, walking, etc.)

Infrastructure plans

and policies

analysis of demand and user profiles Qualitative and quantitative analysis

with different user

types

vorkshops, walk th

- Entry Point: Green infrastructure urban planning. There is a need for improved urban planning in the city of Garowe. Most of the available green spaces in Garowe are found in institutions such as schools and universities. There is a need to engage the municipality and interested actors in the establishment of a green strategy for city parks, community woodlands and roadside trees. This will have an overall effect of improving the city micro-climate and air quality.
- Finding: There are several schools in Garowe with availability of land but no green areas due to a lack of awareness and a gap in knowledge regarding greening strategies.
- Entry Point: Capacity Building in Schools. Garowe schools have embraced the necessity of having green areas inside the schools. Despite owning huge expanses of land, they are unqualified to establish and run nurseries inside the schools. Building capacity at academic institutions is another way that environmental and developmental learning may be supported for improved Green Spaces.
- Finding: There is no good practice for tree planting and maintenance. As a result, green areas are not a priority area in the municipality.
- Entry Point: As a result of limited knowledge and capacity for green spaces in Garowe there is an opportunity to introduce a 'Connective cities model' to foster learning, sharing of ideas and strategies for green spaces modelling among cities in Somalia and the wider Sub-saharan region.

## 5 Intervention design: Identification of short-term and medium-term CSCD initiatives

The CSCD initiatives are the central pillar of the CSCD strategy. The goal is to start the actual implementation process with short-term initiatives that can be completed with the resources already in place, foster collaboration among the local stakeholders, and establish networks for knowledge and implementation. Unlike short-term initiatives, medium-term ones require more monetary, professional, and time resources, more project management, and extended dedication from the stakeholders.

#### 5.1 Criteria for CSCD initiatives

The CSCD strategy approach builds on the RACCA philosophy and its three main criteria. Short- and medium activities should be:

- 1. Feasible with local short-term and medium-term available financial, motivational, and human resources
- 2. Realisable within a short period (6 months) or medium term (1 year)
- 3. They should have a clear climate impact in the city.



Impressions from the kick off workshop in January 2024

## 5.2 FOUR PRIORITISED INITIATIVES FROM THE KICK-OFF WORKSHOP

The following initiatives were identified based on fieldwork research and the involvement of stakeholders in a public kick-off workshop in Garowe in January 2024 (see photos from the workshop with around 60 participants). They were presented in a pitching format.



## Plastic waste management through local economic

initiatives

Waste

**Solution**: Create a coalition to promote the solution on plastic management, setting collection points for plastic waste and designing a Collection system (people, process and technology.

Benefits: Local plastic waste management for the improvement of city's aesthetic, health, income sources and preventing pollution.

**Expected outcomes:** Reduce littering in the streets, promotion of local economic initiatives, Clean City both hygiene and sanitation and Waste management advocacy mechanisms.

**Core drivers and supporters:** Local NGO's, Darjeel Deegaan, local government and village leaders.

#### Establishment of Bajaaj regulations and designed area

Mobility

**Solution**: Address Garowe'traffic congestion and poor regualations in the mobility sector..

Benefits: Cost-Effective Solution, Local Resource Utilization, Ease to Implement and based on proven Practices through indigenous knowledge

**Expected outcomes:** Promotion of better mobility policies with the Key PIL actors involved, Creation of a designated Bajaj area in the city of Garowe and stronger and cohesive driver association.

**Core drivers and supporters:** Local government, drivers and users.

#### Promoting local Rainwater Harvesting techniques

Water

**Solution**: Address Garowe's water challenges through local rainwater harvesting techniques, fostering sustainability, quality, equity, and cost-effectiveness for a resilient community.

**Benefits:** Cost-Effective Solution, Local Resource Utilization, Ease to Implement and based on proven Practices through indigenous knowledge

**Expected outcomes:** Improved water quality, Economic Stability, Enhanced water Resilience, Equitable Water distribution.

**Core drivers and supporters:** Local government, international cooperation agencies, Puntland Water Development Agency PWDA and Puntland IMC.

#### **Promoting a Green Garowe**

Spaces

Solution: The city faces challenges in preserving and creating green areas, such as parks, gardens, and public spaces, which are essential for improving air quality, providing recreational opportunities, and enhancing the overall wellbeing of residents.

Benefits: Cost-Effective Solution, Local Resource Utilization, Ease to Implement and based on proven Practices through indigenous knowledge

#### **Expected outcomes:**

Establishment of an urban greening programme, Promotion of school gardens within the municipality, improved capacity on green space establishment and management.

Core drivers and supporters:

NGO's, local government and schools.

## 5.3 IDENTIFICATION OF SHORT AND MEDIUM-TERM INITIATIVES

The core objective of the bottom-up CSCD strategy is to identify and document concrete short- and medium-term initiatives that are implemented with local resources and that can start directly. Thus, the strategy is a living document that is applied and implemented directly (see CSCD criteria for short- and medium-term initiatives above).

In the Garowe case first initiatives have already been further elaborated in the January 2024 workshop (see photos above). They will set the start of the realisation of the CSCD strategy. In the following, the identified short-term and medium-term CSCD initiatives will be presented along the core identified intervention areas. The following tables mention the relevant initiatives, key supporters and drivers, and reference to the entry points mentioned in Chapter 4 and the CSCD map area this initiative is linked to (see Chapter 2.3)



Wast	te Initiatives	Key drivers and supporters	Entry points	CSCD Areas
	Public awareness campaigns and installation of recycling bins to reduce littering at the streets.	Village leaders, local government, universities and Darjeel Deegaan	Plastic waste littering	
-TERM	Improving local waste management system by the adoption of national waste strategy guidelines.	Local and national government, related Ministries, local NGOs	Alternative strategies to manage waste	
SHORT	Identification of existing initiatives for recycling and reusing waste materials to promote and incentivize replication.	Local government, NGO's and government and universities	Local economic initiatives	
	Deeper research on waste composition and analysis of economic opportunities along the waste management system to improve efficiency and identify market-driven opportunities.	Local government, NGO's and government, universities, international cooperation agencies	Alternative strategies to manage waste	<b>(</b> <u></u>
	Identification of alternative waste management business models for vulnerable areas of the city to reduce informal landfills and reduce costs.	Village leaders, universities working on business models and entrepreneurship, local government, Darjeel Deegaan	Local economic initiatives	
MEDIUM-TERM	Collaboration with Water Companies to develop innovative solutions to reduce the usage of plastic bottles and provide drinkable water with less environmental impact.	Local and international NGO's, Darjeel Deegaan, local government and Nuwaco	Plastic waste littering	0
	Local regulation on single-use plastic and packaging to reduce pollution and waste littering.	Local government, water bottling companies	Plastic waste littering	
	Encourage the creation of local SMEs or start-ups to provide waste management solutions, products or services inspired by the circular economy.	Universities working on business models and entrepreneurship, local government, related ministries and NGOs	Local economic initiatives	2

ſ	Mobility	Initiatives	Key drivers and supporters	Entry points	CSCD Areas
	rerm	Creation of a mobility regulatory framework to improve driver operations and needs	Municipality, ministry of public works	Mobility regulation review	۱
	SHORT-	Promotion of a mobility department in Garowe to oversee mobility activities within the city	Municipality	Mobility regulation review	3
	RM	Designated bus/bajaj stops to ease congestion within the city.	Ministry of public works, Drivers association	Improved infrastructure	
	OIUM-TE	Construction of better mobility infrastructure such as roads and railway lines	Municipality, Ministry of public works	Clean Mobility	
	MEI	Establishment of a Tuk tuk zone system to allow better working for drivers and availability for users	Municipality, Mobility department, Tuk tuk drivers, Local law enforcement	Review of mobility regulations	۵ چ

Water	Initiatives	Key drivers and supporters	Entry points	CSCD Areas
	Public awareness and educational campaigns on improving water management for preventing leaks and water waste in homes and schools	Village leaders, local government, schools and nurseries and NGOs	Awareness on water	
TERM	Technical training for local water and softening companies for better water management, water health- related problems and water quality procedures.	Local water and softening companies, calibration and conformity assessment laboratories and NGOs	Improve water quality	
SHORT	Identification of water harvesting, storage and purification techniques that could provide innovative and low-cost technologies for ensuring water accessibility and quality	Universities and research centers, Puntland Water Development Agency PWDA and Puntland Information Management Center IMC, international cooperation agencies	Mitigate Water Depletion Promote water conservation, storage, and reuse solutions	8
	Training on rain harvesting, storage and reuse techniques at home to create a more resilient community that is better equipped to manage water scarcity risks.	Puntland Water Development Agency PWDA, local NGOs, local government, households and village leaders	Mitigate Water Depletion Promote water conservation, storage, and reuse solutions	
ERM	Collaboration with Water Companies for developing innovative solutions to reduce the usage of plastic bottles and provide drinkable water with less environmental impact	Local and international NGO's, Darjeel Deegaan, local government and Nuwaco	Promote water conservation, storage, and reuse solutions	
MEDIUM-TE	Promote a local SMEs or start-ups community willing to tackle water challenges by business solutions	Local and international NGO's, local government, universities and local business	Promote water conservation, storage, and reuse solutions	
	Stimulate investments on building technical capabilities for water efficiency, reuse and groundwater recharge on local farmers and business to enhance local economy resilience.	Local government, local business, farmers, village leaders and international cooperation agencies	Promote water conservation, storage, and reuse solutions	۵ ۵

ę	Green Spaces	Initiatives	Key drivers and supporters	Entry points	CSCD Areas
MEDIUM-TERM SHORT-TERM	Establishment of school gardens to work as a flagship for green spaces in Garowe	Interested schools, ministry of education	Green infrastructure urban planning		
	HORT-TE	Coordination of capacity building spaces to promote better knowledge, skills and techniques for green space creation	Steering committee, ministry of environment, nurseries.	Capacity Building	۵ چې
	S	Tree planting events to build on the community woodlands to improve the city's microclimate	Community leaders, municipality, NGOs, Ministry of Environment	Green Infrastructure Urban planning	
	I-TERM	Urban greening programme to facilitate the establishment of parks, side walk trees and other green spaces in Garowe	Municipality officials, Ministry of Environment	Connective cities modelling	
	MEDIUM	Promotion of green buildings to enhance better air quality in buildings within the city	Municipality, Contractors/developers, Nurseries, NGOs	Green space urban planning	

### 6. The way forward

The bottom-up oriented CSCD approach is based on the understanding that a climate-sensitive city development cannot be steered and guided from the outside. Outsiders can support the process; national actors can provide infrastructure, service support, and regulatory backing, and international organisations additional support. But finally, real context-related solutions require strong buy-in from the local stakeholders. This is why all initiatives identified start from the premise that they can be implemented with the support of the stakeholders in Garowe.

The CSCD strategy and the RACCA approach depend finally on the motivation of the Municipality of Garowe and the core responsible organisations for the future development of Garowe. These core organisations were present in the RACCA team and present stakeholders from the national and local government, the private and research sector, and the civil society. Creating a joint force to implement the identified CSCD initiatives will be an important success factor.



Thanks go to the RACCA team representatives for designing this CSCD strategy with all the analytical and data-collecting efforts involved. The further implementation of the outlined initiatives is now the next step to make the CSCD strategy a vivid and contributing document to the transformation of Garowe City.



The "Rapid Appraisal of Climate-sensitive Advantages (RACCA)" methodology and the moderation of the process were carried out in collaboration with the German consulting company Mesopartner.

More information: www.mesopartner.com

#### Connective Cities – International Community of Practice for Sustainable Urban Development

Since 2013, Connective Cities promotes the worldwide exchange of municipal expertise, disseminates proven-practice solutions for sustainable urban development, and supports peer learning between German and international experts from municipalities, as well as the jointly development of project ideas within the framework of structured learning processes.

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For more information, please visit: www.connective-cities.net/en/

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