UNIDO

Summery of PCB Cluster Final Evaluation

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Environmentally sound management
and final disposal of PCBs

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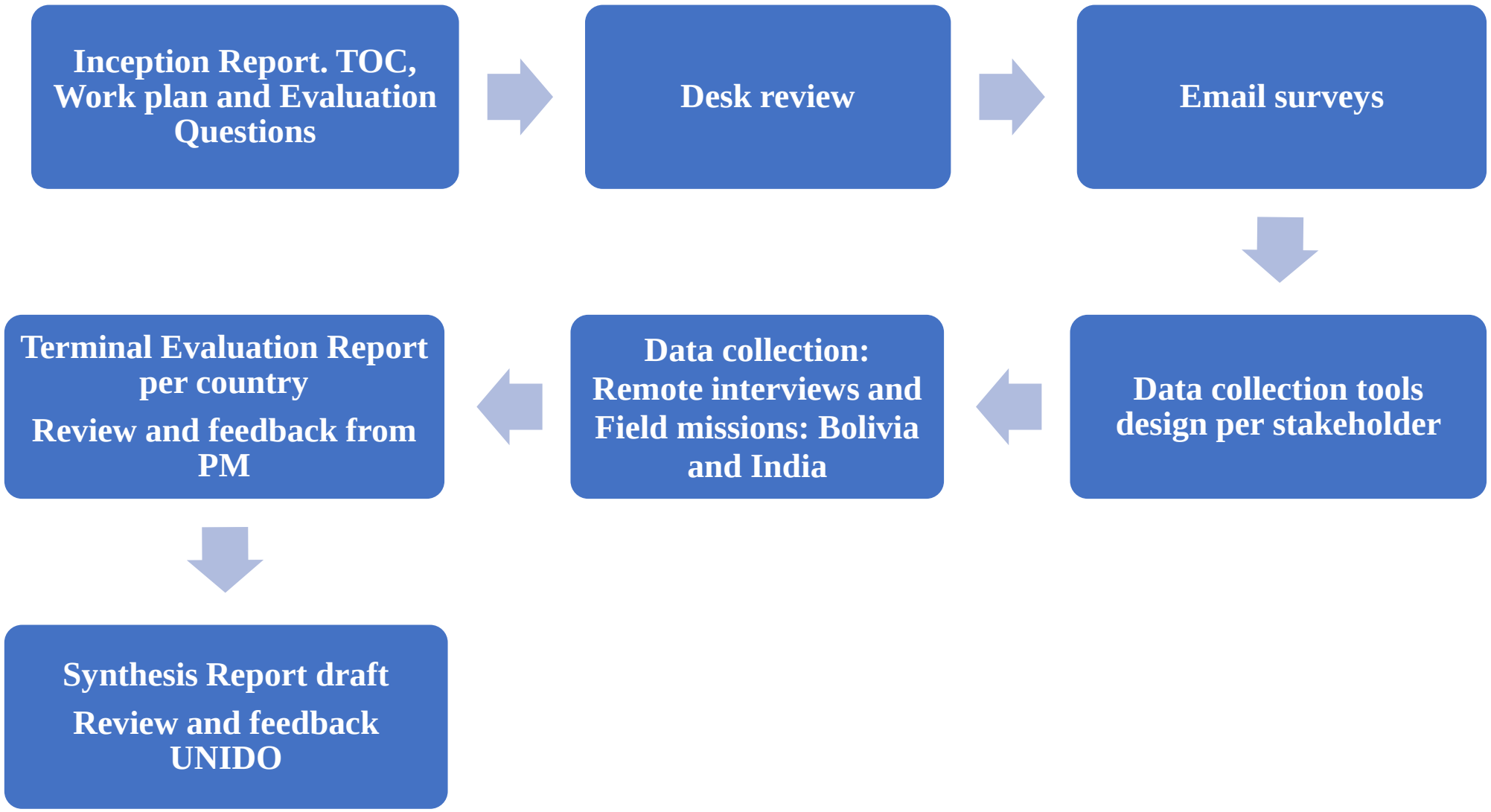
1. Background and Methodology

Region	Country	UNIDO ID	GEF ID	Project budget (USD)	Start	Duration - Months	Disposal Ton
EUR	SERBIA	100313	4877	2,100,000	2015	48	200
EUR	RUSSIAN FEDERATION	140019	4915	7,400,000	2014	54	3800
ASP	INDIA	104044	3775	14,100,000	2010	60	7700
ASP	LAO PDR	140157	4782	1,400,000	2014	48	250
LAC	BOLIVIA	140296	5646	2,000,000	2014	36	400
LAC	GUATEMALA	140298	5816	2,000,000	2016	36	15 DDT
							400 PCB
AFR	CONGO	140160	5325	975,000	2015	36	200
AFR	MOROCCO	170117	9916	1,826,484	2017	36	613 PCB equipment
							2.4 PCB oils

Serbia: Environmentally sound management and final disposal of PCBs

1. Background and Methodology



3. Main Findings

1. Project Design and preparatory phase

Some strengths:

- For all countries, participatory approach and appropriate organizational structures to effectively address PCB problems.
- Gaps assessment and needs analysis done
- Project logical frameworks with SMART indicators to monitor progress

Rating for Project Design: Serbia S

2. Relevance and Coherence

- Projects assisting the countries to fulfill their obligations with regard to the Stockholm Convention in phasing out and eliminating PCBs by 2028
- Projects in line with National Development Plans and Sustainable Development Strategies of the countries
- Projects demonstrate coherence with identified PCB management issues and gaps in the countries
- Projects consistent with GEF-5 Chemicals FA objective "Phase out POPs and reduce POPs releases“
- Projects align with UNIDO priorities and mandates, and the renewed mandate on Inclusive and Sustainable Industrial Development

Rating for Relevance and Coherence: Serbia HS

3 - Main Findings

3. Achievement of outputs and outcomes

The eight projects aimed to strengthen the regulatory framework, raise awareness, and build capacity for the environmentally sound management (ESM) of PCBs.

Serbia performed satisfactorily (**S**), meeting targets for all outputs and outcomes.

Countries	**Bolivia**	**Congo**	**Guatemala**	**India**	**Laos**	**Morocco**	**Russia**	**Serbia**
Delivery outputs	MS	MS	S	MU	MS	MS	MS	S
Achievement of outcomes	S	MU	S	MU	MS	MS	MS	S
Project objective	PA	PA	A	PA	PA	PA	PA	A
Effectiveness	MS	MS	S	MU	MS	MS	MS	S

3 - Main Findings

4. Effectiveness. Project Main Information for Efficiency Analysis

Country	Start date	Planned Duration (months)	Actual End date	Actual duration (months)	Additional time (months)	% deviation	Project budget (USD)	Expenditure (USD)	Expenditure (%)
BOLIVIA	02.2015	36	12.2022	95	59	+163.8	2,000,000	1,946,299 (06.2022)	97.31
CONGO	06.2015	36	12.2022	91	55	+152.7	975,000	896,400 (PIR 2022)	91.93
GUATE-MALA	01.2016	36	12.2022	83	47	+130.5	2,000,000	1,774,673 (12.2022)	89.00
INDIA	01.2010	60	12.2023	164	104	+173.3	14,100,000	13,105,159 (12.2022)	92.94
LAO	05.2014	48	06.2023	108	60	+125.0	1,400,000	1,212,960 (12.2022)	86.64
MOROCCO	01.2018	36	11.2023	70	34	+94.4	1,826,484	1,773,350 (02.2023)	97.09
RUSSIA	02.2014	54	12.2022	104	50	+92.59	7,400,000	7,370,279 (06.2022)	99.59
SERBIA	02.2015	48	11.2023	106	58	+120.8	2,100,000	1,600,000 (01.2023)	76.19

NOTE. Serbia funds utilization at 86% reflects the situation when the evaluation was taking place. The funds utilization will be 100% by November 2023.

3 - Main Findings

Progress towards impact

Country	Targeted amount of POP to be disposed of	Actual amount of POPs disposed of
Bolivia	400 tons of PCB	149.6 tons
Congo	200 tons of PCB	100 tons of PCB to be treated
Guatemala	15 tons of DDT	19.32 tons of DDT
	400 tons of PCB	364.85 tons
India	7000 tons of PCB	417 tons
Lao PDR	250 tons of PCB-contaminated equipment	Decontamination not yet started
Morocco	613 tons of highly PCB-contaminated equipment	63 tons of 250 tons already done
	1740 lowly PCB-contaminated transformers	Only 220 tons to be treated, not done yet
Russia	3800 tons of PCB-contaminated equipment	No figures available, target not achieved
Serbia	200 tons of PCB-contaminated equipment	Target exceeded, 648 tons disposed of
Total	**12,878 tons of POPs and 1740 lowly PCB-contaminated transformers**	**2,419 tons of POPs**

Country	Approach adopted for PCB disposal	Destruction cost ($/ton)
Bolivia	TREDI contracted: local dechlorination for lowly contaminated equipment Exportation for pure PCBs and highly contaminated equipment The company contracted a local partner INAMTRADES	No information
Congo	Fuera contracted for retrofilling	$4,500 per ton (equipment + oil)
Guatemala	SETCAR contracted for local dechlorination for lowly-PCB contaminated equipment Exportation of highly PCB-contaminated equipment The company contracted a local partner REPELSA	$5,000 per ton
India	Procurement and establishing BAT technologies: dechlorination unit for lowly contaminated equipment. Plasma technology for pure PCB and highly contaminated dielectric oils	Lowly contaminated equipment: $2,850 per ton (equipment + oil)
Lao	SETCAR contracted for decontamination	$4,850 per ton (oil only)
Morocco	MME contracted for lowly contaminated equipment Exportation for pure PCBs and highly contaminated equipment	$2,045 per ton (equipment + oil) $ 1856 (equipment + oil)
Russia	Procurement and establishing BAT technologies: dechlorination unit for lowly contaminated equipment. Plasma technology for pure PCB and highly contaminated dielectric oils	$ 3,700* per ton (equipment + oil)
Serbia	Establishment of PCB decontamination unit by Nicola Tesla Institution	$ 842 per ton (equipment + oil)

3 - Main Findings

5. Efficiency

The projects faced significant delays requiring double the planned time in many cases. The reasons for these delays vary across projects and include the following

- Slow start
- Reorganizations or changes in relevant ministries and authorities
- Challenges faced during inventory
- COVID-19 disruptions
- Delays in technology or specialist entry
- Low awareness of partners on the requirements of the SC
- Political unrest
- Change of technology owner or change of site
- Delays for in-country official approvals and permits for construction

Rating for Efficiency: Serbia S

3 - Main Findings

6. Risks and Sustainability

Serbia project risks are low, and the sustainability of the results is ensured. **Ratings for Sustainability**: Serbia L

7. Gender

Women's participation was active in all projects; some representatives of key stakeholders were women. Women were involved in capacity-building and awareness activities, and in almost all cases, the targets were reached.

In Serbia the projects designed specific materials that addressed women's and children's health issues related to PCB risks; and both projects have made successful efforts to involve women in different project activities, for example, inventory and analysis at the laboratory and preparation of course material at the university in Lao, and members of consortium dealing with disposal, disposal technology and composition of the NPMU in Serbia. **Ratings for Gender**: Serbia S

8. Monitoring & Evaluation

The M&E System design and budget of all the projects were well designed and distributed. The main products expected were the annual plans and the PIRs, which were delivered and approved; sometimes, the reports were delivered late due to delays or extensions. Serbia carried out the MTR according to the work plan.

Ratings for M&E: Serbia: **S**

4. Overall Assessment

	Evaluation criteria	Bol	RP	Gua	Ind	Lao	Mor	RF	Ser
A	**Impact (progress)**	**S**	**MS**	**S**	**MS**	**MS**	**MS**	**MS**	**S**
B	**Project design**	**S**	**MS**	**S**	**S**	**S**	**MS**	**S**	**S**
1	· Overall design	S	MU	HS	S	S	MS	S	S
2	· Logframe	S	S	S	S	S	S	S	S
C	**Project performance**	**MS**	**MS**	**S**			**MS**	**MS**	
1	· Relevance	HS	HS	HS	HS	HS	HS	HS	HS
2	· Effectiveness	MS	MS	S	MU	MS	MS	MS	S
3	· Coherence	HS	S	HS	HS	HS	S	S	
4	· Efficiency	MS	MU	S	MU	MU	MS	MS	S
5	· Sustainability	ML	ML	ML	L	L	L	L	L
D	**Cross-cutting performance criteria**	**S**		**HS**					
1	· Gender mainstreaming	MS	S	S	S	HS	S	S	S
2	· M&E: Design and Implementation	S	MS	HS	MU	S	S	S	S
3	· Results- based Management	HS	S	HS	MU	MU	S	S	S
E	**Performance of partners**	**S**		**HS**					**S**
1	· UNIDO	HS	MS	HS	MS	S	MS	S	S
2	· National counterparts	MS	MS	S	S	S	S	S	HS
3	· Donor	HS	S	HS	S	S	S	S	S
	· PCB owners	HS		HS					
	Overall assessment	**MS**	**MS**	**S**	**MS**	**MS**	**S**	**MS**	**S**

Rating for Overall Assessment: Serbia S

5. Recommendations

1. Documentation of co-finance: Project managers should ensure that national counterparts and other local partners provide complete information on co-financing periodically. If necessary, adequate guidance (e.g development of template for materialized co-financing) should be provided.

2. Budget: When designing projects, project managers should allocate adequate budgets and pledge the proper type of co-financing contribution from partners and counterparts to ensure successful delivery of goods and products that would contribute to meeting objectives.

3. Gender mainstreaming: During project formulation and implementation, PMs should ensure the appropriate involvement of both genders in project activities and track those activities.

4. Knowledge management: Projects should design and ensure a proper knowledge management system for exchange and transfer of knowledge during project implementation, and for transfer of knowledge after project completion.

5. Information management: Similar to knowledge management, projects should plan and integrate a proper information management system.

6. **M&E - Medium Term Reviews:** In case of delays, PMs should consider an additional MTR or other convenient activities such as self-evaluations depending on the project performance, stakeholders' participation, reasons for delays and project stage.

6. Good Practices

Serbia:

- In-country Institute Nikola Tesla has produced the mobile PCB-decontamination unit itself, and was a member of the consortium which won the tender for PCB-disposal in the country.
- Taking the gender aspect into consideration, a special brochure was prepared for pregnant women about the effects of PCBs on pregnant women.

7. Lessons Learned

Serbia:

- The availability of a national institution, the Faculty of Technology and Metallurgy, which is capable of taking up the role of the National Executing Agency is seen as being conducive to project implementation in the country. One advantage noticed in the implementing modality of this project is that the Faculty is a Legal Entity and can make its own contracts, has a separate bank account, a Legal Department as well as an Accounting Department.
- National human and technical expertise, including certified laboratory and personnel, have proven to be highly conducive to achieving the Outputs, Outcomes and Project Objective.

THANK YOU!