VI. PROJECT RESULTS AND RESOURCES FRAMEWORK

This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD: 2. The country will have achieved a development model that considers the preservation of the environment, sustainable use of natural resources and the reduction of vulnerability and risk for current and future generations.					
Country Programme Outcome Indicators: Initiatives implemented and strengthened capacities for environmental management and pollution reduction with emphasis on the most vulnerable populations.					
Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): Preservation of the environment and reducing vulnerability.					
Applicable GEF Strategic Objective and Program: 3. Pilot sound chemicals management and Mercury reduction					
Applicable GEF Expected Outcomes: 1.3 Country capacity built to effectively manage Mercury in priority sectors					
Applicable GEF Outcome Indicators: 3.1.1 Countries implement pilot mercury management and reduction activities.					
	Indicator	**Baseline**	**Targets End of Project**	**Source of verification**	**Risks and Assumptions**
Project Objective The objective of the project is protect human health and the environment from Mercury releases originating from the intentional use of mercury in products and the unsound management and disposal of such products	No. of Hg-containing medical devices and energy saving light sources decontaminated and disposed of within the project period (2014 – 2017). Quantity (kg) of elemental Hg safeguarded which has been recovered from the decontamination process.	In Uruguay there are no adequate storage, decontamination and disposal solutions in place for Mercury containing product waste. Most of such wastes are disposed of along with regular household waste. If not disposed of, such wastes are kept in inappropriate interim storage locations. Current “stockpiles” (underestimated) are described in the	In total the project expects to recover 330 kg of Mercury as a direct outcome of the project’s implementation. In addition, changed practices will also result in sustained Mercury reductions of approximately 72.5 kg Hg/year. Elemental Hg recovered from treatment/decontamination has been safely stored (at the Chlor-Alkali facility), exported to a long-term storage facility or immobilized using appropriate technologies.	Certificates of destruction. Logbook of the decontamination facility.	It is assumed that the disposal of current stockpiles will be financed by the stockholders as co-financing to the project. **Risk**: Low It is assumed that stockpiles will be used to test the operation of the decontamination facility and operate it until all the stockpiles have been disposed of before the decontamination facility will start treating the waste flow from the project’s model facilities (healthcare, dental and large public entities) before expanding services to the general public.

		project's baseline and on page 8 footnote 9[32].			**Risk**: Low
	Safe decontamination options for Mercury containing products established. Safe interim storage (to serve decontamination facility) for Mercury containing products established. Environmental and bio-monitoring programme developed.	In the whole of Uruguay there are no options for the sound decontamination, storage or disposal of Mercury containing products.	Treatment facility constructed (in-line with Basel Convention guidelines and in compliance with national regulations). Interim storage facility establish/upgraded to serve the decontamination facility for storage of Hg-containing wastes prior to treatment (in-line with BC guidelines and in compliance with national regulations). Environmental and bio-monitoring programme in place to monitor Hg levels in air, soil, water as well as in biological samples (in the decontamination facility, interim storage, final storage of elemental Mercury as well as in the immediate surroundings)	Photos and videos of the established treatment facility in operation. Copy of approved EIA, as well as construction and operation permits. Logged laboratory results for air, soil, water of facility and immediate surroundings as well as bio-monitoring of facility staff indicates levels that are well within safety margins.	Financial proposal for the decontamination and retorting facility submitted during the int. bidding procedures do not exceed budget restrictions. **Risk**: High Municipalities will allow disposal of decontaminated crushed products at municipal landfills. **Risk**: Low Private sector enterprises are interested in operating the decontamination facility (and continue to operate the facility after the project comes to an end) following the successful implementation of financial incentives making the operation of the facility financially sustainable (EPR, taxes, polluter-pays, etc). **Risk**: Medium Decontamination, interim storage and long term storage of elemental Mercury is undertaken according to national and international best practices, even after the project has come to an end. **Risk**: Medium
Outcome 1 Strengthen the	National Extended Producer Responsibility (EPR) policy and	There are no financial mechanisms in place that promote the LCM	EPR for Hg-containing lamps established as a tool to provide for the financial resources necessary to cover operational costs of the	EPR degree drafted and submitted for approval.	EPR regulations will preferably be adopted and become operational before the treatment facility will start

[32] Putting in place import restrictions on high-mercury content light sources is likely to result in a 50% reduction of mercury emissions from energy efficient light sources (equivalent to ~ 15 kg/yr based on 2010 import), while import restriction on Hg containing medical devices could result in reducing yearly Hg emissions by a mínimum of 57.5 kg/yr (based on 2010 minimum emissions from imported Hg containing thermometers alone). In total adding up to 72.5 kg/yr. In addition the project will improve Hg waste practices at 12-15 project model facilities. Which might result in further reductions of an average 2 kg Hg/yr per facility (based on baseline assessments carried out as part of the UNIDO project).

regulatory and policy framework to allow for life-cycle management of mercury containing products and their wastes. (Equivalent to activity in ATLAS)	regulations for mercury containing products adopted and introduced.	of Hg containing lamps (CFLs and tubes).	collection, interim storage, decontamination and disposal of Hg-containing lamps costs.		treating the day-to-day flow of CFLs and tubes. **Risk**: Medium
	Strengthened policy and regulatory framework to enable the phase-out/down of mercury containing products and encourage Hg-free or lower level Hg products.	There are no restrictions on the importation of high Hg-content lamps (CFLs, tubes) or Hg-containing medical devices. Guidelines on the management, storage and disposal of Hg containing lamps are not available. In 2011, a guideline was developed on the management of mercury waste for implementation at hospital level. However, in most facilities, Hg management practices have not improved. Guidelines on the management of dental amalgam are not available.	National plan(s) on the LCM of mercury containing products (CFLs/tubes; medical devices; dental amalgam) developed. National workshop held to present the national action plans on LCM of Hg containing products. Guidelines for the management, storage and disposal of mercury containing products developed for large public and private entities developed. EU RoHS directives for lighting products transposed into national regulations through a degree (restricting importation of high Hg content lamps). MSP degree prescribing a phased approach/total phase-out for the use of Hg-containing devices at Health-care facility level developed.	National plan(s) on LCM of Hg containing products published. Attendance sheets of the workshop. Guidelines for the management, storage and disposal of Hg containing products published and disseminated. Degree restricting importation of high Hg content light sources submitted for approval. MSP degree prescribing a phased approach for the phase-out of Hg-containing devices at Health-care facility level submitted for approval.	Importers/distributors of low Hg content lamps and government agencies are eager to restrict import of high Mg content lamps. **Risk**: Low The Ministry of Health (MSP) and ASSE are willing to support a phase-out of Mg-containing devices, on the condition that cost-effective alternatives and solutions for the final disposal of Hg containing devices are available and operational. **Risk:** Medium
	Improved adherence to the sound collection, (temp.) storage and treatment of products containing mercury (in particular project partners and model facilities)	Annexes of the BC have been transposed in the Hazardous Waste Law (law 17.220/1999), which refers in specific to hazardous waste streams including waste containing mercury and regulates storage, transportation and disposal of hazardous waste, including Hg containing products. No norm is available	Guidelines and legal provisions with respect to the sound collection, (temp.) storage and treatment of products containing mercury (and the storage of elemental mercury), will be reviewed based on int. best practices (Basel Convention) and revised/developed if necessary.	Guidelines and legal provisions related to LCM have been published.	All necessary guidelines and legal provisions are in place that allow for the proper LCM of Hg-containing products as undertaken and supported as part of the project. **Risk**: Medium.

		that regulates the decontamination of Hg containing products.			
Outcome 2 Development of environmentally sound schemes and business models for the collection, treatment and disposal of mercury wastes	Mercury releases from priority sectors reduced and segregated Hg containing waste streams augmented. Number of private sector operators, model healthcare facilities and PCTP staff capacitated in best practices related to collection, storage, treatment of Hg containing products and long-term safe storage of elemental Mercury, as well as the use of cost-effective Hg-free or low-Mercury content alternatives (if applicable)	Current "stockpiles" (underestimated) are described in the project's baseline and on page 8 footnote 9[32]. Some model facilities have waste management committees in place (a few of the HCFs), but most do not. None of the model facilities have Hg management or phase-out plans in place, waste is either improperly stored or disposed of. Cost-effective Hg-free alternatives for medical devices and low Hg content CFLs and tubes are available in the country.	Waste management committees operationalized in each model facility. Hg baseline assessments (procurement, use, management, disposal, storage, etc) completed for each model facility. Mercury management and phase-out plans developed and implemented at each model facilities. 500 personnel of model facilities trained in LCM of Hg containing wastes and waste products. Study on staff preferences on cost-effective Hg-free alternatives conducted at the model HCFs. Mercury-free alternatives introduced at the project's model HCFs through adaptation of procurement practices. Collection systems for Hg containing products operational.	List of committee members and copy of regular meeting minutes available. Baseline reports available for each model facility. Hg management and phase-out plans available for each facility. Certificates of training completion and attendance sheets of training sessions. Report of staff preference study available. Certificates of destruction. Logbooks of the model facilities and the decontamination facility.	HCFs and their personnel are eager to phase-out Hg-containing medical devices. **Risk**: Low Facilities holding vast "stockpiles" of Hg-containing product waste are willing to cover disposal costs as co-financing contribution to the project. **Risk**: medium As co-financing, facilities allocate adequate storage space for interim Hg-waste storage, appoint waste management committee members, and allocate staff time to participate in training on Hg LCM, staff preferences study as well as the use of Hg-free alternatives. **Risk**: Low
	Business models and cost recovery arrangements (CRA) for the collection, transport, temporary storage and treatment of different types of Hg wastes operational and financially sustainable.	There are no financial mechanisms in place to cover the costs for the LCM of Hg containing lamps (CFLs and tubes).	Business plan for the collection, transport, temporary storage and treatment of different types of Hg wastes finalized. Assessment of potential Cost-Recovery Mechanisms including recommendations for tax tariffs, tax modalities and channeling of funds, completed (to inform drafting of EPR degree). 30 personnel of private sector entities trained in LCM of Hg containing wastes and waste products. Bidding process for private sector operators completed.	Business plan presented to Project Steering Committee and approved. Assessment report completed and findings presented to Ministry of Commerce. Certificates of training completion and attendance sheets of training sessions. Supporting documentation of bidding procedures. Certificates of destruction.	CRA will be put into place early on in the project to ensure financial sustainability for the collection, interim storage, decontamination and disposal of Hg-containing lamps costs. **Risk**: High

			Business operations launched (collection, transportation, interim storage and treatment).	Logbooks of the model facilities and the decontamination facility.	
Component 3: Strengthening technical capacity and infrastructure for the treatment and storage (medium – and long- term) of Mercury containing wastes.	Technology to treat collected Hg containing product waste operational.	In the whole of Uruguay there are no options for the treatment of Mercury containing products.	Technical specifications for the treatment facility, (in-line with Basel Convention guidelines and in compliance with national regulations), developed. International procurement process for technology successfully completed. Operational procedures for the treatment technology developed and implemented. 2 - 3 private sector operators and 30 PCTP staff trained in the safe operation of the treatment facility/technology. Operation of decontamination facility officially launched.	EIA concluded and approved. Construction and operation permits in place. International bidding documentation available. Operational procedures for the treatment technology available. Photos and videos of the established treatment facility in operation. Certificates of training completion and attendance sheets of training sessions.	Technologies that meet the technical specifications are available for the level of funding available under the project component. **Risk**: High At least three technology providers have submitted technical proposals in response to the int. request for proposals that meet the technical specifications for the decontamination facility. **Risk**: High
	Intermediate Hg storage options established and long-term storage options identified.	In the whole of Uruguay there are no safe options for the sound interim storage of Mercury containing products/wastes or the long-term storage of elemental Mercury.	Assessment for short-term, interim and long-term storage and disposal options completed. Operational procedures developed and implemented for the management of storage facilities/spaces. Safe interim storage spaces for Mercury containing products available/established at model facilities and PCTP and staff trained in the safe management of storage spaces. Safe long-term storage of recovered elemental Mercury established (in-line with BC guidelines and in compliance with national regulations)[33].	Report on the assessment on storage and disposal options has been published. Photos and video materials of all storage facilities (at PCTP, model facilities, etc.) available. Air, water/leachate and soil monitoring as well as bio-monitoring of staff in close contact with Hg storage spaces indicates Hg levels that are below MAC. Storage facility and landfill (for decontaminated waste) logbooks.	Municipalities will allow disposal of decontaminated crushed products at municipal landfills. **Risk**: Low Interim storage of Hg containing wastes and long-term storage of elemental Mercury is undertaken according to national and international best practices, even after the project has come to an end. **Risk**: Medium

[33] This aspect is optional and depends on the type of treatment technology selected. If a decontamination facility is opted for, a solution for the storage or use of recovered elemental Hg needs to be identified, however if the project opts for a Hg immobilization technology/process, this project aspect will not be necessary.

Component 4: Strengthening national and regional awareness on the Sound Life-Cycle Management of Mercury containing products as well as associated health hazards resulting from mismanagement	National capacity to monitor Mercury levels in populations strengthened.	As part of a CIAT/USAID pilot project (2006) bio-monitoring of Mercury levels in healthcare staff was undertaken by CIAT's poison control center at a model facility. PCTP is currently capable of monitoring Hg in environmental media, and have at their disposal a Jerome analyzer for air monitoring. The country has no continuous/frequent monitoring system in place for Hg levels. The country has no capacity for analyzing Hg levels in biological samples.	Technical specifications for PCTP/CIAT bio-monitoring laboratory equipment prepared. International procurement process successfully completed. Protocol for sampling and analysis of Hg in water, soils, air and biological samples developed and CIAT/PCTP personnel/staff trained in sampling and conducting analysis. "Population-at-risk" study completed (samples analyzed and results interpreted by CIAT/PCTP) and results published. Continuous environmental and bio-monitoring programme developed for project model facilities (treatment facility, storage facilities and maintenance/storage staff) to analyze Hg levels in air, soil, water as well as in biological samples frequently and beyond project duration.	International bidding documentation and photos of the installed laboratory equipment available. Sampling/analysis protocol available and approved by int. expert. Results of population study published (preferably in a scientific journal). Environmental and bio-monitoring programme launched for model facilities.	Model facilities are willing to have staff tested as part of the bio-monitoring study -who might be at a high risk of Mercury exposure. **Risk**: Medium Sufficient project funding will be available to ensure frequent monitoring/sampling of storage spaces and personnel in close contact with Hg containing wastes, and costs for the environmental and bio-monitoring programme are internalized into PCTPs business plan to ensure continuation beyond the project's duration. **Risk**: Low
	Awareness on LCM of Mercury containing products increased among project stakeholders, the general public and countries at regional and global level.	BCCC LAC has a website which it uses for information dissemination. BCCC LAC also leads a network of national Basel Convention Centers through which information on hazardous waste management can be disseminated.	Website and Facebook page developed and regularly updated (English and Spanish). Project related documentation (legislation, guidelines, national plans, model facility plans, operational and testing protocols, Hg monitoring studies, etc.) all published on the project website and disseminated among regional and int. partners. Side event organized at a chemicals-related COP (Basel, Minamata) to present project results and lessons-learned. Video on the LCM of Mercury management produced at the end of project implementation to share lessons-learned.	Project related documentation, photos and videos posted on the project's website and Facebook page.	BCCC LAC is able to develop a website and Facebook page in both English and Spanish which has a significant outreach. **Risk**: Low
Component 5: Monitoring, adaptive	Number of high quality monitoring and evaluation	No documents in baseline situation.	4 Quarterly Operational Reports submitted to UNDP each year	Reports submitted to UNDP	It is assumed that the project manager will prepare all the reports that are

feedback, outreach and evaluation.	documents prepared during project implementation		1 annual APR/PIR submitted to UNDP each year. 1 Mid-term project review. 1 Final evaluation. MTE and FE must include a lessons learned section and a strategy for dissemination of project results.		required by the GEF and UNDP. **Risk**: Low