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PROJECT PROPOSALS: INDIA

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

Phase-out

- CTC phase-out plan for the consumption and production sectors: 2009 annual programme France, Germany, Japan, World Bank, UNIDO

Production

- CFC production sector gradual phase-out: 2009 annual implementation programme World Bank

**CTC PHASE-OUT FOR THE CONSUMPTION AND PRODUCTION SECTORS:
2009 ANNUAL PROGRAMME**

Introduction

1. The World Bank as the lead implementing agency has submitted, on behalf of the Government of India, the 2009 annual work programme to the 58th Meeting and requested the release of US \$3,211,874, plus agency support costs of US \$240,891, for its implementation. The submission includes a verification of the achievement of the 2008 annual programme, which is mandatory under the Agreement between the Government of India and the Executive Committee for releasing the 2009 funding, and the proposed 2009 work programme. The verification report and the 2009 work programme are not attached but could be made available upon request.

Background

2. At its 40th Meeting in July 2003, the Executive Committee decided to approve, in principle, a total of US \$52 million to assist India in complying with the Montreal Protocol control schedule for the production and consumption of carbon tetrachloride (CTC), and disbursed the first tranche of US \$5 million at the meeting to start implementation of the project. At the following meeting, the Committee approved the Agreement for the phase-out in the consumption and production of CTC in India and disbursed the balance of US \$3,520,843 for the funding of the 2003 annual work programme. The Executive Committee approved the 2004 and subsequent, including 2008, annual programmes and brought the total cumulative disbursement to US\$48.79 million as at the end of 2008. The request now in front of the Executive Committee represents the final tranche for the project.

3. A summary of the CTC phase-out targets and funding tranches of the sector plan and the 2009 annual work programme is presented in the following table:

| | Baseline | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|----------|-----------|------------|-----------|------------|-----------|-----------|------------------|------|
| 1. Max allowable total consumption (ODP tonnes) | 11,505 | N/A | N/A | 1,726 | 1,147 | 708 | 268 | 48 | 0 |
| 2. Max allowable total production (ODP tonnes) for this Agreement | 11,553 | N/A | N/A | 1,726 | 1,147 | 708 | 268 | 48 | - |
| 3. WB agreed funding | | 8,520,843 | 9,180,112 | 399,045 | 9,556,267 | 4,020,938 | 3,211,875 | 3,211,874 | - |
| 4. WB support costs | | 639,063 | 688,508 | 29,928 | 716,720 | 301,570 | 240,891 | 240,891 | - |
| 5. France agreed funding | | - | 1,000,000 | 1,000,000 | 500,000 | 500,000 | - | - | - |
| 6. France support costs | | - | 85,000 | 85,000 | 85,000 | 85,000 | - | - | - |
| 7. Germany agreed funding | | - | 700,000 | 700,000 | 300,000 | 300,000 | - | - | - |
| 8. Germany support costs | | - | 57,500 | 57,500 | 57,500 | 57,500 | - | - | - |
| 9. Japan agreed funding | | - | 2,500,000 | 2,500,000 | - | - | - | - | - |
| 10. Japan support costs | | - | 280,000 | 280,000 | - | - | - | - | - |
| 11. UNIDO agreed funding | | | | 3,500,000 | 399,046 | | | | |
| 12. UNIDO agreed support cost | | | | 262,500 | 29,928 | | | | |
| 13. Total agreed funding (US \$) | | 8,520,843 | 13,380,112 | 8,099,045 | 10,755,313 | 4,820,938 | 3,211,875 | 3,211,874 | |
| 14. Total agency support costs (US \$) | | 639,063 | 1,111,008 | 714,928 | 889,148 | 444,070 | 240,891 | 240,891 | |
| 15. Total agreed costs (US \$) | | 9,159,906 | 14,491,120 | 8,813,973 | 12,073,435 | 5,265,008 | 3,452,766 | 3,452,765 | |

Verification of the 2008 work programme

The verification framework of the India CTC phase-out programme

4. The verification framework, which was developed by the World Bank and noted by the Executive Committee, requires the verification to proceed from the Montreal Protocol definitions of production and consumption. It also needs to cover the total annual CTC production and imports, exports, and the breakdown of CTC production for feedstock and non-feedstock applications; and include the checking and validation of records such as production logs, production ratios between product and its feedstock, quotas and quantity of imports, excise records and other related documents.

Verification of the 2008 work programme

5. The verification was carried out in April 2009 by a four-member team from Mukund M Chitale & Co. Chartered Accountants, the firm which has been involved in the same exercise for the past two years. Two of the members have extensive experience in the chemical industry while the other two are knowledgeable in financial accounting.

6. The objectives of the verification were to confirm that the CTC production and consumption of controlled uses in 2008 had not exceeded the maximum allowable limits set in the Agreement, namely 268 ODP tonnes in each case. The methodology employed was to verify the CTC production and imports from the supply side, and deduct from the total supply the CTC used as feedstock in the production of primarily CFC and Dichloro Vinyl Acid Chloride (DVAC). The balance would represent the CTC consumption for non-feedstock uses controlled under the Montreal Protocol.

7. As a result, the team of auditors reviewed the records of:

- (a) Production of CTC by all four local producers;
- (b) Import of CTC by CTC feedstock users;
- (c) Consumption of the locally procured and imported CTC by all feedstock users;
- (d) CTC sale to non-feedstock users as per the dispatches from the CTC producers under the annual quotas issued by the Ozone Cell;
- (e) Registrations of all CTC producers and feedstock users issued by the Ozone Cell, Ministry of Environment and Forests (MoEF). Under the Environment Protection Act (1986), Ozone Depleting Substances (Regulation) Rules 2000 were established by the Government of India, by which no person shall produce or cause to produce ODS unless he/she is registered with the Ozone Cell, MoEF, and as a result all CTC producers and feedstock users have been registered with the Ozone Cell; and
- (f) Registration records, maintained by CTC producers, of all CTC buyers for non-feedstock use. However, since the methodology used was to determine the controlled use by confirming the supply and demand through verification of the levels of CTC production, import/export, and feedstock use, the team did not verify at enterprise-level the non-feedstock uses.

8. Prior to visiting the industries, the verification team collected information through the Ozone Cell which forwarded a questionnaire to each CTC producer and feedstock user for completion; these were verified during site visits. The independent verification team visited the four CTC storage installations at Kandla in Gujarat, the only port where bulk CTC is imported, to assess the actual level of CTC

imports and exports. The team visited four CTC producers, four CFC producers, eight DVAC producers, one Vinyl Chloride Monomer (VCM) producer, one Di-fluoro benzophenone (DBBP) producer, four CTC storage agents and two surveyors. Table 2 of the submission contains the list of the industries and institutions that were visited by the verification team with information on the name and address and the category of the industry (e.g. CTC producer, feedstock user, storage agent).

9. The verification procedures employed during site visits included, amongst others, the following steps:

- (a) Review of the record keeping system of each enterprise such as production logs, issue logs, and dispatch logs;
- (b) Review of the daily raw material consumption data and daily production records for CTC and other chloromethane production;
- (c) Verification of annual production, imports, and local procurement of CTC. This step entailed the following tasks:
 - (i) An initial round of a facility tour to familiarize with the plant layout, and to meet with the key personnel;
 - (ii) Verification of the data in the complete questionnaire completed by respective enterprises. This was carried out based on the documentary evidence called for by the independent verification team. The verification was done by cross-checking the data provided in the questionnaire against the production and excise records and also comprises of tracking these sets of data from the monthly records on a random basis;
 - (iii) In addition to the above financial, commercial and store records comprising of ledgers, invoices, Goods Receipt Notes (GRN), issue slips, statutory excise records, records of imported consignments including weigh bridge documents, surveyor's certificate, and others, were reviewed; and
 - (iv) Efficacy of the documents used for these verification purposes was also tested to the extent possible. For example, imported consignments were cross-checked against the purchase orders, suppliers' invoices, and surveyors' out-turn reports;
- (d) Mass balance analyses were conducted for the production of CFCs during the CFC audits and for the production of DVAC. The purpose was to verify whether CTC consumption for these applications is within the known and available industry norms. The process involved:
 - (i) Sighting the documentary evidence of the consumption of the raw materials; and
 - (ii) Comparing the actual consumption with the theoretical (stoichiometric) requirement;
- (e) Verification of cumulative inventory changes of chlorine, a key raw material for CTC producers; the verification of inventory changes of CTC in case of CTC feedstock users like CFC producers and DVAC producers, to determine whether the changes are consistent with the levels of production of CFC and DVAC; and

- (f) Verification of cumulative inventory changes of CTC in transit to ensure no diversion of CTC intended for feedstock applications to non-feedstock applications, to the extent they were made available for verification.

10. The findings of the verification team include the level of CTC sold by CTC producers for controlled use, including the drawdown from their CTC inventory built up prior to 2004; the results of the audit at the CTC producers which includes total CTC production, sales for feedstock and for controlled use; and the results of the audit at feedstock users for CFC, DVAC, VCM and DBBP and the overall mass balance. There is also a presentation of the results similar but not identical to the Montreal Protocol definitions of CTC production and consumption; the presentation provided does not account for feedstock increase as consumption.

11. Attached to the verification report is an annex which provides a summary of the 2008 plant audits at each of the four CTC producers, and each of the CTC feedstock users, including two CFC producers, nine DVAC producers and one VCM and one DBBP producers. The summary covering CTC producers describes the CTC production process and history of the plant, data on the CTC opening stock, imports, production, sale for feedstock uses, sale for non-feedstock uses against sales quota, and closing stock. It also provides data on the breakdown of the production levels of co-produced chloromethane products, methylene chloride (C2), chloroform (C3), CTC, the aggregate consumption of methane (methanol) and chlorine.

12. The summary on CFC producers includes a brief history of the plant, source of supply of raw materials through imports or local production, the production process, the consumption in 2008 of CTC and any issues that were identified. A cross-reference to the verification of the CFC production in 2008 was made where the consumption of CTC was examined by the CFC verification team. The description of each of the nine DVAC as well as the VCM and DBBP producers includes the technology used, the data checked at the plant, gross CTC consumption data on opening stock, imports, domestic procurement, quantity used for DVAC VCM and DBBP production and the closing stock.

13. The findings of the verification are as follows for 2008 (2007 amounts in brackets):

- (a) Total CTC production in 2008: 12,036 mt (9,538 mt);
- (b) Feedstock use: 16,437 mt (17,164 mt);
 - (i) Imports: 5,949 mt (6,586 mt);
 - (ii) Increase in stock: 1,063 mt (-1,683 mt);
 - (iii) From current year production: 11,551 mt (8,895 mt);
- (c) Direct sales to non-feedstock users: 512 mt (643 mt);
- (d) Inventory built up from 2004 and increased in 2008, at the end of 2008: 134 mt (403 mt);
- (e) No CTC destroyed; and
- (f) No export of CTC in 2008.

14. The verification team has presented the results of the verification in the table below. The verifiers advised that they were using the Montreal Protocol definitions on production and consumption as the basis for the data presented in this table. The Secretariat would like to point out that it disagrees with the verifiers statement that production and consumption was calculated as per the Montreal Protocol's definition, and that it at present is unable to confirm the figure below for consumption.

| Production per MP | Quantity (MT) |
|-----------------------------------|----------------------|
| Gross Production | 12,036 |
| Less :Quantity Used for Feedstock | 16,437 |
| Less :Destruction | - |
| Production per MP | (4,401) |

| Consumption per MP | Quantity (MT) |
|--|----------------------|
| Production per MP | (4,401) |
| Add : Import | 5,949 |
| Less :Export | |
| Less : Increase in Inventory | 1,063 |
| Less : Sale out of stock pile up of 2004 | 269 |
| Consumption per MP | 216 |

Comments of the Secretariat on the 2008 verification report

15. The verification has been carried out according to the verification framework, which was reviewed and noted by the Executive Committee at its 43rd Meeting. The team that was contracted has the relevant expertise and experience in this field.

16. The methodology used to confirm the CTC production and consumption in controlled uses consisted of verifying gross CTC production and imports, and the CTC use for feedstock is appropriate under the current Indian Government policy controls on CTC production, imports, consumption and distribution. CTC producers and feedstock users must be registered with the government and are the only entities allowed to import CTC. CTC dealers and CTC users for controlled applications are not allowed to import and can only purchase CTC from CTC producers who have a list of all the dealers and the major non-feedstock users. The Government decided that for the purpose of the verification sales from CTC producers to dealers and non-feedstock users were deemed to be non-feedstock uses even if the stock was subsequently diverted to feedstock use. One of the key objectives of the verification is to confirm that CTC imported and locally purchased by feedstock users was not diverted to non-feedstock uses.

17. The verification of the production and sales records at the CTC producers indicates that the total CTC sold as a controlled substance in 2008 was 512 metric tonnes (563.2 ODP tonnes) which includes 269 metric tonnes (295.9 ODP tonnes) drawn from the inventory built up before 2004. Therefore, the CTC production and consumption for controlled use is confirmed at 243 metric tonnes, or 267.3 ODP tonnes which is just below the target set in the Agreement at 268 ODP tonnes. The actual production/consumption, while appearing uncomfortably close to the maximum allowed consumption/production, is sufficiently accurate even with a small margin, since it actually is being used as a starting point for the calculation of how much of the stocks are being used.

18. Since the verification report regarding 2008 did not include a separate corroboration of results from the production and sales verification, the Secretariat performed a related analysis. While the numbers for production, consumption, import, existing stockpile, and feedstock are largely consistent, it appeared to the Secretariat that the consumption of India for controlled uses might have been 267.3 ODP tonnes in 2008 and not, as stated by the verifiers, 237.6 ODP tonnes. The Secretariat noted that a corroboration of the numbers was included in previous reports but not in the 2008 one, which instead included a table with a reconciliation of data. This reconciliation identifies a difference of 29.7 ODP tonnes between the different number sets, which were assumed to lead to an accordingly lower consumption for controlled uses; a view the Secretariat might not share depending on the outcome of certain open questions now raised with the World Bank. It was also noticed that the category of “Goods in transit” disappeared from the verification, which might indicate that these were not relevant transits.

19. India has increased its stockpile substantially, from 3,656 mt to 4,719 mt (i.e. 1,063 mt) or 1,169.3 ODP tonnes. These increases are almost exclusively linked to an increase in stocks at the producers of DVAC, which is presumably meant for feedstock. The purchases of CTC by producers of DVAC from CTC producers in India are substantially greater than the increase in these stocks; consequently, one could calculate them as production for subsequent feedstock use in future years.

20. The discussions with the World Bank regarding issues related to the verification and calculation of consumption were still ongoing as of writing of this document.

The 2008 annual programme

A quick overview of the CTC sector in India

21. There are four CTC producers in the country. Apart from being used as feedstock, primarily in CFC and DV acid chloride production, CTC is also used in India as a process agent and a solvent. For process agents, CTC is used in sectors such as chlorinated rubber, chlorinated paraffin, pharmaceutical, and agro-industries. As a solvent, CTC is used in the textile and garment industries, metal-cleaning industry and as a chemical solvent.

22. A number of implementing agencies are involved in the Indian programme and have been assigned to different sectors. The World Bank is the lead agency and is responsible for the CTC production phase-out and, together with UNIDO, the phase-out of CTC consumption in the process agent and chemical solvent sectors. Japan has contracted UNDP to assist it in phasing out CTC consumption in four enterprises for metal cleaning. France and Germany assist the small users to stop using CTC in the textile and metal-cleaning industries.

Achievement from the 2008 work programme

23. The World Bank’s submission discusses the activities implemented by the various implementing agencies and the Government of India in 2008.

24. In 2006, a total of 103 CTC projects covering both process and solvent applications were identified and were placed under the responsibility of the agencies. A summary of these projects with status of implementation is given in the table below:

| Projects | World Bank | UNIDO | UNDP | GTZ | Total |
|---|-------------------|--------------|-------------|------------|--------------|
| Total number of projects originally planned | 82 | 14 | 4 | 3 | 103 |
| Completed | 34 | 14 | -- | -- | 48 |
| Change compared to 2007 | 12 | 3 | 0 | 0 | 15 |
| Under implementation | 0 | 0 | 4 | 4 | 8 |
| Under review | 3 | 2 | 0 | -- | 5 |

25. The implementation activities by the World Bank started in 2006. Since then, the project has provided funding to 34 CTC-using enterprises in the process agent and solvent sectors, for converting their manufacturing operations to non-ODS technologies. This has resulted in the phase-out of about 1,700 ODP tonnes of CTC. Of these, 11 are financially completed and the remaining have fully phased out CTC, but are in various stages of completion. Of the identified enterprises, the NOU estimates that three or four can be funded from the remaining funds of about US \$300,000. A sample group of SMEs, which had converted to alternatives such as Toluene and TCE, were visited to review their environmental, health and safety standards. It was found that the measures prescribed for safe substitution of CTC have been inadequate, very often limited to hardware solutions, and so the existing framework, established by GTZ, will be utilized for continuing training and awareness activities.

26. The components appropriate to UNDP and Japan are being implemented jointly, with UNDP carrying out the activities. This component aims to phase-out 415 ODP tonnes of CTC used as a cleaning solvent at four enterprises in the metal cleaning sub-sector in India. Several preparation activities were undertaken, and some equipment was delivered in 2008. The local works needed for installation of the solvent cleaning equipment are in progress. The NOU and the agencies, including the lead agency had agreed to utilize the potential savings estimated at US\$ 1.5 million, for assisting additional enterprises in the metal cleaning sub-sector. An independent entity for verifying the baselines at these enterprises is presently in the process of being identified.

27. The implementation activities by UNIDO are progressing, and are reported to meet their phase-out targets. The estimated total use of CTC in the process-agent sub-sector with selected enterprises in the UNIDO component was 49.06 ODP tonnes in 2008. No new eligible enterprises were identified.

28. The components for Germany and France are implemented jointly by GTZ and focus on small-scale users with consumption below ten metric tonnes of CTC. The project has developed an institutional support strong base for a systematic outreach to all industrial sectors with significant consumption of CTC. 471 institutional partners, such as government agencies, local associations of small and medium industries, industry associations at state and national level have been established. During 2008 a total of 459 industry visits have been conducted and the mapping of industrial clusters has been completed across all major states. With the support of the institutional partners and through industrial visits, CTC use in several applications in the textile sector and various distinct applications of CTC which can be categorised under "metal cleaning" sector have been identified. An extensive database has been created to consolidate the findings of the different sectors and states across the country. Simultaneous to defining the different applications, the substitutes popularly used by the industries in their specific applications were identified and assessed, leading to a number of easily available substitutes being identified. A hierarchy of risk controls is under preparation. Shop floor assessments to understand the risk mitigation measures have been carried out. Suitable alternatives to CTC are available

for each application identified under this project. Most of them are generic solvents or water based detergents and specific control measures are recommended to mitigate possible risks associated with their use in industry. The project linked its own activities in the textiles sector with the national programmes training over a period of five years approximately 500,000 young workers. Stain removing equipment (spotting tables) was procured to be provided to the training partners for training and demonstration purposes. Training-of-Trainers programmes are being undertaken.

29. Of the total approved funding of US \$48.79 million, approximately US \$43.07 million had been disbursed by end of 2008.

The proposed 2009 work programme

30. The 2009 annual programme proposes to reduce the CTC production and consumption from the actual level in 2008 of 269 ODP tonnes to 48 ODP tonnes under each category. Planned reduction of CTC consumption in process agent and solvent applications in 2009 is presented below against those numbers in 2008.

| Indicators | | Preceding Year (2008) ODP tonnes | Year of Plan (2009) ODP tonnes | Reduction ODP tonnes |
|-------------------|--------------------------|---|---|---------------------------------|
| Supply of CTC | Import for non-feedstock | - | - | - |
| | Production | 269 | 48 | 221 |
| | Total | 269 | 48 | 221 |
| Demand of CTC | Process Agents | 49 | 0 | 49 |
| | Solvent | 220 | 48 | 172 |
| | Total | 269 | 48 | 221 |

31. The Ozone Cell has issued sales and production quotas for non-feedstock applications to the three CTC producers in January 2008 for 2009, amounting to 16 ODP tonnes per producer or 48 ODP tonnes in total. Regarding the consumption part of the project, the World Bank will consider 3 more companies for funding in 2009 using their remaining funding of US \$ 0.26 million. It is estimated that the combined CTC consumption of these 3 enterprises is about 150 ODP tonnes. In collaboration with GTZ, an intensive training programme and awareness activities and materials for SMEs regarding health and safety is to be developed and implemented in 2009.

32. UNDP plans to complete its four projects, identify more enterprises and implement the related activities using money from savings in the implementation. UNIDO will use remaining funds to assist additional enterprises. Possible technical assistance activities for enterprises that closed the production lines will be considered in order to ensure the sustainability of CTC phase-out at these enterprises. The major focus of GTZs implementing activities in 2009 will be on information dissemination activities, training and concrete technical assistance to individual enterprises in the textile and metal cleaning sectors; also a number of activities regarding environment, and health and safety of substitutes will be carried out.

33. For the 2009 work programme, the total requested funding of US \$3,211,874 would be used for activities under the World Bank programme as planned, while the other agencies will finance their 2009 activities from the unspent fund balance.

Comments of the Secretariat on the 2009 annual work programme

34. The progress report on the implementation of the 2008 annual programme seems to indicate that the programme of phasing out the production and consumption of CTC is proceeding well and the consumption is decreasing with the help of the enabling policies of the Government to reduce the supply of CTC and the industry conversion activities which reduces the demand for the substance. The remaining challenge seems to be the solvent use of CTC by the SMEs in garment manufacturing and metal cleaning and in finding alternatives that are safe and cost-effective to make a sustainable switch from CTC. The magnitude and broadness of past and planned activities for SME is unusual and should, together with the policies mentioned above, enable India to achieve the phase-out targets.

Recommendation

35. Pending.

CFC PRODUCTION SECTOR GRADUAL PHASE-OUT: 2009 ANNUAL IMPLEMENTATION PROGRAMME

Background

36. On behalf of the Government of India, the World Bank has submitted the 2009 annual programme for the implementation of the India CFC production sector phase-out programme for approval by the Executive Committee at its 58th Meeting. It has been submitted at the amount of US \$6 million plus support costs of US \$0.45 million, together with the verification report on the implementation of the 2008 annual work programme. The submission fulfils the Agreement between the Government of India and the Executive Committee, which was approved at the 29th Meeting. The 2009 annual work programme and the verification report of 2008 CFC production in India are not attached to this document, but could be made available to Members of the Executive Committee upon request. A summary of the submission is provided in Table 1.

Table 1

SUMMARY OF SUBMISSION

| | |
|--|---|
| Country | India |
| Project title: | CFC Production Sector Gradual Phase-out |
| Year of plan | 2009 |
| Number of years completed | 10 |
| Number of years remaining under the plan | 1 |
| Ceiling for 2008 CFC production (in metric tonnes), 2008 annual plan | 2,259 metric tonnes* |
| Ceiling for 2009 CFC production (in metric tonnes), 2009 annual plan | 0 metric tonnes |
| Total funding approved in principle for the CFC phase-out plan | \$82 million |
| Total funding released as of Dec. 2008 | \$76 million |
| Level of funding requested for 2009 Annual Plan | \$6 million |

*Modified to 690mt according to APP

37. The proposed 2009 annual work programme began with a review of the implementation of the 2008 work programme. The review reported on the achievement of the 2008 CFC reduction target that had been set at 2,259 metric tonnes in the Agreement, and was subsequently modified to a maximum of no more than 690 metric tonnes of CFCs at the 54th Meeting under the Accelerated CFC Production Phase-out Plan with an agreement text approved at the 56th Meeting. On a policy level, the Government issued production quotas and licenses for the export of CFCs. Under the CFC import and export management scheme, it has been reported that a total of four bulk export licenses were issued in 2008 for 1,859 metric tonnes. The actual levels of exports were only 455.6 metric tonnes which was below the requirement of the Accelerated CFC Production Phase-out Plan (1,228 metric tonnes no later than 31 December 2009) through 2008. None of the CFC producing units imported any new virgin CFCs in 2008. The producers sold 495.8 metric tonnes, which is below the allowable level (690 metric tonnes) of new CFCs to the MDI sector. They also sold below the amount allowed (825 metric tonnes) for all CFCs for MDIs. An additional 122.383 metric tonnes of CFCs was sold to the servicing sector. This amount, plus the amount placed on the market by producers (495.8 metric tonnes), does not exceed the total level of CFCs allowed for sale (825 metric tonnes).

38. The submission reported on a number of activities carried out under the technical assistance programme. These included awareness, training, data collection, operation of the PMU, monitoring, information exchange and studies. Of the US \$6 million disbursed from the Fund for the 2008 work programme, US \$4.09 million had been paid to the four CFC producers. This amount reflected 70 per cent of the total allocation for enterprises (US \$5.85 million). The remaining balance was planned to be disbursed after final verification of the 2008 production. Of the US \$213,000 allocated for technical assistance, US \$177,100 had been disbursed.

39. The second part of the submission described the target and activities in the 2009 work programme. Consistent with the Accelerated CFC Production Phase-out Plan, no production quotas will be issued in 2009 and imports and exports will continue to be controlled by a licensing regime. The document noted that either the ODS rules should be amended or the Government of India should issue an interim order to accommodate the requirements of the Accelerated CFC Production Phase-out Plan.

40. Several activities are planned under the technical assistance programme. These include the annual publication of the India Success Story on Ozone Day, the publication of a booklet on CFC production phase-out, support to chiller energy efficiency project, workshops on awareness of CFC production closure, training for customs and border officials, data management on MDIs procured from CFC producers, audit of the CFC production and export quantities from stockpiles, the development of a Monitoring Protocol for monitoring post 2010, and a study on the impact of CFC production closure on stocks and availability of CTC. A total of US \$6 million has been requested, which would be allocated to the four enterprises, as previously, for reducing their CFC production and financing the technical assistance activities planned for 2009. The World Bank has requested US \$450,000 as the associated support costs at 7.5 per cent of the 2009 tranche.

41. The verification was carried out between 28 January and 6 February 2009 by Mukund M. Chitale and Company, Chartered Accountants. The verification report, which included an introduction and Executive Summary, reported on each of the four CFC producers, and included an annex that defined the molecular weights and formulas for CFCs and HCFCs.

42. A summary of the CFC production by the four producers is shown in Table 2.

Table 2

CFC PRODUCTION SUMMARY (CY 2008)

| Enterprises | Navin Fluorine Industries | | | Chemplast Sanmar | Gujarat Fluorochemicals | SRF | Total |
|--|---------------------------|-------------|----------|------------------|-------------------------|---------------|---------------|
| | CFC 11/12 | CFC 113 | CFC 113a | CFC11/12 | CFC11/12 | CFC11/12 | |
| Opening Stock (a) | 113.47 | 5.62 | 6.56 | 36.90 | 733.20 | 467.35 | 1363.10 |
| Gross production for quota utilization | 223.60 | 79.10 | 69.04 | - | 246.00 | 201.73 | 828.47 |
| Actual consumption as feed stock | - | 80.08 | - | - | - | - | 80.08 |
| Eligible consumption as feed stock | - | 72.50 | - | - | - | - | 72.50 |
| Excess consumption of CFC113 as per norms | - | 6.60 | - | - | - | - | 6.60 |
| Handling losses (b) | - | - | - | 0.01 | 3.77 | 0.10 | 3.88 |
| Conversion loss from CFC 11 to 12 | - | - | - | - | - | 9.91 | 9.91 |
| Production quota utilized | 221.36 | 6.60 | - | - | 246.00 | 199.87 | 673.87 |
| Net production CFC11/12 (c) | 221.36 | 79.10 | 69.04 | - | 246.00 | 199.87 | 815.37 |
| Sales return (domestic) (d) | - | - | - | - | 0.92 | 0.09 | 1.01 |
| Sales of 113a | - | - | 75.47 | - | - | - | 75.47 |
| Sales in 2008 (domestic and exports) (e) | 274.12 | - | - | 36.89 | 206.96 | 555.83 | 1073.80 |
| Closing stock (a)-(b)+(c)+(d)-(e) | 60.71 | 4.64 | 0.13 | - | 769.39 | 101.47 | 936.34 |
| Percentage of quota utilized (on net production) | 94.73 | - | - | 0.0 | 99.84 | 98.49 | 97.66 |

43. The table indicates the overall results of the verification, with information on the 2008 CFC production quota for each enterprise, opening CFC stocks, gross production, net saleable production, losses, sales, closing stock and percentage of quota produced by each of the four producers, and the national totals. Decision 43/5 allowed the use of net saleable CFC production to measure the achievement of the target in the Agreement for India in years other than 2005 and 2007. Consistent with this, the verification used the gross production level by applying the industry accepted norm of 0.92 per cent to the net saleable production reported by the producers to calculate the gross figures. It concluded that in 2008 the total CFC production in the country was 673.87 metric tonnes, which was about 97 per cent of the 690 metric tonne target in the Accelerated CFC Production Phase-out Plan.

44. The report described the methodology employed in the verification, which included site visits and a random check of pertinent records for consistency in reported results. The production log books and the laboratory and analytical records were correlated for the sample days to assess whether the records were appropriately maintained for the products that had been produced. Samples from existing stocks were taken for gas chromatography analysis for product identification. The verification team also held discussions with the plant personnel.

45. The report provided observations and results of the visit to each plant. It included an overview on the history and technology of the plant covering: audit methodology and the documentation and records investigated; samplings taken and related results; summary data for 2003 through 2008 on the production quota allocated; operating dates for CFC and in some cases HCFC-22 production, production of CFC-11 and CFC-12 and the percentage of quota fulfilled. The plant-specific report also provided comparative data between 2003-2008 on raw material consumption ratio between feedstock and CFC production and conclusions on the status of compliance with the allocated quota.

46. The verification team noted that all four CFC plants have either already had an HFC-23 destruction facility in operation on their premises, or are in the process of obtaining one in order to access funds from the CDM.

47. Finally, the report provided the results of the verification using the format for verification of ODS production phase-out, which includes a history of the production phase-out programme from the beginning and the results from the latest verification with data broken down by month on the number of operating days, raw material consumption, and CFC production tonnage.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

48. The World Bank submitted a request for the 2009 release of funding for the CFC production closure project but withdrew its request for the Accelerated CFC Production Sector funding pending the results of the import audit. The Secretariat suggested that the Accelerated CFC Production Sector Agreement should be submitted along with the request for the 2009 tranche of the CFC production sector. However, the Bank indicated that this was not required as part of the agreements and therefore the Secretariat is submitting only the request for the last tranche of the India CFC production closure project.

49. Although the total level of production is confirmed consistent with the Accelerated CFC Production Phase-out Plan, the level of sales of CFCs for MDI production is below the maximum level thus far since the allowance also includes the possibility of sales in both 2008 and 2009. The reported level of exports is also below the maximum level thus far as it also will include 2009 exports, and so the amount released into the market is within the allowable limits.

50. However, information was not available with respect to imports into India to verify the requirement of the agreement not to import virgin CFCs. The verification report confirmed that none of the CFC producing units had imported any new virgin CFCs during 2008. It did not provide import data or Article 7 data on imports, nor was the import audit provided.

51. Also, the Accelerated CFC Production Phase-out Plan requires a ban on production by 1 August 2008 and a prevention of the import of new/virgin CFCs. The 2009 work programme noted that either the ODS rules should be amended or the Government of India should issue an interim order to accommodate the requirements of the Accelerated Phase-out Plan.

52. Finally, the Accelerated CFC Production Phase-out Plan requires that India “ensure consistency of the consumption schedule of the Ozone Rules and the consumption limits in row 3 of Appendix 2 – A of the Agreement between India and the Executive Committee for the national phase-out of CFC consumption in India focusing on the refrigeration service sector”. Row 3 of Appendix 2-A limits levels of CFC consumption in 2008 (per Article 7) to 417 metric tonnes.

RECOMMENDATIONS

53. The Executive Committee may wish to consider deferring the request for the final tranche of the India production closure project pending the submission of Article 7 data for 2008 and the audit report associated with the Accelerated Production Sector Agreement.
