

Project Name	Country	Client	Start Date	End Date	Type of Activities undertaken
Provision of Services for the Preparation of an Analysis of the Plastics Sector in Lebanon	Lebanon	United Nations Development Programme (UNDP)	Nov-20	May-21	 The Identification and prioritization of the most relevant technical opportunities as well as financial and policy level options for the plastics recycling sector and mapping of related barriers, The Identification of up to three pilot projects (sorting, reprocessing, recycling, etc) to promote a more circular economy. The simplified economic assessment of economic opportunities in a circular economy for plastics in Lebanon. Development of strategic action plans in both short- and long-term towards a more circular economy in Lebanon. The overall consultancy will be in line with the Lebanese Ministry of Environment Policy on Integrated Solid Waste Management Plan.
Provision of Services for the Assessment and Development of The Solid Waste Sector in Chekka/Batroun	Lebanon	United Nations Development Programme (UNDP)	Jul-20	Apr-21	 Assessment of the current solid waste management (SWM) scheme in Chekka Preparation of an Integrated Municipal Solid Waste Management Plan (ISWMP) that emphasizes training and awareness activities for the municipality and community Development and implementation of an awareness and training plan to support the execution of the ISWMP Identification of needed equipment to support execution of the proposed ISWMP along with their cost estimates and technical specifications in addition to procurement support for acquiring the equipment
Preparation of Feasibility Study for Abbasiyeh Medical Waste Treatment Facility – Tyre Caza, South Lebanon	Lebanon	United Nations Development Programme (UNDP)	Dec-19	Jun-20	 Technical Feasibility Study: Medical Waste Assessment Assessment of the existing Abbasiyeh Facility Capacity Building Assessment



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Provision of Services For The Preparation of The Preliminary Facility Design, Detailed Landfill design, and Environmental Impact Assessment Study for the Construction of a sorting and landfilling Facilities in Deir Al- Ahmar	Lebanon	United Nations Development Programme (UNDP)	May-19	May-21	 Task I – Preliminary Design Report: the first step would consisted of an in-depth assessment of the proposed site to establish the sorting and landfilling facilities. ELARD collected available data from the concerned municipalities, MoE and other authorities as well as conducted a thorough literature review to assess national legal and institutional framework and guidance in the sector. Secondly, we carried out the detailed topographic surveys are the basis for detailed plans showing the site layout and utilities. And finally, based on the available data and our engineering team, we developed the preliminary design report for the facility and the detailed design for the landfill and its auxiliary establishments. Task II - ELARD is completing the environmental assessment required by MoE for the planned facilities (EIA). The Environmental Impact Assessment (EIA) is conducted in accordance with national laws and guidelines. The purpose of such an environmental study is to: Identify the relevant and applicable environmental regulations/ treaties that should frame the Project's design and implementation. The collected data shall target relevant local laws, regulations and international regulations/ treaties that are applicable to the case of the Project, in addition to applicable standards. Identify the nature and extent of any significant potential environmental, social and traffic impacts be they positive (beneficial) or negative (adverse), temporary or long term. This shall include routine, non-routine (planned) operations and unplanned (accidental) events;



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Pre-Feasibility Study for Hazardous Waste Management in Lebanon	Lebanon	European Bank for Reconstruction and Development (EBRD)	Jun-19	Nov-19	 Identify the appropriate mitigation or counter measures for potential negative impacts; Identify and assess alternatives to the project, taking into consideration social, economic and environmental factors; Consult with project stakeholders to ensure public concerns are adequately integrated in the design; and Adopt and implement an Environmental Management Plan and Environmental Monitoring Program that detail the requirements and capacity building needs for the implementation of the mitigation measures. Baseline and forecast of hazardous waste generation Legal analysis Identification of options Risk analysis Identification of E&S risks and requirements
Provision of Services for the Preparation of Necessary Studies for the Closure and Rehabilitation of Hezzerta Dumpsite	Lebanon	United Nations Development Programme (UNDP)	Dec-18	May-19	 Financial analysis and assessment of PPP options The main objectives of the consultancy work are: Assessment of the dumpsite: Conduct a detailed topographic survey of the dumpsite, provide a detailed quantification of the amount of waste, and characterize the dump in terms of its backfill and waste mixture; Assessment of potential closure and rehabilitation alternatives in collaboration with MOE, UNDP (taking into consideration social, environmental, financial and technical factors) and selecting optimal alternative; Development of technical designs needed for the closure and rehabilitations, BoQs, cost estimates, and work plan.



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					 The above was carried out through the following tasks: Task 1 - Collection of available data and site investigation. All gathered spatial data were represented on high quality GIS-based maps where useful. Photographic documentation were also be provided in support of factual information collected where possible and useful. Task 2 - Topographic survey. The survey showed the cadastral limits of existing lots and the location of the existing dumpsite with respect to the neighboring plots and the existing units within the neighboring solid waste facility. The survey also highlighted all relevant infrastructure and any other physical data that will affect the design of the rehabilitation. The topographic surveys was completed using a total station / GPS with Real-Time Kinematic (RTK) correction and they were compared with old surveys to calculate the volume of the waste within the dumpsite. Task 3 - Dump characterization. During the topographic survey of the dump, two borehole locations were identified to determine the natural ground depth underneath the waste/backfill mix and achieve the needed accuracy of the survey. Those boreholes were also used to confirm the presence of buried waste inside the 2 main piles forming the dump. In addition to drilling and topography of the site, the geology and hydrogeology of the Hazzerta dump location were characterized in terms of inherent vulnerability to pollution. Recommendations were be accordingly provided in terms of the suitability of a landfill at the same location. Task 4 - Propose optimal closure method including designs, specifications, cost estimate, & boqs, work plan, etc. Based on the results of the



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					surveys (site topographic survey and characterization of dump) and groundwater vulnerability to pollution, ELARD in coordination with the UNDP, MoE, and Hazzerta Municipality assessed the potential closure and rehabilitation options of the dumpsite.
The Preparation of Feasibility Study and Waste Management Plans for the Construction of Storage Facilities for Recyclables in Bqosta – South Lebanon	Lebanon	United Nations Development Programme (UNDP)	Apr-18	Jul-18	 Development of a Solid Waste Management Plan: Conducting waste characterization activities to determine the mass composition and quantities of unprocessed municipal solid wastes (MSW) for Syrian refugees and the Lebanese population. Assessing the waste existing infrastructure and needs. Checking the status of the existing facilities in the concerned area in order to work in line with the national plans. Identifying buyers and markets (considering proximity of the buyer, market price of the material and available interim storage space within the concerned municipalities) in addition to disposal locations in the area for recovered and recyclable materials; Drafting the results of the above in a Solid Waste Management Plan, including preliminary assessment of job creation potential if the plan is put into action, resources required, and estimated savings and costs to the municipality, taking into consideration waste generation, waste composition, bins needed, placement, routing, frequency of transfer, resources needed, etc. Coordinating with the Ministry of Environment to get the approval on the proposed management plan. Preparing the specifications for the identified equipment that is needed.



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					 Conducting a Communication and Public Awareness Campaign to enhance Sorting at Source activities in the mentioned villages. Preparing the Technical and Financial Feasibility; calculating the overall cost estimate for implementing waste sorting at source and developing storage facilities taking into consideration the impact of the overall operation and maintenance and overall feasibility from a social, environmental and financial perspective. This included analyzing the logistic and financial feasibility of expanding the proposed facility to serve other communities within the same area (cluster approach). Drafting Memoranda of Understanding (MoU) between: 1) Bqosta Municipality and Abra, Bramiyeh, and Majdelyoun municipalities regarding the storage of dry waste in the proposed facility; 2) the concerned municipalities and NTCC regarding the collection of wet waste; and 3) the concerned municipalities and Saida's solid waste management facility (IBC) regarding the final disposal of the rejects fraction from the mentioned villages, taking into consideration the national plans and policies.
Feasibility Study for the Management of Municipal Solid Waste in North Baalbek	Lebanon	United Nations Development Programme (UNDP)	Nov-17	Dec-17	 Estimate the quantities of organic matter to be transported to the Baalbek facilities Propose the means and frequency of transporting the organic matter to the Baalbek facilities along with an assessment of the needed equipment and resources for the proposed project for the ideal operation of the material recovery facility (MRF) and the landfill Assist the consortium of municipalities in drafting a Memorandum of Understanding (MoU) with the Municipality of Baalbek Update the overall cost estimate of the newly



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					proposed approachFeasibility Report
Preliminary Feasibility Study for the Management of Municipal Solid Waste of the district of Jbeil	Lebanon	Union of Municipalities of Jbeil Caza	May-17	Sep-17	ELARD conducted a pre-feasibility study to assess the various options available to the Union for solid waste management. The ultimate aim of this study was to assist the Union in developing the SWM plan by providing them with the required technical and financial information and background that will allow them to assess various alternative options and schemes, with regards to collection, segregation, treatment, and disposal. The pre-feasibility study report will serve as a document that will be submitted to various donors such as international agencies and NGOs, in an effort to seek funds for the implementation of the SWM plan.
Solid Waste Management for 12 Palestinian Refugee Camps and Adjacent Areas	Lebanon	United Nations Relief and Works Agency (UNRWA)	Jul-17	Nov-18	 Component 1: Waste Management Plan for the 12 camps and adjacent areas Review and data analysis of existing documentation Field assessment in all the camps Solid waste qualitative analysis Feasibility study Detailed design of a Solid Waste Treatment plant tailored according to the camps Development and implementation of a capacity building programme Component 2: Selective collection schemes Development of a pilot integrated selected door to door waste collection scheme Implementation of approved Selective Collection Scheme in a pilot area Component 3: SW plants for Burj Shemali and Ain Baal existing plant Review and Data Analysis of existing documentation Conceptual and Detailed Design of the two SW



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Environmental Audit for the Hbaline Solid Waste Management Facility	Lebanon	Union of Municipalities of Jbeil Caza	Jun-17	Sep-17	 Environmental Impact assessment The Environmental Audit consisted of the following tasks: Overview of applicable legislation, standards and international conventions Description of the environment surrounding the facility Description of all inputs, processes and outputs of the facility Assessment of emissions from the facility's operation (air, noise, wastewater, solid and hazardous waste, odors)
Consulting Services to select a health care waste incinerator and Environmental Impact Assessment	Lebanon	American University of Beirut Medical Center (AUBMC)	May-17	Aug-17	 Development of an environmental compliance action plan and monitoring plan for the facility. Assistance In The Selection of the Incinerator: The selection process will be conducted in close coordination with the client based on site visits, review of the required specifications, and a thorough search of the Lebanese/International market as well as a web search to match AUBMC's specifications and requirements with respect to design, capacity, fuel source, pollutant emissions, loading and emptying mechanism, etc. Potential suppliers will be contacted for obtaining detailed information on product description, specifications, performance, and emission levels. The best suited incineration technology meeting the objectives of this RFP and matching these criteria while being affordable will be identified and proposed following a comparative review of different options based on criteria selected with AUBMC representatives.
					meet the RFP criteria and MoE's air quality emission standards (Decision 8/1). Coordination with MoE is deemed to be important at this stage to understand their requirements and facilitate approval of the EIA. Environmental Impact Assessment:



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					Following the selection of the incinerator, an EIA shall be conducted to identify its potential environmental and social impacts, identify proper mitigation measures, and develop an environmental management and monitoring plan for ensuring environmental protection during operation.
Preliminary Feasibility Study for the Management of Municipal Waste of Debbieh Township	Lebanon	Municipality of Debbieh	May-17	Aug-17	ELARD is proposing to conduct a pre-feasibility study to assess the various options available to the Municipality for solid waste management. The ultimate aim of this study is to assist the Union in developing the SWM plan by providing them with the required technical and financial information and background that will allow them to assess various alternative options and schemes, with regards to collection, segregation, treatment, and disposal. The pre-feasibility study report will serve as a document that will be submitted to various donors such as international agencies and NGOs, in an effort to seek funds for the implementation of the SWM plan
Preliminary Feasibility Study for the Management of Municipal Solid Waste in North Baalbeck	Lebanon	Municipalities of North Baalbeck	Jun-17	Jul-17	 <u>Review of Available information.</u> Demographic Information (i.e, population distribution, densities and growth) Socio-economical Activities(Industries, schools, hospitals, restaurants, and hotels if any) Geological/hydrogeological information to assess the potential impact on the existing potential groundwater resources <u>Solid Waste Characterization:</u> Estimation of the quantity of waste currently being generated, and the characterization of the waste according to type of waste (i.e., organic waste, plastic waste, paper waste, metal waste, glasses, and special waste such as batteries, light bubbles, and electronic waste). The Standard Test Method ASTM D5231 for the determination of the composition of unprocessed



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					 MSW was followed for the characterization of wastes generated. 3. Assessment of current Solid Waste Management Practice Assessment of the current waste management practice, which includes waste collection and disposal. ELARD enquired about the resource capacity available to the Municipalities, and assessed the legal and administrative requirements for setting a SWM facility. Task 2: Identification and Assessment of SWM Schemes/options available to the Municipalities: This covered all aspects of SWM, including: waste segregation at source; waste collection; waste recycling; waste storage, waste treatment, and waste disposal. Also, the possibility of teaming up with additional neighboring municipalities will be assessed. Various options for each of the phases was identified and assessed (technically and financially). This included: A brief presentation of current practice in similar size municipalities where a proper integrated solid waste is being implemented Assessment of the land available for the treatment facility Identification of various Treatment options, which would cover composting processes, incineration processes, and others, with an assessment of these technologies and the identification of the required infrastructure, and human resources including land requirements, such as land size



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					 Assessment of the quality of the compost being generated from the various composting technology options, and evaluation of its marketability, or disposal if required Identification of the possible options available for the management of the residual wastes after recycling and treatment, such as inert waste, special waste, and ashes, generated from incinerators Comparative technical analysis of the various waste management solutions identified, with a discussion of the main environmental impacts along with the required mitigation and monitoring measures Budgetary cost for each options provided which will include investment and operational costs. Task 3: Reporting Preparation of a report presenting the various solid waste management schemes/options along with a comparative analysis (technically and financially). An executive summary in English and Arabic was included in the report. It also highlighted the pros and cons for each scheme.
Develop an environmental training programme for municipalities and municipal clusters	Lebanon	United Nations Development Programme (UNDP)	Nov-17	Aug-18	 Development of environmental training materials targeting municipal council members and municipal police Training modules included environmental governance, solid waste management, water and wastewater, air quality and climate change, land use and ecosystems management, and environmental crisis management Pilot Training with North Lebanon Municipalities
Preparation and implementation of a capacity building	Lebanon	United Nations Development Programme (UNDP)	Aug-17	Nov-17	 Development of a Waste Management and Recycling Plan Capacity Building and Awareness Campaign:



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and public awareness raising campaign on solid waste management in some villages of the lake union of municipalities, West Bekaa					 Review of existing SWM practices and awareness materials prepared and piloted in the country as part of the Syrian refugee response and earlier. Sources of such information include the OMSAR, MoE, local and international NGOs, etc. Design of an awareness raising campaign targeting SWM practices in line with national guidelines and approaches and international best practice.
Environmental Training and Competency Development Programs for ENOC	UAE	Emirates National Oil Company Limited (ENOC) LLC	Sep-16	Jan-17	 Preparation of workshop material, presentations and exercises Delivery of training workshops at ENOC Preparation of workshops' evaluation reports and completion certificates The training topics covered were: Environmental Site Remediation & Reclamation Basic Environmental Social Impact Assessment (ESIA) Waste Management & Environmental Protection Environmental Benchmarking and Performance Indicators Environmental Baseline Study and Environmental Sampling Techniques Fundamentals of Air Dispersion Modeling
Environmental and Social Impact Assessment (ESIA) for the Construction of a Solid Waste Treatment Plant in El Bireh, Rachaya district	Lebanon	Council for Development and Reconstruction (CDR)	Aug-16	Dec-17	 ELARD provided the following services to CDR: Review of the Legal and Institutional Framework for the project; Environmental and Social Baseline; Public Participation and consultations meetings; Environmental and Social Impacts Assessment; Environmental Management Plan (EMP) including mitigation, monitoring, and institutional strengthening-capacity building and training; Analysis of Alternatives.



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Updating for the Master Plan for the Closure and Rehabilitation of Uncontrolled Dump Sites throughout Lebanon	Lebanon	United Nations Development Programme (UNDP)	Jun-16	May-17	 Conducting a comprehensive survey of 880 sites across the entire country; Prioritizing the closure of the open dumps based on technical, environmental and financial criteria according to a multi-criteria analysis process and using a prioritization model Proposing the best rehabilitation option for each priority dump based on Rehabilitation Decision Tree in addition to cost estimates and proposed implementation mechanisms Developing a methodology for impact assessment of open dumps on the environment and testing in one pilot basin Estimating the cost of environmental degradation (COED) of open dumps in Lebanon Conceptual design of upgrading the waste management facility in Zahle and submitting to donors for financing Conceptual design of the closure of the Tripoli dumpsite along with identification of possible landfill sites Presentation of main findings and recommendations to UNDP, MoE, CDR, OMSAR and MoIM (project task force)
Supervision of Operation of the Hbaline SWTP in Jbeil	Lebanon	Federation of Municipalities of the Caza of Jbeil (FMCJ)	Sep-14	Nov-14	 On-site daily supervision of operator Strategic advice on matters related to technical operation, environmental management and implementation of contract provisions Monthly reporting and final recommendations to the Federation.
Technical Assistance for the Procurement of 6 Solid Waste Management Schemes	Lebanon	Council for Development and Reconstruction (CDR)	May-15	Sep-15	 Review the full sets of each tender documentation prepared. Participate in the tender evaluation sessions, provide when requested during the sessions information regarding the procedure and application of the Tender Evaluation and give findings in a technical report for each Evaluation



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					 procedure after the completion of the session. Assistance was provided in the administrative, technical and financial evaluation of submitted tenders for 6 Lots, as follows: Administrative Evaluation a) Tenders must be complete and compliant with the required procurement rules and FIDIC international tendering procedures and all basic administrative documents must be included in the Tenders. Technical Evaluation Tenders are examined in detail, if they: b) Comply with the minimum requirements regarding the tenderers financial standing (Joint Venture / Members of JV) and if the submitted information is supported by relevant documentary evidence. c) Comply with the minimum requirements regarding the tenderers professional experience (Joint Venture / Members of JV) and if such information is supported by relevant documentary evidence. d) Propose personnel that have the professional background, qualifications and experience as requested in the Tender Documents. e) Propose methods and technical solutions that are reasonable, clear and fully consistent with the Employer's Requirements and the Technical Specifications. f) Propose equipment that fully comply with the Employer's Requirements and the Technical Specifications. g) Provide the requested technology guarantees (as these may be specified in the Tender Documents). h) Include Drawings that are clear and consistent with the Employer's Requirements and the Tender Documents).



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Waste management Training and Awareness program for the village of Awadi in Wadi Khaled, Akkar - Phase	Lebanon	Mercy USAID	Mar-14	Jun-14	 Technical Specifications. i) Propose Work programs that are reasonable and consistent with the Employer's Requirements. During the evaluation, the Consultant assisted CDR in drafting requests for clarifications to tenderers and reviewed and evaluated the received responses. Financial Evaluation (for technically compliant tenders) j) Financial tenders must present clear, correctly filled and consistent Schedules of Payments /Bills of Quantities. k) Submitted tables shall be checked for arithmetical errors. l) Comparison of prices and nomination of the tender with the lowest price Mobilization, Data Gathering and Preparation of Training Material (material, brochures and other promotional items). Training Workshop- Local Committee Training of Trainers at Schools and Other NGOs.
Three Environmental Studies in the Area of Baalbeck	Lebanon	Italian Cooperation in Lebanon	Dec-11	Mar-12	 Topographic survey of the two existing Kayal dump sites and of the new proposed location for the construction of the landfill; Estimation of the volume and depth of solid waste in the two Kayal dumps; Categorization of solid waste in the two Kayal dumps in accordance with ASTM D 5231-92-Standard Test Method for Determination of the Composition of Unprocessed Municipal Solid Waste (MSW).
Preparation of a Master Plan for the Closure and Rehabilitation of	Lebanon	United Nations Development Programme (UNDP)	Sep-10	Jun-11	 Prepare an inventory of all dumps in Lebanon and characterize them according to predetermined criteria, and develop a GIS database. Prioritize dumps for their rehabilitation based on a multi-criteria analysis



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Uncontrolled Dumps in Lebanon					 Propose best rehabilitation option based on pre- determined criteria Develop a detailed action plan clearly identifying priority dumps to be rehabilitated, the proposed rehabilitation measure, its cost, and implementation road map (responsibility, financing sources, timeframe, environmental monitoring requirements, etc.).
Preliminary Evaluation of Potential Quarry Landfill Sites for the Greater Beirut Area and Part of Mount Lebanon	Lebanon	Council for Development and Reconstruction (CDR)	Oct-09	Sep-10	 Reviewing previous landfill site selection studies conducted in Lebanon; Discussing with representatives from the CDR; Identifying quarries (Dar Al Handasah, 1996) located in geologically and hydro geologically suitable lands with low potential for groundwater contamination and/or in coastal areas with groundwater affected by seawater intrusion; Preparing site description forms (Appendix A) to be filled in during site visits; Visiting and assessing potential quarry landfill sites in Mount Lebanon; Reporting.
Evaluation of the ROSS emergency program (2006-2008)	Lebanon	Development Researchers' Networks	Feb-09	Apr-09	 Review the Action plan for the implementation and follow-up of recommendations Analyze and validate the main results obtained - and process followed - during the implementation of the ROSS programme in order to: improve the strategic scope of the Italian Cooperation in Lebanon and related actions; set the basis to bridge emergency and development actions; Provide the opportunity for a process of training and in-depth analysis for the staff of



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					 the Italian Cooperation Office in Lebanon and the NGOs which have participated in the programme. The results of the evaluation will be used to guide/orient the new phases of the programme, and provide informed advice on the programme's strengths and weaknesses. The identification of lessons learnt and their transferability, with a view to improving the forthcoming phases of the ROSS programme as well as other relevant programmes, together with the formulation of recommendations
Support to the United Nations Convention to Combat Desertification (UNCCD)//Global training program on Development of Integrated Financial Strategies to Combat Desertification, Global Mechanism/CCD (5 days program designed), and delivered in Tunis, Amman, Isfahan, Costa Rica, Cambodia, Sri Lanka, Lisboa	Global	The Global Mechanism of the UNCCD (GM)	2006	2010	 Preparation of IFS for Lebanon and Jordan Preparation of training manual and training materials on DIFS Implementation of regional training workshops on development of integrated financial strategies in various countries
Health Care Waste Management Services & EIA for Notre Dame de la	Lebanon	Notre Dame de la Paix (NDP) Hospital	Feb-04	Jul-04	 Audit of hospital waste management system; Identification of types and characteristics of wastes; Identification of segregation, handling and storage requirements;



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Paix Hospital – Qobayat					 Identification of treatment technologies for the different streams of HCW; Personnel training; Preparation of Environmental Impact Assessment study.
Feasibility study & EIA for the establishment of a health care waste management center in Majdlaya, North Lebanon	Lebanon	Evergreen Services	Mar-04	Jul-04	 Preparation of guidelines for the collection, handling, storage, treatment and final disposal of treated wastes and residues using WHO guidelines; Evaluation of the existing surface water quality monitoring system; Preparation of Environmental Impact Assessment study including mathematical modeling for simulation of emissions and performance of emissions monitoring report; and Assessment of overall feasibility of the project based on potential regional clients and the costs of the services.
Regional Solid Waste Management Project in Mashreq and Maghreb Countries - National Activity in Lebanon	Lebanon	The World Bank Mediterranean Environmental Technical Assistance Program - METAP	May-04	Jun-05	 Strengthening the existing Solid Waste Management (SWM) legal framework in Lebanon. This task includes the preparation of: Law on Integrated Waste Management Decree(s) of Application on Financing and Cost Recovery Mechanisms for SWM Application Decree on Private Sector Participation in SWM. Development of national and municipal capacities for applying, enforcing and monitoring the strengthened legal framework. Includes the preparation of National Capacity Building Workshops Local Capacity Building Workshops Dissemination Workshop Development of an economic model with relevant implementing tools that assist in selecting preferred SWM systems and defining costs. Application of two of the regional SWM guidelines



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					(financing/cost recovery and private sector participation) through on-the-job training of central or local government authorities.
Support to the OMSAR in the Implementation of SWM Projects in Lebanese Municipalities	Lebanon	Office of the Minister of State for Administrative Support (OMSAR)	Jun-04	Nov-05	 Evaluation of solid waste management proposals presented by municipalities Coordination with municipalities to upgrade and revise the proposals as needed Preparation of terms of references, tender documents for all projects Assistance in the bidding processes for the selection of appropriate contractors to implement the projects Supervision of the implementation of all projects
Inventories for POPs : dioxins and furans and POPS pesticides, and development of POPs National Implementation Plans and the National Environment and Health Profile for Lebanon	Lebanon	United Nations Development Programme (UNDP)/ Ministry of Environment (MoE)	Jul-04	Dec-05	 Emission inventories for dioxins and furans using IPCC guidelines Inventory of POPs pesticides including field surveys, interviews and other data collection methods Preparation of National Environment and Health Profile for Lebanon Preparation of National Profile on Chemicals Management in Lebanon Key preparer of National Implementation Plan (NIP) for POPs in Lebanon (dioxins/furans, pesticides, and PCBs) Organization and implementation of major participatory workshops
Health Care Waste Management Services & EIA for Haikal Hospital	Lebanon	Albert Haikal - Hospital	Dec-03	May-04	 Audit of hospital waste management system; Identification of types and characteristics of wastes; Identification of segregation, handling and storage requirements; Identification of treatment technologies for the different streams of HCW; Personnel training; Preparation of Environmental Impact Assessment study.



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Health Care Waste Management Services & EIA for the Baabda Governmental University Hospital (BGUH)	Lebanon	Baabda Governmental University Hospital (BGUH)	Oct-03	Apr-04	 Audit of hospital waste management system; Identification of types and characteristics of wastes; Identification of segregation, handling and storage requirements; Identification of treatment technologies for the different streams of HCW; Personnel training; Preparation of Environmental Impact Assessment study including mathematical modeling for simulation of emissions and performance of emissions monitoring report.
Sub-Consultancy Services for Provision of Waste Management Strategy Consultancy Services for Alaateda Mall, Doha, Qatar	Qatar	Meinhardt (Singapore) Pte. Ltd., Qatar Branch	Oct-14	Sep-15	 Provide a summary of understanding of the assumptions on the use and occupancies of individual units, and the estimated number of patrons for sign off. Provide estimates of the mass and volume of waste anticipated to be produced. Calculate the size of the Mall's central waste store. This will take into account the space required for any processing equipment, such as compactors, the number of bins required to store waste for the agreed maximum period, space to manoeuvre wheeled bins, and if needed, access space required for waste collection vehicles. Identify the individual waste streams. Quantify the likely volumes/ weights Method of storage, segregation and transfer within the Mall. Exploit opportunities for reduced environmental impact and how this impacts on the above. Provide recommended waste transfer arrangements. Provide a Waste Management Strategy including findings, conclusions and recommendations
Environmental Expert for the Center of	UAE	Center of Waste Management – Abu Dhabi (Tadweer)	Dec-14	Jul-15	 Technical review of hazardous waste management contractor works Environmental audit and inspection of 8 waste



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Waste Management in Abu Dhabi					 management facilities in Abu Dhabi (existing landfills and treatment centers) Assessment of impacts of existing waste management practices and their economic costs
Sustainable Solid Waste Management System for ADISC Residential, Leisure & Commercial Compound	UAE	IMCC Management Consulting	Sep-09	Jan-10	 Review of existing Institutional, Legal and regulatory Framework Project Description Assessment of Baseline Conditions Waste Characterization, and Assessment of Waste Management Options Solid Waste Minimization Recommendations Reporting
Support to Reforms - Environmental Governance in a Mediterranean country (STREG)	Lebanon	European Commission / Ministry of Environment	Jun-2016	Dec-2017	 Draft and update legislations in different environmental sectors as follow: Ministerial Decision related to Transport of Infectious HCW Ministerial Decision related to Treatment facilities of Infectious HCW Decree and 2 Ministerial Decisions related Hazardous wastes management Ministerial Decision related to the update of Emission Standards Ministerial Decision related to Waste Water Treatment Sludge Reuse Ministerial Decision related to Treated Effluent Reuse Law related to Quarries Ministerial Decision related to Well drilling in PAs Ministerial Decision related to Petro-coke Ministerial Decision related to Lifecycle of chemical substances
Environmental Impact Assessment (EIA) for Establishing a Storage Facility for Rejected,	Lebanon	Treveria Environment	2018	2018	 Preparation of a management plan for the collection, handling, etc.



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Expired Medicines and Medical Waste in Fanar, Lebanon					 Analysis of alternatives focusing on health care waste management options for each type of waste generated by the Hospital. Preparation of a comprehensive EIA study.
Environmental Study for a Hospital in Minieh	Lebanon	MADA Hospital	Nov 2017	Feb 2019	 Preparation of guidelines for the collection, handling, storage, treatment and final disposal of treated wastes and residues using WHO guidelines; Analysis of alternatives focusing on health care waste management options for each type of waste generated by the Hospital. Preparation of a comprehensive EIA study.
State of Environmental Health in the Emirate of Dubai	UAE	Dubai Municipality - Environment, Health and Safety Control (EHS) sector	Sep-14	Dec-15	 Assessment of key indicators of environmental health in the Emirate of Dubai including 8 thematic frameworks; ambient air quality, indoor air quality, drinking water, food, wastewater, residential environment, solid waste, occupational health based on the WHO DPSEEA framework Data collection, review and gap analysis including data monitoring records, audit reports, regulations and standards Multi-stakeholder engagement Development of Indicator Reporting Tool and EH Index Reporting on trends in the state of the environment, environment and health effects, links between the environment and strategies for Dubai Emirate.
Development of Environmental Regulations for the Kingdom Saudi Arabia	Saudi Arabia	Booz Allen Hamilton / MEWA	Jul-18	Apr-19	 The Comprehensive Environmental Regulation for the Kingdom of Saudi Arabia Project aims at producing two types of documents: Updated standards and limit values for air quality, water, wastewater, soil, and noise; New and revised technical guidelines for different sectors in the country such as the Oil & Gas, mining, poultry, and aquaculture amongst others.



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					 Guidelines for EIA, SEA, Environmental Audit, Emergency Preparedness and Response, Remediation and Rehabilitation plans guidelines The formulated standards will serve to complement executive regulations that stem, in turn, from the KSA's over-arching Comprehensive Environmental Regulation; whilst both the standards and guidelines will be incorporated within a revised institutional structure for the governmental agencies responsible for environmental protection and monitoring in the Kingdom.
National Environment Strategy for the Kingdom of Saudi Arabia	Saudi Arabia	Booz Allen Hamilton, contracted by the KSA's Ministry of Environment, Agriculture, and Water (MEWA)	Jan-17	Oct-17	 Conduct a baseline assessment of the environment sector in the KSA Derive lessons learned from benchmarks and international best practices Crystallize the Kingdom's aspirations for the environment sector Develop the national environment strategy for the Kingdom of Saudi Arabia Develop institutional setting and key enablers for sector reform Develop the implementation roadmap Engage stakeholders to facilitate sector transformation