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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Seventy-fourth Meeting
Montreal, 18-22 May 2015

# PROJECT PROPOSAL: THAILAND

This document consists of the comments and recommendation of the Secretariat on the following project proposal:

# Phase-out

• HCFC phase-out management plan (stage I, second tranche)

World Bank / Government of Japan

# PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS THAILAND

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE	
HCFC phase out plan (stage I)	World Bank (lead), Japan	68 <sup>th</sup>	15% by 2018	

(II) LATEST ARTICLE 7 DATA (Annex C Group l)	Year: 2013	863.32 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)							Year: 2013		
Chemical	Aerosol	Foam	Fire fighting	Refrigera	tion	Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123				0.9	1.4				2.3
HCFC-124					0.1				0.1
HCFC-141b		179.3				20.6			199.9
HCFC-22				402.5	256.9				659.4
HCFC-225						1.0			1.0
HCFC-225ca						0.3			0.3
HCFC-225cb						0.4			0.4

(IV) CONSUMPTION DATA (ODP tonnes)						
2009 - 2010 baseline:	927.6	Starting point for sustained aggregate reductions:	943.28			
	CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)					
Already approved:	234.72	Remaining:	708.56			

(V) BUSINESS PLAN		2015	2016	2017	2018	2019	Total
World Bank	ODS phase-out (ODP tonnes)	119.2	31.2	10.2	7.7	24.5	192.8
	Funding (US \$)	11,455,585	3,277,990	1,070,000	806,384	2,577,181	19,187,140

(VI) PROJ	ECT DAT	ΓΑ	2012	2013	2014	2015	2016	2017	2018	Total
Montreal Pro limits	Montreal Protocol consumption limits		n/a	927.6	927.6	834.84	834.84	834.84	834.84	n/a
Maximum al consumption		nes)	n/a	927.6	927.6	834.84	834.84	834.84	788.46	n/a
Agreed funding	World Bank	Project costs	4,817,166	9,706,154	1,000,000	3,063,542	1,000,000	753,630	2,408,580	22,749,072
(US \$)		Support costs	337,202	679,431	70,000	214,448	70,000	52,754	168,601	1,592,436
	Japan	Project costs	302,965	0	0	0	0	0	0	302,965
		Support costs	39,385	0	0	0	0	0	0	39,385
Funds approx ExCom (US		Project costs	5,120,131	0	0	0	0	0	0	5,120,131
		Support costs	376,587	0	0	0	0	0	0	376,587
Total funds requested for approval at this		Project costs	0		0	9,706,154	0	0	0	9,706,154
meeting (US	\$)*	Support costs	0		0	679,431	0	0	0	679,431

<sup>\*</sup>The second tranche should have been submitted in 2013.

Secretariat's recommendation:	For individual consideration

#### PROJECT DESCRIPTION

1. On behalf of the Government of Thailand, the World Bank as the lead implementing agency, has submitted to the 74<sup>th</sup> meeting a request for funding for the second tranche of stage I of the HCFC phase-out management plan (HPMP)<sup>1</sup>, at the amount of US \$9,706,154, plus agency support costs of US \$679,431 for the World Bank only. The submission includes a progress report on the implementation of the first tranche and the tranche implementation plan for 2015 to 2016.

# Report on HCFC consumption

# HCFC consumption

2. The Government of Thailand reported a consumption of 863.32 ODP tonnes of HCFC in 2013 and estimated a consumption of 864.35 ODP tonnes for 2014, which are below the consumption target of 927.51 ODP tonnes. HCFC consumption for 2010-2014 is shown in Table 1.

Table 1. HCFC consumption in Thailand (2010-2014 Article 7 data)

HCFC	2010	2011	2012	2013	2014*	Baseline
Metric tonnes						
HCFC-22	14,780.73	11,445.76	16,821.19	11,988.86	11,984.35	13,028.60
HCFC-123	140.16	134.53	198.88	113.47	136.06	159.75
HCFC-124	6.80	2.99	2.99	4.03	4.41	3.41
HCFC-141b	1,921.47	1,620.23	2,028.98	1,817.37	1,830.46	1,865.93
HCFC-142b	0	0	0	0	0	1.81
HCFC-225**	40.72	28.62	45.91	37.64	39.35	54.60
Total HCFC (mt)	16,889.88	13,232.13	19,097.95	13,961.37	13,994.63	15,114.10
HCFC-141b in imported polyols	0	160.53	182.23	53.86	92.29	142.50***
ODP tonnes						
HCFC-22	812.94	629.52	925.17	659.39	659.14	716.57
HCFC-123	2.80	2.69	3.98	2.27	2.72	3.19
HCFC-124	0.15	0.07	0.07	0.09	0.10	0.08
HCFC-141b	211.36	178.23	223.19	199.91	201.35	205.25
HCFC-142b	0	0	0	0	0	0.12
HCFC-225**	1.20	0.84	2.24	1.66	1.04	2.30
Total HCFC (ODP tonnes)	1,028.45	811.35	1,154.65	863.32	864.35	927.51
HCFC-141b in imported polyols	0	17.66	20.05	5.92	10.15	15.67***

<sup>\*</sup>Estimated in the HPMP

3. The large consumption of HCFC-22 and HCFC-141b in 2012 was due to provisions made by the manufacturing sector in preparation for the control measures. In 2013, HCFC-141b contained in imported pre-blended polyols was partially replaced by polyols blended in Thailand. In 2014 HCFC-141b pure and in pre-blended polyols increased due to provisions made before the control measure in 2015.

#### Country programme (CP) implementation report

4. The Government of Thailand reported sector HCFC consumption data under the 2013 CP implementation report, which is consistent with the data reported under Article 7. The 2014 CP report will be submitted by 1 May 2015.

<sup>\*\*</sup>These figures include consumption for HCFC-225, HCFC-225ca and HCFC-225cb

<sup>\*\*\*</sup>Average consumption 2007-2009

<sup>&</sup>lt;sup>1</sup> The second tranche should have been submitted in 2013.

# Progress report on the implementation of the first tranche of the HPMP

# Legal framework

5. The Department of Industrial Works (DIW) established an import quota system for HCFCs in January 2013. In addition, the DIW reviewed regulations related to flammable materials and conducted a risk assessment study to facilitate the safe introduction of HFC-32 (considered a mildly flammable refrigerant) in the manufacturing and installation of room air-conditioning (AC) units. The existing industrial standard prohibits installing, servicing and charging room AC units with highly flammable refrigerants.

#### Manufacturing sector

6. The World Bank signed a grant agreement with the Government Savings Bank (GSB) in November 2014 to assist twelve room AC and 184 polyurethane (PU) foam manufacturing enterprises included in stage I of the HPMP in implementing their conversions. The DIW provides policy and regulatory support to ensure sustainable phase-out and oversees implementation of the enterprises' environmental management plans and disposal of baseline equipment.

# Room AC manufacturing

- 7. The DIW assisted twelve enterprises in developing their environmental management plans while GSB verified their HCFC consumption and baseline equipment, and submitted sub-project proposals. Ten enterprises' sub-projects were approved (49.54 ODP tonnes) and sub-grant agreements signed between November 2014 and March 2015. As of March 2015, four of them (19.63 ODP tonnes) had already completed procurement of the equipment and two more (5.87 ODP tonnes) had started their procurement plans. The total funds committed amount to US \$7,633,899.
- 8. Two enterprises (Better Living and Pan Tycoon (2.31 ODP tonnes)) informed GSB that they would not seek grant funds from the project and would phase out HCFC-22 with their own funds. The World Bank is planning to reallocate the funds originally allocated to these enterprises (US \$880,950) to other eligible HCFC phase-out activities in 2015.
- 9. The verification of ten enterprises that are in implementation indicated a current consumption of 838.6 mt of HCFCs, which is lower than the consumption of 900.7 mt at the time of the submission of the HPMP. Accordingly, the associated incremental costs were lower, resulting in a balance of US \$251,870. The Government of Thailand and the World Bank decided to maintain the phase out of 900.7 mt from the starting point for reduction on eligible consumption and use the balance for activities that can assist and sustain the HCFC reductions. Of this balance the World Bank is proposing to disburse US \$154,853 for a train-the-trainer programme for installation and servicing of HFC-32 AC equipment; the remaining balance of US \$97,017 will be reprogrammed when the next tranche of the HPMP will be submitted.

# PU foam manufacturing

10. The DIW developed an environmental management framework for foam enterprises converting to cyclopentane, and assisted five of them in developing their environmental management plans. GSB visited the five enterprises to verify their HCFC consumption and baseline equipment and submitted sub-project proposals. The five enterprises' sub-projects were approved (25.08 ODP tonnes) and sub-grant agreements signed between November 2014 and March 2015. As of March 2015, one enterprise (1.35 ODP tonnes) had completed procurement of the equipment, while three more (15.43 ODP tonnes) had started procurement. The fifth one (8.30 ODP tonnes) has not started procurement. The total funds committed amount to US \$1,994,612.

#### Technical assistance

- 11. The following technical assistance activities were carried out during the first tranche:
  - (a) The DIW established an inter-departmental steering committee<sup>2</sup> to provide guidance and legal support for the introduction of HFC-32 AC technologies in Thailand;
  - (b) The DIW commissioned a risk assessment of HFC-32 AC equipment, which enabled the steering committee and the Department of Public Works to allow the use of HFC-32 AC units with cooling capacity of not more than 36,000 British thermal units (BTU)<sup>3</sup> per hour in high-rise buildings. For larger units, certification from qualified engineers would be required;
  - (c) The FTI organized a technical study tour to Kobe, Japan, for the local AC industry representatives, to learn about risk assessment of HFC-32 technology for AC with larger cooling capacity (greater than 36,000 BTU) per hour);
  - (d) Two study tours to Daikin's facility in Japan were organized, which gave full confidence of the local AC manufacturers in the use of the new HFC-32 technology and better understanding of the technology transfer agreements offered by Daikin;
  - (e) The DIW and GSB in collaboration with the FTI and the Ministry of Economy, Trade and Industry (METI) of Japan assisted the twelve local room AC manufacturers to secure non-assertion agreements with Daikin (Japan) which allow the local room AC manufacturers to use HFC-32 technology in their AC production free of charge, and to market their new products in the domestic and international markets with no restrictions;
  - (f) The GSB also developed terms of reference for acquiring technical assistance for the local AC manufacturers to convert their production facilities to HFC-32 technology and to develop detailed installation and servicing procedures for service technicians. The output from this activity will also be used in other technical assistance activities, including the train-the-trainer programme for good servicing practices for HFC-32 AC equipment as well as for inclusion in the curricula of training institutes in Thailand;
  - (g) On the technical assistance for the development, manufacturing and delivery of HC and CO<sub>2</sub> compressors for use in commercial refrigeration, the beneficiary enterprise has already carried out research and development for compressors; prototypes are being constructed and a performance endurance test will take place in 2015; and
  - (h) On the foam sector, two meetings with polyol suppliers have been conducted in 2013 and 2014; and the following low-global warming potential (GWP) alternatives have been identified: water; reduced HFC-245fa formulation, and reduced HFO formulation. Through these consultations, a proposal for a demonstration project on low GWP alternatives for foam systems houses was developed and submitted to the 74<sup>th</sup> meeting pursuant to decision 72/40.

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<sup>&</sup>lt;sup>2</sup> Comprises representatives from the DIW, Department of Public Works, Bangkok Metropolitan Administration, Thailand Industrial Standard Institute, Department of Transport, Department of Skill Development, Electricity Generation Authority of Thailand, Electrical and Electronic Institute, Federation of Thai Industry (FTI), Hazardous Substances Bureau and Legal Bureau of DIW.

<sup>&</sup>lt;sup>3</sup> BTU is the amount of energy needed to cool or heat one pound of water by one degree Fahrenheit.

*Project implementation and monitoring unit (PMU)* 

12. Since there are two executing agencies participating in the project (the GSB and the DIW), two PMUs were established. The PMU of the GSB is responsible for implementing conversion and technical assistance activities in the manufacturing sector at the enterprise level. The PMU of the DIW assists in the approval of sub-project eligibility and disposal plans, monitors implementation and sustainable HCFC phase-out at the enterprise level, provides technical assistance to training institutes and non-governmental organizations, assists in allocating annual HCFC import quotas and facilitates the work of the independent consultant to carry out the verification of annual HCFC consumption. Both PMUs jointly developed a project implementation manual describing detailed procedures for each sub-project cycle.

### Level of fund disbursement

- 13. As of April 2015, of the US \$5,120,131 so far approved (US \$4,817,166 for the World Bank and US \$302,965 for the Government of Japan), US \$1,133,293 (22.1 per cent) had been disbursed (US \$1,104,883 for the World Bank and US \$28,410 for the Government of Japan). The balance of US \$3,986,838 will be disbursed in 2015.
- 14. The Government of Thailand has contributed US \$96,200 as co-financing for risk assessment for HFC-32 technology, study tours, quota allocations in 2013 and 2014 and the HFC-32 steering committee meetings. So far, co-financing of US \$840,881 has been required in agreements signed with the following enterprises: Thrub Thong Hou, Saijo Denki International, United Tech Devl and Lucky Star Universal.

# Implementation plan for the second tranche of the HPMP

15. The Government of Thailand will implement the following activities:

#### Manufacturing sectors

- 16. All eligible AC enterprises will complete their conversion by the end of 2016 as scheduled. For the foam sector, additional sub-grant agreements will be signed with large foam enterprises converting to cyclopentane in 2015. In addition, GSB and the PU foam group of the FTI will develop an approach to streamlining procedures for channelling grant funds to small and medium-sized enterprises (SMEs) by the end of September 2015.
- 17. All polyol suppliers will submit the list of their customers in the spray foam sector to DIW. This will help the DIW to register all spray foam enterprises for which the use of HCFC-141b will be allowed beyond 2016. This database of spray foam enterprises will become a major tool for the DIW to track the use of HCFC-141b beyond 2015, when HCFC-141b uses in other applications will be banned.

#### Technical assistance

#### 18. It includes:

- (a) Provision of technical assistance to support HCFC-22 phase-out in the AC sector through workshops on climate friendly refrigerants for small and large AC systems;
- (b) Completion of safety procedures and training manuals for manufacturing, installing and servicing HFC-32 AC units;
- (c) Development of standards and regulatory framework supporting the introduction of energy efficiencies in HFC-32 AC;

- (d) Technology transfer to 53 micro foam enterprises for completion by December 2017; and
- (e) Train-the-trainer programme for installation and servicing of HFC-32 AC equipment, using a balance of US \$154,853 from the AC manufacturing sector conversions.

#### PMU

- 19. During the next tranche, the GSB PMU will continue to develop new sub-project proposals and new sub-grant agreements; to implement sub-projects for which sub-grant agreements have already been signed; and to participate in the training and workshops.
- 20. The DIW PMU will facilitate the approval of new sub-grant agreements considering eligibility, disposal plans, and implementation of environmental management plans; assist in conducting quarterly steering committee meetings; develop terms of reference for technical assistance activities; engage consulting services; and conduct workshops and training to inform stakeholders of the project and the need to phase out HCFCs and to avoid high GWP alternatives.
- 21. Funds requested under the plan of action for the second tranche are shown in Table 2.

Table 2. Plan of action second tranche stage I

Activity	Funds requested (US \$ million)
Completion of conversion of room AC manufacturing enterprises	5.05
Conversion of the PU foam manufacturing sector except spray foam	4.66
Technical assistance activities	
PMU	
Total	9.71

# SECRETARIAT'S COMMENTS AND RECOMMENDATION

#### **COMMENTS**

# Report on HCFC consumption

Verification report

22. By the time of issuance of this document, the verification of HCFC consumption in 2014 was still underway. Therefore, in line with decision 72/19, funds approved under the second tranche will not be transferred to the implementing agencies until the Secretariat has reviewed the verification report and confirmed that the Government of Thailand is in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.

# Progress report on the implementation of the first tranche of the HPMP

#### Legal framework

23. The Government of Thailand has been implementing its HCFC import licensing and quota system since 2013. The allocated quotas and actual imports in 2013 and 2014 are shown in Table 3.

Table 3. Import quota and actual import by HCFC

HCFC (mt)	201	3	2014			
	Quota	Actual	Quota	Actual		
HCFC-22	13,072	12,318	13,072	11,984		
HCFC-141b	1,837	2,028	1,837	1,830		
HCFC-142b	4	0	4	0		
HCFC-123	154	116	154	136		
HCFC-124	7	4	7	4		
HCFC-225ca/cb	42	38	42	39		
Total	15,115	14,504	15,115	13,995		

- As explained by the World Bank, actual imports of HCFC-22 were lower than the import quotas for 2013 and 2014 as multinational enterprises (that are not eligible for funding) have already started introducing non-HCFC-22 alternatives (e.g., Daikin has already launched its HFC-32 product lines). The reason for having an actual import of HCFC-141b in 2013 above the allocated quota is that one enterprise imported HCFC-141b using an old import permit that was still valid in 2013. This took place during the transition period for import permit validity from three years to one year starting in 2012. This is not expected to happen in the future as all permits have been converted to a one-year validity period.
- 25. The reason for actual imports by substance in 2013 being larger than HCFC consumption reported in the same year (Table 1) is that until 2013 the customs data was used as the basis for reporting, while information in Table 3 is from DIW, which is more accurate due to a better substance classification. In both cases, HCFC imports are below the maximum allowable consumption. Since 2014 the basis for reporting is the DIW data and both sets of data are crosschecked. The DIW confirmed that the actual import of HCFC-141b in 2014 was within the limit of the 2014 import quota as shown in Table 3.
- 26. The Government of Thailand has already issued HCFC import quotas for 2015 within 90 per cent of the consumption baseline. For subsequent years, the annual quota will be based on the levels allowed under the Montreal Protocol and the Agreement.

Manufacturing sector

27. Based on the information provided by the World Bank, the Secretariat prepared the following overview of implementation progress in the manufacturing sectors included in stage I (Table 4).

Table 4. Overview of progress in the manufacturing sectors in Thailand

Sector	Status of implementation		Enterprises*	Consumption (ODP tonnes)*	Estimated completion
				(ODF tollies)	date
	Procurement	plan completed	4	19.63	Dec. 2016
AC	Procurement	plan started	2	5.87	Dec. 2016
manufacturing	Agreement s	igned	4	24.03	Dec. 2016
	May not part	icipate	2	2.31	TBD**
	Total		12	51.85	
	Larger enterprises	Procurement plan completed	1	1.35	Dec. 2015
		Procurement plan started	3	15.43	Dec. 2015
PU foam		Agreement signed	1	8.30	Dec. 2015
	(23)	Still to sign agreement	18	45.28	Dec. 2016
manufacturing	SMEs	Still to sign agreement	108	95.01	TBD**
	Micro-	Still to sign agreement	53	0.48	Dec. 2017
	enterprises				
	Total		184	165.85	

<sup>\*</sup>As per the approved HPMP

<sup>\*\*</sup> TBD - to be determined

# Room AC manufacturing sector

- 28. The Secretariat noted that despite the delay in starting implementation of the HPMP (due to external factors outside of the World Bank's control) there is progress in this sector as ten out of the twelve enterprises have already started their conversion. As indicated in the HPMP, enterprises had already stockpiled HCFC-22 (purchased prior to December 2014) and are committed to complete their conversion by the end of 2016, as originally planned. The planned ban on HCFC-22 use in the manufacturing of AC equipment, and on imports of HCFC-22-based AC equipment (up to 14.5 kW) by 1 January 2017 for the Thai market by 31 December 2017, as well as the planned ban on the sales of HCFC-22-based AC units in the Thai market, will be implemented on schedule, in line with decision 68/39(d).
- 29. Two changes were reported by the World Bank under this component:
  - (a) Reallocation of US \$880,950 from two enterprises, Better Living and Pan Tycoon, not participating in the plan. The World Bank informed that the funds will possibly be reallocated to support the conversion of other eligible enterprises or to establish a certification programme for AC technicians. As the situation is still being reviewed by the Government of Thailand, the final decision will only take place at the time submission of request of the third tranche, expected at the 75<sup>th</sup> meeting. The Secretariat pointed out that as this may potentially constitute a major change in the stage I strategy, the World Bank would need to include a justification for the change proposed and a detailed proposal with activities to be undertaken with the funds and associated HCFC phase-out. Adjustments to the Agreement may be required to reflect additional HCFC deductions to the starting point from new proposed activities; and
  - (b) Reallocation of an uncommitted balance of US \$154,853 from the AC manufacturing sector to a technical assistance activity to facilitate the safe installation and servicing of HFC-32-based units produced by the enterprises being converted. The Secretariat noted that the activity proposed is complementary to the conversion of the AC manufacturing enterprises and will contribute to facilitate and sustain the alternative technology selected.

# PU foam manufacturing sector

- 30. Noting that stage I of the HPMP included 23 foam enterprises, 108 SMEs and 53 microenterprises (165.8 ODP tonnes), the Secretariat sought clarification on the reason for the low number of foam enterprises that have signed sub-agreements so far (five larger enterprises). The World Bank explained that the majority of foam enterprises covered by the plan are SMEs for which intensive assistance is required to prepare sub-project proposals. The World Bank also provided the following information:
  - (a) Conversion to HC of the remaining 18 larger enterprises is planned between 2015 and 2016, completing the group conversion of the 23 larger enterprises with a total consumption of 70.4 ODP tonnes (conversions should take one year except if re-location of the plant is required); and
  - (b) The systems houses and polyol suppliers that were going to provide assistance to the 108 SMEs and 53 micro enterprises, with a combined consumption of 95.5 ODP tonnes, were reluctant to approach their clients as funding had not been secured. To expedite the implementation of conversion, the DIW has agreed to announce the availability of funds as soon as the second funding tranche is approved, and invite all foam enterprises to indicate their willingness to participate in the project by the end of September 2015. This will allow the DIW and the GSB to allocate funds and sign sub-grant agreements with all

foam enterprises. Conversion of SMEs is simpler than that of larger enterprises as alternatives will not be flammable.

- 31. Given the relevance of the foam sector plan (71 per cent of ODP reductions in stage I), the remaining time for implementation before the ban on 1 January 2016, and the current lack of certainty about SMEs converting under stage I, the Secretariat and the World Bank agreed that as part of the submission of the next funding tranche request the World Bank will include a concrete plan of action for the foam sector including the foam enterprises to be converted and their expected conversion schedule.
- 32. On the commitment to establish a ban on the use of HCFC-141b in the manufacturing of foams and the ban on imports of HCFC-141b in pre-blended polyols as of 1 January 2016, the World Bank indicated that the DIW still maintains its commitment to restrict the use of HCFC-141b in all applications, except spray foam, by end of 2015 through its import permit mechanism. This restriction is supported by the system houses. DIW is considering an option to provide exemption for one year, if needed, to those enterprises confirming their plans to phase out of HCFC-141b.

# Modifications to the Agreement

33. The Secretariat noticed that the Agreement between the Government and the Executive Committee has two incorrect consumption target values for the year 2018 in rows 1.1 and 1.2 of Appendix 2-A. While these two values were correct in the draft Agreement produced in Annex I of document UNEP/OzL.Pro/ExCom/68/41, they were not properly reflected in the final Agreement included in Annex XXIII to the report of the 68<sup>th</sup> meeting (UNEP/OzL.Pro/ExCom/68/53). The Montreal Protocol reduction schedule of Annex C, Group I substances for 2018 should be 834.84 ODP tonnes and not 881.21 ODP tonnes (row 1.1), while the maximum allowable total consumption of Annex C, Group I substances for 2018 should be 788.46 ODP tonnes and not 881.21 ODP tonnes (row 1.2). Given that there will be a proposal for reallocation of funds to be submitted to the next tranche, and that an adjustment to the Agreement may be required, it is suggested to revise the Agreement when the next tranche is submitted.

# Conclusion

34. The Secretariat noted that despite difficulties in initiating activities under the HPMP, the Government of Thailand and the World Bank progressed in several activities even before the signature of the implementation agreement in November 2014. An operational licensing and quota system is in place, the HCFC consumption levels in 2013 and 2014 (pending confirmation from verification) are below the consumption baseline and the import quota established for 2015 is within 90 per cent of the baseline. Regulatory measures are taking place to facilitate the introduction of HFC-32 technology in air-conditioning, ten out of the twelve AC manufacturing enterprises have already started implementation of their conversions, five foam enterprises have signed sub-agreements to start implementation, and a number of technical assistance activities have taken place, mostly focused on facilitating the introduction of HFC-32. The World Bank and the Government of Japan have disbursed 22 per cent of the approved funds. The Secretariat also noted that so far US \$5.1 million have been approved, and that the World Bank has committed US \$9.6 million in investment activities in the AC and foam manufacturing sectors that are currently ongoing. Approval of the second tranche will allow the Government and the World Bank to comply with the acquired commitments and start new projects in the foam manufacturing sector.

### RECOMMENDATION

- 35. The Executive Committee may wish to consider:
  - (a) Noting the progress report on the implementation of the first tranche of stage I of the HCFC phase-out management plan (HPMP) in Thailand;
  - (b) Approving:
    - (i) The reallocation of a balance of US \$154,853 from the air-conditioning manufacturing investment project to a train-the-trainer programme for installation and servicing of HFC-32 AC equipment on the understanding that the Government of Thailand will maintain its HCFC phase-out commitment as approved in the HPMP; and
    - (ii) The second tranche of stage I of the HPMP for Thailand, and the corresponding 2015-2016 tranche implementation plan, at the amount of US \$9,706,154, plus agency support costs of US \$679,431 for the World Bank, on the understanding that the approved funds would not be transferred to the World Bank until the Secretariat had reviewed the verification report and confirmed that the Government of Thailand was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.

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