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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Sixty-eighth Meeting  
Montreal, 3-7 December 2012

**PROJECT PROPOSAL: CHINA**

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

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

UNDP/UNEP/UNIDO  
World Bank/ Germany/Japan

## Note by the Secretariat

### Background

1. On behalf of the Government of China the Government of Germany, UNDP, UNIDO and the World Bank submitted the HCFC phase-out management plan (HPMP) for China for consideration by the Executive Committee at its 63<sup>rd</sup> meeting. The HPMP consisted of a summary of the overarching strategy to address the 2013 and 2015 HCFC control targets and of the sector plans, namely the polyurethane (PU) foam sector plan; the extruded polystyrene (XPS) foam sector plan; the industrial and commercial refrigeration and air conditioning (ICR) sector plan; and the room air-conditioner manufacturing (RAC) sector plan. Following discussion, the Executive Committee decided to consider the HCFC phase-out activities for China further at its 64<sup>th</sup> meeting (decision 63/59).

2. At the 64<sup>th</sup> meeting UNDP, as the lead implementing agency for stage I of the HPMP for China, submitted, in addition to the PU, XPS, ICR and RAC sector plans, the HPMP for China providing *inter alia* the regulatory ODS framework, levels of HCFC consumption and production, the overarching strategy and a brief description of the sector plans, and an analysis of the overall cost of the phase-out activities proposed in the various sectors. UNDP also submitted the solvent sector plan; the management plan in the refrigeration servicing sector; the national enabling programme for stage I of the HPMP; and the national coordination plan for stage I of the HPMP (document UNEP/OzL.Pro/ExCom/64/29).

3. To ensure fulfilment of the 2013 and 2015 control targets, the PU foam sector will eliminate about 17.5 per cent of the consumption of HCFC-141b, while the XPS foam, RAC, and ICR and solvent sectors will eliminate about 10 per cent of the consumption of HCFC-22 and HCFC-142b, and the solvent sector will eliminate about 8 per cent of the consumption of HCFC-141b. For the servicing sector, efforts will be made to reduce the leakage rate of refrigerants, avoid unnecessary consumption of HCFCs and increase the recovery ratio of refrigerants during service practice. The 2013 and 2015 HCFC consumption control targets in the six sectors are shown in Table 1 below.

Table 1: HCFC consumption limits and targeted phase-out amount  
in consumption sectors in stage I

National/Sectoral Level	2013 (ODP tonnes)		2015 (ODP tonnes)	
	Max. allowable consumption	Phase-out amount	Max. allowable consumption	Phase-out amount
<b>National</b>	18,865	n/a	16,979	n/a
<b>Sector plans</b>				
ICR sector plan	2,403	224	2,163	240
XPS Sector plan	2,540	338	2,286	254
PU Sector plan	5,392	673	4,450	942
RAC sector plan	4,109	176	3,698	411
Solvent sector plan	494	30	455	39
Service sector plan	n/a	50	n/a	
<b>Total</b>	n/a	1,490	n/a	1,886

4. Following discussion, the Executive Committee approved, in principle, stage I of the HPMP for China for the period 2011 to 2015 at the amount of US \$265 million, associated with the PU, XPS, ICR, RAC and refrigeration servicing sector plans, the national enabling programme and the national coordination plan. The Committee also decided that the solvent sector, at a maximum level of funding of up to US \$5,000,000, plus agency support costs for UNDP, could be considered at the 65<sup>th</sup> meeting (decision 64/49). With the approval of the solvent sector plan at the 65<sup>th</sup> meeting (decision 65/36), the overall funding for stage I of the HPMP for China amounted to US \$270,000,000.

5. Further to a discussion on the Agreement between the Government of China and the Executive Committee that was approved at the 66<sup>th</sup> meeting, the updated Agreement was approved at the 67<sup>th</sup> meeting, reflecting the newly established HCFC baseline for compliance in China, the change in responsibility of co-operating agencies, and the established agency support costs (decision 67/20).

#### Submission to the 68<sup>th</sup> meeting

6. On behalf of the Government of China UNDP, as the lead implementing agency, submitted the document “2012 overall progress report on the implementation of HPMP stage-I in China” for consideration by the Executive Committee at its 68<sup>th</sup> meeting. Additionally, UNDP, UNEP, UNIDO, and the Governments of Germany and Japan submitted tranche requests for the sector plans associated with stage I of the HPMP for China shown in Table 2, together with annual implementation reports covering the activities undertaken so far, and annual implementation plans for the activities to be implemented in 2013.

Table 2: Tranche requests of sector plans associated with the HPMP for China submitted to the 68<sup>th</sup> meeting

<b>Sector plan (agency)</b>	<b>Funding requested at the 68<sup>th</sup> meeting (US \$)</b>	<b>Previously approved funding (US \$)</b>	<b>Overall funding approved in principle (US \$)</b>
ICR sector plan (UNDP)	6,900,000	25,380,000	61,000,000
XPS sector plan (UNIDO, Germany)	10,607,977	21,831,023	50,000,000
PU sector plan (World Bank)	5,520,000	38,859,000	73,000,000
RAC sector plan (UNIDO)	9,200,000	36,430,000	75,000,000
Service sector plan (UNEP, Japan)	678,000	1,659,000	5,640,000
National co-ordination (UNDP)	0	360,000	360,000
<b>Total</b>	<b>32,905,977</b>	<b>124,519,023</b>	<b>265,000,000</b>

#### Outline of the document

7. The document first presents the 2012 overall progress report on the implementation of HPMP stage-I in China containing comments and the recommendation of the Secretariat. It continues with the second tranche requests of the five sector plans shown in Table 1 above, each being presented separately. Each sector plan includes a summary of the proposal, a description of issues identified during project review, a summary of discussions between the Secretariat and relevant agencies, and, where applicable, the recommendation by the Secretariat.

## PROJECT DESCRIPTION

### 2012 overall progress report on the implementation of HPMP stage I in China

8. The document “2012 overall progress report on the implementation of HPMP stage-I in China” summarizes the phase-out activities that have been implemented in China since the approval of stage I of the HPMP.

#### ODS legislation/regulations

9. The Government of China has published several circulars related to the production and consumption of HCFCs, i.e. binding regulations to strictly control HCFC production facilities and the establishment of facilities that use HCFCs. The Regulation on Management of Ozone Depleting Substances, approved by the State Council in 2010, establishes the legislative basis for the overall control and management of ODS; HCFC export and import controls were regulated in 1999 and have undergone several updates, the most recent one in 2009.

#### Stakeholders and their roles in project management and coordination

10. The Foreign Economic Cooperation Office of the Ministry of Environmental Protection (FECO for the purpose of this document), which has been in charge of the implementation of Montreal Protocol projects since 1991, will act as the Project Management Office (PMO). The PMO will continue to strengthen its capacity in terms of coordination and cooperation with different Government departments and other stakeholders to ensure China’s compliance and sustainable phase-out of HCFCs. The specific responsibilities of FECO include:

- (a) Preparing and implementing the project implementation manual and annual work plan;
- (b) Supervising and monitoring the conversion activities;
- (c) Developing a policy framework, implementing regulatory actions, and conducting technical assistance activities during the implementation as planned;
- (d) Executing contracts with enterprises participating in HCFC phase-out with the assistance of industry associations, as well as relevant independent experts (for technology conversions) and ensuring disbursement to the enterprises;
- (e) Preparing the annual implementation plan and progress reports as provided for in the Agreement between the Government of China and the Executive Committee;
- (f) Facilitating technical verification, performance verification and financial audits as required;
- (g) Coordinating between various HCFC consumption sectors and the production sector at national level in such a way as to ensure that phase-out targets are achieved;
- (h) Ensuring coordination between all related stakeholders in the sector with the assistance of international agencies and industry associations; and
- (i) Carrying out commissioning procedures to establish the completion of enterprise conversions.

11. FECO is also responsible for monitoring sector consumption. FECO will collect production and sales data from all HCFC manufacturers regularly, as well as HCFC import and export data from Customs, which is the official source of such data in China. In the meantime, FECO is working with industrial associations from the consumption sectors, which provide data from sector sources. With the HCFC manufacturers' data and import and export data, FECO is able to calculate the consumption volume of HCFCs, which will be correlated with data from the industrial associations. This methodology will remain after the quota system is put in place, becoming an important source for the verification of consumption data. The quota management system, which can only cover large-scale enterprises, will ensure that major consumers comply with permitted quotas. Once the HCFC Production Phase-out Management Plan (HPPMP) is approved, FECO will carry out annual verifications of HCFC producers.

12. In addition to FECO, the following key stakeholders are also involved in the management of the HPMP:

- (a) The State Leading Group for Ozone Layer Protection, established in 1992, consists of 17 governmental agencies and departments, and will continue to serve as the supreme body for coordination and implementation of HCFC phase-out policies and activities;
- (b) The National Management Office of ODS Import and Export (I/E Office), established in 2000 jointly by the Ministries of Environmental Protection, and Commerce and the General Administration of China Customs (GACC), plays a critical role in monitoring and controlling ODS trade;
- (c) The local Environmental Protection Bureaus (EPBs) have become an important force to help the PMO in information collection, policy awareness campaigns, regulation enforcement and project monitoring; and
- (d) Industry associations, namely China Petroleum and Chemical Industry Federation (CPCIF), China Household Electrical Appliance Association (CHEAA), China Refrigeration and Air-conditioning Industry Association (CRAA), and China Plastics Processing Industrial Association (CPPIA), will participate in technical assistance activities such as awareness raising, technology development and analysis and development of industrial standards, and will also participate in related policy-making processes to ensure sustainable phase-out.

#### Activities associated with beneficiary enterprises

13. Public awareness activities were carried out and relevant information on the HCFC phase-out sector plans was disseminated. Implementation of the HPMP for China was launched in December 2011, where the overall HCFC phase-out policy and strategy up to 2015 was conveyed to industries and stakeholders. The Government and industrial associations encouraged potential beneficiary enterprises to participate in the phase-out initiative, and to submit an application to the PMO with basic information on their business licence and consumption of HCFCs in recent years. By August 2012, a number of enterprises in the various HCFC consumption sectors have contacted the PMO to express their intention to convert. The PMO pre-reviewed the documents submitted and identified eligible enterprises for on-site verification.

14. The on-site verification of beneficiary enterprises in all five manufacturing sectors was organized by the PMO in June to August 2012. Independent accounting firms were selected through national competitive bidding to assist the PMO in verifying HCFC consumption at each of the selected enterprises. Technical experts were also invited to join the verification teams. The verification teams visited the production sites, inspected production equipment, reviewed the original record of business transactions and collected financial records to calculate HCFC consumption. In most consumption sectors the

verification, which was completed in September 2012, concluded that enterprises tended to select zero ODP and low global warming potential (GWP) alternative technologies. Table 3 below shows the preliminary data collected in the verification. More detailed information is provided in the sections related to the different sector plans.

**Table 3: Preliminary data on site-visit and HCFC consumption verification in five consumption sectors**

Description	RAC	ICR	PU foam	XPS foam	Solvent	Total
Enterprise verified	29	17	33	12	4	95
HCFC consumption in 2011 (mt)	10,571	6,352	8,875	4,079	455	30,332
Production lines to be converted	30	20	205	29	22	306
Alternative technology	R-290/R-410a	R-32/R-410a	HC/Water	CO <sub>2</sub>	KC-6	

#### Status of fund disbursements

15. Table 4 shows the total funding approved for the first tranche of stage I of the HPMP and the amount of fund disbursed/committed.

**Table 4: Financial status report of stage I of the HPMP for China**

Sector plan	Bilateral/ implementing agency	US \$				
		Funding approved	Value of contracts signed	Funds disbursed	Funds committed	Balance uncommitted
ICR sector plan	UNDP	25,380,000	25,380,000	16,000,000	9,380,000	0
XPS sector plan	UNIDO	21,372,000	21,372,000	10,686,000	10,686,000	0
	Germany	459,023	1,350,000	389,023	960,977	0
PU sector plan*	World Bank	38,859,000	42,000,000	19,429,500	19,429,500	0
RAC sector plan	UNIDO	36,430,000	36,430,000	18,215,000	18,215,000	0
Service sector plan	UNEP	1,579,000	1,280,500	600,000	1,121,500	0
	Japan	80,000	80,000	80,000	0	0
National co-ordination	UNDP	360,000	360,000	120,000	240,000	0
Total		124,519,023	128,252,500	65,519,523	60,032,977	0

\*Signature of contract and disbursements expected for November 2012

## SECRETARIAT'S COMMENTS AND RECOMMENDATION

### COMMENTS

#### Operational licensing system

16. Over 100 policies and regulations have been issued on ozone layer protection and ODS phase-out in China. In line with decision 63/17 and as required under the Agreement between the Government of China and the Executive Committee, confirmation has been received from the Government that an enforceable national system of licensing and quotas for HCFC imports, production and exports is in place and that the system is capable of ensuring compliance with the Montreal Protocol HCFC phase-out schedule. The ODS import and export licensing system, in place since 2004, requires importers and exporters to apply to the national authority for licenses for HCFC imports and exports. The quota system for HCFC imports and exports will be effective from 1 January 2013. HCFC users are currently required to submit their quota applications, and the quantities of actual quotas approved for each HCFC substance would be available only at the end of this year or early next year.

17. The HCFC production sector plan is expected to be approved by the end of 2012. Under that circumstance, the consumption quota system can be implemented in concert with the production quota system. Furthermore, since it would be the first time that a quota management system is to be applied in consumption sectors, it will be established giving full consideration to the actual conditions and features of each consumption sector. For those sectors with large amounts of small and medium sized enterprises (SMEs) (i.e., PU foam, XPS foam and ICR sectors), the first enterprises to be covered by the quota system would probably be those that take part in the conversion projects, rather than covering the whole sector from the outset.

#### Implementation modality for the sector plans

18. Both the submission of the overarching report presented above as well as the four manufacturing sector plans submitted to the 68<sup>th</sup> meeting and described in subsequent parts of the present document, provided information about disbursements and, in some cases, obligations. This information is summarized in Table 4 above.

19. The Secretariat noted that, although no contracts with beneficiary enterprises had been signed, and therefore no phase-out activities had begun at the enterprise level, the disbursement levels reported in the five manufacturing sector plans were very high. The Secretariat assumed that the explanation in the apparent discrepancy was related to the implementation modality; consequently, additional information about the implementation modality was requested and provided by the lead implementing agency as follows<sup>1</sup>:

- (a) Contract between the Government of China (FECO) and the relevant bilateral and/or implementing agency, defining FECO's role, and transfer of funding from the relevant agency to FECO;
- (b) Invitation to enterprises interested in conversion activities to submit a letter of intent, collection of enterprise baseline data, assessment and, after a preliminary screening, verification of the eligibility and baseline of the pre-selected enterprises;
- (c) Selection of enterprises;
- (d) Signing of conversion contracts and issuance of first payment to enterprises;
- (e) Performance-based payments from FECO to enterprises throughout conversions;
- (f) Performance-based payments from the relevant implementing agency to FECO throughout the implementation timeframe;
- (g) Completion of the activity and verification of conversion; and
- (h) Data collection and reporting by FECO.

#### *UNDP and UNIDO implementation modality*

20. With regard to the criteria and conditions of the fund transfer mechanism between the implementing agency and FECO, UNDP advised that for the plans implemented by UNDP and UNIDO, the transfer of funds follows performance-based payment modality (PBP), which, as advised by UNDP, has been in place since the time of CFC phase-out. Through the PBP, funds are transferred from the respective implementing agency to FECO upon achievement of agreed milestones according to the

<sup>1</sup> There could be minor differences between sectors as the implementing agencies have different requirements for related issues, such as procurement and financial matters.

relevant indicators, as set out in the contract/agreement. While these indicators are customized and modified for each tranche depending on the status of implementation prevailing at that time, for information purposes UNDP provided the following examples of indicators agreed between the agencies and FECO:

- (a) Signature of project/document or contract;
- (b) Organizing and conducting HPMP launch workshop;
- (c) Organizing and conducting training workshops for beneficiary enterprises;
- (d) Submission of detailed implementation plan, preparation of the implementation manual, and other relevant documents;
- (e) Signing of enterprise-level phase-out sub-contracts/agreements (a certain number of contracts amounting to a certain amount of HCFC to be phased out, by certain date); and
- (f) Establishing applicable regulations (e.g., quota management).

21. UNDP also explained that the transfer of funding for equipment from FECO to beneficiary enterprises also follows the PBP modality. The indicators, such as completion of conversion design, procurement of key equipment and conversion of the production line are incorporated into the respective enterprise-level contracts. In addition to progress reporting by beneficiaries, FECO together with UNDP and UNIDO conduct joint verifications to beneficiary enterprise before each payment is made.

22. As explained by UNDP, according to the internal management regulation, FECO can only sign contracts with enterprises when 100 per cent of funding is available. Otherwise, the implementing agencies and FECO could be at risk of non-compliance with contracts. Based on the current project progress and payment schedule, 2013 and 2014 will be peak payment years. Usually up to 20 per cent of the funding is paid to beneficiary enterprises upon signing of the contract. The second payment takes place when the beneficiary enterprise completes the product/process redesign, issues the purchase orders to equipment suppliers and so on. Therefore the second payment usually follows shortly after the first payment. Sufficient funding is therefore essential to carrying out conversion activities and achieving phase-out targets.

23. The Secretariat also requested additional information about the role of the implementing agencies in the HPMP, according to the modality chosen. The role was summarized by UNDP as follows:

- (a) Providing expert technical and policy advice;
- (b) Providing technical and policy inputs;
- (c) Progress monitoring and verification at participating enterprises, including plant visits as needed; and
- (d) Ensuring compliance with the agreement and with the eligibility conditions of the Multilateral Fund.



*Implementation modality by the World Bank*

24. The grant agreement (GA) is signed by the Ministry of Finance. FECO is assigned to carry out the project. Disbursement of the grant funds made by the World Bank as advances based on agreed milestones will be deposited in a designated account maintained by FECO. Any unused funds will be returned to the World Bank, which will then be returned to the Multilateral Fund when the GA closes. The GA also specifies whether sub-project contracts, statements of expenditures and disbursement records should be reviewed by the World Bank prior to contract signing/disbursements or post review. FECO can only enter into sub-grant agreements with beneficiary enterprises when the funds available are sufficient to cover all commitments associated with all the sub-grant agreements, notwithstanding the amounts to be paid upon signing of the sub-grants. No agreements will take effect unless this condition is met.

25. Beneficiary enterprises will carry out phase-out activities in accordance with the terms and conditions stipulated in the sub-grant agreements between FECO and beneficiary enterprises. Activities to be conducted by enterprises include procurement and installation of equipment, production trial, commissioning, and report project implementation status to FECO. Upon signing sub-grant agreements, enterprises must submit their procurement plans. FECO will ensure that proposed expenditures are eligible and the World Bank must concur with the plans. Once the sub-grants are signed, enterprises are obliged to follow the procurement plan. Upon signing of sub-grant agreements, enterprises will receive grant funds of 20 per cent of the total contract value as an advance. For subsequent disbursements, payments will be made against procurement contracts, and against performance conditions and monitoring mechanisms specified in the sub-grants. FECO must review the statement of expenditures submitted by the enterprises and certify the authorized payments against actual expenditures incurred. FECO will keep records of fund inflows and outflows, prepare and submit semi-annual interim financial reports, facilitate the preparation of audited financial reports, and submit the reports to the Bank.

26. The World Bank is responsible for supervising overall project implementation progress, providing technical and financial management advice and training to FECO, and reviewing sub-grants signed by enterprises and FECO, payments made to enterprises, actual HCFC consumption phased out, and expenses incurred from the implementation of technical assistance and PMU activities. The Bank is also responsible for ensuring that the grant funds provided are used as per the agreements with the Executive Committee, and for providing reviews on all procurement transactions. The Bank is also responsible for confirming the implementation status of sub-grant agreements and conducting regular supervision missions. The World Bank will not directly undertake the procurement process but it will support it through review and confirmation that technical specifications, terms and conditions are consistent with the Bank's rules.

27. Each funding tranche approved by the Executive Committee will be transferred to FECO in three instalments. The first instalment equivalent to 50 per cent of the funding tranche will be made upon the approval of the annual plan and upon receipt of the grant funds. The second instalment equivalent to 30 per cent of the tranche will be made once 80 per cent of the first instalment has been committed to phase-out activities, and once satisfactory progress reports have been submitted to the World Bank. The third instalment equivalent to 20 per cent of the tranche will be made when 60 per cent of the funds provided in the first two instalments have been committed to phase-out activities, and upon confirmation of China's compliance with the consumption reduction targets stipulated in the Agreement between the Government and the Executive Committee.

Considerations and concerns in regard to the implementation modality

28. The Secretariat accepted that a number of elements of the implementation modality explained above have been used before. However, it is clear that a sizable portion of the approved funding (i.e., 50 per cent of the tranche) is transferred to the Government of China as beneficiary, and accounted for by

the agencies as disbursed. The Secretariat held several discussions with UNDP about whether this transfer of funding is actually a disbursement; other possible uses would be, for example, a fund advance (used for institutional strengthening projects), or the use of FECO as an agent. The Secretariat noted that:

- (a) Advance of funding is frequently used by some implementing agencies, in particular for institutional strengthening projects. In these cases, funds are transferred to an account of the country, and replenished once they have been spent and detailed documentation on expenditures have been submitted to and checked by the implementing agency. Consequently, an important characteristic is that the funding is related to actual expenditures; and
- (b) Any implementing agency can use agents for some of their activities; mainly, every consultant is an agent of the implementing agency and may act on its behalf. For many years, the World Bank has used financial institutions, typically commercial banks in the countries, as financial intermediaries; funding is transferred from the World Bank to the financial intermediaries, and, when related orders are received from the World Bank, the financial intermediary pays (e.g. for equipment to be purchased for a conversion project). Characteristically, the agent is an integrated part of the implementation structure, and the implementing agency is just responsible to the Multilateral Fund for the agent's actions as it is for the actions of its own departments or employees.

29. In responding, UNDP indicated that neither of the above is the case for the sector plans of the HPMP for China; the funding has actually been disbursed by UNDP (and UNIDO).

30. The disbursement of the funding to China for subsequent implementation by FECO appears to be associated with a set of conditions such as joint authorisation of certain expenditures, specified reporting obligations, joint verification and specified procedures. Similar sets of conditions seem to have been agreed in previous projects, but in the majority of projects, particularly stand-alone projects, it appears the funding was held by the implementing agency, rather than being disbursed to the Government concerned.

31. The modality of the fund transfer to FECO has a number of repercussions; *inter alia*, these appear to be:

- (a) In potential cases where selected beneficiary enterprises that became bankrupt or were bought by foreign-owned capital during implementation<sup>2</sup>, the funds associated with them could not be returned as they had already been disbursed by the implementing agencies to FECO;
- (b) The interest that will be gained from the time the funds are transferred to FECO until it is fully disbursed to beneficiary enterprises will accrue for the Government of China instead of the Multilateral Fund, with direct implications for the income of the Multilateral Fund and without the Executive Committee being advised of the change;
- (c) One of the pillars of monitoring, the reporting of disbursement information under the progress report as an approximation of activity in the country, is rendered of limited use for this purpose since the fund transfer recorded as disbursement is performed before the related activities are carried out, while traditionally disbursements were shown after;

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<sup>2</sup> It is to be noted that these cases had already occurred in Croatia (bankruptcy of a foam enterprise subsequent to the approval of the HPMP) and Egypt (purchase of foam enterprises by a foreign-owned capital).

- (d) The condition of a minimum level of disbursement in paragraph 5 of the Agreement with China, meant as an indicator for progress in implementation, no longer has a role and would be in need of amendment since the fund transfer recorded as disbursement is performed before the related phase-out activities are carried out, traditionally disbursements were shown after;
- (e) The release of agency support costs within the implementing agency, which had historically been linked through disbursements and obligations to progress in the implementation, would be largely decoupled from such progress;
- (f) Oversight over fund expenditure has been moved, at least partially, from the Multilateral Fund overseeing the implementing agencies, to the implementing agencies overseeing a Government; and
- (g) The amount of funds being approved by the Executive Committee but not yet disbursed to the beneficiary enterprise might increase as a result of the fact that two entities, the agencies and China, each need to have cash reserves allowing them to undertake contracts and similar commitments, even if the funds related to those commitments are actually only spent with significant delay. This might cause the need for funds being earlier available for approval at the level of the Multilateral Fund, and might more generally raise questions regarding accountability by auditors (see also document UNEP/OzL.Pro/ExCom/68/48, paragraphs 21 to 24).

32. The Secretariat view is that the issues and concerns raised in the preceding paragraph may have possible consequences on *inter alia* fund management, monitoring, and interest, that would need to be further discussed.

33. Upon writing of this document, the Secretariat continued its work to develop a full understanding of:

- (a) Whether the definition of disbursement used by the implementing agencies matches the definition used by the Multilateral Fund; and
- (b) The benefits that a transfer of funding to the country would offer for implementation.

34. In order to do so, the Secretariat entered into on-going discussions with the implementing agencies to understand the situation better and to obtain copies of the agreements between them and the Government of China. However, at the time of writing of the present document, the Secretariat was unable to determine conclusively whether the expenditures reported as disbursements in the four manufacturing sector plans for which funding for a second tranche has been submitted (i.e., PU, XPS, ICR and RAC sector plans) represent actual disbursements, and consequently whether the condition stipulated in paragraph 5b(ii) of the Agreement has been fulfilled (i.e., that the rate of disbursement of funding available from the previously approved tranche was more than 20 per cent). The Secretariat is therefore not in the position to express a recommendation for approval at this time of the second tranche for the four sector plans. The Secretariat and the agencies continue to discuss the matter, and the Secretariat will inform the Executive Committee of new developments and any additional information that may become available.

## RECOMMENDATION

35. Pending.

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

<b>(I) PROJECT TITLE</b>	<b>AGENCY</b>
HCFC phase out plan (stage I) XPS foam	Germany (lead), UNIDO

<b>(II) LATEST ARTICLE 7 DATA (Annex C Group I)</b>	Year: 2011	20,739.03 (ODP tonnes)
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<b>(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)</b>								<b>Year: 2011</b>	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123				12.0	3.5				15.4
HCFC-124					0.4				0.4
HCFC-133									
HCFC-141b		6,992.7				512.6			7,516.5
HCFC-142									
HCFC-142b		1,094.9		6.5	344.2				1,445.7
HCFC-22	70.5	1,488.3		6,721.8	3,478.9				11,759.5
HCFC-225ca						1.5			1.5
HCFC-225cb						0.0			0.0

<b>(IV) CONSUMPTION DATA (ODP tonnes)</b>			
2009 - 2010 baseline:	19,269.0	Starting point for sustained aggregate reductions:	18,865.4
<b>CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)</b>			
Already approved:	3,445.19	Remaining:	15,420.25

<b>(V) BUSINESS PLAN</b>		<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Germany	ODS phase-out (ODP tonnes)	46.5	7.5	7.5	7.9	69.5
	Funding (US \$)	4,122,047	667,002	667,002	703,687	6,159,738
UNIDO	ODS phase-out (ODP tonnes)	86.5	42.6	71.9	82.8	383.8
	Funding (US \$)	7,417,500	3,652,850	6,159,750	19,188,750	36,418,850

<b>(VI) PROJECT DATA</b>		<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Montreal Protocol consumption limits		n/a	n/a	19,269.0	19,269.0	17,342.1	n/a
Maximum allowable consumption (ODP tonnes)		n/a	n/a	18,865.4	18,865.4	16,978.9	n/a
Agreed funding (US \$)	Germany	Project costs	459,023	390,977	0	0	1,350,000
		Support costs	51,260	47,059	0	0	158,500
	UNIDO	Project costs	21,372,000	10,217,000	3,998,000	6,330,000	48,650,000
		Support costs	1,602,900	715,190	279,860	443,100	3,512,360
Funds approved by ExCom (US \$)	Project costs	21,831,023	0	0	0	0	21,831,023
	Support costs	1,654,160	0	0	0	0	1,654,160
Total funds requested for approval at this meeting (US \$)	Project costs	0	10,607,977	0	0	0	10,607,977
	Support costs	0	762,249	0	0	0	762,249

<b>(VII) Request for funding for the second tranche (2012)</b>		
<b>Agency</b>	<b>Funds requested (US \$)</b>	<b>Support costs (US \$)</b>
Germany	390,977	47,059
UNIDO	10,217,000	715,190

<b>Secretariat's recommendation:</b>	For individual consideration
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## PROJECT DESCRIPTION

36. On behalf of the Government of China UNIDO, as the lead implementing agency for the extruded polystyrene (XPS) foam sector plan (XPS Foam Sector Plan), has submitted to the 68<sup>th</sup> meeting of the Executive Committee a request for funding for the second tranche of the XPS Foam Sector Plan at a total cost of US \$11,370,226, consisting of US \$10,217,000, plus agency support costs of US \$715,190 for UNIDO, and US \$390,977, plus agency support costs of US \$47,059 for the Government of Germany.

37. The XPS Foam Sector Plan was approved at the 64<sup>th</sup> meeting, to reduce the consumption of HCFC-22 and HCFC-142b in the XPS foam sector by at least 338.0 ODP tonnes by 2013, and an additional 254.0 ODP tonnes by 2015. The XPS Foam Sector Plan was approved at a total funding level of US \$50,000,000, plus agency support costs of US \$3,670,860. The first tranche of the XPS Foam Sector Plan was also approved at the 64<sup>th</sup> meeting in the amount of US \$21,372,000, plus agency support cost of US \$1,602,900 for UNIDO, and US \$459,023, plus agency support cost of US \$51,260 for the Government of Germany

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

38. The following activities have been implemented since the approval of the XPS Foam Sector Plan:

- (a) Public awareness activities through which information concerning the XPS Foam Sector Plan, including regulations, strategy, HCFCs phase-out commitment and activities, and implementation modalities, was disseminated through various media (i.e., China Plastics Magazine, China Environment Newspaper, Ozone Action in China, and the internet site of the Plastic Industry). A workshop was also conducted in December 2011 with the participation of representatives from the Government, UNIDO, Germany and the and largest XPS foam enterprises;
- (b) Contracts for the implementation of the XPS Foam Sector Plan between UNIDO and FECO, and Germany and FECO were drafted. The Contract between FECO and UNIDO, at a total amount is US \$21,372,000 was signed in March 2012, through which FECO shall complete the work by 31 December 2016. The Contract between FECO and Germany, at a total amount of US \$1,350,000 was signed in August 2012; and
- (c) The Project Implementation Manual (PIM), which describes the sub-project cycle (i.e., ODS project rationale, roles and responsibilities of key stakeholders (including FECO, UNIDO, Germany industrial associations, local environmental protection agencies, and relevant consulting agencies and experts), project implementation procedures, financial management and disbursement, procurement, monitoring and verification measures, and policies and regulations), was drafted and signed on October 2012.

39. With regard to policy actions, the Government of China has initiated an assessment of the feasibility of establishing a quota management system to control the annual consumption level of HCFCs in accordance with the targets set out in the XPS Foam Sector Plan; prevent enterprises from obtaining excessive HCFCs; and ensure that the consumption of HCFCs in the XPS foam sector is in compliance with the Montreal Protocol. XPS foam enterprises with large consumption of HCFCs shall apply for a quota to continue their business. The detailed enforcement procedure of the quota management system in the XPS foam sector will be in close coordination with other consumption sectors as well as the production sector.

40. Further to a notice issued by FECO in March 2012 inviting XPS foam enterprises to submit a project application request including basic information, by July 2012, 16 enterprises had submitted project applications. Further to a screening process, 12 enterprises with a total consumption of

3,978.0 metric tonnes (mt) (234.70 ODP tonnes) of HCFCs were audited *in situ* by FECO, together with independent experts and the audit agency<sup>3</sup>, and were requested to submit project proposals to FECO for review. Contracts were prepared and signed with the 12 enterprises in October 2012, which are expected to be fully converted by end of 2013. Considering that the phase-out target set out for the first tranche of the XPS Foam Sector Plan is 4,367.0 mt (257.65 ODP tonnes) of HCFCs, contracts with additional eight enterprises for the balance of 389.00 mt (22.95 ODP tonnes) of HCFCs will be signed by February 2013.

41. In support of the activities implemented at the enterprise level, technical activities have also been carried out, including training workshops; on-site verifications and commissioning of projects; research on alternative technologies to improve their use and performance; and verification of local suppliers of CO<sub>2</sub> foaming equipment for XPS production which will be a reference to the beneficiary enterprises when purchasing equipment. An Implementation Support Agency (ISA) has also been selected to assist FECO in day-to-day operational management, in pre-reviewing the project documents submitted by the XPS foam enterprises and in providing supervision, commissioning and on-site verification. The terms of reference to review and update the existing technical and safety standards on different XPS foam products have been prepared.

#### *Level of funding disbursement*

42. As of October 2012, of the total funding of US \$21,831,023 approved so far (for both UNIDO and Germany), US \$11,075,023 had been disbursed from UNIDO and Germany to FECO. The remaining funding of US \$10,756,000 will be disbursed as follows: US \$8,604,800 in September 2013 (provided that 80 per cent of the phase-out has been achieved) and the remaining US \$2,151,200 in January 2014.

#### Annual plans for the second tranche of the HPMP

43. The US \$10,607,977 associated with the second tranche will be used for the conversion of 10 to 15 XPS foam enterprises (in addition to those being converted with the first funding tranche), with an associated phase-out of 2,131.0 mt (125.73 ODP tonnes). The conversion of the enterprises will be supported with technical assistance activities that began during implementation of the first tranche.

## **SECRETARIAT'S COMMENTS AND RECOMMENDATION**

### **COMMENTS**

44. In addition to questions raised by the Secretariat regarding the implementation modality for the sector plans covered under the section "2012 overall progress report on the implementation of HPMP stage-I in China", the Secretariat raised issues related to the demonstration project on the suitability of CO<sub>2</sub> with methyl formate co-blowing technology in the manufacture of XPS foam (approved for UNDP at the 64<sup>th</sup> meeting); safeguards that will be put in place to ensure the timely implementation of the conversion of the enterprises given the limited time available between now and the freeze (2013) and the 10 per cent reduction (2015); the contracts between the Government of China and UNIDO and the Government of Germany; the quota management for HCFC control; the monitoring mechanism to be put in place; and project implementation modalities. The issues were addressed as summarized below.

45. With regard to the status of implementation of the demonstration project, UNIDO (as the lead implementing agency) indicated that the project document between FECO and UNDP was signed in November 2011, and the associated sub-contract between FECO and the enterprise was signed in March 2012. Implementation of the conversion has commenced, technical specifications and

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<sup>3</sup> The audit verified the eligibility of the enterprises, the levels of HCFCs consumption, equipment in the baseline and its capability, the last three years financial data to assess the business conditions.

requirements have been finalized, and the procurement of equipment is underway. The proposal for the safety retrofit has been approved by the local fire fighting authority.

46. With regard to safeguards that will be put in place to ensure the timely implementation of the conversion of the enterprises, UNIDO indicated that China will establish a policy system to complement the funding provided by the Multilateral Fund; the key policies for HCFC phase-out in the XPS foam sector will focus on the management of consumption quota of HCFCs controlling and monitoring the production, sales, import and export of HCFCs in parallel. Secondly, FECO will facilitate and accelerate the implementation of the first batch of investment projects to ensure that all beneficiary enterprises have sufficient financial resources to fully convert to the CO<sub>2</sub> technology by end of 2013. In 2013 and in consecutive years additional XPS foam enterprises will commence their conversion to contribute to meeting the reduction target in 2015. Furthermore, FECO, in collaboration with UNIDO and Germany, will carry out technical assistance activities (e.g., selection of experts, formulation and revision of technical standards, research and development of alternative technologies) with a view to provide additional support and assistance to the enterprises.

47. With regard to the mechanism that will be established to monitor and ensure that converted enterprises do not revert back to the use of HCFCs, UNIDO explained it will be responsible to conduct required verification and to assist as needed in regular supervision missions including site visits to selected beneficiary enterprises during supervision missions.

48. The Secretariat noted that the implementation of the XPS Foam Sector Plan is progressing well. Within the limited time that was available between the approval of the HPMP and the presentation of the report, an holistic and thorough implementation plan has been prepared, agreements between the Government of China with the Government of Germany and with UNIDO have been signed (the common time between the approval and signing an agreement is one year or more), and a few activities at the national and enterprise level have commenced. However, because of issues previously described relating to the implementation modality, the Secretariat is not in the position to express a recommendation for approval of the second tranche of the XPS Foam Sector Plan. The Secretariat and the agencies continue to discuss the matter, and the Secretariat will inform the Executive Committee of new developments and any additional information that may become available.

## **RECOMMENDATION**

49. Pending.

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

## China

<b>(I) PROJECT TITLE</b>	<b>AGENCY</b>
HCFC phase out plan (stage I) PU foam	World Bank (lead)

<b>(II) LATEST ARTICLE 7 DATA (Annex C Group I)</b>	Year: 2011	20,739.03 (ODP tonnes)
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<b>(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)</b>								<b>Year: 2011</b>	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123				12.0	3.5				15.4
HCFC-124					0.4				0.4
HCFC-133									
HCFC-141b		6,992.7				512.6			7,516.5
HCFC-142									
HCFC-142b		1,094.9		6.5	344.2				1,445.7
HCFC-22	70.5	1,488.3		6,721.8	3,478.9				11,759.5
HCFC-225ca						1.5			1.5
HCFC-225cb						0.0			0.0

<b>(IV) CONSUMPTION DATA (ODP tonnes)</b>			
2009 - 2010 baseline:	19,269.0	Starting point for sustained aggregate reductions:	18,865.44
<b>CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)</b>			
Already approved:	3,445.19	Remaining:	15,420.25

<b>(V) BUSINESS PLAN</b>		2012	2013	2014	2015	Total
World Bank	ODS phase-out (ODP tonnes)	69.2	170.5	51.2	137.3	428.2
	Funding (US \$)	5,934,000	14,611,400	4,384,925	11,771,250	36,701,575

<b>(VI) PROJECT DATA</b>			2011	2012	2013	2014	2015	Total
Montreal Protocol consumption limits			n/a	n/a	19,269.0	19,269.0	17,342.1	n/a
Maximum allowable consumption (ODP tonnes)			n/a	n/a	18,865.4	18,865.4	16,978.9	n/a
Agreed funding (US \$)	World Bank	Project costs	38,859,000	5,520,000	13,592,000	4,079,000	10,950,000	73,000,000
		Support costs	2,914,000	386,400	951,440	285,530	766,500	5,303,870
Funds approved by ExCom (US \$)		Project costs	38,859,000	0	0	0	0	38,859,000
		Support costs	2,914,000	0	0	0	0	2,914,000
Total funds requested for approval at this meeting (US \$)		Project costs	0	5,520,000	0	0	0	5,520,000
		Support costs	0	386,400	0	0	0	386,400

<b>(VII) Request for funding for the second tranche (2012)</b>		
Agency	Funds requested (US \$)	Support costs (US \$)
World Bank	5,520,000	386,400

<b>Secretariat's recommendation:</b>	For individual consideration
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## PROJECT DESCRIPTION

50. On behalf of the Government of China, the World Bank, as the lead implementing agency for the polyurethane rigid (PU) foam sector plan (PU Foam Sector Plan), has submitted to the 68<sup>th</sup> meeting of the Executive Committee a request for funding for the second tranche of the PU Foam Sector Plan at a total cost of US \$5,520,000, plus agency support costs of US \$386,400.

51. The PU Foam Sector Plan was approved at the 64<sup>th</sup> meeting, at a total funding level of US \$73,000,000, plus agency support costs of US \$5,303,870 to reduce the consumption of HCFC-141b in the PU foam sector by at least 672.76 ODP tonnes by 2013, and an additional 942.6 ODP tonnes by 2015. The first tranche of the PU Foam Sector Plan was also approved at the 64<sup>th</sup> meeting in the amount of US \$38,859,000, plus agency support cost of US \$2,914,000.

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

52. The following activities have been implemented since the approval of the PU Foam Sector Plan:

- (a) Public awareness activities through which information concerning the PU Foam Sector Plan, including regulations, strategy, HCFC-141b phase-out commitment and activities, and implementation modalities, was distributed through various media (i.e., China Plastics Magazine, China Environment Newspaper, Ozone Action in China, and the internet site of the Plastic Industry). Awareness was further raised through a workshop conducted in December 2011 with the participation of representatives from the Government, the World Bank and foam enterprises particularly those manufacturing insulation foam for reefer containers, refrigerators and freezers, and small electrical appliances (i.e., the main sub-sectors to be addressed during stage I of the HPMP);
- (b) The environmental and social safeguard framework (ESSF) was prepared to provide guidance to beneficiary enterprises and FECO for the environmental and social management process, and to ensure compliance with local laws and regulations and in accordance with the World Bank's policies and procedures;
- (c) The Grant Agreement (GA), which describes the financial arrangement and procurement regulations, was drafted, discussed and agreed (negotiated) between the World Bank and the Ministry of Finance in September 2012. Following Government confirmation of negotiations, the GA is being processed by the World Bank for signing. It will be forwarded to the Ministry of Finance by 19 November 2012 for their countersigning. It is expected to become effective by 24 November 2012; and
- (d) The Project Implementation Manual (PIM), which describes the sub-project cycle (i.e., identification of potential foam enterprises; eligibility criteria; methodology for determining the funding level; procurement and financial management procedures to be conducted by enterprises; disbursement procedures, technical and financial audits; review processes to be carried out by the project monitoring unit (PMU) and by the World Bank; and supervision responsibilities to be carried out by the PMU and the World Bank) was drafted and accepted by the World Bank in July 2012.

53. With regard to policy actions, the Government of China organized meetings with sector experts and foam enterprises to assess the feasibility of HCFC-141b quota management control in the consumption sector to ensure that the 2013 and 2015 reduction levels could be met. Terms of reference will be prepared by the end of 2012, for drafting of the ban on the production, sale, import and export of

reefer containers, refrigerators and freezers, and small household appliances using HCFC-141b as an insulation foam blowing agent. It is expected that the ban will be issued before 2015, so that HCFC-141b consumption in the three sub-sectors will be complete phased out.

54. Further to a notice issued by FECO in February 2012 encouraging foam enterprises to submit a project application request including basic information (e.g., level of HCFC-141b consumption, baseline equipment in all production lines, alternative technology selected), by July 2012, 48 foam enterprises had submitted project applications. Further to a screening process, 37 enterprises were audited *in situ* by FECO, together with independent experts and the audit agency<sup>4</sup>, and 33 of them<sup>5</sup> (with a total consumption of 8,875.45 mt (976.30 ODP tonnes) of HCFC-141b) were selected and requested to submit project proposals to FECO for review. China is currently reviewing the 33 project proposals to enable China to enter into sub-grant agreements with each individual enterprise by the end of November 2012. Upon signing of the sub-grant agreements, first payments will be made to enterprises. Conversion of all enterprises should be completed before the end of 2015.

55. Due to financial, safety and technical issues, it is proposed to supply hydrocarbon pre-blended polyols through systems houses<sup>6</sup>, which will be selected through competitive bidding. Funding to be provided to three or four systems houses will be used for the required equipment and safety systems, and to optimize polyol formulations for the different applications.

56. In support to the activities implemented at the enterprise level, technical assistance activities have also been implemented, such as training workshops with FECO and enterprises, on-site verifications and commissioning of projects, and research on alternative technologies to improve their use and performance. An Implementation Support Agency (ISA) has also been selected to assist FECO in day-to-day operational management, in pre-reviewing the project documents submitted by the foam enterprises and in providing supervision, commissioning and on-site verification. The terms of reference to review and update the existing technical and safety standards on different foam products have been prepared. A management information system (MIS) will be developed to track the phase-out of HCFC-141b in the PU Foam Sector Plan, track the implementation of annual work programmes, provide relevant project data, and track the overall progress of HCFC-141b phase-out activities in the foam sector.

#### *Level of funding disbursement*

57. Of the total funding of US \$38,859,000 approved so far, US \$19,429,500 will be disbursed by the World Bank to FECO by the end of November or early December 2012, soon after the GA is signed by the Ministry of Finance.

#### Annual plans for the second tranche of the HPMP

58. The US \$5,520,000 associated with the second tranche will be used for the conversion of additional 15 to 20 foam enterprises, with an associated phase-out of 944.00 mt (103.84 ODP tonnes), and supported with technical assistance activities that began during implementation of the first tranche.

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<sup>4</sup> The audit verified the eligibility of the enterprises, the levels of HCFC-141b consumption (including the review of purchase invoices), equipment in the baseline and its capability.

<sup>5</sup> Three enterprises were not eligible and one enterprise withdrew its application.

<sup>6</sup> The systems house demonstration project (phase I) was completed in 2012; with 60 mt of hydrocarbon pre-blended polyols had sold to foam enterprises.

## SECRETARIAT'S COMMENTS AND RECOMMENDATION

### COMMENTS

59. In addition to questions raised by the Secretariat regarding the implementation modality for the sector plans covered under the section "2012 overall progress report on the implementation of HPMP stage-I in China", the Secretariat raised issues related to the safeguards that will be put in place to ensure the timely implementation of the conversion of the enterprises given the limited time available between now and the freeze (2013) and the 10 per cent reduction (2015); the grant agreement between the Government of China and the World Bank; the quota management for HCFC-141b control; the monitoring mechanism to be put in place; and project implementation modalities. The issues were addressed as summarized below.

60. With regard to safeguards that will be put in place to ensure the timely implementation of the conversion of the enterprises, the World Bank indicated that at the macro level, the Government of China will issue a production reduction schedule, upon approval of the production sector phase-out plan by the Executive Committee, which will restrict the supply of HCFCs throughout the years, as well as a ban on HCFC-141b use by enterprises belonging to the three foam sub-sectors defined in the PU Foam Sector Plan. At the enterprise level, the sub-grant agreements between the enterprises and FECO will stipulate *inter alia* project implementation deadlines. Delays in completing the conversion could result in penalties, including the reduction of grant amounts, or future restriction to the supply of HCFCs.

61. With regard to the quota management for HCFC-141b control, the World Bank explained that given the large number of foam enterprises in the country, the most practical approach would be to apply HCFC-141b quotas to the larger users. To ensure a sound design of the control and monitoring system, China would like to conduct a survey of current users to define the cut-off limits for enterprises that should be subject to consumption quotas, assess the effectiveness of the proposed system, and determine the level of man-power required for its enforcement. The consumption quota system will have to be supported by the production quota system in order to make the overall system effective.

62. With regard to the mechanism that will be established to monitor and ensure that converted enterprises do not revert back to the use of HCFC-141b in bulk and/or in pre-blended polyols, the World Bank explained that the PMU and the Bank will visit some of the enterprises after they have been converted. In addition, local EPBs will monitor compliance of HCFC users as part of their normal environment monitoring work.

63. Although only 33 enterprises will be converted during the first tranche of the PU Foam Sector Plan, the conversion comprises 205 production lines, which is a very large task taking into consideration the size of the enterprises, the introduction of a flammable blowing agent in 28 enterprises, the coordination with the systems houses to develop and distribute hydrocarbon-based and water-based pre-blended polyols, and the limited time available. In describing key implementation procedures, the World Bank indicated that the design of the PU Foam Sector Plan is based on a decentralized procurement approach, through which each enterprise is responsible for its own equipment procurement, and must follow the procurement guidelines agreed by FECO and the World Bank. The enterprise is also responsible to obtain a fire safety certificate from local authorities. The destruction of HCFC-based equipment, trials, and testing are part of the commissioning process to be carried out by the PMU and it is also a condition for payment of the grant funds.

64. The Secretariat noted that the implementation of the PU Foam Sector Plan is progressing well. Within the limited time that was available between the approval of the HPMP and the presentation of the report, an holistic and thorough implementation plan has been prepared, an agreement between the World Bank and the Government of China has been discussed and expected to be signed by the end of November (the common time between the approval and signing an agreement is one year or more), and a

few activities at the national and enterprise level have commenced. However, because of issues previously described relating to the implementation modality, the Secretariat is not in the position to express a recommendation for approval of the second tranche of the PU Foam Sector Plan. The Secretariat and the agencies continue to discuss the matter, and the Secretariat will inform the Executive Committee of new developments and any additional information that may become available.

**RECOMMENDATION**

65. Pending.

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

### China

<b>(I) PROJECT TITLE</b>	<b>AGENCY</b>
HCFC phase out plan (stage I) industrial, commercial and air conditioning (ICR)	UNDP (lead)

<b>(II) LATEST ARTICLE 7 DATA (Annex C Group I)</b>	Year: 2011	20,739.03 (ODP tonnes)
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<b>(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)</b>								<b>Year: 2011</b>	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123				12.0	3.5				15.4
HCFC-124					0.4				0.4
HCFC-133									
HCFC-141b		6,992.7				512.6			7,516.5
HCFC-142									
HCFC-142b		1,094.9		6.5	344.2				1,445.7
HCFC-22	70.5	1,488.3		6,721.8	3,478.9				11,759.5
HCFC-225ca						1.5			1.5
HCFC-225cb						0.0			0.0

<b>(IV) CONSUMPTION DATA (ODP tonnes)</b>			
2009 - 2010 baseline:	19,269.0	Starting point for sustained aggregate reductions:	18,865.44
<b>CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)</b>			
Already approved:	3,445.19	Remaining:	15,420.25

<b>(V) BUSINESS PLAN</b>		<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
UNDP	ODS phase-out (ODP tonnes)	86.5	131.6	138.9	121.0	478.1
	Funding (US \$)	7,417,500	11,282,125	11,905,625	10,373,750	40,979,000
	Funding (US \$)	17,307,500	12,784,975	16,506,625	19,188,750	65,787,850

<b>(VI) PROJECT DATA</b>			<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Montreal Protocol consumption limits			n/a	n/a	19,269.0	19,269.0	17,342.1	n/a
Maximum allowable consumption (ODP tonnes)			n/a	n/a	18,865.4	18,865.4	16,978.9	n/a
Agreed funding (US \$)	UNDP	Project costs	25,380,000	6,900,000	8,495,000	11,075,000	9,150,000	61,000,000
		Support costs	1,903,500	483,000	594,650	775,250	640,500	4,396,900
Funds approved by ExCom (US \$)		Project costs	25,380,000	0	0	0	0	25,380,000
		Support costs	1,903,500	0	0	0	0	1,903,500
Total funds requested for approval at this meeting (US \$)		Project costs	0	6,900,000	0	0	0	6,900,000
		Support costs	0	483,000	0	0	0	483,000

<b>(VII) Request for funding for the second tranche (2012)</b>		
Agency	Funds requested (US \$)	Support costs (US \$)
UNDP	6,900,000	483,000

<b>Secretariat's recommendation:</b>	For individual consideration
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## PROJECT DESCRIPTION

66. On behalf of the Government of China UNDP, as the lead implementing agency for the industrial and commercial refrigeration and air-conditioning sector plan (ICR sector plan), has submitted to the 68<sup>th</sup> meeting of the Executive Committee a request for funding for the second tranche of the ICR sector plan at a total cost of US \$6,900,000, plus agency support costs of US \$483,000.

67. The ICR sector plan was approved at the 64<sup>th</sup> meeting, at a total funding level of US \$61,000,000, plus agency support costs of US \$4,396,900 to reduce the consumption of HCFC-141b in the ICR sector by at least 224.5 ODP tonnes by 2013, and an additional 240.3 ODP tonnes by 2015. The first tranche of the ICR sector plan was also approved at this meeting in the amount of US \$25,380,000, plus agency support costs of US \$1,903,500.

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

68. The following activities have been implemented since the approval of the ICR sector plan:

- (a) Public awareness activities distributed information concerning the ICR sector plan, including regulations, strategy, HCFC-22 phase-out commitment and activities, as implementation modalities. Information in particular was provided on workshops, including three with the participation of representatives from the Government, UNDP and ICR enterprises, a meeting with 12 major state Environment Protection Bureaus (EPB), and a sector plan initiation meeting. In June 2012, a project training workshop for potential beneficiary enterprises was held;
- (b) The project document for the ICR sector plan - stage I compliance with 2013 and 2015 targets - was developed jointly by UNDP and the Foreign Economic Cooperation Office/Ministry of Environment (FECO/MEP) and officially signed in December 2011. With the consultation of UNDP, a detailed project implementation plan was finalized. The UNDP methodology "Performance Based Payment (PBP) Mechanism" will be applied for the implementation of ICR sector plan. The following components have been defined in the project document: project introduction, management and supervision, targets for stage I (2011-2015), payment schedule and indicators, monitoring and verification, main stakeholders and their responsibilities;
- (c) A Project Management Office, PMO was established upon the project approved by the Executive Committee. A staff of nine are assigned to implement the sector plan; and
- (d) The Project Implementation Manual (PIM), which describes the procedure of project application and implementation, as well as the roles of stakeholders under the sector plan was developed by FECO and China Refrigeration and Air Conditioning Industry Association (CRAA) and distributed to potential beneficiary enterprises who attended the workshop.

69. A demonstration project for Ammonia/CO<sub>2</sub> cascade technology at Yantai Moon Group Co. Ltd. was approved in advance of the HPMP, with a funding of US \$3,964,458, in order to establish the suitability of Ammonia/CO<sub>2</sub> technology as a viable replacement for HCFC-22 technology in the manufacture of two-stage refrigeration systems for cold storage and freezing applications. The project is meant to result in the phase-out of 250 mt of HCFC-22. Testing equipment and CO<sub>2</sub> vessels have been installed, the process equipment and tools for the pressure vessel production line have been purchased and installed, the products using the alternative technology have been designed and prototypes have been built. A demonstration project for HFC-32 technology in the manufacture of small-sized commercial air-source chillers/heat pumps at Tsinghua Tong Fang Artificial Environment Co. Ltd. was also approved in

advance of the HPMP with a funding of US \$1,229,336, in order to establish the suitability of HFC-32 technology as a viable replacement for HCFC-22 in the manufacture of small-sized commercial air source water chillers/heat pumps. The project if successful will result in the phase-out of 61.9 mt of HCFC-22 consumption. The designs of new products has been completed and evaluated by the relevant experts, the test facilities have been installed, prototypes built and tested by a third party test institution, and the assembly line as well as the inspection process are currently being converted. Regular performance verification visits have been undertaken to both enterprises by an independent expert team with the participation of UNDP. The two projects are expected to be completed at the end of 2012.

70. An expert committee meeting, the fifth in a series started during the preparation of the HPMP, was organized to review the status of the demonstration projects, HFC-32 research and international trends. Research on an HFC-32 safety standard and regulation started in the HPMP preparation stage and aims at preliminarily studying the technological specifications for the safety in manufacturing and use of refrigeration and air-conditioning equipment with HFC-32. Investigation, survey and design of experiments have been completed. The final report will be submitted to FECO by end of 2012. The outcome will be a basis for formulating of HFC-32 safety and product standards. The current technical standard system of the ICR industry for product characteristics, performance, product safety, installation and service relate to today's refrigerants, and more than 15 standards need revision to reflect the alternative technologies. An expert group commenced the work with a view to complete it by 2015.

71. FECO/MEP is planning to carry out during 2012 a survey and an assessment on the feasibility of a quota for the ICR sector. An introduction of a sector quota on an experimental basis is planned for spring 2013. The establishment of an information network database will facilitate the administration of a sector quota system. The technical specification is under preparation. The database is expected to be established and operational mid-2013.

72. Up to May 2012 17 letters of intent were submitted by potential beneficiary enterprises to the PMO. The PMO carried out a preliminary review of the letters of intent with the assistance of CRAA. All of the enterprises were established before September 2007. A certified public account company was selected after a bidding process for the verification of the enterprise information. The verification is conducted before the contract between MEP and the enterprises would be signed; this arrangement will be used throughout the implementation. The verification results are essential for determining the incremental cost of each enterprise. From June to August 2012, two verification teams visited these 17 enterprises; these were each composed of two certified accountants, one technical expert, one staff member from CRAA and one PMO officer. The verification covered 20 production lines for unitary air conditioners, multi-connected air conditioners, heat pump water heaters, small-sized water chillers, ICR water chillers and freezers and cold storage equipment with an aggregated consumption of more than 6,000 mt.

#### *Level of funding disbursement*

73. Of the total funding of US \$25,380,000 approved so far, US \$16,000,000 have been disbursed by UNDP to FECO in December 2011, the remaining is accounted for as being committed.

#### Annual plan for the second tranche of the HPMP

74. The US \$6,900,000 associated with the second tranche will be used for signing contracts for the conversion of an additional 800 mt of phase-out in the ICR sector enterprises, and supported with technical assistance activities that began during implementation of the first tranche.

## SECRETARIAT'S COMMENTS AND RECOMMENDATION

### COMMENTS

75. In addition to questions raised by the Secretariat regarding the implementation modality for the sector plans covered under the section "2012 overall progress report on the implementation of HPMP stage I in China", the Secretariat requested additional information from UNDP regarding its submission. UNDP provided the following information:

- (a) On the annual targets agreed with China for implementation, UNDP informed that the targets are the signing of enterprise conversion contracts covering 3,000 mt during 2012 and 800 mt during 2013, and that the current progress indicates that these targets will be achieved. UNDP advised further that the funds so far released to China are consistent with these targets. According to UNDP, in light of the verification of enterprises carried out during 2012 and the readiness of prospective participating enterprises, it seems possible to sign contracts for a phase-out of about 6,000 mt by mid-2013;
- (b) UNDP provided more detail on the National Technical Support Programme as part of the ICR sector plan, and provided the related overall budget in the following table:

Table 1: Budget for the National Technical Support programme

Component	Budget (US \$)		
	2012-2015	2012	2013
<b>Promotion of alternative refrigerant technologies</b>			
Sector-level technical workshops/training	80,000	0	30,000
Coordination for sector-wide technical issues	100,000	30,000	30,000
Adaptability study for R-32 applications	300,000	100,000	100,000
Suitability study for natural refrigerants	300,000	100,000	100,000
<b>Technical support for conversions</b>			
Technical assistance for enterprise proposals	20,000	10,000	10,000
Establishing testing platform	200,000	150,000	50,000
Total	1,000,000	390,000	320,000

- (c) UNDP provided more detail on the sector-level quota system, to be part of the national quota management system, which will come into effect as of spring 2013. Initially, the enterprises participating in stage I of the HPMP, which are expected to be the larger enterprises, are to be subject to the quota system. Subsequently this will be extended to other enterprises. UNDP responded to a query that it has not yet been decided whether the quotas under the quota system will be tradable. Intensive stakeholder consultations were in progress to define the various elements of the quota system; and
- (d) UNDP had mentioned in the submission that a funding allocation scheme with thresholds for each alternative technology had been developed. They further explained that the objective of establishing a funding allocation scheme was to ensure a level playing field for enterprises for similar technologies, based on available funding. UNDP explained further that the funding thresholds developed for this purpose have no bearing on the actual phase-out costs. The funding thresholds for various alternative technologies, adjusted for enterprise consumption levels, are shown in Table 2.



Table 2: Funding thresholds by technology and enterprise size

Enterprise-level consumption (metric tonnes)	Funding threshold range (US \$/kg-ODS)			
	R-410A	R-134a	R-32	NH <sub>3</sub> /CO <sub>2</sub>
< 50	3.4-3.7	3.6-4.0	6.7-7.3	9.6-10.4
50 – 100	3.1	3.3	6.1	8.7
> 100	2.8-2.9	3.0-3.1	5.5-5.8	7.8-8.3

For enterprises with consumption levels less than 50 mt and more than 100 mt, the funding threshold is subject to adjustments of 10-20 per cent upwards and downwards respectively, depending on the actual enterprise size and extent of justifiable conversion costs. UNDP further advised that about 80 per cent of the conversions planned for 2012 and 2013 are expected to be to HFC-32 and the remaining to HFC-410A and NH<sub>3</sub>/CO<sub>2</sub> technology.

76. The Secretariat noted that the implementation of the ICR sector plan is progressing well. Within the limited time that was available between the approval of the HPMP and the presentation of the report, an holistic and thorough implementation plan has been prepared, an agreement between UNDP and the Government of China has been signed (common times between approval and such an agreement are one year and more) and a few activities at the national and enterprise level have commenced. However, because of issues previously described relating to the implementation modality, the Secretariat is not in the position to express a recommendation for approval of the second tranche of the ICR sector plan. The Secretariat and the agencies continue to discuss the matter, and the Secretariat will inform the Executive Committee of new developments and any additional information that may become available.

## RECOMMENDATION

77. Pending.

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

### China

<b>(I) PROJECT TITLE</b>	<b>AGENCY</b>
HCFC phase out plan (stage I) room air conditioning (RAC)	UNIDO (lead)

<b>(II) LATEST ARTICLE 7 DATA (Annex C Group I)</b>	Year: 2011	20,739.03 (ODP tonnes)
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<b>(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)</b>								<b>Year: 2011</b>	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123				12.0	3.5				15.4
HCFC-124					0.4				0.4
HCFC-141b		6,992.7				512.6			7,516.5
HCFC-142b		1,094.9		6.5	344.2				1,445.7
HCFC-22	70.5	1,488.3		6,721.8	3,478.9				11,759.5
HCFC-225ca						1.5			1.5
HCFC-225cb						0.0			0.0

<b>(IV) CONSUMPTION DATA (ODP tonnes)</b>			
2009 - 2010 baseline:	19,269.0	Starting point for sustained aggregate reductions:	18,865.44
<b>CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)</b>			
Already approved:	3,445.19	Remaining:	15,420.25

<b>(V) BUSINESS PLAN</b>		<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
UNIDO	ODS phase-out (ODP tonnes)	201.9	149.2	192.6	223.9	767.5
	Funding (US \$)	17,307,500	12,784,975	16,506,625	19,188,750	65,787,850

<b>(VI) PROJECT DATA</b>			<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Montreal Protocol consumption limits			n/a	n/a	19,269.0	19,269.0	17,342.1	n/a
Maximum allowable consumption (ODP tonnes)			n/a	n/a	18,865.4	18,865.4	16,978.9	n/a
Agreed funding (US \$)	UNIDO	Project costs	36,430,000	9,200,000	8,495,000	9,625,000	11,250,000	75,000,000
		Support costs	2,732,250	644,000	594,650	673,750	787,500	5,432,150
Funds approved by ExCom (US \$)		Project costs	36,430,000	0	0	0	0	36,430,000
		Support costs	2,732,250	0	0	0	0	2,732,250
Total funds requested for approval at this meeting (US \$)		Project costs	0	9,200,000	0	0	0	9,200,000
		Support costs	0	644,000	0	0	0	644,000

<b>(VII) Request for funding for the second tranche (2012)</b>		
<b>Agency</b>	<b>Funds requested (US \$)</b>	<b>Support costs (US \$)</b>
UNIDO	9,200,000	644,000

<b>Secretariat's recommendation:</b>	For individual consideration
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## PROJECT DESCRIPTION

78. On behalf of the Government of China UNIDO, as the lead implementing agency for the room air-conditioner sector plan (RAC sector plan), has submitted to the 68<sup>th</sup> meeting of the Executive Committee a request for funding for the second tranche of the RAC sector plan at a total cost of US \$9,200,000, plus agency support costs of US \$644,000.

79. The RAC sector plan was approved at the 64<sup>th</sup> meeting, at a total funding level of US \$75,000,000, plus agency support costs of US \$5,432,150 to reduce the consumption of HCFC-141b in the RAC sector by at least 176.0 ODP tonnes by 2013, and an additional 410.9 ODP tonnes by 2015. The first tranche of the RAC Sector plan was also approved at the 64<sup>th</sup> meeting in the amount of US \$36,430,000, plus agency support cost of US \$2,732,250.

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

80. In the RAC sector 3,200 mt of HCFC-22 will have to be phased-out from the 2010 consumption in order to reach the 2013 consumption limit, and a further 7,470 mt of HCFC-22 to be in compliance with the 10 per cent reduction target in 2015. In order to achieve these, over 30 production lines will have to be converted during stage I of the RAC sector plan. The following activities have been implemented since the approval of the RAC sector plan:

- (a) Public awareness activities distributed information concerning the RAC sector plan, including regulations, strategy, HCFC-22 phase-out commitment and activities, as well as implementation modalities. Information in particular was provided on workshops, including two with the participation of representatives from the Government, UNIDO and RAC enterprises, an international technical conference on the RAC sector in November 2012, a meeting with 12 major state Environment Protection Bureaus (EPB), and a sector plan initiation meeting. In June 2012, a project training workshop for potential beneficiary enterprises was held;
- (b) A PMO was established soon after project approval at the 65<sup>th</sup> meeting. Terms of Reference as well as the project contract for the stage I of the RAC sector plan in China was developed jointly by UNIDO and FECO/MEP and was finalized in February 2012; the contract was signed in March 2012. A detailed project implementation plan was finalized and agreed upon. A performance-based payment mechanism will be applied for the implementation of the RAC sector plan. Components are: project introduction, management and supervision, targets for stage I (2011-2015), performance milestones with indicators, payment schedule, monitoring and verification, as well as main stakeholders and their responsibilities;
- (c) The PIM was developed by FECO and the China Household Electrical Appliances Association (CHEAA) in the second quarter 2012. This manual takes fully into account eligibility, rules and decisions of the Multilateral Fund. The manual including the template of the project proposal was printed and distributed to the potential beneficiary enterprises, which attended the training workshops; and
- (d) A budget shown below for the sector plan has been developed, which gives priority to the substitute HC-290 (propane).

Table 1: Funding allocation plan

Item		Budget (US \$)
Conversion to HC-290-based production lines		51,000,000
Conversion to HFC-410A-based production lines		5,000,000
Conversion to HC-290-based compressor production lines		4,200,000
Technical assistance to the small-sized enterprises		500,000
Research and development of alternative technologies		2,400,000
Other technical assistance activities	Standard development	770,000
	Monitoring information system	755,000
	Training	660,000
	Outreach	550,000
	Technology communication	405,000
	Selection of beneficiary enterprises	110,000
Verification		400,000
Project implementation and management		5,250,000
Contingency		3,000,000
Total		75,000,000

81. An expert committee meeting, the fifth in a series started during the preparation of the HPMP, was organized to review the development of HC-290 technology, being focused on the basic research including the research on the compressor, the charging amount and safety design, as well as the research on the connection and leakage detection methodologies. The safety assessment should focus on the risk of higher charging amounts (more than 300g) in the RAC with different refrigerants during combustion and the risk of leakage into the indoor unit, etc. A draft proposal on the amendment to the standard IEC 60335-2-40 (International standard on household and similar electrical appliances – Safety – Part 2-40: Particular requirements for electrical heat pumps, air conditioners and dehumidifiers) was prepared by the technical expert committee and finalised in April 2012, and the proposal was submitted to the Chinese National Committee of IEC standard in May 2012. FECO in cooperation with the Government of Germany finalized a project funded externally to the Multilateral Fund introducing HC technology at one RAC manufacturer in China. This project provided experience using HC-290 technology. It contributes to the introduction of hydrocarbon-based RAC products into the market.

82. During 2012, FECO/MEP is planning to carry out a survey and an assessment on the feasibility of a quota for the RAC sector. An introduction of a sector quota is planned for 2013. The establishment of a monitoring information system will facilitate the administration of a sector quota system. The technical specification is under preparation. The database is expected to be established and operational by mid-2013.

83. A notice on the request for the proposal on conversion projects was issued by the PMO to potentially participating enterprises in January 2012. By March 2012, 29 letters of intent/proposals from 12 manufacturers were received for the conversion of RAC production lines and seven proposals from different manufacturers were received for the conversion of compressor production lines. All 19 enterprises were established before the 21 September 2007 cut-off date. The proposals were reviewed in detail and missing information was requested. The production lines to be converted were verified to ensure that only eligible lines receive support. The verification was carried out by an independent certified public accounting firm selected through national competitive bidding. The firm invited experienced technical RAC sector experts to join the team and assist in the verification of the production lines and HCFC-22 consumption. From June to August 2012, four verification teams were fielded to verify 30 production lines in 29 enterprises, each consisting of two certified public accountants, a technical expert, and one staff each of CHEAA and of the PMO. The remaining enterprises were scheduled for verification in September 2012.

*Level of funding disbursement*

84. Of the total funding of US \$36,430,000 approved so far, US \$18,215,000 has been disbursed by UNIDO to FECO by September 2012.

Annual plan for the second tranche

85. The US \$9,200,000 associated with the second tranche will be used for signing seven to nine additional contracts for the conversion of production lines in the RAC sector, and supported with technical assistance activities that began during implementation of the first tranche.

**SECRETARIAT'S COMMENTS AND RECOMMENDATION****COMMENTS**

86. In addition to questions raised by the Secretariat regarding the implementation modality for the sector plans covered under the section "2012 overall progress report on the implementation of HPMP stage-I in China", the Secretariat requested additional information from UNIDO regarding its submission. UNIDO provided the following information:

- (a) The Secretariat, stating the agreement between the Executive Committee and China, questioned the level of implementation reached. UNIDO advised that significant progress has been made since project approval that enables UNIDO and FECO to implement now the investment activities without further delays. There was a need for wide stakeholder consultation, since the budget of the approved HPMP was substantially lower than originally proposed and since there were various requirements in the Agreement between China and the Executive Committee, in particular to convert at least 18 production lines to HC-290. UNIDO pointed out that significant progress was also made in the detailed planning, preparation and first steps of the main technical assistance activities, including the standards, research and development and safety assessment. UNIDO pointed out that, since most enterprises committed to the conversion activities, it was of utmost importance to receive the second funding tranche, being itself a pre-requisite to signing a sufficient number of conversion contracts to meet the freeze and 10 per cent reduction targets; and
- (b) Regarding a query on the current and exact status of contracts between FECO and enterprises, and the associated costs, UNIDO replied that by the end of December 2012, 10-13 contracts are planned to be signed with manufacturing enterprises with at least 3,200 mt of HCFC-22 to be phase-out that should allow at least the freeze target to be met. The actual tonnage was dependent on the contracts that will be signed; UNIDO also provided a list with detailed information about the potentially participating enterprises. Further, by June 2013 contracts for the phase-out of at least 7,000 mt of HCFC-22 were to be signed. UNIDO further advised that funding required for the conversion activities needs to be available in FECO's accounts to ensure that FECO can sign performance-based contracts.

87. The Secretariat noted that the implementation of the RAC sector plan is progressing well. Within the limited time that was available between the approval of the HPMP and the presentation of the report, an holistic and thorough implementation plan has been prepared, an agreement between UNIDO and the Government of China has been signed (common times between approval and such an agreement are one year and more) and a number of activities at the national and enterprise level have commenced. However, because of issues previously described relating to the implementation modality, the Secretariat

is not in the position to propose a recommendation for approval of the second tranche of the RAC sector plan. The Secretariat and the agencies continue to discuss the matter, and the Secretariat will inform the Executive Committee of new developments and any additional information that may become available.

**RECOMMENDATION**

88. Pending.

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

### China

<b>(I) PROJECT TITLE</b>	<b>AGENCY</b>
HCFC phase out plan (stage I) servicing sector, including enabling	Japan, UNEP (lead)

<b>(II) LATEST ARTICLE 7 DATA (Annex C Group I)</b>	Year: 2011	20,739.03 (ODP tonnes)
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<b>(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)</b>								<b>Year: 2011</b>	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123				12.0	3.5				15.4
HCFC-124					0.4				0.4
HCFC-133									
HCFC-141b		6,992.7				512.6			7,516.5
HCFC-142									
HCFC-142b		1,094.9		6.5	344.2				1,445.7
HCFC-22	70.5	1,488.3		6,721.8	3,478.9				11,759.5
HCFC-225ca						1.5			1.5
HCFC-225cb						0.0			0.0

<b>(IV) CONSUMPTION DATA (ODP tonnes)</b>			
2009 - 2010 baseline:	19,269.0	Starting point for sustained aggregate reductions:	18,865.4
<b>CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)</b>			
Already approved:	3,445.19	Remaining:	14,520.25

<b>(V) BUSINESS PLAN</b>		2012	2013	2014	2015	Total
Japan	ODS phase-out (ODP tonnes)	1.0	1.0	1.0	1.0	4.0
	Funding (US \$)	90,400	90,400	90,400	90,400	361,600
UNEP	ODS phase-out (ODP tonnes)	7.5	13.9	14.7	9.9	45.9
	Funding (US \$)	664,921	1,227,546	1,304,268	873,960	4,070,695

<b>(VI) PROJECT DATA</b>			2011	2012	2013	2014	2015	Total
Montreal Protocol consumption limits			n/a	n/a	19,269.0	19,269.0	17,342.1	n/a
Maximum allowable consumption (ODP tonnes)			n/a	n/a	18,865.4	18,865.4	16,978.9	n/a
Agreed funding (US \$)	Japan	Project costs	80,000	80,000	80,000	80,000	80,000	400,000
		Support costs	10,400	10,400	10,400	10,400	10,400	52,000
	UNEP	Project costs	1,579,000	598,000	1,104,000	1,173,000	786,000	5,240,000
		Support costs	176,703	66,921	123,547	131,269	87,960	586,400
Funds approved by ExCom (US \$)	Project costs	1,659,000	0	0	0	0	1,659,000	
	Support costs	187,103	0	0	0	0	187,103	
Total funds requested for approval at this meeting (US \$)	Project costs	0	678,000	0	0	0	678,000	
	Support costs	0	77,321	0	0	0	77,321	

<b>(VII) Request for funding for the second tranche (2012)</b>		
Agency	Funds requested (US \$)	Support costs (US \$)
Japan	80,000	10,400
UNEP	598,000	66,921

<b>Secretariat's recommendation:</b>	For individual consideration
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## PROJECT DESCRIPTION

89. On behalf of the Government of China UNEP, as the lead implementing agency for the refrigeration servicing sector and national enabling programme for stage I of the HPMP for China has submitted to the 68<sup>th</sup> meeting of the Executive Committee a request for funding for the second tranche of the Servicing sector plan at a total cost of US \$678,000, plus agency support costs of US \$77,321 (US \$598,000 plus support costs of US \$66,921 for UNEP and US \$80,000 plus support costs of US \$10,400 for the Government of Japan).

90. The refrigeration servicing sector component and the national enabling programme for the China HPMP was approved at 64<sup>th</sup> meeting of the Executive Committee with three enabling components with a total funding of US \$5,640,000, for the implementation of UNEP and the Government of Japan. The first tranche of this sector was also approved at the 64<sup>th</sup> meeting in the amount of US \$1,659,000, plus agency support cost of US \$187,103.

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

91. The following activities have been implemented since the approval of the servicing sector and national enabling programme:

- (a) Training Workshop on accelerated HCFCs Phase-out in China, Ozone Day 2011. More than 60 representatives from the architecture design and research institutes, media, dealers and servicing companies for air-conditioning and refrigeration equipment as well as industry associations participated in the workshop. The workshop improved the awareness of the stakeholders that potentially can make a contribution towards the reduction of HCFC consumption, and provided all the information on how to take action to make their contribution in particular for the servicing sector;
- (b) Consultation meetings with FECO and UNEP/Japan were organized in November 2011, April 2012 and September 2012, with participation of the industry associations and national experts to discuss the scope of the work as well as budget allocation among various activities for the implementation of the approved refrigeration servicing sector project and the three enabling components, i.e. Capacity-building of national and local authorities, strengthening the HCFC import/export control, and the outreach and communication strategy, organized meetings. UNEP and FECO finalized the Project Cooperation Agreement (PCA), which was signed by both parties on 23 July 2012;
- (c) The draft work plan for the implementation of the servicing sector was finalised by FECO/MEP following a consultation meeting with relevant industrial associations as well as UNEP/Japan in August 2012. This work/implementation plan covers all activities and outputs to be achieved under the first tranche;
- (d) Progress was made in the development process for the relevant industry servicing standards and codes in accordance with the work plan under the HPMP. FECO/MEP organized consultation meetings with UNEP, CRAA and CHEAA to prioritize the most needed industrial codes or standards in the servicing sector, and developed relevant TORs for the organization of the development work in both RAC and ICR sectors. These activities are relevant to the work of the servicing sector;
- (e) Meetings were also held with local authorities to discuss the development of a strategy on capacity-building of national and local authorities. This was held back to back with the launching meeting of the HPMP with participation of the ozone officers from local EPBs.



- (f) For the implementation of the strategy to strengthen the HCFC import/export control, the ODS Import and Export (I/E) Office, in close cooperation with the other national stakeholders, developed the training materials and organized two training workshops in 2012 with resources from national fiscal funds;
- (g) Initiation of the proposed demonstration project in Shenzhen which would be implemented by the city directly with the guidance of FECO. The work plan and schedule for this demonstration project was also completed and finalized; and
- (h) Outreach and communication activities were also completed, focusing on Ozone Day, with a youth video competition and awards given during the period.

*Level of funding disbursement*

92. Of the total funding of US \$1,659,000 approved so far, US \$680,000 was disbursed by UNEP to FECO/MEP on 13 September 2012 under the PCA. The overall level of funding under the PCA signed between UNEP and FECO/MEP was US \$1,370,500. The funding for the development of the outreach and communication strategy will be transferred to China separately (US \$142,500) as requested by FECO/MEP.

Annual plan for the second tranche of the HPMP

93. The requested funding for the second tranche of US \$678,000 will be used for the following activities:

- (a) Government actions to support HPMP implementation for the refrigeration servicing sector to achieve its target under the HPMP in China;
- (b) Develop the Qualification and/or Compulsory certificate System for servicing technicians;
- (c) Complete the Development of Standards/Codes activities in servicing sector;
- (d) Finalise the training materials;
- (e) Outreach in the servicing sector;
- (f) Initiate activities in the pilot city, to be directly carried out by Shenzhen Habitat and Environment Commission;
- (g) Training of technicians;
- (h) Capacity-building of national and local authorities; and
- (i) Strengthening the import/export control.

**SECRETARIAT'S COMMENTS AND RECOMMENDATION**

**COMMENTS**

94. As this was the first time that the Secretariat had the opportunity to review in detail the activities included in the refrigeration servicing sector and the national enabling programme, there were some aspects of the budget and activities where clarification was sought. UNEP was asked to clarify the

implementation modality with respect to the funds approved for the Government of Japan. UNEP clarified that these funds had been transferred to it and that they have been designated as the main implementing agency and will consult the Government of Japan as necessary with regard to the implementation of their components.

95. The Secretariat also sought clarification on a budget item identified by UNEP as “UNEP technical assistance” and requested an explanation on how this was different from the support costs already calculated within the project. UNEP explained that these funds had been set aside to provide technical assistance including bring international experts/institutions for support the implementation of the HPMP when required.

96. With regard to the progress in implementation and disbursement, the Secretariat noted that there seemed to be very little substantive activities completed during the period other than the signature of the agreement. Most other activities reported were implemented as part of the overall HPMP from a national perspective, and not due to the project. UNEP advised that it took some time to get an agreement on the overall work plan for the sector as well as that for the first tranche, since discussions had to be done with all stakeholders. It is confident that as the work plan is now complete that the implementation of the activities will go on as foreseen.

97. The Secretariat also asked UNEP to describe the pilot demonstration proposed and what the objectives were. UNEP responded that the concept of a pilot city was included in the submission to the 64<sup>th</sup> meeting, and will be carried out in the city of Shenzhen, Guangdong Province. It aims mainly to gain experiences from the operation of capacity building in terms of management, supervision, incentives, policies and regulations, standards and codes, training for HCFCs phase-out, for the effective implementation of nationwide HCFCs phase-out. It is hoped that this can help with both the servicing sector replication as well as show an approach for building capacity of local authorities, which can later be broadly used as a model in China.

98. In further discussions, the Secretariat requested UNEP to combine the activities for the two tranches in one work plan, clearly defining those that were part of the first tranche and those planned for the second tranche to enable easier monitoring of progress. UNEP made the necessary revisions and provided these to the Secretariat.

## **RECOMMENDATION**

99. Pending.

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