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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Sixtieth Meeting
Montreal, 12-15 April 2010

PROJECT PROPOSALS: CHILE

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

Fumigant

- National phase-out of methyl bromide - terminal project UNIDO/UNEP

Phase-out

- Servicing sector terminal CFC phase-out plan (second tranche) Canada

**PROJECT EVALUATION SHEET – NON-MULTI-YEAR PROJECT
CHILE**

PROJECT TITLE(S) **BILATERAL/IMPLEMENTING AGENCY**

National phase-out plan of methyl bromide – terminal project	UNIDO/UNEP
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NATIONAL CO-ORDINATING AGENCY	National Commission for the Environment (CONAMA)/Ministry of the Environment
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LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT

A: ARTICLE-7 DATA (ODP TONNES, 2008, AS OF FEBRUARY 2010)

Annex E, MB	164.4		
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B: COUNTRY PROGRAMME SECTORAL DATA (ODP TONNES, 2008, AS OF FEBRUARY 2010)

ODS	Subsector/quantity	Subsector/quantity	Subsector/quantity	Subsector/quantity
MB	QPS / 113.2	Non QPS / 164.7		

CFC consumption remaining eligible for funding (ODP tonnes)	n/a
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CURRENT YEAR BUSINESS PLAN ALLOCATIONS	Funding US \$	Phase-out ODP tonnes
	1,612,500	120

PROJECT TITLE:	
ODS use at enterprise (ODP tonnes):	170
ODS to be phased out (ODP tonnes):	170
ODS to be phased in (ODP tonnes):	N/A
Project duration (months):	48
Initial amount requested (US \$):	2,210,627
Final project costs (US \$):	
Incremental Capital Cost:	1,580,197
Contingency (10 %) (*):	150,720
Incremental Operating Cost:	0
Total Project Cost (UNIDO): 1,657,917	1,730,917
Total Project Cost (UNEP): 73,000	
Local ownership (%):	100
Export component (%):	N/A
Requested grant (US \$):	1,730,917
Cost-effectiveness (US \$/kg)*:	10.52
Implementing agency support cost (US \$):	133,834
Total cost of project to Multilateral Fund (US \$):	1,864,751
Status of counterpart funding (Y/N):	Y
Project monitoring milestones included (Y/N):	Y
SECRETARIAT's RECOMMENDATION	For individual consideration

(* Excluding contingency for UNEP componente (US \$ 73,000)

PROJECT DESCRIPTION

1. On behalf of the Government of Chile, UNIDO, as the lead implementing agency, has submitted to the 60th Meeting of the Executive Committee a terminal project for a national phase-out plan for methyl bromide (MB) at a total cost, as originally submitted, of US \$2,111,627 plus agency support costs of US \$158,372 for UNIDO, and US \$99,000 plus agency support costs of US \$12,870 for UNEP, as originally submitted. Approval of this project will result in the complete phase-out of all controlled uses of MB in Chile.

Background

2. At their 16th Meeting, the Parties to the Montreal Protocol noted that Chile was in non-compliance with its obligations under the Montreal Protocol, and requested Chile to submit a plan of action to ensure a prompt return to compliance (decision XVI/22). Consequently, on behalf of the Government of Chile, the World Bank submitted to the 45th Executive Committee Meeting, a MB phase-out strategy and plan of action, an investment project addressing all remaining uses of MB in soil applications, and a draft agreement between the Government and the Executive Committee. The Committee noted the phase-out strategy, and approved the project with the agreed phase-out conditions (decision 45/39).

3. At their 17th Meeting, the Parties noted that Chile had submitted a plan of action that committed Chile to reducing its controlled uses of MB consumption from 262.8 ODP tonnes in 2004 to 170.0 ODP tonnes in 2005 and to zero ODP tonnes by 1 January 2015 (decision XVII/29). However, at its 48th Meeting, the Executive Committee considered a request submitted by the Government of Chile for cancellation of the project that was approved at the 45th Meeting. Accordingly, the Committee requested, *inter alia*, that the World Bank return to the Fund US \$691,703 plus agency support costs of US \$51,878 associated with the tranche of the project already funded; and approved revisions to the agreement between the Government and the Executive Committee (decision 48/16(b)(i)).

Project for the complete phase-out of MB

4. The objective of the project is to phase out 170 ODP tonnes of MB used as a soil fumigant in the production of tomatoes, strawberries (fruit and runners) and fruit tree nurseries. The selected alternative technologies to phase out MB are: grafting in part of the tomato production area, and various alternative chemicals (including chloropicrin, 1,3-dichloropropene combined with chloropicrin, metham sodium and/or metham potassium). Implementation of these technologies requires the installation of a greenhouse for the production of grafted tomato plants, and injection pumps and farm equipment for the introduction of alternative chemicals. The project will first introduce the alternative technologies in pilot trials with voluntary participation of growers wishing to evaluate them on their farms, through agreements that clearly delineate the responsibilities of growers and relevant authorities. Technical assistance, training and support will be provided, an integrated management approach will be introduced, and international experts will be contracted to ensure an efficient and effective transition to non-MB fumigation, and the establishment of a system to monitor MB imports.

5. The total cost of the project, as originally submitted, is US \$2,210,627, with the following distribution: US \$1,192,661 for equipment and farm materials, US \$727,000 for training and project coordination, US \$99,000 associated with the policy component (to be implemented by UNEP) and US \$191,966 contingency. The cost-effectiveness of the project is US \$13.00/kg.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

6. The 2008 MB consumption reported by the Government of Chile of 164.4 ODP tonnes is 5.6 ODP tonnes below the maximum allowable level of 170.0 ODP tonnes for that year.

7. In regard to regulations controlling MB in the country, UNIDO explained that the Ozone Law enacted in 2006 had established the maximum annual import of MB according to the phase-out schedule of the Montreal Protocol. Importers, distributors and users of MB must report quantities purchased, stored, distributed and used, by specific activity, to the Ministry of Agriculture every three months. Any modification of the law or introduction of a new regulation to change the phase-out schedule would take several years, since it would require public consultation with all stakeholders. Accordingly, the Government of Chile has committed to completely phase out consumption of MB by 1 January 2015. UNIDO also indicated that the Government of Chile is confident that, through the implementation of the project, MB consumption will be reduced until it is completely phased-out by the end of 2014.

8. The Secretariat and UNIDO discussed several technical issues that were addressed as follows:

- (a) Regarding the demonstration project for testing MB alternatives in soil treatment applications for tomatoes and peppers approved at the 25th Meeting, UNIDO reported that the results of the project were used to the extent possible in designing the investment project. However, the phase-out project includes new alternative chemicals which were not considered in the demonstration project;
- (b) Noting that the project has been developed more as a demonstration project than as an investment project, where alternative technologies will be first introduced in pilot scale applications, the effectiveness and long-term sustainability of the alternatives was questioned. UNIDO advised that the pilot cases are intended to demonstrate to farmers the effectiveness of the proposed technologies under local conditions, and provide results that will speed up the chemical registration process;
- (c) When asked why grafting was chosen in only one tomato production area when all other tomato growers have selected alternative chemicals, UNIDO indicated that the project proposes to introduce and adapt to local conditions both grafting and chemical alternatives so that the farmers would be able to select the best technology for them. In the case of grafting, some of the technicians and farmers from that area have already tested this technology in the past. Although experience has shown that this technology could be very competitive, and so could be introduced in other tomato-growing regions in the country. This however would have to be demonstrated in the field.

9. According to the project proposal, growers raised concerns about the potential rejection of agricultural products from Chile by external markets due to the use of MB. Clarification was sought on whether stakeholders considered the possibility that those same markets could also decide to ban imports of products fumigated with alternative chemicals. UNIDO reported that it was aware of the possibility, which had been discussed several times with farmers. However, considering the reluctance to phase out MB, and in order to assist the farmers and enable Chile to comply with the Montreal Protocol, UNIDO decided to accept all the alternative technologies that local farmers are ready to adopt.

10. Several cost issues were also raised with UNIDO in regard to the greenhouses needed to introduce the grafting technology; the number of injection pumps and machines being requested; the request to pay for alternative chemicals without deducting the cost of MB; and the cost of the training programme and project coordination taking into consideration the relatively small area where MB is

currently used, its use in only two crops and the fact that only two alternative technologies have been selected. Similarly, issues were raised about UNEP's proposed activities, which included national experts on promotion of cleaner production, the request for an international expert on legislation when a regulatory framework system is in place, and funding for conference/workshops. In addressing these issues, UNIDO indicated that the funds requested for the greenhouse will be used to adapt some of the greenhouses which are already established in the production areas (owned by the growers), and to adapt one greenhouse established at the University of Valparaiso, with premises for education and extension purposes in the region. Funding requested for the introduction of alternative chemicals will also be used for adapting equipment currently available on farms. Through the UNEP component, national consultants will be hired to establish a monitoring system for MB imports, some training activities in relation to technology transfer will be implemented (jointly with UNIDO), and awareness and dissemination activities will be carried out. As a result of the discussion, the total cost of the project was agreed at US \$1,730,917 with the following distribution: US \$746,197 for equipment and farm materials, US \$761,000 for training (UNIDO component), sub-contracts with local institutions for project implementation and coordination (through local institutions), US \$73,000 associated with training (UNEP component) and policy component to be implemented by UNEP, and US \$ 150,720 contingency. The cost-effectiveness of the project is US \$10.52/kg.

Draft agreement

11. A draft agreement between the Government of Chile and the Executive Committee on the modalities for implementing the MB phase-out project is contained in Annex I to the present document.

RECOMMENDATION

12. The Executive Committee may wish to consider:

- (a) Approving in principle the terminal project for the national phase-out plan for methyl bromide for Chile, at a total cost of US \$1,657,917 plus agency support costs of US \$124,344 for UNIDO and US \$73,000 plus agency support costs of US \$9,490 for UNEP, on the understanding that no additional funding will be provided for Chile for the phase-out of controlled uses of methyl bromide in the country;
- (b) Approving the draft agreement between the Government of Chile and the Executive Committee for the phase-out of controlled uses of methyl bromide contained in Annex I to the present report; and
- (c) Further approving the first tranche of the national phase-out plan for methyl bromide at a total cost of US \$1,100,000 plus agency support costs of US \$82,500 for UNIDO and US \$73,000 plus agency support costs of US \$9,490 for UNEP.

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS
Chile

(I) PROJECT TITLE	AGENCY
CFC phase out plan	Canada

(II) LATEST ARTICLE 7 DATA (ODP Tonnes)					Year: 2008
CFC: 47.9	CTC: 0	Halons: 0	MB: 164.4	TCA: 0	

(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP Tonnes)											Year: 2008		
Substances	Aerosol	Foam	Halon	Refrigeration		Solvent	Process Agent	MDI	Lab Use	Methyl Bromide		Tobacco fluffing	Total Sector Consumption
				Manufacturing	Servicing					QPS	Non QPS		
CFC				4.8	43.1								47.9
CTC													0
Halons													0
Methyl Bromide										113.2	164.7		277.8
Others													0
TCA													0

(IV) PROJECT DATA			2008	2009	2010	Total
Montreal Protocol Consumption Limits		CFC	124.3	124.3	0.	
Maximum Allowable Consumption (ODP Tonnes)		CFC	124.3	124.3	0.	
Project Costs (US\$)	Canada	Project Costs	176,000.	261,500.		437,500.
		Support Costs	22,880.	33,995.		56,875.
Total Funds Approved in Principle (US\$)		Project Costs	176,000.	261,500.		437,500.
		Support Costs	22,880.	33,995.		56,875.
Total Funds Released by the ExCom (US\$)		Project Costs	176,000.	0.		176,000.
		Support Costs	22,880.	0.		22,880.
Total Funds Requested for Current Year (US\$)		Project Costs			261,500.	261,500.
		Support Costs			33,995.	33,995.

(V) SECRETARIAT'S RECOMMENDATION:	For blanket approval
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PROJECT DESCRIPTION

13. On behalf of the Government of Chile, the Government of Canada has submitted to the 60th Meeting of the Executive Committee a request for funding for the second and final tranche of the servicing sector terminal CFC phase-out plan (Service Plan) for Chile, at a cost of US \$261,500 plus agency support costs of US \$33,995. The submission also includes a progress report on the implementation of the Service Plan during 2008 and 2009, the verification report required by the Agreement and the implementation programme for 2010.

Background

14. The Service Plan for Chile was approved by the Executive Committee at its 55th Meeting to completely phase out CFC consumption in the country by the end of 2009. Total funding of US \$437,500 plus agency support costs of US \$56,875 was approved in principle by the Executive Committee. At the same meeting, the Committee approved US \$176,000 plus agency support costs of US \$22,880 for the implementation of the first tranche of the Service Plan.

Progress report and verification report

15. Under the Service Plan good practices in refrigeration are being reviewed with major stakeholders, and the current review of the technician's certification process is expected to be completed by 2011. The train-the-trainers workshop for service technicians has been completed and several training workshops have been conducted, resulting in a total of 120 additional technicians trained. Of the 45 requests for the retrofit of CFC-based refrigeration equipment that were approved, 25 pieces of equipment were converted to alternative refrigerants and 20 end-users withdrew their application due to difficulties in paying their share. It is expected that over 70 additional conversions will be completed by the end of 2010. A consultant has been contracted to oversee the general implementation of the Service Plan.

16. A verification report on the levels of CFC consumption for the years 2008 and 2009 has been prepared. The verification report concluded that the CFC "consumption target for 2008 has been fulfilled largely since the total imports that year were only 38.5 per cent of total licenses issued". The auditor also concluded that "the regulations and procedures installed to comply with the national targets have worked out properly. Every actor has participated in a proper manner receiving licenses (quotas) to import products and following controls and regulating steps".

17. As of December 2009, of the US \$176,000 approved for the first tranche, US \$73,976 had been disbursed. The balance of US \$102,024 will be disbursed in 2010.

Plan of action for the second tranche of the Service Plan

18. The Government of Chile commits to implementing the following activities under the second work programme of the Service Plan: continued implementation of the incentive programme to convert 100 display refrigeration systems, 14 agro-industrial cold rooms and 13 hospital cold rooms; the certification of some 400 refrigeration and air conditioning technicians and professionals. The training of an additional 500 technicians (basic training courses), with refresher courses for another 700 technicians. Monitoring and verification activities will also take place.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

19. The 2008 CFC consumption reported by the Government of Chile under Article 7 of the Montreal Protocol of 47.9 ODP tonnes was already 76.4 ODP tonnes below that of 124.3 ODP tonnes allowed for that year. CFC consumption in 2009 has been estimated at 21.8 ODP tonnes. The Government of Canada

reported that CFC consumption has declined gradually since then due to the implementation of the RMP and the ongoing retirement of CFC-based equipment. Apart from specific activities that contributed to reducing CFC consumption (such as improved technician practices), the RMP helped to raise awareness and increase cooperation among stakeholders in the refrigeration and air conditioning industry in Chile, which quickly began the transition towards alternatives. Canada also assured the Government of Chile's commitment to sustain zero CFC consumption beyond 2009 by completing all activities in the Service Plan.

20. Detailed information on the ODS legislation and procedures to ensure compliance with the Protocol has been presented in the verification report. The ODS legislation and the licensing system in place address HCFCs. With regard to the quota system, the Government of Canada explained that although there are no quotas for HCFCs, importers and exporters of HCFCs must be registered like importers and exporters of other ODS. In addition, any person wishing to import or export HCFCs must obtain authorizations from the ministries of Health and Customs.

21. The Secretariat discussed technical issues with Canada related to the incentive programme. This programme is expected to recover a total of 0.5 ODP tonnes of CFC-12 from converted systems. The recovered refrigerant has been recycled using equipment provided under the RMP and is currently held by trained technicians for use in other equipment. CFC-12 has been replaced by HFC-134a, while R-502 has been replaced by R-507 (a mixture of HFC-125 and HFC-143a). The Government of Canada also indicated that although the actual number of refrigeration systems directly converted through the project is lower than originally envisaged, conversions are being planned in such a way as to encourage further conversions. Owners of several commercial refrigeration systems will receive a subsidy for the conversion of one piece of equipment at most, while owners of agro-industrial systems will receive subsidies for a maximum of ten pieces of equipment. In the ongoing courses on good practices, CFC-based equipment is routinely retrofitted to alternatives. It is expected that in sectors where retrofits are less costly to undertake, technicians will perform retrofits as CFCs are no longer available. Furthermore, CFCs recovered from de-commissioned equipment can be re-used in other equipment, making full use of the recovery/recycling scheme in operation.

22. Considering that no more CFCs can be imported into the country as of 1 January 2010; that over 2,100 refrigeration technicians have been trained in the country; that only a relatively small number of CFC-based equipment can be feasibly retrofitted; and that funding for the preparation of the HPMP was approved for UNDP at the 55th and 57th meetings, the Secretariat suggested that the Government of Canada examines the merits of focusing the final tranche of the Service Plan on specific activities that will sustain zero consumption of CFCs. Canada indicated that there is still a significant amount of CFC being used in older refrigeration equipment. The priority of the Service Plan, at this stage, should therefore be to sustain zero consumption of CFCs and facilitate the transition from CFC-based equipment to alternative technologies in order to avoid abrupt or premature retirement of equipment, which could create difficulties for small end-users. Hence, in 2010 at least, it is not likely that resources from the Service Plan can be directed towards the phase-out of HCFCs. However, more effort will be made to incorporate HCFC issues and related training within the courses on good practices planned for the second and final tranche of the project.

RECOMMENDATION

23. The Fund Secretariat recommends that the Executive Committee:
- (a) Takes note of the progress report on the implementation of the first tranche of the servicing sector terminal CFC phase-out plan (Service Plan) in Chile;
 - (b) Takes note of the verification report of 2008 CFC consumption;

- (c) Approves the 2010 annual implementation programme associated with the second tranche; and
- (d) Requests the Government of Chile, with the assistance from the Government of Canada, to submit a progress report on the implementation of the work programme associated with the second and final tranche of the Service Plan no later than the 63rd Meeting of the Executive Committee.

24. The Secretariat further recommends blanket approval of the 2010 plan associated with the second and final tranche of the Service Plan for Chile, with associated support costs at the funding level shown in the table below:

	Project Title	Project Funding (US\$)	Support Cost (US\$)	Implementing Agency
(a)	Servicing sector terminal CFC phase-out plan (second tranche)	261,500	33,995	Canada

Annex I

Draft

AGREED CONDITIONS FOR THE PHASE-OUT OF METHYL BROMIDE IN CHILE

1. The Executive Committee:
 - (a) At its 32nd Meeting, approved US \$805,000 as the total funds that will be available to Chile to achieve the complete phase-out of methyl bromide (MB) used in the fruit replanting and nursery sectors (76.2 ODP tonnes), to be implemented by UNDP;
 - (b) At its 45th Meeting, approved in principle an additional US \$2,547,156 as the total funds available to Chile to achieve the complete phase-out of MB used in the remaining soil fumigation sectors, excluding quarantine and pre-shipment applications (additional 136.3 ODP tonnes), to be implemented by the World Bank;
 - (c) At its 48th Meeting, noted the cancellation by the Government of Chile of the project for the complete phase-out of MB used in the remaining soil fumigation sectors, excluding quarantine and pre-shipment applications approved at its 45th Meeting.; and
 - (d) At its 60th Meeting, approved an additional US \$1,730,916 as the total funds that will be available to Chile to achieve the complete phase-out of MB used in the horticultural sector (additional 164.4 ODP tonnes), to be implemented by UNIDO and UNEP.

2. As reported to the Ozone Secretariat, MB consumption in 2008 was 164.4 ODP tonnes, excluding MB that was used in quarantine and pre-shipment applications. The MB baseline for compliance is 212.5 ODP tonnes. Chile has achieved compliance with the Montreal Protocol's 20 per cent reduction in 2005.

3. Through implementation of the above projects, Chile commits to achieve the total phase out of all controlled uses of MB by 1 January 2015, thus ensuring compliance with the Protocol's targets. Chile also commits to the use of import restrictions and other policies it may deem necessary to meet the complete phase-out of MB.

4. Disbursement of the funding approved for UNIDO and UNEP for the horticultural sector will be in accordance with the following schedule, and with the understanding that a subsequent year's funding will not be disbursed until the Executive Committee has favourably reviewed the prior year's progress report:

Year	Total funding (US\$) *		
	UNIDO	UNEP	Total
2010	1,100,000	73,000	1,173,000
2013	557,917		557,917
Total	1,657,917	73,000	1,730,917

* without support cost

5. The Government of Chile is entering into this agreement with the Executive Committee on the understanding that, should additional MB consumption be identified at a later date, the responsibility to ensure its phase-out will lie solely with the Government.

6. The Government of Chile, in agreement with UNIDO and UNEP, will have flexibility in organizing and implementing the components of the project which it deems more important to meet the MB phase-out commitments. UNIDO and UNEP agree to manage the funding for the project in a manner

designed to ensure the achievement of the MB phased out agreed upon. UNIDO and UNEP shall report back annually to the Executive Committee on the progress achieved in putting in place mechanisms to achieve and maintain compliance with the Montreal Protocol schedule.

7. These agreed conditions between the Government of Chile and the Executive Committee supersede the agreement reached between the Government of Chile and the Executive Committee at the 48th Meeting of the Executive Committee.
