FINAL REPORT

Green Cooling Africa Initiative

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List of Abbreviations

COP	Coefficient of Performance
CSIR	Council for Scientific and Industrial Research
CTCN	Climate Technology Centre and Network
DEA	Department of Environmental Affairs, South Africa
DTI	Department of Trade and Industry, Namibia
GCAI	Green Cooling Africa Initiative
GCAW	Green Cooling Africa Week
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GWP	Global Warming Potential
HEAT	Habitat, Energy Application and Technology GmbH
HFCs	Hydrofluorocarbons
IPCC	Intergovernmental Panel on Climate Change
MESDDBM	Ministry of Environment, Sustainable Development, and Disaster and Beach Management, Mauritius
MET	Ministry of Environment and Tourism, Namibia
MIT-SMED	Ministry of Industrialisation, Trade and SME Development, Namibia
MRV	Monitoring, Reporting and Verification
NAMAs	Nationally Appropriate Mitigation Actions
NDCs	National Determined Contributions
NIRAC	Namibian Institute of Refrigeration and Air Conditioning
NOU	National Ozone Unit
NOO	National Ozone Officers
RAC	Refrigeration and Air Conditioning
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization

1. Introductory Note

The aim of the contract (no. 3000035954) between the United Nations Industrial Development Organization (UNIDO) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is to provide technical assistance to Mauritius and Namibia through the Green Cooling Africa Initiative (GCAI), a regional initiative aimed to prepare the participating countries for a transformational change towards sustainable cooling appliances. The assistance provided by the Climate Technology Centre and Network (CTCN) lays the foundation for a transition to a sustainable, green cooling equipment base in the respective countries. Apart from Mauritius and Namibia, the countries Ghana and Kenya are part of the initiative. The activities in Ghana and Kenya are funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB). Activities defined within the framework of the GCAI aim to support the establishment of inventories for the refrigeration and air conditioning (RAC) sector, which cover stationary and mobile air conditioning, as well as domestic, commercial, industrial and transport refrigeration. These inventories are based on IPCC Tier 2 methodology, determining business as usual (BAU) and mitigation emission paths. Furthermore, the project aims to assess technology needs through a gap analysis between currently used technologies and internationally available best technology options. Both, inventories and gap analyses, will serve as a base for suitable recommendations on the appropriate policy and legislative measures to be undertaken in order to promote green cooling technology. Moreover, region and country specific technology roadmap proposals, which will be defined, are expected to form the basis for:

(a) A potential inclusion of the RAC sector mitigation potential in the countries' National Determined Contributions (NDCs);

(b) The development of bankable project proposals, funded by UNFCCC-related or other international funding mechanisms; and

(c) The implementation of technology partnerships and co-operations to effectively mitigate ozone depletion and greenhouse gas (GHG) emissions in the cooling sector.

As a result, the involved countries will develop a clear understanding on how the cooling sector contributes to their national energy consumption and total GHG emissions (including emission related to the use of hydrofluorocarbons [HFCs]) and where appropriate policy measures are required.

2. Project Approach and Working Outputs

The Green Cooling Africa Initiative is divided into four phases. Phase I includes the establishment of a robust Tier 2 RAC inventory, according to IPCC methodology, including baseline and mitigation emissions scenarios. Phase II covers a technology gap analysis with recommendations on low global warming potential (GWP) RAC technologies, covering the technology needs specific to the countries. The third phase covers the review of the countries' existing RAC-related policies and the formulation of policy recommendations supporting a low carbon pathway for the sector. Phase IV results in the compilation of a technology roadmap with mitigation milestones for the RAC sector and its subsectors.
There are four working outputs defined in total:

Output 1 - Greenhouse Gas Inventory for the Cooling Sector
Output 2 - Technology Gap Analysis
Output 3 - Policy and Regulatory Framework
Output 4 – National and Regional Technology Roadmaps

3. Report Structure

The Draft Final Report describes the activities carried out in Mauritius and Namibia under the contract between the United Nations Industrial Development Organization (UNIDO) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, according to the Technical Assistance Response Plan. The report consists of five parts. This first part (I) provides an overview of the activities carried out for Output 1 to 4 under the Response Plan. Part II and III contain detailed country reports on the results achieved in Mauritius and Namibia, including the Inventory Report, Technology Gap Analysis, Policy Analysis and Technology Roadmap. Part IV includes a regional roadmap and under part V, relevant appendices are attached.

4. Progress Details according to the CTCN Response Plan

4.1 Greenhouse Gas Inventory for the RAC Sector

The first working package includes the establishment of inventories according to the IPCC Tier 2 methodology for the countries' RAC sectors, which serve as a base for projections regarding the future RAC stock, energy use and GHG emissions.

- In both countries, stakeholders have been introduced to the project and a basis for information exchange has been established. Steering committees have been set up and regular exchange is taking place among the different stakeholders: National Ozone Officers (NOUs), National Designated Entities (NDEs), further ministry representatives, national and international consultants and GIZ.

- In Mauritius, the National Ozone Unit (NOU) is located within the Ministry of Social Security, National Solidarity, and Environment and Sustainable Development, Environment and Sustainable Development Division (former Ministry of Environment, Sustainable Development, and Disaster and Beach Management [MESDDBM]). In

Namibia, two ministries are involved as local partners: The Ministry of Environment and Tourism (MET), as well as the Ministry of Industrialisation, Trade and SME Development (MITS-MED), where the NOU is located. On the grounds of these special circumstances in Namibia, the Permanent Secretary of MET, Dr. Malan Lindeque, requested MIT-SMED to support and carry out the Green Cooling Africa Initiative in a formal letter (see Annex). In March 2017, the Permanent Secretary of MIT-SMED, Mr. Gabriel P. Sinimbo, replied and provided his assurance to MET of joint collaboration and full support to the Green Cooling Africa Initiative in Namibia through an official letter (see part V).

- The Green Cooling Africa Initiative has been introduced among the four participating countries, as well as to 9 other countries of the region, during the Green Cooling Africa Week (GCAW). The regional workshop was hosted by GIZ Proklima in cooperation with the Department of Environmental Affairs (DEA) of South Africa, the Department of Trade and Industry (DTI) of South Africa, the CTCN and the CTCN Consortium Member CSIR of South Africa. The GCAW took place from June 7th to 10th 2016, in Centurion, South Africa and included a two days RAC - Nationally Appropriate Mitigation Actions (NAMA) training.

  Seven delegates from the GCAI countries supported by CTCN (Mauritius, Namibia) and the German Ministry of Environment, Nature Conservation, Building and Nuclear Safety (Ghana, Kenya), working in the ozone and climate departments of their home ministries, including NDEs, were among the 50 participants of the GCAW. During the event, the CTCN and its activities, as well as the Green Cooling Africa Initiative, were discussed.

  Presentations by representatives of the GCAI partner countries spurred great interest among the participants of the GCAW, which thereupon engaged in an exchange on how to further achieve a transformational change in the RAC sector and speed up technology transfer. For further information on the event, please see part V.

- In addition, during a GIZ-organised side event at the 28th Meeting of the Parties (MOP) to the Montreal Protocol, where around 50 policy makers gathered to exchange about how to integrate a HFC phase down in ongoing national mitigation actions, the Green Cooling Africa Initiative and specifically the project activities in Namibia were presented as best practice example. The press release informing about the event is included in the part IV of the report.

- In both countries, local consultants were contracted by GIZ in order to carry out the data collection. The consultants met with the NDEs, the different ministry departments, the NOU and other relevant stakeholders in order to identify priority subsectors. In this context, RAC industry stakeholder lists were established in both countries, serving as a base for the data collection.

- As a next step, tools for the data collection were provided by GIZ and the German consultancy HEAT to the local consultants in both countries. The consultants received questionnaires and corresponding master data sheets for the data entry for resellers/importers, end users and servicing companies. The questionnaires and master sheets were discussed with the consultants and their feedback was included in the process.

- In both countries, a national kick-off stakeholder workshop was held in order to introduce the initiative to different stakeholders such as industry and relevant ministries and to facilitate the data collection.

- The data collection in both countries covered both the current and future stock of cooling equipment and initially included all main subsectors, being industrial, commercial, transport and domestic refrigeration, as well as domestic, commercial and mobile air conditioning. Due to challenges faced during the data collection process,

some of the sectors could not be covered entirely by the primary data collection, as will be illustrated in more detail in the individual country-reports.

- The inventory is equipment-based and covers key parameters such as energy efficiency in terms of coefficient of performance (COP), energy consumption, as well as refrigerant type and consumption. The data collection was established according to Tier 2 standards, using primary and secondary sources.

- For the **secondary data collection**, the local consultants approached the National Customs Departments in order to receive country data on imports as well as exports of RAC equipment. Data was received on the relevant HS codes of RAC equipment imports. Additionally relevant secondary data was collected in both countries.

  In Namibia, after a formal request, a letter from the Ministry of Finance addressed to the Ministry of Industrialisation, Trade and SME Development was provided to support the consultant in the secondary data collection. The letter is provided in part V this report.

  Experience shows that custom data has to be treated with caution and should be verified via double-check with the primary data collected and through consultation with stakeholders of the national RAC industries, due to potential double counting and different forms of measurement (units or kg).

- The **primary data** was collected through the questionnaires, which were sent out to the main RAC sector importers, servicing companies and end-users, based on the stakeholder lists established in joint collaboration of the local and German consultants and the NOUs. The RAC Excel questionnaires were submitted to all key stakeholders as soft copy and, upon request, as hard copy. The local consultants followed up on the request to the industry via phone calls and personal visits to the companies, assisting

with the completion of the questionnaires. In both countries, the local consultants were assisted by a team that supported them to meet their objective.

In a next step, the received and filled-out questionnaires were assessed, quality-checked and commented on by HEAT and, in case of low quality, send back with the request for more detailed information. The data was put into the master sheets by the local consultants, which were afterwards checked by HEAT. In a last step, HEAT centralised, analysed and aggregated all information received from the questionnaires in one report for each country. Please find the reports on Mauritius and Namibia, including a more detailed insight into the data collection and its results, as part II and III of this report.

- In **Mauritius**, the primary and secondary data collection was completed in a timely manner, making it one of the best practice examples for RAC inventories - not only in the context of the GCAI. By mid-November 2016, a large proportion of the questionnaires from various groups of stakeholders, collected by the local consultant, had been sent to HEAT and GIZ for commenting and quality reviews. Additionally, the master sheet with the compiled data had been set up. Primary data from over 150 questionnaires could be aggregated within an inventory report to provide a comprehensive picture of the country's RAC sector and its greenhouse gas emissions. Secondary customs import data was available as well and has been used for comparison with the data derived from the questionnaires.

  In order to present, assess and verify the data collected for the inventory, a national stakeholder workshop was organised in Mauritius on the 28th of November, 2016. Over 50 representatives from the RAC industry, ministries and academic institutions came together to discuss the data collected and establish criteria for the identification of priority subsectors. The event was opened by the Appointed Minister of Environment, Sustainable Development, and Disaster and Beach Management as well as Minister of

Civil Service and Administrative Reforms, Honourable Mr. Alain Wong, and covered by the Mauritian Press (article is to be found in part V). The workshop was characterised by a lively exchange of ideas as well as a critical discussion of the presented data on the RAC sector. Based on the feedback provided by participants, the data base was adjusted. The final inventory report can be found under part II of this report.

- In **Namibia**, due to various challenges especially regarding the consultant's initial lack of success in getting any response from the companies, the process of data collection has been time-consuming and the inventory exercise delayed.

  In order to encourage participation and inform the relevant stakeholders of the Namibian RAC industry about the ongoing RAC inventory, a national stakeholder workshop was held on September 22nd, 2016. Additionally to the invitations sent out to important industry representatives, an advert was put in all major local newspapers in order to inform about the data collection and its purposes, as well as to invite the respective stakeholders to the workshop (see part V).

  More than 20 companies, plus the government counterparts from the Ministry of Environment and Tourism and the Ministry of Industrialisation, Trade and SME Development, as well as representatives of the Customs Department attended the national workshop in Windhoek. The major air conditioning and commercial refrigeration importers that cover at least 80% of all RAC imports in the country participated as well. The event was well received by the participating stakeholders. It included a lively exchange of ideas as well as a discussion on pending changes and barriers in the RAC sector as well as their corresponding policies. The participants stated their understanding and support of the RAC inventory and the Green Cooling Africa Initiative.

The cooperation with the consultant assigned for the primary data collection ended abruptly before the stakeholder workshop. Out of all questionnaires distributed by him, only one was received back by 20th of September, six weeks after the start of the assignment. During the workshop, the Namibian Institute of Refrigeration and Air Conditioning (NIRAC), a national association for the Namibian RAC industry, has been willing to assist with the process against compensation, urging their network, which includes the majority of RAC sector companies, to complete the data forms for the project. In order to maintain confidentiality, it was agreed that all data shall be send directly to GIZ and the consultancy HEAT by the companies. Additionally, NIRAC was supported by a letter from GIZ stating the confidentiality of the data to the RAC sector (see part V).

Moreover, to cover the data collection in the Namibian fishing sector - which had not been included in the data collection, but makes up an important part of the RAC industry - another consultant, based in Walvis Bay, was contracted. However, due to the lacking response of the companies and their unwillingness to participate in the process, the consultant terminated her contract prematurely and primary data for the fishing sector could unfortunately not be collected.

- Another reason for the delay of the data collection in Namibia was the holiday season and the survey coinciding with the peak season for the RAC industry. However, in the first months of 2017, the data collection could be completed successfully with over 80% of the RAC equipment importers covered by the primary data collection process. In a next step, the data was compared to secondary data available from the customs import statistics as well as to the data from previous project submissions such as the HCFC Phase-out Management Plan (HPMP) for the RAC sector.

- On February 22, 2017, a stakeholder workshop was conducted in Windhoek to present and verify the inventory results and receive the feedback from the industry. The

participants of the workshop included the big importers for air conditioning and commercial refrigeration, as well as representatives of other sectors and servicing companies (attendance list attached in part V). The participants engaged in a lively discussion during the presentation of the data. In general, the data was found to be accurate and approved by the industry members, in some cases the numbers were corrected due to very high or low numbers resulting from the questionnaires, especially in the subsector commercial refrigeration. The feedback from the workshop was used for reviewing the collected data and adaptions were made were necessary and included in the inventory report for Namibia.

- One of the issues raised by the industry was the lack of proper skilled technicians in the country. GIZ is currently following up on this issue in collaboration with the National Training Institute and NIRAC.

4.2 Technology Gap Analysis

The second work package includes the comparison of existing technologies with internationally available green RAC technologies suitable for the respective countries to mitigate emissions.

- For both countries, a database on local equipment and its associated performance based on available data has been established. Additionally, an analysis of the cooling equipment in selected subsectors for possible transition to low emission technologies and a comparative analysis of local equipment against internationally available best practice technologies was carried out. Based on the technology gap analyses, business as usual and mitigation potential scenarios were calculated. The results of the analysis for the respective countries can be found in the part II and part III of this report.

4.3 Policy and Regulatory Framework Recommendations

The third work package includes the assessment and revision of the countries' existing policies for the RAC sector. Further it contains the comparison of these national policies, standards and regulations to respective international best practices and the provision of recommendations for best policy options in terms of RAC energy efficiency, refrigerant standards and labelling.

- For both countries, existing national policies, regulations and standards were revised and analysed. In a following step, country-specific barriers were identified for the key subsectors (chosen based on the results of the Tier 2 RAC inventory and the technology gap analysis) in joint collaboration with the partners from the National Ozone Units as well as the local consultants.

- For **Mauritius**, the results of the analysis can be found in part II of the report. The policy recommendations drawn from the analysis are country-specific and include the feedback from the national workshop on policy recommendations and actions in Mauritius on June 12, 2017. The workshop was attended by more than 30 participants, including policy-makers from Mauritius as well as representatives of the national RAC industry (see part V for attendance list). The policy and technology recommendations for the sector were presented and discussed and the stakeholders jointly developed appropriate and feasible national policy strategies. In addition, funding opportunities were addressed, also with regards to the Nationally Determined Contributions (NDC) of Mauritius to the United Nations Framework Convention on Climate Change (UNFCCC).

- For **Namibia**, the results of the policy analysis and the recommended strategies regarding policies and technology options included in the technology roadmap were presented during a national workshop on May 23, 2017, in Windhoek. The event was

attended by stakeholders form the partner Ministries (MET and MIT-SMED), as well as by representatives of other Ministries - which are considered important for the inclusiveness of the project's approach and the workshop's objective to derive adequate policy action -, such as Energy, Finance, the Climate Change Committee and a representative from the City of Windhoek. Furthermore, stakeholders from the RAC industry were present, as well as representatives of the National Training Authority. (See part V for the attendance list.)

- During the workshop, the participants actively discussed the presented policy recommendations and technology options. It became clear that for the Namibian RAC industry, training and certification is one of the most important areas for policy-makers to focus on. Furthermore, as was agreed upon by the participants, one of the foci in Namibia regarding policy action for the sector should be on labelling and energy efficiency. Both the industry as well as the policy makers thanked CTCN and GIZ for providing a platform to jointly discuss and derive national policy actions, considering the national circumstances and country-specific barriers. The results of the workshop will are included in the final technology roadmap for Namibia as part of the final GCAI report.

- The national workshop was followed by a regional workshop in Windhoek on May 24, 2017, where the partners (NDEs, National Ozone Officers, UNFCCC focal points) of the four GCAI countries – Namibia, Mauritius, Kenya and Ghana – gathered to discuss the project as well as its outcomes and to compare national policy recommendations and recommend regional policy action. Due to unfortunate national circumstances, the participants from Mauritius had to cancel on short notice and were partly included in the workshop via Skype.

- The workshop served as a platform for the four countries to exchange experiences and discuss the regional cooperation under GCAI. Besides addressing and further developing

the results that were achieved under GCAI until now, a space was opened to address national challenges regarding the inventory process and policy implementation that came up during the GCAI activities in the four partner countries. Topics for a regional roadmap were discussed and the focus of the next regional workshop in Mauritius, as well as its objectives, was addressed. It was concluded that the conversation on a regional level, brought up by GCAI needs to be continued, even beyond the scope of the current project.

4.4 National and Regional Technology Roadmaps

The fourth and final work package covers the elaboration of roadmap recommendations including milestones for the introduction of green cooling technologies both at the country and regional level, which serve as a basis for the development of future proposals for actions in the RAC sector.

- For both countries, national technology roadmaps have been developed, including country-specific milestone-based action plans to bring about a systematic change in technology and recommendations applied to the cooling sector. The roadmaps can be seen as planning instruments, translating the findings of inventory, technology gap analysis and policy analysis into strategies and milestones to increase the market share of green cooling technologies and mitigate GHG emissions in the RAC sector. They provide country-specific recommendations and suggest timelines for steps to take towards a green refrigeration and air conditioning sector. In this context, strategies for the reduction of direct and indirect emissions were outlined, regarding the following topics: energy efficiency, the transition to low GWP refrigerants, proper installation and servicing as well as the establishment of MRV systems. For each strategy, specific recommendations were formulated, tailored to the key subsectors or aimed at cross-cutting topics important to the whole RAC sector. The national technology roadmaps for the respective countries are part of the country reports in part II and III.

- With regards to the exploration of possible funding options in order for the countries to be able to develop further proposals, an additional international consultant was hired to support the governments of Namibia and Mauritius in the conceptualization of adequate financing mechanisms for envisioned GHG reduction in the country's RAC sector. This activity will support the countries with the implementation of the technology roadmaps' results. The assignment includes the exploration of funding opportunities through international funding institutions, local and regional initiatives, including local banks, as well as public private partnerships.

- To conclude the activities under the CTCN Response Plan and in order to present the national best-practice examples, transfer the project's results from the national to the regional level and exchange views on chances and challenges for the region, GIZ, in collaboration with the Mauritian National Ozone Unit, organized a Green Cooling Africa Week in Mauritius, including a series of workshops and trainings from June 13 to June 16, 2017. The following events were part of the week:

  - On Tuesday, June 13, in a regional stakeholder workshop with over 40 participants from 17 countries of the region, the results of the GCAI as well as its methodology were presented. Participants included the countries' National Ozone Officers and UNFCCC Focal Points, as well as selected NDEs. During the workshop, the activities that have been conducted under the GCAI partner countries were presented and its regional replication and/or upscaling as well as the regional roadmap were discussed.
  - On Wednesday, June 14, a training for the regional participants regarding the pathway from a tier 2 inventory to a project proposal was conducted.
  - On Thursday, June 15, the training continued with its focus on financial instruments and funding options, e.g. to support further policy action supporting a low mitigation pathway for the countries' RAC sector.
  - For Friday, June 16, a fieldtrip was organized for the regional participants to see the CO2/Ammonia Cascade System at the Université de Mascareignes.

- During the Green Cooling Africa Week, the political decision-makers of the region engaged in a lively exchange of experiences about the project's results, discussed the replication of the activities in their respective countries and participated actively in the trainings. For instance, one exercise consisted of including RAC sector mitigation actions in the countries' NDCs. Participants acknowledged the high mitigation potential of the sector, according to Memory Kamoyo, Environmental Officer from Malawi, the results were quite "eye-opening".

- Participants emphasized the need for green cooling and recognized the unique opportunity provided by GCAI for the potential replication and application of project deliverables in other countries of the region as well as at a regional scale. Further the event helped to create awareness of the project activities on a regional level and provided a space for information and know-how exchange between NOUs, NDEs, and UNFCCC Focal Points of the region.

- The technology roadmap strategies will be provided to the relevant government bodies under whose jurisdiction the policy would need to be affected. Further, under part IV of this report, a guide to country-specific roadmaps for other countries of the region is established in form of a **regional roadmap**. The regional roadmap summarizes the experiences made in the four target countries and provides the reader with a template in order to implement the projects' activities in the respective countries and to support them in their efforts to transform their RAC sector towards sustainable green cooling solutions. For this regional roadmap, fields of action are identified, where regional exchange of experiences, alignment of policies and other forms of cooperation could aid national efforts to increase the market share of low GWP and energy efficient RAC appliances. The regional approach brings additional value to the countries by means of synergetic use of information and resources. Ideally elements of the roadmap will be taken over into the agendas and work streams of additional countries of the region. The

data collection tools could also be applied to any other country interested in creating a detailed data basis on RAC equipment.

5. Challenges and Lessons Learnt

Although the project was implemented successfully, some challenges and delays occurred during the project implementation. Due to the long contract negotiations between UNEP and GIZ, the start of the project has been significantly delayed. For this reason, when the technical proposal and time schedule were submitted to UNIDO, the project duration was reduced from 18 to 12 months. The project implementation period has further been reduced by another 2 months, due to a time lag between the submission of the technical proposal and the contract signing. Furthermore, the contracting of the international and national consultants took longer than expected and in both countries GIZ faced some challenges regarding the inventory, whereas the data collection in Namibia proved to be more difficult than in Mauritius. Both local consultants struggled with non-responsive industry members and some companies' inability to provide historical data, due to non-existent or poorly managed databases. In Namibia, an additional fatigue could be noted in the industry, due to other surveys being carried out at the same time in regards to energy efficiency, which are also covering the RAC sector. Furthermore, companies of both countries were sometimes reluctant to give out information in fear of tax inspections. Due to the above-mentioned reasons and upon approval by CTCN/UNIDO, the project duration was extended until June 30, 2017. The early inclusion of all relevant stakeholders, especially the industry members, has proven to be essential to the success of the project. Ideally, before the start of the data collection, a kick-off workshop is organised informing the industry, but also all important national ministries, such as Environment, Energy and Finance, about the inventory and objectives of the project. Additionally, the choice of consultant is important, as well as his/her connection to the industry. The local consultant needs to know the industry as well as national circumstances to a great extent and has to be capable to explain the inventory and questionnaires in detail to the stakeholders. Mistrust toward the purpose of the data collection can be partly avoided by the provision of a letter explaining the process of data

analysis and emphasizing data confidentiality to the industry members. Experience shows further that custom data has to be treated with caution and should be verified via double-check with the primary data collected during the inventory and through consultation with stakeholders of the national RAC industries, due to potential double counting and different forms of measurement (e.g. units or kg).

6. Conclusions and Way Forward

The Green Cooling Africa Initiative has been implemented successfully, as was recognized by the partner countries, as well as other stakeholders of the project. The representatives of the partner countries Ghana, Kenya, Mauritius and Namibia expressed their gratitude towards CTCN and GIZ for the continuous support and guidance regarding the transformational change towards a low-emission and sustainable RAC sector. GCAI with its innovative nature provided a unique opportunity for the participating countries to prepare for an early transfer to climate and ozone layer friendly technology in the cooling sector. All four partner countries are now considering or are already implementing an inclusion of the RAC sector's mitigation potential in their Nationally Determined Contributions (NDCs). As a consequence, the countries would be able to mobilise further financial resources for the relevant follow up actions. The outputs of the GCAI provide the basis for financial proposals. Furthermore, the potential regional replication of GCAI's activities and results in other countries of the region was discussed during the regional workshops and a regional network between NOUs, NDEs and UNFCCC Focal Points has been established. As a result, other countries of the region are considering project implementation on the grounds of GCAI in their respective countries. Through GCAI, awareness has been raised about the importance of the RAC sector for the fight against global warming and higher energy efficiency, due to the sector's high mitigation potential at comparatively low costs. As Gaudensia Owino, part of Kenya's NDE team, concluded, the conversation on a regional level, brought up by GCAI "needs to be kept going by all means", even beyond the scope of project duration. The experience of the Green Cooling Africa Initiative will be presented during a CTCN Webinar, planned for September/October 2017.