

Covenant of Mayors in Sub-Saharan Africa



SUSTAINABLE ENERGY ACCESS AND CLIMATE ACTION PLAN

EXECUTIVE SUMMARY

City of Garoua, Cameroon

CoM SSA is co-funded by:

4





Co-implemented by:

6

 \bigcirc



European Union

Published by:

The Covenant of Mayors in Sub-Saharan Africa (CoM SSA)

© 2022 Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. All rights reserved. Licensed to the European Union and the German Federal Ministry for Economic Cooperation and Development. For more information, please contact comssa@giz.de

Publication date: March/2022

| Author: | Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH |
|----------------|--|
| | 11–13 Rue d'Idalie |
| | 1050 Brussels, BELGIUM |
| Co-author: | ICLEI Africa |
| | South Tower, Sable Park, |
| | 14 Bridge Boulevard, Century City |
| | Cape Town, 7441, SOUTH AFRICA |
| Design: | Ink Design |
| Image credits: | Désiré Danga |

This publication is produced by GIZ under the framework of the Covenant of Mayors in Sub-Saharan Africa initiative, with the financial contribution of the European Union and the German Federal Ministry for Economic Cooperation and Development.



European Union



Its content is the sole responsibility of GIZ and does not necessarily reflect the views of the European Union or the German Federal Ministry for Economic Cooperation and Development.

The Covenant of Mayors in Sub-Saharan Africa (CoM SSA) is an initiative co-funded by the European Union (EU), the Federal MInistry for Economic Cooperation and Development (BMZ), and the Spanish Agency for International Development Cooperation (AECID).

Garoua comes together for a more sustainable development

The first intercommunal climate action plan in Cameroon

The City of Garoua is fast-growing and multi-cultural with the third largest population in Cameroon. Running through its center, the Benue River is a life force in this semiarid environment. The city is driving low-emission development, adapting to climate change and providing its people with access to affordable, reliable and sustainable energy. Garoua's City Council and the three sub divisional councils became CoMSSA signatories in 2018 and 2019, joining more than 250 African cities tackling climate change. Signatories commit to producing and implementing a Sustainable Energy Access and Climate Action Plan (SEACAP). Strategic and operational, the SEACAP is a practical plan for the city to adopt a low greenhouse gas (GHG) emission development pathway, ensure access to sustainable energy, and build resilience to the impacts of climate change. It is aligned with existing policies and plans and will enable Garoua to contribute to national climate commitments.

AS SIGNATORIES TO THE COVENANT OF MAYORS IN SUB-SAHARAN AFRICA (COM SSA), THE CITY COUNCIL OF GAROUA AND THE SUB DIVISIONAL COUNCILS OF GAROUA I, II AND III CAME TOGETHER TO DEVELOP CAMEROON'S FIRST INTERCOMMUNAL CLIMATE ACTION PLAN.





By 2030, with its intercommunal SEACAP, Garoua commits to:

- 25% GHG emissions reduction in projected emissions. Garoua will be a dynamic, low-carbon city contributing to the achievement of Cameroon's Nationally Determined Contribution (NDC) and reaping countless additional mitigation benefits.
- Building resilience to the effects of climate change to strengthen the economy and social structure and embrace how adaptation can benefit citizens.
- A strong focus on renewable energy and energy efficiency to provide citizens with access to electricity and clean cooking.

Garoua's SEACAP is the culmination of a two-year process led by the City Council and the three municipalities of Garoua with the support of GIZ, ICLEI Africa and Help Community. This summary highlights the key results, targets and actions for decision makers, citizens and those interested in partnering with the city and benefiting from its climate commitment.







IN BRIEF: Developing Garoua's intercommunal SEACAP

The Garoua SEACAP is robust and context-specific and considers both existing data and the livedexperience of citizens. Developed over two years, it captures the results of 9 technical reports that used literature reviews, on-the-ground surveys, interactive workshops and participatory mapping exercises:





A low-emission development pathway for Garoua

In 2020/21, Garoua's emissions were 394 568 tonnes of carbon dioxide equivalent (tCO_2e) , most of which was caused by transport. It is the same as 30 motorcycles travelling from Garoua to Ngaoundere and back every day for a year.

Without climate action, emissions could increase to $550\ 916\ tCO_2 eup$ to 40% by 2030 equalling 550 916 tCO₂3e. This would translate to 43 motorcycles travelling from Garoua to Ngaoundere and back every day for a year.



4

Garoua's emissions currently come from four sectors:



A low-emission future for Garoua relies on a unique approach for each sector. Transport as well as agriculture and forestry require transformations, waste requires new infrastructure development and energy requires scaling of proven, available solutions.

Fossil fuels currently form the foundation of the transport sector. Almost half of the city's emissions stem from vehicles fuelled by petrol and diesel. With a growing population and no actions taken, emissions will continue increasing. The city needs to phase out petrol and diesel and move to more sustainable alternatives such as electric vehicles for both public and private transport.

The arable land and forests surrounding Garoua are causing almost a quarter of its emissions, mostly because of deforestation and the use of chemical fertilisers and pesticides. Clean cooking for households and organic fertilizers and pesticides for farmers are proven solutions that are economical, sustainable and better for people's health.

Currently, almost a quarter of the city's emissions come from the waste sector due to the absence of a waste treatment system and hence, comes from incorrectly disposed waste. The city needs to develop an integrated waste treatment system that reduces waste to landfill and converts waste materials and gases into useful products and energy.

Garoua uses clean hydroelectricity to supply 62% of the population with power, but the connection can be unreliable and power cuts cause outages of up to 4.5 months in the year. Garoua has significant potential for additional clean energy sources such as solar energy. The city can harness this potential by scaling up renewable energy production and extending the grid.

The city wants to contribute to global efforts and reduce its projected emissions, even though the average GHG emissions per person in Garoua is only a quarter of the global average. The city's mitigation vision – and the targets and actions that will bring it there – are aligned with national policies and strategies and will contribute to meeting Cameroon's 2021 NDC.



GAROUA'S MITIGATION VISION

By 2030, Garoua wants to reduce its projected emissions by 25% or 137 729 tCO $_2$ e.

The city commits to targets and actions in four key sectors:





BY 2030, GAROUA COMMITS TO A 60% REDUCTION IN PROJECTED EMISSIONS



Purchase four waste trucks and 50 tricycles for household waste removal



Train women and young people to manufacture products from plastic waste



Create an intercommunal treatment plant for wastewater

AGRICULTURE AND FORESTRY

BY 2030, GAROUA COMMITS TO A 3% REDUCTION IN PROJECTED EMISSIONS



Support the creation and rehabilitation of 30 hectares of community forests



Train farmers to manufacture and use organic pesticides and fertilisers



Plant 100 000 plants over 90 hectares of public space

These are the 11 prioritised and urgent actions the city needs to implement within its sustainable development framework. In total, the city identified 26 emissions reduction actions to be implemented by 2030.

Implementing these actions has countless additional benefits. Enhancing public transport reduces congestion. Less emissions from petrol and diesel means cleaner air and better health. Better waste management means cleaner streets and better water quality, which also improves health. More trees provide more shade and a more beautiful Sparkling City.



THESE SECTORS ARE MOST AFFECTED BY THE IMPACTS OF CLIMATE CHANGE





Towards a climate resilient Garoua

Climate change is already affecting Garoua, with 12 climate hazards that will increase in both intensity and frequency, should no action be taken. Extreme heat, river floods and rainstorms will impact the city most and are already detrimental to citizens. In 2020 alone, 50% of crops were lost due to extreme weather and 964 households in Garoua III were affected by floods.

12 CLIMATE HAZARDS

Of these the 2 main climate hazards in Garoua identified by participants are: Heat waves and river flooding



Participatory climate risk mapping

During an RVA participatory workshop in September 2020, participants conducted a collaborative flood risk mapping exercise covering Garoua I, II, and III. The participants drew the areas most at risk on a large map which was then scanned. It appears that the areas at high risk of flooding include the areas of the city where informal housing is most concentrated (e.g., along the Benue River in Garoua 1).





By continuing on its current path, the city can only expect such impacts to worsen. Water points will continue to dry up, farmers' yields will continue to decrease, more people will die from diseases and malnutrition, and more properties will be destroyed by extreme weather events.

For the city to be less vulnerable to climate risks, it needs to focus on crops, livestock and fishing; nature and forests; informal housing; water and health; and transport. It also needs to pay specific attention to the elderly and low-income households, as they will be most affected by the impacts of climate change.



GAROUA'S ADAPTATION VISION

By 2030, Garoua will be resilient to the effects of climate change in order to strengthen the economy and social structure of the city, benefiting from adaptation measures.

To make Garoua climate resilient by 2030, the city set specific targets and actions for each priority sector.





WATER AND HEALTH

5

PROVIDE 70% OF THE POPULATION WITH ACCESS TO SAFE DRINKING WATER TO COMBAT CLIMATE HAZARD-RELATED DISEASES



Rehabilitate and/or construct at least 375 water points in Garoua



Equip at least 50 health centres with access to safe drinking water and water-borne diseases equipment

These are the 7 prioritised and urgent actions that will strengthen Garoua's climate resilience by 2030. In total, the city identified 15 adaptation actions to be implemented by 2030.



11

Safe and reliable energy access for Garoua's citizens

35% of Garoua lacks access to electricity. 62% of the population is connected to the grid, 2% use solar kits and 1% use generators. In 2020, grid-electricity was available for an average of only 15 hours per day. The number of days without electricity per year was 134.

However, the city already uses renewable energy including a hydroelectric barrage and has a large solar potential. This provides a good foundation for a clean, sustainable energy future that could be scaled up. The way towards sustainable and reliable energy in Garoua is through harnessing this potential and extending the grid.



THERE IS AN AVERAGE OF 4.5 MONTHS A YEAR WITHOUT ELECTRICITY DUE TO POWER CUTS



In 2020, 19% of households had clean cooking access while 95% still used traditional biomass cooking methods. Yet, almost half of households said they are willing and able to pay for the transition to clean cooking. Off-grid households (using generators) spend around XAF 17,000 more per month on electricity then on-grid households.

76% of households use firewood for cooking. **21%** have access to clean cooking sources

> Garoua III average distance travelled to collect firewood: 2.8 km (1-3 times a week)





GAROUA'S ENERGY ACCESS VISION

By 2030, Garoua commits to diversifying the energy supply for its people by focusing on renewable energy and energy efficiency, and to develop the local economy with these measures.

To meet this vision, the city will:





These are the 4 prioritised and urgent access to energy actions that will ensure Garoua's people with a clean and reliable energy future. In total, Garoua set 29 access to energy actions based on existing local and national strategies and plans.

These actions will not only address the energy challenges in the city but will also present many co-benefits to the population of Garoua and the city's economic development, including less money spent on electricity bills, businesses remaining open for longer, less harmful smoke and soot from cooking and less time and money needed to gather firewood and to cook.

Garoua aims to increase access to clean cooking to 60% of the population by 2030 by:





What Garoua's mayors have to say



Dr. Ousmaila Mohamadou Mayor of Garoua City Council



With CoM SSA, we take on the challenge of climate change and access to energy in Garoua



M. Alioum Garga Mayor of Garoua I

Together we have identified the zones, sectors and population groups most vulnerable to climate change



M. Oumarou Sanda Mayor of Garoua II



Intercommunal planning is a key step to build our city's resilience



Dr. Abdourahmane Maikanti Mayor of Garoua III

The SEACAP actions priorisation enabled us to create a coherence in the implementation of needed actions





Covenant of Mayors in Sub-Saharan Africa **For further information, please contact:** CoM SSA Technical Helpdesk: helpdesk@comssa.org

Visit our website: www.comssa.org

Follow us on Facebook & Twitter: Covenant of Mayors in Sub-Saharan Africa (@CoMOSSAfrica)

This initiative is open to all cities and local governments in Sub-Saharan Africa

CoM SSA is co-funded by:





Co-implemented by:



European Union