GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

PSBs Serbia

50 YEARS | TOGETH
for a sustainable f

Environmentally sound management and final disposal of PCBs in the Republic of Serbia

UNIDO ID: 100313 i GEF ID: 4877

PMU

Belgrade, December 2016

Univerzitet u Beogradu

Република Србија
МИНИСТАРСТВО
ПОЉОПРИВРЕДЕ И ЗАШТИТЕ
ЖИВОТНЕ СРЕДИНЕ

CČPS

Project overall objectives

The overall objective of this project is to protect human health and the environment by reducing and eliminating the releases of and exposure to PCBs through establishment of an environmentally sound PCB management system including final disposal of 200 tons of PCB contaminated equipment.

The project is co-financed by Global Environmental Facility (GEF), Electric Power Company of Serbia (EPS), Serbian Railways and by the Ministry of Agriculture and Environmental Protection of Serbia (MoAEP).

Expected project duration is four years.

Faculty of Technology and Metallurgy University of Belgrade is Project Management Unit (PMU) and the Ministry of Agriculture and Environmental Protection is National Execution Agency (NEA).

Project partners

- Global Environmental Facility (GEF)
- Implementing Agency UNIDO - Vienna
- Ministry of Agriculture and Environmental Protection
- Faculty of Technology and Metallurgy
- Electric-Power Company of Serbia (EPS)
- Serbian Railways (ZS)

Project management structure

The budget

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Overall project budget: 11,189,600 US$

- GEF financing: 2,100,000 US$
- Co-financing: 9,089,600 US$
  - EPS: 8,000,000 US$
  - ZS: 438,800 US$
  - Ministry (MoAEP): 650,800 US$

Distribution of co-financing

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JP EPS 8,000,000 US$ (in kind 6,400,000 and 1,600,000 in cash):

Decontamination of PCB contaminated equipment, substitution of transformers (end of life), purchase of new transformers

JP Železnice Srbije 438,800 US$ (in kind 187,000 and 251,800 in cash):

The inventory of PCB contaminated equipment and study on environmentally sound management of PCB equipment

MoAEP 650,800 US$ (in kind 559,600 and 91,200 in cash):

Remediation of PCB contamination at FIAT automotive site in Kragujevac and human resources to support the project

GEF contribution breakdown – managed by UNIDO

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UNIDO 1,596,925 US$

- Inventory of PCB contaminated equipment
- Purchase of PCB test kits
- Investigation of PCB contaminated site
- Pilot remediation of contaminated site within the Public Private Partnership scheme
- Decontamination of 200 tons of PCB contaminated equipment
- International experts

GEF contribution breakdown – managed by PMU FTM

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PMU – FTM	**503,075** US$
• National travel	67,800 US$
• National experts	354,200 US$
• National meetings	55,500 US$
• International meetings	5,500 US$
• Equipment	6,000 US$
• Miscellaneous 14,075US$	
Project management cost	103,900 US$

Project components

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(Output 1)

- Strengthening of national coordination mechanism by improving the existing system for the environmentally sound management of waste and chemicals;
- Establishing the legal, regulatory and political framework for environmentally sound management of PCBs;

(Output 2)

- Building the institutional capacity for environmentally sound management of PCBs;
- Monitoring and training related to PCBs;
- Establishing and improving analytical capacities for monitoring of PCBs;
- Raising awareness among the general population and target groups;
- Establishing sustainable mechanism for management of PCBs;

(Output 3)

- Detailed inventory of waste and equipment containing PCBs;
- Sampling of equipment, waste and stocks
- Establishing inventory of waste, stocks, contaminated equipment and polluted sites

Project components - continued

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(Output 4)

- Establishing possible technical solutions for final disposal of the equipment, insulating oils and waste containing low concentrations of PCBs;
- Selection of the most adequate BAT / BEP PCB disposal technologies with respect to the local conditions;
- Decontamination and/or final disposal of 200 tons of contaminated equipment

(Output 5)

- Integration of Public Private Partnership scheme in the framework of national plan for the contaminated sites;
- Selection of the most adequate BAT / BEP options for remediation of PCB contaminated soil;
- Pilot decontamination of a selected site;
- Developing national priorities and strategy for PCB contaminated sites

Project timeline

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Outcomes/Outputs/Activities	2016				2017				2018				2019				2020
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Outcome 1:																	
Output 1.1																	
Output 1.2																	
Outcome 2																	
Output 2.1																	
Output 2.2																	
Output 2.3																	
Output 2.4																	
Output 2.5																	
Outcome 3																	
Output 3.1																	
Output 3.2																	
Output 3.3																	
Output 3.4																	
Outcome 4																	
Output 4.1																	
Output 4.2																	
Output 4.3																	
Output 4.4																	
Output 4.5																	
Outcome 5																	
Output 5.1																	
Output 5.2																	
Output 5.3																	
Output 5.4																	
Output 5.5																	
Outcome 6																	
Output 6.1																	
Output 6.2																	

Outputs completed within first period of 6 months

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All Outputs are draft documents prior to the adoption by Project Steering Committee

Output 1.1.

- Copies of the existing laws and regulations
- The analysis of the legal framework related to PCBs and recommendations to bridge the existing gaps

Output 2.1.

- Roles and responsibilities of the relevant state bodies and agencies

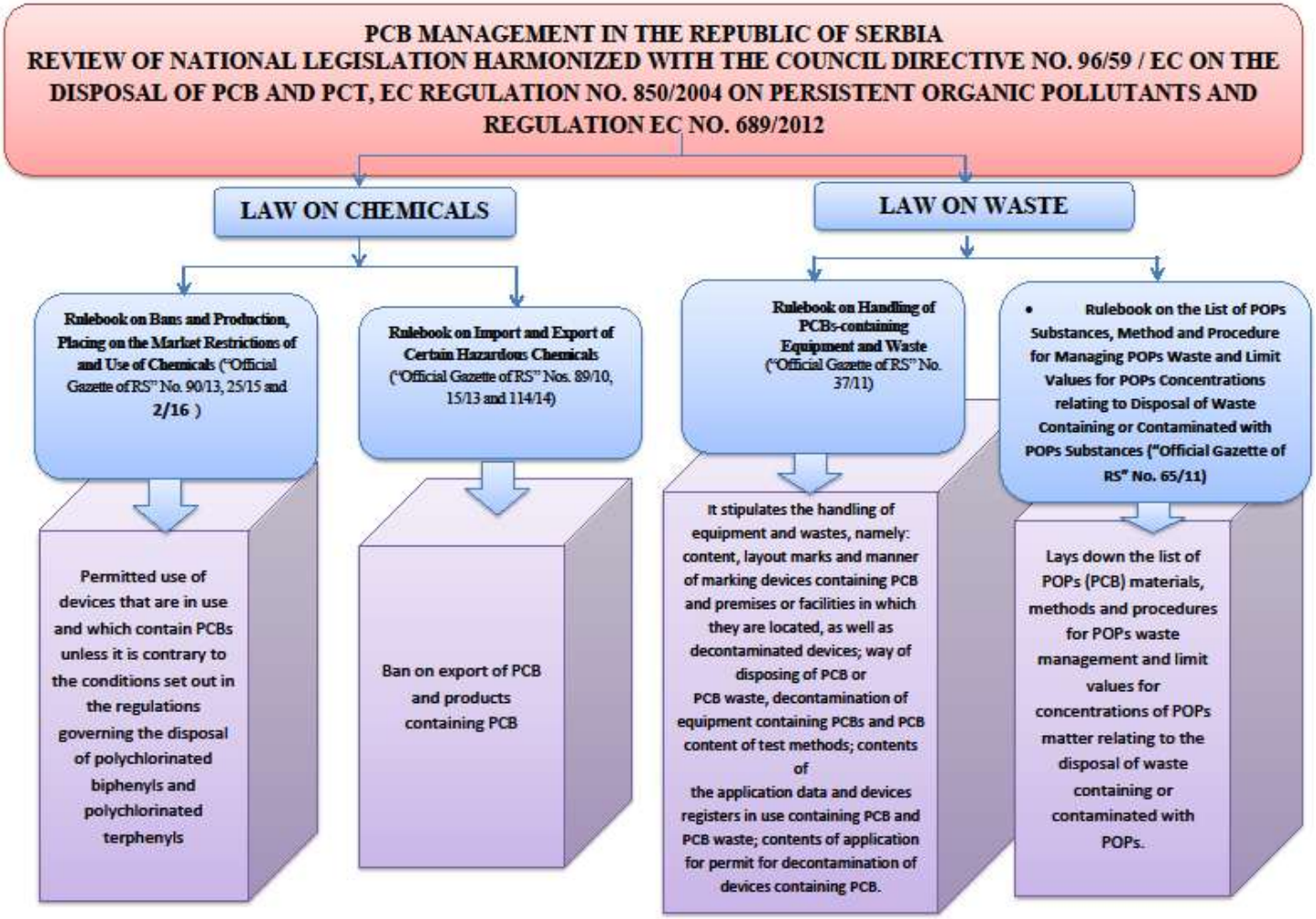
Output 5.1.

- Terms of Reference for PCB contaminated site investigation
- Potentially contaminated site visits (Minel Trafo Mladenovac, former Minel Dinamo Čukarica, RTB Bor)

Output 2.4.

- Web site: www.PCBsSerbia.rs

Output 1.1


PCB MANAGEMENT IN THE REPUBLIC OF SERBIA
REVIEW OF NATIONAL LEGISLATION HARMONIZED WITH THE COUNCIL DIRECTIVE NO. 96/59 / EC ON THE DISPOSAL OF PCB AND PCT, EC REGULATION NO. 850/2004 ON PERSISTENT ORGANIC POLLUTANTS AND REGULATION EC NO. 689/2012
LAW ON CHEMICALS
LAW ON WASTE
Rulebook on Bans and Production, Placing on the Market Restrictions of and Use of Chemicals ("Official Gazette of RS" No. 90/13, 25/15 and 2/16)
Rulebook on Import and Export of Certain Hazardous Chemicals ("Official Gazette of RS" Nos. 89/10, 15/13 and 114/14)
Rulebook on Handling of PCBs-containing Equipment and Waste ("Official Gazette of RS" No. 37/11)
Rulebook on the List of POPs Substances, Method and Procedure for Managing POPs Waste and Limit Values for POPs Concentrations relating to Disposal of Waste Containing or Contaminated with POPs Substances ("Official Gazette of RS" No. 65/11)
Permitted use of devices that are in use and which contain PCBs unless it is contrary to the conditions set out in the regulations governing the disposal of polychlorinated biphenyls and polychlorinated terphenyls
Ban on export of PCB and products containing PCB
It stipulates the handling of equipment and wastes, namely: content, layout marks and manner of marking devices containing PCB and premises or facilities in which they are located, as well as decontaminated devices; way of disposing of PCB or PCB waste, decontamination of equipment containing PCBs and PCB content of test methods; contents of the application data and devices registers in use containing PCB and PCB waste; contents of application for permit for decontamination of devices containing PCB.
Lays down the list of POPs (PCB) materials, methods and procedures for POPs waste management and limit values for concentrations of POPs matter relating to the disposal of waste containing or contaminated with POPs.

Output 2.1

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Jurisdiction over the implementation of the articles of the Stockholm Convention	Article 3 SC Measures to reduce or eliminate releases from intentional production and use	Article 6 SC Measures to reduce or eliminate releases from stockpiles and wastes	Article 7 SC Implementation plans	Article 11 SC Research, development and monitoring	Article 15 SC Reporting	Article 16 SC Effectiveness evaluation
Ministry of Agriculture and Environmental Protection Department for Chemicals						
Ministry of Agriculture and Environmental Protection Department for Waste Management						
Ministry of Agriculture and Environmental Protection Department for Natural Resources Protection- Group for the protection and monitoring of land, rehabilitation and remediation of the environment from the effects of erosion and torrents						
Ministry of Agriculture and Environmental Protection SEP - Aationanal Registry of emition sources Department						
Ministry of Agriculture and Environmental Protection SEPA Department for Quality Control of water, sediments and soil; National Laboratory Department						
Ministry of Agriculture and Environmental Protection SEPA - National Registry of emissions sources Department, Division for indicators and reporting						
Ministry of Agriculture and Environmental Protection Enforcement: Environmental Protection inspection						
Ministry of Agriculture and Environmental Protection Division for Air and Ozone Layer Protection						
Ministry of Agriculture and Environmental Protection Division for water Protection						
Ministry of Agriculture and Environmental Protection Department for Integrated Permits						
Ministry of Agriculture and Environmental Protection Directorate for Water						
Ministry of Health						
Custom Administration – Ministry of Finance						
Ministry of Mining and Energy Enforcement: Energy and Electro energetic inspection						
Ministry of Education, Science and Technological Development						

Output 5.1

Output 5.1

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Output 5.1

Web site


www.pcbserbia.rs
PCBs Serbia
Karnegijeva 4, 11120 Beograd, Srbija
(+381) 11 3303-707 (or 708)
SR
EN
O nama
POPs hemikalije
Stokholmska Konvencija
PCBs kontaminacija
PCBs informacije
Korisne informacije
Novosti
Kontakt
Prijava
PCBs
PROČITAJ VIŠE
NOVOSTI
06. okt. 2016.
Sve vesti
Novost 2
U izradi...
PROČITAJ VIŠE
NOVOSTI
07. jul 2016.
Sve vesti
ISWA svetski kongres 2016
PCBs Srbija tim je učestvovao na svetskom kongresu o upravljanju otpadom ISWA 2016, održanog u Novom Sadu od 19. - 21. septembra 2016.
PROČITAJ VIŠE
O nama
Cilj ove stranice je da da osnovne i tehničke informacije o polihlorovanim bifenilima poznatim kao PCB jedinjenjao kao i o njihovom uticaju na zdravlje ljudi i životnu sredinu. Osnovni cilj je da se javnost u Srbiji upozna sa Nacionalnim implementacionim planom za zbrinjavanje PCB kontaminacija, zakonskim propisima i regulativama kako u Republici Srbiji tako i u Svetu. Ova stranicam ima za cilj da pomogne svim vlasnicima PCB kontamininranih uređaja i otpada i da ih usmeri na zakonske propise i procedure, tehničke i sigurnosne procedure za pravilno rukovanje i zbrinjavanje PCB kontaminiranih ulja, opreme, zemljišta i da ih uputi na relevantne institucije i provajdere.
U saradnji sa Globalnim fondom za zaštitu životne sredine (GEF) i Organizacija Ujedinjenih nacija za industrijski razvoj (UNIDO) formiran je projekat „Pravilno upravljanje i finalno odlaganje PCB-a" UNIDO ID: 100313 i GEF ID: 4877).
Glavni cilj projekta je da se zaštiti zdravlje ljudi i životna sredina smanjenjem i odstranjivanjem ispuštanja ili izlaganja polihlorovanim bifenilima (PCB). Ovo će se postići kroz uspostavljanje sistema za upravljanje i konačno odlaganje 200 tona opreme kontaminirane PCB-om. Projekat je kofinansiran od strane GEF, Elektroprivrede Srbije (EPS) i od Ministarstva poljoprivrede i zaštite životne sredine Republike Srbije a izvodi ga Tehnološko-metalurški fakultet Univerziteta u Beogradu (TMF). TMF određen je za upravljačku jedinicu projekta (PMU), dok je Ministarstvo određeno za Nacionalnu izvršnu agenciju (NEA).
Republika Srbija je 31.07.2009.godine ratifikovala Stokholmsku konvenciju i samim tim preuzela na sebe da će raditi na eliminaciji PCB. Kroz Akcioni plan za RSV, koji je urađen kroz Nacionalni Implementacioni Plan (NIP) za Stokholmsku konvenciju, su definisane aktivnosti koje su identifikovane kroz Projekat Pravilno upravljanje i finalno odlaganje PCB (Environmentally sound management and final disposal of PCBs).

Second Project period

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Output 1.1	• Revised legal framework including draft proposals of revised regulations and laws
	• Meeting minutes with gender-segregated participant lists to finalize the draft proposals
Output 1.2	• Technical guidelines, protocols, and standard operating procedures draft
Output 2.1	• Training meeting report with a gender-segregated participant list for a training session for all relevant institutions about their roles and responsibilities at the national level
Output 2.2	• Documents indicating PCB inspection mechanism referring to the institution's roles and responsibilities determined in Output 2.1
	• Documents proving the delivery of the PCB test kit
Output 2.3	• National PCB standard draft - Assist the Government of Serbia to adopt national PCB standards (including sampling, sample preparation, monitoring, laboratory waste disposal, etc.)
Output 3.1	• Meeting minutes with PCB owners
	• Agreed PCB sampling plan for in-service equipment, waste and stockpiles with EPS, Serbia Railway Company, and other identified PCB owners to identify PCB equipment that are available for PCB treatment;
Output 3.2	• Terms of Reference for PCB analysis technical specification in the form of Terms of Reference to be posted on the UNIDO's procurement website
Output 3.3	• Terms of Reference on the database agreed with PCB owners on the integration into their daily operation, select the parameters of equipment adopted for the database in an Excel format;
	• Three pro forma invoices and evaluation results to select a service provider - ToR to be circulated to potential technical service providers and select the service provider by comparing three pro forma invoices and preparing the UNIDO's procurement documents for the submission to the UNIDO's PM;
Output 5.1	• Travel report on the site visits with PCB contamination history and profile
Output 5.2	• A list of criteria for prioritizing PCB contaminated sites that are more likely to receive investors' interests by referring to the *"Decree on the criteria for determining the status of the vulnerable environment and priorities for rehabilitation and remediation"* with the support from international consultants

Critical activities and milestones of the project

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Component 5 – Selected site decontamination

- Low budget within the project
- Public Private Partnership scheme
- Technology and efficiency

Component 4 – Decontamination of PCB equipment

- Time foreseen to prepare the activity

Current status of PCB contamination in Serbia

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- Production of equipment containing PCB stopped in 1985/86, estimated around 600 tons of PCB oils consumed;
- Around 500 tons of equipment exported over the previous 5 to 10 years;
- FAS site clean-up completed;
- EPS inventory completed for voltage level of 35 kV and above and within EPS around 1000 tons of equipment decontaminated;
- Elektro-Vojvodina inventory almost completed for voltage level below 35 kV and around 400 tons of equipment decontaminated;
- Estimated quantity of contaminated equipment 4500 – 8000 tons;

Thank you