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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Fifty-third Meeting  
Montreal, 26-30 November 2007

**PROJECT PROPOSAL: THAILAND**

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

Phase-out

- National CFC phase-out plan: 2007 annual programme World Bank

Pre-session documents of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol are without prejudice to any decision that the Executive Committee might take following issuance of the document.

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**PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS**

**Thailand**

<b>(I) PROJECT TITLE</b>	<b>AGENCY</b>
ODS phase out plan	IBRD

<b>(II) LATEST ARTICLE 7 DATA (ODP Tonnes)</b>				<b>Year: 2006</b>			
CFC: 453.7	CTC: 0	Halons: 0		MB: 141.1		TCA: 0	

<b>(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP Tonnes)</b>							<b>Year: 2006</b>						
Substances	Aerosol	Foam	Halon	Refrigeration		Solvent	Process Agent	MDI	Lab Use	Methyl Bromide		Tobacco fluffing	Total Sector Consumption
				Manufacturing	Servicing					QPS	Non QPS		
CFC					453.7								453.7
CTC													0
Halons													0
Methyl Bromide									323.3	141.1			464.4
TCA													0

<b>(IV) PROJECT DATA</b>		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
<b>Maximum Allowable Consumption (ODP Tonnes)</b>	CFC		3,066	2,777	2,291	1,364	1,121	912	704	496	0	
	CTC		7.5	7.5	7.5	1.1	1.1	1.1	1.1	1.1	0	
	TCA		34	34	34	4.5	4.5	4.5	4.5	4.5	0	
<b>Project Costs (US\$)</b>	IBRD	Project Costs	540,000	5,194,380.	4,011,846	1,315,400	1,330,400	851,600.	550,000	550,000	385,000	14,728,626
		Support Costs	27,000	459,494	353,066	118,386	111,736	68,644	49,500	49,500	34,650	1,271,976
<b>Total Funds Approved in Principle (US\$)</b>		Project Costs	540,000	5,194,380	4,011,846	1,315,400	1,330,400	851,600	550,000	550,000	385,000	14,728,626
		Support Costs	27,000	459,494	353,066	118,386	111,736	68,644	49,500	49,500	34,650	1,271,976
<b>Total Funds Released by the ExCom (US\$)</b>		Project Costs	540,000	5,194,380	4,011,846	1,315,400	1,330,400	851,600	0	0	0	13,243,626
		Support Costs	27,000	459,494	353,066.	118,386	111,736	68,644	0	0	0	1,138,326
<b>Total Funds Requested for Current Year (US\$)</b>		Project Costs							550,000			550,000
		Support Costs							49,500			49,500

<b>(V) SECRETARIAT'S RECOMMENDATION:</b>	Blanket approval
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## PROJECT DESCRIPTION

### Background

1. At its 35<sup>th</sup> Meeting, the Executive Committee approved the Thailand CFC national phase-out plan and agreed, in principle, total funding of US \$14,728,626 to be disbursed between 2001-2009 for eliminating the remaining consumption of 3,066 ODP tonnes of Annex A, Group I CFCs, 34 ODP tonnes of 1,1,1-trichloroethane (TCA) and 7.52 ODP tonnes of carbon tetrachloride. Since its approval, six tranches representing the 2001 to 2006 annual work programmes have been released to the World Bank, with a total disbursement of US \$13,243,626. In each of the annual programmes completed, the national phase-out plan successfully reduced the ODS consumption below the targets established in the Agreement. The verified CFC consumption in 2005 was 1,193 ODP tonnes and TCA and CTC were completely phased out.

### Project submission

2. Consistent with the Agreement, the World Bank is submitting to the 53<sup>rd</sup> Meeting the request for the release of the 2007 tranche of funds of US \$550,000 and the associated support cost of US \$49,500. The submission consists of a preliminary report on the implementation of the 2006 work programme, and the proposed 2007 work programme. As per the Agreement, which makes the 2007 disbursement conditional on satisfactory verification by the World Bank that Thailand has met its consumption target for 2005, the World Bank is attaching the verification audit of the imports of CFC, TCA and CTC for the year 2005. The 2007 annual work programme and 2005 verification audits of imports are not attached but could be made available upon request.

3. The table below sums up the key data of the 2007 annual work programme of the national phase-out plan in Thailand in relation to those of 2006 programme.

Country	Thailand
Project title:	Thailand ODS Phase-Out Project National CFC Phase-Out Plan (NCFCP)
Year of plan	2007
# of years completed	5
# of years remaining under the plan	3
Ceiling for 2006 ODS consumption (in ODP tonnes), 2006 annual plan	1,121 ODP tonnes of Annex A, Group I Chemicals (CFCs) 4.5 ODP tonnes of TCA 1.13 ODP tonnes of CTC Total: 1,126.63 ODP tonnes
Ceiling for 2007 ODS consumption (in ODP tonnes), 2007 annual plan	912 ODP tonnes of Annex A, Group I Chemicals (CFCs) 4.5 ODP tonnes of TCA 1.13 ODP tonnes of CTC Total: 917.63 ODP tonnes
Total funding approved in principle for the CFC phase-out plan	US \$14,728,626
Total funding released as of December 2006	US \$13,243,626
Level of funding requested for 2007 Annual Plan	US \$550,000

## **Preliminary report on the 2006 annual work programme**

4. The verification of imports of the ODS covered by the Agreement for 2005 showed that the actual consumption of these chemicals in Thailand was as follows: 1,193 ODP tonnes of CFCs, and zero for TCA and CTC. These levels were all below the 2005 targets as set out in the Agreement, namely, 1,364 ODP tonnes for CFCs, 4.5 ODP tonnes for TCA and 1.13 ODP tonnes for CTC respectively. The preliminary results on the 2006 work programme again showed lower consumption than the targets: 453.7 ODP tonnes of CFC, and zero for TCA, and CTC against the targets of 1,121 ODP tonnes of CFC, 4.5 ODP tonnes of TCA, and 1.13 ODP tonnes of CTC. The World Bank plans to conduct a verification of the results of the 2006 programme for submission in 2008.

5. Implementation of the phase-out plan in 2006 continued to benefit from the policies implemented by the Government of Thailand, which include: (i) excise tax on CFCs (30 per cent of import price) imposed by the Ministry of Finance; (ii) ban of ODS use in the manufacturing sector (2004); (iii) mandatory MAC inspections (2004); (iv) ban on imports of CFC-based MDIs (2005); and (v) training of custom officers and provision of refrigerant identifiers (RI) to Customs Department. In addition, on February 2005, the Cabinet approved a legal framework proposed by the Ministry of Commerce to prohibit import of CFC-based refrigerators. The Ministry of Commerce Notification to prohibit import of CFC-based refrigerators was published in the Royal Gazette on 20 March 2006 and has been effective since May 2006.

6. The achievement of CFC reduction in 2005 is partly due to the contribution of on-going public awareness campaigns concentrating on (i) the impacts of using CFC-12 contaminated with other chemicals, (ii) the impacts of using improper refrigerants in MAC systems, in particular the use of CFC-12 in non-CFC MAC system, and (iii) the need and advantage to retrofit CFC-12 MAC system to HFC-134a MAC system. These public awareness campaigns have contributed to raising awareness of vehicle owners and technicians of MAC service shops not to use CFC-12 in HFC-134a MAC systems and to retrofit their CFC-12 MAC systems.

7. To implement the MAC inspection programme, 202 units of refrigerant identifiers (RIs) were distributed to Department of Land Transport stations and an additional 468 RIs will be procured for 2,000 private inspection stations around the country. Distribution of RIs to private inspection stations is considered necessary for the success of sustainable phase-out of CFCs.

8. Four phases of workshops for certification of MAC service technicians have been held and 5,437 technicians from 3,750 MAC shops trained, which exceeds Thailand's commitments under the approved NCFCP for 2,750 MAC service shops.

9. The majority of the industry conversion projects have been completed, except a few in the foam sector and the survey of CTC use in laboratories, which are scheduled for completion in 2007.

10. The achievements of the 2006 technical assistance programme are presented in Table 3 of the World Bank submission, and the government actions implemented are contained in Table 4. Table 5 presents the 2006 budget and financial performance report which provided both the 2006 annual expenditure situation and the cumulative figures since the beginning of the plan. Of the total approvals of US \$13.2 million from the Multilateral Fund, the cumulative disbursement as of December 2006 was US \$5.8 million, or about 44 per cent.

## The 2007 work programme

11. The 2007 annual work programme proposes consumption reductions faster than those set in the Agreement, as shown in the following table.

### Actual consumption in 2006 and target consumption in 2007 (in ODP tonnes)

Indicators			Preceding Year <sup>1</sup> (2006)	Year of Plan <sup>2</sup> (2007)	Reduction
Supply of ODS	<i>Maximum allowable ODS imports</i>	CFCs	1,121	912	209
		TCA	4.5	4.5	0
		CTC	1.13	1.13	0
	<i>Import</i>	CFCs	453.67	400	53.67
		TCA	0	0	0
		CTC	0	0	0
	Production	--	--	--	--
	<b>Total (1)</b>	<b>CFCs</b>	<b>453.67</b>	<b>400</b>	<b>53.67</b>
		<b>TCA</b>	<b>0</b>	<b>0</b>	<b>0</b>
		<b>CTC</b>	<b>0</b>	<b>0</b>	<b>0</b>
Demand of ODS	Manufacturing	CFCs	0	0	0
		TCA	0	0	0
		CTC	0	0	0
	<b>Servicing</b>	CFCs	453.67	400	53.67
	<b>Stockpiles</b>	--	---	---	---
	<b>Total (2)</b>	<b>CFCs</b>	<b>453.67</b>	<b>400</b>	<b>53.67</b>
		<b>TCA</b>	<b>0</b>	<b>0</b>	<b>0</b>
		<b>CTC</b>	<b>0</b>	<b>0</b>	<b>0</b>

12. The plan intends to complete the remaining conversion projects in 2007 and 2008. The other on-going programmes will continue such as mandatory vehicle MAC inspection, MAC technician certification, distribution of basic tools and refrigerant recovery and recycling (R&R) equipment, customs training and procurement of refrigerant identifiers. In order to establish the need for CTC used in laboratories throughout the country, a survey of the target laboratories was carried out and will continue in 2007 by recruiting a consultant to carry out more direct surveys.

13. As one of the important actions from the Government in 2007, the Department of Industry Works (DIW) will work closely with the Department of Foreign Trade (DFT), the Customs Department and the Office of the Council of State to have the Notification to prohibit

<sup>1</sup> Actual amount of reported chemicals imported to Thailand in 2006. However, actual consumption is subjected to be verified by an independent auditor.

<sup>2</sup> Target amount of reported chemicals in 2007.

import of CFC-based refrigerators from Ministry of Commerce signed and put into effect. In 2006, the project management unit worked closely with Food and Drug Administration (FDA) to encourage non CFC-MDIs to be registered by setting up fast-track registration in order to replace the existing CFC-MDI products.

14. The 2007 plan proposes to reallocate US \$258,000 from savings in the aerosol sector allocation to finance two staff and additional public awareness activities under the budget of the NOU in 2007-2009 since the Project Management Unit was terminated in the end of January 2007. US \$524,398 will be reallocated from the balance of MAC R&R machines category to the MAC servicing equipment to cover the shortfall in the budget for procuring the basic tools because due to the exchange rate fluctuation, the cost of the basic tools has increased from US \$1,030 to US \$1,115 per unit.

### **Audit of ODS imports**

15. The audit of imports of CFC, TCA and CTC for the year 2005 was undertaken by a certified public accountant from Thailand. The audit covered an examination of the import/export control procedure which had been implemented by the Government and the validation of actual imports against the import quotas issued through checking of the documents maintained by the departments concerned.

16. The import/export of ODS is jointly controlled by the Department of Industrial Works (DIW) and the Custom Department (CD). DIW is responsible for issuing the import quotas according to the annual maximum consumption targets established in the national phase-out plan, and the CD is charged with the task of managing the actual clearance of imports and exports of the relevant ODS at the borders. On a sample basis, the auditor first reviewed and verified the quota issued to importers by comparing the maximum allowable quantity in the national phase-out plan and the permitted amounts as indicated in the import licenses. The supporting documents that importers and exporters had submitted to DIW when seeking clearance were then verified for consistency. These documents included imports/exports approved by DIW, a copy of import/export licenses, invoices, and bills of lading. Subsequently the auditor examined the records of the Customs Department to ascertain the consistency of the documents submitted to DIW with those that had been submitted to CD. Finally the methodology used by the Government for data collection was reviewed.

17. The auditor found that six shipments by one importer had used counterfeited import clearance forms and submitted them to the CD to declare import clearance, involving a total of 142.9 mt of CFC-12. However the amount was accounted for in the total imports of the country for 2005. The audit report also noted that CFC-11 was mostly distributed to chiller owners or chiller service companies while CFC-12 was primarily distributed to the MAC service shops and refrigeration service shops.

18. The auditor concluded that the procedures employed for ODS import control were satisfactory and that the ODS import figures for 2005 were 102.46 ODP tonnes of CFC-11, and 1,091.08 ODP tonnes of CFC-12, for a total of 1,193.54 ODP tonnes. There were no imports of CTC, TCA, CFC-113, CFC-114 and CFC-115 in 2005, but 1.44 ODP tonnes of CFC-12 had been exported. The audited imports were all below the allowable targets in the Agreement, namely, 1,364 ODP tonnes for CFCs, 4.5 ODP tonnes for TCA, and 1.13 ODP tonnes for CTC.

## SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

### COMMENTS

19. The progress reports on the 2006 annual work programme and the proposed 2007 work programme are prepared in accordance with the Guidelines for the preparation, implementation and management of performance-based sectoral and national ODS phase-out plans approved at the 38<sup>th</sup> Meeting.

20. The Government of Thailand and the World Bank continued to make commendable efforts in 2006 to enforce policy measures to facilitate the implementation of the national phase-out plan, especially with regard to the banning of CFC and TCA in the manufacturing sectors, and the mandatory inspection of the MAC system in annual vehicle inspection. In addition, efforts have been under way to ban the imports of ODS-based refrigerators.

21. The proposed targets for 2007 are more ambitious than those in the Agreement, and the action plan which includes ongoing actions and new initiatives is credible and would contribute towards the achievement of these targets.

22. The Government of Thailand has introduced a functioning ODS import quota control system under the joint responsibility of several departments. Imports in 2005 were verified by a duly authorized auditor who examined the adequacy of the import control policies and procedures enacted by the Government and the records maintained by the relevant government departments on the ODS imports in 2005.

23. With regard to the illegal CFC-12 imports by one importer, the Government has taken the matter very seriously, and an in-depth investigation by the Customs and Department of Industry Works is under way. In the meantime the Government has revoked the import right of the importer for 2007 and 2008.

24. With regard to the low fund disbursement level, the World Bank advised that it was mainly due to difficulties in the procurement of refrigerant identifiers for the Department of Land Transportation and the distribution of R&R equipment.

### RECOMMENDATIONS

25. In light of the satisfactory verification that the 2005 imports of CFC, TCA and CTC in Thailand were below the consumption targets set in the Agreement, the Secretariat recommends that the Executive Committee:

- (a) Takes note, with appreciation, of the verification audit of the imports of CFC, TCA and CTC in Thailand for the year 2005; and
- (b) Approves the 2007 work programme of the Thailand CFC national phase-out plan at the requested funding level of US \$550,000 and the associated support cost of at US \$49,500 for the World Bank.

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