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

PROJECT PROPOSAL: INDIA

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

Phase-out

- CTC phase-out plan for the consumption and production sectors: 2011 verification report and work plan covering the funds remaining World Bank

Background

1. At its 40th meeting in July 2003, the Executive Committee approved, 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). At the 58th meeting, the final tranche of the project had been released. A summary of the CTC phase-out targets and funding tranches of the sector plan is presented in the following table:

Table1: CTC phase-out targets and funding provided

	Base-line	2003	2004	2005	2006	2007	2008	2009	2010
Max. allowable total consumption (ODP tonnes)	11,505	n/a	n/a	1,726	1,147	708	268	48	0
Max. allowable total production (ODP tonnes) for this agreement	11,553	n/a	n/a	1,726	1,147	708	268	48	-
World Bank agreed funding		8,520,843	9,180,112	399,045	9,556,267	4,020,938	3,211,875	3,211,874	-
France agreed funding		-	1,000,000	1,000,000	500,000	500,000	-	-	-
Germany agreed funding		-	700,000	700,000	300,000	300,000	-	-	-
Japan agreed funding		-	2,500,000	2,500,000	-	-	-	-	-
UNIDO agreed funding				3,500,000	399,046				
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	

2. India submitted to the 61st meeting a verification of CTC consumption and production for 2009, as well as an implementation report, and an implementation plan for the remaining funding. Through decision 61/18, the Executive Committee requested the World Bank to continue verification of the CTC phase-out plan for the consumption and production sectors in the country, using the established format, until verification of consumption and production for 2011 had been submitted. As a consequence, the World Bank has also submitted a 2011 verification report on the CTC sector in India. The verification report is not attached to this document but could be made available upon request.

3. Decision 65/10(j)(v) requested the World Bank, as the lead implementing agency, to provide a report on the implementation of the plan in time for the 66th meeting. The World Bank had informed in its submission to the 66th meeting that the remaining funds in the sector plan amounted to US \$1.4 million, and had submitted an implementation plan, which was subsequently withdrawn. In decision 66/15(j)(iv), the Executive Committee had requested the World Bank to provide to the 67th meeting a work plan. The World Bank submitted a work plan to the 67th meeting. However, subsequently the Government of India had asked that the submission be withdrawn as important stakeholders were not in agreement with the plan. The Executive Committee took decision 67/21 and requested the World Bank to submit a work plan to the next meeting. As a result, the World Bank has submitted, for consideration at the 68th meeting, a work plan covering the funds remaining for the CTC phase out plan, endorsed by the Government of India.

Proposed 2012/2013 work plan

4. The work plan covers the funds not yet committed, i.e. US \$1.12 million. The availability of funds is consistently diminishing due to expenses for the Programme Management Unit (PMU), verification and other on-going expenditures. The World Bank advised, that since 2010, no quota order for sale to non-feedstock uses had been issued by the Ozone Cell, there were no direct sales to non-feedstock users, and no CTC was imported or exported by the CTC producers. Activities directly related to the phase-out of CTC have been satisfactorily implemented, and India is in compliance with its

obligations under the Montreal Protocol with regard to phase-out of production and consumption of CTC. However, CTC will continue to be produced in India and used as a feedstock in line with the Montreal Protocol.

5. A number of technical assistance (TA) activities are proposed in the submission in order to ensure the sustainability of the CTC phase-out. These activities will provide the Government with tools and information regarding best practices to strengthen its ability to track further and manage CTC used as feedstock. The TA will also strengthen the Government in overseeing and supporting the industry and other users so that production for non-controlled uses can be avoided and release into the environment minimized.

6. The World Bank proposes to focus implementation on the following activities:

- (a) Assessment of current use of CTC for laboratory and analytical uses and alternatives: The World Bank assumes that use of CTC from stockpiles at laboratories currently takes place; such uses have not been investigated previously. The assessment will provide the Government as well as identified users with necessary information to plan and implement the phase-out of this use in the future. The budget foreseen for this effort is US \$130,000;
- (b) Training of State Governments and pollution control board officers to strengthen their capacity to monitor, report, and control production and, in particular, non-controlled use by the chemical industry, and to suppress potential consumption in controlled uses. A series of eight workshops at the regional level is envisaged for a total cost of US \$150,000;
- (c) In order to facilitate future reduction of production and emissions of CTC a study is planned, including assessments of the technical status quo in the different enterprises and options for improvement in the reduction of CTC co-production during chloromethanes production, and assessment of the feasibility of CTC conversion, with an associated budget of US \$120,000;
- (d) Two activities facilitating the sustainable use of CTC alternatives in the solvent sector, with a total associated budget of US \$430,000:
 - (i) A study looking at the existing market of CTC alternatives, their technical, health and safety characteristics, as well as their availability, with a view to informing the Government and its regulatory agencies as well as the CTC users about these important aspects when using these alternatives; and
 - (ii) Training to be undertaken for end users to understand the benefits of alternatives to CTC and overcome remaining technical and/or financial barriers to their efficient use. This activity is in particular targeted at industry and end users in all sub-sectors as well as suppliers of alternatives and at the Ozone Cell and regulatory agencies of the Government. In total, 32 training activities will be provided in ten different locations in the country;
- (e) Preparation and issuing of “A decade of ODS phase out”, a publication with particular focus on CTC phase-out, at a total cost of US \$10,000; and
- (f) Support for a PMU, in particular for on-going PMU activities to ensure oversight, documentation and sustainability of operation. As the project draws to a close, the PMU will have to carry out, in addition to on-going monitoring and management tasks, a

number of activities related to the finalisation of activities, ensuring orderly completion and sustainability. These activities, which might extend beyond the end of 2013, are budgeted at a total of US \$280,000.

Verification for the year 2011

7. The verification framework for this phase-out plan, which was developed by the World Bank and noted by the Executive Committee, requires the verification to be based on the Montreal Protocol definitions of production and consumption. It also requires the total annual CTC production, imports and exports to be covered, as well as the breakdown of CTC production for feedstock and non-feedstock applications. It includes 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.

8. The verification was carried out in May and June 2012 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 five years. Two of the members of the verification team have extensive experience in the chemical industry while the other two are knowledgeable in financial accounting.

9. The objectives of the verification was to confirm that the CTC production and consumption of controlled uses in 2011 had not exceeded the maximum allowable limits set in the agreement, namely zero 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, dichloro vinyl acid chloride (DVAC). The balance would represent the CTC consumption for non-feedstock uses controlled under the Montreal Protocol.

10. Prior to visiting the industries, the verification team collected information through the Ozone Cell of the Ministry of Environment and Forests that forwarded a questionnaire to each CTC producer and feedstock user for completion, which were then verified during site visits. The verification team visited the four CTC producers, nine (previously eight) DVAC producers, and one vinyl chloride monomer (VCM) producer. The findings of the verification team include the level of total CTC production, sales for feedstock and for controlled use, the feedstock use and the overall mass balance.

11. The findings of the verification for 2011 in comparison to the two previous years are as shown in the following Table 2.

Table 2: Findings of the verifications from 2009 to 2011

Year	2011	2010	2009
	(metric tonnes)		
Total CTC production	17,740	15,223	11,248
Feedstock use	17,001	16,424	15,792
Imports	0	417	1,593
Increase in stock	737	-785	-3,069
From current year production	17,740	15,223	11,130
Direct sales to non-feedstock users	0	0	113
Inventory built up from 2004; status at year end	0	48	48
CTC destroyed	0	0	0
Export of CTC	0	0	0

Note: Due to rounding errors, the mass balance incorrectly appears to have a differential of 2 metric tonnes (mt).

12. The verification found that sales to non-feedstock users were 0 mt.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

13. In the revised version of the work plan, as compared to the one discussed before the 67th meeting, the World Bank had removed three items, namely: a study on the management of CTC residues, process audits of CTC users to generate recommendations to reduce emissions, and a sustainable mechanism for monitoring of CTC production and use as feedstock. These were replaced by activities targeting small-scale users of CTC as solvent. The very widespread nature of CTC use in India principally justifies such an undertaking, despite the fact that the phase-out plan had implemented an exemplary and very large awareness, research and training campaign for small scale CTC users. The Secretariat therefore considers this undertaking to be eligible, and being closely related to the phase-out of CTC stipulated in the agreement.

14. At the end of 2009, the producers of CTC had a quantity of 48 ODP tonnes remaining from a 2004 stockpile, which in 2004 had already been reported as consumption but had not been used; consequently, a non-feedstock user could use this quantity without it constituting consumption. An originally larger amount of CTC stemming from 2004 had been tracked in the accounting since then. The 2010 verification report had informed that during 2010 there was no quota for non-feedstock sales available to CTC producers. The Secretariat, had prior to the 64th meeting, requested advice from the World Bank on whether this is due to a general policy of India not to issue any quotas for non-feedstock uses anymore in the future, and pointed out that in this case it might no longer be necessary to account for the related amounts separately. The World Bank replied that the quota for non-feedstock sales was available as part of the CTC phase-out programme until 2009. Since the phase-out programme has been completed, the Ozone Cell has not issued any quota for non-feedstock sales. The World Bank informed in June 2011 that the Government of India saw no need to maintain account of the quantity associated with the 2004 consumption.

15. Subsequent to this exchange an uncertainty about the possible consumption of CTC used in a VCM production plant arose, creating a potential non-compliance issue for India in relation to its CTC use. At that time, the Secretariat had decided to maintain the account of the CTC quantities related to the 2004 consumption for the potential benefit of India in any ensuing discussion about VCM use of CTC. The issue of the use of CTC in VCM production had subsequently been temporarily resolved in decision XXIII/7 of the Meeting of the Parties. The Secretariat also noted that, as part of its 2012 progress report, the Technology and Economic Assessment Panel had reviewed the case of VCM production and had concluded that the use of CTC might be better characterized as a feedstock rather than a process agent use. As a result, in concurrence with the information provided by the verifiers, the Secretariat has removed the 48 ODP tonnes of CTC remaining from the 2004 consumption from the monitoring of CTC quantities, and since this does not have any impact on compliance.

RECOMMENDATION

16. The Executive Committee may wish to consider:
- (a) Noting the 2011 verification report for phase-out in consumption and production of CTC in India;
 - (b) Approving the work plan for the remaining funding under the CTC phase-out plan for the consumption and production sectors in India; and

- (c) Requesting the World Bank, in case that by 31 August 2013 activities other than the Programme Management Unit support are not completed, or balances remain un-obligated, to provide to the 71st meeting of the Executive Committee a report on the implementation of the activities approved at the 68th meeting as well as a plan for the allocation of the remaining funding and for the completion of on-going activities.
