

Caribbean English speaking and Haiti Ozone Officers New work Meeting

March 27-29th 2012

Commonwealth of Dominica

Caribbean Ozone Officers Regional Workshop Organized by the United Nations Environmental Programme Regional Office of Latin America and the Caribbean (UNEP/ROLAC) In Collaboration with the Commonwealth of Dominica Ministry of Environment, Natural Resources, Physical Planning and Fisheries.

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I. OPENING CEREMONY

The workshop was opened with a warm welcome from the Chairman, Mr Lloyd Pascal, Director Environmental Coordinating Unit of the Ministry of the Environment. This was followed by a brief address by Mr Paul Horwitz, Deputy Executive Secretary to the Ozone Secretariat. In his address, Mr Horwitz, announced that this year is the 25th anniversary of the Montreal Protocol and stated his intention to discuss plans for its celebration. He continued by highlighting the accomplishments of the region by stating that in the 2011 MOP all data was reviewed and there has been one hundred percent compliance for the region; at the MOP23 the Caribbean lead from the front, and has headed more contact groups for example, replenishment, ships etc., he noted that much has changed in the region over the last five years and it is a tribute to the group. He expressed his gratitude to the Minister of the Environment and the Government of Dominica for their hospitality and looked forward to a productive meeting.

Ms. Xiaojuan Wang, Project Management Officer, Secretariat of the Multilateral Fund for the Implementation of the Montreal Protocol, stated in her address that the MLF believes that network meetings are important for countries to share information as they work to phase out ODS; highlighted the MLF's responsibility in serving countries and to providing assistance; and pledged that MLF will continue to try to work with countries to find solutions. In closing, she expressed sincere appreciation to the Government of Dominica for hosting the meeting and wished for the meeting to be a success.

Mrs. Mirian Vega, Network Coordinator, Montreal Protocol Compliance Assistance Programme, UNEP/ROLAC, conveyed the apologies of the Regional Director, Ms Margarita Astralaga, who could not attend due to conflicting schedules. She expressed her gratitude to participants for attending the meeting, and went on to state that Caribbean countries have continually demonstrated their commitment to implementing the obligations of the MP. It was noted that the UN General Secretary acknowledged the challenge as it relates to HCFC phase out and stated that countries should also utilize energy efficient technologies. Ms Vega stated that during the next few days, representatives will be asked to take a new country-driven approach to ODS Management and cautioned that we cannot operate separately, that we must be inclusive in our approach. She ended by asked NOOs to be proud of their achievements and work.

Dr. Kenneth Darroux, Honourable Minister Ministry of Environment, Natural Resources, Physical Planning and Fisheries, in his the feature address, expressed his pleasure at having participants in Dominica for the Sub-regional Meeting for Ozone Officers. He noted that the presence of the participants is to continue the fight to protect the earth through the work on the protection of the ozone layers. He went on to add that the MP is an example of an International Treaty that works, and there are many lessons that can be shared from this agreement. The NOOs were commended for their remarkable work in ensuring compliance of the MP. In his address, the minister noted that the Caribbean countries are LVC, but still have an important role to play. He listed the negative impacts of the depletion of the ozone layer e.g. human health, sea level rise and painted a picture of how these negative impacts are linked. He gave the assurance that Dominica has taken a strong stance and considers itself as a leader in relation to ODS phase out. He highlighted the island's accomplishments by stating that by 2010, Dominica had recorded zero percent consumption and that over sixty percent of Customs Officers have been trained; in 2009 DRAC of Dominica was

established; enhanced training has been provided to technicians; completed TPMP and equipment has been provided; and the HPMP has been completed. Before declaring the meeting officially open, he stated that we cannot rest until we ensure that generations to come are secure.

Bradley Guy NOO Dominica, thanked the members of the head table and participants for attending the meeting. Interviews were held with the various media houses.

BUSINESS SESSION

I. Housekeeping matters: Election of Board

- (i) Ms. Johanna Granados, Assistant, NOO St. Lucia was nominated as co-chair for the entire meeting.
- (ii) Ms. Shontelle Wellington, NOO Barbados volunteered and was unanimously elected as the assistant rapporteur for the entire meeting.

2. Introduction of the Agenda and expected deliverables: UNEP

Amendments to the Agenda:

- (i) The presentation on the 25th Anniversary has been moved to the end of the first day and Ozone Officer Training has been truncated to fit into one day.
- (ii) Grenada proposed an adjustment, noting the omission of 'Any Other Business'. He suggested including an agenda item on Day 3, for any other business and further wanted to suggest the proposal of two further items under the addition. It was agreed that an agenda item entitled, 'Any other business' would be added.
- (iii) It was proposed that two items be added (i) allocation of time to discuss the subregional network and the decision of the MLF to facilitate this and (ii) with reference to Artie's last meeting by regional director, an item that we can pay due recognition to Miss Dubrie for the valuable contribution to the work of the countries in the region.

Grenada suggested that the agenda item pertaining to the Sub-region be moved up so that the Ozone Secretariat (OS) would be present. The representative from Barbados and Haiti agreed to the change in agenda. Barbados moved that the agenda be adopted and Belize seconded the motion.

3. INTRODUCTION AND EXPECTATIONS

Participants were invited to introduce themselves and state their expectations. The main expectations expressed by the NOOs were: sharing and receiving of information on the implementation of the HPMP; networking; learning about available alternatives and disposal of

ODS; learning more about the HPMP; and lending support to other NOOs. The main expectations of the Implementation Agencies were: learning from the experience of participants; providing techniques and tools for phasing out of CFC; and to be a resource on questions on the sub region. It was agreed the each participant wished for a successful meeting.

4. Compliance Status of Montreal Protocol in the Caribbean Network, Data Reporting and Quality, Licensing System, Ratification: Paul Horwitz: Deputy Executive Secretary: Ozone Secretariat

Status of Reporting on ODS:

- (i) Nearly half of the region has reported before the June 30 deadline.
- (ii) All countries in the region reported zero consumption of CFCs
- (iii) To date, only two Caribbean countries reported any Methybromide (MeBr) both have cut much more than needed
- (iv) Nine countries in the region are trending downward, only five are trending upwards.
- (v) Barbados figures 4.5 and 2.3 for 2009 and 2012.
- (vi) Region is in excellent shape in relation to the implementation and enforcement licensing systems.
- (vii)The Secretariat now posts QPS data on the web
 - There is a lack of understanding on clear guidance on whether leaving the space for MeBr reporting vacant is a lack of reporting
 - OS expectation is that some parties do use MeBr for QPS, and if countries are finding it difficult to report, then the Secretariat needs to understand what the challenges are.
- (viii) Haiti was urged to ratify the Beijing amendment as soon as possible before the end of 2012 to ensure its ability to get (import) HCFCs after 2012/12/31
- (ix) Caribbean is the first Sub-region to reply on relation to Process Agents
- (x) The approval of Barbados and Guyana's requests for a revision in their baseline was noted Decision XXIII/29

Questions:

Grenada referred to Decision 22/12, Paragraph 5, which asks the Implementation Committee to consider the circumstances re the earthquake, the representative wanted to know what kind of consideration could be given to Haiti to relieve them of the issue in relation to trading. Paul replied that he could not say what the Parties response would be, since the Secretariat could not interpret the Protocol for Parties. He went on to state that there will be a number of countries at the end of this year that would not have ratified; and will have to face trade sanctions, so it will be up to the Implementation Committee.

Haiti indicated that the process for ratification in underway and hopes to have it ratified within the coming weeks.

Grenada expressed discomfort with DES response, and stated that the Parties have made a recommendation to the IC about Haiti's situation, and thinks that the decision of the Parties must be respected/adhered to.

OS noted that St. Lucia is a member of the Implementation Committee (IC) and could have some influence on the outcome of the IC discussions. He stated further that it is the Parties that make the decisions, not the OS.

5. Review of decisions of the Montreal Protocol 23rd Meeting of Parties (MOP) and proposed major issues to be addressed 32nd Meeting of the Open-ended Working Group of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer Mr. Paul Horwitz: Deputy Executive Secretary: Ozone Secretariat

MOP 23 Bali 21-25 November 2011, Key Decisions with relevance to the region, other decisions/relevant information:

The Excom LAV representatives for 2012 are Argentina and Cuba, St. Lucia is representing LAC region on the Implementation Committee this year, serving the first year of its second term, T&T is the VP of the COP Bureau – Columbia a President of the MOP Bureau Decision

- (i) XXIII/15/6 Replenishment of the MLF for 2012-2014 and FERM. The final decision was for a replenishment of \$450 million, \$400 million of which is in new money
- (ii) Decision XXIII/6 Laboratory and Analytical Uses Exemption. The Global exemption is on the verge of going away, so countries need to contact their laboratories to see if they use CCL4
- (iii) Decision XXIII/11 Servicing of Ships, OS to report to OEWG on issues related to the sale of ODS to ships for onboard servicing and their issues.
 Report is to include information on how parties calculate related consumption, other related issues raised by Parties, any historic guidance previously given to the parties on sales to ships ,and the framework applied by IMO/WCO in their treatment
- (iv) Decision XXIII/5 QPS Applications Parties are urged to report QPS data as required by A7/encouraged to record/collate/submit data on QPS. There will be a report to the OEWG if and how further steps should be taken as it relates to QPS
- (v) HFC Proposals Parties considered Micronesia and joint Canada-Mexico-USA; while there was no decision on the amendment, the TEAP was requested to prepare a report on the cost of proven alternatives to HCFCs which will include HFCs.
- (vi) Decision XXIII/12 Destruction Technologies with regard to ODS Parties approved three new technologies, TEAP to present a report to the OEWG.
- (vii) Decision XXIII/10 TEAP Process, TEAP, TOCs and TSBs to provide more and better information on its needs and processes, all appointments to Panel must be confirmed by the parties.
- (viii) Decision XXIII/7 Processing AgentsList of items to be discussed at the OEWG July 23-27 2012 were discussed.

6. Continuation of: Recent Decisions of the Montreal MLF Executive Committee and Implications of this Ms Xiaojuan Wang

HCFC phase out policy issues addressed at the 65th meeting of the ExCom

- There is a flexibility provision

Recent Policies applied on Project Approvals

- Submission of ODS disposal demonstration projects for LVCs countries no later than the 66th Meeting (Decision 64/14). This relates to the project preparation fund and not proposals. Guidelines provided and approved at the 58th Meeting are referred.

Implementation of RMP/TPM/NPP

- Governments that planned to complete RMPs, TPMs and NPPs by 2012 were urged to make every effort to integrate those activities into HPMPs as appropriate
- Countries that have completed TPMP/NPP activities in 2011 to submit their reports in the format that was approved at the 65th meeting (decision 65/6)
- Country program data reporting format would be effective for the submission of 2012 CP data due on 1 May 2013 (decision 63/4)

Country program data entry at http://intranet.unmfs.org/cp user names and passwords are available from the Regional Network Team.

All decisions can be found in the final reports of the meetings of the ExCom available at www.multilateralfund.org

MLF always sends an official letter to countries following the meeting if any decision specifically pertains to that country.

Questions:

Trinidad and Tobago asked with reference to the decision to remove CFC, Halons and CTC from the reporting format, what mechanism is there to track these substances?

MLF stated that these substances will not be included in the Chemical Database Country Program Report, but the OS report will capture that information.

Grenada expressed appreciation to ExCom for the funding that has been approved and the provision of the funding to support the Caribbean Sub-regional Network. It was hoped that this funding mechanism will continue, as if it does not, the capacity building would disappear and there would be a reverting to how things were previously.

MLF stated that it (MLF) tries to treat every country equally, irrespective of the amount of the funding.

7. Hydrocarbon refrigerant production: Introductions by the National Energy Corporation (NEC) of Trinidad and Tobago

Mrs. Marleen Lord-Lewis VP Business Development

Mrs. Aribeca Cazaubon: Team Leader, Business Development

In the presentation, it was stated that NEC is a state enterprise with focus on key industries namely petrochemicals, inorganics, bio-chemicals among others. The NEC views the opportunity to produce Hydrocarbons (HC) as a viable one for Trinidad and the region as a whole. The weakness/drawback of NEC is the lack of experience in the production of HC.

NEC's key issues are: understanding the refrigerant market; available technology; key refrigerant players and training requirements. The NEC representative ended by stating that, NEC will be seeking to lead a team to undertake a feasibility study on the prospect of a hydrocarbon refrigerant facility in Trinidad and Tobago.

Questions and Comments:

Grenada stated that the Government of Grenada has agreed to change to Hydrocarbons and that many of the countries will create a demand for it. He went on to say that territories must ensure that the legal framework is in place to protect the technology with respect to hydrocarbon development. It was also added that a proper analysis of the region must be done to identify where the territories are, and how that relates to their development. He expressed his hope that something useful will materialize from NEC's participation in the meeting.

Jamaica asked: What is the timeline for the feasibility study as it relates to HC production?

NEC replied that a timeline has not been established to date, but it is important to get a sense of where countries are as it relates to targets. NEC's participation in this meeting will give an indication of where countries are, so that a timeline can be recommended to the Board of Directors.

UNDP asked: What is the strategy for entering larger market? NEC stated that this may not be a priority, the priority may be to assist member countries of the region with a source of HC.

T&T wanted to know who will be paying for the feasibility study.

NEC's response was that there is a proposal to the BOD, so the cost has not been detailed as yet.

Dominica Refrigeration Association inquired about the reaction of the T&T technicians to HC, since in the past technicians have not been interested in HC from the standpoint that energy efficiency was not a concern. T&T NOO stated that there has been a shift in paradigm as it relates to HC, it is now recognized as the refrigerant of the future. She

went on to state that there was a request for a training of the trainers exercise, and that the T&T association has been supportive of HC initiatives.

Grenada suggested that UWI should be considered as it relates to assisting with the research. NEC stated that this has been considered.

UNEP/ROLAC stated that training has to be a continual process; and suggested that practicing engineers be exposed to training in relation to HC refrigerant technology.

8. 25th Anniversary- Celebrations Montreal Protocol Mr. Paul Horwitz MP 25th Anniversary Theme: Protecting our Atmosphere for Generations to come.

Plan is to celebrate this important milestone:

- Ozone Day Monday 17th September, 2012 for national celebrations some countries could be awarded between US\$500 and US\$1000 to make this year's celebration extra special. The OS is hoping to get high quality video clips from various celebrations in order to compile a short film for display at the MOP24. Each country is asked to film a short video clip of their Ozone Day celebrations.
- 2. Party Package for national celebrations The OS is working with Ozone Action and others to prepare a "party package" in languages to assist with national celebrations which will include:
 - Customized plaque for each Party
 - Updated press kit/draft press releases
 - 25th Anniversary posters
 - National lists of projects/funding
 - Brochure reviewing reasons for the MP Success
 - Templates or possibly signed certificates for national level stakeholders
 - Adaptable presentations on zone science and the MPVital graphics for sharing
 - Facebook page to share and collect memories of the past twenty-five years (Any national committee pages the OS can help with/mutually connect to)
 - Public Service announcement

Draft Timeline 2012 – MP at 25:

15 April: Suggestions/guidance for holding national celebrations completed 15 June:

Decisions and n Party funding transmitted

25 July to 15 August: Party Package delivered

17 September: National events held, pictures and videos transmitted to OS within 24 hours

12-16 November 24th MOP to the MP – International celebration Geneva OS Planning

New hard and electronic copies of the handbook

Electronic MP/ ozone family photo book

Possible seminar/ special keynote curtain raiser film of national celebrations Pins for Party representatives noting years of participation in the MP regime

Discussion:

Grenada and St. Lucia suggested firework displays, Grenada also suggested the production of memorabilia.

T&T suggested that there could be a mechanism that passes from one country to another and culminates on Ozone Day or at the MOP meeting in November.

St. Vincent and the Grenadines inquires about the timeframe for submitting the proposal. Paul replied that the requirements are still being ironed out.

USEPA suggested that there are UV beads that children could use to make bracelets.

9. Caribbean Sub- regional Network

Grenada recalled that countries met and discussed the creation of their own network, with their own budget and administrative arrangements. This arose as a result of some difficulties experienced within the larger group. He noted that there has been some progress in this regard, and Annex 6 of the 65th Excom clearly defines the budget lines for the sub-region. In the Trinidad meeting, the issue of administrative staff was raised accordingly. The NOO requested an update from UNEP/ROLAC re administrative budget; allocation of a network coordinator etc; the plans to fill the gap with Artie leaving; and the status of financial arrangements with respect to the budget.

The UNEP Network Coordinator stated that there is a plan to cover the absence of the Programme Officer with a consultant until the position is filled. The Network Coordinator will be in charge of HPMP implementation and all activities in progress. Marco Pinzon may be assigned to Barbados to assist with the preparation of the HPMP projects.

Grenada asked about the budget line for the provision of a Programme Assistant for regional implementation of HPMP.

The Network Coordinator responded by stating that this position is not yet open, and suspects that it may be open by September.

Grenada recommended that there should be adequate staffing within UNEP/ROLAC to assist countries with their program implementation. He went on to state that the region wants one person who is in charge of the Sub-regional Network - a coordinator who is in charge of Programme Officers for the respective countries. The Network Coordinator stated that she would raise the issue with UNEP/Paris.

T&T wanted to record her agreement with Grenada on this matter, stating that it is important to find someone who will offer the support that is required.

Jamaica stated that at this stage, if the sub-region could be guaranteed that there will be someone there in the interim, until the position is filled, then that will be acceptable for

now. She went on to add that the consultant's job will be based on general duties, and in the meantime the existing staff will assist with the Network Coordinator's position.

Grenada indicated that if there isn't a dedicated person in the interim, then this could contribute to delays in projects etc. He noted that the sub-region expected that a directive would have come for a Coordinator with Programme Assistants working with him/ her, but this did not appear to be communicated, thus the sub-region may have to reengage the Paris Office on this issue.

Ozone Secretariat stated that there are limited options and that there are two periods 1.transitionary 2. full time. It was suggested that perhaps it should be articulated to Jim that someone from the existing ozone family (eg UNEP Paris, Ozone Secretariat etc) should be appointed to fill the Policy and Enforcement Officer's role, at least temporarily.

Grenada expressed praise for Policy and Enforcement Offcer's contributions and the fact that "her shoes will be hard to fill"

Co-Chair stated that from her experience on other UNEP projects, that whenever the situation exists where project officers are managing one or more projects, there are always gaps in country representation and oversight.

- 1. Air-conditioning and Refrigerant Technologies, Criteria in selection of technologies for the Caribbean Small Islands Developing states.
 - 1. Mr. John Telesford: Air-conditioning and refrigeration, Expert
 - 2. Mr. Andre Escalante: Building Energy Management, Expert

In the presentation, an overview was given on technology adaptation processes within the sub-region.

The expert gave some background in relation to the HCFC phase out, not forgetting the lessons learnt from the phase out of CFC and the introduction of their market replacements of HCFC to HCFC134a. It was noted that the international supply market seems to be going back into the future. He used the research of Calm 2008 where the development of HC technology was traced back to 1830, but had to be replaced by commercial refrigerants due to health concerns. It was later found that these commercial replacements were later causing ozone depletion. This led to reverting to natural refrigerants - HC. He referred to the 2010 TEAP Report which assessed what is taking place in domestic refrigeration and found that at present R134a is the dominant gas being used. It is predicted by the TEAP Report that R600a will dominate the domestic market by 2020. Air to Air AC were also discussed and at present dominates, but R290, R744 and other low GWP alternatives are expected to replace HCFC. The R290 is being recommended as one of the long term replacement for low charge application. It was noted that a Chinese manufacturer was identified and is now producing R290 equipment. The presenter discussed the criteria for selecting AC/R technologies: an integrated approach of Safety, Environment and Performance as suggested by Baxter et al (1998). Safety is measured by the ANSI/ASHRAE Standard 34-2004, where a measure of A1 is the least hazardous. Environment: ASHAE (2009: 29-4) environmentally preferred refrigerants. Performance: System, operating and maintenance costs should be considered in making decisions; Energy efficiency (coefficient of performance COP, Total Equivalent Volume Warming Impact TEWI) Environmental properties, safety and performance of alternative technologies were reviewed in tabular form. The presentation ended with the following conclusions:

Energy efficiency improvements and the source of fuel used to power the equipment drastically improves TWI and hence environmental and performance criteria.

Encouraged the use of AC systems using renewable sources for power like solar, since they are available in the markets at a cheaper price (Kim and Ferreira (2008).

Market friendly policies should support the opportunity presented by the HCFC phase out; i.e. enabling territories to 'leap frog' climate unfriendly & inefficient technologies. Geller (2004) suggests: "An integrated approach to market transformation which consists of technology push, thru RD&D; Demand pull, thru financial incentives, education &

training; Market conversion, thru codes & standards, especially important for the trend towards R-290.

Questions and Comments:

Trinidad and Tobago (T&T) needed clarification as to whether NOOs should include R1234YF refrigerant in training initiatives. The expert's reply was that they should, since the said refrigerant was gaining commercial footing.

Grenada stated that WRT R1234YT is a controversial technology in the MAC sector, since there are uncertainties about its flammability, and that much of the equipment from Europe are designed with it and as a result, our technicians need to be kept abreast with the changing technologies.

The Grenada representative requested the expert's views on the use of hydro-carbons in large systems and the implications for use in large applications. The expert responded by stating that for use in larger applications there will be a secondary route heat exchanger and that there is a very comprehensive standard that dictates this application.

The representative further expressed concern to the Ozone Secretariat (OS) which is asking for the transition from ODS to energy efficient, low GWP, non-ODS, he requested that the OS remains mindful of the challenge for Article 5 countries where there are not enough alternatives for all applications available. As a result of this situation, it would be impossible to transition to low GWP, and so puts the region in a difficult position in meeting the recommendations of the Montreal Protocol, especially in the implementation of the HPMP.

Dominica suggested that this matter should be addressed as a region.

MLF needed more information in reference to the intervention from Grenada. The representative stated that during the review process where countries had indicated that they were moving to high GWP, they were asked to look at low GWP alternatives. She went on to state that MLF is aware that some of the technology is not available in some countries, and that if the technology is not available at present, countries could still use other available technologies which are mature and are being used in many countries. She ended by saying that a complete move over to hydrocarbons is not feasible to some countries because the infrastructure is not available, and that MLF looks for options that are feasible in Article 5 countries.

St. Lucia stated that this is an environmental issue and questioned what would happen if the technicians cannot be brought on board. The representative further stated that the change must be beneficial to the technicians and ended by referring to Grenada's earlier concern.

2. Air-conditioning and Refrigerant Technologies, Criteria in selection of technologies for the Caribbean Small Islands Developing states. Mr. Andre Escalante: Building Energy Management, Expert

In his introduction the expert stated that Energy Dynamics Limited is a Trinidad based energy service company which is involved in energy engineering consultancy such as audits, designs. Associated with this company is Caribbean Hotel Energy Efficiency Action Programme (CHENACT) an IDB funded project which has audited hotels in Trinidad, Dominican Republic, Jamaica and Barbados. He also showed the link between energy efficiency and the phase out of ODP. The presentation covered the following: Some of CHENACT audit findings; CHENACT recommendations; Existing Caribbean scenarios and Feasibility of new technologies.

The presenter was able to make the following conclusions based on findings in the region:

- (i) The hunger for energy efficiency is driving Caribbean air conditioning users towards spending additional capital to save energy.
- (ii) New technologies like Inverter and VRF systems which use R410A refrigerant (0 ODP) will save 30% energy and is ideal for the majority of a/c users in Small Island States
- (iii) Demand for Absorption Cooling (water as refrigerant) and Cogeneration Systems is increasing especially in large Commercial and Manufacturing facilities and with Utilities.
- (iv) Energy Efficiency is assisting with Phase out of ODP refrigerants and with Global Warming.

Questions and Comments:

Grenada asked with respect to the use of HC with the inverter system, how feasible/ how likely are the two technologies likely to work?

Mr. Mitchell (GRAVA) answered by stating that the use of HC in the inverter type system will save energy because of high vaporization of the refrigerant, there would be added benefits in using HC because the sensors may have to be modified to improve performance. Tests will also have to be done, in addition, the compressors will last longer due to low condensing pressure.

3. Alternative refrigerants: Market Availability price, national preferred choice: Presentations to be done by companies marketing alternatives: Introduction to

Duracool Hydrocarbon Refrigerants – The Natural Energy Saving Alternative Presented by SNJ Electrical Stephan Baldeo, Operations Manager, Grenada.

The presentation gave a brief outline of the properties and benefits of the hydrocarbon refrigerant Duracool. Duracool 12a is a drop-in replacement for R12 and Duracool 22a is a replacement for R22a.

Mr. Mitchell, GRAVA reported that:

GRAVA has conducted retrofits on automobiles and they have had great testimonies from customers who had had their vehicles retrofitted. One of the benefits listed was that the cool down time of equipment is much lower than with the traditional refrigerants. In the auto AC units there is no need for great concern in relation to leakage of refrigerant into unwanted areas mainly because the amount of refrigerant used is very low. In Grenada HC has been used in commercial systems e.g. chillers in restaurants with better results. He reiterated that proper maintenance is a must. He noted that when capacitors begin to degrade, the ampage increases and therefore the electricity bill would increase, so these are some of the things that technicians need to be mindful of in the field. Grenada is looking to using HC in larger units e.g. 25 and 30 ton units.

Mention was made of the challenges with distributing HC, namely shipping and training of technicians, he noted that his company wants the product to be available in different islands, and for that to happen there is a need to ensure that the persons using the technology are trained to do so, therefore this is being done first.

Barbados wanted to know: How would one in Grenada recognize a technician that is certified to work with HC? What measures have been put in place to assist persons to recognize those technicians that are certified to work with HC refrigerant?

The GRAVA representative replied that the GRAVA is working on this currently, as it is seen as an important issue because of the need for technicians to be certified in order to use the technology.

MLF asked: Where is the production base? Is it produced in the USA? What is the price leaving the shore? GRAVA responded by stating that the refrigerant is produced in Canada and the price depends on various factors. The current price is \$657 for Duracool I2a, and Duracool 22a is \$650.

Suriname inquired about the cost with respect to training within a country. GRAVA responded that it was decided that training will be done through the respective Associations. In addition, since the company is looking to promote the product, they are prepared to cover the cost of training.

Trinidad &Tobago asked In terms of the marketing of the product, is there any focus on educating the consumer? The response was that the company is working on training the technicians first and later will focus on educating the public.

Grenada asked: What measures are in place to ensure that this technology does not get into the hands of the wrong people? Can someone walk into the store and buy the cylinders? Does the company have a list of persons who have been trained?

The Duracool representative stated that in Grenada, the product is not sold to anyone who is not trained in its application. Whoever it is sold to, must be trained in the application of the product. Currently the product is sold only by his company.

St. Vincent and the Grenadines asked: Is training limited to members of the Association or is it open to any technician? The response was that it would be up to the Association, but this is something that can be facilitated.

Antigua and Barbuda suggested that the purchasing of the product could be addressed through the local association.

4. United States of America: Environmental Protection Agency, Ms Staci Gatica, USEPA Stratospheric Protection Division

1. SNAP hydro-carbon refrigeration rule:

The presentation familiarized the participants with the EPA SNAP program for HC refrigerants. In highlighting Section 612 of the Clean Air Act, it was stated that SNAP provides choices of substitutes to US Companies for ODS while minimizing new environmental health risks. It was further stated that SNAP is a unique program for ODS that rigorously reviews human health and environmental impacts on ODS alternatives. USEPA reviews application of new refrigerants from various parts of the world. At present, the SNAP HC rule allows the use of three HC refrigerants (Propane (R 290) Isobutane (R600a and R441A) in the US with certain conditions. The SNAP program has received submission for use of HC refrigerants in other uses for example vending machines, automobiles and window ACs.

The industrial sector's interest in HC refrigerants is in other uses such as propane in household freezers/ freezers, propane in commercial refrigerators with a charge greater than 150g and R441A isobutane in commercial refrigerators. Participants were directed to the SNAP website and contact person for further information :www.epa.gov,ozonesnap

www.epa.gov/ozone/snap/refrigerants/reflist.pdf

Margaret Sheppard – US EPA/SNAP Programme <u>sheppard.margaret@epa.gov</u> telephone 202-343-9163

2. Update on US HCFC Phase out Staci Gatica

A brief summary on the US proposed rule and the considerations rulemaking presents. Participants were directed to the website: http://www.epa.gov/ozone/title6/phaseout/classtwo.html for further information.

3. Protecting Borders from Illegal ODS Trade, Staci Gatica

The presentation covered the following topics: brief history of US efforts to combat illegal trade, general lessons learned; possible tools and approaches and US case studies. At the end participants were directed to website: www.epa.gov,ozonesnap and contact person

Gatica.staci@epa.gov

Questions:

St. Lucia asked whether record keeping normally a part of the USA's culture or was there a need for sensitization to encourage persons to keep good records.

USEPA/Staci:

Jamaica stated that one of the challenges Jamaica is facing in relation to the establishment of quotas is that about 80% of importers are stating that they require more, so what does USEPA suggest.

USEPA indicated the when the US established the baseline, it took about 3 years, the highest amount was taken from each company and applied to their respective baselines.

Trinidad and Tobago stated that the T&T government withheld a national reserve to ensure that they did not go above the buffer.

5. Presentation by the Montreal Protocol Implementation Agencies (IA) of the work in the region

1. Mr. Sid Menad Si Ahmed, Director of the Montreal Protocol Branch UNIDO UNIDO is presently working with Bahamas, St. Vincent and the Grenadines, St. Lucia and Suriname to HPMP. The first stage is to meet the 35% reduction target by 2020, with the exception of St. Vincent and the Grenadines which is aiming to complete phase out by 2025. UNIDO gives technical assistance supply to servicing equipment in the refrigeration servicing sector(INV), conducted the initial review of the TPMP activies and identified complimentary needs, analyze specific characteristics for each country, does constant monitoring of low GWP technologies(HC, HFO, CO2, etc.). The implementation modalities for each of the four countries were outlined. The cooperation between UNEP and UNIDO was highlighted during the presentation, noting that there is complementary work between UNIDO and UNEP, close coordination of

activities and ended by stating the UNIDO has experience in West Asia and Africa.

Questions:

Grenada: What is happening with the St. Vincent project that is different from the projects of other countries which have not opted for accelerated phase out?

6. Presentation by the Montreal Protocol Implementation Agencies (IA) of the work in the region

1. Ms. Mirian Vega, - MP Compliance Assistance Programme

The UNEP Network Coordinator began by explaining that The CAP is an approach and not a project, networking is only one part of the CAP and within the CAP there are regional team coordinators. The presentation included the Montreal Protocol current status; and overview of the National Ozone Units potential needs; characteristics of the CAP approach; cap services through ROLAC team and examples of services.

The UNEP Policy and Enforcement Officer gave an example of a recent case in Mexico where there were cylinders imported from China labeled as R134a, but which, in actual fact, contained a blend of HCFC22 and HFC 410. This was determined by the use of hand held identifiers as well as the boiling point process. It was reported that Brazil has similar issues. She related a case where a box containing the refrigerant did not have the place of manufacture, no company name nor coordinates. The approach was to go back to the shop where it was purchased as well as contact the Customs and Excise Department for this matter to be dealt with.

7. Presentation by the Montreal Protocol Implementation Agencies (IA) off the work in the region

2. Anderson Alves, Programme Specialist UNDP

The presentation dealt with the phase-out of HCFCs, the short and long term goals of the Montreal Protocol and HCFCs, HCFC consumption profiles in A5 countries with reference to the polyurethane (foam) sector refrigeration and air conditioning sectors and the technology perspectives as they relate to these sectors. The presenter also highlighted the climate impacts in the form of a case study and outlined concerns and what the private sector and government can do about the concerns. The presentation ended by outlining what UNDP is doing presently in the phase-out of HCFCs.

8. HPMP Project Preparation: Status, challenges and planned date of completion

1. Haiti:

There were some delays with the implementation in the project preparation for Haiti as a result of the change in the political directorate. Since then, there has been steady progress. A mission was put together for the purpose of conducting a situation analysis. This analysis is now with UNEP for final approval, after which consultants will begin to prepare the project and will try to submit it for the November 2012 Ex Com. It must be

noted that the ExCom has provided for recognition of special circumstance for Haiti. An adapted survey will be done for Haiti and the plan will be prepared based on this survey. The situation analysis has been prepared and the project will be written based on that analysis and the adaptive survey to be done.

HPMP Project Preparation: Status, challenges and planned date of completion

2. Barbados:

The representative from Barbados began by thanking all of the National Ozone Officers for their support through the process leading up to the preparation of the country's HPMP. In March 2011 the SSFA for the HMP preparation was signed and the Terms of Reference was done.

UNIDO asked whether Barbados has the legal framework in place to meet the phase. Barbados responded that Barbados has an established and functioning licensing system which has facilitated the identification of the baseline level and the trends of importation. Barbados does not appear to be in danger of not meeting the freeze.

UNEP/ROLAC: Although there have been administrative delays in the implementation of the HPMP a great deal of work as it relates to the sensitization of the various sectors, training and administration of the licensing system has been done on the ground, so as it relates to implementation Barbados remains in compliance.

Hydrochloroflurobarbons (HCFC) Phase Out Approved Projects: Case studies, lessons learnt in the preparation of recently approved projects

Jamaica:

Reported that two main challenges were encountered, the first was in the survey and the second in writing of the HPMP. With the survey they found that many importers were hesitant to provide data so the NOO had to provide letters to the consultant who was conducting the survey to take to the businesses. There were discrepancies between what Customs had on record, versus what the Licensing Office and the importers had on record. The challenges led to the project being extended about two or three times because the delays encountered were not perceived. Jamaica went on to say that the preparation of the document was a learning process for all involved, since it took some time to get it in a format that was of the acceptable standard. In Jamaica there was one company that produced foam and this meant that a separate document had to be prepared for that sector.

Discussion/Questions:

USEPA sought clarification regarding the discrepancies and how did they move toward choosing the data that was the most accurate. Jamaica responded by stating that the Licensing Office does not keep a record of what is actually imported, but relied mainly on Customs data and whatever was imported/landed based on invoices.

St. Kitts and Nevis:

The main problem encountered with respect to the HPMP preparation was the lack of trust. The technicians were hesitant in giving information because of competition between them and the surveyors who were also technicians. The HPM has been approved and will be launched in the week following the meeting.

Discussion/Questions:

Barbados:

Asked how was the issue of hesitance to give information to the surveyors resolved? Did St. Kitts have to employ a similar method to that used in The Bahamas where the NOO had to go out with the surveyors or did they just rely on the official letters from the office? UNEP, with the permission of St. Kitts and Nevis responded by stating that the submission of letters was not working so the office has to go out with the surveyors, as well as use the Customs data to verify.

The Grenada representative stated that in light of the circumstances recognized by the countries in relation to obtaining data, he would like to advise Haiti and Barbados to engage in public awareness, and inform people in advance of what will be happening. He further advised that the inception workshop should be used to inform all of the stakeholders of persons who will be contracted by the GOB to obtain the data. This was an approach taken in Grenada where they outlined what was going to happen and then followed that up with a letter.

Suriname:

There were no major challenges. The option was given to the businesses surveyed to provide the info directly to the NOO, outside of this there were no major problems.

UNEP asked if there were any future plans to improve data collection. The response was in the positive, he indicated that provisions were being made to make the retrieval of this data more efficient through the Refrigeration Associations. He ended by stating that there should be a close relationship with the Associations.

Trinidad &Tobago:

Similar challenges were experienced with respect to confidentiality. The NOU had to ensure that they did not rely heavily on the data from the importers, but more so on data from Customs. The HPMP has been approved, but has not been launched. Another problem encountered was that of having to deal with importers who came later and wanted to be considered for the quota although they had not imported during the base year.

Discussion:

Trinidad &Tobago:

Based on the HPMP, eleven importers were given quotas, but there were actually thirty historical ones. As a result, they were all sent letters informing them of the quotas. The importers responded by informing the NOU that they wanted to be included in the quota.

The Bahamas:

The representative reported that the surveys were the most challenging. An international consultant had to be hired, and he worked with the local consultant. The NOO explained that The Bahamas has seventeen major islands in addition to the capital, and many of these islands had two to three ports of entry which was a logistical challenge in trying to capture the information from the various islands. In trying to deal with the challenge, it was found that there was a need to rework the questionnaire and tailor it to suit the sector in The Bahamas. This approach ensured that all of the stakeholders bought into what was happening. The lines of communication and stake holder involvement were kept open via training and workshops which explained what the HPMP was, and why it was being done.

One of the main concerns was that of confidentiality, in some cases the Ozone Officer had to make personal visits to assure the stakeholder that the information given would be treated with

the strictest confidentiality. The timelines had to be changed several times in order to obtain the information. Initially, official letters were being sent out, but they found that a more effective approach was that of paying personal visits to the establishment, and not leaving unless the relevant information was obtained. The representative ended by stating that to date everything else has gone smoothly.

Discussion:

USEPA asked how many surveys were disseminated and how many persons did the representative sit with? The Bahamas representative estimated that he did over one hundred for Nassau and New Providence; altogether it may have been three to four hundred surveys.

Grenada asked whether any consideration was given to the impending decision of the MOP about ODS for ship servicing when the document was being prepared. The Bahamas stated that this was not considered, however, their position is that if it does not happen in the Bahamas it is not considered as consumption. He went on to say that while they were preparing the HPMP since there was not a definitive decision by the parties, they decided that this was the approach they would maintain; and if there were any changes, The Bahamas would have to make the necessary adjustments.

Antigua and Barbuda:

It was reported that the HPMP will go before the 66th ExCom for approval. The lesson learnt that of ensuring that the stakeholders were involved, that they understood what was being done and why it was being done, since this contributed to the quality of data collected.

Building trust and confidence among the stakeholders assisted greatly in obtaining data. There was also the need to coo berate data between Customs and the importers, by having formal communication sent out by the Permanent Secretary of the relevant government Ministry. There was also strengthening of local capacity in terms of working with both international and local consultants; speaking to local government agencies and people at the technical college in RAC; maintaining communication between the NOU, consultants and the Implementing Agency (this assisted in helping to meet timelines); changing the mindsets of Customs Brokers – they were educated on the use of the correct HS Codes and how it could assist in data collection. The Maintenance Department of Public Works Ministry with responsibility for the maintenance of AC in Government Departments was also involved.

Discussion:

Belize asked about Antigua's experience with the international consultant and the technicians during the survey. Antigua responded by stating that the consultants attended the Belize meeting. NOU was always in communication with the technicians and so there were no real difficulties in this regard.

Belize:

HPMP was approved in November 2010 with total funding of US\$425,000.00, with US\$280,000 from the MLF and the remainder in co-financing. The launch was attended by participants from the RAC and the technical institution. Belize is working with the Government of Switzerland who is assisting with the co-funding. Due to unavailability of the bilateral fund, the Government of Belize has not commenced with the implementation of the HPMP. The RAC is a key player in the successful implementation of the HPMP; unfortunately at present, the assistance from the association has been slow. He reported further that Belize has seen downward trend in terms of membership of the RA technicians who stated that the work related issues do take away time and money from their pockets. He concluded by stating that the way forward for Belize is that in order to keep in compliance with the MP and its mandate, they need to start the implementation of all project activities under the HPMP and to give support of the ARACT with HPMP related activities and ARACT's internal procedures (planning, organisation, coordination and execution) respectively).

Discussion:

UNEP recalled the Trinidad meeting which was held in October and asked (i) whether there were any attempts to engage other partners outside of the core stakeholder group (RAC), (ii) whether other stakeholder sectors - that could give support to what needs to be done – engaged. Belize stated that during the preparation process of the HPMP other stakeholders such as Tourism and Custom Officers were included. UNEP inquired further as to what is happening in Belize presently as it relates to HCFC for ships servicing. Belize stated that Belize has been very active on this issue and has provided input as it relates to the CRP.

MLF asked why is it that the co-funding from Switzerland has not been realized and if it is not realized, what is the country's plan to implement all of the activities to achieve compliance. The representative did not know why the funding was not realized, he stated further that the government has attempted to obtain the funding on behalf of the Government of Switzerland, and the NOU had drafted a MOU in order to get access the funding. In response, there was a promise that a first draft would be sent, but what was done instead was that a formal letter was sent to the Embassy of Switzerland in an attempt to obtain a resolution on this issue.

Grenada wanted to know that in the event that the Government of Switzerland reneges on its commitment, whether or not there is anything that could be done from the MLF and Ozone Secretariat perspectives that could assist. He went on to state further that if the total cost is US\$425000, US\$280,000 comes from MLF, there is a difference of US\$250,000, how does the Government of Belize plan to compensate for this US\$250,000. The representative responded by stating that the SAICAM2 project is coming into Belize, and the NOU is planning to include this funding from within the Climate Change component of the SAICAM project. The MLF Secretariat stated that they would make the necessary checks and get back to the group. The Ozone Secretariat stated that it has been seventeen months since the indication that funds will be provided, and from a legal standpoint after looking at the agreement, that there is no legal obligation for the Government of Switzerland to provide the co-funding. The OS further stated that they could only try to facilitate or be an intermediary in the process, but this issue is a bilateral one.

The Commonwealth of Dominica:

The HPMP was launched in April, 2011 with few complications; the implementation so far has been without major challenges. The main challenges were in the areas of maintaining timelines and the disbursement of funds. Dominica has experienced the usefulness of bridging the gaps as much as possible within the sector. It was reported also that the regulations have been formulated however; the enactment of the legislation has been very slow. The representative informed the meeting that the Customs Department is currently under reform and as a result, this has diverted their interest to some extent, but noted that the NOU continues to work with them. Close contact has been maintained between the NOU and implementing agencies and reports have been on time. He ended by stating the importance of keeping stakeholders informed about the importance of the data required.

Discussion:

Barbados asked whether the legislation being referred to was in relation to a revision of current regulation or is this new legislation. The Dominican representative responded by stating that the Customs is currently in reform and cannot speak to whether the ODS have been attached.

Dominica Hotel and Tourism Association asked what role could the Tourism sector play and how could it be involved. Dominica stated that the hotel sector has been involved through their relationship with the technicians; he went on to add that the NOU of Dominica has invited the hotel sector to different parts of the implementation. UNEP recommended that the DHTA take a look at the CHENACT project and went on to give a brief explanation of its role and suggested that Dominica ask to be included in the third tranche of CHENACT.

Guyana:

One of the challenges was the absence of a national ozone officer for up to about five months which resulted in a delay in the HPMP. However, the country has begun to make strides in the progression of the project.

Discussion:

UNEP recommended that the new Ozone Officer keep close to the current NOOs.

Grenada:

The island was one of the first countries from the LAC to have its project approved. From since its launch on June 15, 2011, steady progress has with the implementation aspect. The list of accomplishments include: conducting training for CO as well as for technicians in alternative refrigerants; established three new recovery and recycling centers for technicians. Grenada has implemented the quota system in advance of the 2013 freeze deadline and has chosen to use a different method for the quota system. Although the baseline indicated the freeze quantities, the NOU has decided to use 50% of that figure, with the government retaining 10% for its emergency use and for importers that would arbitrarily enter and exit the market. The scholarship program continues with twelve more scholarships being granted in September

2011, this brings the total to twenty-two. The public awareness initiatives continue with schools, technicians, and others through the print and electronic media. New refrigeration manuals from the Paris office were made, and are available to technicians. Commitment has been received from the Minister for a legislative review in 2012. The NOU is hoping to institute a ban of all HCFC equipment imports, the importers and technicians have agreed with this move as a result; the Customs Department and Ministry of Trade have been engaged. The NOU is also involved in the conversion projects from HCFC22 to R134a. The representative publicly thanked the RAC Association of Grenada for their cooperation and the work that they have done in this area. The association is overwhelmed with requests for conversion. Heavy investments were made in the area of training in HC technology; this training took place inside and outside of the country and has resulted in four trainers who are certified by the NOU. In looking forward, there is the hope of further strengthening of the RAC Association, and the licensing of technicians, with the latter hinging on the legislative review which would ensure that it is properly instituted. The Grenada representative ended by cautioning the other countries that they need to move quickly to get their first disbursement from the Implementing Agencies, in order to do this, they must be up to date with the submission of their work programs.

Discussion:

Haiti stated that all of the countries share similar difficulties and have overcome them, he went on to say that the Haiti NOU needs some support and requested that Artie make sure that Haiti is in good hands before she leaves office.

St. Vincent inquired about what is done with the recovered gas, whether the technicians use it or whether is it stored. Grenada stated that all requests are channeled through the RAC Association because they are trained to do the conversions and that each recovery centre is responsible for storing recovered gas. Mitchell (GRAVA) stated that the gas is stored and its purity is checked using the refrigerant identifier - a reading above 90% is ideal. Mitchell, continued by stating that recovered refrigerant is used from time to time, but if it is contaminated it is stored. When asked about the storage capacity of the centers, Grenada replied that all recovery centers are given 30 lb and 50 lb cylinders. Grenada was asked whether the proposed license will be for practicing or for buying refrigerants. Grenada said that the regulation will cover all of these things, and that the license will be issued in relation to the sector involved. St. Vincent wanted to know about the consumer feedback on the proposed ban. Grenada stated that the consumers are concerned especially the Hotel and Tourism sector, since the HCFC22 equipment is cheaper, they have been some issues but nothing that is strong enough to dissuade the ban. It is worth noting that there is concern about energy efficiency, so the proposed change will assist in that regard. He went on to add that the technicians charge for the service, but the use of the equipment is free; there is no incentive scheme on the part of the NOU where people are paid to make the change, but that there is a private company that supplies HC that is offering rebates for that purpose. The question was asked whether the NOU is able to handle the cost of retrofitting the Government Departments, to which he replied that the NOU has agreed to retrofit The National Marketing and Importing Board, and under the HPMP, they have line items for conversion projects that they are going to utilize.

USEPA suggested that countries could allow the imports necessary for doing repairs, for example, they could allow the importation of nitrogen compressors, but they must be mindful that persons will try to engage in illegal trade.

UNEP asked about the quota, to which Grenada stated that the quota system has been legislated and gazette, a consultation was held with the importers and they were informed of their quotas. UNEP stated that based on this, that other NOOs should get started with theirs. A

recommendation was made in relation to HC, that is, in addition to current activities, training, etc. it was important to establish a set of standards on the use of HC and natural refrigerants, because if something wrong happens, the legislation/standards/code of practice have not been put in place. A Dominica expert sought clarification as it relates to the proposed ban on HCFC, whether it is on the refrigerant or equipment. It was stated that the ban will be on the equipment, not refrigerant because it is understood that there will be a need for servicing. Dominica asked if any difficulties were being experienced with the insurance companies, to which Mitchell stated that if the customer wanted to retrofit, they usually waited until the warranty expired and then do the retrofit.

UNEP went back to the Antigua Meeting, where Mr. Church (Grenada's then Environment Minister) asked Ozone Officers to go to their politicians with a language that they understand. When there is talk about reduction in energy demand and energy costs, these must be related back to the political directorate that a reduction in the energy bill of the Government by 5 or 10% correlates to a dollar value. The question was asked whether or not this kind of dialogue was being taken. Grenada responded by stating that once what is being done could be translated into dollars and cents, it will be taken. Suriname suggested that whatever NOOs do should be measured. Grenada stated that before any conversion is done, a performance analysis should be conducted before and after.

Bilateral Meetings

WCO E-learning; Artie Dubrie, Policy and Enforcement Officer, Montreal Protocol Compliance Assistance Program UNEP/ROLAC

It was reported that fifty officers in St. Lucia have currently signed for the course, also included are E-learning Training for E-customs, the Montreal Protocol and CITES.

The Grenada representative stated that he did the program in February, and found it to be very useful and suggested that all NOOs should make use of the training.

Suriname stated that CARICOM has hired a consultant to develop something to do with the Green Customs Initiative (GCI). UNEP stated that they were aware of the project but they were not engaged in how CARICOM arrived at this idea. The GCI is a UNEP product so there is still a need to ask CARICOM what they are thinking of in relation to the outline of this project.

Barbados asked whether there is a timeline in relation to the window of opportunity to take this training and whether a certificate will be provided at the end of the course. Artie indicated that there is no timeline in relation to the window of opportunity to conduct the training, and a certificate is made available electronically at the end of the course.

Global Status: Informal Prior informed Consent for the control of international trade in Ozone Depleting Substances (iPIC): Artie Dubrie, UNEP

There was slow submission of iPICS for 2011 and 2012. At the Next ExCom meeting there will be an e-platform where the IPIC will be available and can be completed online. The iPIC used to ask for a list of importers, but it was suggested that countries do not place the names of importers on the form so that verification is asked every time, as a precautionary measure. It was noted that consultation on Ozone Officers is required in relation to any export and that the iPIC has no legal weight, it is a tool used to convey information.

Discussion:

The Bahamas asked USEPA whether the USA has given consideration to participating in the iPIC, because of its implications for The Bahamas. USEPA stated that it has not heard any discussions on incorporating iPIC into their structure. USEPA stated its willingness to discuss issues with Caribbean NOOs as it relates to trade, data, etc.

Role of the Air-conditioning and Refrigeration Association Sources of training (informal, formal (vocational and tertiary) HCFC phase out, Identification of Training in longer term alternatives for the air-conditioning and refrigeration sectors

1. Introductions by Mr. Valentino Blanco: National Ozone Officer of Belize. It was reported that Belize has a Refrigeration Technicians Licensing Act 2010. There is a list of requirements for license applications, and various classes for which technicians can apply for licenses e.g. in applying for a license for domestic refrigeration units, a technician is required to take an exam. The Belize NOU allows the technicians to police each other and so assist the Department of Environment in identifying technicians who are operating without a license.

Comments:

St. Lucia suggested that NOOs explore the possibility of establishing/re-establishing a technician network.

Ms. Vega encouraged NOOs to use a combined approach and to use the modalities to developing national capacity.

2. Mr. Earl Williams: President of the Dominica Air-conditioning and Refrigeration Association

Mr. Williams thanked the organizers for inviting DARAC to the meeting. He reported that DARAC has a code of best practice pocket book which is disseminated to technicians. He briefly outlined the challenges faced, namely, the difficulty of getting the technicians together for training, etc.; and the lack of reclamation or destruction facilities leads to the issue of storage which needs to be resolved.

Caribbean Regional Public Awareness

Activities for 2011

Barbados recapped the PA Activities. Grenada and Antigua and Barbuda expressed reservations about using the country flags on the umbrellas. Grenada also thanked Barbados for its work. The St Lucia, Grenada and Antigua representatives stated that the use of their country flags would not be allowed by their Governments. Consensus was reached that the flags should be removed from the umbrellas and only the phrase "Caribbean Ozone Officers Working Together to Phase out HCFCs," along with the UNEP and MLF Logos should be used. The content of the UV Metre Cards was approved. Countries were asked to submit requested changes to their ODS information cards before the end of the meeting.

Activities: 2012

The UNEP Policy and Enforcement Officer presented on the 2012 Journalist Workshop. The Grenada representative stated that he was not in favor of it and suggested we doing something that will get public visibility has regional flavor, especially since this is the 25th Anniversary of the MP. St. Lucia suggested that based on past experiences, the Journalist Workshop is not very appealing. UNEP Network Coordinator suggested a public service announcement. St. Vincent and the Grenadines stated that based on her experience at home, their journalists normally cover their activities, and since it's the 25th anniversary, it was suggested a Caribbean magazine showcasing the accomplishments of the NOUs in the region. The UNEP Policy and Enforcement Officer stated that at the end of the day it is the countries that have to decide and suggested a remake of the Caribbean Ozone Song.

Jamaica stated that at least two of their media houses have specific journalists who write stories on the environment and believes that the workshop will be useful. On the point of the Ozone song, it is a good idea, but there was uncertainty as to how much it was used by other countries. Grenada stated that in reference to the ozone song, it was overused by many countries and is tempted to go with the St. Vincent and the Grenadines idea of the magazine. He further suggested that each country provide a couple pages on their achievements over the time they have been parties to the Montreal Protocol and the editing could be done by a central body which might be easier. Antiqua and Barbuda stated that in terms of the magazine, it must be appealing as it would be a repeat of the video. She cautioned that regional PA activities should strive to be different from what is done at the national level as there is a need to guard against repeating activities at the regional level. It was further stated that the 25th anniversary is something that should be focused on, and since in many countries there are not many journalists writing environmental stories, maybe the occasion of the 25th anniversary could be used to start addressing this issue. St. Vincent and the Grenadines representative stated that the Caribbean song is being used in her island, and one of the activities planned is to have their local artistes prepare a song. She inquired whether whether UNEP would assist with this. UNEP Network Coordinator indicated that they would be able to assist, and suggested a video clip combined with another activity.

The Dominica representative stated that he was not a part of the formation of the video, but stated that he would go with the idea of the magazine, since it is believed that it would have a wider audience and would be there for the long term.

The Dominica State College students present were asked for their input, one student suggested the magazine, one the video, and another suggested both. RAC Association President stated that with respect to information, he favors the idea of the magazine since the idea of the video may be limited. The Network Coordinator asked ozone officers to establish a timeline for making a final decision on the 2012 activity. The Bahamas suggested that countries utilized different the different options as the budget allows. St. Kitts and Nevis suggested mobile applications and digital publishing, so there would be videos attached to articles/promo video leading to the digital magazine. The Bahamas suggested that there is the need to identify who the target audience is for the requisite year. UNEP Policy and Enforcement Officer stated that she saw two lines of discussion on what is your national PA activity; and suggested that whatever product comes out of a regional activity, it must have a regional flavor that adds to the national effort.

USEPA has already developed an application for phones, but would need to find out more about it. UNEP stated that the suggestions would be circulated through the e-forum and NOOS need the feedback before the end of April.

South/South Cooperation 2011 Artie Dubrie, Policy and Enforcement Officer, Montreal Protocol Compliance Assistance Programme UNEP/ROLAC

South/South activities suggested options:

- Enforcement and Customs Training (using suitable skilled persons from one country to assist another)
- Training on the use of HS codes (including the 2012 Codes) and with the involvement of CARICOM
- Strengthening of communications and relationships of the Refrigeration Association at the regional level
- Use of suitable resource persons in the region to train in longe term alternatives to HCFC
- Certification of Technicians in Good Refrigeration practices
- Training of New NOOs
- Other

It was brought to the attention of the NOOs that the amount budgeted for this activity is only \$15,000.00.

Grenada stated that there are quite a number of new Ozone Officers who could benefit from the institutional capacity of some of the more experienced Ozone Officers. It was further suggested that some effort should be made to strengthen RAC Associations. In terms of value added, Artie's recommendation was that the senior officer could travel to the new NOOs country to train the NOU team.

Grenada spoke to the region's representation at various committees such as the Implementation and Executive Committees. It was suggested that parties who have interest in representing their countries at the ExCom level should indicate by sending an official note from the Ambassador to the Ministry of Foreign Affairs. He went on to state that there is a need to ensure that there is some form of representation at these meetings, as they provide tremendous experience and value to issues as it relates to our region.

Presentation and acceptance of the results and conclusions of the Ozone Officers Network Meeting.

The results and conclusions of the NOO meeting were presented, discussed and amended before they were accepted.

Farewell to UNEP Policy and Enforcement Officer and Closure of Meeting:

UNEP Policy and Enforcement Officer, Artie Dubrie was honored by participants for her dedicated service to the Caribbean Ozone Officers, after many tributes she was presented with a plaque of appreciation on behalf of the Ozone Family. The Officer expressed her heartfelt gratitude to all and promised to stay in touch via email. The Dominica NOO thanked all the participants for attending the meeting and wished them a safe return to their respective countries.

ABBREVIATIONS & ACROMYMS

CARICOM Caribbean Community

DES Deputy Executive Secretary

EXCOM Executive Committee

HC Hydrocarbons

HCFC Hydrochlorofluorocarbons

HPMP Hydrochlorofluorocarbon Phase-out Management Program

HVC High Volume Consuming Countries

GWP Global Warming Potential

IA Implementing Agency

LVC Low Volume Consuming Countries

NEC National Energy Corporation

NOO National Ozone Officer

NOU National Ozone Unit

MP Montreal Protocol

OS Ozone Secretariat

ODS Ozone Depleting Substances

MLF Multi-lateral Fund

MBr Methyl Bromide

PA Public Awareness

UNEP United Nations Environmental Programme

USEPA United States Environmental Protection Agency

RAC Refrigeration and Air Conditioning

ROLAC Regional Office for Latin America and the Caribbean

CHENACT Caribbean Hotel Energy Efficiency Action

TEAP Technical and Economic Assessment Panel

UNIDO United Nations Industrial Development Organization

Regional Meeting of Caribbean Ozone Officers Network

Roseau, Dominica. March 27-29, 2012

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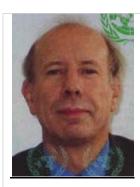
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EVALUATION SUB-REGIONAL MEETING OF THE ENGLISH SPEAKING CARIBBEAN

AND HAITI OZONE OFFICERS NETWORK Roseau, Commonwealth of Dominica

27 - 29 March 2012 Fort Young Hotel, Dominica



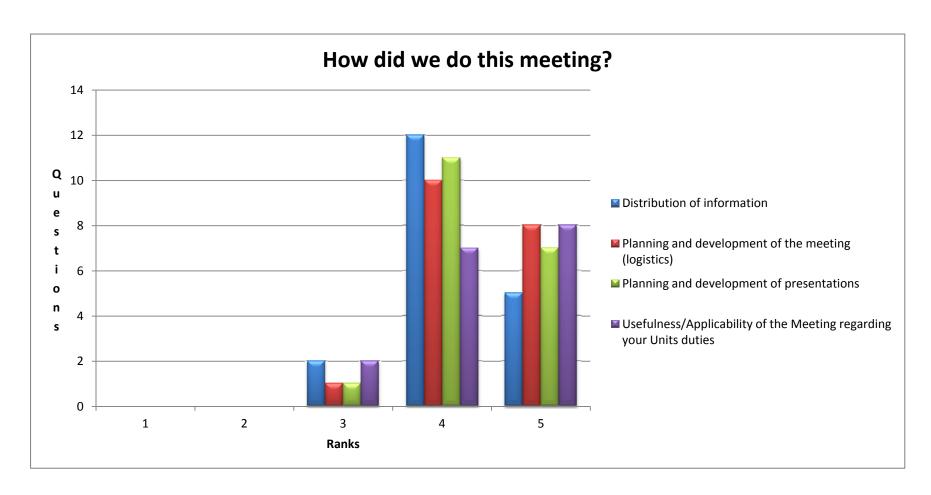


Evaluation of Main Meeting of the Ozone action Networks Latin America and the Caribbean Roseau, Commonwealth of Dominica

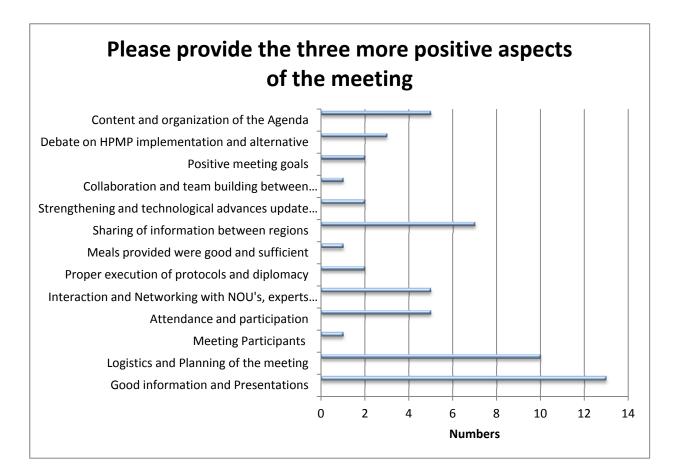
How d	id we do this meeting?	1	2	3	4	5	Total
Distribution of informati	on			2	12	5	19
Planning and developme	ent of the meeting (logistics)			1	10	8	19
Planning and development of presentations				1	11	7	19
Usefulness/Applicability	of the Meeting regarding your Units						
duties				2	7	8	17
	Total	0	0	6	40	28	74

How did we do this meeting?	Average
Distribution of information	6.333333
Planning and development of the meeting (logistics)	6.333333
Planning and development of presentations	6.333333
Usefulness/Applicability of the Meeting regarding your Units	
duties	5.666667

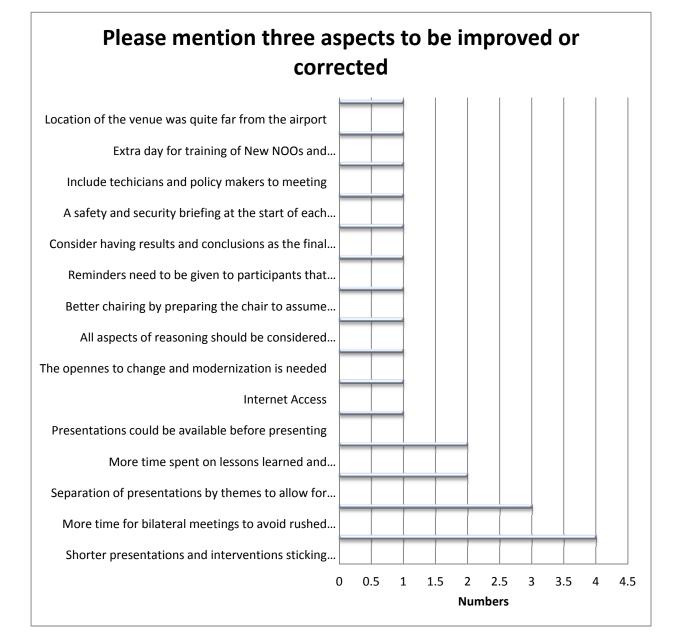
How did we do this meeting?		Ranks				
	1	2	3	4	5	
Distribution of information	0	0	2	12	5	
Planning and development of the meeting (logistics)	0	0	1	10	8	
Planning and development of presentations	0	0	1	11	7	
Usefulness/Applicability of the Meeting regarding your Units duties	0	0	2	7	8	



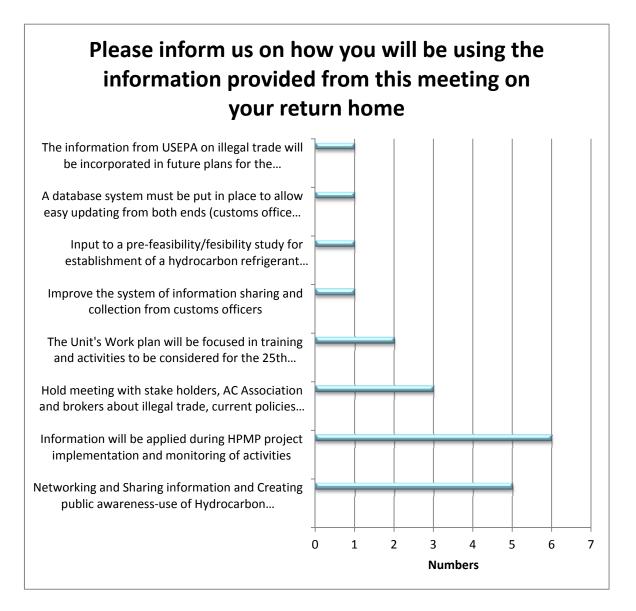
Please provide the three more positive aspects of the meeting?	Numbers
Good information and Presentations	13
Logistics and Planning of the meeting	10
Meeting Participants	1
Attendance and participation	5
Interaction and Networking with NOU's, experts and implementing agencies	5
Proper execution of protocols and diplomacy	2
Meals provided were good and sufficient	1
Sharing of information between regions	7
Strengthening and technological advances update of HCFC replacement of HC	2
Collaboration and team building between Caribbean countries	1
Positive meeting goals	2
Debate on HPMP implementation and alternative	3
Content and organization of the Agenda	5



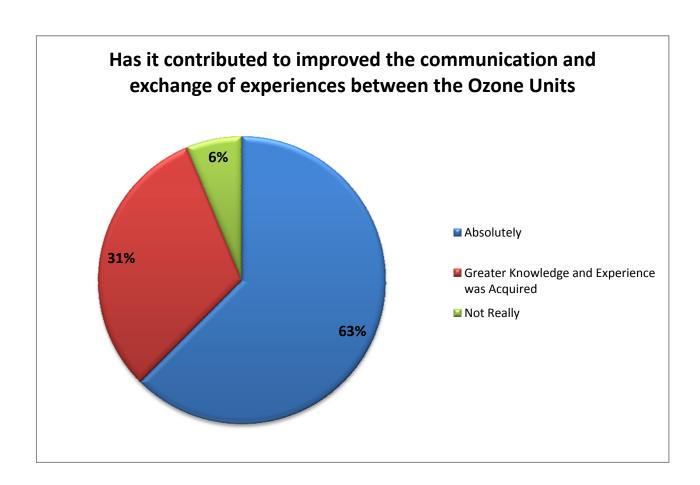
Please mention three aspects to be improved	
or corrected	Numbers
Shorter presentations and interventions	
sticking closely to the agenda timing	4
More time for bilateral meetings to avoid	
rushed discussions during breaks or breakfast	3
Separation of presentations by themes to	
allow for a smoother flow of discussions	2
More time spent on lessons learned and	
information sharing between countries	2
Presentations could be available before	
presenting	1
Internet Access	1
The opennes to change and modernization is	
needed	1
All aspects of reasoning should be considered	
carefully before making a unified decision	1
Better chairing by preparing the chair to	
assume his/her duties	1
Reminders need to be given to participants	
that they will be required to pay departure tax	
from their respective countries	1
Consider having results and conclusions as the	
final item after lunch on the closing day	1
A safety and security briefing at the start of	
each day's meeting	1
Include techicians and policy makers to	
meeting	1
Extra day for training of New NOOs and	
discussions; instead of doing it at the end of	
each day	1
Location of the venue was quite far from the	
airport	1



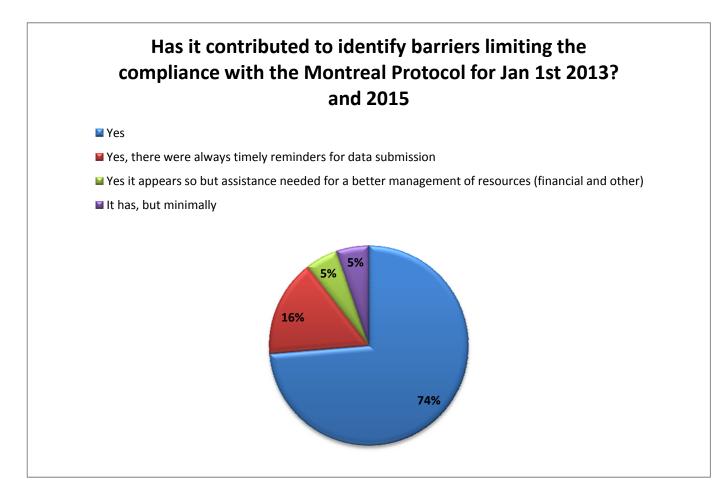
Please inform us on how you will be using the	
information provided from this meeting on your	
return home	Numbers
Networking and Sharing information and Creating	
public awareness-use of Hydrocarbon Technology	
as viable alternative to HFC's & HCFC's.	5
Information will be applied during HPMP project	
implementation and monitoring of activities	6
Hold meeting with stake holders, AC Association	
and brokers about illegal trade, current policies	
and future plans	3
The Unit's Work plan will be focused in training	
and activities to be considered for the 25th	
Anniversary of the Montreal Protocol	2
Improve the system of information sharing and	
collection from customs officers	1
Input to a pre-feasibility/fesibility study for	
establishment of a hydrocarbon refrigerant	
facility in Trinidad & Tobago	1
A database system must be put in place to allow	
easy updating from both ends (customs office	
and Ozone Unit).	1
The information from USEPA on illegal trade will	
be incorporated in future plans for the controlling	
ODS imports and sale	1



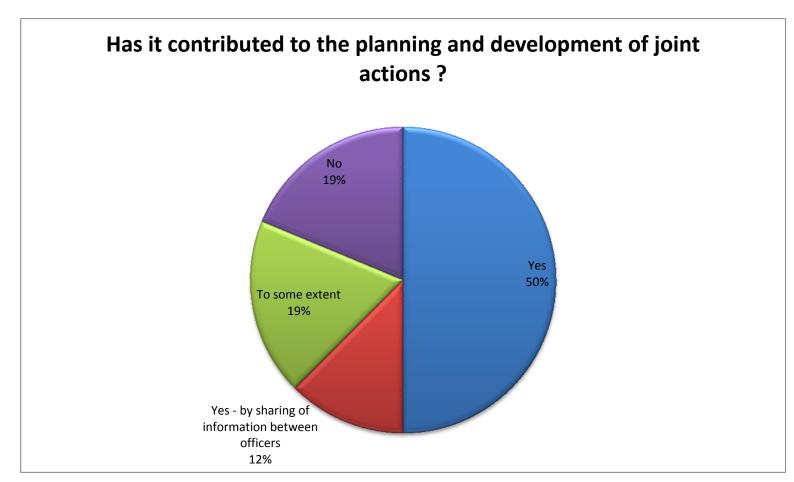
Has it contributed to improved the communication and exchange of experiences between the Ozone Units	Numbers
Absolutely	10
Greater Knowledge and Experience was Acquired	5
Not Really	1



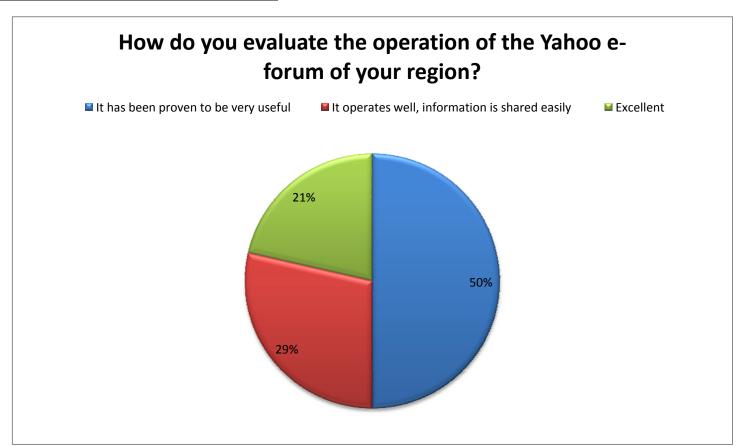
Has it contributed to assist in management of compliance with the Montreal Protocol?	Numbers
Yes	14
Yes, there were always timely reminders for data	
submission	3
Yes it appears so but assistance needed for a	
better management of resources (financial and	
other)	1
It has, but minimally	1



Has it contributed to the planning and development of joint actions ?	Numbers
Yes	8
Yes - by sharing of information between officers	2
To some extent	3
No	3



How do you evaluate the operation of the Yahoo e- forum of your region ?	Numbers
It has been proven to be very useful	7
It operates well, information is shared easily	4
Excellent	3



What type of information would you like to be included in the website of UNEP's Regional Office that will help with this network?	Numbers
No comments	11
Promote the use of the e-forum as well as direction for the website NA	3
Information to be provided to NOOs be uploaded on the site	1
Include international training opportunities for NOOs and technicians, research information on alternative technologies, current news items related to RAC sector.	1
To include the advances of each country so any other country can use this information	1
Lessons learned and how direct implementation problems were solved by the Ozone Officers & Int'l Agencies	1
Updated information of potential for destruction technologies in the sub- region	1
Spanish translated into English	1

What type of information would you like to be included in the website of UNEP's Regional Office that will help with this network?

