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ANNUAL PROGRESS REPORT

Country:	**JAMAICA**		
Reporting period:	1 January 2013 to 31 December 2013		
Project number and title:	00067121 HCFC Phase Out Management Plan – 1st Stage Implementation		
Project Duration:	April 2012 to December 2014		
Donors:	Multilateral Fund for the Implementation of the Montreal Protocol		
Implementing Partner:	National Environment and Planning Agency (NEPA)		
Responsible Parties:	NEPA and UNDP		
Overall Project Coordinator:	Nicol Walker		
Initial Approved Budget:	US$94,289.68 – output 1; US$ 99,341.64 – output 2	**Revised Approved Budget:**	Not applicable
Total annual advance:	US$4,279.15 – output 1 US$52,158.27 – out put 2	**Total annual expenditure:**	US$75,374.60– out put 1 US$ 77,494.93– out put 2
Annual Delivery:	90% - out put 1; - 78% - output 2		

I. EXECUTIVE SUMMARY

Output 1

The target for the out put was achieved at the end of the year. This was the phase–out of ODS consumption in the Foam Sector through industrial conversion of one company with adoption of low GWP / non-ODS alternative. Seal Sprayed Solutions phased out the use of HCFC 141b in its foam manufacturing process and adopted the use of methyl formate, a non ODS and climate friendly alternative. There was no importation (consumption) of HCFC 141b in 2013.

Several activities were undertaken which helped to achieve the target for the output. During the period under review, NEPA re-imbursed Seal Sprayed Solutions (SSS) for funds used to purchase test materials used in comparative field trials and labour costs for retrofitting spray foam dispensers).

Roy Chowdry and Bert Veenendaal were contracted as International Consultants. Mr. Veenendaal, through a mission to Jamaica went on a site visit to SSS. He verified that the equipment for which the company was re-imbursed was actually purchased and that there were increased operational costs due to phase out/phase in of technology. The latter would support compensation payment that was expected to be made based on the Memorandum of Understanding (MoU) between NEPA and SSS. Mr. Veenendaal also met with Vaughn Morris (Director, SSS), Nicol Walker, Margaret Jones Williams and Sasha Shirley to discuss the conversion process being undertaken by SSS. He also completed the hand over protocol which included a list of items to complete as at April 30. These were:

- ✓ Deplete existing HCFC containing inventory (Seal to report to NEPA when depleted)
- ✓ Purchase methyl formate based system from Eiffel/Mexico for use in trials

Mr. Veenendaal recommended that SSS be re-imbursed for a total of US$5,200 for purchase of the methyl formate. The recommendation for re-imbursement of the US$5,200 was approved by UNDP. The MoU was amended to facilitate the payment. The expiration date was changed from June 2013 to March 2014. Other milestone payment dates were also amended. Compensation for increased operational costs and completion payment were changed from June 2013 to December 2014 and March 2014, respectively.

Based on the recommendation from Mr. Veenendaal, Seal Sprayed Solutions purchased methyl formate (alternative to HCFC 141b) from Eiffel in Mexico for use in trials. The purchase was based on a recommendation from the International Consultant, Bert Veenendaal, during his mission to visit to Seal during the April to June quarter. The company undertook trials with the material and obtained favourable results. On this basis, they were compensated for increased operational costs due to phase out of HCFC141b and phase in or use of the environmentally friendly alternative methyl formate.

Output 2

The target for the output, ODS consumption freeze by 2013 at the maximum allowable consumption of 268.24 Mt (16.3 ODP t) was achieved as at 1 January 2013. The output indicator of maximum allowable consumption of 268.24 Mt for the period was obtained as reflected in the total quantity of ODS imported for the year which was 49.42mt. This data was obtained from Jamaica Customs.

Some activities undertaken during the period that assisted in achieving the target were as follows. In 2013, Dr. Earle Wilson was contracted as the National Consultant and Mr. Ruben Marchand was contracted as the International Consultant to complete activities under Output 2. Dr. Wilson completed eight deliverables during the period. These were as follows:

1. Workplan for his scope of work
2. Revised phase out strategy of HCFCs in the refrigeration and air-conditioning sectors (RAC) as outlined in the HCFC phase out management plan
3. Train the Trainers workshop plan

HCFCs, refrigerant analysers, recovery, recycling and re-using refrigerants. Practical sessions to support the theory were also held.

The training ended with a closing ceremony at which remarks were given by Dr. Arun Kashyap, UNDP's Resident Representative, Dr. Margaret Jones Williams, Dr. Nilza Prof. Nilza Smith - Dean, Faculty of Engineering and Computing (UTech) ; Dr. Noel Brown – Head, School of Engineering (Utech) and Nicol Walker on behalf of the Chief Executive Officer, NEPA. Dr. Wilson and Mr. Marchand also provided remarks. Other attendees at the closing ceremony included Ms. Sejean Jones, Project Assistant and Ms. Sasha Shirley, Programme Associate, UNDP.

III. ACTIVITIES AND ACHIEVED RESULTS

Expected Outputs & Indicators (including annual targets)	Planned Activities	Planned Budget (US$)	Expenditure (US$)	Achieved Results	Progress Towards Achieving Outputs
	Activity 1 – Training and Technical Support				
OUTPUT 1 JAM/PHA/64/INV/28 - 000667121 **Indicator**: Conversion of foam manufacturing enterprise **Target for the year:** Completed phase–out of ODS consumption in Foam Sector through industrial conversion of one company with adoption of low GWP / non-ODS alternative **Indicator for the year:** Maximum allowable consumption 00 (ODP tonnes) in Foam Sector	Action 1 To carry out UNDP's procurement process to contract the International Consultant	0	0	UNDP's Contracts, Assets and Procurement Committee reviewed the suitability of Roy Chowdry as the International Consultant. The Committee approved the selection of Mr. Chowdry. Both Mr. Chowdry and Bert Veenendaal were contracted as the International Consultants.	**The target for the year was achieved which was phase–out of ODS consumption in Foam Sector through industrial conversion of one company (Seal Sprayed Solution) with adoption of low GWP / non-ODS alternative (methyl formate)**
	Mission of Bert Veenendaal (International Consultant) to Jamaica to do site visit to Seal Sprayed Solutions (SSS)	1,431.68	1,431.68	✓ Mr. Veenendaal verified that the equipment for which the company was re-imbursed was actually purchased and that there were increased	

		Planned Budget (US$)	Expenditure (US$)		
	To compensate Seal Sprayed for increased operational costs due to phase out of HCFC141b and phase in or use of the environmentally friendly alternative methyl formate.	38,250.00	38,250.00	Seal Sprayed was compensated for increased operational costs due to phase out of HCFC141b and phase in or use of the environmentally friendly alternative methyl formate	
Output 2 **Baseline** Targets: ODS consumption freeze by 2013 at maximum allowable consumption of 268.24 Mt (16.3 ODP t) Indicators: Maximum allowable consumption 268.24 Mt	**Activity 1 - Training and technical support**				**The project out of ODS consumption freeze by 2013 at maximum allowable consumption of 268.24 Mt (16.3 ODP t) was achieved.**
	✓ To carry out UNDP's procurement procedure to contract the International Consultant	0	0	✓ Ruben Marchand was contracted as the International Consultant	
	✓ To facilitate (payment of DSA and air-fare) mission to Jamaica by Ruben Marchand	1,818.51	1,818.51	Mr. Marchand came on a mission to Jamaica to familiarize himself with the refrigeration and air-conditioning (RAC) sectors in preparation for the five days Training of Trainers workshop. He met with: (1) Noel Brown, Head – School of Engineering - University of Technology (UTECH) and discussed general training offered in RAC (2) Dr. Wilson to discuss project deliverables (3) President of Jamaica Air-conditioning, Refrigeration and Ventilation Association (JARVA) /Chief Technical Officer, CAC	

		Planned Budget (US$)	Expenditure (US$)		
	by Ruben Marchand to conduct the Training on International Best Practices and lessons learnt			Best Practices and lessons learnt	
	✓ International Consultant to deliver Training on International Best Practices and lessons learnt	$3,080.00	$3,080.00	✓ Mr. Marchand delivered training on International Best Practices in good practices in refrigeration and the use of hydro-carbons and other alternatives to HCFCs ✓ His training was conducted during the five days Train the Trainers Workshop on alternatives to HCFCs ✓ The training included theoretical and practical sessions ✓ One of the highlights of the training was teaching participants how to retrofit an air-conditioning unit from HCFC 22 to hydrocarbon ✓ The training was conducted at the University of Technology ✓	
	✓ International Consultant to submit recommendation for revision of the recovery, recycle, reuse plan	$2,310.00	$2,310.00	✓ Mr. Marchand submitted the recommendation for revision of the recovery, recycle and reuse plan submitted by Dr. Wilson	
	✓ International Consultant to submit recommendation for revision of the retrofit plan	$3,080.00	$3,080.00	✓ Mr. Marchand submitted the recommendation for revision of the retrofit plan submitted by Dr. Wilson	
	✓ To facilitate (payment of DSA and air-fare) the President of the Jamaica Air-conditioning Refrigeration and Ventilation Association (JARVA), Colin Roberts, attendance at the four day conference for the Refrigeration and Air-conditioning (RAC) sector in Brazil	2,953.38	$2,953.38	✓ Colin Roberts, President of JARVA and Manager at CAC 2000 (retailers of refrigeration equipment) attended the International RAC exhibition and congress in Brazil ✓ Presentations covered HCFCs alternatives; training and good practices; Commercial and Industrial Refrigeration solutions; Air Conditioning and Ventilation solutions; Solar Heating; Clean rooms and air quality; Standardization and Regulations;	

		Planned Budget (US$)	Expenditure (US$)		
	substances in St. Kitts and Nevis.			practices needed to be carried out but the understanding of the fact that an AC or Refrigeration Unit is just one component of a dynamic and interactive sstem which includes people and property; and that CAREFUL analysis must be done on the likely Safety Impact that retrofitting a unit with Hydrocarbon (HC) may have on the System.	
	✓ To re-imburse Dr. Wilson for local travel expenses related to transporting Ruben Marchand during his mission to Jamaica to meet with and visit the RAC sectors	485.77	51.01	✓ Dr. Wilson was re-imbursed for local travel expenses related to transporting Mr. Marchand during his mission to Jamaica	
	✓ National Consultant to submit eight deliverables based on scope of work under contract. These were the 1)Workplan, (2)Revised phase out strategy of HCFCs in the Refrigeration and air-conditioning sectors (3) Train the trainers workshop plan (4) Recovery, recycling and re-use plan (5) Retrofit plan (6) Interim report on scope of work (7) Training manual to be used in the Train-the-trainers workshop (8) Delivery of 5-days train the trainer workshop	$11,413.73	$11,413.73	✓ Dr. Wilson completed eight deliverables under his contract. These included training on good practices in refrigeration and the use of hydro-carbons and other alternatives to HCFCs ✓ His training was conducted during the five days Train the Trainers Workshop on alternatives to HCFCs ✓ The training included theoretical and practical sessions ✓ One of the highlights of the training was teaching participants how to retrofit an air-conditioning unit from HCFC 22 to hydrocarbon ✓ The training was conducted at the University of Technology	
	✓ To re-imburse Dr. Wilson for consumables (safety glasses, batteries, note pads, certificate paper, oil and acetylene cylinder) purchased for use at the five days Training of Trainers workshop	✓ 200.74	✓ 200.74	✓ Dr. Wilson was re-imbursed the cost of purchasing the consumables	

		Planned Budget (US$)	Expenditure (US$)		
	and vacuum pumps) for use in the Training of Trainers workshop			hydrocarbon refrigerant, vacuum pumps, fire extinguishers and piercing pliers	
TOTAL		US$163,452.832	US$149,344.11		

IV. PARTNERSHIPS AND SUSTAINABILITY

Partnerships	Impact on/Contribution to Project Activities
Partnerships continued with several agencies. These included the UNDP, the Jamaica Air-conditioning, Refrigeration and Ventilation Association, Jamaica Customs and the Ministry of Health.	✓ The main partnership during the year was with UNDP. The agency provided guidance on reporting requirements and general input and assistance on implementation of project activities. Assistance from UNDP included agreeing to contract the International Consultant for the project. ✓ There were no problems encountered with partners that negatively impacted project implementation
Other Inter-agency partnerships were also formed with members of the Project Steering Committee other than UNDP. These agencies were the Ministry of Water, Land, Environment and Climate Change/Environment Management Division (MWLECC/EMD), Planning Institute of Jamaica (PIOJ) and Ministry of Finance.	✓ These agencies reviewed and provided useful comments on material produced (for example the communication plan) during project implementation. ✓ There were no problems encountered with these partners that negatively impacted project implementation

SUSTAINABILITY

Continuous liaison with local partnerships during the year under review contributed to ensuring sustainability of the project.

Sustainability of the achievements of Seal Sprayed in terms of the phase out of the use HCFC 141b is expected through the HCFC import quota system which does not allow importation (consumption) by Seal Sprayed. Also, ongoing technical support provided by the International Consultant and NEPA will assist in sustainability.

In terms of Trainers who received training during the five days training of Trainers workshop, they were provided with training material at the end of the workshop which is expected to be used as reference material for operating 'on the job'. The material will help to ensure that there is sustainability with regard to the training that was received. Any additional form of technical support could be obtained from the Trainers directly as they were given contact information or through NEPA.

The Trade (Montreal Protocol) (Trade in Ozone Depleting Controlled Substances) Order, 2014, which is in draft, along with the HCFC import quota system that was developed, will help to ensure the targets achieved for each out put are sustained.

General monitoring and evaluation of the project was done through quarterly reporting that were required by UNDP.

ASSET INVENTORY

Project Title: HPMP Implemenation Project (UNDP Component)
Award Number:
Project Number: 67121
Date of Report: January to December 2013

UNDP JAMAICA

S/N	Country Code	Business Unit	Item Description	Make & Model	Quantity	Serial Number	Location	Tag Number	Date acquired	Value	Custodian	Remarks
Asset Profile 1 - Vehicles												
1	JAM10	B0512	Vehicle									
2	JAM10	B0512	Vehicle									
3	JAM10	B0512	Vehicle									
4	JAM10	B0512	Vehicle									
Asset Profile 2 - Furniture												
5	JAM10	B0512	Furniture or Fixture									
6	JAM10	B0512	Furniture or Fixture									
7	JAM10	B0512	Furniture or Fixture									
8	JAM10	B0512	Furniture or Fixture									
Asset Profile 3 - Electrical												
9	JAM10	B0512	A/C Unit (Evaporator)	Windy	1	JAA0GBD8105 539000071	NEPA	Nepa-145-519-01	15-Oct-13	466.29	UNDP	
10	JAM10	B0512	A/C Unit (Condenser)	Windy	1	JAA0WAD8106 016000224	NEPA	Nepa-145-528-01	15-Oct-13		UNDP	
11	JAM10	B0512	Electrical Equip. or Computer									
12	JAM10	B0512	Electrical Equip. or Computer									
Asset Profile 4 - Heavy Machinery												
13	JAM10	B0512	Refridgerant Recovery System	CR500	3	5R20561 5R20562 5R20560	NEPA	Nepa-245-658-01 Nepa-245-658-02 Nepa-245-658-03	10-Nov-13	1088.12 1088.12 1088.12	UNDP	
14	JAM10	B0512	Heavy Equip. or Generator									
15	JAM10	B0512	Heavy Equip. or Generator									
16	JAM10	B0512	Heavy Equip. or Generator									
Asset Profile 5 - Non Capitalized Items												
17	JAM11	B0513	Digital Amp. Metre	PDF 41	2	13080185 13080340	NEPA	Nepa-245-655-01 Nepa-245-655-03	11-Nov-13	324.05 324.06		
18	JAM10	B0512	Digital Vacrometer	VG 200	2	1387129 1387128	NEPA	Nepa-245-656-01 Nepa-245-656-02	10-Nov-13	63.15 63.15	UNDP	
19	JAM10	B0512	Vacuum Pump	VP8D	3	110308 110189 110168	NEPA	Nepa-245-657-01 Nepa-245-657-02 Nepa-245-657-03	10-Nov-13	445.93 445.93 445.93	UNDP	
20	JAM10	B0512	Fire Extinguisher		3	5HISA40ABC AB-844373 AB- 844372	NEPA	Nepa-245-323-01 Nepa-245-323-02 Nepa-245-323-03	10-Nov-13	34.00 34.00 34.00	UNDP	
21	JAM10	B0512	Other (less than 1,000 $)									
			TOTAL							$ 5,944.84		

Project Manager
Date and Signature

Programme Officer
Date and Signature

Ithar Gaskin
Programme Analyst
29 August 2014

Deputy Resident Representative
Date and Signature

ANNEX III

HPMP IMPLEMENTATION PROJECT - UNDP COMPONENT - RISKS

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
	Out put 1 – JAM/PHA/64/INV/ 28- Conversion of Foam Manufacturing Facility								
	Activity 2- Training and technical support								
1.	Invoices for materials to be used in trials and for retrofit equipment not received by Seal Sprayed in a timely manner from suppliers of equipment	January 2013	Operational and Organisational	This could delay completion of retrofitting of equipment P = 3 I = 5	Continuous follow up with Seal Sprayed Solutions will be undertaken to ensure they follow up with the supplier to ensure invoices are submitted on time	Seal Sprayed and NEPA	NEPA	December 2013	All invoices were submitted on time
2.	Retrofit equipment, and materials to be used in trials not shipped to Seal Sprayed Solutions in a timely manner	January 2013	Operational and Organisational	This could delay completion of retrofitting of equipment P = 3 I = 5	Continuous follow up with Seal Sprayed Solutions will be undertaken to ensure they follow up with the supplier to ensure the equipment is delivered in a timely manner	Seal Sprayed and NEPA	NEPA	December 2013	All retrofit equipment, and materials were shipped to Seal Sprayed in a timely manner
	Out put 2 –								

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1.	Delays could be experienced in implementation of project activities such as the Train the Trainers workshop	January 2013	Operational and Organisational	✓ Delays could be experienced in implementation of project activities such as the Train the Trainers workshop due to delay in procurement of equipment P = 3 I = 5	Monitoring of each stage of the contracting process to try to ensure equipment is purchased and received on time	NEPA	NEPA	December 2013	Most equipment required was purchased. This did not delay implementation.
	Delay in implementation of Train the Trainers workshop	January 2013	Operational and Organisational	Delay in implementation of Train the Trainers workshop due to venue not being finalised in a timely manner P = 3 I = 5	Begin process to identify and confirm venue at least three months prior to expected start date of workshop	NEPA	NEPA	December 2013	The venue was contracted in a timely manner

Annex V Lessons Learned

#	Type	Date Identified	Successes	Shortcomings	Recommended Solutions	Submitted, updated by
1.	Project Management/ Human Factor	January 2013	✓ The Project Steering Committee (PSC) being comprised of key project stakeholders only (UNDP, PIOJ, MWLECC/EMD. Ministry of Finance and NEPA) worked well in ensuring the project output would be met. ✓ The small PSC facilitated meaningful discussion on project implementation and lessened input based on personal preferences.	Not applicable	Not applicable	NEPA
2.	Project Management/ Human Factor	2013		✓ Delays in obtaining a supplier for four refrigerant identifiers impacted the procurement of the equipment ✓ It was anticipated that the equipment would be obtained by mid - year.		NEPA

Project Management:	Prepared by: NICOL DALCIER	Date: 21 August 2014
	Approved by: Nadette Douglas	Date: 21/8/2014

UNDP Resource Persons:	Name, Programme Analyst – Capacity Development Name, Programme Associate – Capacity Development	
Accepted by:	Hiral Gowtela	Date: 29 August 2014

ASSET INVENTORY

UNDP JAMAICA

Project Title: HCFC Phase out Management Plan - Stage 1 implementation
Award Number:
Project Number: 67121
Date of Report: January to December 2013

S/N	Country Code	Business Unit	Item Description	Make & Model	Quantity	Serial Number	Location	Tag Number	[illegible]	Value	Custodian	Remarks
Asset Profile 1 - Vehicles												
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8	JAM10	B0512	Furniture or Fixture									
Asset Profile 3 - Electrical												
9	JAM10	B0512	A/C Unit (Evaporator)	Windy	1	JAAU[illegible] 533000071	NEPA	Nepa-145-519-01	15-Oct-13	456.23	UNDP	
10	JAM10	B0512	A/C Unit (Condenser)	Windy	1	JAACW4D8106 016300224	NEPA	Nepa-145-528-01	15-Oct-13		UNDP	
11	JAM10	B0512	Electrical Equip. or Computer									
12	JAM10	B0512	Electrical Equip. or Computer									
Asset Profile 4 - Heavy Machinery												
13	JAM10	B0512	Refridgerant Recovery System	CR500	3	5R20561 5R20562 5R20560	NEPA	Nepa-245-658-01 Nepa-245-658-02 Nepa-245-658-03	10-Nov-13	1088.12 1088.12 1088.12	UNDP	
14	JAM10	B0512	Heavy Equip. or Generator									
15	JAM10	B0512	Heavy Equip. or Generator									
16	JAM10	B0512	Heavy Equip. or Generator									
Asset Profile 5 - Non Capitalized Items												
17	JAM11	B0513	Digital Amp. Metre	PDF 41	2	13080185 13080340	NEPA	Nepa-245-655-01 Nepa-245-655-02	11-Nov-13	324.05 324.05		
18	JAM10	B0512	Digital Vacrameter	VG 200	2	1387129 1387128	NEPA	Nepa-245-656-01 Nepa-245-656-02	10-Nov-13	[illegible] 63.15	UNDP	
19	JAM10	B0512	Vacuum Pump	VP6D	3	110308 110189 110168	NEPA	Nepa-245-657-01 Nepa-245-657-02 Nepa-245-657-03	10-Nov-13	445.93 445.93 445.93	UNDP	
20	JAM10	B0512	Fire Extinguisher		3	5HISA4CABC AB-844373 AB 844372	NEPA	Nepa-245-323-01 Nepa-245-323-02 Nepa-245-323-03	10-Nov-13	34.00 34.00 34.00	UNDP	
21	JAM10	B0512	Other (less than 1,000 $)									
			TOTAL							$ 5,944.94		

Project Manager
Date and Signature

NICOLE BARKER
29 August 2014

Programme Officer
Date and Signature

Ithiz Gonzales
Programme Analyst
29 August 2014

Deputy Resident Representative
Date and Signature

5 Jan. 2015