



CHEMONICS EGYPT



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ENGINEERING AND MANAGEMENT CONSULTANTS

CORPORATE PROFILE



CHEMONICS EGYPT



Introduction

CORPORATE CAPABILITIES





Founded in 1992 by its present owners, Chemonics Egypt meets the needs of governments, businesses, and civil society for *engineering* and *management services* in the following sectors:

1. municipal water and wastewater systems
2. solid waste management
3. industrial pollution prevention and control
4. water resources protection and management
5. urban and rural development.

Chemonics Egypt's strengths include:

- a wide range of specialized engineering capabilities in core practice areas
- strong MIS and training capabilities in engineering and management areas
- experienced senior advisors capable of managing specialized assignments or integrated projects
- demonstrated effectiveness as a change agent
- commitment to structured, inclusive stakeholder participation
- the trust of counterparts, built up through years of repeated engagement with local governments, selected ministries, and several industrial sectors
- quality and cost-effectiveness.

AREAS OF SERVICES

I. ENGINEERING SERVICES

Chemonics Egypt engineering services respond to the needs of municipalities, public utilities, and industry for technology, facilities, and equipment which are appropriate, cost-effective, and demand-responsive. Chemonics Egypt engineering work follows a disciplined project life-cycle approach, in which each stage of project work is conducted with a view to the quality requirements of successive stages in order to assure that the final product achieves design standards and satisfies the end-user.

Chemonics Egypt can provide a wide range of specialized engineering services, including topographic survey, soil and water investigation, flow measurement, sampling and laboratory analysis, comprehensive facility operational and environmental audits, computer-aided engineering design, and construction management.

Chemonics Egypt observes rigorous standards of comprehensiveness and clarity in the preparation of drawings, designs, and technical specifications. Chemonics Egypt engineers are trained in both Egyptian and international standards for tender document preparation.

The company supports a small but dynamic research and development program oriented to maintaining state-of-the-art knowledge in selected practice areas. Recent R&D issues include low-cost technology adaptations for removal of iron and manganese from groundwater supplies, cleaner production methods for agri-business, and new technologies for recycling in the food and plastics industries.



II. MANAGEMENT AND TRAINING SERVICES

Chemonics Egypt management and training services assist organizations to:

- assess their strengths, weaknesses, opportunities, and threats
- formulate objectives
- develop performance improvement plans and performance management systems
- upgrade the knowledge and skills of personnel at all levels of the organization.

Chemonics Egypt's management specialists are trained in systematic needs assessment and planning techniques, such as SWOT (strengths, weaknesses, opportunities, threats) analysis, PIP (performance improvement programming), and LFA (logical framework analysis). These skills, coupled with years of experience in consulting for ministries, local governments, public utilities, and public and private sector companies, make Chemonics Egypt management specialists effective change agents able to build consensus among stakeholders and assist managers to implement meaningful and lasting performance improvements. Chemonics Egypt can also assist NGOs in project development, marketing, and management.

At the operations management level, Chemonics Egypt experts are adept at preparing operational and procedural manuals and helping organizations to develop information and administrative systems that support timely delivery of quality products and services.

Chemonics Egypt software developers and systems analysts create specialized applications tailored to clients' engineering and management needs. Chemonics Egypt has developed a country-wide system for public health monitoring and licensing of all types of establishments engaged in food processing, distribution, and sales in Saudi municipalities. Chemonics Egypt is also assisting Saudi municipalities to computerize billing and collection of taxes, fees, and user charges. In its Suez sewer system evaluation work, Chemonics Egypt developed a multi-media database which linked rolling closed-circuit TV footage with inspection observations, GIS maps, and survey data on each sewer line.

Chemonics Egypt's Training Section provides a complete range of training services, covering:

- training needs assessment
- curriculum and lessons planning
- materials preparation and production
- logistics and administration
- training delivery
- evaluation.

Chemonics Egypt understands that the sustainability of most engineering and management interventions are dependent upon the existence of institutional frameworks which provide managers and operators with the autonomy and incentive to manage resources and to address the needs of end-users. This understanding, combined with Chemonics Egypt's knowledge of local laws, administrative structures, and organizational cultures makes Chemonics Egypt a valuable partner on policy and institutional reform projects.



SECTORS

SECTOR 1. WATER SUPPLY AND WASTEWATER MANAGEMENT

Chemonics Egypt has an unrivalled breadth and depth of expertise in municipal water supply and wastewater management in Egypt. Chemonics Egypt water and sewer system engineering capabilities range from full feasibility studies to structural and hydraulic assessments of existing facilities, conceptual design, detailed designs and drawings, preparation of tender documents, and construction supervision.

Chemonics Egypt's experienced utility operations management advisors assist local utilities to adopt standard operating procedures, plan and budget for systematic preventive maintenance, and identify and implement performance improvements and cost-saving measures.

Chemonics Egypt has been a continuous participant in the evolving water/wastewater sector reform process in Egypt, beginning with the decentralization program of the 1980s through the corporatization program of the 1990s, to recent moves toward public-private partnerships.

Illustrative Work

- ❖ *Needs assessments.* Chemonics Egypt has conducted water/wastewater sector needs assessments at national, district, and village levels. These assessments identify levels of service, the extent of the gap between current and planned service levels, the condition of facilities, and the structure and effectiveness of operation and maintenance activities, and then propose capital and management solutions for various planning horizons. Chemonics Egypt has developed database structures which facilitate analysis of complex interactions between water/wastewater system variables.
- ❖ *Feasibility studies.* Chemonics Egypt prepared a complete feasibility study and final design for the Esna city wastewater collection and treatment system.
- ❖ *Water and sewer system engineering.* Chemonics Egypt has conducted full sewer system evaluations in Suez and Port Said, including flow measurement, groundwater investigations, sewer mapping/GIS, closed-circuit TV inspection, infiltration/inflow surveys, hydraulic analysis, and cost-effectiveness analysis of sewer rehabilitation projects, and has provided selected sewer evaluation services in Ismailia and Alexandria. In Suez, Chemonics Egypt served as the design-build engineer for the subsequent sewer rehabilitation program.

In Minya city, Chemonics Egypt conducted a topographic survey for pipeline routings, and then provided preliminary and final design services (design, plans, profiles, and details) for water distribution improvements, new gravity sewers, and force mains.

In Naga Hammadi in southern Egypt and in several low-income areas of Cairo, Chemonics Egypt has provided conceptual and detailed engineering design and



construction management services for village and district level sewer systems. In the cities of Luxor, Aswan, and Mansura, Chemonics Egypt is mapping the water distribution systems on GIS, performing hydraulic analyses of system structure, and designing more reliable and efficient networks. Working closely with community groups and local councils in three rural governorates, Chemonics Egypt is developing plans and conceptual designs for low-cost, appropriate water and wastewater systems in unserved villages.

- ❖ *Utility operations and management.* Chemonics Egypt has participated in major utility capacity-building projects, in Alexandria, Beni Suef, and the USAID “Secondary Cities” governorates of Aswan, Luxor, Daqahliya, and South Sinai. Chemonics Egypt assists water/wastewater utility managers and supervisors to improve the quality of service and control O&M costs. Chemonics Egypt works with utility managements to develop performance improvement program plans and provides technical assistance in implementation. Chemonics Egypt prepares standard operating procedures and systematic preventive maintenance programs, trains operators, and assists utilities in O&M planning and budgeting. Chemonics Egypt develops manuals, training materials, and lesson plans which address all areas of utility operations, maintenance, and administration and cover all types of facility and equipment found in the local utilities.
- ❖ *Technology transfer.* Chemonics Egypt is a leader in appropriate water and sanitation technology transfer and testing. In the 1980s, Chemonics Egypt experts---working then for Chemonics International Inc on the USAID Basic Village Services and Local Development II Projects---designed, implemented, and evaluated five appropriate wastewater treatment technologies in 17 villages in Egypt’s first rural wastewater technology demonstration program. In its Suez and Port Said sewer system evaluations, Chemonics Egypt pioneered an original approach to infiltration measurement using seawater as a trace element; this approach proved more accurate and far less expensive than conventional measurement methods. Chemonics Egypt has studied the applicability and performance of non-conventional sewerage (such as small-bore systems) in Egypt, and has cooperated with the Beheira Water Company in developing effective and low-cost technology for removal of iron and manganese from groundwater supplies.
- ❖ *Institutional development.* Chemonics Egypt understands that sound engineering and improved management capacity are unlikely to guarantee the sustainability of utility services if utility managers lack the autonomy and incentive to run their organizations according to best business practices. Under the two phases of the USAID-funded Legal, Institutional, and Regulatory Reform (LIRR) Project, Chemonics Egypt advisors played important roles in building nationwide consensus for sector reform, crafting more market-based legal and regulatory frameworks, and developing action plans for national and local level restructuring. Chemonics Egypt also participated in preparation and delivery of a nationwide training program on best practices in utility corporatization, private sector participation, and regulation.

	Prime contractor	Task order delivery	Provision of experts	Subcontractor	Administrative support	Project formulation/ appraisal	Feasibility studies	Sampling/ testing	Facility inspection	Engineering design	Construction management	O&M operation & maintenance	Program Design/Evaluation	Program Management	Capacity Building
WATER SUPPLY AND WASTEWATER MANAGEMENT															
SEAM Baseline Study on Water Supply and Sanitation Services in Qena Governorate		●					●						●		
Strategy for Sanitation and Water Sector in Middle and Upper Egypt	●						●						●		
Water and Sanitation in Edfu Rural Areas		●					●						●		
Water Supply and Sanitation in Rural Egypt	●						●						●		
Institutional Development Support to Aswan Water Authority				●							●		●	●	
Egypt Water Supply and Sanitation Sector Programme Support				●							●		●	●	
Technical Assistance and Capacity Building for Egypt WSS Sector Programme Support (Pre-Preparatory Phase)	●										●	●		●	
Abu Rawash Wastewater Treatment Plant: Technical Translation		●									●			●	
Naga Hammadi Villages Sanitary Drainage/Building Protection Project	●						●	●	●	●					
Valley of the Kings Flood Protection Project				●			●	●	●	●					
Evaluation of Small Bore Gravity Sewer System in Egypt	●						●						●		
Upgrading of Beheira Water Supply Systems															
Sanitary and Stormwater Systems, Lybia	●						●	●	●	●			●	●	
Feasibility Study For Esna Sanitary Drainage Project	●						●								
Hydraulic Analysis of Aswan City Water Distribution System		●							●	●					
Hydraulic Analysis of Luxor City Water Distribution System		●						●	●	●					
Hydraulic Analysis of Mansura City Water Distribution System		●							●	●					
Port Said Sewer System Infiltration/Salinity Survey		●							●						
Alexandria Sewer System CCTV Inspection		●							●						
Ismailia City Sewer System Mapping		●							●						
Suez Sewer System Infiltration/Salinity Survey		●						●	●						
Suez Sewer Rehabilitation Project: Site Engineering Consulting Services		●								●	●				
Abu Rawash Wastewater Treatment Plant Extension Project Feasibility Study	●						●								
Desert Development Center Wastewater System Engineering Services	●									●	●				
Survey Work for Minya City Pipelines Routing		●							●						
Minya City Water and Wastewater Improvements Engineering Services		●								●	●				
Value Engineering Study of Conceptual Design for Alexandria Wastewater System Expansion II Project		●									●				
Water and Sanitation for Villages in Sohag, Sharqiya, And Beni Suef	●						●			●	●		●		
Construction Management Services for the Sewer Construction in Imbaba and Bab Zuweila, Cairo		●									●				
Detailed Design and Construction Supervision of the Camel Market Sewer System		●									●	●			
Detailed Design and Tender Documents for Septic Tank, Collection Pond and Pump Station		●									●	●			



SECTOR 2. SOLID WASTE MANAGEMENT

Chemonics Egypt provides integrated solid waste management assessment and planning services and engineering of specific SWM system components. Chemonics Egypt has expertise in municipal, agricultural, and hazardous waste management. Chemonics Egypt's conviction that properly planned, engineered, and managed solid waste facilities are commercially viable is attested to by its part-ownership of ECARU, an Egyptian operator of composting and recycling facilities in Egypt and Libya, and ENTAG, specialized in the procurement and installation of composting plant equipment.

Illustrative Work

Chemonics Egypt has developed integrated solid waste management plans for several medium-sized Egyptian cities. In Fayoum City, Chemonics Egypt analyzed waste streams, assessed the condition of the city's waste collection fleet, compared landfill and recycling options, reviewed city SWM utility management and finances, and prepared a detailed project document using the logical framework approach to set out a program of capital and institutional improvements. For Kom Ombo and Daraw cities in Aswan, assessment work was followed by planning, site engineering design, contracting, and construction supervision assistance for fleet upgrading, transfer stations, landfill, and system operation and maintenance. Chemonics Egypt participated in assessment, planning, design, and implementation of a hospital waste management system for Cairo University hospitals, including development of landfill and incineration facilities; the project's methodology is now widely regarded as a model for hazardous waste management projects throughout Egypt.

In addition to the engineering assistance delivered through its integrated SWM project work, Chemonics Egypt provides facility-level engineering services including soil and groundwater analyses, site appraisal, site engineering, facility design, and operations planning for landfill and composting plants. Chemonics Egypt prepared the detailed design, construction drawings, and tender documents for a 31,000 m² sanitary landfill to serve the towns of Beba and Fashn in Beni Suef Governorate; the work covered all site facilities and infrastructure as well as the basic landfill. Similar services were provided for the hazardous waste sanitary landfill for the city of Alexandria.



Chemonics Egypt provides SWM services for municipal, agricultural, and hazardous sectors, which include the processes such as collection, landfilling, composting, materials recovery and incineration. A summary of SWM activities and tasks performed under different types of services are listed in the table below:

SERVICES	Engineering	Management and Training	Institutional Development	Sectoral Planning
<p style="text-align: center;">T A S K S & A C T I V I T I E S</p>	<ul style="list-style-type: none"> • Waste stream analysis and trend forecasting • Assessment of collection fleets • Soil and hydrogeological investigations • Site appraisal • Design and site engineering of transfer stations and waste sorting facilities • Design and site engineering of sanitary landfills • Leachate and gas collection systems design • Planning and design of composting facilities • Composting process control, testing, and quality assurance • Review of recycling technologies • Construction supervision • Equipment specifications • QA/QC of locally manufactured equipment 	<ul style="list-style-type: none"> • Facility operations and maintenance scheduling • Environmental health monitoring systems • Occupational safety and health programs • Emergency operations and containment plans • MIS and administrative systems development • Management and operator training 	<ul style="list-style-type: none"> • Market analysis and marketing plans for compost and recovered materials • Public education and communication • Waste minimization and sorting-at-source strategies 	<ul style="list-style-type: none"> • Integrated solid waste management planning • Feasibility studies • Technology reviews

	Prime contractor	Task order delivery	Provision of experts	Subcontractor	Administrative support	Project formulation/appraisal	Feasibility studies	Sampling/testing	Facility inspection	Engineering design	Construction management	O&M operations/maintenance	Program Design/Evaluation	Program Management	Capacity Building
SOLID WASTE MANAGEMENT															
Kom Ombo/Daraw Solid Waste Management Project	●					●	●			●	●		●	●	
Solid Waste Management in Fayoum City: Needs Assessment and Project Identification Study	●					●							●		
Pilot/Demonstration Project for Hospital Waste Management of Cairo University Hospitals (Phase I)			●			●				●			●	●	
Fashn Landfill Site Appraisal		●							●						
Abu Zaabal Quarry Landfill Development and Operation Plan		●				●				●		●	●		
Alexandria Hazardous Waste Landfill Engineering Services		●				●				●					
Beba and Fashn Landfill Design and Engineering Services		●				●				●					
Waste Recycling for Food Industries	●					●							●		



SECTOR 3. INDUSTRIAL POLLUTION PREVENTION AND CONTROL

Chemonics Egypt's industrial waste services assist industries to comply with Egyptian environmental law by reducing the quantity and toxicity of their discharges to the environment, often also increasing their efficiency in the process, and assist municipalities in the environmental regulation of industry. Chemonics Egypt combines a profound (and in some cases formative) understanding of Egyptian and international environmental regulation with expertise in sampling and testing, chemical engineering, industrial environmental auditing, and technical and economic analysis of waste minimization and pollution control projects in a wide range of industry sectors. Chemonics Egypt facility compliance audits address occupational safety and health as well as environmental impacts.

Illustrative Work

Under the two phases of its assistance to the KfW-financed Environmental Protection Financing Facility for Public Sector Industry, Chemonics Egypt conducted industrial environmental audits for 154 factories and assisted the company managements to prepare technical and financial proposals for cost-effective pollution prevention and control projects. Chemonics Egypt has been contracted independently by private and public companies to undertake sampling and testing, industrial audits, and/or environmental compliance planning for their facilities. Chemonics Egypt has assisted EEAA in the development and field-testing of industrial environmental inspection guidelines and trained EEAA inspectors.

In its work on the USAID Canal Cities Water and Wastewater Systems Improvement Project, Chemonics Egypt surveyed all industrial and commercial establishments in Suez to prepare a short-list of establishments likely to store, use, or produce any of 126 U.S.EPA-defined pollutants which adversely effect wastewater collection facilities or treatment processes, and then conducted facility investigations, flow measurement, and wastewater sampling and analysis to determine pollutant concentrations and estimate loadings by pollutant in 75 establishments.

Chemonics Egypt was contracted by the DfID-funded Support for Environmental Assessment and Management (SEAM) Project to conduct wastewater sampling and analysis of 30 factories in selected governorates.

On the USAID Cairo Air Improvement Project, Chemonics Egypt is working with several authorities and companies in Greater Cairo to develop vehicle emissions testing programs, procure and maintain CNG (compressed natural gas)-operated buses, and implement major pollution control and relocation measures for lead smelters.



Chemonics Egypt provides services for Industrial Pollution Prevention Control for air, water, and soil. These services include the processes such as waste minimization, pollution control and remediation. A summary of activities and tasks performed under different types of services are listed in the table below:

SERVICES	Engineering	Management and Training	Institutional Development	Sectoral Planning
TASKS & ACTIVITIES	<ul style="list-style-type: none"> • Facility-level toxic materials inventories • Emissions sampling and testing • Facility-level process mapping, equipment assessment, and environmental audits • Waste minimization studies • Process re-engineering designs and cost estimates • Pollution control and pretreatment technologies appraisal • Equipment specifications and vendor searches • QA/QC of locally manufactured equipment • Supervision of installation or process retrofitting 	<ul style="list-style-type: none"> • Facility and company level compliance planning • Environmental management system (EMS) design and implementation • Economic and financial analyses • Mitigation project packaging and financing • Occupational safety and health programs • Equipment operation and maintenance planning, budgeting, and technical assistance • Public communications 	<ul style="list-style-type: none"> • Review of industry/company level environmental regulations and regulatory frameworks • Development of EIA and facility inspection guidelines • Technical assistance to public-sector companies in accessing pollution mitigation financing facilities • Administrative and economic instruments for pollution control 	<ul style="list-style-type: none"> • Industry-level assessments of environmental hazards and opportunities for waste minimization • Environmental monitoring systems and MIS • Industrial environmental profiling

	Prime contractor	Task order delivery	Provision of experts	Subcontractor	Administrative support	Project formulation/ appraisal	Feasibility studies	Sampling/ testing	Facility inspection	Engineering design	Construction management	O&M operation & maintenance	Program Design/ Evaluation	Program Management	Capacity Building
INDUSTRIAL POLLUTION PREVENTION AND CONTROL															
Environmental Impact Assessment for Awadalla Company Lead Smelters	●						●	●							
Kaha and Edfina Factories Water and Energy Conservation Assessment	●					●	●								
Kaha and Edfina Factories Water and Energy Conservation Improvement Plan	●														
Industrial Environmental Inspection Guidelines: Phase 2	●						●	●					●	●	
Field Test and Finalization of Industrial Environmental Inspection Guidelines			●										●	●	
Pre-Screening/Project Identification for the Facility for Financing Environmental Protection in the Public Sector Industry			●			●	●	●				●			
Facility for Financing Environmental Protection in the Public Sector Industry			●										●		
Cairo Air Improvement Project			●			●	●	●	●	●	●		●	●	
Audit of Kafr el-Zayat Pesticides and Chemicals Company Compliance with Environmental and Occupational Hygiene Regulations	●					●	●	●	●						
Emissions Control for Lead Smelting Industries in 10th of Ramadan City	●					●	●	●				●			
Environmental Compliance Plan for 6th of October Factory for Light Section	●					●	●	●				●			
Environmental Compliance Plan for Coca-Cola	●					●	●	●				●			
Environmental Compliance Plan for Delta Manufacturing Company (IDEAL)	●					●	●	●				●			
Environmental Compliance Plan for Paints and Chemicals Industries Company	●					●	●	●				●			
Environmental Compliance Plan for the Arab Contractors Agran El-Foul Crushing Plant	●					●	●	●				●			
Environmental Compliance Plan for Arab Contractors Gabal Akhdar Central Workshop and Fustat Asphalt Mining Plant	●					●	●	●				●			
Environmental Compliance Plan for the Arab Contractors Mansura Central Workshop and New Damietta Concrete Batting Plant	●					●	●	●				●			
Industrial Wastewater Treatment Equipment Manufacture and Installation, Shobra el-Kheima	●					●		●				●			
Industrial Wastewater Quality Monitoring for Proctor & Gamble Egypt		●					●								
Sample Analysis for Industrial Auditing Program		●					●								
Suez Industrial User Survey		●					●								
Suez Industrial Wastewater Monitoring Program		●					●	●					●		
Pollution Abatement Action Plan for el-Nasr Coke Company	●					●	●	●				●			



SECTOR 4. WATER RESOURCES

Chemonics Egypt has been continuously active in water resources protection and management in Egypt. Chemonics Egypt has worked at local, regional (watershed), and national levels of the sector and in each of the main types of water resource: groundwater, surface water, inland lakes, and coastal waters. Core Chemonics Egypt capabilities include:

- flow measurement
- water quality sampling and testing
- analysis of sources and impacts of water pollution
- irrigation and drainage engineering
- watershed management planning
- assessment, strengthening, and reform of water management policies and institutions.

A detailed list of Chemonics Egypt water resource protection and management capabilities is presented and followed by a list of Chemonics Egypt water resources assignments.

Illustrative Work

On a series of projects over the years from 1994 to 1997, Chemonics Egypt conducted comprehensive literature reviews and field studies to assess the sources and impacts of drain pollution in the watersheds of the northeastern Delta and the Fayoum, and prepare pollution mitigation measures and engineering interventions to protect wetlands and fisheries and enhance the suitability of drainage water for intermediate reuse in agriculture.

Chemonics Egypt has provided feasibility study and project formulation assistance for local irrigation and drainage improvements.

Chemonics Egypt participated in an evaluation of the 20-year Netherlands program of assistance to the Egyptian water management and drainage sector, reviewing the relevance and effectiveness of the program's capital improvements and the impact of the various projects on the effectiveness and responsiveness of ministry-level public authorities and research institutes, governorate and district irrigation departments, and local water user associations.

Chemonics Egypt assisted the Ministry's Institutional Reform Unit in its second donor roundtable conference on sector reform by identifying legal prerequisites and organizational strengthening needs for decentralized, user-based water management bodies at the district level and introducing private sector participation in operations and maintenance.

Chemonics Egypt provides water resources services in the areas of groundwater, irrigation and drainage, wetlands, fisheries and coastal zones. These services include the processes such as pollution control, watershed modeling, engineering, decentralization, and private sector participation.



A summary of activities and tasks performed under different types of services are listed in the following table:

SERVICES	Engineering	Management and Training	Institutional Development	Sectoral Planning
T A S K S & A C T I V I T I E S	<ul style="list-style-type: none"> • Flow measurement and monitoring • Piezometric test borings and analysis • Groundwater surveys and mapping • Water quality sampling and testing • Salinity surveys • Assessment of point and nonpoint pollution sources and impacts • Canal and drain design and construction supervision • Watershed mapping and GIS • Wetland and fisheries protection • Constructed wetlands planning 	<ul style="list-style-type: none"> • Assessment and strengthening of water research institutes • Assessment and strengthening of water management districts • O&M planning and budgeting for pumping stations and canal maintenance • Management and technical training for water user associations 	<ul style="list-style-type: none"> • Stakeholder analysis and consensus building • Assessment of legal and regulatory constraints to decentralization and private sector participation in water management and drainage • Strategic and action planning for water sector reforms • Administrative and economic instruments for water pollution control • Demand management studies, planning, and communications. 	<ul style="list-style-type: none"> • Water resource surveys • Watershed management planning • Analysis of development/ environment interactions



SECTOR 5. URBAN AND RURAL DEVELOPMENT

Chemonics Egypt's capabilities in urban and rural development assistance extend beyond its water and sanitation engineering and management services to:

- local governance
- local project packaging and financing
- local project management
- local resource mobilization
- municipal revenue improvement
- local economic development.

Illustrative Work

In its work on the World Bank-funded Sohag Rural Development Project, Chemonics Egypt is assisting all local councils in the governorate to expand access to local public services (water, sewer, canals, roads, public buildings) through decentralized and participatory project planning and capacity building for project life-cycle management by municipalities and community groups. In Chemonics Egypt's two consultancies for the UNCHS Habitat Sustainable Cities Programme in Ismailia, Chemonics Egypt facilitated governorate-wide strategic planning by local government and civil society, provided detailed project development, and assisted stakeholders to obtain funding for nine multi-year projects supporting urban and agricultural development, improving the urban environment, and preserving Lake Timsah. Chemonics Egypt is also using participatory methods to develop governorate-wide environmental action plans in Qena and Damietta. Chemonics Egypt consulting practice in these projects improves the quality of governance at the local level.

Chemonics Egypt also builds the capacity of municipal administration to recover the costs of urban and environmental services and to facilitate sustainable economic development. In Saudi Arabia, Chemonics Egypt is computerizing local revenue billing and collection, and also developing a nationwide system for municipal-level registration, licensing, and health/safety inspection of all establishments engaged in post-harvest handling, processing, and sale of food products and services.

In its several project review and appraisal assignments for SFD, Chemonics Egypt has assisted five governorates in labor-based project planning to maximize employment gains from public works programs. Chemonics Egypt has also worked to strengthen local public works contractors' capability to grow their businesses and generate local employment. Chemonics Egypt work on the Social Fund for Development's (SFD) Labor-Based Contractor Training program stimulated entrepreneurship and trained local contractors in basic business planning and financial management skills.

Chemonics Egypt provides services in urban and rural development sector in the areas of infrastructure, environment, physical planning, economic development, municipal administration, and municipal finance. These services include the processes such as participation, governance, management, information technology, regulation, and training.



A summary of activities and tasks performed under different types of services are listed in the table below:

SERVICES	Engineering	Management and Training	Institutional Development	Sectoral Planning
<p style="text-align: center;">T A S K S & A C T I V I T I E S</p>	<ul style="list-style-type: none"> • Infrastructure project design and appraisal (water, sewer, roads, public buildings) • Physical planning 	<ul style="list-style-type: none"> • Access-to-service indicators and MIS • Project life-cycle management guidelines and training • O&M management and technical training • Small business management development • Labor-based project design and contracting • NGO project packaging, financing, and management development • Computerization of revenue billing systems • Computerization of business/facility licensing systems 	<ul style="list-style-type: none"> • Review of local administrative law, organization, and finances • Participatory needs assessment and planning • Project prioritization policy and criteria • Environmental planning • Municipal environmental and public health regulation 	<ul style="list-style-type: none"> • Local and regional environmental profiles • Urban and rural infrastructure needs assessments



OTHER PROJECTS

Chemonics Egypt's capabilities are readily transferable to problems outside the environmental and municipal sectors.

In its current work with the Ministry of Industry's Industrial and Mining Projects Authority in Egypt, Chemonics Egypt is facilitating a strategic planning process for Authority executives and providing technical assistance in issue-specific management and planning studies.

As subcontractor on the USAID Egypt Environmental Policy Program (EEPP)'s Monitoring, Verification, and Evaluation (MVE) component, Chemonics Egypt works to develop environmental policy improvement measures with large number of participating GOE agencies and then to document and assess compliance with policy implementation.

In a study for several multinational companies working in Egypt, Chemonics Egypt conducted a detailed analysis of Cairo's large informal recycling economy to identify the types, extent, and mechanisms of brand-name fraud.

Chemonics Egypt's study for the Delta Sugar Company on the feasibility of establishing continuous sugar refining operations (in addition or as an alternative to current batch operations) was our first venture into pure industrial engineering.

Chemonics Egypt helped Danida establish a regional office in Aswan in 1993 and continues to provide logistical and secretarial support to the office.

In association with the US Institute for Public-Private Partnerships (IP3), Chemonics Egypt has developed and delivered a full training program on privatization best practices for the Ministry of Public Enterprises and the Ministry of Economy and Foreign Trade.



SUPPORT SERVICES

Information Technology. Chemonics Egypt provides IT and software development services tailored to the needs of the clients in fields of water and wastewater, environmental management and public administration.

Data Services

- Data integration
- Computer aided drafting
- Data management

Information Systems

- Needs analysis
- Requirements analysis
- Systems planning and implementation
- Training
- System support

Systems Development

- GIS solutions
- Database design and development
- Custom enterprise solutions
- Training

Chemonics Egypt adapts existing programs for engineering purposes such as groundwater modeling, hydraulic analysis, and utility mapping, as well as governmental applications such as land-use planning, business licensing, and revenue enhancement. Our IT experts are experienced in application development tools such as Visual Basic, MS SQL Server, MS Access, C++ as well as Oracle tools and database engines.

Training. Chemonics Egypt's Training Section works with in-house subject-matter specialists and with project associates in any or all phases of the training cycle:

- training needs assessment
- training program design
- curriculum and lesson planning
- materials development
- training course logistics and administration
- training delivery
- evaluation
- follow-up and impact assessment.



Chemonics Egypt has developed over 150 training courses. Our 65 courses cover every aspect of water and wastewater engineering and management. Chemonics Egypt also offers complete training programs in the areas of management development, infrastructure program and project management, and local administration.

Publications. Chemonics Egypt's Publications Section ensures that the company's reports and training materials are:

- translated accurately
- formatted logically and consistently
- present tables and graphics legibly
- produced attractively.



ALLIANCES

CHEMONICS INTERNATIONAL INC., established in 1975, is a leading US international development consulting firm. Chemonics has been active in Egypt continuously since 1980 in institutional development and capacity building projects in the fields of agriculture, urban and rural development, public utility strengthening and institutional reform, environmental protection, capital markets development, and economic policy reform. Under the terms of the Chemonics International/Chemonics Egypt franchise agreement, Chemonics International provides management and quality systems assistance to Chemonics Egypt, as well as building the company's knowledge and skills in municipal and environmental policy analysis and institutional development.

IP3/MENA. In 2003, the owners of Chemonics Egypt joined with the owners of the Washington-based Institute for Public-Private Partnerships (IP3) to establish IP3/MENA, which provides training and technical assistance for Middle Eastern and North African countries in legal, regulatory, and financial aspects of the shift to private provision of public services. IP3/MENA combines the best-practices expertise of IP3 with the training delivery and consensus-building capabilities of Chemonics Egypt.

ENVIRONICS. Environics was spun off in 1999 from Chemonics Egypt to handle the growing volume of industrial environmental management business, including environmental assessments, industrial facility compliance planning, and industrial environmental management systems development. The two firms have interlocking managements and adjacent office facilities, and cooperate on integrated solid waste management and water pollution control projects.

ENTAG. The Engineering Tasks Group (Entag) was spun off from Chemonics Egypt in 1995 to provide detailed engineering, procurement, and construction supervision services to a growing local and regional market for municipal and agricultural waste composting and recycling facility design and construction supervision. The two firms cooperate on solid waste management projects, with Chemonics Egypt responsible for integrated SWM planning and landfill engineering and Entag responsible for composting/recycling plant engineering.

ECARU. The Egyptian Company for Solid Waste Recycling (ECARU) was spun off from Chemonics Egypt in 1997. Its operations include production of compost from recycling agricultural residues and solid wastes, which includes production of organic fertilizers from agricultural or domestic wastes. It has facilities in Menya City and manages five other facilities in Egypt and Libya with a total capacity of 46,000 tons of compost per year and a staff of 4,000. The two firms cooperate on compost production activities in Libya.

The following pages are the lists of our clients, partner institutions, and funding agencies and organizations.



PARTNER INSTITUTIONS/CLIENTS

Ministries

Ministry of Housing, Utilities, and New Urban Communities (MHUNUC), Egypt.
Ministry of Water Resources and Irrigation (MWRI), Egypt
Ministry of Environment (MOE), Egypt
Ministry of Industry and Technological Development (MITD), Egypt
Ministry of the Interior (MOI), Egypt
Ministry of Economy and Foreign Trade (MEFT), Egypt
Ministry of Public Enterprises (MPE), Egypt
Ministry of Municipal and Rural Affairs, Saudi Arabia

National Authorities

National Organization for Potable Water and Sanitary Drainage (NOPWASD), MHUNUC, Egypt
Egyptian Environmental Affairs Agency (EEAA), MOE, Egypt
General Organization for Industrialization (GOFI), MITD, Egypt
Industrial and Mining Projects Authority, MIFT, Egypt
Water Research Center, MWRI, Egypt
Drainage Research Institute, MWRI, Egypt
Drainage Projects Authority, MWRI, Egypt
Tourism Development Authority (TDA), Ministry of Tourism and Aviation, Egypt
Social Fund for Development (SFD), Egypt

Governorates

Alexandria Governorate
Aswan Governorate
Beni Suef Governorate
Cairo Governorate
Damietta Governorate
Gharbiya Governorate
Ismailia Governorate
Matruh Governorate
Minufiya Governorate
Qalyubiya Governorate
Qena Governorate
Red Sea Governorate
Sohag Governorate
South Sinai Governorate
Suez Governorate

Public Utilities



Alexandria Wastewater Authority
Aswan Water/Wastewater Authority
Beheira Water/Wastewater Company
Beni Suef Water/Wastewater Authority
Cairo Wastewater Authority
Daqahliya Water/Wastewater Authority
Fayoum Water/Wastewater Authority
Kafr il-Sheikh Water/Wastewater Company
Greater Cairo Wastewater Project Agency (CWO)
Luxor Water/Wastewater Utility
Minya Water/Wastewater Authority
Greater Cairo Bus Authority
Cairo University Hospital

Municipal Authorities

Luxor City/District Council
Giza Governorate Traffic Department
Cairo Governorate Traffic Department
Qalyubiya Governorate Traffic Department
Tabuk Municipality, Saudi Arabia
Tayef Municipality, Saudi Arabia

Nongovernmental Organizations

Association of Youth for the Environment (AOYE), Egypt
Young Muslim Men's Association, Egypt

Public Sector Companies

Kaha Company (*full name?*)
Kafr il-Zayat Pesticides and Chemicals Company, Egypt
Delta Manufacturing Company (IDEAL), Egypt
Edfina Company (*full name?*)
El-Nasr Coke Company, Egypt

Private Sector Companies

Awadallah Lead Smelting Company



FUNDING AGENCIES/ORGANIZATIONS

Development Cooperation Agencies

Canadian International Development Agency (CIDA)
Danish International Development Agency (DANIDA)
EU Mediterranean Environmental Technical Assistance Program (METAP)
Finnish International Development Agency (FINNIDA)
International Bank for Reconstruction and Development (IBRD)
Japanese International Cooperation Agency (JICA)
Kreditanstalt für Wiederaufbau (KfW), Federal Republic of Germany
Netherlands Inspectorate for International Development Cooperation (IOV)
Royal Danish Embassy, Egypt
Royal Netherlands Embassy, Egypt
United Nations Center for Human Settlements (UNCHS Habitat)
United Nations Development Programme: Program of Assistance to the Palestinian People (UNDP/PAPP)
United States Agency for International Development
United States Department of Agriculture (USDA)

Governmental Authorities

Egyptian Environmental Affairs Agency (EEAA), Egypt
Egyptian Environmental Initiatives Fund (EEIF), Egypt
Greater Cairo Wastewater Project Agency (CWO), Egypt
Ministry of Municipal and Rural Affairs, Saudi Arabia
Ministry of Water Resources and Irrigation (MWRI), Egypt
Social Fund for Development (SFD), Egypt
Sohag Governorate, Egypt
Technological and Technical Research and Consulting Fund (TTRCF), Egypt
Tripoli City Council, Libya

Nongovernmental Organizations

American University in Cairo
CARE Egypt
Egyptian Swiss Development Fund
Save the Children Egypt



PARTNER FIRMS

Engineering and Management Consulting Firms

ABB Susa Inc, USA
ABB Susa Dillingham Joint Venture, Egypt
C.C. Johnson and Malhotra, USA
Delft Hydraulics, Netherlands
DHV, Netherlands
EarthTech Engineering Ltd, USA
Engineering Services Company (ESCO), Saudi Arabia
Engineering Tasks Group, Egypt
Entec Ltd, UK
Institute for International Education, USA
Morrison and Knudsen Corporation, USA
Overseas Bechtel International, USA
Plancenter Ltd, Finland
Royal Haskoning BV, Netherlands
Soil and Water Ltd, Finland
Value Management and Engineering International Inc, USA
VKI Water Quality Institute, Denmark

Industry

Arab Contractors Company
Cargill UK Ltd,
Coca-Cola Bottling Company
Colgate Palmolive
Delta Sugar Company
Delta Manufacturing Company (IDEAL)
Egyptian Company for Solid Wastes Utilization (ECARU)
Lever
Paints and Chemicals Industries Company
Port Said Detergents and Chemicals Company
Proctor and Gamble
Sixth of October Manufacturing for Light Steel Sections
TNW Export BV