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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Eightieth Meeting  
Montreal, 13-17 November 2017

**REPORT OF THE SUB-GROUP ON THE PRODUCTION SECTOR**

**Introduction**

1. The Sub-group on the Production Sector, which had been reconstituted at the 78<sup>th</sup> meeting of the Executive Committee, met four times in the margins of the 80<sup>th</sup> meeting. The Sub-group consisted of the representatives of Argentina, Australia, Austria, China, Germany, Lebanon, Mexico and the United States of America, with Australia acting as facilitator. Representatives of the World Bank were also present as observers.

2. The Sub-group considered the 2016 verification report of HCFC production and consumption in China, the 2017 progress report for stage I of the HCFC production phase-out management plan (HPPMP) for China and the resubmitted stage II of HPPMP for China.

**Agenda item 1: Adoption of the Agenda**

3. The Sub-group adopted the provisional agenda contained in document UNEP/OzL.Pro/ExCom/80/SGP/1.

**Agenda item 2: Organization of work**

4. The Sub-group agreed to follow the organization of work proposed by the facilitator.

**Agenda item 3: Stage I of the HPPMP for China**

**(a) 2016 verification report of the HCFC production and consumption**

5. The representative of the Secretariat introduced document UNEP/OzL.Pro/ExCom/80/SGP/2 and said that the verification report had concluded that the Government of China was in compliance with its control targets for HCFC production and consumption in 2016. The report had confirmed that, of the four production lines that had signed idle-capacity closure contracts, two lines, with a total capacity of 10,500 metric tonnes, had been dismantled; the dismantling of the two remaining lines, with a total capacity of 4,000 metric tonnes, would be verified in 2018. The report had also included information on the emission

control of HFC-23 by-product, which indicated that only 0.3 per cent of HFC-23 was vented; 99.7 percent of the HFC-23 was incinerated or collected and stored or sold. With respect to waste residues, she said that they had been disposed of as hazardous waste in accordance with national regulations, but the Secretariat suggested including the amounts of HCFCs contained in waste residues as HCFC production for controlled use in future verifications.

6. She also drew the attention of the Sub-group to the redirection of 887.64 metric tonnes of compensated HCFC-142b capacity towards feedstock production by one enterprise. The World Bank had reported that redirection as an oversight and had informed the Secretariat that a mechanism was being established to strengthen the monitoring of HCFC production at the plant level to prevent such redirection in the future. She also said that the progress report on the implementation of stage I of the HPPMP indicated that two new HCFC-142b production lines were commissioned for feedstock production and consequently it had been suggested that a verification be undertaken to ensure that the new lines were vertically integrated and channelled to feedstock use.

7. Several members commended the Government of China for its efforts to reduce emission of HFC-23 by-product through incineration and best practices to reduce the by-product generation rates. The amount of HFC-23 by-product vented into the atmosphere had been significantly reduced.

8. In response to a question from the members, the representative of the Secretariat said that before 2013, information on HFC-23 had not been collected systematically by the Multilateral Fund and the HFC-23 by-product generation rate was estimated at 3 per cent, but that the accuracy of the data was improving. HFC-23 that was stored at the end of year was either incinerated, sold or vented the following year, and that the amount of HFC-23 incinerated in 2016 included some HFC-23 stored in 2015. The representative of the World Bank further clarified that the World Bank did not verify the amount of HFC-23 by-product generated, but only provided information on its management in accordance with paragraph 10 of the Agreement. He said that where plants participated in an HFC-23 destruction project financed under the Clean Development Mechanism (CDM), the amounts of HFC-23 generated in those plants were provided to the Bank; for those without CDM projects an estimate of 3 per cent was made.

9. With regard to high boiling waste residues (HBR), the Secretariat explained that it was incinerated, or sent to specialized hazardous waste treatment companies for disposal in accordance with national regulations and in line with environmental impact assessments approved for each plant. However, where the concentration of HCFCs in the HBR was high (for example, more than 10 per cent and up to 40 per cent) and where those HCFCs were recovered and reused for controlled purposes, such recovered HCFCs were not counted as ODS production. Regarding the quantity of the HBR, the World Bank explained that when considering the total production of HBR in China, on average the HBR accounted for less than one per cent of the total HCFC production. Given its relatively small amount, and recalling that the World Bank would continue reporting on the disposal practices of HBR at enterprises in line with decision 77/65(d), the Sub-group decided not to ask for verification of the HCFCs contained in the HBR and that such HCFCs should not be counted toward production.

10. With regard to the verification of the dismantling of two production lines that had signed idle capacity closure contracts, the representative of the World Bank explained that although the verification team had confirmed that the production lines have been dismantled, it had not been able to verify that key equipment had been destroyed. He said that the verification team had been told that the equipment had been scraped and sold.

11. Several members observed that the plant had been compensated for dismantling its production equipment and therefore should be able to provide evidence of its disposal, in line with existing guidelines. The World Bank confirmed that the World Bank would undertake another verification to establish the fate of the key equipment and the Government of China had agreed to this additional verification.

12. With respect to future verifications of new HCFC production lines for feedstock, it was suggested that the World Bank in addition to verifying the vertical integration of the production lines should verify the legal arrangements to ensure no HCFC production for controlled use would occur in new lines. The Secretariat explained that the new lines had been established for feedstock production and that no quota would be issued to those lines. In addition, the Government had established a system of monitoring feedstock production that would cover the newly commissioned lines. The representatives of China and the World Bank pointed out that those new production lines had not been covered in the stage I of the HPPMP.

13. The representative of the World Bank explained that the agency support costs had been calculated on the basis of a limited number of verifications and that the number of verifications had been expected to go down as the plants went out of production. The fact that the World Bank and the Government of China had agreed to a one-time verification of the two production facilities should not be taken as a precedent that it would verify production in other new facilities.

14. In response to a question about whether verification of new plants would be a one-time activity or undertaken on an annual basis, one member said that he preferred to have such one-time verifications take place at all new plants, but as the issue was hypothetical, further discussion of the issue could wait until any new plants were established.

15. With respect to whether to apply a penalty or to reduce the maximum allowable production limit of the plant that had redirected 887.64 metric tonnes of compensated capacity to feedstock, it was noted that the more environmentally beneficial action would be difficult to calculate as the reduction in production at the plant would not result in an overall reduction of the quotas in China and, moreover, there was no quota for feedstock production. It was also noted that the penalty of US \$133,146 was substantially less than the profit earned by the facility through redirection of production. Several members were concerned that a similar situation might occur in subsequent years given the profitability of feedstock production and the small penalty in comparison to the compensation provided.

16. While it was suggested that part of the reason for the misdirection was due to a change in management at the facility, and that actions had been taken to correct the problem, several members pointed out that producers often did not produce up to their quota which would mean that the proposed reduction in the maximum production limit might have no practical effect on the plant. Also, it had no effect on production for controlled use at the national level.

17. After further consideration, the Sub-group on the Production Sector recommends that the Executive Committee:

- (a) Note the 2016 verification report of the HCFC production sector in China;
- (b) Request the World Bank:
  - (i) To verify, in the 2017 verification exercise to be conducted in 2018, that the HCFC production lines that signed the idle capacity closure contracts in Zhejiang Jinhua Yonghe Fluorochemical Co. Ltd. and Shangdong China Fluoro Technology Co. Ltd. had been dismantled and the key equipment had been destroyed;
  - (ii) To verify, on a one-time basis, that the newly established production lines for HCFC-142b in Zhejiang Juhua Fluoro-chemical Co. Ltd. and Shandong Donyue Chemical Co. Ltd. are vertically integrated with the production of downstream facilities and all HCFCs produced in the new lines would be for feedstock use;

- (c) Further to request the World Bank in future verification exercises to include a report on the status of HFC-23 that was stored in the previous years, including the amounts incinerated, sold and vented;
- (d) To apply the penalty clause in the Agreement on the basis that 887.64 mt of compensated HCFC production capacity had been redirected towards feedstock by the Changshu 3F Zhonghao New Chemical material Co. Ltd facility, noting that:
  - (i) The penalty is calculated at US \$0.15 per kg, resulting in an amount of US\$133,146 to be returned to the Multilateral Fund through China and the World Bank; and
  - (ii) The Government of China is improving its monitoring system that *inter alia* examines plant records for HCFC production, sales for controlled use and feedstock use, changes in stock level and is improving the mechanism to prevent future redirection of production capacity towards feedstock.

**(b) 2016 progress report**

18. The representative of the Secretariat introduced document UNEP/OzL.Pro/ExCom/80/SGP/3 and said that the Government of China was continuing to implement the licensing and quota system to control HCFC production. Priority had been given to permanent closure of production capacity. Since some technical assistance activities were still ongoing, and additional time was needed for dismantling of production lines, the Government of China had requested an extension to stage I to the end of 2018.

19. In response to a query as to whether the reduction of HFC-23 emissions had taken into account the plant closures, the representative of the Secretariat explained that after the production lines were closed, both HCFC-22 and HFC-23 were eliminated. In response to another query about the outstanding reports on technical assistance activities on HFC-23 by-product emission control, the representative of the World Bank said that the reports would be made available to the 81<sup>st</sup> meeting. The facilitator further reminded the Sub-group that one study on the technology for HFC-23 conversion had been cancelled and that consequently only one report would be submitted to the 81<sup>st</sup> meeting [in accordance with decision 79/17(b)(ii)].

20. It was noted that approximately US \$19.5 million had still not been disbursed and it was asked why such a large balance was still being held by FECO/MEP. The representative of the World Bank explained that the balance included significant disbursements related to production closure and some allocation for technical assistance activities. Some US \$1.3 million had not been allocated.

21. With regard to the reporting on the activities conducted under the project management unit (PMU), it was pointed out that the budget for the PMU was difficult to breakdown as the PMU funds from several sectors were pooled together and spent on both production and consumption activities.

22. The Secretariat distributed a list of activities being undertaken by the PMU provided to the 76<sup>th</sup> meeting which covered both the production and the consumption sectors. While the list was for planned activities under stage I of the HPMP and HPPMP it would also apply to stage II of those plans relative to the total level of funding. Members observed that although the US \$4.75 million budgeted by FECO/MEP for the PMU seemed small it still represented a significant amount of money. While it might be difficult to provide that information retrospectively, there was need to develop a systematic system for keeping track of PMU expenditures in the future.

23. Another member explained that the US \$4.75 million was the total amount spent over five years to support the PMU. Those figures did not change much each year and represented the cost of maintaining

10 staff members and conducting activities in the production sector at the PMU. As the funds received were pooled, it was difficult to provide a detailed account of how much work was done on each of the activities, but percentages could be given.

24. It was explained that the Executive Committee was not requesting the expenditures for the PMU for each tranche of each sector but the total expenditure covering all the sectors for each year.

25. In response to a query about audits, the representative of the World Bank explained that the audits for the projects were carried out by the China National Audit Office (CNAO) and that its auditing standards were comparable to international auditing standards. He confirmed that the same auditors were used each year and that they only audited the projects supported by the Fund. They did not conduct an audit of FECO/MEP, and such an audit would be conducted by the Ministry of Environmental Protection as needed. It was pointed out that the audit done for the World Bank did not address how FECO/MEP spent the five per cent funding it received.

26. A breakdown of the balances held by FECO/MEP was provided by the World Bank. The representative of the World Bank explained that the US \$16.78 million represented the outstanding funding to be paid to enterprises for idle capacity and production closures, which was expected to be disbursed before the end of 2017. China was requesting an extension of the stage I of the HPPMP to complete some ongoing activities, including issuing production quotas at the same level as in 2017, completing production closure projects and completing the remaining technical activities which were listed in paragraph 7 of the document.

27. Noting the remaining balances of US \$1.3 million, concern was expressed that extension of stage I of the HPPMP could result in funds being spent on technical activities not agreed by the Executive Committee.

28. It was pointed out that given the extension of the Agreement, the Government of China might need to hold a stakeholder coordination meeting and provision of US \$40,000 should be made for that contingency.

29. The Sub-group on the Production Sector recommends that the Executive Committee:

- (a) Note the 2017 progress report for the implementation of the HCFC production phase-out management plan (HPPMP) (stage I) for China;
- (b) Note that US \$6,264 of interest accrued would be deducted from the first tranche of stage II of the HPPMP when approved;
- (c) Approve, upon submission of a formal request, the extension of implementation of stage I of the HPPMP for China to 31 December 2018, and to request the World Bank to return the balances from stage I of the HPPMP and to submit a project completion report to the first meeting in 2019, and agree on a contingency of up to US \$40,000 for coordination activities on the understanding that there would not be any further increase in the planned expenditures of technical assistance activities unless otherwise approved by the Executive Committee; and
- (d) Request the Secretariat to work with China through UNDP, as the lead implementing agency of the HPMP, and the World Bank, as the lead implementing agency of the HPPMP, on developing a financial reporting format of annual PMU expenditures in relation to the production and consumption sectors by the 81<sup>st</sup> meeting.

**Agenda item 4: HCFC production phase-out management plan (HPPMP) (stage II) for China**

30. The representative of the Secretariat introduced document UNEP/OzL.Pro/ExCom/80/SGP/4, Corr.1 and Add.1, and said that the World Bank had re-submitted stage II of the HPPMP to the present meeting, together with a draft Agreement and an annual implementation plan for 2018. The key change was that stage II of the HPPMP would now address an additional 508.97 ODP tonnes of quota reduction associated with enterprises that did not meet environmental impact assessment, resulting in a total phase-out of 16,297 ODP tonnes. The World Bank emphasized the importance of approving stage II of the HPPMP at the 80<sup>th</sup> meeting, as it would be difficult for the Government to ensure its compliance in the consumption sector by increasing its export quota. That could also have an effect on the implementation of HCFC phase-out in other Article 5 countries.

31. In order to assist the Sub-group, the Secretariat has summarized the four scenarios presented to the 79<sup>th</sup> meeting and provided two additional scenarios based on the different assumptions for the tranche distribution and the Montreal Protocol phase-out schedule. The fifth scenario used similar assumptions to those found in the third scenario. The principal difference between them was that the fifth scenario followed the Montreal Protocol phase-out schedule and assumed a proportional reduction of all substances; while the third scenario followed the accelerated phase-out schedule proposed by the Government of China. The Secretariat had also noted that the funding distribution in CFC agreements were not front-loaded and had been relatively flat and had developed a sixth scenario based on the Montreal Protocol phase-out schedule. Unlike all the other scenarios, the sixth scenario compensation per metric tonne phase-out would be the same irrespective of the year when reduction occurs. Like the other scenarios, the sixth scenario assumed available funding of US \$290 million for phasing out the remaining HCFC production in China.

32. Following a discussion, the facilitator said that while it appeared that it would not be possible to approve stage II at the present meeting it would be useful for the members to give China and the World Bank additional guidance on elements that could be changed in a revised proposal. It was suggested that the World Bank should pay particular attention to the sixth funding scenario proposed by the Secretariat; it was observed that there was a great deal of front-loading in the proposal and it was suggested that there should be a more balanced distribution of the tranches of funding. It was also suggested that there be no overlap in the tranches of funding between stage II and stage III. The agreed language for plant closures used in stage I should be followed in stage II as well.

33. The representative of China noted that stage II of the HPPMP had been discussed at the 79<sup>th</sup> meeting, and the proposal revised in light of those deliberations and resubmitted to the present meeting where it had been briefly discussed again. He explained that the failure to approve stage II at the present meeting could have serious consequences. China would need to reduce its consumption in 2018, but without the approval of stage II there would be no corresponding reduction in the production sector which could have an effect on China and other countries compliance with their reductions in consumption.

34. The Sub-group expressed its sympathy for the Government of China and noted that the return of unspent funds by China in relation to stage I had been a confidence building measure. The HPPMP for China was the biggest project that had been approved by the Executive Committee, and the funding for it had to be carefully considered. There were still concerns about the large amount of front-loading of the funding tranches in the proposal and it was suggested that the tranches be better balanced. However, the Sub-group was confident that if the views expressed at the 79<sup>th</sup> and 80<sup>th</sup> meetings were taken into consideration in a revised proposal it would be possible to make a recommendation on the proposal at the 81<sup>st</sup> meeting.

35. The Sub-group on the Production Sector recommends that the Executive Committee:

- (a) Note the submission of stage II of the HCFC production phase-out management plan (HPPMP) contained in document UNEP/OzL.Pro/SPG/4; and

- (b) To defer consideration of stage II of the HPPMP, and welcome a submission of a revised project proposal to the 81<sup>st</sup> meeting that took into account the discussion during the 79<sup>th</sup> and 80<sup>th</sup> meetings, in particular related to the front-loading of the tranches.

**Agenda item 5: Other matters**

- 36. No other matters were raised.

**Agenda item 6: Adoption of the report**

- 37. The present report was reviewed by the facilitator.

**Agenda item 7: Closure**

- 38. The meeting of the Sub-group was closed at 9.30 am on 17 November 2017.