



Ministry of Lands, Agriculture, Water, Climate and Rural Resettlement
Climate Change Management Department
National Ozone Unit
and
United Nations Development Programme

Minutes of the LPAC Meeting on the 'Conversion from HFC-134a to Isobutane in the Manufacture of Domestic Refrigerators at Capri' Project

6 May 2019

Held at Capri Offices

176 Seke Road, Graniteside Industrial Park, Harare

Present

	Name	Organization	Phone Number	Email Address	Sex
1	Mr T. Muhwati (Co-Chairing)	MLAWCRR	0772776623	tirimuhwati@gmail.com	Male
2	Anne Madzara (Co-Chairing)	UNDP	0772433913	anne.madzara@undp.org	Female
3	Paul Chanaiwa	OK Zimbabwe	0733435071	pchanaiwa@okzim.co.zw	Male
4	Lloyd Munetsi	Environmental Management Agency	0772520168	munetsilloyd@gmail.com	Male
5	Pauls Chari	Delfy LMT	0712237239	Paulschari@gmail.com	Male
6	George Chaumba	National Ozone Unit	0772206625	george.chaumba@gmail.com	Male
7	Sauda Luzze	UNDP	0779776807	Sauda.luzze@undp.org	Female
8	Bernard Makoni	Archer Engineering	0772216509	archer@africaonline.co.zw	Male
9	Pauline Gumbo	National Ozone Unit	0773164419	gumbopauline5@gmail.com	Female
10	Runyararo Zindi	Delta Beverages	0718985697	r.zindi@delta.co.zw	Female
11	Blessing Jonga	Ministry of Energy Power Development	0773236164	nyuchibee@gmail.com	Male
12	Mufaro Mugabe	Natural Air	0773823433	Sales1@naturalair.co.zw	Male
13	Vitalis Zvinavashe	Natural Air	077223706	vitalis@naturalair.co.zw	Male
14	Charles Jena	Imperial Refrigeration	0772232461	chrles@imperialref.co.zw	Male
15	Freeborn Taruvinga	ZRAA	0772318089	taruvingafree@gmail.com	Male
16	Blessing Muchemwa	UNDP	0772720198	Blessing.muchemwa@undp.org	Female
17	Edmore Chibode	MLAWCRR	0772270337	echibode@yahoo.com	Male
18	Advent Chipwanyira	Imperial Refrigeration	0772351402	achipwanyira@yahoo.com	Male
19	Jan Van Der Westhuzein	Capri	077230454	jan@capri.co.zw	Male
20	Gary Watson	Capri	077230454	gw@capri.co.zw	Male

21	Canaan Mukorera	Hardmonds Engineering	0772430975	cmukorera@hardmonds.co.zw	Male
22	Kennedy Navaya	Modern Ammonia Refrigeration	0733222196	modernammonia@yahoo.com	Male
23	Cain Manyukwa	Absolute Air	0772630517	cmanyukwa@gmail.com	Male

Proceedings of the Meeting

Item	Action	Action By
1.	<p>Welcome and Introductions</p> <p>The Co-Chairperson, Mr Muhwati, welcomed all members to the Local Project Appraisal Meeting (LPAC) meeting for the Conversion from HFC-134a to Isobutane in the Manufacture of Domestic Refrigerators at Capri Project.</p> <p>The chair asked all members present to introduce themselves. He then highlighted that Zimbabwe is a party to international agreements such as the UNFCCC, Paris Agreement and Montreal Protocol and these call for all member states to be compliant in the implementation of climate protection regulations. He added that the Montreal Protocol looks at reducing emissions of ozone depleting substances and through the Kigali Amendment is now also focusing on reducing greenhouse gas emissions. The Climate Change Management Department is facilitating the implementation of efforts to reduce emissions of HFCs into the atmosphere from CAPRI operations by 14.5 metric tons per annum.</p>	Co-Chair
2.	<p>Remarks from UNDP</p> <p>Mrs Madzara, Co-Chairing on behalf of UNDP thanked Capri for opening up their systems to enable the implementation of this project availing how their operations are done. As an experimental project with the help of the National Ozone Unit and the technical teams, she expressed hope that the project will be a success. She thanked the National Ozone Unit for leading the process and shaping the implementation program. UNDP will be responsible for administering funds and will also tap into its global expertise so that the project implementation moves smoothly. Lastly she mentioned that soon they will be working with the mining sector with the help of EMA to achieve a mercury free environment.</p>	Mrs. A. Madzara
3.	<p>Presentation of Project.</p> <p>Project rationale and theory of change</p> <p>The presentation was given by Mr Chaumba who explained that under the Kigali Amendment HFCs were listed as controlled substances and the Montreal Protocol Multilateral Fund provides resources for demonstration projects to phase down HFCs in different sectors. Zimbabwe was considered to be the best model in Africa in terms of cost effectiveness of the chosen alternative, quantities of HFCs to be phased out and replicability. The project was approved in December 2018 with UNDP as the implementing agency and AFD providing co-financing.</p> <p>The project objectives are to eliminate the use of HFC-134a in the manufacturing of domestic refrigerators and freezers by the adoption of HC-600a as the refrigerant. This will reduce annual emissions by 14.5 metric tons of HFC-134a thereby reducing the countries contribution to global warming. He mentioned that the project is mainly for modification of 2 production lines for refrigerators and freezers as well as improved energy efficiency of the end products. There will training and awareness of staff on the operations of the new systems and safe handling of flammable HC refrigerants.</p>	Mr Chaumba

	<p>Implementation arrangements Mrs Madzara explained that the project will be implemented through UNDP in partnership with the Ministry of Lands, Agriculture, Water, Climate and Rural Resettlement. UNDP will provide quality assurance to make sure that the project objectives are met. The National Ozone Unit in the Climate Change Management Department will be in charge of the day to day activities and are expected to periodically report to the project board. In addition, she highlighted that they are still working with the Ministry to determine whether an existing project board can be made use of so as to avoid having too many meetings and synchronize activities. It was suggested the existing Ozone Project Steering Committee be modified to constitute the project board of the new project and for meeting to be held back to back.</p>	Mrs Madzara
	<p>Financing mechanisms On the financing mechanisms that support the implementation of international agreements such as the Paris Agreement and Montreal Protocol the private sector has to work with the Government. It was emphasized that Zimbabwe is accessing climate and ozone related funds because it is party to the international agreements. The Climate Change Management Department as the National Designated Authority (NDA) for the Green Climate Fund (GCF) which has a private sector facility open for companies who want to apply for funds for cleaner technologies. Zimbabwe has not been active enough in applying and accessing funds thus our chances of getting funds are still very high.</p>	Mr Muhwati
4.	<p>Questions, discussions and recommendations</p> <ol style="list-style-type: none"> 1. Considering that Capri will flood the market with R-600a compliant fridges, how prepared is the National Ozone Unit to train technicians on R-600a? <i>The NOU is very much prepared, we have been training technicians on alternative technologies such as the flammable HC and now that Capri is producing them with a capacity of more than 100 units per day we will surely continue with the trainings. Currently we have been conducting an average of 6-10 trainings per year in the different regions of the country.</i> 2. Consumers also need to be aware of the safety precautions aligned to these flammable refrigerants. Are you reaching out to them? <i>During training workshops, we heard from the technicians, cases of people getting burnt as a result of lack of safety precautions. We train technicians so that they act as our stakeholders in terms of information dissemination. The amount of recommended charge for a refrigerant if there is a leak is linked to the size of the room, if the room is small, and concentration high, this might lead to fire outbreaks. We also run awareness campaigns through EMA and other partners, at the moment we have also developed our own standard with Standard Association of Zimbabwe (SAZ). This states that only trained technicians will be allowed to do repairs and it will be out soon.</i> 3. How do you intend to phase down HFCs in the rural areas? <i>We have a database of the new imports and production In the rural areas there are not many households that have refrigerators but with the Rural Electrification Project they will be able to get the new R-600a refrigerators, however those that have refrigerators, they run on ammonia which is a natural refrigerant.</i> 4. Does the funding for the Capri Project cover the tools used by technicians as well because most of them cannot afford the new equipment? <i>There is a separate entity for tools, previously we have funded for tools through GIZ We got recovery machines and gauges but we are now going on the second phase of</i> 	All

	<p><i>the HPMP phase out. We have submitted a proposal and we will be consulting the technicians on the types of equipment that they require.</i></p> <p>5. In terms of pricing of the new improved units from Capri, how will Capri market their new refrigerators to make them more competitive? <i>Once they start producing we expect the prices of the locally produced to be cheaper. However, if you look at the market Capri is very competitive because it exports 50% of its products but it all depends with the foreign currency rate dynamics in the country.</i></p> <p>6. Is there a cutoff date for people to be using R600a and what will happen to those using R134a will it be disposed of and at whose expense? <i>Under the Kigali Amendment, we are allowed to use as much as we want until 2024, which is the freeze year, thereafter we are expected to reduce until 2045. As enforcement agents we are mandated to monitor stockpiling but there is still time before the cutoff date.</i></p> <p><i>Montreal Protocol does not fund for disposal so it's a bit of a challenge, they say you can use whatever method of disposal you want. At the moment we have been working with Lafarge for the uptake of disposed gases for use in their cement production process but they are worried that the chemicals from the kilns will affect the quality of their cement.</i></p> <p>7. We have had projects that were funded before but now most of the equipment is outdated and some not functioning. How can we reapply for funding? <i>There is a GCF private sector facility which funds the private sector to reduce GHG emission, so you can be eligible for funding but there is need for a concrete project proposal and feasibility assessments will be requested. GCF is meant to upscale what is already there hence we encourage you to apply with assistance from the Climate Change Management Department. There is need for the private sector to tap in the funds and upgrade or adopt new technologies that are climate compliant.</i></p>	
5.	<p>Closing remarks</p> <p>Mrs Madzara thanked all for attending the meeting. She also acknowledged the effort and commitment from Capri by co-financing the project so that they meet the project objectives. She also thanked AFD in absentia.</p> <p>Mr Watson mentioned how excited Capri is to venture into the project and be able to contribute to sustainable environmental management. As Capri they hope that soon they will be sharing their success story with other stakeholders after the implementation of the project</p> <p>After these deliberations, Ms Masveure proposed and Mr. Chanaiwa seconded the adoption of the 'Conversion from HFC-134a to Isobutane in the Manufacture of Domestic Refrigerators at Capri' Project</p>	<p>Mrs Anne Madzara</p> <p>Mr Gary Watson</p>
6	<p>Adjournment of the meeting</p> <p>There being no any other business, the meeting ended at 11.45am</p>	<p>Co-Chairs</p>

Signed by the Co-Chairs:

Tirivanhu Muhwati
Acting Deputy Director, Climate Change Management Department – MLAWCRR

Tirivanhu Muhwati 08/05/19

Anne Madzara *AM* 9/05/2019.
Assistant Resident Representative – UNDP

