## INDIA - PHASE-OUT IN CONSUMPTION AND PRODUCTION OF CTC

# DRAFT 2006 ANNUAL IMPLEMENTATION PLAN

# OZONE CELL MINISTRY OF ENVIRONMENT AND FORESTS GOVERNMENT OF INDIA

**AND** 

THE WORLD BANK

15 May 2006

#### India CTC Phase-out in Consumption and Production 2006 Annual Implementation Plan Submitted to the 49<sup>th</sup> Executive Committee Meeting

#### **DATA SHEET**

COUNTRY:	INDIA			
PROJECT TITLE:	Phase-out in Consumption and			
	Production of CTC			
YEAR OF PLAN:	2006			
NO. OF YEARS COMPLETED:	2 (2004 - 2005)			
NO. OF YEARS REMAINIG UNDER THE PLAN:	4 (2006 – 2009)			
TARGET CTC CONSUMPTION IN 2005:	1726 ODP tons			
TARGET CTC PRODUCTION IN 2005:	1726 ODP tons			
TARGET CTC CONSUMPTION IN 2006:	1,147 ODP tons			
TARGET CTC PRODUCTION IN 2006:	1,147 ODP tons			
TOTAL FUNDING APPROVED IN PRINCIPLE	US\$ 52,000,000			
FOR THE CTC PHASEOUT PLAN	, ,,			
TOTAL FUNDING RELEASED AS OF DEC.2005	US\$ 30,000,000			
LEVEL OF FUNDING REQUESTED FOR 2006	US\$ 10,755,313			
ANNUAL PLAN;	(US\$ 9,556,267 for World Bank;			
	US\$ 500,000 for France;			
	US\$ 300,000 for Germany;			
	US\$ nil for Japan; and			
	US\$ 399,046 for UNIDO)			
NATIONAL IMPLEMENTING AGENCY:	Ozone Cell			
	Ministry of Environment and			
	Forests			
LEAD IMPLEMENTING AGENCY:	The World Bank			
CO-IMPLEMENTING AGENCIES:	France, Germany, Japan and			

#### PROJECT SUMMARY

**UNIDO** 

The CTC Sector Plan will completely phase out CTC consumption and production as defined by the Montreal Protocol, starting from the baseline levels of 11,505 and 11,553 ODP tons respectively, during the period 2004-2010. To achieve these targets, a series of investment, non-investment, technical assistance, and capacity building activities will be implemented by the World Bank, UNIDO and bilateral donors: France, Germany, and Japan. The 2006 Annual Implementation Plan will result in additional phase-out in both the consumption and production sectors which will enable India to achieve the production and consumption target of 1,147 ODP tons in 2006.

IMPACT OF PROJECT ON COUNTRY'S MONTREAL PROTOCOL OBLIGATIONS The project will enable the Government of India to meet its Montreal Protocol obligations.

#### Part I

#### 2005 Annual Program Accomplishments

#### A. Targets Met

The total production and consumption limits for CTC for non-feedstock applications were 1,726 ODP tons for calendar year 2005. Against this, actual consumption for CTC for non-feedstock applications is 1,657 ODP tons.

#### **B. Industry Action**

The CTC Phase-out Plan consists of investment and non-investment activities in both the consumption and production sectors. Activities in the consumption sector entail CTC phase-out in the process agents sector, and the solvent sector. The process agents sector consists of chlorinated rubber, chlorinated paraffin, pharmaceutical, and agro-industry sub-sectors. The solvent sector covers the textile and garment industry, metal cleaning industry, and chemical solvents sub-sectors.

In addition to the CTC phase-out in the production sector, activities under the process agents sector and chemical solvents will be implemented through the World Bank and UNIDO. The number of projects identified under the World Bank component in solvents and chemical process applications amount to about 82. 18 projects have been identified as the ones that would be assisted by UNIDO. Japan, through UNDP, is assigned to assist India to phase out CTC consumption at four large enterprises in the metal cleaning sub-sector. France and Germany are assigned to assist India phasing out CTC consumption at small enterprises in the textile and metal cleaning sub-sectors.

The Government of India decided on the funding breakup of production and consumption sector. Subsequently, the sub-project agreements were signed between the CTC producers and Government of India in June 2005. Sub-grant agreements are signed for individual projects in the CTC consumption sector which receive assistance from the World Bank. Till date, 6 sub-grant agreements have been signed in this component and about 47 projects are at advanced stages of approval from the Government. Project preparation activities are under progress in about 29 other enterprises.

In case of projects assisted by UNIDO and Government of Japan through UNDP, project implementation assistance is directly provided by UNIDO and Government of Japan through UNDP in terms of equipment procurement, commissioning, technical assistance etc. respectively to the enterprises that received assistance from these organizations.

For the World Bank projects, project assistance, including equipment procurement, commissioning, etc. is handled by the enterprises with support from consultants appointed by the enterprises. The project is reviewed by the Ozone Cell and endorsed for approval. The project completion is also confirmed by the Ozone Cell, based on independent review.

A 'quick-start' project implementation strategy was adopted by the Ozone Cell with assistance from the World Bank during project preparation. The objective of this strategy is to enable actual project implementation to proceed immediately after the signing of the Grant

Agreement. Based on this strategy, two consumption sector workshops were held in 2004 by the World Bank with Ozone Cell. This was followed up with one workshop held in 2005 on the project implementation procedures with the enterprises. Besides, interactions were constantly held with consultants, who are acting as nodal points, on project preparation pertaining to CTC phaseout.

As of end of 2005, a total of 104 CTC consuming projects (non-feedstock applications) have been identified. Of these, 82 enterprises will be assisted by the World Bank.

A summary table presenting the details of the number of enterprises which are at various stages of project preparation and approval under the CTC sector plan is given below.

Particulars	The World Bank	UNIDO	UNDP	Total
Total number	82	18	4	104
of projects				
Of the above:				
Project	29	3		32
preparation				
Review for	47			47
approval				
Project	6	15	4	25
implementation				

Note: Significant number of World Bank projects are at advanced stages of implementation (i.e., at review for approval). It is expected that most of the projects would be approved by middle of May 2006 and will move into project implementation stage.

#### World Bank implementation

World Bank provided support in finalization of monitoring and verification protocol implementation for establishing compliance of Government of India with CTC phaseout target. The trial verification activities were undertaken in October / November 2005 and the final verification mission was undertaken in February 2006. An MIS has also been designed by the World Bank to collect data on CTC material movements – domestic production and imports. Agreements were signed with the CTC producers for implementation of production sector control targets in June 2005. In addition to this, the World Bank provided support in facilitating project coordination and implementation of both production and consumption sector CTC phaseout activities in CY 2005.

Sub-grant agreements are signed for individual projects in the CTC consumption sector which receive assistance through the World Bank. Till date, 6 sub-grant agreements have been signed in this component and about 47 projects are at stages of approval from the Government. Project preparation activities are under progress in about 29 other enterprises. Significant number of World Bank projects are at review for approval. It is expected that most of the projects would be approved by middle of May 2006 and will move into project implementation stage.

#### Japan-UNDP implementation

Two separate missions were undertaken jointly by UNDP staff, solvent sector experts and a Japanese technical expert nominated by Japan's Ministry of Economic, Trade and Industry

(METI) in the year 2005 to visit plant sites of the four large CTC-consuming enterprises (Steel Authority of India Limited, Western Engineering, Nissan Copper, and Hindustan Metal and Tube) in the metal cleaning sub-sector. Ten plants owned by these four enterprises were visited by the missions. These included six of the nine plants (Bhilai Steel Plant, Bokaro Steel Limited, Durgapur Steel Plant, Indian Iron & Steel Company, Rourkela Steel Plant, and Salem Steel Plant) of the Steel Authority of India Limited (SAIL), two plants (New Delhi and Srinagar) of Western Engineering Co., one plant each of Nissan Copper Pvt. Ltd, and Hindustan Metal and Tube. The remaining three plants (Alloy Steels Plant, Maharashtra Elektrosmelt Limited, and Visvesvaraya Iron and Steel Limited) of SAIL had no longer consumed CTC as a solvent and were, therefore, not visited.

During the missions, specifications of equipment and design details were discussed with the project participants and necessary project design clarifications were provided. Terms of reference for equipment procurement were finalized at this stage. Pre inspection visits were also undertaken in April 2006 by the UNDP project unit prior to dispatch of equipment.

#### Germany/France-GTZ implementation

GTZ is assigned to undertake activities on behalf of Germany and France for CTC phase-out in small-scale enterprises in the textile and garment, and metal cleaning sub-sectors. As mentioned in the Annual Program for the calendar year 2005, GTZ had commenced technical assistance support activities in the textile and garment sectors already in 2004. The agreement between Government of Germany, Government of France and Government of India was signed in August 2005, and hence the metal sector activities could only be initiated thereafter. Subsequently, AFD on behalf of the Government of France and GTZ have entered into a financial agreement.

During 2005, GTZ has carried out a series of technical assistance workshops primarily to the target audience in textile manufacturing industry. These technical workshops focused on technical inputs on alternatives to the small scale enterprises. Primarily, the enterprises use CTC for stain removal in textile and garmenting. Following the successful laboratory testing of 29 substitutes for CTC as stain remover, on-site industrial testing were also undertaken for about 9 substitutes of CTC. Further testing of remaining substitutes is under preparation.

Pamphlets with details of the successful substitutes have been published and distributed to the textiles and garmenting sector.

Local institutions for conducting training programs have also been identified for providing technical assistance and dissemination of training on proper use of substitutes to the shop-floor managers. These institutions have been identified, primarily, based on their closeness with the industry and technical capability. During the year 2006, technical training is proposed to be conducted to "train the trainers" and thereafter launch its dissemination.

Given that the consumption of CTC has been identified in 3 major pockets - Coimbatore (located in south India), Maharashtra & Gujarat region (located in west India) and Haryana & Punjab (located in North India), activities were aligned with focus on these three areas. Significant work is in progress in the South since the past 2 years. Work has been initiated in the western part and with gaining of further insight and experience will be stretched to the north and east in the future.

In the metal sector, as a first step, a technical booklet on available alternative solvents along with their technical characteristics have been prepared and are being circulated. Further, upon gaining more insight into the different applications of CTC, a more appropriate edition is under consideration.

#### **UNIDO** Implementation

Companies under the UNIDO project portfolio were thoroughly investigated through the field mission by PMU and UNIDO followed by extensive review of the eligibility of each enterprise. Eleven companies have been identified as eligible and the project impact and the cost of the each project have been determined. Two companies were found as non-eligible, and the eligibility of another two companies are subject to further consideration as the production lines using CTC were already closed. In addition to the above fifteen enterprises, three enterprises have been identified for assistance by UNIDO.

Some of enterprises being assisted through UNIDO have already phased-out or significantly reduced the usage of CTC, whereas some of them are yet to phase out the CTC usage. Out of eleven enterprises under the implementation, most of them determined the alternative processes to current CTC-based processes, while two relatively small enterprises (producer of pyrophosphoril chloride) will have to find adequate alternative process.

#### C. Technical Assistance

#### **Project Management Unit (PMU)**

Contract was signed with a local consulting firm for manning and starting PMU operations. Over the last 14 months, the PMU has been in operations managing and coordinating production and consumption sector activities. The key activities implemented by PMU with assistance from the World Bank and under the supervision of Ozone Cell are:

- Finalisation of terms of operations of CTC production sector phaseout agreement and the related verification protocol based on residual consumption.
- Finalisation of quota order and issue of quota license for the calendar year 2005. Quotas for the calendar year 2006 have also been issued.
- Technical workshops with DVAcid manufacturers and CTC consumers on project implementation modalities.
- Finalisation of sub-grant agreement and indemnity bonds with the 5 CTC producers.
- Support for project review activities relating to CTC consuming enterprises in process agent and solvent sector.
- Initiation of verification of closure of enterprises which have stopped producing CTC namely National Rayons Corporation Limited and Shriram Rayons.
- Support in development of MIS for CTC production and consumption phaseout.

• Trial verification of CTC production and feedstock use in October / November 2005 and final verification in February 2006.

The appointment of a consulting firm to assist the PMU to verify CTC consumption of beneficiaries in the consumption sector was completed in 2004. This consulting firm undertook technical verification of sub-project proposals submitted by participating enterprises in 2005. Appointment of additional consulting organizations for CTC consumption sector project approval and closure are in progress.

#### **Development and Implementation of a Public Outreach Program**

A CTC Users Registration Drive was continued in the year 2005 till 31 December 2005 (which was the last date for registration). Primarily, these related to registration of CTC consumers and conversion of CTC users to non-ODS alternatives.

Detailed public outreach activities were undertaken by GTZ for assisting SMEs. A summary of the key activities undertaken by GTZ in the calendar year 2005 are given below:

Seminars	Technical assistance through industry seminars in major locations of the textile industry in the south with significant usage of CTC were conducted in 2005.
	Several seminars are in the pipeline for 2006, in collaboration with umbrella organization/association of different sectoral activities – both for textiles and metal cleaning sector.
	First such joint seminar with SISI was held February 2006 in Bangalore. The purpose of this seminar was identification of CTC consuming industries and briefing of associations and related Government agencies on CTC phaseout.
	GTZ is also soliciting cooperation from solvent producers and their dealers for facilitating entry to the different sectors.

Publications	
	Development of a <b>leaflet</b> for awareness creation among textile industries; 5,000 handouts in English and 3,000 in Tamil distributed till the end of 2004.
	Publication of an article on the phase-out of CTC in the textile industry in "Indian Silk" in MAR 2005, outreach: national.
	<b>New brochure</b> for textile industries developed in JUN 2005 and printed in 2,500 copies to share strategy for CTC phase out along with latest results on CTC substitutes.
	Publication of an article on the phase-out of CTC in "KASSIA News", in DEC 2005, outreach: Karnataka. Kannada translation published in FEB 2006.
	Development, review and finalisation of <b>booklet "Solvent Alternatives"</b> that metal cleaning sub-sector industries may consider as potential CTC substitute candidates. 500 copies have been printed. Dissemination commenced with the seminar held with SISI Bangalore in FEB 2006.
	Awareness creation was also taken up through publications in journals dedicated to concerned industries. 25 textile magazines were reviewed and 14 suitable publications shortlisted. Targeted articles will be published in these during the current year.
	Articles were also published in selected journals associated with the metal industry to inform the industry about the CTC phaseout project and means of approaching GTZ for assistance. Dialogue was also initiated with Madras Printers' & Lithographers' Association to publish article on the current project.
Website	Website is being updated with the latest testing results of CTC substitutes for textiles and garment industry. Solvents alternative booklet is also available on the website. The website is being periodically updated with new developments and results.
Equipment	Technical inputs were provided to one industry to undertake manufacturing of a low-cost stain removing workstation. First prototype was used during the first Training of Trainers workshop. Further development is in progress.
Trainings	A comprehensive package on stain removal using CTC substitutes was prepared w in collaboration with Textiles committee. The first of series of training of trainers was conducted at the end of 2005, where 16 trainers from selected training institutions having close interaction with the industry were trained. Methodology to further disseminate these trainings to shop floor managers with the help of the trained trainees is being explored
Video	The video from UNEP on "Save the ozone layer- Every action counts" was adapted for CTC phase out project. A dubbed version in Hindi vernacular is also available.

#### **Development of a Management Information System**

MIS design was undertaken by the World Bank with support from the Ozone Cell based on previously collected inputs and discussions / consultations with the key stakeholders i.e., CTC producers, feedstock users (DV Acid manufacturers and CFC producers), IDBI. The MIS was designed using UNIX as the operating system. This has been "e-enabled" with a dedicated static IP address. The MIS server has been hosted in Ozone Cell – PMU.

The MIS has been designed to capture data of producers, feedstock users and consumers. Storage agent data is also proposed to be captured in the MIS. The data would be entered on a quarterly basis and would be consolidated on an annual basis. During the year 2005, some teething problems were faced in terms of setting-up the system due to security issues and fine-tuning of data entry. Separate login ids and passwords are proposed to be given to CTC producers and feedstock users so that they can directly enter their CTC data from their plants.

Project monitoring is proposed to be undertaken through the MIS for the consumption sector. The MIS has been designed to enable tracking of project progress in the consumption sector. The data on consumption sector project is being uploaded in the system.

In parallel, GTZ has also developed an MIS system focusing on the small scale users of CTC, their associations. The effort is being made to ensure that the salient outputs from this MIS can be integrated with the one being developed by the Ozone Cell/PMU/ the World Bank, with the assistance from the Bank.

## D. <u>Summary of Government Actions Taken in CY 2005 and key activities undertaken in</u> the first quarter of the year 2006

Agreements between the Government of India and Bilateral Agencies – Arrangements between the Government of India and bilateral agencies were signed in 2005 after formal approval from the Governments of Germany and France. GTZ is the designated implementing agency for implementing the bilateral component of Governments of Germany and France.

<u>Sub-Grant Agreement between the Government of India and CTC producers</u> – The grant sharing between CTC producers and consumers was finalized in February 2005. Subsequently, the sub-grant agreements were signed with the CTC producers along with the indemnity bond. Prior to signature of the sub-grant agreements, the Quota Order for CTC production for non-feedstock applications was finalized and the quotas for the calendar year 2005 were issued to the CTC producers. Quota license for the calendar year 2006 were also issued in March 2006.

<u>Verification Framework</u> – The framework prepared by India and the World Bank was submitted for the consideration of the Executive Committee in 2004. Subsequently, the verification framework was detailed and consultations were held with the CTC producers. This was fine-tuned based on the inputs and the final verification format was developed in the first half of the year 2005.

This verification framework was used for trial verification for the first three quarters of the calendar year 2005. Based on the findings, additional modifications were done and the

formats were used for the final verification for the calendar year 2005 (this was completed in February / March 2006). **Trial verification process is a useful process and helped the industry in better appreciation of the verification protocol and related procedures.** 

Registration of CTC Producers, Importers, and Exporters – Registration of ODS users was reopened until December 31, 2005. Only registered users and producers of CTC will be eligible for assistance under the project including project funding. This registration drive was primarily aimed at large and medium scale enterprises consuming or producing CTC. The Ozone Cell/PMU is in the process of compiling registration information coming from local government authorities. Currently, about 182 enterprises are registered.

<u>Import Quota System for CTC</u> – Import of CTC for feedstock applications will continue and any imports for applications controlled by the Montreal Protocol will continue to be prohibited. Imports are allowed only for CTC used for feedstock applications.

<u>CTC Production Quota System</u> – CTC production quota order for the calendar year 2005 was issued in May 2005. The production quotas for 2005 were given to the CTC producers. Based on the verification protocol methodology, production and sale of CTC from producers for non-feedstock applications is controlled through quota order and subject to verification.

#### E. 2005 Budget and Financial Performance

As indicated earlier, the break-up of CTC production and consumption was decided by Government of India. The Government of India has the flexibility of allocating funds to consumption sector projects depending upon the demand in the industry. In light of this, the budget and commitments of funds for the calendar year 2005 are given below.

Particulars	Allocation in USD	Budget till and for – CY 2005	Commitment till CY 2005
CTC production sector	28,500,000	13,000,000	11,400,000
Technical assistance			
component	2,000,000	300,000	300,000
World Bank - consumption	7,600,954	4,800,000	4,950,000
UNIDO - consumption			
sector	3,899,046	3,500,000	2,800,000
Government of Japan -			
consn.	5,000,000	5,000,000	4,000,000
Government of Germany -			
consn	2,000,000	1,400,000	273,906
Government of France -			
consn	3,000,000	2,000,000	*)
			(To be
Total	52,000,000	30,000,000	completed)

<sup>\*)</sup> After signing of the agreement between the Governments of India, Germany and France, activities had been launched in the amount of approx. USD 100,000 but actual expenditures will be accounted in 2006 only.

# Part II 2006 Annual Program

#### F. Target consumption in 2006 in ODP tons

Indicators		Preceding Year (2005)	Year of Plan (2006) <sup>(1)</sup>
Supply of CTC	Import	_	-
	Production	1,726	1,147
	Total	1,726	1,147
Demand of CTC	Process Agents	860	
	Solvent	866	
	Total	1,726	

<sup>(1)</sup> Import of CTC is allowed for feedstock purposes and since it is not controlled under Montreal Protocol, it is not included in the above table.

#### **G. Industry Action**

The Ozone Cell/PMU will continue its outreach program to create awareness of the available financial assistance for eligible enterprises, and more importantly, the Government's policy to restrict the production and supply of CTC for non-feedstock applications. The focus for the current year would be:

- Maintain the momentum of CTC phaseout in production sector.
- Accelerate implementation of consumption sector projects.

Conversions of metal cleaning processes at four major CTC users (SAIL, Western Engineering, Nissan Copper, and Hindustan Metal and Tube) are at very advanced stages of completion. This has resulted in a permanent phase-out of 533 ODP tons. The enterprises have confirmed discontinuation of CTC use in the calendar year 2005.

GTZ, on behalf of Germany and France, will intensify its outreach program among small scale users of CTC in the textile and metal cleaning industry, to create awareness of available CTC alternatives in textiles industry that have already been tested successfully in 2004. Furthermore, GTZ will provide direct assistance to the 'metal cleaning' industry to replace the use of CTC to non-CTC alternatives, through survey of the different applications, identification and assessment of alternatives as well as information dissemination.

<sup>(2)</sup> Targets for both production and consumption are in ODP tons. The targets for production and consumption are based on the definitions of production and consumption as defined by the Montreal Protocol (excluding production for feedstock and excluding consumption of CTC produced in the previous years).

Sector	Consumption in 2001 (1)	Consumption Year of Plan (2)	Reduction within Year of Plan (1)-(2)	Number of Projects Completed	Number of Servicing Related Activities	ODS Phase- out (ODP tons)
Process Agents	1,916	1,147	5,514	18		5,514
Solvent	4,745			30		
Total	6,661	1,147	5,514			5,514

- (1) Consumption in 2001 as reported in the project document.
- (2) Targeted consumption in 2006 is defined in accordance with the definition of consumption as defined by the Montreal Protocol (excluding the use of CTC in the inventories at the end of the year).

#### H. Technical Assistance

#### **Project Management Unit (PMU)**

A Project Management Unit was staffed in the first quarter of 2005. The PMU will continue carrying out CTC production and consumption phaseout activities in the year 2006. The focus of PMU will be on the following:

- Implementation of quota system for non-feedstock use of CTC
- Implementation of CTC consumption phaseout projects
- MIS implementation through "e-based" system
- Regulatory and policy interventions to facilitate and control CTC phaseout. This includes inclusion of definition of feedstock in the Ozone Rules, 2000, regulations relating to monitoring measures for feedstock use, import of CTC etc.

For small scale users of CTC in the textile and metal cleaning sectors, GTZ has been actively involved in CTC phaseout facilitation activities. These activities will continue with particular emphasis on greater reach and technology transfer on non-ODS use in solvent sector.

#### **Technical Assistance for CTC Consuming Enterprises**

In addition to PMU's assistance to prepare project proposals that meets minimum information requirements by the project as mentioned above, technical assistance has provisions to assist CTC consuming enterprises to identify non-CTC alternative technology through support from national experts, whenever such a need arises. This is undertaken on specific requests by the industry and PMU provides inputs for facilitating the same. UNIDO and UNDP provide technical support through their experts in project implementation to the CTC consuming enterprises assisted by them.

For small scale CTC users in the textile and metal cleaning industry, technical assistance will be provided to enterprises by GTZ. The focus would be on training the local industries in achieving phaseout targets, increasing awareness and identifying other consumers of CTC, if any, for addressing them through phaseout activities.

No.	Planned Activity	Objective	Impact
1	Awareness activities including publication of articles in local languages	Create an understanding for the imminent change in CTC and alternatives availability	Greater levels of awareness on CTC alternatives.
2	Technical services to be provided by national experts	Assist enterprises to determine alternatives that are safe and environmentally sound	<ul> <li>Expedited implementation of projects.</li> <li>Technology inputs, where necessary.</li> </ul>
3	Continue search for available alternatives for the textile industry	Identification of potential alternatives	Identification of more alternatives
4	Conduct training workshops for the trainers	Train technical personnel on awareness building on CTC phaseout and related technology transfer	Greater outreach in a cost effective manner at regional level
5	Conduct training workshops through trainers for the small and medium scale enterprises	Facilitate tech. transfer to small and medium scale enterprises	Carrying out activities with assistance from technical experts.

In the process agent sector, UNIDO will complete implementation of projects at the following enterprises which are receiving assistance from UNIDO. The table below shows CTC usage trend of enterpises under UNIDO assistance.

Table. CTC Usage by enterprises under the UNIDO assistance, in ODP tonnes

Sl. No.	Name of the enterprise	2001	Phase-out date
1	EID Parry – Coromandel Fertilisers Limited	137.50	Q2 2006
2	Avon Organics Limited *	79.20	Dec-'04
3	Hindustan Insecticides Limited	76.09	Mar-05
4	Unilab Chemicals and Pharmaceuticals Private Limited	44.11	1999
5	Nikava Pharmaceutical Industries	41.36	2006
6	Rajesh Chemicals	36.74	2006
7	Saurav Chemicals Limited	33.99	before 2004
8	Leeds Kem	26.23	2006
9	Panchsheel Organic Limited #	24.20	2006
10	Kemix Chemicals Ambernath Private Limited	9.90	2006
11	Innova Laboratories	7.70	May-05

Sl. No.	Name of the enterprise	2001	Phase-out date
12	Dharamasi Morarji Chemicals	45.10	line closed
13	Kedia Organics Private Limited	199.00	line closed
14	Dr. Reddys Laboratories Limited	28.60	tbd*
15	Balarji Pharma	26.40	no use
	TOTAL	2817.12	

<sup>\*</sup> To be decided.

While activities are at various stages of implementation in each of the project, it is expected that project implementation activities would be completed in the calendar year 2006.

Four enterprises identified in the original list of 15 enterprises assisted by UNIDO were not supported due to reasons indicated below.

**Balarji Pharma** – the enterprise has closed down and the facilities were sold to another company for manufacturing products which do not consume CTC.

**Dharamsi Morarji** –The enterprise has been requested to confirm that they have stopped consuming CTC due to ODS phaseout impact. Based on the explanations provided by the company, they could be considered under the phaseout plan.

**Kedia organics** – the project structure changed. The company, instead of converting to non-ODS alternative, has closed their facility. Given that this is a major change, it has been decided to bring it to the notice of Excom. Discussions are underway for possible assistance.

**Dr. Reddy's Laboratories** – started consuming CTC from the calendar year 2002.

Total funding approved for projects in the above enterprises is USD 2.8 million. Given this scenario, three additional enterprises have been identified for implementation of CTC phaseout project by UNIDO. The enterprises are expected to submit basic project information including CTC consumption levels by end of May / early June 2006. In consultation with Government of India, these projects would be considered by UNIDO during the calendar year 2006.

UNDP will provide assistance to complete the existing projects by the calendar year 2006. Given the savings in funding available under the bilateral contribution of the Government of Japan, additional projects may also be implemented by UNDP at the request of Ozone Cell.

#### **Planned Phase-out Impact by Agency**

Implementing agency	ODP to be phased out (ODP Tons)	Status of phase-out achieved by end of 2005 (estimated see comment below)
UNIDO	816	Expected to be completely addressed by end of 2006. Achieved phase-out – 511 ODP tons.
Government of Japan	484	Phased out during 2005.
The World Bank	1033	Expected to be completely addressed by end of 2006. Achieved phase-out – 762 ODP tons.
Government of Germany & France	3600	Expected to be addressed over the next three years. Proposed to be addressed through technical support, equipment assistance etc.@

<sup>@</sup> Note: Consumption reduction is also expected to be accelerated through a combination of CTC price levels vis-à-vis substitutes as well as supply controls. As estimation of consumption at individual enterprise levels is difficult (except for large enterprises), residual consumption is used the basis for compliance target monitoring.

#### **Planned Government Actions in 2006**

Activities	Outcomes
Inter-agency coordination	Coordination of activities across implementing agencies.
meeting	Finalisation of Annual Program for the year 2006.
Implementation of CTC	Control on production and consumption of CTC and
consumption and production	achievement of targets for the calendar year 2006.
verification system	
Facilitate project preparation	Reduces country's dependence on CTC and results in
and implementation for CTC	significant reduction in CTC use in the year 2006.
consumption projects	significant reduction in 616 use in the year 2000.
MIS implementation	Updation of data for the calendar year 2006.
_	Systems and infrastructure upgradation for ensuring data
	security and uptime.
Coordination with customs on	Greater control on import of CTC for non-feedstock
imports of CTC	applications.
	Higher levels of awareness on CTC controls among
	customs officers.
Operations and management of	Implementation of PMU TA activities – focus on
PMU activities	accelerated ODS phaseout in CTC consumption sector.

Key activities of the Government executed in 2006 are summarized in table below.

NO.	POLICY/ACTIVITY PLANNED	EXPECTED SCHEDULE OF IMPLEMENTATION	KEY ACTIONS
1.	Production and Sales Quota Licenses for the calendar year 2006	Jan – Mar 2006	Issue of quota order
2.	Implementation of Standard Protocol for Verification of CTC Production and Consumption	Ongoing	Based on previous year's audit findings, implementation of verification protocol with appropriate modifications, if any.
3.	Restriction of CTC Imports	Ongoing	Cooperation between MoEF and Customs Office will be strengthened. The objective is to improve controls on CTC imports for feedstock applications.

The Government of India proposes to get support Government of Germany and France for specifically designed assistance to CTC consumers in metal cleaning sector. The modalities of the same are being separately finalised with the respective bilateral agencies.

#### J. 2006 Budget and Planned Disbursement

Particulars	Allocation in USD	Disb / commt till Dec. 2005	Commt. For CY 2006		
Particulars	USD	un Dec. 2005	C1 2000		
CTC production sector	28,500,000	13,000,000	7,800,000		
Technical assistance	20,500,000	13,000,000	7,000,000		
component	2,000,000	300,000	600,000		
World Bank – consumption					
– solvents & chemicals	7,600,954	4,800,000	1,156,267		
UNIDO - consumption –					
process agent	3,899,046	3,500,000	399,046		
Government of Japan –					
consumption – metal clng.	5,000,000	4,000,000	1,000,000		
Government of Germany –					
consumption – textiles and					
garment sectors	2,000,000	273,906	472,173		
Government of France –					
consumption – metal					
cleaning sector	3,000,000	0	657,333		
Total	52,000,000	25,873,906	12,084,819		

### K. Sources of Funds

The sources of funds and the related budgets for the lead implementing agency and cooperating agencies for the calendar year 2006 are given below.

Annual Funding Tranche	Agonov	Resource Allocations by Annual Funding Tranche (US\$)							Total
Annual Funding Tranche	Agency	2003	2004	2005	2006	2007	2008	2009	IOIAI
2005 Implementation Work Plan	World Bank	8,520,843	1,479,157						10,000,000
2006 Implementation Work Plan	World Bank	-	7,700,955	399,045	8,756,267				16,856,267
Future Year Implementation Work Plans	World Bank	-	-		800,000	4,020,938	3,211,875	3,211,874	11,244,687
Sub-Total	World Bank	8,520,843	9,180,112	399,045	9,556,267	4,020,938	3,211,875	3,211,874	38,100,954
2005 Implementation Work Plan	UNIDO			3,500,000					3,500,000
2006 Implementation Work Plan	UNIDO				399,046				399,046
Future Year Implementation Work Plans	UNIDO								-
Sub-Total	UNIDO			3,500,000	399,046				3,899,046
2005 Implementation Work Plan	France								-
2006 Implementation Work Plan	France		657,333						657,333
Future Year Implementation Work Plans	France		342,667	1,000,000	500,000	500,000			2,342,667
Sub-Total	France		1,000,000	1,000,000	500,000	500,000			3,000,000
2004 Implementation Work Plan	Germany		92,000						92,000
2005 Implementation Work Plan	Germany		181,906						181,906
2006 Implementation Work Plan	Germany		426,094	46,079					472,173

Annual Funding Tranche	Agonov	Resource Allocations by Annual Funding Tranche (US\$)							Total
Annual Funding Tranche	Agency	2003	2004	2005	2006	2007	2008	2009	TOLAI
Future Year Implementation Work Plans	Germany			653,921	300,000	300,000			1,253,921
Sub-Total	Germany		700,000	700,000	300,000	300,000			2,000,000
2005 Implementation Work Plan	Japan		2,500,000	1,500,000					4,000,000
2006 Implementation Work Plan	Japan			1,000,000					1,000,000
Future Year Implementation Work Plans	Japan								-
Sub-Total	Japan		2,500,000	2,500,000					5,000,000
Total		8,520,843	13,380,112	8,099,045	10,755,313	4,820,938	3,211,875	3,211,874	52,000,000

\*The figures marked in yellow are the actual disbursement that have already been made.

Note: For the planning purposes, the projected disbursement to support the 2006 annual implementation plan could come from the 2006 annual funding tranche or previous year funding

tranches for which full disbursement has not been reached.