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| Reporting Agency: UNDPCountry: ArmeniaSTANDARD PROGRESS REPORTNo. and title: “Elimination of Obsolete Pesticide Stockpiles and Addressing POPs Contaminated Sites within a Sound Chemicals Management Framework in Armenia” UNDP/GEF - 00091031 |
| Reporting period: 01.01.17 - 31.12.17 |
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| **I. PURPOSE** |
| **The objective of the Project** is to protect human health and the environment globally as well as locally through elimination of POPs and obsolete pesticide (OP) stockpiles, and addressing associated contaminated sites within a sound chemicals management framework. The project is directed jointly by the Ministry of Nature Protection and the Ministry Emergency Situations in partnership with the Municipality of Yerevan and Ministry of Agriculture. It will meet this objective by eliminating a large POPs pesticide burial site that represents the major POPs stockpile and waste legacy for the country. In total, approximately 7,100 tons of POPs waste in the form of heavily contaminated soil, 1,050 tons of POPs pesticides and other obsolete pesticides will be recovered, secured and ultimately treated and destroyed in an environmentally sound fashion. A further 12,700 tons of less severely POPs contaminated soil will be securely contained. Additionally the project will provide critically needed hazardous waste infrastructure and national technical capability for the ongoing management of POPs and other chemical hazardous wastes as well as supporting the strengthening of institutional and regulatory capacity within an overall chemicals management framework.The Project contributes to UNDAF Outcome 7 and CP Outcome 13, CPAP Output 1.3.  |
| **II. RESOURCES** |
| Total: 4,700,000.00 USD (GEF) and 200,000.00 USD (UNDP) is allocated for the full-sized project implementation in 2015-2019. |
| **III. RESULTS** |

**Component 1: Capture and Containment of Obsolete Pesticide Stockpiles and Wastes**

**Outcome 1.1 Removal of priority POPs pesticide waste from the Nubarashen burial site, secure containment of residual contamination on-site, site stabilization and restoration, with the site secured under appropriate institutional arrangements providing effective access limitations, monitoring and future land use control, all endorsed by an informed public**

***Output 1.1.1 Implementation of comprehensive physico-chemical analytical, geotechnical/hydrological assessment of Nubarashen burial site, development of detailed design and modeling of works with operational planning***

* The revised ToR and re-announced (29.12.2016) RFP 063/2016 “*Provision of services for Detailed Design, Technical Definition of Works, and Supporting Assessments/Studies required for the Removal of POPs Pesticides and Recovery of Associated Contaminated Soil along with Site Cleanup, Stabilization, Containment, and Monitoring applied to the Nubarashen Burial Site (Yerevan, Armenia)*” resulted in receiving 4 eligible proposals from high-profile European environmental consulting/technological companies. On the basis of evaluation of the technical and financial proposals, the Evaluation Panel recommended a contract award to DEKONTA a.s. in consortium with GEOTest a.s (Czech Republic). The contract was signed with the selected leading Czech company DEKONTA a.s. on 14 July 2017, followed by an inception visit of the Contractor’s team. The on-site works have been commenced in early August with the 31 March, 2018 deadline for completion of site clean-up design part of works, while the training for operational and supervisory staff will be done immediately before launching the clean-up field works, and the author’s supervision – when these works start.
* The results/outputs of Tasks 1-5&10 identified in Nubarashen clean-up works assessment/design ToR, performed during the Y2017, were presented in: Inception Report, EHS Plan, Sampling Plan, Training Activity Report, Operational Work Plan and Risk Assessment Methodology. Execution of the Tasks 4 (Risk Assessment and Classification Criteria Review), the Task 5 - Development of site clean-up works design, operational work-plans, are in process and the operational work-plans for three clean-up options were submitted in the beginning of the third decade of December.

***Output 1.1.2 Analytical review of international experiences and qualification / recommendations for Category 2 POPs/OPs waste/soil in-country treatment technologies and operations, and development of technical specifications/TOR for technology company selection***

* The Project’s International Consultant on Contaminated Soil Clean-up/Remediation Technologies, conducted a series of seminars and discussion session on: (1) General overview of soil treatment technologies and remediation techniques (ex-situ, in-situ, off-site, etc.); (2) Feasible / applicable options for Armenia (Nubarashen site); (3) Presentation on previous experience under similar projects; and (4) Soil sampling requirements and testing procedures. As a result of the latter and intense work with the Project team, the following outputs have been developed and submitted: 1) Roadmap for the selection of a technology for the Category 2 POPs contaminated soil in Nubarashen, Armenia; 2) ToR for procurement of the provider on “Clean-up/disposal services for pesticide contaminated soil from the Nubarashen site, Yerevan, Armenia”.
* Request for Expression of Interest (REOI) was developed and announced (ITB 071-17) for prequalification of potential service providers on “Clean-up/disposal services for POPs-contaminated soil from the Nubarashen site” on 29.09.17, with initial deadline for submission 16.10.17 (extended to 30.10.19). Due deadline, proposal were received from 6 relevant international firms:
* TREDI S.A.
* Dekonta s.a.,
* Thermodyne Technologies Inc.& AWS
* Polyeco S.A.
* Veolia ES Field Services Ltd
* HPC AG
* The pre-bid site visit and the technology (contaminated soil clean-up/treatment) presentation workshop were held on November 16-17, 2017. The pre-qualification results have been assessed and scored based on the companies’ answers to the developed questionnaire and the Evaluation Matrix, developed based on the soil decontamination technology qualification criteria (e.g. previous experience, relevance, destruction efficiency, feasibility, etc.). All 6 interested firms were adequately acknowledged on the pre-qualification evaluation results. The pre-bid workshop outcomes and conclusions were reflected in the second mission report of Project’s International Consultant on Contaminated Soil Clean-up/Remediation Technologies, Mr. Carlo Lupi, who took part: i) in the evaluation of the Expression of Interest received from 6 firms for the treatment of DDT and HCH contaminated soil in Yerevan; and ii) review the material on the incinerator located in Iran as potential candidate for the destruction of pure POPs pesticides.
* The summarized conclusion of the Panel discussion, gathered after the workshops, was to develop one package of technical requirements for three components of Nubarashen clean-up works, namely for the: 1) excavation/packaging of the OP waste – ready for transportation, and accumulation of high contaminated soil, 2) transportation of packed waste for its final destruction/incineration, 3) on-site decontamination of the soil, splitting the entire tender package into three lots for these three-phased works. This approach needs to be agreed with the PMB for the Government co-financing participation.

***Output 1.1.3 Conducting environmental impact assessment (EIA), development of required documents and processing for national environmental expert examination, development/adaptation of UNDP/GEF EHS procedures***

* In accordance with the procedure established by the RA law AL-110-N “On Environmental Impact Assessment and Expertise” of 21.06.2014, as well as the Government of Armenia Decree №1325-N, the first public discussion on the preliminary environmental impact assessment of the “Nubarashen obsolete pesticide burial site waste excavation, safe disposal, site clean-up and stabilization” task assignment has been held on November 9, 2017, at the administrative building of Erebuni district's municipality. The objective of the discussion was to present and notify the population representatives of impact community Yerevan (with additional action for surrounding impact communities Mushavan, Voghjaberd and Geghadir), Erebuni municipality departments in charge of environment, urban development and utilities, as well as the concerned public sector (CSOs) on the project planned to resolve the problem of Nubarashen POPs/OPs burial site. The AWHHE NGO, acting as the initiator on behalf of the Contractor, undertook the leading role in the EIA process. Public information on the results of the event was prepared and disseminated, and the press releases were published online: <http://armtimes.com/hy/article/125041>; <http://www.lragir.am/index/arm/0/country/view/164708>; <https://armenpress.am/arm/news/912295/masnagetnery-qnnarkel-en-nubarasheni-tunaqimikatneri.html>; <https://goo.gl/ZXGhUH>.

**Outcome 1.2: Development of the Kotayk national hazardous waste management site, equipped with basic infrastructure to allow secure storage of hazardous chemical waste.**

***Output 1.2.1 Selection of an engineering-designer company, management of contract for site assessment, development of technical design and operational plan for Kotayk hazardous chemical waste (HCW) facility/center establishment works***

* The RFP 044/2016 for provision of services on the design of construction works and operational planning for the development of a hazardous chemical waste (HCW) storage/management facility was cancelled i) due to the public demand for introducing changes on the contaminated soil treatment reflected in the original ToR, and ii) reasoned by the high cost of financial proposals (the lowest cost-proposal exceeding the available budgeted limit for more than 3.5 times) from 2 technically eligible bidders. The re-announced RFP 061/2016 resulted in receiving 4 eligible proposals from both national and international companies. Panel evaluation of the bids resulted in selection of the winner, local designer company “Electronnakhagits” CJSC. The contract signed on 06.04.17, and the preliminary site assessment/EIA and design works have commenced for development of a national hazardous chemical waste storage/management facility. Tasks 1, 2 and 3 of the ToR were completed and the outputs - Inception Report, Site Investigation Report, Building and Infrastructure Assessment Report were submitted and accepted, partially the renovation design with conceptual solutions were performed, respective security measures and technologies studies, estimated and reflected in the conceptual design.

***Output 1.2.2 Conducting environmental impact assessment (EIA), development of required documents and processing for national environmental expert examination***

* Public information meetings were organized at the Ministry of Nature Protection (10 May 2017) and Yerevan Aarhus Centre (16 May 2017) with representatives of Environmental NGOs, impact community representatives and Project stakeholders, during which detailed background and technical information on the need and urgency of elimination of Nubarashen POPs/OPs burial site and establishment of the HCW storage facility were updated and discussed. A follow-up meeting with Hrazdan community representatives and the public concerned, leaded by the “Civic Initiative” group of Hrazdan, was held at MNP on 22 May 2017, dedicated to the issues of public risk perception and risk mitigation measures in regard to the planned HCW storage/management facility in Kotayk.
* On May 31, important meeting was held at MES, led by the minister D. Tonoyan, where technical and regulatory aspects of Kotayk based hazardous chemical waste (HCW) storage facility and associated risks were presented and discussed with the PMB co-chairs and key Project stakeholders. The latter urged to held a dedicated PMB meeting on 16 June 2017, during which it was decided to temporarily suspend the HCW storage design works, due to the concerns and grievance of the impact community, and make a political decision to select another alternative low-risk site/facility within a two-month period. Upon MES request, a new survey for selection of a new HCW storage site/facility was conducted by the short-term Landscape Geologist on exploration and geomorphological assessment of Nubarashen site and its environs for: a) deployment of an on-site destruction/incineration mobile facility and contaminated soil treatment technologies; b) for selection of new site/facility for temporary storage off-site and possible installation of a stationary destruction/incineration technology module. The results of field assessment and proposed options were presented to PMB and GoA for approval. On 25.09.17, an ad-hoc meeting was held by the Head of the Staff of the RoA Government, participated by the PMB members and UNDP staff, on approval of the assessed options/sites for establishment of HCW storage facility. Further to the wrap-up discussion meeting at the GoA’s Head of the staff office, and based on the pre-assessed and presented buildings, the former rubber storehouse of “Nairit Plant” was considered as the most feasible option for the hazardous chemical waste (HCW) storage/management facility, subject to formal approval by the GoA.
* Project’s PR/Communication Specialist prepared a media monitoring/analysis on emergency incident at “Nairit” Chemical Plant, has developed and disseminated a press release covering Project’s recent activities on November 9, 2017 EIA public discussion event; on specialized training for environmental media representatives; interview to MediaMax.am website and article for InvestMagazine.am, interview for TV news program (Ararat TV news portal or Yerkir Media TV channel), twice interviews were conducted and programs broadcasted by Yerevan Public Radio.

***Output 1.2.3 Kotayk national HCW management site developed and operates to the level of international standards***

* Activities will be performed in 2018, assuming the new selected site is approved by the Government of Armenia.

**Component 2: Obsolete Pesticide and POPs Waste Elimination**

***Outcome 2.1: Removal from Armenia of all substantially high priority POPs pesticides, associate very high concentration wastes and OP stockpiles.***

* A proposal was submitted to UNDP/Russia Trust Fund and approved for co-financing of a short-term Russian Expert on Demand (EoD) to provide consultancy and technical-advisory support to the Project team and national stakeholders on high temperature incineration technology, as well as conduct feasibility studies on application of environmentally sound, technically and economically realistic technologies, with demonstration of up-to-date hazardous chemical waste treatment/destruction facilities developed and operating in Russia, and advising on the feasibility of in-country application the proposed technologies/modules. The selected short-term EoD conducted and submitted: a brief report on feasibility studies results, as well as cost-estimation of Nubarashen burial site elimination options; expert conclusion on the POPs/OPs waste destruction technology options (including contaminated soil treatment), applied to the Nubarashen POPs/OPs waste, and final recommendations and technical/economic justifications of the proposed alternative scenarios for clean-up of the burial site (Operational Work Plan).
* On 23-24 October, 2017, the Project team visited Iran and had working meetings at hazardous chemical waste incineration plant, MAPSA company (Rah Poyan Saleh Co.), located in Harand about 90 km from Isfahan, with a perspective of exporting excavated POPs/OPs from Nubarashen burial site for environmentally sound incineration. The Project team was introduced by Mr. Jabbar Moradi’s (representative of DEKONTA a.s., Czech Republic, the Project contractor). The mission revealed that the plant, established 3 years ago based on a French technological lines (ATI Environment), is a state-of-the-art facility for destruction (high-temperature incineration) of various types of hazardous chemical waste, including POPs/obsolete pesticides, as well as PCBs. The plant is operational and meets the most strict international requirements for emissions control (3-stage control and online monitoring systems), with 3 tons/hr. capacity (for solid chemical waste). The plant is located next to the highway and railway access, and has special storage facilities for various types of chemical waste, and the preliminary assessment of the operational status (licenses, permits), capacity, environmental performance and auxiliary infrastructure, revealed that the facility can be considered as a feasible option for incineration of Nubarashen POPs/OP waste.

The Project team also met with environmental portfolio representatives of UNDP Iran office, and informed them on the purpose of visit, and touched also the waste transit issues through the territory of Iran.

**Component 3: Institutional and Regulatory Capacity strengthening for Sound Chemicals Management and Contaminated Sites**

***Outcome 3.3: Basic national capacity for effective hazardous chemicals sampling and analysis for multi-environmental media and contaminated sites in place, operational and certified to international standards (Outputs 3.3.1, 3.3.2, 3.3.3)***

* On 17 April, 2017, a presentation and discussion seminar was held for the Project Team on “Risk Assessment of Nubarashen Burial Site Clean-up Design and Remedy Measures”, presenting similar case-study examples from different countries, and followed by the consultancy session for representatives and collaborators of the designer company over the first conceptual design drawings of Kotayk storage facility. On 18-19 April 2017, the second round training-seminar on "Technical requirements and environmental, health and safety (EHS) aspects for hazardous chemicals/waste storage facilities in the view of international practices" was conducted by Jiri Tylcer, Czech International Consultant, under the Czech Trust Fund support. About 25 participants, representing private design/consulting companies, MES/MNP relevant staff, industry, public authorities, other project stakeholders and CSOs representatives, were awarded certificates of the training. All the training materials and supplementary/reference documents were delivered to the participants electronically.
* On 23-25 August, 2017 “Soil Sampling and Lab QA/AC Training” was delivered (under Task 10 of the ToR) by DEKONTA trainers, both in classroom and on-site, to 29 participants (15 women, 14 men), representing various national laboratories and relevant institutional units (MNP EIMC merged laboratory, NAS Institute of Chemical Physics, "STANDARD DIALOG" LLC private laboratory, MoH NCDC “Reference Lab Center” SNCO, MNP, MES, ENGO). The training agenda was comprised of 2-day theoretical training and 1-day practical training on-site (at Nubarashen burial site). Training certificates were awarded to the participants during the formal closing ceremony.
* The Project’s International Consultant, Rodrigo Romero, in close cooperation and with substantial support of local consultant, developed a “Strategy for operational optimization and upgrading of the national laboratory (analytical) capacity on POPs and hazardous chemical waste” in Armenia, on upgrading of national analytical capacity on POPs, namely: Gap Analysis and Capacity/Needs Assessment; Recommendations and detailed report for optimization/upgrading of the merged/unified laboratory within the structure of the State Environmental Monitoring and Information Center. The Strategy is specifically targeting: (1) improvement of management capabilities; (2) development of an outline for relevant QA/QC procedures applied in chemical waste/POPs analysis; (3) provision of a limited commodity support to improve analytical capacities on waste/POPs, with an overall perspective of international certification of the laboratory, as well as recommended list and specifications of equipment and consumables to be provided by the Project as commodity support. The developed Strategy was shared with and reviewed by the Deputy Head of MNP Environmental Monitoring and Information Center (EMIC) SNCO with a positive feedback (acknowledgement letter of 18.10.17). The recommendations of the Strategy are taken into consideration in devising 2018-20 institutional development plans of MNP EMIC. Moreover, based on one of the proposed recommendations (options), the Government Session of December 7, 2017, adopted a decision on providing a space for the merged laboratory of MNP EMIC, within the premises (1st floor) of NAS Institute of Chemical Physics, with adequate infrastructure for full-scale operation of POPs laboratory.
* Specifications were developed and an RFQ 074-17 with 6 lots was announced (October 9, 2017), for procurement of X-ray fluorescence spectrometer (XRF field analyzer/spectrometer), auxiliary laboratory equipment for POPs analysis and soil sampling tools (6 LOTs). Based on the received proposals from 6 companies, it was decided to purchase the XRF field analyzer and auxiliary laboratory equipment (LOTs 1-4) and leave procurement of the soils sampling equipment (LOTs 5 and 6) to re-announce in 2018 (due to unreasonably high prices for those items).
* The Project’s National Consultant (IC) on upgrading of national analytical/laboratory capacity on POPs: i) conducted assessment of further training needs of MNP EMIC merged laboratory staff, in support of POPs/chemical waste/contaminated soil sampling and analysis; ii) led and coordinated the activities of inter-calibration exercise of the national laboratories involved: NAS Institute of Chemical Physics, MNP EMIC merged laboratory and MoH NCDC “Reference Lab Center” SNCO Laboratory. The results of the inter-calibration exercise will be presented and discussed during the seminar held on December 25, 2017, at MNP EMIC, and when the results analyzed, will be shared also with the project contractor company GEOTest for their comments.
* A specialized one-day training for environmental media representatives has been organized and delivered on December 13, 2017, the objective of which was to provide public information on the project activities, and to assist in improving the sectoral experience of mass media representatives/journalists on environmental and technical issues pertaining to hazardous chemical waste management, associated risks and emergency response, as well as ESIA procedures for development projects, with a specific focus on Nubarashen POPs/OPs burial site. The participants exposed kin professional interest of on the presented materials, and were actively involved in the discussions and Q&A sessions. Training certificates were awarded to the participants – 9 women and 1 man (environmental photojournalist).

**Component 4: Project Management, Monitoring and Evaluation**

* During this reporting period, two Project Management Board (PMB) meetings were held. The objective of the first meeting held on April 4, 2016, was: introducing the newly appointed PMB members; brief introduction of main activities of the Project, based on the 2017 Work-Plan; updating on the Project implementation status, discussion on the planned collaboration with International Missions/IFIs in Armenia targeted to raise additional funds for the Project core activities. The objective of the second special/dedicated PMB meeting held on 16 June 2017, was to finally address the concerns and grievance of the impact community of Hrazdan, and make a final political decision whether to proceed with the projected HCW facility near Hrazdan/Kotayk, or select another alternative low-risk site/facility within a one-month period. The end-year PMB meeting was scheduled for January 19, 2018.
* Terms of Reference was developed in accordance with the “*Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects*” for the Project’s Midterm Review (MTR), and an International Consultant was selected/contracted to conduct MTR/MTE during the first half of 2018. A schedule was drafted for the MTR inception workshop and several interviews with local stakeholders and implementing partners to be conducted in 2018.
* The Project Coordinator actively participated in site visits to Nairit Plant and closely cooperated with the UNEnvironment/OCHA mission in September 2017. Further, an Outline on Nairit Plant risk mitigation, integrating with some of the project’s activities, is under development.
* The PC participated in two Stockholm Convention’s commitment implementation Intersectoral Committee meetings (on 20 July and 21 December, 2017) and delivered presentations on the project status and issues.
* Annual Performance Review/Project Implementation Report (APR/PIR) 2016-2017, was submitted due deadline – 28.06.17, with an overall rating as “Satisfactory”.
* In this reporting period, the Project has developed and submitted 4 GEF QPRs for 2017.
* The Project targets and results were revised and, together with the Risk Log, uploaded to ATLAS in June 2017.
* The Project Work/Activity Plan Y2017 has been revised and updated, and approved by the PMB. The Activity plan for Y2018 will be developed and electronically shared with the PMB members by the end December, 2017, expecting any questions/comments to be raised during the 19 January/2018 PMB meeting.
* The project procured a Toyota LandCruiser 70 vehicle to smoothly organize and manage its site visits for field works activated in the reporting period and expected to be more active in the next years.

***Implementation concerns/issues:***

* PMB’s decision of June 16, 2017, on suspension of the design works for development of a national hazardous chemical waste storage/management facility (RFP 061/2016), and delay of formal approval by the GoA to allocate the building of former rubber storehouse of “Nairit Plant”, caused a delay and incompletion of some of the planned activities of the Project Y2017 work plan, also resulting in under-delivery of the planned budget.
* Two Letters of Intent were drafted to be signed between the UNDP and MES, UNDP and Yerevan Municipality. Signing of these documents were waived – due to change of the storage facility site and waiting to have more accurate calculation for Nubarashen site preparatory works respectively.
* Government of Armenia co-financing was not available in 2017, pending accurate calculation for Nubarashen site clean-up and storage renovation works, respectively.

**IV. FUTURE WORK PLAN**

The activities in the Y2018 will proceed in accordance with the updated Project Work Plan, to be presented and approved by the Project Board on 19 January 2018.

**V. FINANCIAL IMPLEMENTATION**

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| **Initial budget for Y2017** **(USD)** | **Revised budget for Y2017** **(USD)** | **Expenditures by end Y2017****(USD)**  | **Planned budget for Y2018****(USD)** |
| 1,009,187.00 | 638,108.85  | 611,435.31  | 512,193.00 |