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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
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REPORT ON IMPLEMENTATION OF APPROVED PROJECTS WITH SPECIFIC REPORTING REQUIREMENTS

Introduction

1. UNDP, UNEP and UNIDO have submitted for consideration by the Executive Committee at its 46th Meeting progress reports on the implementation of the following projects:

(a) Cuba: UNDP has submitted a report on the change of technology provider for the project to phase out CFC consumption in metered dose inhalers (MDIs) in Cuba, approved by the Executive Committee at its 41st Meeting;

(b) Macedonia: At the Secretariat's request, UNIDO has submitted a progress report on the redeployment of the equipment purchased for the phase-out of CFCs in the manufacture of an aerosol plant (Alkaloid A.D.) in Macedonia (follow-up to decision 45/12 (i));

(c) Uruguay: On behalf of the Government of Uruguay, UNIDO has submitted a request for a change to the phase-out schedule of the project for phasing out methyl bromide (MB) in horticulture and cut flowers;

(d) Region Africa: UNDP has submitted a progress report on the implementation of the technical assistance for MB reductions and the formulation of regional phase-out strategies for low-volume-consuming countries in Africa, approved at the 38th Meeting of the Executive Committee (US $550,000);

(e) Mexico and Venezuela: the Secretariat prepared a status report on the disbursement of the second tranches of the national CFC phase-out plans in Mexico and Venezuela, as requested under decision 45/51 and 45/52.

2. The Secretariat reviewed the progress reports in light of the original project proposals and ODS data reported by the Governments concerned to the Ozone Secretariat under Article 7 of the Montreal Protocol.

3. This document consists of summaries of progress achieved so far in the implementation of the project proposals, comments by the Secretariat and related responses by relevant implementing agencies where applicable, and the Secretariat's recommendation.

Cuba: Phase-out of CFC consumption in metered dose inhalers (MDIs): change of technology provider

Background

4. The Government of Cuba submitted to the 38th Meeting of the Executive Committee a transition strategy for the elimination of CFC-based metered dose inhalers (MDIs), together with an investment project proposal for the phase-out of 109.1 ODP tonnes of CFC-11 and CFC-12 used in the manufacture of MDIs at Laboratorio Farmacéutico Julio Trigo López, the only manufacturer of aerosol MDIs in Cuba.

5. The Executive Committee took note, *inter alia*, of the Government of Cuba's transitional strategy to non-CFC MDIs and the associated investment project, and requested UNDP to continue assisting the Government to finalize the transitional strategy and identify a potential provider of the HFC-134a MDI technology. Once a provider had been identified and selected by the Government, the strategy and the project proposal would be resubmitted to the 39th Meeting of the Executive Committee (decision 38/52).

6. Subsequently, at its 41st Meeting the Executive Committee approved the investment project submitted by UNDP pursuant to its decision 38/52 (decision 41/41).

Progress report

7. In April 2004, the project document was signed between the Government of Cuba and UNDP. Preparation of the commercial agreement with the technology provider started immediately after, since conversion to CFC-free technology requires technology transfer and technical assistance from an established multinational enterprise that has the non-CFC MDI technology, as well as the rights to transfer such technology without infringement of any intellectual property rights.

8. The technology provider that was selected by UNDP has operations in Canada, the United Kingdom and the United States. During the negotiations of the commercial agreement, UNDP insisted that any agreement should be between a subsidiary of the company either in Canada or the United Kingdom in order to avoid possible difficulties in implementing the project due to trade constraints between the United States and Cuba. This request was accepted by the technology provider; however, during finalization of the commercial agreement, the company informed UNDP that it would need a license from relevant authorities in the United States even if the contract was to be signed by one of its subsidiaries.

9. In February 2005, the Government of Cuba decided to stop the ongoing negotiations with the technology provider and consider other options, given the urgency of implementing the phase-out project to avoid entering into non-compliance with Cuba's 2005 and 2007 obligations under the Montreal Protocol.

10. As requested by the Government of Cuba, UNDP found out that there are a few technology providers specializing in research and development, that could develop MDI products upon request (these providers do not commercialize the final product on the market, since this is done by their clients, which are recognized multinational laboratories).

11. On this basis, UNDP has identified a product developer who is interested in developing the two MDI products currently manufactured in Cuba: salbutamol and fluticasone. Furthermore, UNDP has requested its independent technical expert to visit the facilities of the product developer in order to evaluate the technical and commercial feasibility of developing the product. The independent expert produced a report with a number of recommendations, which were shared with the Government of Cuba in order to ensure that, if the product development approach is followed, the project will be completed with the minimum technical impediment to ensure success.

12. By using a product developer, the total cost of the project would be about US $80,000 more than if it were based on technology transfer from an established enterprise that has the non-CFC MDI technology. However, the cost difference would not be requested from the Multilateral Fund.

13. The project completion date has been postponed from September 2006 to March 2008.

Secretariat's comments

14. The Secretariat noted the comprehensive report submitted by UNDP on the change of technology provider for the CFC phase-out project in MDIs in Cuba. UNDP compared each of the major project components, as proposed in the original project, with the new approach to use a product developer. In this regard, the Secretariat noted as follows:

(a) The product developer has developed CFC-free MDIs for different clients at the international level;

(b) The product developer could develop the two HFA-based MDI products for Cuba over a one-year period. Furthermore, the products to be developed would not infringe any intellectual property rights;

(c) A UNDP mission visited the product developer's facilities and evaluated the capacity to develop the two MDIs products for Cuba. It has been agreed that the provider will develop HFA-based salbutamol and fluticasone including methods of stable and safe production; commissioning of the plant and installation of the equipment necessary to produce a minimum of 6 million units a year (i.e., similar to the current production in Cuba); production of three industrial batches with satisfactory results; technical assistance, training and capacity-building in order to ensure the stable industrial operation of the plant, until the registration of products by the regulatory agency is secured;

(d) The product developer will provide assistance to the enterprise in Cuba to access the relevant data to support regulatory approval of the new products; dossier compilation; and design of the production facility and equipment installation qualification;

(e) A clause in the commercial agreement has been included to ensure that the product developer will warrant that the new HFA-based MDIs will have, as a minimum, the same performance as the CFC-based MDIs currently produced in Cuba;

(f) Because of the specialized nature of the HFA-MDI manufacturing equipment, this equipment will be built and tested at the equipment supplier's factory; then it will be dismantled and shipped to the beneficiary enterprise in Cuba. The equipment supplier will install and commission the equipment at the beneficiary production plant and conduct relevant "factory acceptance test trials"; and

(g) UNDP will oversee the successful implementation of the project, and will provide additional technical assistance during project implementation according to the budget allocated in the approved project proposal.

15. The Secretariat also noted that no additional funding has been requested, although the approach of using a technology developer is slightly more expensive than that proposed in the original project.

16. Upon a request by the Secretariat, the Government of Cuba submitted an official communication stating that the Government is fully aware of and supports the change of the technology provider for the CFC phase-out project used in MDIs.

Secretariat's recommendation

17. The Executive Committee may wish to note:

(a) The change of technology provider for the project for the phase-out of CFC consumption in metered dose inhalers (MDIs) in Cuba;

(b) That the new completion date of the project is March 2008 (instead of September 2006); and

(c) To commend the efforts of Cuba and UNDP to in securing an alternative for the development of the required non-CFC technology.

Macedonia: Phase-out of CFC-11 and CFC-12 in the manufacture of aerosols by conversion to HFC and hydrocarbon propellants at Alkaloid A.D. (follow-up to decision 45/12(i))

Background

18. At its 32nd Meeting, the Executive Committee approved a project proposal for the phase-out of CFC-11 and CFC-12 in the manufacture of aerosols by conversion to HFC and hydrocarbon propellants at Alkaloid A.D., to be implemented by UNIDO, and allocated US $110,000.

19. At its 45th Meeting, the Executive Committee noted that the project had been cancelled by mutual agreement between the Government of Macedonia and UNIDO since the company had stopped aerosol production. UNIDO indicated that, of the total level of funding approved, US $86,271 had been disbursed. The Executive Committee requested UNIDO to attempt to redeploy the equipment and to report back to the 46th Meeting on its efforts to do so (decision 45/12(i)).

Secretariat's comments

20. In the context of the review of UNIDO's progress report, the Secretariat reminded UNIDO of decision 45/12(i) and requested the submission of a report concerning the attempts to redeploy the equipment purchased for the aerosol project in Macedonia.

21. UNIDO responded that, as of mid-May 2005, no eligible aerosol company in Macedonia or neighbouring countries had been identified as suitable for redeployment of the equipment supplied to Alkaloid. However, UNIDO received a message from a UNDP consultant indicating that an aerosol company in Armenia might use the equipment for its conversion to non-CFC production. After verification of this request, UNIDO will be able to provide the corresponding report.

22. The Government of Cote d'Ivoire submitted a project proposal for the phase-out of 43.4 ODP tonnes of CFCs used in the manufacture of aerosols for consideration by the Executive Committee at its 46th Meeting (document UNEP/OzL.Pro/ExCom/46/30). In this regard, the Secretariat proposed to UNIDO to consider whether or not it was technically and economically feasible to redeploy the equipment purchased for the aerosol project in Macedonia to Cote d'Ivoire.

Secretariat's recommendation

23. The results of the discussions on this issue are presented in the context of the aerosol project in Cote d'Ivoire (UNEP/OzL.Pro/ExCom/46/30).

Uruguay: Phase-out of methyl bromide (MB) in horticulture and cut flowers: Change in the phase-out schedule (UNIDO)

Background

24. The Executive Committee, at its 34th Meeting, approved US $469,370 for UNIDO as the total funds available to Uruguay to achieve the complete phase-out of MB used in horticulture and cut flowers (24 ODP tonnes).

25. The agreement between the Government of Uruguay and the Executive Committee indicated that Uruguay would not be able to meet the 2002 MB freeze, since it had reported a total MB consumption of 24.0 ODP tonnes in 2000, which was above its MB baseline for compliance (i.e., 11.2 ODP tonnes). It was also stipulated in the agreement that the Government of Uruguay committed to a permanent national reduction in aggregate consumption of controlled uses of MB to no more than the following levels:

Year	ODP tonnes
2002	20.0
2003	12.0
2004	4.0
2005	0.0

Request by the Government of Uruguay

26. The Government of Uruguay has submitted an official request to change the phase-out schedule in the project for the complete phase-out of MB used in horticulture and cut flowers, together with a revised agreement between the Government of Uruguay and the Executive Committee.

27. The revised MB phase-out schedule requested by Uruguay is presented in the following table:

Years	**ODP tonnes**
2002	17.7*
2003	8.7*
2004	11.1*
2005-2009	8.9
2010-2012	6.0
2013	0.0

(*) As reported under Article 7 of the Montreal Protocol.

28. The complete report prepared by the Government of Uruguay is appended at the end of the present report for consideration by the Executive Committee.

Secretariat's comments

29. The Secretariat has reviewed the report by the Government of Uruguay in light of decision Ex.I/2 of the First Extraordinary Meeting of the Parties to the Montreal Protocol, decision XV/44 of the 15th Meeting of the Parties on non-compliance with the Montreal Protocol by Uruguay, and the criteria adopted by the Executive Committee for the submission of requests for the prolongation of accelerated MB phase-out agreements pursuant to decision Ex.I/2 (decision 43/14). It should be noted that the changes being proposed to the Agreement still enable Uruguay to meet the reduction schedule on MB mandate under the Montreal Protocol.

Issue related to decision XV/44

30. At their 15th Meeting, the Parties to the Montreal Protocol noted, *inter alia*, that Uruguay was in non-compliance with its obligations under Article 2H of the Protocol, since, for 2002, Uruguay reported MB consumption of 17.7 ODP tonnes, which was above its baseline (i.e., 11.2 ODP tonnes). The Parties also noted the submission by Uruguay of its plan of action to ensure a prompt return to compliance with the control measures for MB, and specifically committing to reduce the level of controlled uses of MB from 17.7 ODP tonnes in 2002, to 12 ODP tonnes in 2003; to 4 ODP tonnes in 2004; and to complete phase-out by 1 January 2005. The Parties also noted that Uruguay had committed lf to monitoring its system for licensing imports and exports of ODS, including quotas.

31. The Fund Secretariat noted that the above phase-out plan agreed by the Parties at their 15th Meeting was the same as the phase-out plan included in the Agreement between the Government of Uruguay and the Executive Committee. However, in its revised Agreement, the

Government of Uruguay is requesting a different phase-out plan: from 17.7 ODP tonnes in 2002 to 8.9 ODP tonnes during the 2005-2009 period (which represents the allowable consumption level under the Protocol), to complete phase-out by 2013.

32. During the review of the request submitted by the Government of Uruguay, the Fund Secretariat received information from the Ozone Secretariat indicating that the Implementation Committee at its 34th Meeting (to be held prior to the 46th Meeting of the Executive Committee) would consider the merit of requesting the Government of Uruguay to prepare a revised plan of action for the phase-out of MB for consideration by the 35th Meeting of the Implementation Committee (to be held prior to the 17th Meeting of the Parties to the Montreal Protocol). Consideration would then be given to the possible incorporation of the revised phase-out plan into a draft decision for the 17th Meeting of the Parties (this approach would be consistent with the Implementation Committee's standard procedure).

33. Furthermore, the Ozone Secretariat offered to transmit to the 46th Meeting of the Executive Committee through the Fund Secretariat, the part of the report of the Implementation Committee regarding Decision XV/44.

Report submitted by Uruguay

34. The Secretariat noted that the information submitted by the Government of Uruguay covers the following key elements:

(a) About 12.7 ODP tonnes of MB has already been phased out, as shown in the table below. The region with the second largest consumption of MB in Uruguay (Bella Unión) has completely phased out MB consumption;

Area (crop)	**MB consumption (ODP tonnes)**		**Reduction (%)**
	Project	**2004**	
Bella Unión (horticulture)	3.7	-	100
Salto (horticulture)	16.2	10.3	37
South (horticulture)	1.3	0.2	81
Montevideo (cut flowers)	1.7	0.3	82
National (other uses)	1.0	0.3	70
Total	23.8	11.1	53

(b) All the major stakeholders (i.e., Ministries of Environment and Agriculture, horticulture farmer's associations, flower cooperatives and MB importers) are committed to phasing out MB consumption;

(c) An effective system to monitor MB imports has been implemented through the Directorate of Agriculture Services (Ministry of Agriculture), in close coordination with the Ozone Unit;

(d) A system of certification of non-MB crops has been introduced, through the already existing "Ozone Friendly Label", based on Decree No. 476/993 and Resolution No. 1/2004 issued by the Ministry of the Environment;

(e) Pilot tests in several strategically located farms were successfully implemented using new alternative technologies to MB. Through seminars and workshops, more than 200 farmers and agricultural technicians were shown the alternative technologies;

(f) The equipment for replacement of MB used as a fumigant in the cut flower sector had been delivered and is currently being used by growers;

(g) However, in the horticultural sector, the alternative technologies that were originally proposed in the project proposal were not applicable in all cases. The use of metham sodium as an alternative chemical fumigant presented uneven results in the field. Regarding biofumigation (another alternative technology), the proposal was based on the use of broccoli and other vegetable residue from an industrial food plant located in the crop production region. However, due to the economic crisis of 2002, the plant was closed down and food waste was no longer available to the farmers. During the implementation of biofumigation in pepper crops, it was also found that the quantity of green material to be buried was higher than the quantity available; therefore, application of this technology would require using green material from other crops, which was not readily available.

35. To address the technical issues encountered during the application of some of the proposed replacement technologies, other technologies had been tested, namely: solarization combined with biofumigation for both pepper plants and corn plants, and alternative chemicals (1,3 dichloropropene formulations and iodomethane formulations). However, these chemicals have not yet been registered in Uruguay. The registration of iodomethane was initiated in 2005 and is expected to be completed by the second semester of 2006; the registration of 1,3 dichloropropene formulations is expected to begin in late 2005 and to be registered by 2007.

36. The Secretariat noted that, in the revised agreement, no phase-out of MB will be achieved between 2005 and 2009. Afterwards, a relatively small reduction in MB consumption (less than 3 ODP tonnes) is proposed between 2009 and 2010, with complete phase-out in 2012. The Secretariat sought clarification whether the proposed schedule would allow for the registration of alternative chemicals that have already been tested in Uruguay. UNIDO pointed out that the proposed schedule was not based exclusively on the registration process. Once a product is registered, it needs to be made available on the market through promotion and dissemination campaigns; furthermore, training must be provided to farmers and other stakeholders. On this basis, the Government of Uruguay will be in a position to achieve an important part of the phase-out by 2009. UNIDO also indicated that the Government had decided to continue using MB in farms that are experiencing difficulties with alternative technologies, bearing in mind issues of competitiveness, long-term sustainability, and the situation of other countries in the region or in non-Article 5 countries. However, UNIDO has agreed with the Government to prepare a report on the adoption of new technologies by 2010, to ascertain whether it would be necessary to retain or replace the final amount of MB before 2013.

37. According to the report submitted by the Government of Uruguay, the Secretariat noted that US $365,087 has been disbursed as of the end of 2004 (of the total level of approved funding of US $469,370). It is proposed that with the remaining funding (about US $100,000) an additional 11.2 ODP tonnes of MB would be phased-out over a nine-year period (from 2005 to 2013) achieving complete phase-out by 2013. Therefore, the Secretariat asked for a brief explanation of the activities (including funding) to be implemented between 2005 and 2012 to achieve the required phase-out of the remaining MB. UNIDO reported that 12.8 ODP tonnes of MB have been phased out with the funding disbursed so far, representing a reduction of more than 50 per cent of total consumption. It should be noted that almost 30 per cent of the total level of funding approved was for the flower sector, which consumed only 1.65 ODP tonnes. UNIDO also indicated that in 2005 and 2006 the consumption of MB in Uruguay will be 8.9 ODP tonnes, used mainly in the horticultural sector, since MB will be completely phased out in the flower sector and in other uses. The main activities planned include: implementation of the additional pilot trial and local adaptation of new alternative chemicals training for farmers and other stakeholders from 2005 to 2009; and direct assistance and training of farmers from 2009 to 2012 that have some difficulty adapting to the new chemicals technology.

Revised draft agreement

38. The revised agreement between the Government of Uruguay and the Executive Committee is contained in Annex I to the present document.

Secretariat's recommendation

39. Based on the above comments, and pending the report of the 34th Meeting of the Implementation Committee in regards to decision XV/44 of the 15th Meeting of the Parties, the Executive Committee may wish to:

(a) Take note of the report for the request to change the phase-out schedule in the project for the complete phase-out of MB used in horticulture and cut flowers in Uruguay;

(b) Consider approving the revisions to the Agreement between the Government of Uruguay and the Executive Committee as contained in Annex I to the present document, which would include a revised completion date of 2013, on the understanding that the approval is without prejudice to the Montreal Protocol's mechanism for dealing with non compliance, and pending a possible decision by the 17th Meeting of the Parties on the revised plan of action for the phase-out of MB in Uruguay; and

(c) To note that, before the end of 2010, the Government of Uruguay and UNIDO would submit a full report on the implementation of the phase-out plan, together with a status report on the alternatives to MB available in Uruguay; and at that time, Uruguay would consider the possibility of completing the phase-out of MB earlier than 2013.

Region Africa: Implementation of the technical assistance for MB reductions and formulation of regional phase out strategies for low volume consuming countries in Africa

Background

40. At the 38th Meeting of the Executive Committee, UNDP submitted a request for a technical assistance programme for MB reductions and the formulation of regional phase-out strategies for low volume consuming countries in Africa.

41. Subsequently, the Executive Committee approved the technical assistance programme in decision 38/6, pursuant to which UNDP has submitted a progress report on the implementation of the MB technical assistance programme for consideration by the Executive Committee at its 46th Meeting.

Progress report

42. During the project preparation phase, UNDP conducted national surveys on MB-related issues. Based on these surveys, countries were categorized in two broad areas: countries where small levels of MB consumption had to be phased out, and all other countries (considered as a whole) where support for regulatory and policy measures was required to either support reductions or prevent the use of MB. As a result, a dual response approach was developed involving a mix of small-scale technical assistance/investment to low-volume consumers to reach the 20 per cent phase-out target in 2005, and policy/regulatory support for all.

43. The following activities have been implemented:

(a) Terms of reference and proposed national budget breakdowns were prepared for all participating countries, both those that are expected to reduce their level of MB consumption to achieve the 2005 allowable level, and those that agreed to the conditions put forward in Decision 38/26.

(b) In the first quarter of 2004, the country-specific terms of reference and budgets were distributed to the countries for their review. Whereas some countries have already accepted the proposed terms of reference and have provided names of national experts, other countries have yet to respond, despite ongoing and repeated attempts at communication;

(c) Additional comments were received from countries during the Network Meeting for French-speaking Africa held in Mauritania in April 2004. Based on these comments, it was decided to modify the project implementation modality.

44. The modified implementation modality will enlarge the national pesticide regulatory approach and the project will be implemented at the regional level rather than at the national level. The sum offered for national contracts to each of the countries will be increased based on the remaining available budget (no more than US $8,000/country), supported by specific terms of reference and a detailed budget allocation.

45. UNDP has also reached an agreement with the UNEP CAP office in Nairobi to formulate national MB regulatory worksheets in close cooperation with its MB and Policy Officers. Participating Ozone Units will be expected to engage national experts who will manage the process of developing national regulatory plans (based on a detailed worksheet developed specifically for this purpose), harmonized with existing legislation. A final regional workshop will be held in the margins of an upcoming UNEP joint Network Meeting for the region.

46. The following activities will be implemented in the five countries where reductions in MB consumption are required to meet the 2005 limit:

Country	Technical assistance	Policy assistance
Sudan	Implementation of the technical mission expected soon	Identification of the national consultant still pending
Congo	Implementation of the 2nd technical session (on site) expected as soon as the equipment is available in the country	Identification of the national consultant still pending
Nigeria	Implementation of the technical session as soon as the contract is sent back	Implementation of the policy assistance activities expected soon
Congo DR	Implementation of the technical session as soon as the contract is sent back	
Swaziland	Implementation of the technical session as soon as the contract is sent back	Implementation of the policy assistance activities expected soon

Secretariat's comments

47. Based on the information contained in the progress report, the Secretariat concluded that UNDP has experienced major constraints in the implementation of the project, taking into account that:

(a) The project completion date was proposed for February 2005; however a number of relevant activities are still pending;

(b) Although 25 countries are participating in the project, terms of reference have been approved in only 14 countries, bilateral contracts with the relevant Ozone Units have been signed only in 14 countries, and national consultants have only been identified in 10 countries;

(c) A number of preparatory activities have been undertaken by UNDP since the approval of the project at the 38th Meeting. However, substantive work is yet to be implemented at the country level.

48. Subsequently, UNDP pointed to a number of logistical constraints linked to the high number of different countries covered by the programme. UNDP stressed, however, that though this has led to some unexpected implementation delays, the project's execution remains on track and is expected to be completed by the end of 2006 rather than February 2006. UNDP also indicated that the enhanced partnership with UNEP's CAP Africa Office will allow UNDP to better meet the interests of the countries concerned and bring the project to a successful conclusion

Financial status

49. As requested by the Secretariat, UNDP submitted the financial status report for the technical assistance programme. Of the total amount of funding approved, US $216,224 has been disbursed; US $83,000 has been committed; and US $250,775 remains available.

50. UNDP also reported that, based on the proposal to revise the implementation model, national contracts are likely to be revised upwards. The level of funds that will be committed, as well as those remaining available, is therefore expected to change.

Secretariat's recommendation

51. The Executive Committee may wish:

(a) To take note of the progress report on the implementation of the technical assistance for MB reductions and the formulation of regional phase-out strategies for low-volume-consuming countries in Africa;

(b) To request UNDP to make all attempts to complete all the objectives proposed in the technical assistance programme on time, and to submit a report to the 48th Meeting of the Executive Committee on progress so far achieved;

(c) To request UNDP to report back to the Executive Committee at its 47th Meeting on whether any of the countries covered by the technical assistance programme are likely to be in non-compliance with their obligations under Article 2H of the Montreal Protocol.

Mexico and Venezuela: Status report on the disbursement of the second tranches of the national CFC phase-out plans in Mexico and Venezuela (UNIDO)

Background

52. At its 45th Meeting, the Executive Committee approved funding for the 2005 tranches for the national CFC phase-out plans in Mexico (decision 45/51) and Venezuela (decision 45/52). The Executive Committee also noted that disbursement of the funding approved for UNIDO should not commence until agreement between the Secretariat and UNIDO had been reached that the verification of the 2004 objectives had been completed, and that a satisfactory annual implementation programme for 2005 had been submitted. In addition, the Secretariat was requested to inform the Executive Committee at its 46th Meeting of the progress achieved.

Secretariat comments

53. Between the 45th and the 46th Meetings the Secretariat had discussions with UNIDO, and obtained clarifications on certain questions in particular regarding the 2004 activities and 2005 annual implementation programme for Venezuela. However, as of writing this document, the Secretariat has not received verification reports for either of the projects. Consequently, disbursement of the tranches cannot commence as of yet.

AGREED CONDITIONS FOR THE PHASE-OUT OF METHYL BROMIDE IN URUGUAY (DRAFT)

1. The Executive Committee agrees to approve US $469,370 as the total funds available to achieve the commitments stipulated in this document for the phase-out of the use of methyl bromide in Uruguay subject to the following understandings and considerations:

2. As reported to the Ozone Secretariat, and consistent with information in the project document presented to the Executive Committee, Uruguay had a consumption of 23.79 ODP tonnes of methyl bromide in 2000. In accordance with the data submitted to the Ozone Secretariat by Uruguay for the years 1995-1998, Uruguay has a methyl bromide baseline of 11.2 ODP tonnes. Accordingly, Uruguay had to freeze consumption at the 1995-1998 level by the end of 2001 to achieve compliance with the Protocol's 2002 freeze. However, the Government of Uruguay is requesting some flexibility from the Executive Committee and proposes the following phase-out scheme:

Year	ODP tonnes
2002	17.7*
2003	8.7*
2004	11.1*
2005	8.9
2006	8.9
2009	8.9
2010	6.0
2011	6.0
2012	6.0
2013	0

(*) As reported under Article 7 of the Montreal Protocol

3. In addition, Uruguay commits to sustaining this phase-out of methyl bromide through the use of bans in the use of methyl bromide for the uses covered by this project. The specific reductions in consumption noted above would be those achieved through this project. Reductions in accordance with the terms of this project, and the other commitments presented in the project document, will ensure that Uruguay exceeds subsequent phase-out requirements of the Montreal Protocol.

4. UNIDO shall report back to the Executive Committee annually on the progress in meeting the reductions required by this project, as well as on annual costs related to the use of the selected technology inputs being purchased with the project funds.

5. Following the initial disbursement of 33 per cent in the year 2001-2002, funding for later years in the project will be disbursed by UNIDO in accordance with the above 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: 33 per cent in 2002-2003 and 34 per cent in 2003-2004.

6. UNIDO agrees to manage the funding for this project in a manner designed to ensure that the specific annual reductions agreed are met.

Project UNIDO MP/URU/01/125

Methyl Bromide Phase Out in Horticulture and Cut Flowers in Uruguay

Application for Extension of Phase-Out Agreement pursuant to Decision 43/14 of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol.

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1) Background

Uruguay ratified the Montreal Protocol on 8 January 1991, the London Amendment on 16 November 1993, the Copenhagen Amendment on 3 July 1997, the Montreal Amendment on 16 February 2000 and the Beijing Amendment on 9 September 2003. Uruguay is classified as a Party operating under Article 5, paragraph 1 of the Protocol and had its Country Programme approved by the Executive Committee in 1993.

The largest consumption of methyl bromide in Uruguay is used in protected horticulture and a small percentage is used for the production of cut flowers.

The Uruguay methyl bromide phase out project was approved in July 2001 at the 34th Meeting of the Executive Committee of Multilateral Fund for the implementation of Montreal Protocol. UNIDO is the implementing agency and the Ozone Unit ("Comisión Técnica Gubernamental de Ozono") which is a section of the National Environment Directorate (hereinafter, DINAMA, in the Ministry of Housing, Territorial Regulation and Environment (hereinafter MVOTMA) is the National Execution Agency. The funding amount was of US$ 469,370. The project execution commencement date was January 2002.

The Ozone Unit, as National Executing Agency, works in close coordination with the Ministry of Livestock, Agriculture and Fisheries and with the National Institute for Agricultural Research (INIA), which is in charge of field activities in pilot farms.

The objective of the Project was the Phase out of the use of methyl bromide as soil fumigant in Uruguay by 2005, according to the following schedule of maximum consumption quota allowed under controlled uses agreed at the 34th Meeting of the Executive Committee of Multilateral Fund for the implementation of Montreal Protocol: year 2002: 20.0 ODP tonnes
Year 2003: 12.0 ODP tonnes
Year 2004: 4.0 ODP tonnes
Year 2005: 0.0 ODP tonnes

Uruguay's baseline for the controlled substance in Annex E is 11.2 ODP-tonnes. Uruguay's Methyl Bromide consumption kept growing between 1992 and 2001, with the largest consumption in 2001, reaching the peak of 37.7 ODP tonnes in 2001. Although in 2002 the consumption began to decrease as a result of the adoption of alternatives promoted by the phase out project and of the economical situation of our country and region, Uruguay was in not compliance with the 2002 freeze.

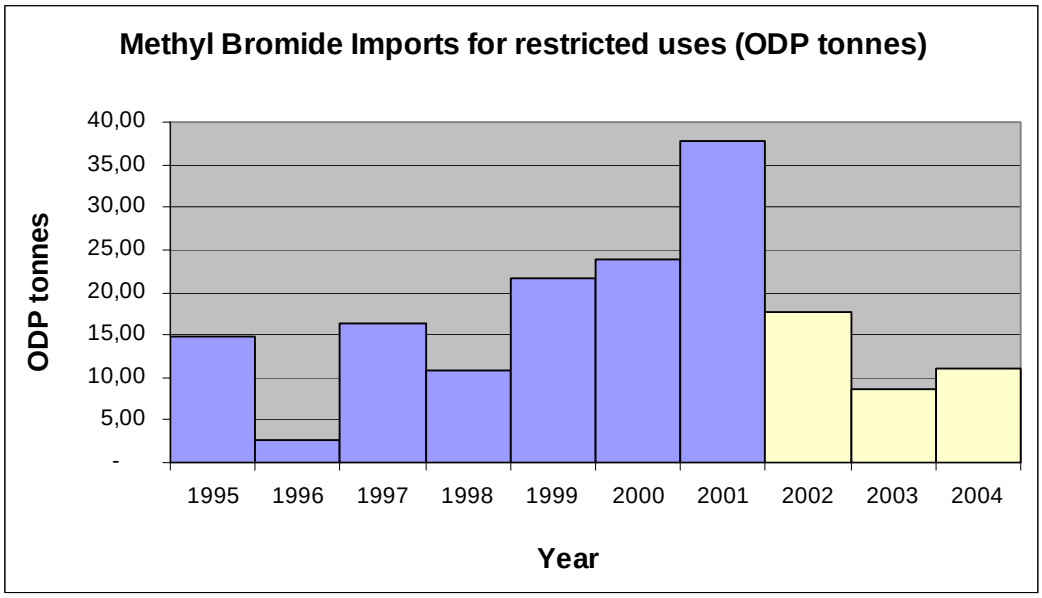
It is considered that despite the problems encountered, the project implementation to date has been successful with some important achievements:

- Bella Union, the second largest MB consumer area in Uruguay has already phase out methyl bromide.
- All the stakeholders are committed in the phase out process: importers, producers, Ministry of Environment, Ministry of Agriculture, horticulture farmer's associations, Flower cooperatives, etc.
- An effective monitoring system of MB imports has been implemented through the Direction of Agriculture Services from the Agriculture Ministry that works in close coordination with the Ozone Unit.
- A system of certification of methyl bromide free crop has been introduced, through the already existing "Ozone Friendly Label", based on Decree 476/993 and Resolution 1/2004 of Ministry of Environment.

- Pilot areas at strategically chosen farms were successfully implemented using new technologies, and with the developing of "open days" *in situ*, seminars and workshops, more than 200 farmers and technicians were exposed to the new alternatives.
- The equipment for the cut flower growers has been delivered and they are now implementing the alternatives to methyl bromide

2) Evolution of Methyl Bromide consumption for restricted uses

As it was stated above, Uruguay's Methyl Bromide consumption for restricted uses (consumption equals to imports, since Uruguay neither produces nor exports methyl bromide) kept growing between 1992 and 2001, with the biggest raises between 1999 and 2001, reaching the peak of 37.7 DP tonnes in 2001.



2002: Year in which Methyl Bromide Phase-Out Project was initiated.

Year	*Imports (metric tonnes)*	*Imports (ODP tonnes)*
2001	62.83	37.7
2002	29.45	17.7
2003	14.52	8.71
2004	18.5	11.1

Uruguay's Baseline: 11.2 ODP

Year 2002

Uruguay's methyl bromide consumption for restricted uses by the Montreal Protocol in the year 2002 was of 29.45 metric tonnes (17.7 ODP tonnes). Uruguay's baseline for the controlled substance in Annex E is 11.2 ODP-tonnes. As a consequence, for 2002, Uruguay was in non-compliance with its obligations under Article 2H of the Montreal Protocol.

However, it is important to point out that this figure of 29,45 metric tonnes (17.7 ODP tonnes) implies the compliance with the corresponding amount for the year 2002 of 33,3 metric tonnes (20 ODP tonnes) of the conditions agreed at the 34th Meeting of the Multilateral Fund Executive Committee, when Uruguay's Methyl Bromide Phase-Out Project was approved.

At the Fifteenth Meeting of the Parties to the Montreal Protocol that was held in Nairobi in November 2003, the Parties adopted Decision XV/44 on non-compliance with consumption of the controlled substances. This decision noted with appreciation Uruguay's submission of its plan of action, which should enable Uruguay to return to compliance in 2004.

Year 2003

Uruguay's methyl bromide consumption for restricted uses by the Montreal Protocol in the year 2003 was of 14.52 metric tonnes (8.71 ODP tonnes).

As a consequence, for 2003 Uruguay was in compliance not only with the methyl bromide phase out project and the plan of action approved by Decision of the Parties XV/44, but also was in compliance with its obligation under Article 2H of the Montreal Protocol. This means that Uruguay has complied ahead of time with its commitments under Dec. XV/44, which established the return to compliance in 2004.

The 32nd Implementation Committee, which took place on July 2004, in its report noted with appreciation Uruguay's return to compliance in 2003.

Year 2004

Uruguay's methyl bromide consumption for restricted uses by the Montreal Protocol in the year 2004 was of 18.5 metric tonnes (11.1 ODP tonnes). As a consequence Uruguay continues in compliance with its obligation under Article 2H of the Montreal Protocol, the freezing at the baseline, which is 11.2 ODP.

On the other hand, as it was stated above, the first two levels of consumption agreed with the Executive Committee for years 2002 and 2003 were not only accomplished but surpassed. However, the level established for 2004 was not able to accomplish since the quota allowed for 2004 was of 4.0 ODP and the 2004 MB imports for restricted uses was of 11.1 ODP tonnes.

In the 2003 report to the Ozone Secretariat it was stated that the compliance with the last two levels was envisaged to be more difficult, since Uruguay would have to reduce a 55 % of its methyl bromide imports for restricted uses from 2003 to 2004, and total phase-out was expected to be reached by 2005.

However, it is important to point out that, as it was stated above, Uruguay continues in compliance with its obligation under Article 2H of the Montreal Protocol, and this reflects the joint effort made by all the parties involved in the implementation of the Project to Phase Out the Use of Methyl Bromide as soil fumigant, which are: the farmers, the importers, the implementing agency (UNIDO), the National Agriculture Research Institute (INIA), the Ministry of Livestock, Agriculture and Fishery (MGAP) and the Ozone Unit from the Ministry of Environment (MVOTMA).

Methyl Bromide Data (ODP tones) and Disbursement Achieved (US$)

	Base	2001	2002	2003	2004	2005
Agreement	11.2		20	12	4	0
Data Reported in mt ODP			18	11.1	11.2	
Maximum Disb. allowed			154,892	159,586	154,892	
Accumalative				314,478	469,370	
Real disbursement			145,213	125,288	94,586	
Accumulative				270,501	365,087	

3) Activities carried out during 2002, 2003 and 2004 and Results achieved.

The project carried out various tasks aimed at adjusting new technologies at pilot areas, informing and training producers and technical advisers on new technologies, implementing an effective monitoring system for MB imports, and to achieve the commitment to MB phase out among all the stakeholders.

A number of negotiating meetings with methyl bromide importers were held. Importers are also collaborating for the introduction of other chemical alternatives in Uruguay. The Ozone Unit works in permanent coordination with delegates of the Agriculture Service Department of the Ministry of Livestock, Agriculture and Fishery to monitor methyl bromide imports and to set up a database for the permanent record of consumption and import of methyl bromide. Divulgation activities with mass media were carried out to inform about the activities that are being performed under the project.

In the Horticulture Sector, field activities were carried out as scheduled in the fields of the project farm participants, such activities are executed by Experimental Station INIA Salto Grande, in Salto and in Bella Unión. The largest amount of methyl bromide consumption in our country is concentrated in such region. Horticulture farmers that participate in the project are assisted with the supply of necessary plastics films, seeds, drip lines for alternative products and alternative chemicals to methyl bromide. In addition, they have permanent technical assistance from INIA's agronomists who are in charge of this part of the project. Ozone Unit members conducted periodical missions to the cities of Salto and Bella Unión to monitor the progress reached by the field activities of the project, and to hold periodical coordination meetings with INIA technicians. "Open field days" in Salto and Bella Unión were carried out, to make known about the alternatives to methyl bromide in the demonstration fields of the project at pilot farms, Farmers and technical experts of the area of Salto evaluated such experience of field day as very positive, since they may confirm "in situ" the results of different treatments. Seminars and Workshops for the presentation of field activities results were carried out at the end of each year, in both places, Salto and Bella Unión. More than 200 farmers and technicians were exposed to the new alternatives at the "open field days", seminars and workshops.

In the Floriculture Sector, UNIDO has fielded an international expert, in order to provide adequate training in IPM with emphasis on composting. Given the importance of the subject, the training has reached not only flower growers around Montevideo but also in Tacuarembó, Salto and Bella Unión as these are also potential users of MB. A basic booklet on IPM in cut flowers has been written. This includes step-by-step information on composting, steaming and IPM

procedures. More than 50 floriculturists were trained on IPM at the seminars and workshops. Cooperation Agreements were signed with the beneficiaries of the investment project (flower enterprises COFLORAL and MUSACCO S.A., the beneficiaries of steam boilers). Boilers were delivered to beneficiaries on July 2003. Training on boiler handling, operation and maintenance was provided to producers. Furthermore, COFLORAL wrote a set of rules for adequately handling and maintaining of boiler and will be in charge of its operation. The cooperation agreement among farmers includes a rotation system for the boiler (person or persons in charge of boiler, days assigned to each participating grower, grower responsibility with equipment, equipment maintenance and cleaning, equipment transportation and storage, operational costs and who pays for them, contingency measures, etc).

As a result of the activities developed, some important results were achieved, that can be inferred from the table below.

Results Achieved in MB Phase out

Area	Me Br Consumption as per project document (tonnes)	Me Br consumption in 2004 (tonnes)	Reduction (%)
Bella Unión (Protected Horticulture)	6.1	0	100
Salto (Protected Horticulture)	27.0	17.1	35
South (Protected Horticulture)	2.1	0.4	80
Montevideo (Cut flowers)	2.76	0.5	82
Over the country (Other uses)	1.68	0.5	70
TOTAL	39.64	18.5	53

As it can be seen in the table, Bella Unión Area has completely phased out Methyl Bromide. The alternatives being used at this area are: solarization, solarization combined with metham sodium and solarization combined with biofumigation. The “Ozone Friendly Label” has been promoted among the farmers of this area, in order to differentiate their products at national level and encourage the adoption of alternatives. In this regard, market recognition is essential, and for this reason the Ozone Unit is developing a campaign among the most important vegetables markets in Uruguay.

The use in south area for horticulture sector and floriculture sector has been reduced at around 80%, and complete phase out is expected by 2005.

The remaining consumption is in Salto Area, where an important progress has been made, a reduction of 35% in consumption compared to project documents figures of 1999-2000. At this point, it has to be taken into account that in 2001, the consumption raised to 49 tonnes in this area, so the effective reduction when comparing 2004 with 2001 is of 65%.

In the next section of this document there is a discussion of the reasons for existence of a remaining consumption in the horticulture sector in Salto.

4) Reasons for phase out agreement extension

The original alternatives proposed in the project were:

Horticulture Sector
- Solarization+Metham Sodium
- Methan Sodium
- Solarization+Biofumigation
- Biofumigation with rest of broccoli and other vegetables

Cut Flowers Sector
- Soil pasteurization with steam combined with IPM (Integrated Pest Management)

The alternative proposed for the cut flowers sector was implemented and the methyl bromide use in this sector will be phased out as planned in 2005.

Regarding the Horticulture Sector the alternatives originally proposed were not so successful and applicable to all cases.

Technical issues

According to INIA reports (INIA publishes an annual report on the results of the alternatives at the project pilot farms, available at National Ozone Unit) the **metham sodium** presented random results. In some cases, it works very well, but as its distribution in soil depends on the water distribution, in other cases the results obtained are not so reliable. Although Methan sodium was proposed as an alternative based on the results from the demonstrative project, it has to be considered that the scale of the demonstration project areas were different from the pilot areas of the phase out project. In particular, at the demonstration project the methan sodium was applied manually with a watering can, and at this step of larger scale is applied trough the irrigation system. So distribution in soil is different from the one obtained at the demonstration project. Nevertheless, when the metham sodium is used combined with solarization, the result is very effective. The project intended to improve the application methods in order to overcome the difficulties raised by the farmers when they apply metham sodium.

Regarding **biofumigation, the proposal was based on the utilization of** rests of broccoli and other vegetables from an industry of the region. Unfortunately, due to well-known economical crisis of 2002, the plant was closed down, so the waste to be used for the biofumigation is no longer available. Although this is a very interesting alternative, the farmers have some difficulties to find an efficient replacement of the waste from broccoli.

In consequence the project developed other alternatives: **solarization combined with biofumigation with pepper plants and solarization combined with biofumigation with corn plants**. According to INIA reports, these two alternatives have been proved to be effective but it takes some time for the adoption by the farmers

The treatments that involve solarization, solarization+Metham Sodium, solarization+ biofumigation with pepper plants and solarization + biofumigation with corn plants, have proved to be effective. Furthermore these treatments, to be effective, require that the solarization is done at least during 25 days and in the period between 15th December and 30th January, the months were effective temperatures are reached.

So this constitutes an important barrier for the extensive use of practices, which involve solarization, they cannot be done at some periods of the year, and it also requires the greenhouses

to be closed and inactive for at least a month, which in some farmers' production systems cannot be done.

In Bella Unión, were Methyl Bromide was already phased out, the soil types are different, less sandy than in Salto and the most extended type of cultivation is pepper, which is less susceptible to nematodes than tomatoes, which is the principal type of cultivation in Salto horticulture area.

Another barrier for the adoption of the biofumigation is that the quantity of green material to be buried per square meter is higher than the quantity available per square meter of standard pepper cultivation. So this method requires taking green material from other cultivation, and in the case of corn, obviously requires the availability of land to be cultivated with corn plants.

So, there is need for another alternative that do not involve solarization or biofumigation. In consequence, with the assistance of the project, we are testing chemical alternatives, which were tested during the demostration project: 1, 3 dichloropropene formulations (Inline, Telone II) and iodomethane formulations (Middas). First results on this chemicals are published at INIA 2004 report, and are very promising, especially iodomethane. The company that produces iodomethane, has initiated the registration process in Uruguay in 2005, but this will certainly take some time.

Market changes

When the phase out Project was approved, in 2001, the whole production of the horticulture sector was for the domestic market. Since 2003, some part of the production was for export to Brazil. The demand for tomatoes from the importing country is in January, so the solarization alternatives cannot be applied because the cultivation has to be maintained until January, the best time for solarization, and a "quick" chemical alternative is needed.

Global changes

Farmers are informed through importers and media about the use of methyl bromide around the world. The critical uses granted to Art.2 countries was an issue used by MB importers and distributors to promote the continuation of use of MB in our country, discouraging some farmers from changing and making it more difficult the process of sensitization and promotion of the use of alternatives to MB.

As is well known, Uruguay has historical, cultural and economically strong ties and relations with Argentina. All the problems affecting Argentina will act as a "domino effect" in Uruguay. Therefore, the problems of Argentina to comply 100% with the phase out agreement with the Executive Committee, immediately affect the Uruguayan farmers and importers, creating a sort of 'lobby' difficult to control.

In addition to that, the availability of methyl bromide on the national market and its reduced price makes it more difficult the process of switching to other alternatives.

Conclusions

In conclusion, the combination of the different factors above mentioned has caused a negative impact on the substitution process, in the reduction tendency in MB consumption and has also caused a light increase in methyl bromide use in 2004.

In that sense, Uruguay is steadily working on a series of measures to reverse that, such as:

1. Strengthening the relationship with Salto Horticulture Association in order to consolidate the progress made and make further advance in the MB phase out and adoption of alternatives.
2. Facilitating the registration process and market availability of new chemical alternatives, such as iodomethane and 1, 3 dichloropropene formulations.
3. Enforcing the application of existing regulatory measures for methyl bromide registration, control, sale and final use (Decrees 113/990 and 149/977) and establishing new measures for the control of Methyl Bromide imports.
4. Promoting the "Ozone Friendly Label" among producers and developing a national campaign to promote methyl bromide free products at vegetables markets and supermarkets chains.
5. Strengthening the imports monitoring system established by the Ozone Unit (Ministry of Environment) in coordination with the Direction of Agriculture Services (Ministry of Agriculture).

5) New Phase-Out Agreement Proposal

Taking into account the progress made and the difficulties encountered in the methyl bromide phase out process, the following issues were considered for the proposal of the new Methyl Bromide phase out timetable:

1) The phase out project implementation to date has been successful with some important achievements that have to be considered, such as:

   a) Bella Unión Area has completely phased out Methyl Bromide. The alternatives being used at this area are: solarization, solarization combined with metham sodium and solarization combined with biofumigation. The Ozone Friendly Label has been promoted among the farmers of this area, in order to differentiate their products at national level and encourage the adoption of alternatives. In this regard, market recognition is essential, and for this reason the Ozone Unit is developing a campaign among the most important vegetables markets in Uruguay.

   b) The use in south area at horticulture sector and floriculture sector has been reduced at around 80%, and complete phase out is expected by 2005.

   c) Salto area, where most of the difficulties have arisen, has made an important progress in the phase out process: a reduction of 35% in consumption compared to project documents figures of 1999-2000, and a 65% reduction compared with 2001 figures

2) The chemical fumigants needed as alternatives for this area are not yet available on Uruguay market. These alternatives are being evaluated by INIA (iodomethane and 1,3 dichloropropene formulations), and preliminary data is available from 2004 experimental research.

    - The company that produces iodomethane, has already initiated the registration process in Uruguay in 2005, but this will certainly take some time.
    - About 1,3 dichloropropene formulations, the registration process is expected to begin in late 2005.

3) Once the registration process would be completed, the product would have to be available on the market and the farmers would need time to use and know the new alternatives. It would also be needed some time to adapt different aspects of the technology, especially those related to doses and modalities/conditions of application. Because of the facts mentioned, enough time will be needed to adopt the new technologies and a quantity of methyl bromide will be needed for soil fumigation in those areas where difficulties have been encountered, while they adopt and adapt the new technologies.

4) The estimated methyl bromide requirement for these areas that envisage it difficult to phase out methyl bromide in 2005 is of about 8.9 ODP tonnes per year (about 14.8 metric tonnes per year) to avoid affecting the competitiveness of the productive sectors involved.

Based on the above explanation, and pursuant to Decision 43/14, Uruguay requests the 46th Meeting of the Executive Committee to consider the modification of the agreed conditions on the 34th Ex. Com. as follows:

Year	Maximum remaining national MB consumption excluding QPS applications (ODP tonnes)
2002	20.0
2003	12.0
2004	11.1
2005	8.9
2006	8.9
2009	8.9
2010	6.0
2011	6.0
2012	6.0
2013	0

NOTE: Uruguay's Baseline: 11.2 ODP
80% of the Baseline: 9.0 ODP

It is important to point out that the new phase-out proposed date is ahead of 2015 Montreal Protocol dateline for Methyl Bromide phase-out.

It should also be noted that Uruguay is asking more time to phase-out methyl bromide than in the original early phase out agreement, but no additional funding is being requested.

In addition to that, Uruguay and UNIDO commit themselves to submit in 2010 a full report on the implementation of the phase-out plan, together with a status report on the alternatives to methyl bromide available in Uruguay at that moment, and considering the possibility of completing the phase-out of methyl bromide earlier than 2013.