

Environics

Environment & Development Advisors, SAE

Within the global concerns for sustainable development, and environmental protection, issues of effective management of natural resources, as well as pollution prevention, control and abatement, have evolved into priority areas not only within the developed world, but more urgently for developing countries.

Accordingly, the identification of environmental priorities and the development of necessary means of action have come to play a primary role within the policy and developmental framework in Egypt, adopted and implemented by both the public and private sectors. As environmental concerns become a priority in Egypt, the Egyptian market has become receptive to the technical and institutional alternatives necessary for the progress of much-needed solutions in the field.

In this regard, Environics is well positioned, as a multi-disciplinary environmental consulting firm, for providing services in the fields of environmental engineering, environmental policy, and environmental management.

Who we are

Established in July 1999, Environics is a dynamic firm which has grown steadily and swiftly within the field of environmental consultancy services. The extensive accumulated experience of Chemonics Egypt in environmental consulting had provided a solid basis for this steady growth.

During the relatively short time period since establishment, we have come to be recognized for our commitment to providing quality environmental services for the public as well as the private sector, in both domestic and international markets. Our excellence is achieved and maintained by a team of dedicated professionals, and an extensive pool of experts resorted to when need arises. In addition, collaborative relations with national and international firms add to our success.

What we do

As our name implies, Environics provides services in environmental consultancy and advice. These services are not only offered to help our clients in such areas as pollution control, but also to preserve resources through abatement intervention, cleaner production, and adequate mitigation measures in design, operation and management. Environics is also involved in the development of environmental policies and systems as well as institutional development and capacity building for regulatory agencies.

The wide range of products offered by the firm stem from the fact that to us environment is not merely a field but rather an integral part of the full spectrum of human activities. Environics is well equipped to analyze the needs of complex interactions between man and nature. The identification of optimal courses of action insuring the balance between the legitimate requirements for sustainability and profitability, within the constraints

Environics

Environment & Development Advisors, SAE

imposed by limited resources, seldom requires less than the creative approach that Environics is nurturing in its evolving systems and personnel attitude.

Environics has a significant track record and has proven its competence in the Egyptian environmental services market. The firm has acquired substantial experience in different environmental fields and has achieved unparalleled comprehension of the development of environmental management in Egypt.

- Environmental policies and planning
- Environmental impact assessment
- Institutional development
- Documentation of environmental activities
- Environmental training and capacity building
- Biodiversity conservation and management of protected areas
- Coastal zone management
- Environmental profiles
- Health, safety and environmental management systems, pollution abatement studies, and risk assessment
- Air dispersion modeling
- Energy planning and management
- Waste management

Our clients

Our client-base is wide and diversified. It encompasses national governmental authorities, international consultancy firms, donor agencies and international organizations, as well as local NGO's, private and foreign businesses, and local state-owned enterprises. The level of service and client satisfaction is reflected in the extent of repeat clients from all categories. Our client satisfaction is reflected in positive recommendations in their professional circles. This in itself has led to the expansion of Environics client base, only a part of which is listed below.

- ***International Organizations include:***
 - Arab League
 - Blue Plan, a regional support center of the Mediterranean Action Plan (MAP)
 - Global Environmental Facility (GEF)
 - International Finance Corporation (IFC)
 - International Institute for Sustainable Development (IISD)
 - Mediterranean Environmental Technical Assistance Program (METAP), a World Bank-funded program.
 - United Nations Environment Program (UNEP)
 - United Nations Children's Fund (UNICEF)
 - United National for Industrial Development Organization (UNIDO)
 - World Bank
 - World Health Organization (WHO)

- **Donor Projects include:**
 - **USAID Projects:**
 - Sustainable economic growth in Red Sea, completed in 2008
 - Egyptian Environmental Policy Program (EPPP), completed in 2004
 - Cairo Air Improvement Project (CAIP), completed in 2002
 - Development Training 2 (DT2) program, completed in 2003
 - Institutional Strengthening and Policy Reform Project (ISPR), completed in 2003
 - **DANIDA projects and programs**
 - Environmental Support Programme (ESP), completed in 2008
 - Organizational Support Programme (OSP), completed in 2002
 - Environmental Education and Training Program (EETP), completed in 1999
 - **CIDA projects**
 - Egyptian Environmental Initiative Fund (EEIF), a CIDA supported fund, working in collaboration with EEAA, completed in 2004
 - **FINNIDA projects**
 - Hazardous Waste Management Project in Alexandria (HWMPA), a FINNIDA-funded project located in Alexandria, 2006
 - Egyptian Pollution Abatement Project (EPAP), a FINNIDA-funded project located at EEAA, completed in 2004
 - **DfID programs**
 - Support for Environmental Assessment and Management (SEAM), a DfID-funded project in EEAA, completed in 2004
- **International Consulting firms include:**
 - Boston Environmental Group, USA
 - Chemonics International, USA
 - COWI, Denmark
 - Deloitte and Touche, UK
 - Development Associates, Denmark
 - Dorsch Consult, Germany
 - ECON, Norway

- Environmental Resources Management (ERM), UK
 - Plancenter, Finland
 - RSK ENSR Limited, UK/Italy/USA
 - TYPSA, Consulting Engineers and Architects, Spain
 - Soil and Water, Finland
 - URS Corporation Ltd, USA
- **Selected Major Investors Include:**
 - **Multi-national companies** such as BP, Shell, BG, Oil Search, Procter and Gamble, Pfizer, Hess, Dow chemicals, Four Seasons, Unilever, Kraft, Centamin, SC Johnson, Franke Sami, Cadbury Schweppes, Gippsland, American Standard, Cameron, and Chevron.
 - **Local investors** such as PICO, PETZED, ElEzz Group, United Gas Derivatives Company, ElSewedy, Cleopatra Group, Arma, Egyptian Polypropylene company, ORASCOM, Mansour Group and Sabbour
 - **Arab investors** such as Savola, DAMAC and Etisalat

Our successful involvement in both national and international projects both in Egypt and abroad has marked the firm in terms of excellence and expertise. Our customers are not only Egyptian-oriented, we provide services to clients in other countries of the Arab region. Examples of these countries include Qatar, Saudi Arabia, Libya, Syria, Algeria and Oman.

Our approach At Environics, we realize that our client's keenness in resorting to us stands from the need to seek unique and effective solutions, and to venture in new directions. This desire for innovative approaches to problem solving is a major factor that Environics takes into account in providing its services. We believe that, in order to successfully address the environmental challenges our client shares with us, the need for change must effectively be satisfied. Accordingly, our approach is not to merely offer solutions to problems, but to ensure that these solutions can be sustainably implemented, assimilated and maintained by our client. This principle of primary importance to our approach is realized and appreciated by our clients, a fact reflected in their recurrent resort to our services.

In order to guarantee sustainability of solutions, we believe that close cooperation with our client is a must. The client is an integral partner in the process of solution-development and it is our duty to emphasize to him that success can be only achieved through his input and feedback.

This cooperation is also pivotal to the common vision we have for our assignments. Each assignment is not only a chance to provide the best services to our clients, it is also a learning experience for both the client and ourselves. Accordingly, each assignment contributes to the gradual improvement of our systems, methods and tools. By collectively organizing individual improvements, we not only increase the professional bonds within the team, but also save valuable time in successive assignments. Energy can thus be channeled into focusing on specific challenges and planning ahead for further improvements.

Constant development of our techniques allows for the formulation of alternatives, which specifically address the needs of our client. Our approach is based on a thorough analysis of the factors and limitations related to the needs of each client. Seeking rational alternatives is complemented with a focus on the development of integrated, tailored problem-solving techniques.

We believe that a clear focus is essential for a deeper understanding of the areas in which we provide our consultancy and advice. This focus has allowed for our multi-level involvement in a number of systems. We have provided services within Hazardous Waste Management, Environmental Impact Assessment and Environmental Inspection Systems, to name a few, in terms of policy, management, institutional development, training or direct compliance assistance, when need arises. The benefits of a multi-level contribution to these systems are clearly reflected in our quality services.

Excellence is an underlying condition to all our services. Throughout the processes of problem identification and solution development, we place a great emphasis on Quality. Internal systems for quality control and assurance play their role in this respect. Nevertheless, a personal commitment to quality is an essential factor shared by all members of Environics team.

Our team

At Environics, we believe that a team of multi-disciplinary backgrounds, different professional experiences and educational levels represents the best match to the nature of our activities and the approaches we adopt. Team members are from backgrounds as different, yet complementary, as environmental and chemical engineering, environmental management, environmental technology, environmental economics, chemistry, biology, urban planning and public administration to create our successful blend of experts. Almost all of our staff has M.Sc. with about one third of the technical staff members holding PhD degrees. The professional experience of team members varies from ten to over thirty-five years of experience.

Beyond the diversity of backgrounds and experience, our team members share important underlying characteristics: they are driven by a desire to

Environics

Environment & Development Advisors, SAE

acquire new skills and experience; they thrive on challenges which is a necessary prerequisite for the success of our integrated, tailor-made innovative solutions; they are analytical, objective and inquisitive, reflected in the fact that they do not easily accept obvious solutions; and they fit culturally in the professional environment we thrive to sustain. It is for these characteristics, and not only for their proven record of achievements, that they are selected to be part of Environics' family.

Environics believes in the importance of continuous capacity building of its staff, accordingly, projects teams form a perfect blend of extensive experience, a desire to acquire new skills, an ability to maintain a professional excellence and an ambitious youth ready for challenges. Capacity building in Environics is respected as a principle, which has resulted in a continuous development of individual techniques, reflected on the high quality services we provide.

This core team is enriched with external experts, most of whom have previously participated in projects undertaken by the firm. Because of recurrent experiences together, the team is actually enlarged, rather than supplemented.

Our company's strategy is to prefer a long-range involvement with the firm ultimately reflected in a stable core team which is larger than most consultancies would consider securing. This is based on a conviction that individuals who work with us are the repositories of both generated and acquired knowledge and experience. Accordingly, they represent the intellectual wealth that should be secured and enriched by the company to maintain the competitive advantage we currently enjoy. The continuous interaction within a stable team has created an excellent level of mutual trust and understanding, a necessary condition for creativity in providing our best services to clients.

I. ENVIRONMENTAL POLICY AND PLANNING

Environics has been closely involved in the formulation of environmental policies and in environmental planning activities ever since its establishment. The firm has the advantage of having the extensive experience of its Chairman, Mr. Salah Hafez, ex-EEAA Chief Executive Officer and its General Manager, Eng. Yasser Sherif, ex-senior manager in EEAA, who were closely involved in the formulation of environmental policies on the national level. This accumulated experience has laid the foundation for Environics' current involvement in environmental policies.

Environics has mainly been involved in providing support in the formulation and implementation of policies. Our individual and collective experiences have heightened our awareness of the implementability of policies. Accordingly, implementation requirements become an integral part of policy formulation to provide guidelines to the feasibility of the policies considered. Moreover, our involvement extends to the assessment of non-environmental policies to investigate their environmental implications, to recommend measures necessary for adjustments, and to ensure required mutual support.

Our approach ensures effective integration of efforts and the achievement of required objectives through undertaking the following activities: a comprehensive investigation of current status and trends of policy-making, the formulation of suitable alternatives, which take into account the full spectrum of operational requirements as well as stakeholder roles and interests. A full awareness of costs and benefits of the alternative policies guides the formulation process.

Assignments within this field address several aspects including:

- Development and analysis of environment-related policies and strategies
- Development of environmental action plans on the sector, local and entity levels
- Development of indicators and internal monitoring systems needed for evaluation and follow-up
- Assessment and evaluation of effectiveness of programs and projects

- **Development and Analysis of Policies and Strategies**
 - Integration of Energy Efficiency in the Strategies of Four Selected Industrial Sectors, commissioned by UNIDO, 2018
 - Development of Policy Tools to Operationalize the Implementation of the Egyptian Industrial Waste Exchange Program (IWEX), 2018
 - Energy Pricing and Fuel Switching Reform Strategy, in association with AF Mercados and IISD, commissioned by the World Bank, 2018
 - Strategy for Collection and Recycling of Compact Fluorescent Lamps (CFLs), commissioned by Improving Energy Efficiency of Lighting and Other Building Appliances (IEEL & A) GEF/UNDP Project, 2016

- Design and development of a National Policy Package for the Industrial Energy Efficiency Programme, in association with Logic Energy, commissioned by UNIDO, 2015
- World Bank's Just-in-Time Advisory Support Program for Subsidy Reforms in Egypt – Stakeholders Analysis and Communication Strategy and Plan, commissioned by the International Institute for Sustainable Development (IISD), 2014
- Policy paper on wind power in Egypt, commissioned by IISD, 2009
- Marine protectorate assessment declaration document for Sallum protectorate, commissioned by IUCN, 2009
- Development of the Strategy for Decentralization of Environmental Management, commissioned by ESP, in association with PEM consult, 2008
- Sustainable economic growth in Red Sea, commissioned by USAID, 2008
- Support to EEAA Task Force for decentralization of environmental management, commissioned by ESP, 2006
- Nationalization of the Millennium Development Goal no. 7 for Environmental Sustainability, commissioned by UNDP, 2006
- Strategic assessment of industry and related environmental policies, commissioned by the UNIDO, 2006
- Preparation of Egypt national cleaner production policy, commissioned by EPAP, 2004
- Development of Inspection-related Policies and Negotiated agreements, commissioned by EPAP, 2004
- Analysis of decentralization of environmental management in Egypt, specific contribution in the MVE contract, 2003
- Energy/Environmental Review in Egypt, a project conducted in cooperation with ERM, commissioned by the World Bank, 2003
- A study addressing environmental economic incentives in Egypt, commissioned by the Blue Plan, 2003
- Preparation of a study assessing the Egypt-European Union Association Agreement, with a particular focus on the mutual impact of trade and environment, commissioned by the Blue Plan, 2000.
- **Development of Action Plans**
 - Development of the Regional Environmental Action Plan for Suez Canal Governorates, commissioned by Suez Canal RBO, 2008
 - Income, environment and health linkages in Rural Egypt, in association with ECON, commissioned by World Bank, 2007
 - Development of the Common Country Assessment on Pollution: Industrial Pollution to yield UN priority actions 2007-2012, commissioned by UNIDO, 2005
 - Preparation of foundries sector compliance plan, commissioned by EEPP/Air, 2004

- Preparation for immediate actions for the cleaner production strategy, commissioned by EPAP, 2004
- Preparation of the industrial section of Damietta governorates environmental action plan, commissioned by SEAM, 2003.
- Industry Working Group in Qena in the preparation for the formulation of Qena Environmental Action Plan, commissioned by SEAM, 2002

- **Development of Indicators and Monitoring Systems**
 - Energy consumption indicators system in Egypt, commissioned by, UNEP, 2011
 - Plan and draft baseline for a system of indicators on industrial pollution and compliance in Egypt, commissioned by EPAP, 2004
 - Management of the Monitoring, Verification and Evaluation (MVE) Unit of the EEPP, commissioned by USAID, 2004
 - Performance appraisal of the EIA Review System in Egypt and the development of internal performance monitoring system, specific contribution in the MVE contract, 2001
 - Developing sustainable development and environmental indicators for Egypt, specific contribution in the MVE contract, 2001

- **Review of Effectiveness and Performance**
 - Assessment of the management of EMUs training system, commissioned by ESP/DANIDA, 2006
 - Critical review and analysis of prospects of effectiveness of the National Air Quality Strategy framework, specific contribution in the MVE contract, 2004
 - Rapid assessment of the overall return of new mooring buoy installations in the Red Sea Southern Zone within the mooring buoy pilot implementation plan, specific contribution in the MVE contract, 2004
 - Assessment report for the strengthening of Egypt's accreditation system, specific contribution in the MVE contract, 2004
 - Evaluation of EPAP industrial and institutional components, commissioned by EPAP, 2004
 - Technical support to the Joint Annual Sector Review of the Programme Support Unit (PSU) of DANIDA Environmental Sector Programme (ESP), commissioned by the Royal Danish Embassy, 2003
 - Technical review of the Programme Support Unit (PSU) of DANIDA Environmental Sector Programme (ESP), commissioned by the Royal Danish Embassy, 2003
 - Technical review of the component of Environmental Management in Governorates (EMG) of DANIDA Environmental Sector Programme (ESP), commissioned by the Royal Danish Embassy, 2003

II. ENVIRONMENTAL IMPACT ASSESSMENT

At Environics, we believe that the EIA is a process geared towards environmental management and sustainability of the development through providing the basis for decision-making. Our approach depends on prevention rather than mitigation.

As the early integration of environmental considerations is usually more cost effective in minimizing impact, we attempt to closely integrate the EIA in the design phase. The environmental dimension is employed in addressing and comparing siting, design and operation alternatives to select the most environmental-friendly options. In a number of cases, Environics has been involved in both the EIA development and the design of the project, which resulted in the incorporation of the environmental dimension as a design parameter. In all cases, assessment includes the impacts of the project on the environment as well as the impacts of the environment on the project to reach the required optimization between environmental safeguards and development sustainability.

We believe that both the effectiveness and quality of the EIA depend mainly on the EIA team, on a full understanding of the project specific features and settings and on the utilization of the appropriate tools. Environics' multidisciplinary team has prepared numerous EIAs in different sectors, including industry, both on the facility and complex level, mining, tourism, infrastructure, and waste management projects. The team seeks the skills of external experts to complement its in-house capabilities. One of our main strengths is tailoring the EIA methodology and approach to the nature of the project, especially regarding analysis of baseline environmental data, impact assessment and recommendations. The tools used differ according to the type of projects and may involve qualitative and quantitative techniques including modelling, GIS and remote sensing. According to the type of projects, social assessment may be carried out as an integral part of the EIA or as a separate comprehensive study (social impact assessment). Along our assignments, we have prepared EIAs according to both Egyptian and International EIA standards.

Throughout the development of the EIA, we maintain neutral professional interaction with both the developer and the regulatory authorities. This is to help internalizing the objective of achieving the balance between development and the need for environmental protection.

Assignments undertaken by the firm have addressed different aspects of the EIA system, namely;

- Policy-making and institutional development for EIA review system within the EEAA or other entities.
- Preparation of strategic impact assessment to aid developers at the level of project planning and design levels.
- Supporting developers for preparation of environmental and social impact assessment for their specific projects.
- Training and capacity building

- **Policy and Institutional Development**
 - APG Flaring in Egypt: Addressing Regulatory Barriers, in association with Economic Consulting Associates (UK) and Carbon Counts (UK), commissioned by EBRD, 2017
 - Review of the application status for the EIA Country System, commissioned by EPAPII, 2010
 - Upgrading the Egyptian EIA system and re-categorization of EIA projects, commissioned by DEM sub-component (1), ESP, 2008
 - EIA procedures in the Environmental Officer Manual, commissioned by SEAM, 2003
 - Appraisal of the EIA review system in Egypt and the development of performance-based indicators and recommendations for improvements, commissioned by the Egyptian Environmental Policy Program (EEPP), USAID, 2002
 - Development of coordination procedures regarding EIA review between the Egyptian Environmental Affairs Agency (EEAA) and the Competent Administrative Authorities (CAA), commissioned by DANIDA, 2002.
 - Development of EIA forms and guidelines for the Social Fund for Development. commissioned by SFD, 2002
 - Development of EIA guidelines for the Ministry of Water Resources and Irrigation, commissioned by the Ministry, 2001
- **EIA Evaluations**
 - EIA Review for the expansion project of Jushi Egypt for Fiberglass Manufacturing, commissioned by SC Zone, 2017
 - Technical support for a fodder company to submit a grievance concerning EEAA's decision over their EIA, commissioned by IDG, 2013
 - Review of KIMA rehabilitation EIA against Equator Principles, commissioned by KMIA, 2012
 - CORC EIA Gap analysis and follow-up, commissioned by ERM, 2008
 - EIA review for Sphinx Float Glass Sadat City, commissioned by the company, 2008
 - EIA review for Ezz Steel Plant in Algeria, commissioned by the company, 2008
 - EIA review for CORC, in association with ERM, commissioned by CORC, 2008
 - Gap analysis of TCI EIAs against Egyptian requirements and Equator principles, in association with ERM, commissioned by TCI, 2007
- **Training**
 - Inwent EIA Regional Seminar, commissioned by Inwent, 2007

- Training of Iraqi officials on EIAs for solid and hazardous waste landfills, in association with Chemonics Egypt, commissioned by UNICEF, 2006
 - Training for EMG-supported governorates on EIA procedures of the Environmental Officer Manual, commissioned by EMG, 2006
 - Training of 26 EMUs on new modifications of the EIA and licensing systems, commissioned by DEM component of the ESP, 2005
 - Training of local environmental management units of the 26 governorates on EIA, commissioned by SEAM, 2004
 - Training for AGOSD environmental department on EIA, 2002
 - Training for EMUs of 26 governorates on EIA procedures, commissioned by SEAM, 2003
 - Training for SEAM-supported governorates on EIA procedures of the Environmental Officer Manual, commissioned by SEAM, 2003
 - Workshops on EIA procedures for environmental officers and licensing offices in SEAM-supported governorates, commissioned by SEAM, 2003
 - Preparation of Training Material for EIA for the Social Fund for Development, commissioned by the Fund, 2002
- **Strategic Impact Assessment Studies**

Strategic impact assessment and environmental planning was carried out for the following projects:

 - Strategic Environmental Impact Assessment (SEIA) for E-square Industrial Park, 6th of October, commissioned by Samcrete, 2011
 - Strategic Environmental Assessment (SEA) of Marsa Matrouh Sallum Integrated Coastal Management Plan, commissioned by the Spanish Agency for International Development Cooperation (AECID), 2009
 - Tourism Development of Salalah Coastal Zone, Dhofar Region, Oman commissioned by Oman Ministry of Tourism, 2007
 - Tourism Development in Marsa Wazar, Red Sea, commissioned by Cleopatra Group, 2007
 - Industrial Relocation of foundries and lead smelters from Shoubra El Kheima to Abu Zaabal, an activity of CAIP, 2000.
- **Environmental Impact Assessment Studies**
 - **Industry**
 - EIA study for the addition of (2) new chemical substances to the list of substances authorized for handling and storage, commissioned by Alexandria Chemicals Terminal Company, 2018
 - EIA for Beet Sugar Production Plant in Menia, commissioned by El Canal Sugar Co., 2018
 - Scoping study and Scoped EIA for the expansion in Geocycle Waste Recycling Plant in Suez, commissioned by Geocycle Egypt, 2018

- EIA - Scoped (B) for Siemens Service Center, SIDC Area, Ain Sokhna, commissioned by Siemens Technologies, 2018
- Low to Medium Risk EIA for the addition of a new cosmetics production line within NCIC facility in Abou Rawash, commissioned by El Nasr Co. for Intermediate Chemicals (NCIC), 2018
- Scoped (B) Environmental Impact Assessment Study for the Groundwater Desalination Plant Project (Phases I & II) at Ain Sokhna, commissioned by Suez Industrial Development Company (SIDC), 2017
- EIA for the Upgrade of a Zinc Sulphate Production Line at the 4th Industrial Area, Badr City, commissioned by Zinc Misr, SAE, 2017
- EIA Study for the Use of Wastewater for the Development of Timber Trees Forest at SIDC Industrial Zone, Sokhna, commissioned by The Egyptian Fertilizer Company (EFC), 2017
- EIA Study (Category C) for the Second Phase of Hayat's Plant in Sokhna, commissioned by Hayat Egypt, 2017
- Scoped (B) EIA Study for the proposed extension of NPSS plant in SIDC, commissioned by National Port Said Steel Company (NPSS), 2017
- EIA for NCIC Fertilizer Plant in Sokhna, commissioned by NCIC, 2017
- EIA Study - Scoped (B) for the Environmental Improvement Projects in Kafr El Zayat Fertilizers Plant, commissioned by The Egyptian Financial & Industrial Company (EFIC), 2016
- EIA for the renovation of the Sulfuric Acid Unit within Assiut Fertilizers Plant in Mankabad, commissioned by The Egyptian Financial & Industrial Company (EFIC), 2016
- EIA Study for the addition of a new chemical substance (Butyl Acrylate) to the list of substances authorized for handling and storage, commissioned by Alexandria Chemicals Terminal Company, 2016
- EIA for the expansions in the Alternative Fuel Storage Area, commissioned by the Arabian Cement Company, 2016
- Scoped EIA for Alternative Fuel Plant in SIDC, commissioned by Geocycle Egypt Co. owned by LAFARGE Egypt, 2016
- EIA Studies for the addition of (2) new chemical substances in the Chemical Storage Tanks, commissioned by Alexandria Chemicals Terminal Company, 2016
- EIA for the second expansion within the current L'Oreal plant in 10th of Ramadan, commissioned by the company, 2016
- EIA Study for the addition of (3) new chemical substances in the Chemical Storage Tanks, commissioned by Alexandria Chemicals Terminal Company, 2016

- EIA for Capacity Increase of Hayat Plant in Sokhna, commissioned by the company, 2016.
- EIA for the Emissions Control System at EGC-Guardian Plant, 10th of Ramadan City, commissioned by the company, 2016
- EIA for PV Panels Manufacturing Plant in Qena, commissioned by ARE Group, 2016
- EIA Study for the addition of (2) new chemical substances in the Chemical Storage Tanks, commissioned by Alexandria Chemicals Terminal Company, 2015
- EIA for L'Oreal Extension in the Skin Care Unit, commissioned by the company, 2015.
- EIA for phase 1 of a new pharmaceutical & vaccine project at El-Salam industrial area, commissioned by the investor, 2015
- Environmental baseline study for the preliminary impact assessment of a petrochemicals plant at Amereya, Alexandria, commissioned by the investor, 2015
- ESIA for Doubling the capacity of National Port-Said Steel (NPSS) company and prepare an Environmental and Social Management Plan (ESMP) for the original project, commissioned by NPSS, 2015
- EIA for Hayat tissue and non-woven fabric plant at Sokhna, commissioned by the company, 2015
- EIA for the expansion and introduction of a new product at Galaxy Chemicals, Ataq, Suez, commissioned by the company, 2015
- EIA for Kapci Co. for paints project at South Port Said Industrial area, commissioned by the investor, 2015
- Scoped EIA for a new landfill for bypass dust at Sokhna, commissioned by Arabian Cement Company, 2015
- EIA, Compliance Action Plan and Environmental Feasibility Study for the environmental improvement projects at the Egyptian Financial and Industrial Company, Assiut, commissioned by the company, 2015
- EIA, Compliance Action Plan and Environmental Feasibility Study for Mecca Fodder Company, 2015
- EIA Study for the addition of (4) New Chemical Substances in the Chemical Storage Tanks, commissioned by Alexandria Chemicals Terminal Company, 2014
- EIA for extension of SC Johnson Egypt's plant and Environmental Register for its facility, commissioned by the company, 2014
- EIA for extension of Gloria Ceramics facility at Beni Suef, commissioned by ElShark Ceramics, 2014
- EIA for a chemical blending facility, commissioned by Baker Hughes, 2014

- EIA for a proposed plant for the production of Medium Density Fiberboard (MDF) using rice husk, Hammam District, Matrouh Governorate, 2014
- EIA for off-specs diapers recycling project, commissioned by the developer, 2013
- Technical support for a fodder company to submit a grievance concerning EEAA's decision over their EIA, commissioned by IDG, 2013
- EIA for Sulphonation plant for Henkel, commissioned by the developer, 2013
- EIA for bypass dust landfill, commissioned by BMIC, 2013
- ESIA for Port Said Steel in Ain Sukhna, commissioned by Port Said Steel, 2013
- EIA for diapers production facility in 10th of Ramadan, commissioned by UC Mena, 2012
- EIA for Galaxy new capacity, commissioned by Galaxy, 2012
- EIA for Gloria Ceramics, commissioned by ElShark, 2012
- EIA for the IIC steel factory in Beni Suef Industrial Area, commissioned by IIC, 2012
- Modification of Nouran EIA according to the AFDB requirements, commissioned by the developer, 2012
- EIA for Cargill Sugar at Borg ElArab, commissioned by the company, 2012
- EIA for ElMarakby steel company in 6th of October, commissioned by ElMarakby Company, 2012
- EIA for the increase in production capacity of Galaxy factory, commissioned by Galaxy, 2011
- EIA for National Company ammonium sulfate company, commissioned by EFC, 2011
- EIA for sodium silicate plant, commissioned by the Egyptian Chemical Company, 2011
- EIA for El Wadi truck in Sadat City, commissioned by Wadi Food, 2011
- EIA for a tannery in Ataq, commissioned by Masrya Tanning, 2011
- ESIA for E-square Industrial park, commissioned by the Samacrete, 2011
- EIA for new Ezz plants in Sukhna, commissioned by ElEzz company, 2010
- EIA for poultry and fish fodder facility, commissioned by Wadi Food, 2010
- EIA for an extension in Rexam company, commissioned by the developer, 2010
- EIA for the PET project in Sokhna area, commissioned by the developer, 2010
- EIA for the liquid urea and ammonium nitrate unit, commissioned by EFC, 2010

- EIA for the OMC extension line at Galaxy Chemicals Egypt, commissioned by Galaxy, 2010
- Introduction of beet sugar production line in USCE sugar refinery, commissioned by Savola, 2010
- EIA for Wadi oil and fodder factory, commissioned by the developer, 2010
- EIA for the industrial and financial company, commissioned by the developer, 2010
- Extension of the national glass factory in 10th of Ramadan, commissioned by the investor, 2010
- EIA for the extension of Abu Zaabal Fertilizers Company, commissioned by the company, 2009
- EIA for beet sugar plant in Nubareya, commissioned by Savola, 2009
- EIA for Agrochem fertilizers factory in Beheira, commissioned by the company, 2009
- EIA for Abu Zaabal single super phosphate plant, commissioned by Abu Zaabal fertilizers company, 2009
- EIA for Surfactants Production Facility in Ataka Free Zone, commissioned by Galaxy Surfactants LTD, 2009
- EIA for the plaster board factory, commissioned by EGC, 2009
- Adding billet caster in Ezz flat steel factory, commissioned by ElEzz group, 2009
- ESIA for El-Sewedy Copper Smelter, commissioned by El-Swedy, 2009
- ESIA for Trust Chemical Industries, in association with ERM, commissioned by TCI, 2008
- EIA for ElShark Ceramics Plant in Beni Suef, commissioned by the company, 2008
- EIA for ARMA rehabilitation, commissioned by ARMA company, 2008
- ESIA for PET Plant in Damietta Port, commissioned by SAPL, 2008
- Nouran beet sugar production plant, commissioned by ElNouran Sugar Mills, 2007
- Indorama Ammonia production plant from natural gas, commissioned by Indorama, 2007
- Rice husk recycling, commissioned by a private investor, 2006
- ORASCOM cement terminal in Damietta Port, commissioned by ORASCOM, 2006
- Magnesium Smelter in Sokhna Port including the design of Seawater Cooling System, commissioned by the EMAG, 2006
- Sugar Refinery in Sokhna Port, commissioned by United Sugar Company of Egypt, 2006
- AstraZeneca pharmaceutical plant in 6th of October, commissioned by the company, 2004
- Relocation of Eastern Company for Tobacco, commissioned by the Company, 2001

- Wastewater management for El-Ezz Steel Factory, Industrial zone, Ain Sukhna, commissioned by the company, 2000
- ***Oil and Gas***
 - Environmental, Social and Health Impact Assessment (ESHIA) for the seismic acquisition program in North Umbaraka, commissioned by Shell Egypt NV (SENV), Ongoing
 - Support to ESIA of West El Burullus (WEB) Concession, in association with ERM, commissioned by PICO, 2018
 - Biodiversity Impact Assessment for Petrosilah Concession in Fayoum, commissioned by Merlon Petroleum El Fayoum Company, 2017
 - Environmental, Social and Health Impact Assessment (ESHIA) for the seismic acquisition program in Abu El-Gharadig, commissioned by Shell Egypt NV (SENV), 2017
 - Ecology Report for Dana Gas Onshore Concessions, Nile Delta, in association with ERM, commissioned by Dana Gas Egypt (DGE), 2016
 - EIA Studies for seismic surveys in the Western Desert Concessions: North Ghazalat and North West El Alamein, commissioned by HBS, 2016
 - Review of Biodiversity Impact Assessment for PICO, commissioned by the company, 2016
 - Review of ecological impact assessment for PICO's concession at the Gulf of Suez, commissioned by the company, 2015
 - Environmental Baseline Studies for BP's West Nile Delta Gas Development project, in Markaz Edku (Raven Site), Beheira Governorate, commissioned by ERM, 2015
 - ESIA Studies for BP's new projects, commissioned by the company, 2015
 - ESIA for Seismic Acquisition for South Ghazalat Concession in the Western Desert of Egypt, commissioned by Transglobe Energy Egypt, 2014
 - ESIA for Seismic acquisition for North West Gharib, South West Gharib and South East Gharib Concessions in the Eastern Desert of Egypt, commissioned by TransGlobe Energy Egypt, 2014
 - EIA for a gas tankers berth, commissioned by the Egyptian Propylene and Polypropylene Company (EPPC), 2014
 - ESIA for Gabal El-Behar East-1 exploratory well, commissioned by BP, 2013
 - ESIA for Western Nile Delta Concession Geophysical Surveys Programme, commissioned by BP, 2013

- ESIA for Eastern Nile Delta Concession Geophysical Surveys Programme, commissioned by BP, 2013
 - EIA for Disouk cluster for RWE Field Development, in association with ERM, commissioned by the developer, 2012
 - EIA for SRPC refinery in Sukhna, commissioned by the developer, 2012
 - EIA for natural gas complex West Nile Delta, commissioned by BP, in association with ERM, 2012
 - EIA for West Delta Deep Marine Concession Phase VIII off-shore project, in association with ERM, commissioned by Burullus Gas Company, 2012
 - EIA for West Delta Deep Marine Concession Phase VII project, in association with ERM, commissioned by Burullus Gas Company, 2010
 - ESIA for Taurt Phase 2 and Ha'py Field Extension, in association with ERM, commissioned by Pharaonic Petroleum Company, 2010
 - EIA for Hess concession in the Mediterranean and for the on-shore gas processing plant, in association with ERM, commissioned by NALPETCO/Hess, 2010
 - EIA for drilling of Hapy A18 well, commissioned by BP Egypt, 2007
 - Pre-EIA investigations for Hess North Mediterranean Concession, in association with ERM, commissioned by Hess company, 2007
 - EIA for Taurt development project, phase I, commissioned by GUPCO, 2007
 - Propylene and polypropylene production, commissioned by EPPC, 2007
 - Baseline Study in Kareem. Ayun, Um El Yusr and Shukeir fields, commissioned by Oil Search, 2006
 - West Sitra Environmental Profile Study Services, commissioned by Shell Egypt, 2006
 - CPR Pilot unit at SOPC, commissioned by CTIP Oil & Gas, 2005
 - Management of Baseline Environmental Monitoring Surveys (air, noise, surface, marine and groundwater), United Gas Derivatives Company (UGDC), 2004
 - EIA of Natural Gas Liquids Project, as a subcontractor of Environmental Resources Management (ERM), commissioned by the company, 2003
- **Mining**
 - Scoped EIA for North Tailing Storage Facility, Sukari Mine, commissioned by Pharaoh Gold Mines/Centamin, 2016

- Technical support for the environmental studies and the public consultation activities of Sukari Gold Mine project, commissioned by Pharaoh Gold Mines, 2013
 - Upgrading of Abu Dabbab ESIA, commissioned by Gippsland, 2011
 - ESIA for Sukari Gold mining project, submitted to the IFC/World Bank for financing, commissioned by Centamin Egypt, 2007
 - Social Impact Assessment for Burulus project commissioned by Coastal & Environmental Services, 2007
 - Economic Study for heavy mineral mining project –Burullus, commissioned by Coastal & Environmental Services, 2007
 - Surface & ground water study for El Burulus Area, commissioned by Coastal & Environmental Services, 2007
 - Public participation for Burulus black sand mining project, commissioned by Coastal & Environmental Services, 2007
 - Fauna assessment for Burulus black sand mining project, commissioned by Coastal & Environmental Services, 2006
 - Hydrological survey for Baltim area, commissioned by Coastal & Environmental Services, 2006
 - Technical support to Sukari Gold Mine in specialized EIA related studies, submitted to the IFC/World Bank for financing, commissioned by Centamin Egypt, 2006
 - Abu Dabbab Tantalite/Feldspar Mining Project submitted to the IFC/World Bank for financing, commissioned by Tantalum Egypt LLC., Marsa Alam, 2005
 - Phase one of Sukari Gold mining project, commissioned by Centamin Egypt, 2002
- ***Energy Projects***
 - Technical Environmental Consultancy Services, Social Assessment and Stakeholders Engagement Plans for three Electrical power plants (4800 MW/each): El Burullus, the New Capital, and Beni Sueif, commissioned by the Egyptian Electricity Holding Company (EEHC) and Siemens, in association with ERM, ongoing
 - Ornithological Monitoring Surveys for Lekela Wind Farm in the Gulf of Suez, 2015 – ongoing
 - Operational Phase Groundwater Sampling Program - Beni Suf and Burullus Power Plants, in cooperation with ERM, commissioned by The Egyptian Electricity Holding Company (EEHC), 2018
 - Scoped EIA Study for the construction and operation of Biogas Research Unit, commissioned by Sawiris Foundation for Environmental Development (for Faculty of Agriculture, Cairo University), 2018

- ESIA for a 250 MW Wind Power Plant (BOO) in Ras Gharib, commissioned by Lekela, 2018
- ESIA for a 50 MW Wind Power Plant (FIT), in Ras Gharib, Gulf of Suez, commissioned by Lekela, 2018
- EIA - Scoped (B) for Siemens Service Center, SIDC Area, Ain Sokhna, commissioned by Siemens Technologies, 2018
- EIA Study for a PV Power Plant, commissioned by Soltaj for Solar Energy (Solariz Egypt), 2017
- ESIA for a PV plant in Benban, commissioned by E-Nara, 2017
- ESIA for Scatec PV Power Plant 50 MW (AC) in Benban, commissioned by Scatec Solar, 2017
- EIA Study for a PV Power Plant on the roofs of TEPCO Company, commissioned by TEPCO for Renewable Energy, 2017
- ESIA Study for a photovoltaic (PV) power plant in ACROW Misr Industrial Complex, commissioned by Sun Infinite East, 2017
- Site Management Activities for Zaafarana Solar Park, commissioned by Scatec Solar, 2017
- ESIA for Zaafaran PV Power Plant, Gulf of Suez, commissioned by Scatec Solar, 2016
- Baseline Soil and Groundwater Sampling for EEHC's three power plants (Beni Suef, Burullus and New Capital), in association with ERM, 2016
- Specific Baseline Studies (Flash flood Assessment, ecological survey, noise measurements) for two PV plants in Benban, Aswan, commissioned by Misr Consult, 2016
- High Level Environmental and Social Risk Assessment for a 30 MW PV Plant in West Menia area, commissioned by RA Solar, 2016
- ESIA for a PV Plant in Benban, Aswan, commissioned by Orascom (OTMT) Solar, 2016
- Four ESIA studies for Scatec Solar 50 MW (AC) PV plants in Benban, Aswan, commissioned by (Aswan PV Power SAE, Philadelphia Power SAE, Kom Ombo Renewable Energy SAE, and Upper Egypt Solar Power SAE), 2016
- EIA for Imbaba 220/66/11 KV GIS Substation, commissioned by AVIC International Holding Corporation & Energy Solutions & Technology (EST), 2016
- Ecology Report for ENEL Wind Power Plant Plots, Ras Ghareb, Red Sea Governorate, commissioned by ENEL Green Power (EGP), 2016
- ESIA for Al-Tawakol 20 MW PV Plant in Benban, Aswan, commissioned by the company, 2016

- ESIA for a 50 MW PV Plant in Benban, Aswan, commissioned by X-Elio SAE, 2016
- Environmental and Social Scoping Reports (2 Reports: BOO & FIT) for Wind Power Plants in Ras Gharib, Egypt, commissioned by Lekela, 2016
- ESIA for Enel's SHU wind power plant at the Gulf of Suez, commissioned by Enel Green Power Egypt (EGP), 2016
- ESIA for the 50 MW PV Project in El-Gouna, Hurghada, commissioned by Beltone Capital Red Sea Venture for Solar Energy, SAE, 2016
- ESIA for 50 MW PV Power Plant in Benban, Aswan, commissioned by, Misr Consult/Adenium Energy Capital, 2016
- Seasonal Birds of Burullus - Survey for West Nile Delta (WND) BP Project, 2013
- ESIA for 20 MW Photovoltaic Plant in Hurghada, commissioned by JICA Study Team/New and Renewable Energy Authority (NREA), 2012

- ***Agricultural Development***
 - EIA for Flower Power project, commissioned by the developer, 2006

- ***Urban Development***
 - Pyramids Heights Centre in Abu Rawash, commissioned by Master Land for Real Estate and Touristic Development, Sami Saad Group, 2002

- ***Infrastructure***
 - ESIA study and its update for the construction and operation of Basin "2" Container Terminal, Sokhna Port, commissioned by AMIRAL Technical Management Services, 2017-2018
 - Scoped (B) Environmental Impact Assessment Study for the Groundwater Desalination Plant Project (Phases I & II) at Ain Sokhna, commissioned by Suez Industrial Development Company (SIDC), 2017
 - EIA for Jetty Construction and Re-widening of Basin 3 of Sokhna Port to receive LNG tankers, commissioned by Sonker, 2016
 - Scoped Environmental Impact Assessment Study for Cairo Metro Line 6, commissioned by Khatib & Alami-ASA, 2016
 - EIA for Imbaba 220/66/11 KV GIS Substation, commissioned by AVIC International Holding Corporation & Energy Solutions & Technology (EST), 2016

- Scoped EIA for Second Regasification Unit (FRSU), commissioned by Sonker, 2015
- ESIA Scoping Report for Cairo - Oct.6th City Monorail Project, in cooperation with ERM, 2015
- EIA for Light Rail in 10th of Ramadan, commissioned by CREEC/NAT, 2015
- EIA for the freight train in Belbais, commissioned by CREEC/NAT, 2015
- EIA for the renovation and replacement works of the water treatment plants at Zagazig and Abbasa, Sharkeya Governorate, commissioned by the Improved Water and Wastewater Program of the Water and Wastewater Company at Sharkeya, 2015
- EIA for the water intake for Beni Suef plant of IIC, commissioned by the company, 2015
- ESIA for Sokhna Port jetty and tank farm, commissioned by Sonker, 2015
- EIA for expansion of Basin 3 of Sokhna Port to receive LNG tankers, commissioned by Sonker, 2015
- EIA for a gas tankers berth, commissioned by the Egyptian Propylene and Polypropylene Company (EPPC), 2014
- EIA for the Wastewater Treatment Plant at Abu Rawwash, commissioned by ACE Consulting Engineers (Moharram.Bakhoum), 2013
- EIA and technical support for the design of the extension project of Metro Line 4, commissioned by JICA, 2013
- EIA for the renovation and expansion projects at 3 wastewater treatment plants in Beheira Governorate, 2013
- EIA for Khusus Solid Waste Transfer Station, Qalyoubiya, commissioned by GIZ, 2013
- EIA for Khanka composting plant, Qalyoubiya, commissioned by GIZ, 2013
- EIA for terminal basin 2 in Sokhna port, commissioned by Amiral, 2012
- EIA study for the repair and maintenance works of the pier of Sahl Hasheesh International Resorts Community (SHIRC), commissioned by ACE Consulting Engineers (Moharram.Bakhoum), 2012
- EIA for a 20MW photovoltaic plant in Hurghada, Egypt, commissioned by the JICA Study Team, 2012
- EIA for the jetty and tank farm in Sukhna, commissioned by the developer, 2011
- EIA for wastewater quality improvement project in the Egyptian Fertilizers Company, commissioned by the company, 2011

- EIA and Resettlement Action Framework for Greater Cairo Metro Line 4, commissioned by JICA Study Team Nippon Koei Co. Ltd, 2010
 - Preliminary EIA for the Upgrading of Cairo Alex Desert Road to a Freeway, in association with International Taller, commissioned by IFC, 2010
 - EIA for the overhead power transmission lines for EPPC, commissioned by EPPC, 2008
 - EIA for AMA composting plant, commissioned by AMA, 2007
 - Environmental management plan for South Cairo Landfill, commissioned by Entag, 2007
 - Dredging basins for Sokhna Port, commissioned by Sokhna Port Development Company, 2007
 - EIA and design for the solid waste landfill for a primary magnesium smelter, commissioned by EMAG, 2007
 - EIA for Solid waste landfill in 15th May, commissioned by ECARO, 2006
 - EIA for a Sewage Treatment Plant in Jeddah, commissioned by Jeddah Water Municipality, 2006
 - EIA for the disposal of sewage drainage to the sea in Libya, commissioned by the Libyan Popular committee for housing, utilities and environment, 2005
 - Beba- El Fashn sanitary landfill, commissioned by Plancenter LTD, 2003
 - Esna Sanitary Drainage and Groundwater Lowering Project, commissioned by DANIDA, 2002
 - Cairo-Ain Sukhna and Helwan-Koraimat roads, commissioned by the developer, 2002
 - Assessment of the Proposal Concerning the Side Effects of Naga Hammadi Barrage, commissioned by NGO Service Center, 2002
 - Composting plant of Helwan University organic waste, 2001
 - Wastewater treatment plant for Marsa Alam Jabal AlJazirah AlHamrah Tourism Center, commissioned by the developer, 2001
 - Sludge pipelines between Berka and Gabal El-Asfar wastewater treatment plants, commissioned by Camp Dresser and McKee International Inc., 2000
- ***Land Remediation***
 - EIA for the bioremediation project of hydrocarbon contaminated soil, commissioned by Egyptian Refining Company, 2014
 - Remediation of lead contaminated site in Qalyoubia, including EIAs for smelters sites and a nearby affected

facilities, commissioned by USAID Livelihood and Income from the Environment Program, 2008

- **Tourism**

- EIA Study, preceded by an analytical study of satellite images to identify the erosion of the beach and protection alternatives for The Palma House Touristic Resort project in Hurgada – Red Sea, 2018
- Scoped EIA for Brine Discharge from Ras Hewala Desalination Treatment Plant, commissioned by Ras Hewala Co. for Hotels and Touristic Development (TRAVCO), 2017
- Two Scoped EIA Studies for the establishment of a Touristic Hotel and a Hospital in Ras Hewala Touristic Center – Marsa Matrouh Governorate, commissioned by Ras Hewala Co. for Hotels and Touristic Development (TRAVCO), 2017
- EIA for increasing the capacity of a Desalination Plant, Ras Hewala, Matrouh, commissioned by Ras Hewala Co. for Hotels & Touristic Development (TRAVCO), 2016
- Scoped EIA study for brine discharge of desalination plant in Aqua Marina Resort, Red Sea, commissioned by Aquamarina Co. for Hotels (TRAVCO), 2016
- Scoped EIA study for constructing and operating a touristic Marina in Abu Suma Bay, commissioned by Aquamarina Co. for Hotels (TRAVCO), 2016
- Marine Survey and Bathymetric Study for the construction of a marina in Abu Suma Bay, commissioned by TRAVCO, 2016
- Scoped EIA for Makadi Bay Brine discharge, commissioned by TRAVCO, 2015
- Integrated EIA study for the touristic development project at Soma Bay, Red Sea, commissioned by TRAVCO, 2015
- Marine Survey & Bathymetric Study for Makadi Bay, commissioned by TRAVCO, 2015
- EIA study for the Marine Platform in Sokhna, commissioned by TRAVCO, 2015
- EIA & CAP for Hilton Fayrouz Resort in Sharm El Sheikh, commissioned by the developer, 2015
- EIA study for the repair and maintenance works of the pier of Sahl Hasheesh International Resorts Community (SHIRC), commissioned by ACE Consulting Engineers (Moharram.Bakhoum), 2012
- EIA for Marsa Abu Dabab, commissioned by Concord, 2012
- EIA for SHIRC lot 15, commissioned by ERC, 2012
- Integrated EIA for Sahl Hasheesh Resort Community, Phase III, commissioned by ERC, 2012
- EIA for Tourist Development in Gemsa Bay, commissioned by DAMAC, 2010
- Conceptual development and EIA for Sharm Abu Dabab, Marsa Alam, commissioned by Concord, 2009

- Sahl Hasheesh Marina, commissioned by ERC, 2003
- Beach area of the Four Seasons Hotel in Sharm El Sheikh (EIA and design), commissioned by the developer, 2002
- Pyramisa Hotel in Giza, commissioned by Pyramisa Hotels and Resorts, 2001
- Nile Plaza Hotel in Cairo, commissioned by Nova Park Cairo, 2001
- Sunken City Theme Park in Sahl Hasheesh, commissioned by the Egyptian Resort Company, 2000
- Ibrotel Touristic Village in Sahl Hasheesh, commissioned by El Ahly for Real Estate Development, 2000
- Windsor Garden City in Hurghada, commissioned by Red Sea Company for Tourism Projects, 2000
- Menaville Tourism Center, south of Hurghada, including a 3-star hotel, service station, gas station, as well as central services, commissioned by the developer, 2000.
- An EIA addendum to Riviera Center, a touristic development at the Taba area; commissioned by the developer, 2000

- **Waste Management**
 - Scoped EIA Study for the construction and operation of Biogas Research Unit, commissioned by Sawiris Foundation for Environmental Development (for Faculty of Agriculture, Cairo University), 2018
 - ESIA for Solid Waste Master Planning Project (NSWMP) in Kafr El Sheikh and Gharbeya, commissioned by KFW, in cooperation with Chemonics Egypt, 2018
 - Scoping study and Scoped EIA for the expansion in Geocycle Waste Recycling Plant in Suez, commissioned by Geocycle Egypt, 2018
 - Scoped (B) EIA study for (ECODAS) Shredding & Sterilization Equipment located in Theodor Bilharz Research Institute, commissioned by the Institute, 2018

- **Social Impact Assessment**

Environics has undertaken numerous assignments for the investigation and evaluation of social conditions. Most of these assessments were integral parts of environmental impact assessment studies undertaken by the Environics. Quantitative as well as qualitative tools were used to determine the likely social impacts of a project on stakeholders and the likely effect of stakeholders on the project. Surveys, questionnaires, individual meetings, focus group meeting and public consultations were carried out. Examples of such projects are:

 - Technical Environmental Consultancy Services, Social Assessment and Stakeholders Engagement Plans for three Electrical power plants (4800 MW/each): El Burullus, the New Capital, and Beni Sueif, commissioned by the Egyptian

- Electricity Holding Company (EEHC) and Siemens, in association with ERM, ongoing.
- Environmental, Social and Health Impact Assessment (ESHIA) for the seismic acquisition program in Abu El-Gharadig, commissioned by Shell Egypt NV (SENV), 2017
- ESIA for Seismic Acquisition for South Ghazalat Concession in the Western Desert of Egypt, commissioned by Transglobe Energy Egypt, 2014
- ESIA for Seismic acquisition for North West Gharib, South West Gharib and South East Gharib Concessions in the Eastern Desert of Egypt, commissioned by TransGlobe Energy Egypt, 2014
- ESIA for Gabal El-Behar East-1 exploratory well, commissioned by BP, 2013
- ESIA for Western Nile Delta Concession Geophysical Surveys Programme, commissioned by BP, 2013
- ESIA for Eastern Nile Delta Concession Geophysical Surveys Programme, commissioned by BP, 2013
- EIA for natural gas complex West Nile Delta, commissioned by BP, in association with ERM, 2012
- EIA for West Delta Deep Marine Concession Phase VIII off-shore project, in association with ERM, commissioned by Burullus Gas Company, 2010
- EIA and Resettlement Action Framework for Greater Cairo Metro Line 4, commissioned by JICA Study Team Nippon Koei Co. Ltd, 2010
- Preliminary EIA for the Upgrading of Cairo Alex Desert Road to a Freeway, in association with International Taller, commissioned by IFC, 2010
- EIA for West Delta Deep Marine Concession Phase VII project, in association with ERM, commissioned by Burullus Gas Company, 2010
- ESIA for Taurt Phase 2 and Ha'py Field Extension, in association with ERM, commissioned by Pharaonic Petroleum Company, 2010
- EIA for Hess concession in the Mediterranean and for the on-shore gas processing plant, in association with ERM, commissioned by NALPETCO/Hess, 2010
- ESIA for El-Sewedy Copper Smelter, commissioned by El-Swedy, 2009
- ESIA for PET Plant in Damietta Port, commissioned by SAPL, 2008
- Nouran beet sugar production plant, commissioned by ElNouran Sugar Mills, 2007
- Social impact assessment for Burulus black sand mining project, Coastal & Environmental Services, 2007

- Social assessment for impact on neighboring Bedouin communities and touristic establishments within the EIA of Sukari Gold Mine submitted to the IFC for financing, commissioned by Pharaoh Gold Mines, 2007
 - Social studies undertaken within the project of Environmental Management of Abu Qir Hot Spot, commissioned by GEF/MAP, 2005
 - Social assessment for impact on neighboring Bedouin communities and touristic establishments within the EIA of Abu Dabbab Tantalite/Feldspar Mining Project submitted to the IFC/World Bank for financing, commissioned by Tantalum Egypt LLC., Marsa Alam, 2005.
 - Social assessment for impact on neighboring settlements within the EIA of Beba and Fashn sanitary landfill, commissioned by Plancenter LTD, 2003
 - Social assessment for impact on neighboring Bedouin communities within the EIA of Gold mining project of Sukari submitted to the IFC/World Bank for financing, commissioned by Centamin Egypt, 2002
- **Public Consultations**

Public consultations were carried out at a number of stages of EIA preparation. This ranged from individual consultations to public meetings. Public meetings (scoping and disclosure), prepared to standards of the international funding agencies, were held for the following projects:

 - Public Consultation for Pharaonic Petroleum Company (PhPC) project offshore Port Said, commissioned by ERM, 2015
 - EIA for natural gas complex West Nile Delta, commissioned by BP, in association with ERM, 2012
 - EIA for West Delta Deep Marine Concession Phase VIII offshore project, in association with ERM, commissioned by Burullus Gas Company, 2012
 - EIA and Resettlement Action Framework for Greater Cairo Metro Line 4, commissioned by JICA Study Team Nippon Koei Co. Ltd, 2010
 - Preliminary EIA for the Upgrading of Cairo Alex Desert Road to a Freeway, in association with International Taller, commissioned by IFC, 2010
 - EIA for West Delta Deep Marine Concession Phase VII project, in association with ERM, commissioned by Burullus Gas Company, 2010
 - ESIA for Taurt Phase 2 and Ha'py Field Extension, in association with ERM, commissioned by Pharaonic Petroleum Company, 2010

- EIA for Hess concession in the Mediterranean and for the on-shore gas processing plant, in association with ERM, commissioned by NALPETCO/Hess, 2010
- ESIA for El-Sewedy Copper Smelter, commissioned by El-Swedy, 2009
- EIAs for the remediation of lead contaminated site in Qalyoubia, including EIAs for smelters sites and a nearby affected school, commissioned by USAID, 2008
- ESIA for PET Plant in Damietta Port, commissioned by SAPL, 2008
- Nouran beet sugar production plant, commissioned by ElNouran Sugar Mills, 2007
- Social impact assessment for Burulus black sand mining project, Coastal & Environmental Services, 2007
- Social assessment for impact on neighboring Bedouin communities and touristic establishments within the EIA of Sukari Gold Mine submitted to the IFC for financing, commissioned by Pharaoh Gold Mines, 2007.
- Public participation for Burulus heavy mineral mining project, Coastal & Environmental Services, 2007
- Indorama Ammonia production plant from natural gas, commissioned by Indorama, 2007
- Magnesium Smelter in Sokhna Port including the design of Seawater Cooling System, commissioned by the EMAG, 2006
- Sugar Refinery in Sokhna Port, commissioned by United Sugar Company of Egypt, 2006
- EIA of Abu Dabbab Tantalite/Feldspar Mining Project submitted to the IFC/World Bank for financing, commissioned by Tantalum Egypt LLC., Marsa Alam, 2005
- EIA of Natural Gas Liquids Project, as a subcontractor of Environmental Resources Management (ERM), commissioned by the company, 2003
- EIA of Gold mining project of Sukari submitted to the IFC/World Bank for financing, commissioned by Centamin Egypt, 2002

III. INSTITUTIONAL DEVELOPMENT

Since its establishment, Environics has been involved in institutional development projects addressing a wide spectrum of activities. A number of these activities include the establishment of new systems in which Environics team sets the principles for system evolution. Environics was involved in on a number of aspects:

- The institutional and organizational set-up of the system;
- Its internal and external communication network;
- The responsibilities, job description and profiles of involved personnel;
- The required tools, including guiding manuals; and
- Action plans for system establishment and procedures required to ensure its effective operation.

Other projects addressed the development of tools necessary for effective operationalization of existing systems. Such tools include working procedures, coordination procedures, and guiding manuals.

Our approach is based on a thorough understanding of the existing status of the system. This approach is addressed through comprehensive investigation and assessment to identify required action and activities. The Environics team responsible for such studies has proven its competence through undertaking numerous studies related to regulatory environmental systems, which include inspection, EIA review and hazardous waste control. These studies address the involvement and/or interaction of the local (governorate), regional (EEAA Regional Branch Offices), and central levels (EEAA central departments). Other studies address the development of environmental management systems at the facility level, or environmental departments at the institution level.

Throughout these assignments, Environics has achieved a full comprehension of the development of environmental management in Egypt as well as the obstacles and opportunities related to the specifics of the Egyptian governance system. This accumulated experience is currently being integrated in an on-going assignment which output is to outline the elements and requisites of an action plan for decentralization of environmental management in Egypt.

Assignments within this field address several aspects including:

- Institutional set-up and upgrading of environmental systems while formulating mode of operation, procedures and coordination mechanisms
- Institutional set-up of environmental administration and the development of its operational procedures
- Capacity building of personnel through the development of guidelines and manuals
- Undertaking needs assessment studies to identify training, physical and technical needs

- **Institutional Set-up and Upgrading of Environmental Systems**
 - Development of Compliance Agreement and CAP system for Cement Sector, commissioned by GIZ, 2016
 - Mobilization of the HCEs in Beni Suef and Aswan, commissioned by EMG, 2008
 - Support to the HLCEs in Beni Suef and Aswan, commissioned by EMG, 2006
 - Institutional strengthening component of the Integrated environmental management of Abu Qir Hot Spot, commissioned by EEAA within the MAP framework, 2005
 - Institutional development of the Environmental Sector Program Support (ESP) in EEAA, commissioned by OSP, 2001
 - Development of coordination procedures between EEAA Regional Branch Offices (RBOs) and the Governorates Environmental Management Units (EMUs), commissioned by OSP, 2001
 - Establishment of an environmental management system in Alexandria General Organization for Sanitary Drainage (AGOSD), commissioned by ISPR, 2001
 - The Establishment of an Inspection System in EEAA, commissioned by OSP, 1999
 - Beni Suef Bridging Activities Study, in preparation for the Governorate Action Plan, for SPS, commissioned by ERM, 1999.

- **Institutional Set-up of Environmental Administration and its Operational Mechanisms**
 - Institutional development for road safety unit, in association with COWI, commissioned by GARBLT, 2008
 - Market analysis for the Egyptian National Cleaner Production Center, commissioned by UNIDO, 2006
 - Establishment of higher level committee for the environmental at the governorate level, commissioned by SEAM, 2004
 - Establishment of EEAA industrial unit, commissioned by EPAP, 2004
 - Preparation of EEAA industry unit 1st year action plan, commissioned by EPAP, 2004
 - An institutional study for the Hazardous Waste Management Unit, in Alexandria, commissioned by the HWMPA, 2001
 - The First year work-plan for the East Delta RBO, commissioned by OSP, 2000

- **Capacity Building and Guidelines Development**
 - Study of capacity building for Carbon Capture and Storage in Egypt, commissioned by the World Bank Group, 2013
 - Guidelines for capacity building in chemical industries and chemical waste management, commissioned by ENCPC, 2012
 - Hazardous waste management guidelines and training for Saudi officials, commissioned by SEPCO, 2007

- Environmental management guidelines for industrial zones, commissioned by SEAM, 2005
- Adaptation of EEAA inspection and self-monitoring manuals for the Arab League, commissioned by EPAP, 2004
- Development of the environmental officer manual for the local level, commissioned by SEAM, 2003
- Contribution to the development of inspection guidelines for the Mediterranean countries, commissioned by the WHO, 2002
- Development of inspection guidelines for steam generating plants and wastewater treatment plants, commissioned by EPAP, 2002
- Development of sector-specific inspection manuals for 15 industrial sub-sectors (paints, oil and soap, cement, ceramics, detergents and fertilizers industries, metallurgical industries, surface metal finishing, textiles, dairy, confectionary, carbonated beverage, grain milling, as well as fruit and vegetables processing), commissioned by EPAP, 2002
- Development of inspection manual on hazardous waste management, commissioned by EPAP, 2002
- Development of training material and guidelines for the Human Resource Component of the Social Fund, commissioned by the Social Fund, 2002
- Development of EIA, follow-up and cleaner production guidelines for technical support component of the Social Fund, commissioned by the Social Fund, 2002
- Development of the General Inspection Manual to serve as a guide for environmental inspectors, commissioned by EPAP, 2001
- The Operational Manual for the Bricks Industrial Sector in Egypt, introducing modern and less environmentally damaging technologies, commissioned by EEIF), 1999

- **Needs Assessment Studies**
 - Survey for SMEs in Environmental Sector, commissioned by GTZ, 2006
 - Training needs assessment for the technical secretariat of the higher level committee for the environment, commissioned by SEAM, 2005
 - Needs assessment workshop for South Sinai governorate, commissioned by SEAM, 2004
 - Needs assessment for environmental management in industrial estates, commissioned by SEAM, 2003
 - EMUs institutional strengthening -Needs Assessment Study in SEAM-Supported Governorates, commissioned by SEAM, 2002
 - On-the-Job Training needs assessment for local and regional levels, commissioned by EPAP, 2002

IV. DOCUMENTATION OF ENVIRONMENTAL ACTIVITIES

Documentation of environmental activities is one of the areas in which Environics had slowly and successfully gained ground. In these projects, environmental activities undertaken by different institutions or entities are recorded and analyzed to outline the achievements of the entity in the environmental field. Environics' involvement in this field began with the preparation of the annual report of the Egyptian Environmental Affairs Agency (EEAA). Such projects involve data collection and appraisal through interviews and the review of documents. Environics is responsible for document preparation, editing and layout design. The team responsible for such projects is supported by editors to ensure the production of simple yet gripping documents. Environics intends to integrate its experience in formulating environmental management and policies as well as the documentation of activities to extend its services to the preparation of environmental reports on the facility level.

Completed assignments entail:

- Preparation of ESP achievement report, commissioned by ESP/DANIDA, 2008
- Documentation of the achievements of the EMG component of ESP, commissioned by ESP/DANIDA, 2008
- The preparation of EEAA annual report for the year 2000-2001, commissioned by OSP, 2001
- The preparation of the biennial programme review report for the Small Grants Programme (SGP) of the Global Environmental Facility (GEF) in Egypt, commissioned by the GEF local coordination office in Egypt, 2001

V. ENVIRONMENTAL TRAINING AND CAPACITY BUILDING

Environics has ample experience in training and capacity building activities. The training activities address various audience including environmental managers, inspectors and environmental teams in different industrial and service facilities. The firm has developed extensive material to upgrade the capabilities of personnel so that they can effectively undertake their responsibilities.

Environmental training is conducted to either provide newly recruited personnel with the fundamental background necessary to effectively undertake their responsibilities or as part of a continuous process of performance enhancement through an incremental accumulation of skills and knowledge. Other modules address the capacity building of experienced personnel to prepare them for the role of trainers for others. The firm has successfully conducted several training modules based on a uniform approach developed and continuously updated by Environics staff to ensure sustainability and effectiveness. This approach differs according to the experience of the trainees. For newly recruited personnel, training is mainly based on maintaining continuous involvement of the trainees through group and individual exercises. This allows them to acquire the newly introduced skills, exchange experiences, and evaluate their acquired knowledge. For experienced personnel, on-the-job training is adopted to build on their field experience. A number of the training courses were preceded by a comprehensive training needs assessment for the target groups.

Environics provides clients with a total training solution by taking complete responsibility for course planning, design and implementation as well as participant evaluations.

Training modules conducted by Environics address environmental regulatory agencies which complements Environics participation in all stages of the environmental systems evolution including the development of the guidelines and manuals, capacity building of environmental officers, formulation of operational procedures and the development of coordination procedures between national, regional and local levels.

In addition to training environmental officers, Environics is also involved in the capacity building of other personnel with the aim of upgrading their capabilities so that they can undertake their responsibilities and introduce the environmental factor to their operations. These activities address environmental teams in different facilities as well as industrial estates environmental unit and encompass environmental management for different establishments, operational manuals for specific sectors, to name a few.

Throughout the different training modules, Environics has accumulated experience and information, particularly regarding industrial sectors, their environmental aspects, and pollution abatement measures. The topics of training include inspection, auditing, and implementation of environmental management schemes.

Assignments within this field address several training subjects including:

- Environmental management systems
- Environmental impact assessment
- Hazardous waste management
- Inspection and environmental regulatory requirements
- Planning and management

- **Training on Environmental Management Systems**
 - LOTO Training in Henkel Co., in cooperation with ERM Germany, 2015
 - Training of site management and supervisors of a detergents and personal care products company on behavior-based safety, commissioned by the company, 2014
 - Training of industrial estate management on the environmental management for industrial zones, commissioned by SEAM, 2005
 - Training of EEAA employees on EMS and Industrial Auditing, commissioned by ESP/DEM, 2004
 - Training of industries on self-monitoring, commissioned by EPAP, 2004
 - On-the-job training on EMS for the environmental department of Alexandria General Organization for Sanitary Drainage, commissioned by DT2, 2002
 - Advanced training on EMS for 10th of Ramadan environmental committee and facilities environmental managers, commissioned by DT2, 2002
 - Training of the laboratory personnel of AGOSD on laboratory procedures, commissioned by DT2, 2002
 - Capacity building of Petroleum Refineries environmental departments, with respect to the development and maintenance of Toxic Release Inventories and conducting environmental audits, commissioned by TYPISA, 2001-2002

- **Training on Hazardous Waste Management**
 - Training for Iraqi officials on HW, commissioned by UN-Habitat, 2009
 - Training for Saudi officials on HW Management, commissioned by SEPCO, 2007
 - Training of Iraqi officials on hazardous waste landfill design, in association with Chemonics Egypt, commissioned by UNICEF, 2006
 - Training of EMG-supported governorates on hazardous waste management, commissioned by EMG, 2006
 - Training on the identification, classification and management of hazardous waste, commissioned by HWMPA, 2005
 - Hazardous waste management training for Suez RBO, commissioned by Suez RBO, 2004
 - Training of the Transporters of HW in El Nasreya, commissioned by HWMPA, 2004

- Training of SEAM-supported governorates on hazardous waste management, commissioned by SEAM, 2004
- Training on hazardous waste for hazardous waste management unit in Alexandria governorate, commissioned by HWMPA, 2003
- Training on hazardous waste management for environmental inspectors of West Delta RBO, Greater Cairo RBO and Suez Canal RBO and their EMUs, commissioned by EPAP, 2003
- Training on hazardous waste management for environmental inspectors of West Delta RBO, Greater Cairo RBO and Suez Canal RBO and their EMUs, commissioned by EPAP, 2003
- Training on the hazardous wastes transportation guidelines, commissioned by PSU/EPPP, 2003
- Training on hazardous waste storage and permitting, commissioned by DT2, 2002
- Training on Characteristics/Classification of HW, commissioned by DT2, 2002

- **Training on Environmental Impact Assessment**
 - Inwent EIA training, commissioned by Inwent, 2007
 - Training of Iraqi officials on EIAs for solid and hazardous waste landfills, in association with Chemonics Egypt, commissioned by UNICEF, 2006
 - Training for EMG-supported governorates on EIA procedures of the Environmental Officer Manual, commissioned by EMG, 2006
 - Training of 26 EMUs on new modifications of the EIA and licensing systems, commissioned by DEM component of the ESP, 2005
 - Training of local environmental management units of the 26 governorates on EIA, commissioned by SEAM, 2004
 - Training for AGOSD environmental department on EIA, 2002
 - Training for EMUs of 26 governorates on EIA procedures, commissioned by SEAM, 2003
 - Training for SEAM-supported governorates on EIA procedures of the Environmental Officer Manual, commissioned by SEAM, 2003
 - Workshops on EIA procedures for environmental officers and licensing offices in SEAM-supported governorates, commissioned by SEAM, 2003
 - Preparation of Training Material for EIA for the Social Fund for Development, commissioned by the Fund, 2002

- **Training on Planning and Management**
 - Management and planning training modules for environmental inspectors of West Delta RBO, Greater Cairo RBO and Suez Canal RBO and their EMUs, commissioned by EPAP, 2003

- Cost Benefit Analysis of Policies for Reducing the Environmental Impacts by Rational Energy Utilization, within the Energy-Environment Review Project, commissioned by the World Bank, 2002
- Cost Benefit Analysis of Policies for Reducing the Environmental Impacts from Agricultural Residues, within the Energy-Environment Review Project, commissioned by the World Bank, 2002
- Cost Benefit Analysis of Policies for Reducing the Environmental Impacts of Transport and Fuel Specifications, within the Energy-Environment Review Project, commissioned by the World Bank, 2002
- **Training on Inspection, and Related Legal Background**
 - Training on environmental inspection on fertilizers, cement and grain mills factories, commissioned by SDEM/ESP, 2007
 - On-the-job training for RBOs on sector-specific inspection, commissioned by ESP, 2007
 - Training for EMG supported governorates on inspection procedures, complaint investigation, enforcement and legal background, commissioned by EMG, 2006
 - Training of South Sinai EMU on inspection procedures, complaint investigation, enforcement and legal background, commissioned by SEAM, 2005
 - Training for EMUs on inspection procedures, complaint investigation, enforcement and legal background,, commissioned by SEAM, 2004
 - Developing the training material within the cooperation of EEAA with training institutes, commissioned by EPAP, 2004
 - Training for inspection procedures, complaint investigation, enforcement and legal background for SEAM-supported governorates, commissioned by SEAM, 2003
 - Training on cross-cutting inspection manuals for environmental inspectors of West Delta RBO, Greater Cairo RBO and Suez Canal RBO and their EMUs, commissioned by EPAP, 2003
 - Sector-specific inspection-training modules for environmental inspectors of West Delta RBO and its EMUs, commissioned by EPAP, 2003
 - Sector-specific inspection-training modules for environmental inspectors of Greater Cairo RBO and Suez Canal RBO and their EMUs, commissioned by EPAP, 2002
 - Capacity Building of environmental inspectors in Oil Refineries, commissioned by DT2, 2002
 - Preparation of the technical material for Suez Canal RBO and associated EMUs training, commissioned by EPAP, 2002
 - Preparation of the technical material for the capacity building of environmental inspectors, commissioned by DT2, 2001

Environics

Environment & Development Advisors, SAE

- Training of inspectors of the East Delta RBO, and the respective EMUs, commissioned by OSP, 2000
- Training of the inspectors of the West Delta RBO, and the respective EMUs, commissioned by EPAP, 2000
- Training of EMU staff members at Ismailia and Sharkeya Governorates on environmental inspections, commissioned METAP, 2000
- Training of the inspectors of the newly established Industrial Inspectorate of EEAA, commissioned by EPAP, 2000
- Training for Trainers (TOT) program for inspectors of the Ministry of Manpower to prepare them to train other MOME staff on environmental inspections, commissioned by EETP, 1999

VI. BIODIVERSITY CONSERVATION AND MANAGEMENT OF PROTECTED AREAS (PAS)

Environics has undertaken numerous assignments for the investigation and evaluation of environmental conditions with a focus on ecological assessment and biodiversity conservation. The team has also provided, through donors' projects, valuable technical assistance to the Government of Egypt concerning natural resources conservation, establishment, planning, and management of PAS.

- Providing technical advice to the EEAA-NCS & the RSG on environmental management and conservation
- Preparing a Master Action Plan for Wadi El Gemal Natural Protectorate
- Assisting planning and implementation of WGNP revenue generation in relation to sustainable park operations
- Supporting mooring buoys programs among cooperation organizations through procurement materials
- Monitoring of marine sensitive habitats (i.e. coral reefs, mangrove, sea grass)
- Monitoring of threatened and endangered marine species
- Monitoring of valuable living terrestrial resources
- Establishing & implementing site management plan for at least one of the most diverse & valuable diving site "House Reef Management Plan"
- Establishing biodiversity baseline data system

The studies involve document review and field surveys and address terrestrial, aquatic as well as marine environments. Assignments addressing terrestrial ecology focused on coastal and desert environments. Marine ecological assessments were carried out in both the Mediterranean and the Red Sea. Aquatic ecological assessments focused on the Nile and a number of lakes including Lake Manzala and Lake Qaroun. Technologies such as GIS and remote sensing are commonly used to perform such tasks.

Assignments within this field address several different facets including:

- Terrestrial biodiversity-related assignments
- Marine biodiversity-related assignments
- Assessments undertaken in protected areas

- **Terrestrial Ecological assignments**
 - Biodiversity Studies for Three Electrical Power Plants (4800 MW/Plant): El Burullus, the New Capital, and Beni Sueif, commissioned by the Egyptian Electricity Holding Company (EEHC) and Siemens, in association with ERM, ongoing.
 - Bird Surveys in Ras Gharib area, commissioned by Lekela, 2015 - ongoing
 - Biodiversity Impact Assessment for Petrosilah Concession in Fayoum, commissioned by Merlon Petroleum El Fayoum Company, 2017

- Ecology Report for Dana Gas Onshore Concessions in the Nile Delta, commissioned by ERM, 2016
- EIA Studies for seismic surveys in the Western Desert Concessions: North Ghazalat and North West El Alamein, commissioned by HBS, 2016
- Biodiversity Action Plan for Burullus Power Plant, commissioned by the Egyptian Electricity Holding Company (EEHC), 2016
- Specific Baseline Studies (Ecological Survey, Flash flood Assessment, noise measurements) for two PV plants in Benban, Aswan, commissioned by Misr Consult, 2016
- Ecology Report for ENEL Wind Power Plant Plots, Ras Ghareb, Red Sea Governorate, commissioned by ENEL Green Power (EGP), 2016
- Environmental Baseline Studies for BP's West Nile Delta Gas Development project, in Markaz Edku (Raven Site), commissioned by ERM, July 2015
- Seasonal bird survey for WND project, commissioned by BP, 2012
- EIA addendum for Burulus petroleum company, Rashpetco, in association with ERM, commissioned by Rashpetco, 2010
- EIA for Hess concession in the Mediterranean and for the on-shore gas processing plant, in association with ERM, commissioned by NALPETCO/Hess, 2010
- ESIA for El-Sewedy Copper Smelter, commissioned by El-Swedy, 2009
- ESIA for PET Plant in Damietta Port, commissioned by SAPL, 2008
- Nouran beet sugar production plant, commissioned by ElNouran Sugar Mills, 2007
- Fauna assessment for Burulus heavy mineral mining project, commissioned by Coastal & Environmental Services, 2006
- Survey of Damietta Stretch, as a sub-contract to ERM, commissioned by British Gas Company, 2005
- Preparation of a report on the environmentally friendly methods to dismiss bats settling in the monuments of the Babylon Fortress, Old Cairo, commissioned by Arab contractors/Orascom, 2005
- Identification of potential ecological receptors and compilation of eco-toxicity data for local wildlife species for Arab Abu Saed Area, commissioned by EEIF, 2004
- Sukari Gold Mine Project in the Eastern Desert, the first gold mine in Egypt, commissioned by Centamin Egypt, 2002
- Medicinal and Aromatic plants market development, commissioned by the ESDF, 2002
- EIA and design for Beba- ElFashn sanitary landfill, commissioned by Plancenter LTD, 2002
- Esna Sanitary Drainage Project, commissioned by DANIDA, 2002
- Cairo-Ain Sokhna and Helwan-Korimat BOT Highways, commissioned by the developer, 2002
- Wastewater treatment plant for Marsa Alam Jabal AlJazirah AlHamrah Tourism Center, commissioned by the developer, 2001

- Pyramids Heights, a touristic and commercial center in Abu Rawash, commissioned by Master Land for Real Estate and Touristic Development Company, 2001.
- Sludge pipelines between Berka and Gabal El Asfar wastewater treatment plants, commissioned by Camp Dresser and McKee International Inc. (CDM)-Egypt, 2000.
- Relocation of the Eastern Tobacco Company to 6th October industrial city, commissioned by the company, 2000.
- Menaville Tourism Center, south of Hurgada, including a 3-star hotel, service station, gas station, as well as central services, commissioned by the developer, 2000.
- Industrial Relocation of foundries and lead smelters from Shoubra El Kheima to Abu Zaabal, an activity of CAIP, 2000.

- **Marine Ecological assignments**
 - Marine Mammal Observation (MMO) for piling operations to drive conductor pipe, Zaafarana Field, commissioned by GEMSA Petroleum Co., 2018
 - Marine Mammal Observation (MMO) for piling operations, Gulf of Suez, Egypt, commissioned by PICO Amapetco, 2017
 - Scoped EIA study for brine discharge of desalination plant in Aqua Marina Resort, Red Sea, commissioned by Aquamarina Company for Hotels/TRAVCO, 2016
 - Scoped EIA study for constructing and operating a touristic Marina in Abu Suma Bay, commissioned by Aquamarina Co. for Hotels/TRAVCO, 2016
 - Review of Biodiversity Impact Assessment - Phase 3, for PICO Offshore Concessions in the Red Sea (Prepared by D'Appolonia), commissioned by PICO, 2016
 - Marine Survey and Bathymetric Study for the construction of a marina in Soma Bay, commissioned by TRAVCO, 2016
 - Scoped EIA for Makadi Bay Brine disposal, commissioned by TRAVCO, 2015
 - Marine Survey & Bathymetric Study for Makadi Bay, commissioned by TRAVCO, 2015
 - EIA study for the Marine Platform in Sokhna, commissioned by TRAVCO, 2015
 - EIA & CAP for Hilton Fayrouz Resort in Sharm El Sheikh, commissioned by the developer, 2015
 - Preliminary Revision of Phased Biodiversity Impact Assessment for PICO Concessions, Phases 1 & 2, 2015
 - Environmental Impact Assessment Taurt Field Development Project – Phase 1, commissioned by GUPCO/BP, 2007
 - Environmental Impact Assessment Drilling of Ha'py A18 Well, commissioned by BP, 2007
 - Coral Reefs Valuation and Conservation in Red Sea Area, specific contribution in the MVE contract, 2003

- Bathymetry and shoreline modeling of Sahl Hasheesh Marina, commissioned by ERC, 2003
- Development of a common information base for Red Sea protection and development, specific contribution in the MVE contract, 2002
- Environmental studies related to the beach area of the Four Seasons Hotel in Sharm El Sheikh (EIA and design), commissioned by the developer, 2002
- Sunken City Theme Park in Sahl Hasheesh, commissioned by the Egyptian Resort Company, 2000
- Windsor Garden City in Hurghada, commissioned by Red Sea Company for Tourism Projects, 2000
- An EIA addendum to Riviera Center, a touristic development at the Taba area; commissioned by the developer, 2000.

- **A number of projects included both Terrestrial and Marine Ecological Studies**
 - Review of Biodiversity Management Plan for PICO Concessions (Zaafarana, Amal & Geisum/Tawila), Northern Red Sea, 2016
 - Baseline Study (Marine & Terrestrial Habitats) in Ras Hewala area, Ras Hewala Touristic Center, for Almaza, Jazz and Crystal Group of Resorts, commissioned by TRAVCO, 2016
 - Integrated EIA study for the touristic development project in Suma Bay, Red Sea, commissioned by TRAVCO, 2015
 - EIA for Tourist Development in Gemsa Bay, commissioned by DAMAC, 2010
 - Conceptual development and EIA for Sharm Abu Dabab, Marsa Alam, commissioned by Concord, 2009
 - Valuation of Red Sea terrestrial biodiversity and management of natural resources within the project for Sustainable economic growth in Red Sea, commissioned by USAID, 2008
 - Assessment of environmental status of Abu Qir hot spot including physical, biological and social characteristics as part of the project for the environmental management of Abu Qir hot spot, commissioned by GEF/MAP, 2005
 - Baseline Ecological Assessment for the Natural Gas Liquids Project, as a subcontractor to Environmental Resources Management (ERM), UK, 2002.
 - Pyramisa Hotel in Sahl Hasheesh, Hurghada, commissioned by the developer, 2002
 - Ibrotel Touristic Village in Sahl Hasheesh, commissioned by El Ahly for Real Estate Development, 2000

- **Management of Protected Areas**
 - Biodiversity Action Plan (BAP) for Burullus Power Plant, commissioned by the Egyptian Electricity Holding Company (EEHC), 2016

Environics

Environment & Development Advisors, SAE

- Socio-economic study of the Sallum Bay Marine Protected Area, commissioned by the MedMPAnet Project (UNEP, MAP, RAC/SPA and EEAA), 2015
- Sustainable economic growth in Red Sea, commissioned by USAID, 2008
- Baseline Environmental Monitoring Surveys (United Gas Derivates Company (UGDC). These surveys included agricultural aspects, Nile banks, Lake Manzala, terrestrial ecology and El-Gamil Protectorate, 2004.
- Ecological status report for an urban development project on the southern shore of Lake Qaroun, inside the Natural Protectorate, 2004.
- Investigating routes crossing Wadi Degla within the EIA for Cairo-Ain Sokhna and Helwan-Korimat BOT Highways, commissioned by the developer, 2002

VII. COASTAL ZONE MANAGEMENT

Environics has its own in-house capacity and has provided its services in Marine and Coastal Zone Management "MCZM", to a diversity of clients. These are mainly tourist developments in coastal areas with a special focus on the Red Sea. Sustainable tourism requires such integrated services which include:

- Shoreline "beach enhancement" management
- House reef management plans
- Natural Resource/assets, carrying capacity assessment, monitoring and management plans
- Waste management and impact mitigation.

Assignments within this field address several different facets including:

- Analytical study of satellite images to identify beach erosion and protection alternatives for Palma House Touristic Resort project in Hurgada, 2018
- Environmental & Social Management Framework for "Enhancing Climate Change Adaptation through Soft Coastal Protection in Five vulnerable hotspots in the Nile Delta & through Integrated Coastal Zone Management for Egypt's North Coast" project, commissioned by UNDP, 2017
- The "Integrated Coastal Zone Management (ICZM) in Egypt – a Scoping Study", financed by "The Adaptation to Climate Change in the Nile Delta through Integrated Coastal Zone Management Project" (ACCNDP), 2017
- Socio-economic Study Regarding the Marine Protected Area (MPA) of Sallum Bay – Egypt, commissioned by The Regional Project for the Development of a Mediterranean Marine and Coastal Protect Areas (MPAs) Network (MedMPAnet Project), 2015
- Red Sea and Gulf Aden strategic management project, WGHPA sub-project ESMF and PF, commissioned by PERSGA, 2013
- EIA for Tourist Development in Gamsa Bay, commissioned by DAMAC, 2010
- Prefeasibility analysis for ACZMP pollution reduction for Lake Mariout, commissioned by World Bank. 2009
- Marsa Matrouh integrated coastal zone management plan, commissioned by IH Cantabria, 2009
- Conceptual development and EIA for Sharm Abu Dabab, Marsa Alam, commissioned by Concord, 2009
- Marine protectorate assessment declaration document for Sallum protectorate, commissioned by IUCN, 2009
- Coastal zone management for Wadi El Gemal protectorate, within the project for Sustainable economic growth in Red Sea, commissioned by USAID, 2008
- Tourism Development of Salalah Coastal Zone, Dhofar Region, Oman commissioned by Oman Ministry of Tourism, 2007
- Tourism Development in Marsa Wazar, Red Sea, commissioned by Cleopatra Group, 2007
- Assessment of environmental status of Abu Qir hot spot including physical, biological & social characteristics as part of the project for environmental management of Abu Qir hot spot, commissioned by GEF/MAP, 2005

VIII. ENVIRONMENTAL PROFILES

Environics has been involved in the preparation of a number of surveys ranging from environmental profiles at the national or governorate level to more specific surveys at the sectoral level. At Environics, efficiency of the data collection process is secured through a thorough understanding of the actions considered and careful identification of the assignment scope. In this manner, we avoid expending valuable resources in the preparation of exhaustive profiles. Scoped profiles would effectively contribute to the decision making process by providing recommendations for action, based on the analysis of collected data.

The process of data collection and assessment is supported by a network of contacts needed to acquire the necessary information. Interviews and field visits are conducted to incorporate the views of stakeholders in a comprehensive decision making process. The recommended plans of action are based on a thorough investigation and analysis of collected information using decision rules appropriate to the focus of the assignment, thus ensuring a transparent and effective logical chain from data collection to recommended action.

Assignments within this field have included environmental profiles both on the local, regional and national levels.

- **Environmental Profiles at the Local Level**
 - Environmental Baseline Study for Kareem, Ayun, Um ElYusr and Shoukeir fields, commissioned by Oil Search, 2006
 - Environmental profile of West Sitra area, commissioned by Shell, 2006
 - Preparation of the environmental management section of South Sinai environmental profile, commissioned by SEAM, 2004
 - Review of the environmental profile of Damietta, commissioned by SEAM, 2004
 - Preparation of the industrial sections for South Sinai environmental profile, commissioned by SEAM, 2004
 - Preparation of Industrial sections for Damietta's Environmental Profile and GEAP, commissioned by SEAM, 2004
 - Management of Baseline Environmental and Monitoring Surveys, commissioned by United Gas Derivates Company (UGDC), 2004
 - Support for developing a common base for Red Sea protection and development, specific contribution in the MVE contract, 2001
 - A survey of baseline conditions for major industries in Qena governorate as an input for the Governorate Environmental Action Plan (GEAP), commissioned by SEAM, 2001.
 - An assessment of SMEs in four governorates, namely Dakahleya, Sohag, Qena and Damietta, to identify the candidate sectors for the implementation of cleaner production, commissioned by SEAM, 2001.

- Beni Suef Preliminary Environmental Profile, as an input for the Governorate Environmental Action Plan, commissioned by the Royal Danish Embassy in Cairo, 1999.

- **Environmental Profiles at the Regional Level**
 - Assessment of environmental status of Abu Qir hot spot including physical, biological and social characteristics as part of the project for the environmental management of Abu Qir hot spot, commissioned by GEF/MAP, 2005
 - Survey of Damietta Stretch, as a sub-contract to ERM, commissioned by British Gas Company, 2005

- **Environmental Profiles at the National Level**
 - Country and regional HSE/CSR profiles for Egypt, in association with ERM, commissioned by Statoil, 2009
 - Preparation of the country profile on the environment for Egypt, commissioned by the Japanese International Cooperation Agency (JICA), 2002.

IX. HSE AND SOCIAL MANAGEMENT SYSTEMS, POLLUTION ABATEMENT STUDIES, and RISK ASSESSMENT

Environics team has extensive experience in the field of environmental management, with a scope extending from the facility-level, estate-level and sector-level to the broad policy related issues aiming at achieving the balance between environmental protection and economic development. The assignments undertaken by Environics address both regulatory entities and regulated facilities. Targeted facilities comprise establishments of different sizes including small and medium as well as large enterprises. The team has provided support to numerous sectors including the industrial sector (food, chemical, petroleum, engineering, textile, pharmaceutical industries) as well as non-industrial sectors such as ports and infrastructure projects.

The objective of facility/organization-level activities varies from the compliance with environmental laws and regulations to the development of a complete environmental management system. Environics has undertaken assessment of environmental performance through detailed auditing, comprehensive investigation and gap analysis process to develop environmental action plans including both the implementation of environmental operational and management procedures as well as control measures including the introduction of cleaner production technologies, in-plant modifications, in-process modifications and the end-of-pipe treatment for which conceptual designs are provided. The plan is usually coupled with a system for follow-up, monitoring and evaluation to ensure sustainability and continual effectiveness. Moreover, a number of assignments have also included the development of required documentation, such as environmental registers, release inventories and management plans to name a few.

In a number of cases, the protection plans have been developed into a complete HSE management system designed and implemented in accordance to international standards. Such assignments involve institutional and organizational set-up of the system, setting the framework for the implementation of HSEMS, undertaking gap-analysis, formulation of the procedures, plans and programs, capacity building of personnel and the operationalization of the continual improvement process.

Assignments on the sector-level involve the assessment of cleaner production opportunities, management measures, implementable management systems for the targeted sector to ensure environmental protection as well as guidelines for environmental management and self-monitoring for numerous sectors.

Assignments on the estate-level focus on ensuring environmentally sound industrial estates through the development of guiding manuals, management plans and operational procedures.

The development of an innovative integrated tailor-made solutions starts with the investigation of pollution prevention at source then waste minimization through no cost/low cost modification, housekeeping, reuse/recycle, cleaner production, adoption of environmentally sound management practices, in-plant modification or in-process modification. End-of-pipe treatment is kept as a last resort. This staged approach ensures a cost effective process to achieve the balance between environmental protection and financial viability. Our experience with the industrial sector supports the fact that sustainability of environmental protection is better ensured through the development of guiding manuals and procedures as well as capacity building activities.

Assignments within this field have addressed several facets including:

- Design, implementation and evaluation of HSE management systems
- Environmental and Social Due Diligence reviews
- HSE audits
- Support to the implementation of pollution abatement projects and schemes
- Risk Assessment

- **Health, Safety and Environmental Management Systems (HSEMS)**
 - Environmental Register for Geocycle Alternative Fuel Facility in Sokhna, commissioned by Geocycle Egypt, 2018
 - Update the Environmental and Hazardous Substances and Wastes Registers, SC Johnson Wax, 2018
 - EHS Legal Register for an IT company, in association with ERM, 2018
 - Review of the Environmental and Social Management System (ESMS) (Regulatory Review for labour conditions and requirements in Egypt), commissioned by Ecoconsult, 2018
 - Preparation of a compliance action plan (CAP) for a water heaters facility at the 10th of Ramadan, commissioned by Electrolux, 2017
 - Environmental and Hazardous Materials and Wastes Registers for L'Oreal Cosmetics Industry, commissioned by L'Oreal Egypt, 2017
 - HSE Capacity building for the Egyptian National Railways (ENR), commissioned by EBRD, 2017
 - Technical Assistance in the EHS Management Training conducted for EEHC, in association with ERM, 2016
 - Continuous technical support for the environmental improvement and compliance program of Electrolux facilities at the 10th of Ramadan Industrial City, commissioned by the company, 2015
 - Continuous technical support for the environmental improvement and compliance program of Galaxy Chemicals Egypt SAE, commissioned by the company, 2015
 - Preparation of Environmental Register for L'Oreal Plant at 10th of Ramadan, commissioned by L'Oreal, 2015

- Training of site management and supervisors of a detergents and personal care products company on behaviour-based safety, commissioned by the company, 2014
- Follow up of upgrading HSE system and procedures at Sukari Gold Mine, commissioned by Pharaoh Gold Mines, 2013
- Upgrading the EMS at Rashpetco, commissioned by BG, 2013
- HSE organization and competence assessment for IEOC/ENI in Egypt, in association with ERM, commissioned by the company, 2011
- Review of HSE plans for large construction projects in Libya, commissioned by Chemonics Egypt, 2010
- Establishment of HSEMS in Trust Chemical Industries, in association with ERM, commissioned by TCI, 2008
- Gap analysis for the HSEMS for Etisalat Egypt, in association with ERM, commissioned by Etisalat, 2008
- Establishment of HSEMS in BP Abu Qir Base, commissioned by BP, 2008
- Establishment of HSEMS in PETZED, commissioned by PETZED, 2008
- Establishment of HSEMS in PICO International Petroleum company (PIP), commissioned by PIP, 2007
- HSE compliance and management audit for Pfizer Egypt, in association with ERM, commissioned by Pfizer, 2006
- Environmental management of Abu Qir hot spot, commissioned by EEAA within the MAP framework, 2005
- BP HSSE Compliance Risk Characterization Process, commissioned by BP, in association with ERM, 2005
- Environmental regulations summary for Egypt and Saudi Arabia and HSE compliance and management audits for two facility producing aerosol products in Cairo and Jeddah, commissioned by SC. Johnson, 2004
- Establishment of EMS in the Egyptian Company for Flax Product, commissioned by the company, 2004
- Development of an HSE section in Egypt Oil and Gas Report, commissioned by PICO, 2004
- EMS assessment audit for ELNG, commissioned by ELNG, 2003
- Development of sector-specific self-monitoring manuals for metallurgical industries, surface metal finishing, textiles, dairy, confectionary, carbonated beverage, grain milling, as well as fruit and vegetables processing, commissioned by EPAP, 2002
- Development of a self-monitoring manual for steam generating and wastewater treatment plants, commissioned by EPAP, 2002
- Assisting Alexandria General Organization for Sanitary Drainage in implementing ISO14001-based EMS, commissioned by DT2, 2002
- Environmental register for El-Marakby brick factory and self-monitoring plan, commissioned by the Company, 2000

- Environmental register and self-monitoring plan for the 6th October for Metallic Industries Company, commissioned by the Company, 2000.

- **Environmental and Social Management Plans (ESMPs)**
 - Support to the preparation of the Environmental and Social Management Plans (ESMPs) for PV Plants, commissioned by Scatec Solar, 2018
 - Environmental and Social Management System Review, commissioned by Merlon Petroleum El Fayoum Company (Petrosilah), 2017

- **Environmental and Social Due Diligence Reviews**
 - Environmental, Health and Safety Due-Diligence Assessment (EHS DD assessment) of a pharmaceutical company located in Badr City, Cairo, Egypt, in association with ERM, 2018
 - Environmental and Social Due Diligence for the 2 facilities of an Egyptian Food Company that produces dry mixed powder products, 2018
 - Environmental Due Diligence Assessment for a facility that manufactures paper bags for bagging cement, east of Cairo, in association with ERM, 2018
 - Environmental, Key Health and Safety Due Diligence Assessment (EHSDDA) for a facility that produces quicklime in Alexandria, in association with ERM, 2018
 - Environmental and Social Due Diligence for Tahrir Petrochemicals Complex (TPC), Ain Sokhna, commissioned by AECOM, 2017
 - Environmental and Social Due Diligence Assessment for an Egyptian Financial Intermediary, commissioned by Ezdehar Management, 2017
 - Phase I Assessment for a company specialized in paints, in association with ERM, commissioned by the company, 2017
 - Environmental and Social Due Diligence (ESDD) for a Construction Chemicals Company located in the Industrial area, New Cairo, 2017
 - Limited Phase II Site Assessment for a Project located in Nasr City Public Free Zone, specialized in printing material, in association with ERM, 2017
 - Phase I Environmental Site Assessment (ESA) for a food production company located in 10th of Ramadan City, in association with ERM, 2017
 - Environmental Due Diligence for a company specialized in inspection and maintenance of drilling pipes (3 sites), 2017
 - Environmental and Social Due Diligence for an Aluminum Company, in association with ERM, commissioned by the company, 2016
 - Phase I Soil and Groundwater Assessment for Paints Company, in association with ERM, commissioned by the company, 2016

- Phase I Environmental and Focused Health & Safety pre-acquisition Due Diligence Site Assessment for a laboratory specialised in the analysis of geological samples (Cores) for the oil and gas industry, 2016
- Soil & Ground Water Investigation – Phase II, UST, for a pharmaceutical Company in Cairo, commissioned by the company, 2016
- Phase I HSE audit and Site Assessment for a pharmaceutical Company in Cairo, commissioned by ERM, 2016
- Due Diligence for a Food Company, in association with ERM Dubai, 2015
- Environmental Due Diligence Review for a Food Company, in association with ERM France, 2015
- Phase I assessment for the premises of a company in Alexandria specialized in detergents and personal care products, in association with ERM, 2015
- Phase I site assessment for a non-operating poultry facility, commissioned by the company, 2015
- Phase I & II assessments of an abandoned site of a textile chemicals facility in Alexandria, commissioned by ERM France, 2014
- Phase II site assessment of a plastic caps production facility in Giza, commissioned by ERM France, 2014
- Phase I Assessment and Due Diligence for a pharmaceutical manufacturing, finishing, and packaging operation site in Abu Sultan, Ismailia Governorate, commissioned by ERM France, 2014
- Phase I Assessment of an industrial site at Badr City, commissioned by ERM France, 2014
- Phase II assessment and due diligence for a lighting products company, commissioned by CH2M HILL, 2014
- Phase I assessment and due diligence for a lighting products company, commissioned by CH2M HILL, 2013
- Site assessment for production and process wastewater plants of an oil and gas company, commissioned by ERM, 2013
- Post-fire environmental assessment, commissioned by Nestle, 2013
- Environmental Due Diligence audit of a metal company in 10th of Ramadan industrial area, commissioned by Electrolux, 2012
- Environmental and social due diligence review for Neolite, commissioned by Sphinx, 2012
- HSE and social due diligence review for Orchidia pharmaceutical company, in association with ERM, commissioned by the developer, 2012
- Support to the environmental and social process for Citadel Capital platform, commissioned by Citadel Capital, 2011
- Review of Environmental and social mitigation plan, commissioned by Entag, 2011

- Environmental and social due diligence review for Rameda Pharmaceutical company against IFC requirements, commissioned by the company, 2011
- Environmental and social review for river transport and docking against IFC requirements, commissioned by Citadel, 2011
- Phase 1 assessment for Olympic Electric factories in Egypt, commissioned by Golder, 2011
- Phase 1 review for L'Oreal sub-contractor, Misr Pyramids Company in Obour, in association with ERM, commissioned by the company, 2011
- Phase 1 site assessment for a cosmetic company, in association with ERM, 2010
- Environmental and social due diligence review for Dana Gas west Manzala concession in Egypt, commissioned by the company, 2010
- Review of HSEMS in PIP and its sites against Equator Principles and undertaking HSE audits of all joint venture sites, commissioned by PIP, 2010
- Phase 1 site investigation for retail projects, in association with ERM, commissioned by Macro, 2010
- Due Diligence audit for BICC, commissioned by Sistemas, 2009
- Due diligence for Bristol Myers, in association with ERM, commissioned by Pfizer, 2008
- Site assessment of an industrial site in Alex., commissioned by ACE, 2008
- Site assessment in BP Alamein Site, commissioned by BP Air, 2007
- Phase II site investigation of Avon company, in association with URS, commissioned by Avon, 2006
- Site investigation for the Nile Metallic Industries Company, commissioned by Franki Sami, 2006
- Phase One of the site investigation for the Nile Metallic Industries Company, commissioned by Franki Sami, 2004

- **HSE Audits**
 - Operational Phase Groundwater Sampling Program - Beni Suef and Burullus Power Plants, in cooperation with ERM, commissioned by The Egyptian Electricity Holding Company (EEHC), 2018
 - Exit Audit for Electrolux Facility in 10th of Ramadan industrial area, The Cairo Feeding Industry (CFI) Site, commissioned by Electrolux, 2018
 - EHS Audit for GSK supplier in Alexandria, in association with ERM, commissioned by GlaxoSmithKline (GSK), 2018
 - Follow-up to the HSE Audit carried out for the Pharmaceuticals company in 6th of October City, in cooperation with ERM, 2018
 - Environmental Assessment of a facility that manufactures pre-stressed concrete products located in 10th of Ramadan, Egypt, in cooperation with ERM, 2018

- Environmental & Social Assessment within the Scope of Egypt Electricity Grid Reinforcement Project, in association with ERM, commissioned by The European Bank for Reconstruction and Development (EBRD), 2018
- Environmental & Social Audit of the Samallout/Suez Gulf/Jabal El-Zayat 500 KV Overhead Transmission Line (OTL), commissioned by EETC, 2018
- Environmental & Social Audit of the Egyptian Chemicals Industries Company (KIMA-2) Project, Construction Phase, commissioned by the company, 2018
- Environmental & Social Monitoring Assessment for Hayat's plant in Ain Sokhna, in association with ERM, commissioned by Hayat, 2018
- HSE Audit for a Pharmaceuticals company, in cooperation with ERM, 2017
- Environmental and Social Compliance Audit of Egyptian Chemicals Industries Company (KIMA-2), Construction Phase, commissioned by the company, 2017
- Environmental & Social Monitoring Assessment for Hayat's plant in 6th of October city, in association with ERM, commissioned by Hayat, 2016
- EHS Legislation Review for the delivery of equipment for a Sulphuric Acid Plant in Egypt, 2016
- EHS Risk & Culture Audit Follow-up for L'Oreal plant in Cairo, commissioned by L'Oreal, 2016
- Environmental & Social Audit for three power plants (Beni Suef, Burullus and New Capital), commissioned by The Egyptian Electricity Holding Company (EEHC), in association with ERM, 2016
- EHS Audit for GSK supplier in the 6th Industrial area, 6th of October City, in association with ERM, commissioned by GlaxoSmithKline (GSK), 2016
- EHS Audit for GSK supplier in the First Industrial zone, 6th of October City, in association with ERM, commissioned by GlaxoSmithKline (GSK), 2016
- EHS Audit for GSK Supplier in Abou Sultan, Ismailia, in association with ERM, commissioned by GlaxoSmithKline (GSK), 2016
- Phase I HSE audit and Site Assessment for Sanofi, commissioned by ERM, 2016
- EHS Risk & Culture Audit for L'Oreal plant in Cairo, commissioned by L'Oreal, 2016
- Corporate HSE audit for S.C. Johnson in Egypt, commissioned by the company, 2016
- EHS Audit for GSK Supplier in El Obour City, in association with ERM, commissioned by GlaxoSmithKline (GSK), 2015

- Environmental Exit Audit for Electrolux Factory in Almaza, commissioned by Electrolux, 2015
- Environmental audit for a dairy products plant, commissioned by ERM France, 2015
- HSE audit for a cosmetics plant at the 10th of Ramadan Industrial City, commissioned by the company, 2015
- Environmental compliance audit for a water heaters facility at the 10th of Ramadan, commissioned by the company, 2014
- Assessment of the compliance of industrial wastewater drained from the facilities of Olympic Group (OG), commissioned by OG, 2014
- HSE audit for a brass production company in New Amereya, commissioned by ERM France, 2013
- Phase 1 site assessment for a foods production facility in Giza, commissioned by Sphinx, 2013
- Compliance measurements and modeling for Chloride company, commissioned by the developer, 2013
- HSE and code of conduct audits for Olympic Group, commissioned by Electrolux, 2012
- Corporate HSE audit for Sc Johnson in Egypt, commissioned by Sc Johnson in association with Boston environmental group, 2012
- Guardian glass audit in Saudi Arabia, commissioned by Guardian, 2012
- Phase 1 assessments for Petrol stations for Chevron, in association with ERM, commissioned by Chevron, 2011
- Compliance audit for a plastic company in Borg ElArab city, in association with ERM, commissioned by the company, 2011
- HSE audit for Cameron facility in Algeria, commissioned by Cameron, in association with STC, 2011
- Environmental and energy audit for Spring tours floating hotels in the Nile, commissioned by UK Travel Foundation, 2010
- HSE audit for Cameron facilities in Egypt, commissioned by Cameron, in association with STC, 2010
- HSE audit for Pfizer, in association with ERM, 2009
- HSE audit of Apache facilities in Egypt, in association with AECOM, commissioned by company, 2009
- HSE protocol and audit for S.C. Johnson in Saudi Arabia, in association with Boston Consulting Group, commissioned by the company, 2009
- Assessment of wastewater disposal pond of ElEzz, commissioned by ElEzz group, 2008
- Phase 1 environmental assessment for NALCO site in Alexandria, commissioned by NALCO, in association with ERM, 2008
- HSE audit for Pfizer factory, in association with EEM, commissioned by Pfizer, 2008
- HSE audit on S.C. Johnson in Cairo in association with Boston Consulting Group, commissioned by the company, 2008

- Environmental compliance audit on Cairo Oil Refinery, in association with ERM, commissioned by Societee General Bank, 2007
- HSE audits for GUPCO on-shore and off-shore facilities, in association with ERM, commissioned by BP, 2007
- Due Diligence Audit for TCI, in association with ERM, commissioned by BNP Paribas Bank, 2007
- HSE audit in the Egyptian Railway Authority Yards at Boulaq and EL Tebbin, in association with ERM, commissioned by GE, 2006
- Environmental compliance/performance audit in Nissan factory in Giza, in association with ERM, commissioned by Nissan, 2006
- Environmental Audit for Chloro - Alkali Plant in Portsaid, in association with ERM, commissioned by the developer, 2006
- Investigation of a fatality Incident in a Facility, in cooperation with ERM, 2006
- HSE audit for a confectionary factory, in association with ERM, commissioned by Cadbury Schweppes, 2005
- HSE audit for a packing factory, in association with ERM, commissioned by Pactive, 2004
- HSE audit for the American Standard facility, in association with RSK ENSR Limited, commissioned by American Standard facility 2004
- Pollution abatement studies for the Achieving Compliance in Industry (ACI) component of the SPS, DANIDA, 2003
- Environmental compliance audit of Procter and Gamble factory, commissioned by the company, 2003
- Investigating the environmental aspects for Bitumen spraying, commissioned by URA Misr, 2003
- A rapid assessment of cleaner production opportunities for the metal industry, commissioned by SEAM, 2001
- An assessment of cleaner production opportunities for the brickworks, commissioned by SEAM, 2001
- Pre-screening and evaluation activities conducted within the context of the German Bank of Reconstruction (KfW) funds made available for industrial wastewater management schemes. The pre-screened establishments come from a wide variety of sectors including industrial establishments and other sectors such as ports. The assignments are commissioned by the Environmental Facility for the Public Sector Industry, located within EEAA. This is an ongoing activity. Pre-screened facilities include:
 - Tanta Oil Refinery, 2002
 - Cairo Oil Refinery, 2002
 - Suez Oil Refinery, 2002
 - Egyptian Petrochemical Company, 2002
 - Amereyah petroleum company, 2001
 - Alexandria port, 2000
 - Emisal factory, 2000
 - Middle Egypt Mills (2 factories), 2000
 - Venus factory, 2000

- Misr Mehalla Textiles, 2000
- An environmental appraisal of two bricks factories, commissioned by the EEIF, 2000
- **Pollution Abatement Studies & Projects**
 - Aquifer Remediation requirements for Abu Nakhla Petrol Filling Station in Doha, Qatar, commissioned by Wataniya Environmental Services Co., 2018
 - Design of a Wastewater Treatment Plant (WWTP) for a water heaters facility at the 10th of Ramadan, preparation of a tender document for its construction, evaluation of proposals and supervision of its construction and pre-commissioning phases, 2017
 - Soil Investigation (Phase II) in Basin 1 of Sokhna Port, commissioned by DP World Sokhna, 2017
 - Environmental Compliance Action Plan, Feasibility Study and Environmental Audit for the Egyptian Financial Industrial Company (EFIC) in Assiut & Kafr El Zayat, commissioned by EPAP III, 2017
 - Compliance Action Plan for Water Heaters Factory, commissioned by Cairo Industrial Feeding Co. (Electrolux International), 2016
 - Soil & Ground Water Investigation, UST (Phase II) for Sanofi Cairo, commissioned by Sanofi, 2016.
 - EIA & Dispersion Modeling for Makadi Bay Marine Brine Disposal resulting from a desalination plant at a Red Sea touristic resort, commissioned by TRAVCO, 2015
 - Environmental Compliance Action Plan for Hilton Fayrouz Resort in Sharm El Sheikh, commissioned by Hilton Fayrouz, 2015
 - Environmental Compliance Action Plan for Petro Beach Hotel, commissioned by Petrobeach, 2015
 - Asbestos Survey for BP site in EDKO, commissioned by Baruns Egypt, 2015
 - Inventory of industrial and domestic wastewater system at 7 facilities, commissioned by Olympic Group, 2014
 - Inventory for industrial and domestic wastewater system at 7 facilities of Olympic Group (OG), commissioned by OG, 2013
 - Program to stimulate energy efficiency in energy intensive industries in Egypt, commissioned by Ministry of Industry, 2012
 - Hazardous chemical management guidelines, commissioned by UNIDO, 2012
 - Cross contamination of iron oxide and sugar in Sukhna Port, commissioned by DPW Sokhna, 2011
 - Market study and assessment of environmental performance related to the generation of electricity from agricultural waste, commissioned by Entag, 2010
 - Identification of the environmental aspects related to the new printing machine, commissioned by P&G, 2010

- Air dispersion modeling for National Fertilizers Co., commissioned by the company, 2009
- Life cycle assessment for detergents, commissioned by P&G, 2009
- Sustainability of consumption and production and its application on Cairo governorate in association with ENCPC, commissioned by UNDP, 2008
- Cumulative air modeling of oil refining and distribution facilities in ElZaitiat Area, Gulf of Suez, commissioned by Suez RBO, 2008
- Industrial wastewater management in GSDC, commissioned by the company, 2008
- Environmental Monitoring for assessing the impact of a new substance, commissioned by P&G, 2008
- Assessment of pollution loads and Ambient conditions of cement cluster in Beni Suef, commissioned by developers, 2007
- Environmental Section in Egypt Energy Report, commissioned by PICO, 2007
- Market assessment of SMEs energy efficiency potential in Egypt, commissioned by IFC, 2006
- Solvent waste recycling at General Motors Egypt and Badawi company, commissioned by the Egyptian National Cleaner Production Center, 2006
- Investigation of alternatives for wastewater treatment in Kraft Foods factory, commissioned by the company, 2006
- Development of the self-monitoring plan and environmental register for Kraft company, commissioned by Kraft, 2006
- Development of the self-monitoring plan for the Ideal Standard company, commissioned by the company, 2006
- Development of the self-monitoring plan for Trane facility, commissioned by American Standard company, 2006
- Pollution abatement studies, feasibility studies and tender documents for industrial facilities within the framework of the project for environmental management in Abu Qir hot spot, commissioned by GEF/MAP, 2005
- Investigation of alternatives for management of solid and & liquid wastes, commissioned by EMISAL, 2005
- Implementation of a wastewater treatment plan for Procter and Gamble Egypt, commissioned by P&G, 2005
- Improvement in efficiency and reduction of toxic effects of furniture spray painting, commissioned by SEAM, 2004
- Investigation of wastewater disposal schemes for PGE, commissioned by PGE, 2004
- Feasibility study for environmental upgrading of tannery clusters, commissioned by EEIF, 2004
- Feasibility study for environmental upgrading of galvanization clusters, commissioned by EEIF, 2004

- Environmental upgrading of micro and small workshops of different sectors within the rehabilitation of historical buildings in EIDarb AlAhmar area, commissioned by the Aga Khan Foundation, 2003
- Preparation of a comprehensive study on permitting requirements for an off-shore oil production site, commissioned by Technip, 2003
- Development of a toxic release inventory for the Egyptian refineries, commissioned by TYPISA, 2002
- Development of sector-specific self-monitoring manuals for metallurgical industries, surface metal finishing, textiles, dairy, confectionary, carbonated beverage, grain milling, as well as fruit and vegetables processing, commissioned by EPAP, 2002
- Development of a self-monitoring manual for steam generating and wastewater treatment plants, commissioned by EPAP, 2002
- Industrial wastewater management scheme for El Ezz Steel Factory coupled by an EIA, commissioned by the company, 2001
- Wastewater Management for Leader Factory for Paints and Chemicals, commissioned by the company, 2000

- **Risk Assessment**

Environics has undertaken quantitative risk assessments (QRA) as well as Hazard Identification (HAZID) and Hazard and Operability (HAZOP) for existing or proposed projects. Projects in that respect include:

 - Source Water Risk Assessment for a manufacturing site in Minya, commissioned by PepsiCo., in association with ERM, 2017
 - HAZID studies/workshops for SUCO's three operating sites in Gulf of Suez, commissioned by Suez Oil Company (SUCO), 2017
 - HAZOP Study for DMLA Tank, commissioned by Galaxy Chemicals Egypt Company, Attaqa, Suez, 2017
 - Support to Water Risk Assessment Consultancy Services for PepsiCo. Plants, 2016
 - Hazardous Area Classification (HAC) study for SC Johnson plant at Belbais, Sharqeya Governorate, commissioned by the company, 2014
 - QRA study of the gas tankers berth project, commissioned by EPPC, 2014
 - HAZOP study for EIPET company, commissioned by the company, 2013
 - EIA for SRPC refinery in Sukhna, commissioned by the developer, 2012
 - EIA for the jetty and tank farm in Sukhna, commissioned by the developer, 2012
 - DMAPA and hydrogen peroxide tanks in Galaxy factory, commissioned by Galaxy, 2011
 - HAZOP for Surfactants Production Facility in Ataka Free Zone, commissioned by Galaxy Surfactants LTD, 2010
 - ESIA for PET Plant in Damietta Port, commissioned by SAPL, 2008

- HAZID Audit on Trust Chemicals Industries in preparation for a detailed Quantitative Risk Assessment, in association with ERM, commissioned by TCI, 2007
- EIA for Taurt development project, phase I, commissioned by GUPCO, 2007
- Beba- El Fashn sanitary landfill, commissioned by Plancenter LTD, 2003

- **Flash Flood Risk Assessment Studies**
Environics has undertaken studies to assess Flash Flood risks that include:
 - Surface Water Analysis for Four Sites in Benban Solar Park, Kom Ombo, Aswan, commissioned by Alcazar Energy, 2018
 - Surface Water Analysis for Three Sites in Benban Solar Park, commissioned by Infinity Solar, 2017
 - Surface Water Analysis for Six Sites in Benban Solar Park, commissioned by Scatec, 2017
 - Specific Baseline Studies (Flash flood Assessment, ecological survey, noise measurements) for two PV plants in Benban, Aswan, commissioned by Misr Consult, 2016
 - Surface Water Analysis (Flash Flood) for a PV Plant in Kom Ombo, Aswan, commissioned by Lekela, 2016
 - Flash flood hazard and surface water analysis study for Zaafarana Solar Park, Gulf of Suez, 2016
 - Hydrological and hydrogeological study for a wind farm, West Ras Gharib, 2016
 - Hydrological and hydrogeological study for a wind farm, East Ras Gharib, 2015
 - Hydrological study and flash flood hazard investigation for a 50 MW PV plant at El Gouna, Red Sea, 2015
 - Flash flood modelling, surface water conditions and groundwater hydrology for the ESIA study of the seismic acquisition at North West Gharib, South West Gharib and South East Gharib concessions of TransGlobe Energy, Eastern Desert, 2014
 - Flash flood modelling, surface water conditions and groundwater hydrology for the ESIA study of the seismic acquisition South Ghazalat concession of TransGlobe Energy, Western Desert, 2014
 - Hydrological assessment study at a heavy industries site, Beni Suef, 2012
 - Topographic field survey of the 20 MW photovoltaic power plant area, Hurghada, 2012
 - Flash flood hazard and protection, as part of the IEIA for Gamsha Bay Tourism Project, 2009
 - Flash flood hazard investigation as part of the EIA for proposed magnesium facility in Sokhna Port, 2006
 - Flash flood hazard investigation as part of the EIA for the sugar refinery of the United Sugar Company of Egypt (USCE), 2006

X. Air Dispersion Modeling

Air Emissions Dispersion Modeling is the mathematical simulation of how air pollutants disperse in the ambient atmosphere, which provides dispersion analysis for multiple sources, including stack, line and area sources. It is performed with computer programs that solve the mathematical equations and algorithms, which simulate the pollutant dispersion. Modeling is a reliable tool for designing effective control strategies to reduce emissions of harmful air pollutants. Air dispersion modeling is coupled with MM5, which is a meteorological model that has the ability to resolve the synoptic scale and mesoscale, in addition to micro atmospheric physics.

Modeling results are further presented on contour maps showing the pollutant distribution over the study area. These are used for assessment of potential impacts on the different land uses and sensitive receptors surrounding a proposed project location.

Environics possess in-house air modeling software package: AERMOD View, licensed by LAKES Environment, USA. AERMOD View is a complete and powerful air dispersion modeling package, which seamlessly incorporates more than one popular U.S. EPA air dispersion model, namely: AERMOD, ISCST3 and ISC-PRIME, into one integrated interface. These are the US EPA air dispersion models extensively used to assess pollution concentration and deposition from a wide variety of sources.

Environics has carried out air dispersion modeling studies for several projects with the purpose of investigating environmental and health impacts, compliance assessment, compatibility of industrial and/or development activities, and the cumulative and individual impacts of such activities.

Assignments include:

- Construction Quarterly Monitoring for Ambient Air Quality at EEHC's three power plants (Beni Suef, Burullus and New Capital), in association with ERM, 2017
- Baseline Ambient Air Monitoring by Diffusion Tubes for EEHC's three power plants (Beni Suef, Burullus and New Capital), 2016
- Air Dispersion Modeling for ARMA Extension in the soap and detergents plant at 10th of Ramadan, commissioned by ARMA, 2015
- Airborne asbestos monitoring study at a site to be acquired by the Egyptian Refining Company (ERC), Mostorod, commissioned by the company, 2014
- Air Dispersion Modeling of the Alexandria Portland Cement Company (APCC) Stack Emissions, commissioned by the company, 2014
- Air dispersion modeling for Gloria Co. for Ceramics, commissioned by the ElSharq Ceramics, 2014
- Measurement and air dispersion modeling for Chloride Co., commissioned by E2, 2013

- Air dispersion modeling for Port Said Steel plant, Sokhna Zone, commissioned by Port Said Steel, 2013
- Air dispersion modeling for IIC Steel plant, commissioned by IIC, 2012
- Air dispersion for SRPC Refinery in Sukhna, commissioned by the SRPC, 2012
- Air dispersion modeling Study for Delta Steel, commissioned by Enviglole, 2012
- Cumulative air dispersion modeling for E-square Industrial Park, 6th of October, 2011
- Cross Contamination including air dispersion for Iron Oxide – Sugar, Sukhna Port, commissioned by DPW Sokhna, 2011
- Air dispersion modeling for stack emissions, Galaxy Chemicals Egypt Co., 2011
- Air dispersion for National Co. for Ammonium Sulphate, commissioned by EFC, 2010
- EIA for Introduction of Beet Sugar Production Line in USCE Sugar Refinery, including air dispersion for the project stacks, commissioned by USCE, 2010
- Air dispersion for Wadi Oil & Fodder Factory, Sadat City, commissioned by the client, 2010
- Air dispersion for Agrochem Fertilizers Co., Behira, 2009
- Air dispersion for El Swedy Copper Smelter, commissioned by the client, 2009
- Air Dispersion Modeling for Aswan Fertilizer, commissioned by ENCPC, 2009
- Air Dispersion for Sokhna Power Plant, commissioned by the client, 2008
- Cumulative air modeling of oil refining and distribution facilities in ElZaitiat Area, Gulf of Suez, commissioned by Suez RBO, 2008

XI. ENERGY PLANNING AND MANAGEMENT

Energy has been part of Environics activities for a number of years. However, this activity that started as a growth of the environmental focus of the firm, has taken a path of its own during the last few years. This is a reflection of a rising interest in Egypt for energy management, and the realization that the energy mix highly reliant on depletable resources needs to be revisited.

Environics activities in this area are mainly focused on the need for a balanced energy transition in which Energy Efficiency plays a dual role, economic returns/savings and allowing more time for the transition to Renewable Energy to take place. Accordingly, most of the activities are policy oriented, but also include the establishment of specific renewable energy plants and economic/financial assessment of specific interventions.

Selected examples of Environics projects in the field of Energy Planning and Management are categorized as following:

- Energy Policy.
- Energy Management.
- Photovoltaic and Wind Energy.

Energy Policy Projects include:

- Integration of Energy Efficiency in the Strategies of Four Selected Industrial Sectors, commissioned by UNIDO, 2018
- Energy Pricing and Fuel Switching Reform Strategy, in association with AF Mercados and IISD, commissioned by the World Bank, 2018
- Design and Development of a National Policy Package for the Industrial Energy Efficiency Programme (IEE), in association with Logic Energy, commissioned by UNIDO, 2015
- World Bank's Just-in-Time Advisory Support Program for Subsidy Reforms in Egypt, Global Subsidies Initiative's Work Program – Stakeholders Analysis and Communication Plan, commissioned by IISD, 2014
- Energy Outlook for Cement Industry in Egypt, confidential client, 2014
- Program to Stimulate Energy Efficiency in Energy Intensive Industries in Egypt, Commissioned by AFD, 2012
- Energy Consumption Indicator System in Egypt, commissioned by UNEP, 2011
- Energy Competitiveness in Egypt, commissioned by the Egyptian National Competitiveness Council ENCC, 2010
- Prospects of Renewable Energy in Egypt, with a focus on wind and photovoltaics, commissioned by GTZ, 2009
- A case study of Wind Energy in Egypt, in association with IISD, 2009
- Cleaner Production Strategy and Action Plan for Egyptian Industry, commissioned by the Egyptian Pollution Abatement Project, 2004
- Energy Environment Review, in association with ERM for the World Bank, 2003

Energy Management projects include:

- Support to the preparation of the Environmental and Social Management Plans (ESMPs) for PV Plants, commissioned by Scatec Solar, 2018
- Providing Technical Support during the compliance assessment of the East Delta Electricity Production Company (EDEPC), in association with ERM, commissioned by EBRD, 2018
- Technical Support to “MED TEST II” project for Pharmaplast Company, funded by SWITCH-MED Program, commissioned by ENCPC, 2018
- Provision of services relating to UNIDO’s project to Facilitate EE Improvements in the Industrial Sector, commissioned by UNIDO, 2017
- Investigation of energy conservation at EFG Hermes premises, Smart Village, commissioned by the company, 2014
- Study of the hybridization of existing thermal power stations with solar collection fields, commissioned by GIZ, 2013
- Study of boosting capacity of electric generation through the use of turbo expanders in natural gas networks, commissioned by GIZ, 2013
- Opportunities for Renewable Energy (RE) and Energy Efficiency (EE) at a tourism resort, Hurghada, 2013
- Assessment Study of Carbon Capture and Storage (CCS) Potential and Capacity Building in Egypt, 2013
- International Finance Corporation (IFC) Biomass Scoping Study, commissioned by Poyry for the IFC, 2012
- Initiation of a Waste to Energy (WTE) Business Line, 2010
- Market Assessment of Small and Medium Enterprises (SMEs) Energy Efficiency Potential in Egypt, commissioned by the IFC, 2006
- Sustainability of Energy resources in the Eastern Desert Region, for Centamin Egypt, 2005

Environmental and Social Impact Assessment (ESIA) Projects include:

- Technical Environmental Consultancy Services, Social Assessment and Stakeholders Engagement Plans for three Electrical power plants (4800 MW/each): El Burullus, the New Capital, and Beni Sueif, commissioned by the Egyptian Electricity Holding Company (EEHC) and Siemens, in association with ERM, ongoing
- Ornithological Monitoring Surveys for Lekela Wind Farm in the Gulf of Suez, 2015 – ongoing
- Scoped EIA Study for the construction and operation of Biogas Research Unit, commissioned by Sawiris Foundation for Environmental Development (for Faculty of Agriculture, Cairo University), 2018
- ESIA for a 250 MW Wind Power Plant (BOO) in Ras Gharib, commissioned by Lekela, 2018
- ESIA for a 50 MW Wind Power Plant (FIT), in Ras Gharib, Gulf of Suez, commissioned by Lekela, 2018
- EIA - Scoped (B) for Siemens Service Center, SIDC Area, Ain Sokhna, commissioned by Siemens Technologies SAE, 2018
- EIA Study for a PV Power Plant, commissioned by Soltaj for Solar Energy (Solariz Egypt), 2017
- ESIA for a PV plant in Benban, commissioned by E-Nara, 2017

- ESIA for Scatec PV Power Plant 50 MW (AC) in Benban, commissioned by Scatec Solar, 2017
- EIA Study for a PV Power Plant on the roofs of TEPCO Company, commissioned by TEPCO for Renewable Energy, 2017
- ESIA Study for a photovoltaic (PV) power plant in ACROW Misr Industrial Complex, commissioned by Sun Infinite East, 2017
- Site Management Activities for Zaafarana Solar Park, commissioned by Scatec Solar, 2017
- ESIA for Zaafaran PV Power SAE in Zaafarana, Gulf of Suez, commissioned by Scatec Solar, 2016
- Specific Baseline Studies (Flash flood Assessment, ecological survey, noise measurements) for two PV plants in Benban, Aswan, commissioned by Misr Consult, 2016
- High Level Environmental and Social Risk Assessment for a 30 MW PV Plant in West Menia area, commissioned by RA Solar, 2016
- ESIA for a PV Plant in Benban, Aswan, commissioned by Orascom (OTMT) Solar, 2016
- Four ESIA studies for Scatec Solar 50 MW (AC) PV plants in Benban, Aswan, commissioned by (Aswan PV Power SAE, Philadelphia Power SAE, Kom Ombo Renewable Energy SAE, and Upper Egypt Solar Power SAE), 2016
- Ecology Report for ENEL Wind Power Plant Plots, Ras Ghareb, Red Sea Governorate, commissioned by ENEL Green Power (EGP), 2016
- ESIA for Al-Tawakol 20 MW PV Plant in Benban, Aswan, commissioned by the company, 2016
- ESIA for a 50 MW PV Plant in Benban, Aswan, commissioned by X-Elio SAE, 2016
- Environmental and Social Scoping Reports (2 Reports: BOO & FIT) for Wind Power Plants in Ras Gharib, Egypt, commissioned by Lekela, 2016
- ESIA for Enel's SHU wind power plant at the Gulf of Suez, commissioned by Enel Green Power Egypt (EGP), 2016
- ESIA for the 50 MW PV Project in El-Gouna, Hurghada, commissioned by Beltone Capital Red Sea Venture for Solar Energy, SAE, 2016
- ESIA for 50 MW PV Power Plant in Benban, Aswan, commissioned by, Misr Consult/Adenium Energy Capital, 2016
- Seasonal Birds of Burullus - Survey for West Nile Delta (WND) BP Project, 2013
- ESIA for 20 MW Photovoltaic Plant in Hurghada, commissioned by JICA Study Team/New and Renewable Energy Authority (NREA), 2012

XII. WASTE MANAGEMENT

Environics is active in the field of waste management with a focus on hazardous waste. Environics has accumulated an experience unparalleled in Egypt in the different aspects of hazardous waste management which allowed the provision of high quality consultancy services to both regulators and generators. Assignments undertaken by the firm have addressed different aspects of the Hazardous Waste Management System, namely development of system components, institutional development, development of guidelines, capacity building as well as supporting industrial facilities in implementing hazardous waste management practices.

Targets for our activities are equally diverse, encompassing hazardous waste regulators, bodies involved in hazardous waste management operations, and hazardous waste generators with an emphasis on the industrial sector. Working with such a diversified client and stakeholders' base enables us to investigate, and constructively contribute to, hazardous waste management in Egypt from its different angles.

Environics team has been involved in assignments addressing almost all components of hazardous waste management system through the development of guidelines, procedures or training including classification of hazardous wastes, transportation, storage, permitting, on-site management as well as hazardous waste treatment and disposal.

Along these assignments, Environics team has had ample opportunity for continuous involvement in, and contribution to, evolving hazardous waste management issues as well as provide quality services to generators. Such multilateral involvement in the hazardous waste management system has allowed the firm to enrich the development of the system through useful feedback regarding the practicality and implementability of related regulations and requirements.

Assignments within this field have addressed several facets including:

- Training and capacity building of industry and regulatory agencies
- Technical support to the implementation of hazardous waste management
- Institutional development of hazardous waste related units and systems

- **Training and Capacity Building**
 - Training for Iraqi officials on HW, commissioned by UN-Habitat, 2009
 - Training of Saudi officials on hazardous waste management, commissioned by SEPCO, 2007
 - Training of Iraqi officials on hazardous waste landfill design, in association with Chemonics Egypt, commissioned by UNICEF, 2006
 - Training of EMG-supported governorates on hazardous waste management, commissioned by EMG, 2006

- Training on the identification, classification and management of hazardous waste, commissioned by HWMPA, 2005
- Hazardous waste management training for Suez RBO, commissioned by Suez RBO, 2004
- Training of the Transporters of HW in El Nasreya, commissioned by HWMPA, 2004
- Training of SEAM-supported governorates on hazardous waste management, commissioned by SEAM, 2004
- Training on hazardous waste for hazardous waste management unit in Alexandria governorate, commissioned by HWMPA, 2003
- Training on hazardous waste management for environmental inspectors of West Delta RBO, Greater Cairo RBO and Suez Canal RBO and their EMUs, commissioned by EPAP, 2003
- Training on hazardous waste management for environmental inspectors of West Delta RBO, Greater Cairo RBO and Suez Canal RBO and their EMUs, commissioned by EPAP, 2003
- Training on the hazardous wastes transportation guidelines, commissioned by PSU/EPPP, 2003
- Training on hazardous waste storage and permitting, commissioned by DT2, 2002
- Training on Characteristics/Classification of HW, commissioned by DT2, 2002
- **Technical Support in Hazardous Waste Management**
 - Prepare Executive Summaries related to the Strategic Plan for Integrated Solid Waste Management in Egypt, 2018
 - Design and management requirements for SEGAS waste storage facilities, commissioned by SEGAS, 2009
 - Lead pollution clean-up in Qaluobeya, commissioned by USAID, 2008
 - Support to phase II of the HWMPA, commissioned by Soil and Water, 2006
 - Data collection of hazardous waste in Greater Cairo region, commissioned by US Trade and Development Agency, 2006
 - Data Collection on HW Management in Suez, commissioned by Suez Canal RBO, 2005
 - Audit for Waste Management System of Oxydental Petroleum of Qatar (Oxy), in association with ERM, commissioned by the facility, 2004
 - Continuous support to the HWMPA (phase I) through the development of a series of reports addressing different aspects of the hazardous waste management system, 2003. Several studies were undertaken within the project:
 - Cost estimation for the different services to be offered within the hazardous waste management system, commissioned by HWMPA, 2001

- Operation Manual for Alexandria Hazardous Waste Treatment and Disposal Facility, commissioned by HWMPA, 2002
- Regulatory framework of hazardous waste management system in Egypt, commissioned by HWMPA, 2001
- Overview of the implementation status of the legal requirements of hazardous waste management, commissioned by HWMPA, 2002
- Investigating the environmental aspects for asbestos disposal, commissioned by URA Misr, 2003
- Waste Management for Dow Mideast Plant, commissioned by the company, 2003

- **Institutional Development**
 - Development of Policy Tools to Operationalize the Implementation of the Egyptian Industrial Waste Exchange Program (IWEX), 2018
 - Strategy for Collection and Recycling of Compact Fluorescent Lamps (CFLs), commissioned by Improving Energy Efficiency of Lighting and Other Building Appliances (IEEL & A) GEF/UNDP Project, and implemented in cooperation with Ministry of Electricity and Renewable Energy (MOERE), 2016
 - Pre-feasibility of hazardous waste management system in Cairo Governorate, in association with Ramboll, commissioned by MOFA Finland, 2008
 - Adaptation of the methodological guidelines for undertaking national inventories of hazardous wastes within the framework of Basel convention, commissioned by Basel Convention Regional center, 2007
 - Development of hazardous waste management guidelines for Saudi Arabia, commissioned by SEPCO, 2007
 - Guidelines for Hazardous Waste Transportation System, commissioned by PSU, EEPP, 2003
 - Preparation of Inspection manual and guidebook for industrial hazardous waste management, commissioned by EPAP, 2002
 - Preparation of an information sheet for hazardous waste targeting industrial generators, commissioned by EPAP, 2002
 - An institutional study for the Hazardous Waste Management Unit, in Alexandria, commissioned by the HWMPA, 2001
 - Hazardous waste classification, carried out as support to EEAA, and the six line ministries (Agriculture, Electricity, Industry, Interior, Health, and Petroleum) and commissioned by EEPP, 2001

Assignments related to solid waste management include:

- Scoped EIA Study for the construction and operation of Biogas Research Unit, commissioned by Sawiris Foundation for Environmental Development (for the Faculty of Agriculture, Cairo University), 2018

- ESIA for Solid Waste Master Planning Project (NSWMP) in Kafr El Sheikh & Gharbia, commissioned by KFW, in cooperation with Chemonics Egypt, 2018
- Scoping study & Scoped EIA for the expansion in Geocycle Waste Recycling Plant in Suez, commissioned by Geocycle Egypt, 2018
- Scoped (B) EIA study for (ECODAS) Shredding & Sterilization Equipment located in Theodor Bilharz Research Institute, commissioned by the Institute, 2018
- Scoped EIA for Alternative Fuel Plant in SIDC, commissioned by Geocycle Egypt Co. owned by LAFARGE Egypt, 2016
- Solid waste management study for al-Mahmudiya, Buhayra Governorate and Sidi Ghazi, Kafr El-Sheikh Governorate, commissioned by GIZ, 2015
- Study of current status and development of solid waste management strategy for the Urban Regeneration of Historic Cairo Project, commissioned by UNESCO, 2014
- EIA for Khusus Solid Waste Transfer Station, Qalyoubiya, commissioned by GIZ, 2013
- EIA for Khanka composting plant, Qalyoubiya, commissioned by GIZ, 2013
- Waste management and valorization assessment, commissioned by Mansour Group, 2008
- EIA for AMA composting plant, commissioned by AMA, 2007
- Environmental management plan for South Cairo Landfill, commissioned by Entag, 2007
- EIA and design for the waste landfill for a primary magnesium smelter, commissioned by EMAG, 2007
- Financial analysis of solid waste management in Beni Suef and Aswan, commissioned by the EMG component of the ESP, 2006
- EIA for the solid waste landfill in 15th May, commissioned by ECARO, 2006
- Solid waste management in Abu Sir village, commissioned by ESDF, 2004
- EIA and design for Beba- ElFashn sanitary landfill, commissioned by Plancenter LTD, 2003
- EIA and design for the composting plant of Helwan University organic waste, 2001