



Environmental Projects Resulting from Environmental Action Plans of some Egyptian Governorates

Aswan- Asyut- Alexandria

Ismailia- Behera- Giza

6 of October- Fayoum- Qaliubia

Menofia- Menia- New Valley

Beniswef- Port Said- North Sinai



Year 2008



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Introduction

Environmental Profiles have been prepared for a large number of Egyptian Governorates, reviewing the state of the environment in the Governorate in terms of air, water and soil, as well as resources available, and the most important development activities and the relationship between these development activities and the environment. The profiles also conclude with a summary description of the main environmental problems and issues within each Governorate.

Based on the environmental problems that emerged in the Environmental Profiles, an Environmental Action Plan for each Governorate was prepared, which includes environmental programs and projects proposed to solve these problems, how to implement the projects, resources available for implementation, and funding sources.

This report includes the environmental projects proposed for implementation within the Environmental Action Plans for the fifteen Governorates, arranged in alphabetical order, including: Aswan, Assiut, Alexandria, Ismailia, Beheira, Giza, the sixth of October, Fayoum, Qalubia, Menoufiya, Menya, New Valley, Beni Suef, Port Said and North Sinai.

The projects address the most critical environmental problems in the Governorates, such as: air pollution, pollution of waterways, accumulation of solid waste, hazardous medical waste, depletion of natural resources, excessive use of fuel oil and lack of renewable energies, the low prevalence of green spaces, smoking, and lack of environmental awareness.

Each project in the report includes the general objective of the project, the environmental objectives, project description, desired results, and the estimated cost of the project. It is also stated that each Governorate will maintain its contribution to the implementation of the project.

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1) Aswan Governorate

Environmental Projects for Aswan Governorate

First Project

Project name:

- Flood Drain Covering Project in Aswan City - 9 km long

Project goal:

- Improve the living conditions in the flood drain area through enhancing its environmental conditions

Project environmental objectives:

- Cleaning the flood course from solid wastes to facilitate the process of rainfall flow through the torrential flood course and not outside the course, which consequently protects the area from torrential hazards.
- Safe Disposal of solid wastes.
- Safe Disposal of Wastewater.
- Protection of public health for residents living beside the torrential course and visitors.
- Enhance environmental awareness in the area.

Project desired results:

- Cleaner Tiled drain that is more capable of containing the anticipated torrential floods.
- Removal of all obstacles before the water inflow inside the drain.
- Reducing the volume of pollution entering the River Nile.
- Improve the living conditions of the area's residents especially in the eastern district
- Facilitate the traffic movement and construct paved roads instead of minor bridges.
- Use covered (tiled) areas in recreational and economical purposes.

Project description:

- Covering the flood estuary cleave through construction of two chambers of reinforced concrete each over an area of 4 m x 4 m according to high engineering specifications to tolerate establishing any project(s) after coverage

Project estimated cost:

- The costs of covering the first 300 m reached about 2.6 million Egyptian pounds in 2005

Governorate Contribution:

- Provide all data and support documents for the project from the Governorate Headquarters.
- Facilitate issuance of required approvals/permits (Irrigation, Telephones, Electricity, Wastewater, Roads)

2) Assuit Governorate

Environmental Projects for the Governorate of Aswan

First Project

Project name:

- Producing Cardboard from paper wastes

Project goal:

- Recycling and Reusing of Paper Wastes-Recycling and Reusing of Paper Wastes

Project environmental objectives:

- Reduce the quantities of paper manufactured from trees, consequently reduces number of cut trees
- Eliminate the problem of disclosed burning of paper wastes, which consequently reduces the levels of subsequent Carbon dioxide emissions in the air.
- Prevent the poisonous and hazardous gases emissions resulting from burning of paper wastes containing ink and printing chemicals.
- Improve public health and overcome the respiratory system diseases.

Project desired results:

- Establish a paper waste management system inside the governorate
- Manufacture a quality type of cardboard
- Create job opportunities
- Preserve natural resources
- Gain an economic profit from recycling and reusing paper wastes

Project description:

- Provide local raw materials from draft paper and paper sorting wastes. And the short and long fibered wood paper, alum and *Qalfoneya* solution, in addition to detergents
- Provide machinery, equipment, and supplies required for manufacturing.
- Ensure energy sources and fuel.
- Ensure big quantities of water required for phases of cleaning and formation.
- Ensure workers.
- Manufacturing stage and transforming paper wastes to paper pastes which are then dried to form cardboards.
- Product marketing phase.

Project estimated cost :

- About 3 Million LE.

Governorate Contribution:

- Allocate land for the project
- Facilitate obtaining governmental approvals
- Provide data and information required for the project
- Create all the favorable conditions to render the project a success

Assuit Governorate Projects (cont.)

Second Project

Project name:

- Project for manufacturing empty egg cardboard trays from paper wastes

Project goal:

- Recycling and reusing paper wastes

Project environmental objectives:

- Reducing the quantities of paper manufactured from trees, consequently reduces number of cut trees
- Eliminate the problem of disclosed burning of paper wastes, which consequently reduces the levels of subsequent Carbon dioxide emissions in the air.
- Prevent the poisonous and hazardous gases emissions resulting from burning of paper wastes containing ink and printing chemicals.
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- Ensure energy sources and fuel
- Ensure big quantities of water required for phases of cleaning and formation
- Ensure workers
- Manufacturing stage and transforming paper wastes to paper pastes which are then dried to form cardboards
- Product marketing phase

Project estimated cost:

- About 1 Million LE.

Governorate Contribution:

- Allocate land for the project
- Facilitate obtaining governmental approvals
- Provide data and information required for the project
- Create all the favorable conditions to render the project a success

Assuit Governorate Projects (cont.)

Third Project

Project name:

- Project for filtration of used engine oils at factories and power generation stations

Project goal:

- Recycling and reusing of used engine oils

Project environmental objectives:

- Reduce used oil pollution in soil, waterways, and wastewater systems
- Reduce quantities of used oils through enhancing efficiency of engine oils and prolonging its lifetime
- Ensure used oils are not used as an energy source in bakeries, etc.
- Protection of environment and natural resources against pollution with used oils

Project desired results:

- Filtered oils that is reusable directly
- Filtered oils that are saleable to oil companies for recycling and producing glues and waxes
- Increase the lifetime usage of engine oils
- Income generation from engine oil filtration and reuse
- Create job opportunities

Project description:

- Collection of used oils from various usage locations
- Provide the mobile filtration unit
- Filtration of oil whose lifetime usage 75% of its lifetime as decided manufacturers
- Filtration of all types of oils at their usage locations onsite such as factories, garages, and maintenance areas
- Supply the filtrated oils to the concerned parties such as major companies for recycling such as Petro Trade, Misr Petroleum, CO-OP (Al Taa'won), and other companies that are licensed to recycle used oils
- Collect the used oils after expiry date as a result of dust and dirt accumulation, and handing them to solid waste landfills.

Project estimated cost:

- About 1.5 Million LE.

Governorate Contribution:

- Allocate land for the project
- Facilitate obtaining governmental approvals
- Provide data and information required for the project
- Create all the favorable conditions to render the project a success

3) Alexandria Governorate

Environmental Projects of Alexandria Governorate

First Project

Project name:

- Completion of Marble Workshop Relocation Outside Residential Areas

Project goal:

- Relocation of all disturbing and polluting marble workshops outside the residential areas.

Project environmental objectives:

- Reduce the continuous disturbance resulting from noises accompanying workshop operation
- Control the pollutants resulting from these workshops
- Preserve public health
- Minimize air pollution with dust resulting from marble workshops.

Project desired results:

- Provide an industrial zone outside the residential area to accommodate marble workshops
- Preserve the environment inside the residential area, and ensure safety and comfort for residents.
- Profit generation
- Ensure job opportunities for youths

Project description:

- A piece of land outside the residential area has been selected and allocated for marble workshops
- Construction works started including the concrete foundations and infrastructure
- Land will be surveyed for project sustainability after funding is ensured
- Marble workshops shall be relocated to the new zone along with prohibiting the construction of any new workshops inside the residential area.

Project estimated cost:

- LE12000

Governorate Contribution:

- Land allocation for the project
- Facilitate obtaining government authorities' approvals
- Provide data and information required for the project

Environmental Projects of Alexandria Governorate (Cont.)
Second Project

Project name:

- Construction of Liquid wastewater treatment facility for tourist resorts

Project goal:

- Protection of Mediterranean seawater against wastewater pollution.

Project environmental objectives:

- Reduce the level of pollutants dumped on the Mediterranean seashore
- Protect coastal waters
- Protect fish wealth

Project desired results:

- Provide wastewater treatment plants/facilities
- Eliminate the Mediterranean seawater pollution
- Improve Mediterranean seawater quality
- Increase fish productivity
- Protect public health
- Activate domestic tourism

Project description:

- Joint wastewater treatment plants shall be established for the northern coast resorts, provided that each treatment unit shall have an autonomous monitoring unit that measures COD, BOD, pH, salinity, and temperature before being dumped on the Mediterranean coast.

Project estimated cost:

- About 3 Million LE.

Governorate contribution:

- Allocate land for the project
- Facilitate obtaining governmental approvals
- Provide data and information required for the project
- Create all the favorable conditions to render the project a success

Environmental Projects of Alexandria Governorate (Cont.)
Third Project

Project name:

- Upgrading Bakeries performance standards

Project goal:

- Upgrade Bakeries' operation efficiency.

Project environmental objectives:

- Reduce the level of emissions from bakeries
- Monitor local Egyptian bread compliance with specifications
- Obligate bakeries compliance with requirements of Environment Law 4/94, especially concerning prohibition of using mazot inside residential areas.

Project desired results:

- Eliminate emissions resulting from bakeries' operation
- Improve Bakeries' operation efficiency
- Ensure bakeries' compliance with Environment Law 4/94
- Protect public health

Project description:

- Inspect Bakeries on weekly basis to upgrade and follow up on its operating efficiency by virtue of a joint committee from Governorate Environment Office and Supply Directorate

Project estimated cost:

- About 0.5 Million LE.

Governorate contribution:

- Provide data and information required for the project
- Create all the favorable conditions to render the project a success

Environmental Projects of Alexandria Governorate (Cont.)

Fourth Project

Project name:

- Installation of special devices to measure the electromagnetic waves inside the frequency space of cell phone grids (1800 MHZ - 900 MHZ)

Project goal:

- Reduce the hazardous impacts of high frequency electromagnetic waves, and ensure the emitted radiation levels are compliant with the Egyptian protocol.

Project environmental objectives:

- Measure the electromagnetic waves to ensure compliance of radiations emitted from cell phone stations with the Egyptian Protocol standards.

Project desired results:

- Ensure safety of cell phone reinforcement stations and their compliance with the local and global legislations
- Protect public health
- Protect the environment against hazardous radioactive pollution

Project description:

- The special electromagnetic waves measurement devices shall be installed inside the frequency space of the cell phone stations to monitor any incompliance.
- Start installation of the devices at the reinforcement stations located over the roof of the Alexandria Governorate Headquarters in a preliminary step before being installed in all reinforcement stations affiliated to the executing company (Vodafone)

Project estimated cost:

- About 1 Million LE.

Governorate contribution:

- Facilitate obtaining governmental approvals
- Provide data and information required for the project
- Create all the favorable conditions to render the project a success

Environmental Projects of Alexandria Governorate (Cont.)
Fifth Project

Project name:

- Combat Smoking

Project goal:

- Protect public health and environment and minimize respiratory diseases and cancer

Project environmental objectives:

- Reduce air pollution
- Minimize the problems of garbage accumulation and self-ignition
- Reduce fire eruption due to throwing burning cigarette filters over inflammable wastes and materials
- Protect public health

Project desired results:

- Protect public health
- Reduce levels of infection with respiratory and lung diseases
- Protect the environment against pollution

Project description:

- Smoking shall be totally prohibited in closed and semi-closed areas (public), while allocating 1/3 of the coffee shop space for water pipe smokers along with installing air curtains to prevent any outgoing smoke emissions

Project estimated cost:

- About 0.5 Million LE.

Governorate contribution:

- Facilitate obtaining governmental approvals
- Provide data and information required for the project
- Create all the favorable conditions to render the project a success

4) Ismailia Governorate

4) Environmental Projects of Ismailia Governorate

First Project

Project name:

- Project for solid waste management at industrial zones in Ismailia

Project goal:

- Ensure an operating integrated solid waste management at the governorate's industrial zones

Project environmental objectives:

- Provide an integrated solid waste system at the Governorate's industrial zones
- Ensure safe transport, handling and sorting of solid wastes
- Recycle/reuse solid wastes
- Safe disposal of solid wastes of non-recyclable wastes
- Preserve human health against the hazardous impacts that may result from solid waste accumulation and incineration

Project desired results:

- Provide an integrated solid waste management system at the industrial zones in Ismailia
- Provide equipped trucks to transport solid wastes
- Allocate a space/site for waste collection and safe handling
- Provide safe landfill
- Generate profits in return for the solid waste transport, recycling and reuse services
- Protect the environment against solid waste pollution, accumulation, and incineration
- Contribute to eliminating unemployment through creating job opportunities for youths

Project description:

- Collect solid wastes from industrial facilities at Ismailia, estimated at about 2 tons of wastes daily through using equipped trucks
- Transfer the wastes to waste dumping site
- Sort solid wastes to obtain valuable recyclables such as cardboards, paper, glass, plastics, organic wastes, etc
- Recycle and reuse solid wastes
- Ensure safe disposal of solid wastes that can not be recycled and/or reused by being buried safely inside equipped and controlled landfills

Project estimated cost:

- LE 3.0 millions approx.

Governorate contribution:

- Governorate shall allocate a land over an area of 1000 m² at the industrial zone
- Facilitate obtaining governmental approvals
- Governorate shall provide the baseline data/information required for project construction such as (number of industrial facilities, types and quantities of wastes, etc.
- Governorate shall form an integrated management unit for operation, monitoring, control, and legal compliance in order to ensure project success

Environmental Projects of Ismailia Governorate (cont.)

Second Project

Project name:

- Project for disposal of municipal solid waste in Qantrara Gharb city

Project goal:

- Municipal solid waste management in Qantrara Gharb city

Project environmental objectives:

- Collect municipal solid wastes from all over Qantrara Gharb city
- Transport municipal solid wastes safely to public dumpsites
- Safe disposal of municipal solid wastes
- Safe disposal of solid wastes of non-recyclable wastes
- Preserve human health against the hazardous impacts that may result from solid waste accumulation and incineration
- Preserve the public cleanliness of the city

Project desired results:

- Establish a municipal solid waste management system at the city
- Provide equipped and covered trucks to transport and handle municipal solid wastes
- Allocate controlled public dumpsites and /or safe landfills
- Ensure safe and sound disposal of municipal solid wastes
- Create new job opportunities for youths

Project description:

- Collect solid wastes from streets, residential neighborhoods, and schools
- Transfer the municipal solid wastes to subsidiary waste dumping sites in readiness to be retransferred to main public dumpsites, provided that waste trucks are covered with oilcloths in order to preserve public health and cleanliness.
- Cover the municipal solid wastes in public dumpsites with sand and soil to prevent ignition and odors

Project estimated cost:

- LE 2,740,000 approx.

Governorate contribution:

- An area of 10 feddans have been allocated at the village of Abou Khalifa by virtue of Decree 581/1994
- Obtaining government approvals shall be facilitated
- The Local Administration Unit of Qantara Gharb City shall provide the baseline data and information required for the project

Environmental Projects of Ismailia Governorate (cont.)
Third Project

Project name:

- Introducing Wastewater services to the village of Ali Eid and Area No. 42 of Nafisha village

Project goal:

- Improving the living and environmental conditions at the village of Ali Eid and Area No. 42 of Nafisha village

Project environmental objectives:

- Prevent pollution of Abou Gamous drain and AL-Mahsama Drain with wastewater
- Prevent pollution of West Ismailia lake and Al-Timsah Lake with wastewater
- Prevent ground water pollution in the area
- Improve the ambient environmental conditions of local residents
- Preserve the public local health

Project desired results:

- Provide wastewater grids for deprived areas
- Provide lift stations for wastewater service in the area
- Provide centrifugal lines for the wastewater service in the area
- Protect waterways against pollution
- Protect groundwater against pollution

Project description:

- Introduce the wastewater service to the village of Ali Eid and Area No. 42 of Nafisha Village through the construction of a wastewater lift station, the wastewater centrifugal line extending to the Wastewater Facility of Ismailia City (Abou Attwa village) and gravity lines with diameters from 6 to 20 inches.

Project estimated cost:

- LE 5.0 million approx.

Governorate contribution:

- Governorate has allocated the land needed for the lift station site
- Governorate will facilitate obtaining government approvals
- The National Organization for Water and Sanitary Drainage (NOPWASD) shall provide the baseline data/information required for project construction

5) Beheira Governorate

Environmental Projects of Beheira Governorate

First Project

Project name:

- Collecting, transporting, and recycling municipal solid wastes generated from all cities and villages of Beheira Governorate

Project goal:

- Municipal solid waste management in rural and urban areas of Beheira Governorate

Project environmental objectives:

- Collect municipal solid wastes from all cities and villages of Beheira Governorate
- Transport and handle municipal solid wastes safely and soundly
- Recover recyclable and reusable material such as paper, cardboard, plastics, and scrap iron
- Recover and transform organic wastes into organic fertilizers
- Safe disposal of non-recyclable and non reusable municipal solid wastes
- Eliminate the environmental problems resulting from solid waste accumulation and ignition in cities and villages
- Remove the garbage accumulations from streets and realize the civilized image of Beheira governorate cities and villages
- Raising the environmental awareness for citizens
- Improving the healthcare standards for citizens

Project desired results:

- Provide an operating municipal solid waste collection system
- Provide a fleet of covered and equipped trucks, agricultural tractors, haulers, and loader to transport and handle municipal solid wastes
- Provide municipal solid wastes recycling/recovering facilities
- Provide incinerators for solid wastes that cannot be buried
- Provide safe landfills
- Ensure safe and sound disposal of municipal solid wastes
- Generate profits from transforming wastes into organic fertilizers
- Eliminate the spread of insects and rodents
- Ensure a beautiful civilized image for the rural and urban areas in Beheira
- Create new job opportunities for youths

Project description:

- Collect solid wastes from all cities and villages of Beheira governorate by using equipped trucks
- Transport solid wastes to waste recycling/recovering facilities
- Sort solid wastes to get economically valuable wastes such as cardboards, paper, glass, plastics, organic wastes, etc.
- Recycle and reuse solid wastes
- Ensure safe disposal of non-recyclable solid wastes by being buried in certified and equipped landfills.

Project estimated cost:

- Total costs for the projects concerned with domestic solid waste collection, transport and recycling in urban and rural areas of Beheira governorate are estimated at LE 30,895,000.

Governorate contribution:

- Allocate the lands needed for projects\ construction
- Facilitate obtaining government approvals
- Provide the baseline data/information required for project, in coordination with concerned authorities, and the data available at the Environment Department
- Provide the technical workers required for project management, monitor, follow up and perform periodical maintenance to ensure sustainable project success, in collaboration with other concerned departments, directorates, and control authorities.

Environmental Projects of Beheira Governorate (cont.)

Second Project

Project name:

- Collecting and recycling agricultural wastes generated from Beheira Governorate

Project goal:

- Agricultural waste management in Beheira Governorate

Project environmental objectives:

- Reduce the emissions resulting from the open burning of agricultural wastes, and the consequent problems of greenhouse effect and black cloud.
- Remediate the environmental problems resulting from agricultural wastes accumulation on the banks of canals, drains, and on residence roofs
- Recycle agricultural wastes in Beheira Governorate to produce animal fodders
- Recycle agricultural wastes in Beheira Governorate to produce organic fertilizers
- Reduce dependence on chemical fertilizers

Project desired results:

- Provide an operating municipal agricultural waste collection and recycling system
- Provide agricultural tractors, and compressors for rice straw and other agricultural wastes
- Provide rice straw shredders
- Generate profits from transforming agricultural wastes into organic fertilizers and animal fodders
- Reduce dependence on chemical fertilizers
- Eliminate the spread of insects and rodents that usually dwell safely in straw and cotton stem piles
- Ensure a beautiful civilized image and clean air in the rural and urban areas in Beheira
- Create new job opportunities for youths

Project description:

- Collect agricultural wastes from all cities and villages of Beheira governorate
- Shred agricultural wastes to waste recycling/recovering facilities
- Compress agricultural wastes
- Apply necessary additives to agricultural wastes to produce animal fodders
- Transform agricultural wastes into organic fertilizers.

Project estimated cost:

- The total costs of projects concerning collection and recycling agricultural wastes is estimated at LE 13,500,000

Governorate contribution:

- Facilitate obtaining government approvals
- Provide the baseline data/information required for project, in coordination with concerned authorities, and the data available at the Environment Department
- Provide the technical workers required for project management, monitor, follow up and perform periodical maintenance to ensure sustainable project success, in collaboration with other concerned departments, directorates, and control authorities.

Environmental Projects of Beheira Governorate (cont.)

Third Project

Project name:

- Safe disposal of hazardous medical wastes generated from Beheira Governorate

Project goal:

- Integrated hazardous medical waste management in Beheira Governorate

Project environmental objectives:

- Ensure safe disposal of hazardous medical wastes
- Reduce spreading infection with viral diseases
- Prohibit reuse of medical wastes
- Improve the healthcare standards for citizens
- Raise environmental awareness for citizens

Project desired results:

- Provide an operating accurate hazardous medical waste collection, handling, and transport system
- Provide well trained workers to collect, handle, and transport hazardous medical wastes, while providing the necessary personal protection equipment for workers
- Provide equipped trucks for transporting hazardous medical wastes
- Provide medical incinerators for disposal of hazardous medical wastes
- Allocate safe landfills for burying the ashes of hazardous medical waste incinerators
- Provide financial appropriations for medical treatment of infectious diseases
- Create new job opportunities for youths

Project description:

- Collect hazardous medical wastes from the health care units in Beheira governorate by depending on trained labor, and ensure placing these wastes in relevantly equipped trucks
- Transport medical wastes to its specified incinerators
- Burn medical wastes in certified incinerators in compliance with various laws and regulations
- Bury the ashes resulting from incineration of hazardous medical wastes in special cells inside the certified landfills.

Project estimated cost:

- The total costs of projects concerning transporting and incineration of medical wastes are estimated at LE 3,970,000

Governorate contribution:

- Allocate lands for project construction
- Facilitate obtaining government approvals
- Provide the baseline data/information required for project, in coordination with concerned authorities, and the data available at the Environment Department
- Provide the technical workers required for project management, monitor, follow up and perform periodical maintenance to ensure sustainable project success, in collaboration with other concerned departments, directorates, and control authorities.

6) Giza Governorate

6) Environmental Projects of Giza Governorate

First Project

Project name:

- Construction of Modern Poultry Slaughterhouse, Freezing Units and Selling outlets

Project goal:

- Minimize the spread of bird flu disease

Project environmental objectives:

- Prohibit sale of live poultry
- Reduce handling of live poultry amidst spread of bird flu disease and reduce exposition to live birds while handling
- Provide veterinary and health care for poultry to ensure it is disease free on reaching the final customer
- Ensure safe disposal of poultry slaughterhouse wastes

Project desired results:

- Provide modern poultry slaughterhouses, freezing units and market outlets
- Restore balance of poultry processing at the governorate following the problematic emergence and spread of bird flu disease and the extermination of large numbers of infected birds in the last two years
- Create stability in the poultry market in order to achieve self sufficiency from white meat in addition to exports
- Achieve investment gains for the executing agency through selling frozen poultry and selling poultry wastes to fodders producers.

Project description:

- Survey the centers of poultry farms throughout the governorate in collaboration with veterinary directorate
- Select two or more sites to establish poultry slaughterhouses that serve both the northern and southern sectors at the governorate, and equipped with freezing units and selling outlets
- Conduct preliminary technical and financial studies for project implementation
- Invite private and public sectors for project implementation
- Start implementation

Project estimated cost:

- Approximate costs of slaughterhouse are estimated at LE 3.0 millions

Governorate contribution:

- Allocate lands through purchasing the required appropriate area in a suitable location and consider the land price as a part of the project's investment costs
- A joint committee shall be formed including representatives of the concerned authorities that must approve the project (including Veterinary Medicine, Agricultural, Health, Industrial security, civil protection, environment authorities, aimed at reducing the timeline for issuing these approvals
- Provide the baseline data/information required for the project, from the data available at the Environment Department, and in coordination with the Veterinary Medicine Directorate.
- Facilitate issuance of licenses through the Central Department for Investment at the Governorate, which monitors the investment projects at the governorate and requests feedback from the differing authorities.

Environmental Projects of Giza Governorate (cont.)

Second Project

Project name:

- Construction of Industrial facilities for producing organic fertilizers from organic wastes

Project goal:

- Enhance efficiency of Solid Waste System at Giza Governorate

Project environmental objectives:

- Recover and recycle organic wastes to produce high quality organic fertilizers for agricultural lands
- Reduce the quantity of wastes buried at Shubrament dumpsite (5,095 tons/day) by recycling organic wastes (estimated at about 2394.7 tons/day) constituting about 51%, which would consequently increase the lifespan of controlled Shubrament dumpsite due to subtracted organic wastes from the overall solid wastes usually buried therein.
- Reduce usage of chemical fertilizers

Project desired results:

- Provide industrial facilities for producing organic fertilizers from organic wastes
- Produce high quality organic fertilizers used in improving agricultural productivity
- Minimize the environmental pollution resulting from the increasing solid wastes
- Achieve high profits for the investor from selling the resulting organic fertilizers, as well as imposing fees for collecting organic wastes from residences or from solid waste collection sites
- Create job opportunities

Project description:

- Encourage citizens to apply the concept of at source sorting, where organic wastes that can be transformed into organic fertilizers can be placed in separate bags from other types of wastes
- Establish an organic fertilizer manufacturing facility with one production at least to process organic fertilizers from solid organic wastes
- Allocate a space for storing solid organic wastes pending processing

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- It is recommended to invite investors through official press ads to submit their proposals for project implementation
 - Investors' proposals shall be received, studied and bids awarded according to the standards specified by the governorate
 - Start project implementation

Project estimated cost:

- Estimated costs of organic fertilizers manufacturing facility are about LE 10.0 millions

Governorate contribution:

- Allocate lands through purchasing the required appropriate area in a suitable location and consider the land price as a part of the project's investment costs
- A joint committee shall be formed including representatives of the concerned authorities that must approve the project (including Veterinary Medicine, Agricultural, Health, Industrial security, civil protection, environment authorities, aimed at reducing the timeline for issuing these approvals
- Provide the baseline data/information required for the project, from the data available at the Environment Department, and in coordination with the General Authority for Cleaning and Beautification
- Facilitate issuance of licenses through the Central Department for Investment at the Governorate, which monitors the investment projects at the governorate and requests feedback from the differing authorities.

Environmental Projects of Giza Governorate (cont.)

Third Project

Project name:

- Construction of solid waste recycling facility (glass- plastics, paper wastes)

Project goal:

- Enhance efficiency of Solid Waste Management System at Giza Governorate

Project environmental objectives:

- Recover recyclable and reusable solid wastes
- Reuse and recycle sorted solid waste items in order to minimize depletion of natural resources, save energy, and protect the environment
- Reduce the quantity of wastes buried at Shubrament dumpsite (5,095 tons/day) by recycling solid wastes (estimated daily at about 1324 tons of paper and cardboard, 305.7 tons of plastic wastes, and 127.4 tons of glass) which consequently would increase the lifespan of controlled Shubrament dumpsite.
- Increase efficiency of final disposal of solid wastes by reducing the quantity of wastes buried at Shubrament dumpsite
- Increase the investment value of wastes through recycling

Project desired results:

- Provide industrial facilities for sorting and producing fertilizers of economic value
- Provide production lines to transform sorted wastes into products requested by the local market
- Save energy and minimize depletion of natural resources
- Achieve high profits from marketing products processed from these wastes
- Create job opportunities

Project description:

- Project includes establishing production lines for recycled items selected from raw plastics, glass, and/or paper, as follows:
- Plastic production line includes (a plastic waste washing and sterilization unit- plastic waste shredder, plastic processing and molding machine)
- Glass production line includes (glass waste grinding machine, glass melting, forming, and blowing furnace)

-
- Paper production line includes (paper waste furnace, paper pasting and drying, paper pressing, forming and cutting machine)
 - It is recommended to invite investors through official press ads to submit their proposals for project implementation
 - Investors' proposals shall be received, studied and bids awarded according to the standards specified by the governorate
 - Start project implementation

Project estimated cost:

- Costs for construction of sorting facility is estimated at about LE 10.0 millions

Governorate contribution:

- Allocate lands through purchasing the required appropriate area in a suitable location and consider the land price as a part of the project's investment costs
- A joint committee shall be formed including representatives of the concerned authorities that must approve the project (including Veterinary Medicine, Agricultural, Health, Industrial security, civil protection, environment authorities, aimed at reducing the timeline for issuing these approvals
- Provide the baseline data/information required for the project, from the data available at the Environment Department, and in coordination with the General Authority for Cleaning and Beautification
- Facilitate issuance of licenses through the Central Department for Investment at the Governorate, which monitors the investment projects at the governorate and requests feedback from the differing authorities.

Environmental Projects of Giza Governorate (cont.)
Fourth Project

Project name:

- Safe Disposal of hazardous medical and industrial wastes

Project goal:

- Provide Integrated Hazardous Waste Management System (Medical and Industrial Wastes)

Project environmental objectives:

- Ensure safe disposal of hazardous medical wastes resulting from hospitals and health care centers at the governorate, whose quantities are estimated at about 17.8 tons/day
- Ensure safe disposal of industrial wastes resulting from industrial activities at the governorate whose quantities are estimated at about 155 tons/year (0.5 tons/day approx.)
- Minimize spread of infectious viral diseases
- Minimize reusing hazardous wastes
- Enhance health care for citizens
- Raise environmental awareness for citizens
- Reduce environmental pollution resulting from unsafe disposal of hazardous medical and /or industrial wastes

Project desired results:

- Provide an accurate operating system for collection, handling and transporting of hazardous medical wastes from hospitals, clinics, analysis and x-ray centers
- Provide an accurate operating system for collection, handling and transporting of hazardous medical and industrial wastes, while providing personal protection equipment for workers
- Provide equipped trucks for transporting hazardous medical wastes
- Provide equipped trucks for transporting hazardous industrial wastes
- Provide hazardous medical wastes treatment units (sterilization units) and hazardous industrial waste treatment units
- Provide medical incinerators for disposal of hazardous medical wastes
- Provide safe landfills that contain cells for burying hazardous medical wastes and other cells for burying hazardous industrial wastes
- Ensure safe disposal of all hazardous medical and industrial wastes

-
- Save energy and minimize depletion of natural resources
 - Achieve high profits for the project executing agency through collecting fees in return for performing waste collection, transport, treatment and final disposal services
 - Create new job opportunities for youths

Project description:

- Create an integrated system for collection, transport, treatment, and final safe disposal of hazardous medical and industrial wastes
- Generalize the system of at source waste sorting at all medical centers and hospitals so that all medical wastes are placed in red bags, while ordinary solid wastes are placed in black bags. In addition, special containers shall be provided for liquid chemical wastes and other containers for collecting waste injection needles, etc.
- Treatment of hazardous medical and industrial wastes
- Incineration of hazardous medical wastes
- Apply safe burial of hazardous wastes in equipped cells inside landfills
- Administrative authorities are requested to periodically inspect and monitor these facilities to ensure at source sorting is applied accurately

Project estimated cost:

- Estimated Costs for the project (one incinerator with a 600 kg capacity + 10 equipped trucks for transporting medical wastes + 2 trucks for transporting incinerator ashes to the landfill) reached about LE 4,400,000 excluding the landfill costs.

Governorate contribution:

- Allocate lands through purchasing the required appropriate area in a suitable location and consider the land price as a part of the project's investment costs
- A joint committee shall be formed including representatives of the concerned authorities that must approve the project (including Veterinary Medicine, Agricultural, Health, Industrial security, civil protection, environment authorities, aimed at reducing the timeline for issuing these approvals
- Provide the baseline data/information required for the project, from the data available at the Environment Department, and in coordination with the General Authority for Cleaning and Beautification
- Facilitate issuance of licenses through the Central Department for Investment at the Governorate, which monitors the investment projects at the governorate and requests feedback from the differing authorities.

Environmental Projects of Giza Governorate (cont.)

Fifth Project

Project name:

- Construction of vehicular motor tune-up and emissions testing

Project goal:

- Reduce polluting vehicular gaseous emissions that are hazardous to the environment and human health

Project environmental objectives:

- Minimize environmental pollution resulting from vehicular emissions that cause spread of respiratory diseases, in addition to its contribution to the formation of the black cloud phenomenon
- Tuning-up vehicular engines/motors at the governorate
- Increase fuel combustion efficiency

Project desired results:

- Provide vehicular motor tune up and emission testing stations
- Reduce air pollutants resulting from vehicular emissions and minimize the severity of the black cloud
- Increase the tourist influx into the Giza governorate in particular and Egypt in general
- Achieve an economic profit for the project executing agency through collection of fees in return for vehicular tune up and emissions testing services
- Create job opportunities

Project description:

- Construction vehicular emission testing and motor tune up/maintenance facilities through:
 - o Identify the suitable locations for project implementation at the governorate in coordination with the Giza General Traffic Department
 - o Invite experienced and willing private sector investors for project implementation through an advertised public tender to submit their technical and financial proposals
 - o Submitted proposals shall be studied by concerned technical authorities (EEAA, General Traffic Department)

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- Select the most appropriate technical and financial proposal
 - Start project implementation

Project estimated cost:

- About 2 Million LE.

Governorate contribution:

- Allocate lands through purchasing the required appropriate area in a suitable location and consider the land price as a part of the project's investment costs
- A joint committee shall be formed including representatives of the concerned authorities that must approve the project (including Veterinary Medicine, Agricultural, Health, Industrial security, civil protection, environment authorities, aimed at reducing the timeline for issuing these approvals
- Provide the baseline data/information required for the project, from the data available at the Environment Department, and in coordination with the General Authority for Cleaning and Beautification
- Facilitate issuance of licenses through the Central Department for Investment at the Governorate, which monitors the investment projects at the governorate and requests feedback from the differing authorities

Environmental Projects of Giza Governorate (cont.)
Sixth Project

Project name:

- Construction of debris and construction wastes recycling unit

Project goal:

- Recycling and reuse of debris and construction wastes

Project environmental objectives:

- Removal of debris and construction waste piles
- Recycling debris and construction wastes
- Reducing the environmental pollution resulting from the accumulation of debris and construction wastes which are dumped randomly in open spaces and on the banks of canals and drains
- Improve the beautiful image of the governorate by removing these wastes and cultivating these dumpsites or transforming these spaces into service activities of benefit to the community

Project desired results:

- Provide an established debris and construction waste collection system
- Provide crackers to break the debris and construction wastes
- Provide compressors to compact the resulting dust from cracked wastes
- Increase the green areas by cultivating areas after removing wastes
- Achieve an economic profit for the project executing agency through selling products (including cement bricks, thermal bricks or any other product that can be processed from debris and construction wastes)
- Create job opportunities

Project description:

- Project includes establishment of an advisory unit for recycling debris and construction wastes, and this unit shall include the following components::
 - o Waste sorting site
 - o Cracker for smashing recyclable construction debris (reinforced concrete, cement bricks, ceramic fragments)
 - o Compressor for compacting the dusts resulting from waste smashing

Project implementation steps:

- o Allocate a site with an area of 200 m x 200 m for establishing the required advisory unit
- o Invite experienced and willing private sector investors for project implementation through an advertised public tender
- o Submitted proposals shall be studied and best proposal selected
- o Start project implementation (under the supervision of Housing Research Center and Giza Governorate)

Project estimated cost:

- Estimated costs for equipment reached around LE 0.5 million (for one production line, excluding transport costs (whether transport is through contractors or through the unit) in addition to operation costs and labor costs

Governorate contribution:

- Allocate lands through purchasing the required appropriate area in a suitable location and consider the land price as a part of the project's investment costs
- A joint committee shall be formed including representatives of the concerned authorities that must approve the project (including Veterinary Medicine, Agricultural, Health, Industrial security, civil protection, environment authorities, aimed at reducing the timeline for issuing these approvals
- Provide the baseline data/information required for the project, from the data available at the Environment Department, and in coordination with the General Authority for Cleaning and Beautification
- Facilitate issuance of licenses through the Central Department for Investment at the Governorate, which monitors the investment projects at the governorate and requests feedback from the differing authorities

Environmental Projects of Giza Governorate (cont.)

Seventh Project

Project name:

- Al-Warraq Island Upgrading Project (Treatment of solid, agricultural and liquid wastes resulting from the island), to be transformed into organic fertilizers or clean energy (Methane gas)

Project goal:

- Upgrading Al Warraq Island by introducing wastewater and solid waste management services therein

Project environmental objectives:

- Treatment of wastewater resulting from residential units and service authorities on the island instead of being discharged into permeable trenches , causing leakage of wastewater into the ground water on the island and the into the Nile
- Safe disposal of solid and agricultural wastes on the island, and reusing them in manufacturing environmentally feasible products (organic fertilizers-clean energy)
- Protect River Nile against leakage of wastewater, causing pollution of the Nile and hazardous impacts on aquatic life therein
- Reduce residents dumping of solid wastes on the Nile banks and prevent the random accumulation of solid wastes throughout the island.

Project desired results:

- Provide wastewater services to the citizens of Al-Warraq Island
- Provide municipal and agricultural waste management services at Al-Waaraq island, produce organic fertilizers and methane gas
- Protect the River Nile against pollution with wastewater, preserve the ecological balance of the area, and protect the aquatic life that dwell in the River Nile
- Achieve an economic profit for the project executing agency through collection fees in return for collecting solid wastes and in return for the wastewater services to be introduced to the island residents, and from selling of products (including organic fertilizers, and natural gas that shall be generated due to treatment of wastes and then charged in cylinders.
- Create job opportunities

Project description:

- Construction of a wastewater system that connects the buildings on the island to a lift station and then to the treatment unit. In case of any impediments to this concept, 2 vacuums shall be purchased to scavenge and transport wastewater.
- Establish a system for solid waste collection and transport from residences to the treatment unit
- Provide the containers required for transporting wastes, while considering at source sorting separating organic wastes from other solid wastes
- Provide means of transporting solid wastes, considering that these means are compatible with island's narrow streets and unpaved roads
- Provide waste shredders and compactors to facilitate transport and treatment processes
- Provide a solid waste and a liquid waste treatment unit(s) to be transformed into organic fertilizers and clean energy)
- Provide a line for packing organic fertilizers products, and another line to compress and charge generated methane gas in cylinders

Project estimated cost:

- Estimated costs for equipment reached around LE 0.5 million (for one production line, excluding transport costs (whether transport is through contractors or through the unit) in addition to operation costs and labor costs

Governorate contribution:

- Allocate lands through purchasing the required appropriate area in a suitable location and consider the land price as a part of the project's investment costs
- A joint committee shall be formed including representatives of the concerned authorities that must approve the project (including Veterinary Medicine, Agricultural, Health, Industrial security, civil protection, environment authorities, aimed at reducing the timeline for issuing these approvals
- Provide the baseline data/information required for the project, from the data available at the Environment Department, and in coordination with the General Authority for Cleaning and Beautification
- Facilitate issuance of licenses through the Central Department for Investment at the Governorate, which monitors the investment projects at the governorate and requests feedback from the differing authorities

Environmental Projects of Giza Governorate (cont.)
Eighth Project

Project name:

- Cleaning Water Reservoirs Elevated on Buildings Roofs

Project goal:

- Preserve the public health through ensuring safe water used and stored in elevated reservoirs

Project environmental objectives:

- Preserve the physical and chemical properties of water stored in elevated reservoirs on the roofs of buildings by sustainable cleaning of said reservoirs
- Protect the public health against diseases that may result from potable water pollution

Project desired results:

- Protect public health by cleaning water reservoirs elevated on top roofs of buildings
- Create job opportunities for new graduates of Chemistry departments, through establishing a company assigned to clean and purge these reservoirs
- Provide technical advise to landlords (building owners) who are willing to construct elevated reservoirs on top roofs of their buildings
- Provide periodical maintenance services for these water reservoirs on top of buildings

Project description:

- A company shall be established by new graduates and shall be supported by the Social Fund for Development (SFD) or the New Graduates Employment Agency at the Governorate. This company shall perform periodical cleaning f water reservoirs elevated on top of buildings, and shall provide technical advises to buildings owners willing to install such reservoirs. The company's services shall be performed under the supervision of the Health Directorate and in return for a fee that shall be fixed by the local councils, to be collected from every residential unit benefiting from the project.

Project estimated cost:

- Estimated costs for equipment reached around LE 800,000

Governorate contribution:

- The proposed company shall rent an area of land as a garage for its vehicles, besides establishing or renting an administrative office space
- Facilitate obtaining government approvals
- Governorate shall ensure expedited obtaining of the required licenses from the Health Directorate
- Governorate shall ensure project revenues to the company through immediate rating of the fees to be collected from residential units that will benefit from the local councils decree.
- Provide the baseline data/information required for the project, from the data available at the Environment Department, the Health Directorate and District authorities
- Governorate shall monitor project implementation under the technical supervision of the Health Directorate
- Provide the baseline data/information required for the project, from the data available at the Environment Department, the Health Directorate and District authorities
- Governorate shall monitor project implementation under the technical supervision of the Health Directorate

Environmental Projects of Giza Governorate (cont.)

Ninth Project

Project name:

- Running Power-fueled Vehicles at the Governorate archeological areas

Project goal:

- Preserve the Pharaoh monuments in Giza governorate (Giza pyramids) against nitrogenous and sulfuric oxides emissions resulting from oil fuel combustion in vehicular motors, which consequently leads to erosion of buildings

Project environmental objectives:

- Use clean energy instead of oil fuels whose combustion results in emissions of gases that are hazardous to the environment and human health
- Protect the ancient Egyptian monuments, which is a national treasure that generates a high income Egypt's economy
- Protect Greater Cairo air from oil fuels emissions

Project desired results:

- Use power fueled instead of oil fueled vehicles at the archeological sites of the pyramids area
- Increase the lifespan of the monuments and their value as a national treasure and a high income source for Egypt's economy
- Increase job opportunities in the tourism sector

Project description:

- The project is composed of:
 - o Using two power fueled vehicles (buses) instead of oil fueled buses to transfer tourists into the Pharaohs sites at the Pyramids area. The main aim is to preserve the integrity of these monuments and prolong its lifespan. In addition, these power-fueled buses shall preserve air clearness and protect human health in that area

Project estimated cost:

- Estimated costs per vehicle reached around LE 5.1 million

Governorate contribution:

- The Company in charge of running the two power fueled buses shall rent a land space as a garage for the two vehicles and shall construct a wooden kiosk as an administrative center for the controlling Archaeological Authority
- The governorate shall ensure cooperation with the project-concerned authorities, including archaeology departments, Ministry of Transport, Governorate security departments, in order to expedite issuance of the required licenses for the bid awarded company.
- Information shall be made available, through the Ministry of Tourism and Governorate Environmental Office, to investors willing to submit their proposals within context of the project implementation tender.
- The governorate shall monitor project implementation steps and shall be responsible for removing any obstacles and provide all the incentives stated in the Investment Law, including tax exemptions.
- What supports the success of this project and increase its investment revenues is incessant need on the part of tour operators to arrange tourist visits to the Pyramids area, and consequently the anticipated revenues from operating these vehicles shall cover the investment costs as soon as possible (from 2 to 3 years), and consequently the revenues shall exceed 30% annually.

Environmental Projects of Giza Governorate (cont.)

Tenth Project

Project name:

- Cultivating Roofs of Residences, Real Estates, and Government Buildings at the Governorate

Project goal:

- Improve Giza air quality and eliminate the visual pollution resulting from the accumulated wastes on top of residences, real estates and government buildings

Project environmental objectives:

- Improve Giza air quality through reducing carbon dioxide levels in ambient air which is absorbed by plants
- Eliminate accumulated waste piles located on top of residences, real estates and government buildings
- Reduce poultry and bird raising on top of houses, as they constitute a source of infection with the bird flu disease

Project desired results:

- Improve air quality and spread the green color by cultivating plants on top of buildings or use ornamental plants that would increase oxygen levels and absorb carbon dioxide from ambient air
- Create job opportunities for youths dwelling in those residences
- Gain a profit margin in case of marketing products
- Highlight the aesthetic value of real estates after the removal of waste piles which also have an economic value (paper, wood, etc)

Project description:

- The project is composed of:
 - o Develop a public awareness plan on the environmental and economic importance of cultivating the tops of building, in collaboration with specialists from research centers and universities
 - o Establish a company comprised of new graduates through the Graduate Employment Agency or the SFD, to be responsible for utilizing the revenues from selling these wastes by setting appropriate designs for project implementation to preserve the integrity of real estates. There are two systems for cultivating the building tops or roofs :

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1. Cultivation on tables equipped with proper flow discharge devices to prevent wastewater leakage to the building roof
 2. Cultivation using pipes of varied diameters to be filled with the proper agricultural medium
- Each of the aforementioned systems can be provided with a fertilizer reservoir to be added to irrigation water.

Project estimated cost:

- First system: Tables: cost of cultivating 20m^2 = about LE 4,400 + LE 350 cost of fertilizers reservoir
- Second system: Pipes: = LE 1,950 + LE 350 cost of fertilizers reservoir

Governorate contribution:

- This project does not require any land, and a residential unit may be rented as an administrative office
- The governorate shall ensure facilitating the executing company's obtaining all the required approvals from the Local administrative units and the Agricultural Directorate approval of the project
- Information on the project is available at the Orchards Research Institute affiliated to the Agricultural Research Center.
- The Governorate shall support the project executing company, through the governorate' departments on the district and city levels, and shall be responsible for removing all obstacles before the project implementation. The Governorate also shall provide the project with legal protection in case of imposing fees, through the local councils, on the residents in buildings subject to the project services.
- This project shall generate high revenues due to its reduced investment and current costs, high current revenues, in addition to the distinguished embellishment value

7) 6 October Governorate

Environmental Projects of 6 October Governorate

First Project

Project name:

- Reusing manufacture outputs at Marble industrial facilities in manufacturing thermal bricks

Project goal:

- Improve Giza air quality through reducing dust and airborne particulate emissions from marble industrial facilities

Project environmental objectives:

- Improve Giza air quality
- Eliminate wastes resulting from marble industrial facilities
- Reduce dust and airborne particulates resulting from marble industrial facilities
- Preserve natural resources through manufacturing thermal bricks from marble wastes

Project desired results:

- Introduce industrial facilities for producing thermal bricks from marble manufacturing wastes
- Increase supply of thermal bricks, which affects in reducing the costs of productivity of industries and furnaces that use thermal bricks
- Reduce quantities of solid wastes
- Create job opportunities in constructing thermal bricks factories
- Increase the revenues of marble industries

Project description:

- The project is aimed at reusing marble factories wastes in producing thermal bricks
- Surveying marble factories, and determining each factory's capacity in adding the thermal brick manufacturing activity from the resulting wastes
- Prepare the technical studies and identify the proper production system for the project
- Coordination with EEAA and other concerned authorities to comply with the relevant Egyptian laws and regulations
- Start project implementation The project is aimed at reusing marble factories wastes in producing thermal bricks

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- Surveying marble factories, and determining each factory's capacity in adding the thermal brick manufacturing activity from the resulting wastes
 - Prepare the technical studies and identify the proper production system for the project
 - Coordination with EEAA and other concerned authorities to comply with the relevant Egyptian laws and regulations
 - Start project implementation

Project estimated cost:

- Project estimated costs reached LE 700,000 per production line

Governorate contribution:

- This project requires a land space that can be allocated inside or adjacent to the marble industrial facility
- Since these facilities are located in the industrial zone of Abou Rawash, and recognizing the project's ecological and economic returns, zone officials have voiced their readiness to license this project and allow the manufacturers to build over 60% of the area to accommodate the new production line.
- Information on the project is available at the Executive Agency of the Abou Rawash Industrial Zone
- This executive agency is the authority that proposed the project, and thus it shall support the project and monitor the implementation of its phases and remove all obstacles facing implementation thereof
- Among the advantages of project implementation beside or inside the marble industrial facility is the reduced transport cost, if any, which reduces current costs. In addition, the reduced value of the intermediate product (marble dust) would increase current revenues and consequently raise the profits.

Environmental Projects of 6 October Governorate (cont.)

Second Project

Project name:

- Establish an open zoo on the Western Oasis/Giza Highway

Project goal:

- Preserve biodiversity and protect rare and endangered fauna and flora species

Project environmental objectives:

- Reduce vehicular emissions resulting from the dense traffic visiting the current zoo
- Preserve the biodiversity (fauna and flora) in the new zoo
- Utilize the treated wastewater in irrigation of trees and plants in the zoo
- Increase the green area that helps in improving air quality
- Provide a timber wealth that assists in reducing wood imports

Project desired results:

- Establish a new zoo that accommodates rare and diverse fauna and for a species
- Increase the tourist activity in the governorate
- Generate sufficient financial revenues due to implementing this project
- Create new job opportunities

Project description:

- Establish an open zoo similar to its counterpart in Kenya, by virtue of which the visitor remains inside a vehicle moving throughout the zoo, while animals move freely
- The minimum area of the zoo shall be 500 feddans
- Cultivate a timber forest to be irrigated by well water or by treated wastewater

Project estimated cost:

- About 3 Million LE.

Governorate contribution:

- The Governorate shall contribute with the Ministry of Agriculture to allocate 500 feddans at a reasonable price for the best proposal by the bid awarded company
- The governorate shall facilitate obtaining the required approvals from the concerned government authorities such as Archeology, Defense, Quarries, Tourism, and Irrigation.
- The information on the project is available at the Ministry of Agriculture, Agricultural Research Center, and African Studies Institute
- The Governorate shall follow up project implementation and an urban layout shall be developed once the zoo project implementation starts.

Environmental Projects of 6 October Governorate

Third Project

Project name:

- Establishing Organic Fertilizer Industrial facility and a Landfill in Berqash

Project goal:

- Establish an integrated solid waste management system at the October 6 Governorate

Project environmental objectives:

- Eliminate solid wastes accumulations in the aforementioned areas
- Recover and transform recyclable organic wastes into organic fertilizers
- Ensure safe disposal of solid wastes
- Reduce disclosed burning and self ignition of wastes in the accumulation sites as well as in the uncontrolled dumpsite in Berqash, which would assist in solving the black cloud problem

Project desired results:

- Provide the integrated solid waste management system in October 6 Governorate
- Establish an industrial facility to produce organic fertilizers from solid wastes
- Upgrade the random dumpsite in Berqash into a controlled landfill for non recyclable and non reusable wastes
- Produce organic fertilizers from organic wastes and minimize usage of chemical fertilizers
- Create job opportunities for youths

Project description:

- Collect solid wastes from various Governorate centers
- Transport the solid wastes to the sorting area to separate recyclable wastes from other types
- Establish an organic fertilizer manufacturing production line from recyclable organic wastes
- Allocate a land space at Berqash area (within an area of 35 feddans at Souk El-Gemal) to construct a controlled landfill composed of five cells, including at least one cell for burying hazardous wastes

Project estimated cost:

- Landfill costs: LE 6,450,000 approx
- Organic fertilizer production line costs: LE 10.0 millions approx.

Governorate contribution:

- Allocation of the 35 feddans for the project in Berqash will be reconsidered though it received Agriculture Minister's approval for establishing service projects
- The October 6 Governorate shall be responsible for obtaining approvals from the following authorities (Archeology, Defense, Quarries, Cleaning authority, Environment)
- Data and information concerning the project is available at the Local administrative unit of Mansheyet El Qanater, Cleaning and Beautification Authority, Environment Department.
- The Governorate shall monitor project implementation and means to provide an integrated system for waste collection and transport to serve the project.

Environmental Projects of 6 October Governorate

Fourth Project

Project name:

- Smoke stake filter manufacturing

Project goal:

- Improve air quality at the governorate by reducing the polluting emissions resulting from industrial activities

Project environmental objectives:

- Reduce the quantities of gaseous emissions and dust resulting from various industrial facilities
- Minimize the spread of respiratory diseases that may harm citizens due to their exposure to emissions
- Reduce the recurrence of the black cloud phenomenon
- Improve air quality

Project desired results:

- This project is aimed at providing smoke stack product that is compatible with various industrial activities, which would help to reduce the resulting hazardous emissions if installed in any of these facilities
- Generate an investment return for the project executing company due to manufacturing and selling these smoke stack filters to various polluting industrial facilities
- Reduced infection with respiratory diseases due to citizens' exposure to industrial facilities emissions
- Protect the environment, reduce air pollutants, and minimize the recurrence of the black cloud
- Create new job opportunities for youths

Project description:

- Survey the needs of industrial facilities located in Abou Rawash industrial zone and other facilities at the governorate from these filters and their types
- In case of approving the project implementation, experienced investment companies shall be invited to submit their proposals for implementation, through an advertised public tender
- These technical and financial proposals shall be received and studied then the best proposal for implementation shall be selected.
- Coordinate with EEAA and other concerned authorities to ensure compliance with the applicable Egyptian laws and regulations
- Start project implementation

Project estimated cost:

- Estimated costs per industrial facility reached about LE 500,000

Governorate contribution:

- Land plots at the Abou Rawash industrial zone shall be allocated to contribute to implementation according to project requirements
- The Abou rawash Industrial Zone authority shall be responsible for issuance of all the required approvals for the aforementioned activity, and facilitate obtaining the required licenses
- Data and information concerning the project is available at the Executive Agency of the Abou Rawash Industrial Zone and the Industrial Development Authority
- The Executive Agency of the Abou Rawash Industrial Zone is the agency which proposed the project, and thus it shall support the project and monitor all its implementation phases, and shall remove all the obstacles that may impede implementation thereof.

Environmental Projects of 6 October Governorate

Fifth Project

Project name:

- Utilizing Methane Gas generated from Shubrament Landfill

Project goal:

- Protect environment and air quality in Greater Cairo against pollution caused by Methane gas generated from Shubrament Landfill

Project environmental objectives:

- Produce clean energy
- Reduce air pollutants in the governorate
- Confront the greenhouse effect resulting from increased level of some gases in ambient air, including methane
- Utilize the anticipated revenues from selling methane (carbon) in establishing a controlled landfill

Project desired results:

- Operate minor units and facilities by using methane as fuel
- Reduce oil fuel consumption rates and depletion of natural resources
- Provide high revenues for the Governorate in case a specialized company sold methane gas generated from Shubrament landfill
- Create Job opportunities for youths
- Ensure cleaner environment and pollution-free air on using methane gas

Project description:

- The project includes utilization of methane generated from Shubrament Landfill as a source of clean energy, within context of Kyoto Protocol for Clean Development CDM
- It is recommended that investors are invited to submit their proposals for project implementation within context of an advertised public tender among companies operating in this field
- Proposals submitted by investors shall be received, studied and the best proposal shall be selected
- The best bidder will be awarded according to the technical and financial requirements

-
- Coordinate with EEAA and other concerned authorities to ensure compliance with the applicable Egyptian laws and regulations
 - Start project implementation

Project estimated cost:

- About 2 Million LE.

Governorate contribution:

- The Shobrament landfill site shall be utilized, and any administrative office, if required, shall be established there
- The Abu rawash Industrial Zone authority shall be responsible for issuance of all the required approvals for the aforementioned activity, and facilitate obtaining the required licenses
- Data and information concerning the project is available at the General Cleaning and Beautification Authority
- This project shall be implemented under the umbrella of Investment Protection Law. The Governorate shall be responsible for monitoring all phases of implementation and remove any obstacles impeding such implementation
- This project shall not require huge investment costs, while the current revenues are quite high in comparison to current costs. This affirms that investment returns are high, which would encourage the involvement of major companies. A Japanese company has proposed to utilize methane gas generated from the Landfill.

8) Fayoum Governorate

Environmental Projects of Fayoum Governorate

First Project

Project name:

- Construct a new landfill for solid wastes in Kasr El Basel

Project goal:

- Safe disposal of solid wastes in the centers of Atsa and Al-Fayoum

Project environmental objectives:

- Eliminate the problematic accumulation of garbage and the spreading insects and rodents
- Eliminate the problem of disclosed burning of garbage in public dumpsites
- Preserve human health against hazardous impacts resulting from accumulation and burning of solid wastes

Project desired results:

- Provide a controlled landfill in Fayoum Governorate for safe disposal of solid wastes
- Upgrade the efficiency of the solid waste management system at the centers of Al Fayoum and Atsa
- Generate financial revenues for the project executing company as a result of collecting waste disposal fees
- Create job opportunities for youths

Project description:

- The project is concerned with construction of a landfill in the desert of Kasr El-Basel in Atsa Center (markaz) over an area of 17 feddans allocated by the governorate for the landfill that shall serve the southern district of Fyoum Governorate.
- Project components consist of landfill planning, infrastructure, Bascule Balance, Power Equipment + Loader, Bulldozer, 2 trucks
- Preparation of cells, liquid collection network, gas network

Project estimated cost:

- LE 50 million

Governorate contribution:

- Governorate has allocated 17 feddans for the project of landfill construction
- Facilitate obtaining governmental approvals
- Provide the data and information required for the project
- Create all the favorable conditions that help in rendering the project a success

Environmental Projects of Fayoum Governorate (Cont.)

Second Project

Project name:

- Cleaning Qaroun Lake and Stabilizing sand Dunes

Project goal:

- Preserve the storing capacity and the aquatic balance of Qaroun Lake, and Avoid any Siltation (sedimentation) in the lake, in addition to refining Qaroun Lake coasts

Project environmental objectives:

- Preserve Qaroun Lake as a natural protectorate
- Prevent sand dunes conquest of the lake from the Lake's northern coast
- Preserve the storing capacity of the lake

Project desired results:

- Preserve natural resources
- Improve lake's water quality
- Stabilize sand dunes at the northern coast of the Lake

Project description:

- The project consists of a study for cleaning the lake bottom
- Obtaining approvals from the concerned authorities and EEAA on the study
- Implement cleaning processes
- Searching for a space to relocate the cleaning outputs.

Project estimated cost:

- LE 35.0 million

Governorate contribution:

- Allocate land for the project
- Facilitate obtaining governmental approvals
- Provide data and information required for the project
- Create all the favorable conditions to render the project a success

Environmental Projects of Fayoum Governorate (Cont.)
Third Project

Project name:

- Integrated Industrial and Hazardous Waste Management System at the Governorate

Project goal:

- Establish an Integrated Industrial and Hazardous Waste Management System at the Governorate

Project environmental objectives:

- Safe and sound collection, transport, and handling of solid wastes
- Recover recyclable items such as paper, cardboard, plastics and scrap iron
- Ensure safe disposal of hazardous and industrial wastes
- Eliminate environmental problems resulting from unsafe dumping of wastes
- Upgrade public environmental awareness
- Upgrade public health standards

Project desired results:

- Provide an operating Integrated Industrial and Hazardous Waste Management System
- Eliminate the phenomenon of hazardous waste leakage
- Provide well trained labor on means of collection, handling and transporting hazardous and industrial wastes, while providing the personal protection equipment for workers
- Provide equipped trucks to transport industrial and hazardous wastes
- Provide industrial and hazardous waste treatment units
- Provide incinerators for disposal of hazardous wastes
- Provide safe landfills
- Ensure safe disposal of industrial and hazardous wastes at the governorate
- Generate financial revenues for the project executing agency through collection of fees imposed in return for waste collection, transport, treatment, and final disposal services

Project description:

- The project is concerned with developing an independent organizational structure for the industrial and hazardous solid waste management system, so that this structure includes the expertise required for this management and developing a financial regulation for this structure
- Survey all types and sources of industrial and hazardous wastes at the governorate and develop an integrated database therefore
- Develop a general scheme for handling industrial and hazardous solid wastes, as well as liquid industrial wastes
- Start implementation of integrated industrial and hazardous waste management projects (Construct hazardous waste landfill, establish industrial wastewater treatment facility, monitor handling methods)
- Develop monitoring plans for industries and facilities that emit hazardous wastes and prepare handling records for these facilities
- Provide management training for concerned labor

Project estimated cost:

- LE 10.0 million

Governorate contribution:

- Allocate land for the project
- Facilitate obtaining governmental approvals
- Provide data and information required for the project
- Create all the favorable conditions to render the project a success

Environmental Projects of Fayoum Governorate (Cont.)
Fourth Project

Project name:

- Upgrading environmental awareness for workers at the Industrial zone in Kom Ousheem

Project goal:

- Upgrading the environmental awareness for workers of Industrial sector at the industrial zone in Kom Ousheem to ensure preservation of environment in this area and construct environmentally friendly resorts

Project environmental objectives:

- Educating factory workers at the industrial zone on the hazards of environmental pollution and the importance of protecting the environment
- Involving factory workers at the industrial zone in environment protection initiatives
- Ensuring protection of workers at the Industrial Zone of Kom Ousheem
- Improve work environment inside industrial facilities

Project desired results:

- Ensure that workers enjoy sufficient awareness with the need to protect the environment against industrial pollution
- Create partnership between the industrial zone management and industrial facilities to serve environmental protection inside the industrial zone
- Eliminate environmental problems resulting from lack of environmental awareness in the industrial zone
- Manufacture environmentally-friendly products

Project description:

- Develop an action plan to upgrade the environmental awareness of industrial zone workers
- Form a working group for project management
- Start implementation by using several awareness upgrading mechanisms (training seminars, instructions, posters and booklets, incentives and bonuses, etc)

Project estimated cost:

- LE 2.0 million

Governorate contribution:

- Facilitate obtaining governmental approvals
- Provide data and information required for the project
- Create all the favorable conditions to render the project a success

Environmental Projects of Fayoum Governorate (Cont.)
Fifth Project

Project name:

- Establish Crafts Industrial Zone in Fayoum Governorate

Project goal:

- Relocate all disturbing crafts workshops in Fayoum outside the residential areas

Project environmental objectives:

- Eliminate environmental problems resulting from the operation of noisy and disturbing crafts workshops
- Control pollutants resulting from crafts workshops

Project desired results:

- Provide an industrial zone outside the residential area to relocate the small craft industries
- Protect the environment inside the city of Fayoum and provide comfort and safety for citizens
- Financial returns
- Create job opportunities for youths

Project description:

- Select a zone outside the residential area of Fayoum city to establish an industrial zone for workshops
- Start area planning, secure utility connections, and establish zone management structure
- Relocate crafts workshops to the new zone, and prohibit establishment of any new ones inside the residential areas

Project estimated cost:

- LE 50.0 million

Governorate contribution:

- Allocate land for the project
- Facilitate obtaining governmental approvals
- Provide data and information required for the project
- Create all the favorable conditions to render the project a success

Environmental Projects of Fayoum Governorate (Cont.)
Sixth Project

Project name:

- Upgrading pottery and coal kilns in Fayoum Governorate

Project goal:

- Upgrade pottery and coal kilns to operate with natural gas, to be relocated outside the residential areas in a new industrial zone specified for this activity

Project environmental objectives:

- Eliminate environmental problems resulting from the operation of pottery and coal kilns
- Control pollutants resulting from crafts workshops
- Expand usage of natural gas as an environmentally friendly fuel

Project desired results:

- Establish an industrial zone outside the residential area to relocate the pottery and coal kilns
- Upgrade local pottery industry in Fayoum and improve coal production quality
- Enhance the social and health standards of pottery and coal kiln workers
- Eliminate the pollution problems resulting from this industry

Project description:

- Select a zone outside the residential area of Fayoum city to establish an industrial zone for potteries and coal kilns
- Start area planning, secure utility connections, and establish zone management structure
- Start Relocate pottery and coal kilns to the new zone, and prohibit establishment of any new ones inside the residential areas, and expand usage of modern fuel (furnaces operating with clean natural gas)

Project estimated cost:

- LE 30.0 million

Governorate contribution:

- Allocate land for the project
- Facilitate obtaining governmental approvals
- Provide data and information required for the project
- Create all the favorable conditions to render the project a success

9) Kalubia Governorate

Environmental Projects of Kalubia Governorate

First Project

Project name:

- Medical Wastes Management.

Project goal:

- Upgrading and improving the Integrated Management System of Medical Wastes, including collection, transportation, treatment, and final disposal.

Project environmental objectives:

- Improving the collection, transportation, and handling system of medical wastes.
- Mitigating the environmental negative impacts resulting from bad handling of wastes.
- Mitigating the health negative impacts resulting from dumping such wastes randomly.
- Safe disposal of hazard medical wastes.
- Mitigating the infections of virus diseases.
- Preventing the reuse of the medical wastes.
- Promoting the public healthcare level.
- Promoting the public awareness.

Project desired results:

- Establishing system of collecting, handling, and transporting hazard medical wastes from hospitals, clinics, and medical and radiology labs.
- Providing training labors on the methods of collecting, handling, and transporting hazard medical wastes and providing personal protection gear for the labors.
- Providing equipped vehicles to transport hazard medical wastes.
- Providing medical wastes treatment units.
- Providing incinerators to dispose the hazard medical wastes.
- Providing sanitary landfills to dispose the ashes of the incinerated hazard medical wastes.
- Creating new employment opportunities for young people.

Project description:

- Collecting hazard medical wastes from healthcare units in the governorate by trained labors and placing it in equipped vehicles.
- Transporting medical wastes to treatment units and incinerators of medical wastes.
- Treating and incinerating the medical wastes in the approved incinerators that are also complying with legislations and laws.
- Disposing the ashes of the incineration of hazard medical wastes in special cells in the approved landfills.

Project estimated cost:

- LE10 millions.

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects of Kalubia Governorate (cont'd)

Second Project

Project name:

- Improving municipal solid wastes collection and transportation system, generated from governorate cities.

Project goal:

- Integrated Management of generated solid wastes in the governorate.

Project environmental objectives:

- Municipal solid wastes collection from all cities of the governorate.
- Transporting and handling municipal solid wastes in safe and sound ways.
- Safe disposal of un-recyclable municipal solid wastes or those can not be reused.
- Mitigating soil pollution with solid wastes.
- Mitigating air polluting emissions due to burning solid wastes.
- Minimizing the accumulation of wastes in empty spaces.
- Promoting the public environmental awareness.
- Improving the public health standards.

Project desired results:

- Improving the current system of solid wastes management in the governorate.
- Providing equipment and tools of solid wastes collection and transportation.
- Elimination of solid wastes accumulation.
- Safe disposal of municipal solid wastes.
- Creating employment opportunities for young people.
- Promoting the awareness of the labors of cleaning sector and providing training for them.

Project description:

- Collecting solid wastes from all the governorate cities by equipped vehicles.
- Transporting solid wastes to the sanitary landfill.
- Safe disposal of solid wastes through sanitary landfilling.

Project estimated cost:

- LE 50 millions.

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects of Kalubia Governorate (cont'd)
Third Project

Project name:

- Upgrading the current landfill of solid wastes in Abu Za'abal.

Project goal:

- Final and safe disposal of solid wastes.

Project environmental objectives:

- Improving operations system in the landfill to become safe sanitary landfill suitable for disposing solid wastes.
- Mitigating air, water, and soil pollution due to unsound disposal of solid wastes.
- Promoting environmental awareness of the workers and train them on how to manage work in the landfill.

Project desired results:

- Providing safe sanitary landfill for disposal of solid wastes in sound way.
- Providing necessary equipment to sustain the landfill operations, including loaders, Chain Bulldozers, 2 dump trucks of 20 tons capacity.
- Trained labors on sound and safe landfilling methods for municipal solid wastes.
- Providing employment opportunities for young people.

Project description:

- Providing necessary equipment for operations.
- Train workers on the sanitary landfilling of wastes.
- Dividing the landfill into cells and lining the landfill soil with leachate-proof materials.
- Collecting solid wastes from all governorate cities and transporting it to the landfill to dispose it in safe and sanitary way.
- Placing the wastes into landfill cells and covering them with soil and sand.

Project estimated cost:

- LE 10 millions.

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects of Kalubia Governorate (cont'd)
Fourth Project

Project name:

- Upgrading Akrasha industrial zone in Abu Za'abal.

Project goal:

- Supplying Akrasha industrial zone with services to protect the environment from pollution and increase the economic return.

Project environmental objectives:

- Mitigating soil pollution due to leakage of liquid wastes due to the lack of sanitary or industrial wastewater networks.
- Mitigating air pollution and high noise levels within the workplace in factories.
- Mitigating groundwater pollution.
- Sound disposal of solid wastes of the factories in the region.

Project desired results:

- An industrial zone full of services and in compliance with the environment.
- Reduce the environmental pollutants due to providing services to the region.
- Increasing the economic return due to the sound management of resources and energy restoring.
- Providing employment opportunities.

Project description:

- Support and upgrade Akrasha industrial zone in Abu Za'abal through providing it with necessary utilities (wastewater – potable water – pavement – electricity).
- Industrial facilities to comply with the environmental standards.

Project estimated cost:

- LE30 millions.

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects of Kalubia Governorate (cont'd)

Fifth Project

Project name:

- Establishing industrial zone to relocate Basos factories

Project goal:

- Mitigating environmental pollution in Basos area due to the concentration of industrial facilities with various activities.

Project environmental objectives:

- Mitigating air pollution.
- Mitigating groundwater pollution.
- Mitigating soil pollution with industrial wastewater.
- Safe disposal of industrial solid wastes.

Project desired results:

- New industrial zone full of services and in compliance with the environment and far from residential area.
- Reduce the environmental pollutants due to providing services to the new industrial zone.
- Providing employment opportunities for young people.

Project description:

- Establishing new industrial zone to relocate Basos factories to it and provide it with basic utilities “potable water – sanitary and industrial wastewater – electricity – road pavement”.

Project estimated cost:

- LE50 millions.

Governorate contribution:

- Assigning the necessary land for the project.
- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects of Kalubia Governorate (cont'd)
Sixth Project

Project name:

- Installing an incineration to dispose dead poultry.

Project goal:

- Safe disposal of dead poultry.

Project environmental objectives:

- Mitigating the spread of bird flu disease and eliminate its causes.
- Mitigating water sources pollution due to dumping the dead poultry in waterways.
- Mitigating soil pollution due to dispose dead poultry with the solid wastes.

Project desired results:

- Providing incinerator for safe disposal of dead poultry.
- Avoiding the infection of bird flu disease.

Project description:

- Allocating a site for the incinerator and providing it with utilities.
- Installing the incinerator for the safe disposal of the dead poultry.
- Operating the incinerator.

Project estimated cost:

- LE2 millions.

Governorate contribution:

- Allocating the necessary land for the project.
- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects of Kalubia Governorate (cont'd)
Seventh Project

Project name:

- Covering parts of Canals and Drains at 7878 m long

Project goal:

- Eliminating open waterways pollution passing the residential area.

Project environmental objectives:

- Preventing water sources pollution.
- Mitigating dumping solid wastes into waterways.
- Mitigating health negative impacts due to the pollution of canals and drains.
- Mitigating bad odors from polluted canals and drains.

Project desired results:

- Covered canals and drains.
- Clean and pollutant-free water sources.
- Improving living conditions of the residents around the canals and drains.

Project description:

- Covering the open parts of canals and drains passing inside the residential areas.

Project estimated cost:

- LE16.5 millions.

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success

Environmental Projects of Kalubia Governorate (cont'd)
Eighth Project

Project name:

- Establishing 6 artisan water wells in the governorate rural area.

Project goal:

- Providing clean potable water for deprived areas.

Project environmental objectives:

- Eliminating water pollution.
- Minimizing the use of (Ethiopian) pumps water.
- Protecting the public health.

Project desired results:

- Providing artisan water wells as a clean source for potable water.
- Providing clean potable water for the deprived areas.
- Reducing rate of infections of diseases resulting from polluted water.
- Improving living conditions of rural areas residents.

Project description:

- Establishing 6 artisan water wells in the deprived rural areas to provide safe potable water for citizens in the villages of: Shalkan, Moshtohor, Meet Halfa, eastern satellites of Kafr Hamza, Sendion, and Sandouh.

Project estimated cost:

- LE1.5 millions.

Governorate contribution:

- Allocating the necessary land for the project.
- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects of Kalubia Governorate (cont'd)
Ninth Project

Project name:

- Establishing 10 filtered water units with concrete basins.

Project goal:

- Providing safe potable water for citizens.

Project environmental objectives:

- Supplying some areas with clean potable water.
- Minimizing the health and environmental negative impacts of polluted water.

Project desired results:

- Providing filtered water units with concrete basins.
- Providing safe potable water for citizens.

Project description:

- Establishing 10 filtered water units with concrete basins in Abu Za'abal, Sariakos, Degwi, Kafr Amer and Radwan, Tasfa, Akiad Degwi, Tant El Gezira, Al Amar El Kobra, and Emiay.

Project estimated cost:

- LE13 millions.

Governorate contribution:

- Allocating the necessary land for the project.
- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects of Kalubia Governorate (cont'd)
Tenth Project

Project name:

- Extending wastewater networks, forcemains, and pumping stations to some villages.

Project goal:

- Providing sanitary drainage services to some villages in the governorate.

Project environmental objectives:

- Mitigating water sources pollution with wastewaters.
- Mitigating soil pollution with wastewaters.
- Minimizing health negative impacts due to the lack of wastewater networks.
- Preventing groundwater pollution in this area.
- Improving environmental conditions for citizens.
- Protecting the public health.

Project desired results:

- Providing sanitary drainage networks for some deprived villages.
- Providing wastewater pumping stations for some villages of the governorate.
- Providing forcemain lines for some villages of the governorate.
- Protecting waterways from pollution.
- Protecting groundwater from pollution.

Project description:

- Extending wastewater networks, forcemains, and pumping stations for villages of Kalub, El Khanka, Tookh, El Kanater markazes.

Project estimated cost:

- LE228 millions.

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

10) Menofya Governorate

Environmental Projects of Menofya Governorate

First Project

Project name:

- Establishing solid wastes recycling factory in Shebin El Kom markaz and city.

Project goal:

- Reusing and recycling of solid wastes in Shebin El Kom markaz and city to produce compost and restore sorted materials.

Project environmental objectives:

- Improving and increasing the efficiency of the solid wastes integrated management system Shebin El Kom markaz and city.
- Eliminating solid wastes accumulations.
- Restoring solid wastes that can be reused and recycled to provide energy and saving the natural resources.
- Safe disposal of municipal solid wastes.
- Mitigating air pollutants emissions resulting from open burning and self-ignition of solid wastes.
- Minimizing the use of chemical fertilizers.

Project desired results:

- Establishing a composting factory in Shebin El Kom markaz and city.
- Eliminating waste accumulation problem and dispose it safely and economically.
- Benefiting from the economic return of waste recycling.
- Providing clean and pollution-free environment
- Reducing financial and environmental burdens of solid wastes management.
- Providing raw materials for the industry and saving energy to produce new basic materials.
- Providing employment opportunities for young people.

Project description:

- Collecting municipal solid wastes from cities and villages.
- Transporting wastes to the recycling factory.
- Carrying out initial sorting of wastes inside the factory and opening the bags.
- Carrying out manual sorting of wastes.

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- Magnetic sorting of wastes to remove metals.
 - Carrying out waste classification using a cylinder or by size.
 - Sorting by reverse trend to remove the non metallic metals like aluminum.
 - Converting organic wastes through biological decomposition into compost.

Project estimated cost:

- The factory excluding the land cost is LE8 millions.

Governorate contribution:

- A space of 5 feddans shall be provided to establish the factory.
- Facilitating obtaining the governmental approvals by the governorate and City Council of Shebin El Kom..
- Providing data and information required for the project by the Management of Shebin El Kom markaz and city.
- Legal Affairs of the Governorate shall contribute in reviewing the related applicable regulations and laws in EMU - EEAA.

Environmental Projects of Menofya Governorate (cont'd)

Second Project

Project name:

- Establishing air pollution mitigating system.

Project goal:

- Reducing air pollutants resulting from coal manufacturing units, bricks factories, vehicles emissions, and burning of agricultural wastes in the governorate.

Project environmental objectives:

- Reducing coal manufacturing units, bricks factories, and vehicles emissions.
- Mitigating the burning of agricultural wastes.
- Safe disposal of agricultural wastes through making untraditional fodder and compost.
- Promoting public awareness through conducting environmental awareness seminars.
- Equipping a suitable lab to measure coal manufacturing and bricks factories' chimneys emissions.

Project desired results:

- Equipping a lab with suitable and modern equipment to measure the emissions of coal manufacturing and bricks factories.
- Developing a comprehensive report regularly on air pollution, through carrying out the integrated system of mitigating air pollution.
- Reducing public complaints from coal manufacturing and bricks factories due to the awareness campaign conducted within the project.
- Protecting the environment from pollution and mitigating the sources of air pollution and green house phenomenon.
- Controlling sources of the emissions of coal manufacturing, bricks factories and hospital incinerators and sustain the compliance with environmental standards of law 4, 1994 and its executive regulations.
- Enforcing cleaner technology and sound methods to burning fuels in production activities.
- Rationalizing the consumption of the mineral fertilizers and focusing on organic agriculture.

Project description:

- Forming a system from EMU – industrial security – Agriculture guidance. The work of this system shall be coordinated by EMU in the governorate.
- Equipping a lab to measure emissions of coal manufacturing units, bricks factories, vehicles emissions, hospital incinerators, and burning of agricultural wastes.
- Forming committees in each markaz comprising of EMU – industrial security – Agriculture guidance to be in direct contact with EMU in the governorate to take immediate actions.
- Conducting awareness seminars for the farmers to transfer technology to benefit from agricultural wastes in making untraditional fodder and compost.

Project estimated cost:

- LE 5 millions (five millions Egyptian Pounds).

Governorate contribution:

- Facilitating obtaining the governmental approvals by EMU in the governorate.
- Providing data and information required for the project by EMU and agriculture guidance in the governorate.
- Legal Affairs of the Governorate shall contribute in reviewing the related applicable regulations and laws in EMU- EEAA.

Environmental Projects of Menofya Governorate (cont'd)

Third Project

Project name:

- Forestation of Mubarak industrial zone with its three phases (first – second – third).

Project goal:

- Increasing the greenery in Mubarak industrial zone to mitigate gaseous emissions from the factories in the area and to protect the environment from pollution.

Project environmental objectives:

- Using treated wastewater to increase the greenery in the area.
- Reducing gaseous emissions, especially carbon dioxide which causes the green house phenomenon, and which plants can absorb during its breathing cycle and producing oxygen instead.
- Promoting public awareness of factories owners to carry out forestation of the area to reduce emissions from factories.
- Landscaping of the area.

Project desired results:

- Providing trees required for the forestation of the entire area of Mubarak industrial zone.
- Providing a water tanker to irrigate the trees.
- Providing 2 tractor trailers to transfer water to irrigate the trees.
- Providing full time labors for the project.
- Reducing air pollutants.
- Improving the area profile.
- Eliminating diseases resulting from air pollution.

Project description:

- Foresting 1200 palm trees.
- Foresting 1000 Acacia trees.
- Foresting 1000 olive trees.
- Foresting 1000 Nem trees.

Project estimated cost:

- LE 465.000 (four hundred and sixty five thousand Egyptian Pounds).

Governorate contribution:

- Allocating the project land by the management of Mubarak industrial zone.
- Facilitating obtaining the governmental approvals by the governorate and Mubarak industrial zone management.
- Providing data and information required for the project by the Management of Mubarak industrial zone.
- Providing the enabling conditions that might help project success by the Management of Mubarak industrial zone and EMU in the governorate.

Environmental Projects of Menofya Governorate (cont'd)

Fourth Project

Project name:

- Safe disposal of hazard medical wastes.

Project goal:

- Integrated Management of Hazard Medical Wastes.

Project environmental objectives:

- Safe disposal of hazard medical wastes.
- Mitigating infections of virus diseases.
- Preventing the reuse of medical wastes.
- Improving healthcare level for citizens.
- Promoting the public awareness.

Project desired results:

- Providing 10 shredders and sterilizers.
- Providing 10 special vehicles to transport medical wastes, one for each markaz.
- Providing incinerators to incinerate the medical wastes.
- Train the work team of each healthcare facility.
- Providing safe disposal cell in the landfill for hazard medical wastes.
- Providing work supplies like personal protection gear, etc.
- Protecting the public health.
- Protecting the environment from pollution by hazard medical wastes.
- Reducing infections rates.
- Enforcing the law and activating the monitoring and follow up.
- Safe disposal of hazard medical wastes.

Project description:

- Collecting hazard medical wastes from healthcare nits in the governorate by trained labors and placing it in equipped vehicles.
- Shredding and sterilizing the medical wastes.
- Incinerating medical wastes in approved incineration in compliance with various legislations ad laws.
- Landfilling the ashes of the incineration process of hazard medical wastes in special cells in the approved sanitary landfills.

Project estimated cost:

- LE 15 millions (fifteen million Egyptian Pounds).

Governorate contribution:

- Facilitating obtaining the governmental approvals by the governorate and Health Directorate.
- Providing data and information required for the project by the governorate EMU and Health Directorate.
- Providing the enabling conditions that might help project success by the governorate the governorate EMU and Health Directorate.

11) Menya Governorate

Environmental Projects for Menya Governorate

First Project

Project name:

- Completing wastewater forcemain of Menya City.

Project goal:

- Disposal of wastewater of Menya City through the new treatment plant and using the treated water in irrigating timber trees instead of discharging it into the Nile River.

Project environmental objectives:

- Transporting wastewater of Menya city to the new treatment plant in the western desert backyard to reduce the pressure on the old plant and increase the treatment efficiency and reduce the waterways pollution.
- Foresting timber trees by using the treated wastewater.
- Protecting the Nile River from pollution by untreated wastewater.
- Mitigating the pollution of Al Moheet drain by wastewater.
- Reducing the bad odors from Al Moheet drain, especially near Atsaq village due to disposing the untreated wastewater.

Project desired results:

- Providing a forcemain line for wastewater in Menya governorate.
- Utilizing the treated wastewater in foresting timber trees.
- Economic return from selling the timber trees.
- Preventing discharging wastewater into the Nile River either treated or untreated to protect the river and eliminate its pollution.
- Protecting the public health.
- Providing compost factories depending on the sludge of the treatment plant and using it in desert afforestation.

Project description:

- The project study is available in NOPWASD.
- The study of the cost of the remaining part of the forcemain is available in NOPWASD and the Company.
- Conducting agreement s between the donor agency and NOPWASD.
- Forming a committee for monitoring and assessment.
- Starting providing funds to complete the project.
- Follow up.

Project estimated cost:

- LE 3-5 millions.

Governorate contribution:

- Land is allocated for the project and 13 km are already implemented.
- Governmental approvals can be facilitated.
- Data and information needed for the project can be provided.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)

Second Project

Project name:

- Establishing treatment units for iron and manganese in some potable water plants in Menya governorate.

Project goal:

- Eliminating the excessive ratio of iron and manganese in the potable water.

Project environmental objectives:

- Providing potable water according to standards of the Ministerial Decree no. 458, year 2007.
- Decreasing the ratio of iron and manganese in the potable water of some plants reported to have excessive ratio of such metals in its water.
- Protecting the public health of the users of such water.

Project desired results:

- Providing treatment units for potable water plants.
- Decreasing the diseases related to excessive minerals in potable water.
- Protecting the groundwater standards and benefiting from it.
- Decreasing medical expenses.
- Protecting the public health and improving living standards of citizens.

Project description:

- Listing the operations of potable groundwater at the governorate level.
- Listing the operations of which chemical analysis prove that they are not complying with the standards of iron and manganese or any other factors (listing shall be made according to the available data in Potable Water and Sanitary Drainage Company in Menya and the Health and population Directorate in Menya).
- Taking samples from the outlets of such plants in cooperation with Health Directorate, Water Company and EMU and analyzing them in the labs of Health, Water Company and EEAA.
- Developing specs for the required treatment units by a competent technical committee and based on the analysis results.
- Studying the cost of the required treatment units in cooperation with Water Company.

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- Conducting the agreements between the donor agency and the Water Company.
 - Forming monitoring and assessment committee.
 - Implementing the procedures of tendering, opening envelopes, best offer selection and awarding contracts.
 - Starting providing funds to implement the project.
 - Follow up.

Project estimated cost:

- LE1.3 millions per unit approximately.

Governorate contribution:

- Plants are already existed.
- Governmental approvals can be facilitated.
- Data and information needed for the project can be provided.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)
Third Project

Project name:

- Renovating some potable water networks.

Project goal:

- Decreasing the loss in potable water and improving its quality.

Project environmental objectives:

- Preventing the pollution of potable water or the groundwater with wastewater that leak through cracks in the old pipes during water cutoff periods.
- Improving the potable water quality.
- Decreasing catching diseases due to potable water pollution.

Project desired results:

- Providing new water networks and renovating the old networks and asbestos lines.
- Providing potable water according to the standards of the Ministerial Decree no. 458, year 2007.
- Reducing the cost of producing potable water and producing the targeted quantities with lowest cost possible.
- Protecting the public health and decreasing the diseases related to potable water pollution.

Project description:

- Listing the potable water networks at the governorate level that need renovation and replacement (based on the data available in the Potable Water and Sanitary Drainage Company in Menya).
- Selecting sites not incorporate in the governorate plan or within the incorporated sites.
- Developing specs for the required treatment units by a competent technical committee and based on the analysis results.
- Studying the cost of the required treatment units in cooperation with Water Company.
- Conducting the agreements between the donor agency and the Water Company.
- Forming monitoring and assessment committee.

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- Implementing the procedures of tendering, opening envelopes, best offer selection and awarding contracts.
 - Starting providing funds to implement the project.
 - Follow up.

Project estimated cost:

- LE60 millions approximately (LE130.000 per km).

Governorate contribution:

- Land is available for the project.
- Governmental approvals can be facilitated.
- Data and information needed for the project can be provided.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)

Fourth Project

Project name:

- Connecting clean potable water to poor and poorest households.

Project goal:

- Improving the living conditions of the poor and supplying them with potable water services.

Project environmental objectives:

- Preventing the use of groundwater pumps, which have negative impacts on the public health, in obtaining potable water.
- Preventing the use of waterways in washing cooking plates and containers and in showering to avoid diseases and epidemics related to water pollution.
- Protecting the public health and improving living standards of the poor.
- Preventing the use of groundwater pumps, which have negative impacts on the public health, in obtaining potable water.
- Preventing the use of waterways in washing cooking plates and containers and in showering to avoid diseases and epidemics related to water pollution.
- Protecting the public health and improving living standards of the poor.

Project desired results:

- Providing potable water networks connected to the poor households.
- Providing clean potable water for poor houses.
- Improving the living standards of the poor people in the villages.
- Improving the health of the poor people.
- Improving the economic conditions.
- Mitigating the spread of diseases related to water pollution.
- Mitigating the spread of poverty diseases related to environmental pollution.

Project description:

- Developing initial study on the rural areas that have potable water networks and determining the number of people not connected to these networks in cooperation with Water Company and based on the information available in EMU.
- Selecting some NGOs or local units (as project implementing agency), provided that they make a list of the poor people according to terms and criteria to be developed in agreement with the donor agency.
- Advertising the project to receive applications.
- Examining the applications by a committee of the donor agency (EMU – implementing Agency).
- Selecting the applicants in compliance with the grant or loan terms and conditions.
- Studying the actual cost.
- Conducting agreements between the donor agency and the implementing agency.
- Starting implementation.

Project estimated cost:

- LE30 millions approximately (LE750 – 1000 per connection).

Governorate contribution:

- Land is available for the project.
- Governmental approvals can be facilitated.
- Data and information needed for the project can be provided.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)
Fifth Project

Project name:

- Developing integrated system for safe disposal of hazard medical wastes.

Project goal:

- Developing the Integrated Management System of Hazard Medical Wastes in Menya Governorate.

Project environmental objectives:

- Sorting hazard medical wastes from the municipal wastes at source.
- Collecting the hazard medical wastes in safe way.
- Transporting and handling hazard medical wastes in safe way.
- Treating these wastes through incineration or other ways and safe disposal of the resulting ashes.
- Preventing the reuse of of such wastes through scrap dealers or plastic crushers.
- Avoiding communicable diseases related to the spread and unsafe disposal of these wastes.
- Optimizing the use of the available resources of incinerators and labors to treat and safe disposal of these wastes with the lowest cost possible.

Project desired results:

- Committing all healthcare facilities to sort the hazard medical wastes from the municipal wastes and storing it in safe containers.
- Providing hospitals and clinics with safe containers to collect hazard medical wastes.
- Providing enough incinerators for medical wastes with modern incineration technology and gas treatment.
- Providing safe cells in the wastes disposal sites to contain the resulted ashes.
- Providing transportation means for such wastes according to the technical specs and requirements developed by EEAA.
- Collecting fees against such wastes collection and disposal as well as developing a suitable system or follow up and imposing fines to prevent the random disposal of these wastes.
- Reducing the communicable and virus diseases caused through the wrong dealing with these wastes.

Project description:

- Developing initial field study on healthcare wastes quantities and the current ways of transporting, treating, and disposing these wastes in cooperation with Health Directorate in the governorate.
- Studying the available resources of incinerators and its technical condition and whether they are enough, in cooperation with Health Directorate in the governorate.
- Studying the different ways of treating and disposing these wastes and selecting the suitable way to be applied in the governorate and to determine the needs of resources and equipment.
- Studying the proposal of assigning the hazard wastes management to the private sector in agreement with the governorate and Health Directorate. Investors and companies shall submit their technical and financial offers to the governorate. The governorate and Health Directorate shall complete other administrative and financial procedures.
- Studying establishing enough medical wastes incinerators, including modern incineration and gas treatment technology and providing transportation means according to technical specs developed by EEAA. In this case, the financial cost of the project shall be studied in cooperation with Health department.
- Developing procedures to commit all medical facilities to sorting the hazard medical wastes, storing them in safe containers, and train the workers on handling such wastes.
- Signing the contract between the investor or the private company and the governorate (Health Directorate) or conducting agreements between the donor agency and the implementing agency (Health Directorate).
- Forming a committee for follow up and supervising.
- Starting implementation.

Project estimated cost:

- LE10 millions approximately in case of providing incinerators, transportation means, and training as well as providing the hospitals and clinics with safe containers to collect hazard medical wastes.

Governorate contribution:

- Land is available for the project in desert areas.
- Governmental approvals can be facilitated in cooperation with Health Directorate.
- Data and information needed for the project can be provided from health Directorate and the governorate.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)
Sixth Project

Project name:

- Safe disposal of ashes of incinerating medical wastes in hospitals incinerators.

Project goal:

- Providing safe landfill cells for the ashes of hazard medical wastes incineration process.

Project environmental objectives:

- Eliminating the accumulated ashes resulting from incinerating medical wastes in hospitals to prevent pollution and diseases.
- Safe and final disposal of medical wastes incineration instead of disposing it mixed with municipal waste, which is dangerous for the public health.
- Controlling the selling of these wastes to scrap dealers and plastic crushers.

Project desired results:

- Providing safe cells in wastes disposal sites to contain the ashes resulting from the incinerators or the residue of the treatment of the wastes.
- Providing transportation means for these wastes according to the technical specs developed by EEAA.
- Safe disposal of the ashes of the hazard medical wastes.

Project description:

- Developing initial field study on ashes' quantities resulting from incinerating healthcare wastes in cooperation with Health Directorate in the governorate.
- Field and environmental study of the site of the proposed landfill.
- Study of the estimated cost.
- Signing the contract between the investor or the private company and the governorate (Health Directorate) or conducting agreements between the donor agency and the implementing agency (Health Directorate).
- Forming a committee for follow up and supervising.
- Starting implementation.

Project estimated cost:

- LE 5-10 millions approximately.

Governorate contribution:

- Land is available for the project in desert areas.
- Governmental approvals can be facilitated in cooperation with Health Directorate.
- Data and information needed for the project can be provided from health Directorate and the governorate.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)

Seventh Project

Project name:

- Renovation of some medical units in rural areas.

Project goal:

- Improving medical services in rural and remote areas.

Project environmental objectives:

- Improving health conditions for the citizens in rural and remote areas.
- Promoting the health awareness of the population.
- Preventing diseases and epidemics resulting from the lack of healthcare services in these areas and mitigating the spread of the known epidemic diseases in rural areas.

Project desired results:

- Providing healthcare services to rural residents on permanent basis.
- Decreasing the ratio of diseases and epidemics.
- Convincing citizens to go to doctors instead of going to pretending people.
- Providing quick treatment for emergency cases.
- Providing ambulances to transport emergency cases in these areas.
- Releasing suffering of the people and the poor in rural areas.

Project description:

- Developing as study and inventory on the areas that need these services in participation with Health and Population Directorate and EMU.
- Developing criteria of selecting the needy areas and excluding the areas incorporated in the development plan.
- Developing initial study on the actual needs of the needy areas in participation with Health and Population Directorate.
- Selecting the implementing agency (Health and Population Directorate).
- Conducting agreements between the donor agency and the implementing agency.
- Developing the monitoring plan.

Project estimated cost:

- LE 3-5 millions approximately.

Governorate contribution:

- Land is available for the project in the sites of the old projects that need renovation and support.
- Governmental approvals can be facilitated in cooperation with Health Directorate.
- Data and information needed for the project can be provided from health Directorate and the governorate.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)

Eighth Project

Project name:

- Establishing crafts area in each of the governorate nine cities.

Project goal:

- Relocating the disturbing and polluting workshops and industrial facilities to crafts area away from the residential areas

Project environmental objectives:

- Mitigating air pollutants emissions, especially in the residential areas.
- Mitigating dumping solid wastes of the workshops in the streets and sanitary drainage networks and also mitigating street occupation.
- Gathering the disturbing and polluting industries in an approved crafts area to be able to follow up the environmental conditions in this area.

Project desired results:

- Providing crafts areas with all necessary services away from the residential areas.
- Protecting the public health and preventing chest diseases related to air pollution.
- Eliminating noise and disturbances due to the workshops operations and working open hours.
- Keeping the streets clean and releasing the traffic movement and mitigating the emissions of fuel ignition and noise resulting from traffic jams.

Project description:

- Listing the disturbing and polluting facilities inside the residential area in cooperation with local units, industrial security, and EMU.
- Developing criteria for selecting the proposed sites of the crafts areas.
- Developing the environmental studies.
- Developing initial study on the actual needs and the financial cost of these areas.
- Selecting the neediest cities.
- Developing field studies and engineering designs.
- Selecting the implementing agency (local units).
- Conducting agreements between the donor agency and the implementing agency.
- Developing the monitoring plan.

Project estimated cost:

- LE 1.5 millions approximately per area.

Governorate contribution:

- Allocating land for the project by local units.
- Governmental approvals can be facilitated in cooperation with Local Units.
- Data and information needed for the project can be provided from Local Units, EMU, and the governorate.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)
Ninth Project

Project name:

- Upgrading coal manufacturing units and limestone producing units

Project goal:

- Mitigating the harmful gaseous emissions and smokes resulting from these activities.

Project environmental objectives:

- Mitigating the emissions, smokes, and poisoning gases resulting from burning woods, mazot, and oil wastes.
- Mitigating the spread of solid wastes (dust, wood remaining, small limestone) resulting from this industry, which pollute the ambient soil.
- Mitigating the spread of chest diseases related to air pollution.

Project desired results:

- Upgraded coal and limestone manufacturing units complying with environmental requirements in this regard.
- Decreasing the emissions of the coal and limestone production units to the permissible limits according to environmental law no. 4, 1994.
- Protecting the public health through mitigating catching chest disease due to air pollution
- Protecting the ambient environment from pollution of such activities.
- Developing the economic standards of the workers in these crafts.

Project description:

- Listing coal and limestone producing units and its sites in cooperation with local units and EMU.
- Selecting the most vulnerable sits, in which these activities are focused.
- Developing the environmental studies.
- Developing detailed studies and engineering drawings according to the models set by EEAA.
- Conducting agreements between the donor agency and the implementing agency.
- Developing monitoring and supervision plan during and after implementation.

Project estimated cost:

- LE 150.000 approximately per unit.

Governorate contribution:

- Allocating land for the project by projects' owners.
- Governmental approvals can be facilitated in cooperation with Local Units.
- Data and information needed for the project can be provided from local units, EMU, and the governorate.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)

Tenth Project

Project name:

- Upgrading molasses factories (mills).

Project goal:

- Upgrading molasses industry and producing sound food product according to standards.

Project environmental objectives:

- Mitigating emissions, smokes, and poisoning gases due to burning of pagas.
- Treating the liquid wastes of this industry, which pollute the ambient soil.
- Mitigating chest and bronchial diseases due to air pollution.

Project desired results:

- Providing modern factories to produce molasses.
- Producing a product (molasses) according to health standards that can be exported.
- Protecting the public health through preventing chest diseases due to air pollution.
- Decreasing emissions resulting from this industry to the permissible limits in the environmental law no. 4, 1994.
- Protecting the ambient environment from pollution due such activities.
- Upgrading the economic conditions of the workers of this industry.

Project description:

- Listing molasses producing mills and its sites and conducting field visits in cooperation with local units and EMU.
- Selecting the most vulnerable sites in which these activities are concentrated.
- Developing environmental studies.
- Developing scientific studies to upgrade this industry in cooperation with sciences and engineering faculties.
- Preparing the financial cost study.
- Conducting agreements between the donor agency and the implementing agency of the upgrading.
- Developing the monitoring plan during and after implementation.

Project estimated cost:

- LE 250.000 approximately per mill.

Governorate contribution:

- Allocating land for the project by projects' owners.
- Governmental approvals can be facilitated in cooperation with Local Units.
- Data and information needed for the project can be provided from local units, EMU, and the governorate.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)

Eleventh Project

Project name:

- Increasing the capacity of the treatment unit of Sugar factory in Abu Korkas.

Project goal:

- Treating the maximum quantity of wastewater resulting from sugar industry in Abu Korkas.

Project environmental objectives:

- Minimizing the liquid wastes resulting from sugar factory, this pollutes the ambient soil and water environment.
- Protecting Al Moheet Drain from pollution due to untreated wastewater of sugar factory directly.
- Protecting the Nile River from pollution of wastewater of the sugar factory indirectly (through Al Moheet Drain).
- Committing industrial facilities to apply the environmental terms and conditions according to law no. 4, 1994 and other regulating laws in this regard.
- Improving the environmental conditions of the factory and the ambient area.
- Preventing the bad odors and harmful insects that communicate the diseases due to such wastes.

Project desired results:

- Treatment units enough for treating the maximum quantity of the wastewater resulting from sugar factory.
- Improving the water quality of Al Moheet drain and protecting it from pollution.
- Improving the quality of the Nile River water and protecting it from pollution.
- Decreasing industrial pollution resulting from sugar industry to the permissible limits according to law no. 4, 1994 and other regulating laws in this regard.

Project description:

- Developing scientific studies to upgrade this unit in cooperation with sciences and engineering faculties and the sugar factory.
- Developing the environmental studies.
- Developing the detailed studies and engineering drawings.
- Developing the financial cost study.

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- Conducting agreement between the donor agency and the implementing agency of upgrading.
 - Developing the monitoring plan during and after implementation.

Project estimated cost:

- LE 25 millions approximately to upgrade the unit.

Governorate contribution:

- Land is available for the project inside the factory.
- Governmental approvals can be facilitated in cooperation with Local Units.
- Data and information needed for the project can be provided from local units, EMU, and the governorate.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)

Twelfth Project

Project name:

- Capacity building of the specialists in EMUs in the governorate, districts, and communication officials in villages.

Project goal:

- Increasing the efficiency of the competent staff in the field of environmental work.

Project environmental objectives:

- Promoting the environmental awareness of the staff, so they can help citizens to change some negative behaviors that affect the environment.
- Orientation on the environmental laws and regulations, so the official can be fully aware of his tasks.
- Training on environmental monitoring equipment to utilize them on inspection.
- Accurate performance in developing the EIAs

Project desired results:

- Upgrading the level of EMU in the governorate to General Department level.
- Building capacities to enforce and follow up laws.
- Improving the capacities of responding to emergencies.
- Improving staff work quality.
- Raising the level of the staff in these units administratively, technically and financially.
- Supporting GIS to help in planning, follow up and establishing environmental geographical information database in cooperation with the information center in the governorate and the information center of local development department.
- Promoting the public awareness of the importance of protecting the environment from pollution and stopping the wrong behaviors.

Project description:

- Developing statement and study on the staff numbers in EMUs in the governorate and districts and the communication officials in the villages in cooperation with EMU in the governorate and in districts and villages.
- Developing a study on the actual needs of training in various fields in cooperation with EMU.

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- Developing the detailed cost studies according to the needs and the training locations and programs.
 - Conducting agreements between the donor agency and the implementing agency (governorate – EMU).
 - Developing the monitoring plan during and after implementation.

Project estimated cost:

- LE 500.000 approximately for two years to train 1000 person per year.

Governorate contribution:

- Governmental approvals can be facilitated.
- Data and information needed for the project can be provided from EMU, and the governorate.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)
Thirteenth Project

Project name:

- Establishing Environmental Units in the industrial zones and directorates of environmental responsibilities.

Project goal:

- Supporting establishing effective system for environmental planning and management.

Project environmental objectives:

- Improving the effectiveness and efficiency of environmental management and supporting the environmental planning and management in the different sectors and agencies in the governorate.
- Quick accomplishment of environmental tasks to mitigate environmental pollution and its negative impacts on health and economy.
- Listing the environmental problems within the competence of each directorate and developing suitable solutions.

Project desired results:

- Competent units for environmental management in all directorates and industrial zones.
- Improving the coordination between different sectors and agencies concerned with the environment in the governorate to improve the environmental services and rationalizing the use of resources and protecting them and apply the remedy procedures.
- Being able to manage priority issues in cooperation between all these sectors.
- Promoting the public awareness and consultation with the public concerning the environmental issues.
- Activating the effective monitoring and commitment to environmental laws.
- Ensuring highest commitment levels in the governorate to adopt and ensure the support of, sustainability, and implementation of environmental action plan.
- Improving ability to respond to emergencies.

Project description:

- Developing a list of the industrial zones and concerned directorates of environmental responsibilities, which have no EMUs, in cooperation with EMU in the governorate.
- Developing a study on the actual needs to establish these units and different specializations in cooperation with EMU in the governorate.
- Developing detailed cost studies according to needs.
- Preparing the financial cost study.
- Conducting agreements between the donor agency and the implementing agency (the governorate – concerned directorates – industrial zones).
- Developing the monitoring plan during and after implementation.

Project estimated cost:

- LE1.5 millions approximately.

Governorate contribution:

- Governmental approvals can be facilitated in cooperation with directorates and industrial zones.
- Data and information needed for the project can be provided from local units, EMU, and the governorate.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)

Fourteenth Project

Project name:

- Training of the staff in environmental units in the directorates of environmental responsibilities.

Project goal:

- Improving the effectiveness and efficiency of environmental management and supporting the environmental planning and management in the different sectors and agencies in the governorate.

Project environmental objectives:

- Quick accomplishment of environmental tasks to mitigate environmental pollution and its negative impacts on health and economy.
- Listing the environmental problems within the competence of each directorate and developing suitable solutions.
- Promoting the staff awareness in these sectors and emphasizing the importance of integrating the environmental dimension in the plans of these directorates.

Project desired results:

- Trained staff on effective planning to manage environmental issues.
- Increasing the staff ability on managing various environmental problems and dealing with emergencies.
- Promoting the public awareness and consultation with the public concerning the environmental issues.
- Activating the effective monitoring and commitment to environmental laws.
- Ensuring highest commitment levels in the governorate to adopt and ensure the support of, sustainability, and implementation of environmental action plan.
- Developing environmental strong database and relying on it.

Project description:

- Developing statement and study on the staff number in environmental units in the directorates after completing establishing EMU in each directorate in cooperation with EMU in the governorate.
- Developing a study on the actual training needs in different fields in cooperation with EMU.
- Developing detailed cost studies according to needs and training locations, in addition to developing training programs.
- Conducting agreements between the donor agency and the implementing agency (the governorate – concerned directorates – industrial zones).
- Developing the monitoring plan during and after implementation.
- Developing detailed cost studies according to needs.

Project estimated cost:

- LE300.000 approximately.

Governorate contribution:

- Governmental approvals can be facilitated in cooperation with the governorate and the directorates.
- Data and information needed for the project can be provided from directorates and EMU in the governorate.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)
Fifteenth Project

Project name:

- Capacity building of the workers in the health field to enable them to deal properly with healthcare wastes.

Project goal:

- Safe handling of the healthcare wastes inside healthcare facilities.

Project environmental objectives:

- Promoting the awareness of the staff handling the hazard medical waste.
- Minimizing the risks of mixing medical wastes with municipal wastes and ensuring sorting at source.
- Preventive measures against epidemics resulting from mishandling these wastes.

Project desired results:

- Improving the ability of the workers in the field of healthcare on transporting and handling the hazard medical wastes and responding to emergencies.
- Ensuring the sorting of medical wastes from municipal wastes at source and in sound ways.
- Safe and sound transportation of these wastes from the site to the incinerator.
- Ensuring safe disposal of these hazard wastes.

Project description:

- Developing a study on the staff number in hospitals and health units who are dealing directly with the hazard wastes in the governorate.
- Developing a study on the actual training needs in different fields in cooperation with Health Directorate.
- Developing detailed cost studies according to needs and training locations, in addition to developing training programs and providing trainers.
- Developing cost study.
- Conducting agreements between the donor agency and the implementing agency (the governorate – concerned directorates – industrial zones).
- Developing the monitoring plan during and after implementation.

Project estimated cost:

- LE1.5 millions approximately to train 2000 persons and provide them with protection gear.

Governorate contribution:

- Governmental approvals can be facilitated in cooperation with the governorate and the Health Directorate.
- Data and information needed for the project can be provided from health Directorate in cooperation with EMU in the governorate.
- Enabling conditions to help the project success can be provided.

Environmental Projects for Menya Governorate (cont'd)

Sixteenth Project

Project name:

- Establishing isolated wastewater tanks in the lower income villages.

Project goal:

- Safe disposal of wastewater in the lower income villages and protecting the groundwater from pollution.

Project environmental objectives:

- Mitigating soil pollution with wastewater.
- Mitigating groundwater pollution with wastewater.
- Mitigating the spread of bad odors and insects as well as communicable and epidemic diseases.
- Mitigating the spread of poverty diseases related to groundwater pollution and spread of wastewater pools.

Project desired results:

- Providing isolated tanks for wastewater in the lower income villages.
- Preventing the pollution of waterways with wastewaters.
- Safe disposal of wastewater in isolated trenches and dumping it in the nearest wastewater network.
- Providing these areas with tankers suitable for the nature of its roads.
- Promoting health and environmental awareness of the residents of these areas through specialists, using films and photos based on actual incidents, and creating proactive spirit and caring of public health as well as changing behaviors to protect the environment.
- Involving NGOs and creating jobs for the residents of thee areas.

Project description:

- Developing initial studies on slum areas and residential areas with no wastewater networks and identifying the priority areas that need assistance.
- Developing detailed studies on the priority areas and the socioeconomic conditions of citizens and making a list of the poor people.

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- Developing detailed specs for sanitary latrines or septic tanks to be environmentally friendly and developing EIA for these tanks.
 - Determining standards and terms to provide this service (septic tanks in villages) either through grant or no-interest loans (according to the detailed study).
 - Identifying the active NGOs and CDAs in the area and inviting them to implement these projects or contribute in the implementation.
 - Promoting awareness of the importance of the project and its positive impact on their health and public life and how to benefit from the wastes of these projects.
 - Providing the necessary tankers to transport the wastes of these tanks to the assigned places to dispose it.
 - Conducting agreements between the donor agency and the implementing agencies (NGOs - CDAs).
 - Developing monitoring and supervision plan during and after implementation through the coordinator of NGOs in EMU in the governorate.

Project estimated cost:

- LE 2-4 millions approximately to build 2000 septic tanks and providing the necessary tankers.

Governorate contribution:

- Governmental approvals can be facilitated in cooperation with the governorate and the Health Directorate.
- Data and information needed for the project can be provided from health Directorate in cooperation with EMU in the governorate.
- Enabling conditions to help the project success can be provided.

12) The New Valley Governorate

Environmental Projects of the New Valley Governorate

First Project

Project name:

- Stabilizing of sand dunes in the most vulnerable villages to sand dunes creeping.

Project goal:

- Mitigating the risks of sand dunes creeping to protect agriculture lands and existing urban communities.

Project environmental objectives:

- Mitigating desertification phenomenon.
- Protecting the agriculture soil against deterioration.
- Promoting the public environmental awareness on the necessity of mitigating sand dunes creeping and utilizing all environmental resources to stabilize sand dunes.

Project desired results:

- Protecting the existing urban communities.
- Preserving the agriculture soil which is valid for cultivation and developing it.
- Achieving the social and economic stability of the urban communities.
- Promoting the public environmental awareness.

Project description:

- Ongoing stabilization of sand dunes using different stabilizing methods.
- Promoting the awareness of the local community and focusing on activating the community role which is necessary for project success and sustainability.

Project estimated cost:

- LE1.5 million (for each village vulnerable to sand dunes creeping).

Governorate contribution:

- Facilitating obtaining the governmental approvals and all procedures.
- Providing data and information required for the project.

Environmental Projects of the New Valley Governorate (cont'd)

Second Project

Project name:

- Reclamation and cultivating desert lands of the governorate.

Project goal:

- Ideal utilizing of available natural resources in the governorate to improve the local economy and raising living standards.

Project environmental objectives:

- Developing the natural resources available in the governorate.
- Increasing the size of the cultivated land.
- Promoting public awareness of the importance to utilize the available natural resources through reclamation and cultivation of desert lands.

Project desired results:

- Increasing the agriculture production and bridging the food gap.
- Creating new urban communities and redrawing the Egyptian population map through attracting population from New Valley governorates to the new communities.
- Providing employment opportunities for young people.
- Improving living standards.
- Increasing the environmental awareness of the public.

Project description:

- Reclamation and cultivation of 125.000 feddans.
- Building modern irrigation networks to rationalize the irrigation water use.
- Promoting the local community awareness and focusing on activating the community role which is necessary for the success and sustainability of the project.

Project estimated cost:

- LE 1317.5 millions.

Governorate contribution:

- Allocating the required land for the project.
- Facilitating obtaining the governmental approvals and all procedures.
- Providing data and information required for the project.

Environmental Projects of the New Valley Governorate (cont'd)
Third Project

Project name:

- Manufacturing color and transparent glass.

Project goal:

- Ideal use of the natural resources available in the area (white sands) to improve the local economy and upgrade living standards.

Project environmental objectives:

- Developing the available natural resources in the area.
- Achieving the sustainable development.
- Promoting public environmental awareness of the importance of utilizing the available natural resources through manufacturing the available mining raw materials.

Project desired results:

- Achieving industrial development through utilizing the available mining raw materials.
- Providing employment opportunities for young people.
- Improving living standards.
- Promoting the environmental awareness of the public.

Project description:

- Producing color and transparent glass.
- Promoting the local community awareness and focusing on the activation of community role which is necessary for the project success and sustainability.

Project estimated cost:

- LE 610 millions.

Governorate contribution:

- Allocating the required land for the project.
- Facilitating obtaining the governmental approvals and all procedures.
- Providing data and information required for the project.

Environmental Projects of the New Valley Governorate (cont'd)
Fourth Project

Project name:

- Manufacturing clay bricks.

Project goal:

- Ideal use of the natural resources available in the area (clay raw materials) to improve the local economy and upgrade living standards.

Project environmental objectives:

- Developing the available natural resources in the area.
- Achieving the sustainable development.
- Promoting public environmental awareness of the importance of utilizing the available natural resources through manufacturing the available mining raw materials.

Project desired results:

- Achieving industrial development through utilizing the available mining raw materials.
- Providing employment opportunities for young people.
- Improving living standards.
- Promoting the environmental awareness of the public.

Project description:

- Producing clay bricks.
- Promoting the local community awareness and focusing on the activation of community role which is necessary for the project success and sustainability.

Project estimated cost:

- LE 5 millions.

Governorate contribution:

- Allocating the required land for the project.
- Facilitating obtaining the governmental approvals and all procedures.
- Providing data and information required for the project.

Environmental Projects of the New Valley Governorate (cont'd)

Fifth Project

Project name:

- Project of extending sanitary drainage networks to the villages.

Project goal:

- Improving sanitary drainage services to mitigate the harmful environmental impacts and maximizing the use of the wastewater.

Project environmental objectives:

- Protecting the public health.
- Achieving the Aluminum Development Goals in the field of Eliminating Poverty and improving Mother and Child Health.
- Maximizing the use of reusing treated wastewater in irrigating timber trees.
- Promoting the public awareness of the environmental risks of the unsafe disposal of wastewater.

Project desired results:

- Providing sanitary drainage services in the villages of the governorate.
- Providing sanitary drainage services in the healthcare centers to ensure the sound practices after giving birth.
- Treated wastewater which contributes in preserving the ecological system in better ways and release pressures on the limited sources of clean water.
- Timber trees that result in good economic return.
- Promoting public environmental awareness.
- Mitigating the diseases resulting from lack of sanitary drainage services.

Project description:

- Establishing wastewater forcemain networks inside the village.
- Building decomposition tanks and a tank to collect the treated wastewater to use it in irrigating the timber trees.
- Carrying out awareness programs for the public regarding the importance of the project, wastewater systems, and improving the environment.

Project estimated cost:

- LE 500.000.

Governorate contribution:

- Facilitating obtaining the governmental approvals and all procedures.
- Providing data and information required for the project.

Environmental Projects of the New Valley Governorate (cont'd)

Sixth Project

Project name:

- Establishing environmental awareness center.

Project goal:

- Promoting public environmental awareness and pointing out the environmental efforts aiming at achieving sustainable development with ultimate goal of improving living standards of citizens.

Project environmental objectives:

- Informing citizens of the risks of environmental pollution.
- Informing citizens of the importance of participating in protecting the environment from pollution.
- Informing citizens of environmental local and international laws and legislations to be committed to, and to disseminate them.
- Pointing out the existing environmental problems and ways of mitigation, as well as the role of concerned governmental and non governmental agencies and citizens to minimize the risks of such problems.

Project desired results:

- Environmental Awareness Center equipped with modern equipment and tools.
- Making citizens aware of environmental and development issues.
- Citizens' partnership with different agencies and institutions to protect the environment and achieve the sustainable development.

Project description:

- Establishing environmental awareness center.
- Conducting seminars and workshops and brainstorming sessions concerning the various environmental issues for all community categories in the governorate.
- Providing different awareness materials of handouts, newsletters, and magazines.

Project estimated cost:

- LE 2 millions.

Governorate contribution:

- Facilitating obtaining the governmental approvals and all procedures.
- Providing data and information required for the project.

Environmental Projects of the New Valley Governorate (cont'd)
Seventh Project

Project name:

- Producing phosphate fertilizers.

Project goal:

- Ideal use of the natural resources available in the area (phosphate raw materials) to improve the local economy and upgrade living standards.

Project environmental objectives:

- Developing the available natural resources in the area.
- Achieving the sustainable development.
- Promoting public environmental awareness of the importance of utilizing the available natural resources through manufacturing the available mining raw materials.

Project desired results:

- Achieving industrial development through utilizing the available mining raw materials.
- Big financial return due to selling of phosphate fertilizers.
- Providing employment opportunities for young people.
- Improving living standards.
- Promoting the environmental awareness of the public.

Project description:

- Establishing a factory to produce phosphate fertilizers.
- Providing equipment and machines necessary for production.
- Providing and training of labors.
- Providing necessary raw materials.
- Producing fertilizer of ammonium phosphate.

Project estimated cost:

- LE2.2 millions to produce 500.000 tons per year.

Governorate contribution:

- Allocating the required land for the project.
- Facilitating obtaining the governmental approvals and all procedures.
- Providing data and information required for the project.

Environmental Projects of the New Valley Governorate (cont'd)
Eighth Project

Project name:

- Solid wastes recycling in the governorate villages.

Project goal:

- Mitigating environmental and health problems resulting from ill management of solid wastes and to maximize the use of the solid and agriculture wastes.

Project environmental objectives:

- Applying suitable systems for solid wastes treatment and final disposal in the villages.
- Maximizing the use of the municipal solid wastes by producing compost.
- Minimizing the use of chemical fertilizers.
- Promoting the environmental awareness of the risks of solid wastes accumulation.

Project desired results:

- Increasing the efficiency of solid wastes management in rural areas.
- Producing compost which increases the soil fertility.
- Helping farmers through providing alternative fertilizers to the chemical ones.
- Promoting the public environmental awareness.
- Providing employment opportunities for young people.
- Improving living standards.

Project description:

- Establishing a plant to recycle agriculture and solid municipal wastes and producing compost (organic fertilizer).
- Selecting labors and providing training for them.
- Promoting the local community awareness and focusing on the activation of community role which is necessary for the project success and sustainability.

Project estimated cost:

- LE300.000.

Governorate contribution:

- Allocating the required land for the project.
- Facilitating obtaining the governmental approvals and all procedures.
- Providing data and information required for the project.

Environmental Projects of the New Valley Governorate (cont'd)
Ninth Project

Project name:

- Establishing a factory for solid wastes recycling in El Dakhla area.

Project goal:

- Mitigating environmental and health problems resulting from ill management of solid wastes and to maximize the use of the solid and agriculture wastes.

Project environmental objectives:

- Applying suitable systems for solid wastes treatment and final disposal in the villages.
- Maximizing the use of the municipal solid wastes by producing compost.
- Minimizing the use of chemical fertilizers.
- Promoting the environmental awareness of the risks of solid wastes accumulation.

Project desired results:

- Increasing the efficiency of solid wastes management.
- Producing compost which increases the soil fertility.
- Helping farmers through providing alternative fertilizers to the chemical ones.
- Promoting the public environmental awareness.
- Providing employment opportunities for young people.
- Improving living standards.

Project description:

- Establishing a plant to recycle agriculture and solid municipal wastes and producing compost (organic fertilizer).
- Selecting labors and providing training for them.
- Promoting the local community awareness and focusing on the activation of community role which is necessary for the project success and sustainability.

Project estimated cost:

- LE 6 millions.

Governorate contribution:

- Allocating the required land for the project.
- Facilitating obtaining the governmental approvals and all procedures.
- Providing data and information required for the project.

13) Beni Suef Governorate

Environmental Projects for Beni Suef Governorate

First Project

Project name:

- Collecting Solid and Liquid Wastes in Dashtot village, Beni Suef governorate.

Project goal:

- Solid and Liquid Wastes Management in Dashtot village, Beni Suef governorate.

Project environmental objectives:

- Mitigating wastes accumulation in the village streets and tanks overflow.
- Mitigating the problem of low groundwater level in the village.
- Implementing and applying effective solid and liquid wastes collection system.
- Improving health and environmental conditions in the village.
- Promoting the environmental and health awareness among citizens.
- Cleaning the village.

Project desired results:

- Sustainable solid and liquid wastes collection to serve the village.
- Providing the necessary equipment for solid wastes collection (tractor, two waste collection trailers, a tanker).
- Improving water quality.
- Improving environmental conditions in the village.
- Promoting the community participation and environmental awareness.
- Strengthen the capacity of the responsible association of solid and liquid wastes management in the village.

Project description:

- Assessment of prices offers.
- Purchasing equipment.
- Training the association staff.
- Promoting community awareness.
- Conducting cleaning campaign.
- Implementing the project/ collecting fees.
- Monitoring and evaluating the project.

Project estimated cost:

- LE 28.000

Governorate contribution:

- Allocating the land for the project.
- Facilitating obtaining the governmental approvals.
- Providing the data and information required for the project.
- Creating the enabling conditions that help the project success.

Environmental Projects for Beni Suf Governorate

Second Project

Project name:

- Collecting Solid and Liquid Wastes in Naser City and its villages, Beni Suf governorate.

Project goal:

- Solid and Liquid Wastes Management in Naser City and its villages, Beni Suf governorate.

Project environmental objectives:

- Mitigating wastes accumulation in Naser City and its villages and tanks overflow.
- Mitigating the problem of low groundwater level in Naser City and its villages.
- Implementing and applying effective solid and liquid wastes collection system.
- Improving health and environmental conditions in the city.
- Promoting the environmental and health awareness among citizens.
- Cleaning the city and its villages.

Project desired results:

- Sustainable solid and liquid wastes collection to serve the city and its villages.
- Providing the necessary equipment for solid wastes collection (tractor, two waste collection trailers, a tanker).
- Improving water quality.
- Improving environmental conditions in the city and its villages.
- Promoting the community participation and environmental awareness.
- Strengthen the capacity of the responsible association of solid and liquid wastes management in the city and its villages.

Project description:

- Assessment of prices offers.
- Purchasing equipment.
- Training the association staff.
- Promoting community awareness.
- Conducting cleaning campaign.
- Implementing the project/ collecting fees.
- Monitoring and evaluating the project.

Project estimated cost:

- LE 28.000

Governorate contribution:

- Allocating the land for the project.
- Facilitating obtaining the governmental approvals.
- Providing the data and information required for the project.
- Creating the enabling conditions that help the project success.

Environmental Projects for Beni Suef Governorate

Third Project

Project name:

- Solid and liquid wastes collection for Enfast village and 4 satellites of 11.000 persons in Beni Suef Governorate.

Project goal:

- Solid and liquid wastes management for Enfast village and 4 satellites.

Project environmental objectives:

- Mitigating wastes accumulation and tanks overflow in the village and 4 satellites.
- Mitigating the problem of low groundwater level in the village and 4 satellites.
- Implementing and applying effective solid and liquid wastes collection system.
- Improving health and environmental conditions in the village and 4 satellites.
- Promoting the environmental and health awareness among citizens.
- Cleaning the village and 4 satellites.

Project desired results:

- Sustainable solid and liquid wastes collection to serve the village and 4 satellites.
- Providing the necessary equipment for solid wastes collection (tractor, two waste collection trailers, a tanker).
- Improving water quality.
- Improving environmental conditions in the city and its villages.
- Promoting the community participation and environmental awareness.
- Strengthen the capacity of the responsible association of solid and liquid wastes management in the village and 4 satellites.

Project description:

- Assessment of prices offers.
- Purchasing equipment.
- Training the association staff.
- Promoting community awareness.
- Conducting cleaning campaign.
- Implementing the project/ collecting fees.
- Monitoring and evaluating the project.

Project estimated cost:

- LE 28.000.

Governorate contribution:

- Allocating the land for the project.
- Facilitating obtaining the governmental approvals.
- Providing the data and information required for the project.
- Creating the enabling conditions that help the project success.

Environmental Projects for Beni Suef Governorate

Fourth Project

Project name:

- Collecting Solid and Liquid Wastes in Ma'arek village, Beni Suef governorate.

Project goal:

- Solid and Liquid Wastes Management in Ma'arek village, Beni Suef governorate.

Project environmental objectives:

- Mitigating wastes accumulation in the village streets and tanks overflow.
- Mitigating the problem of low groundwater level in the village.
- Implementing and applying effective solid and liquid wastes collection system.
- Improving health and environmental conditions in the village.
- Promoting the environmental and health awareness among citizens.
- Cleaning the village.

Project desired results:

- Sustainable solid and liquid wastes collection to serve the village.
- Providing the necessary equipment for solid wastes collection (tractor, two waste collection trailers, a tanker).
- Improving water quality.
- Improving environmental conditions in the village.
- Promoting the community participation and environmental awareness.
- Strengthen the capacity of the responsible association of solid and liquid wastes management in the village.

Project description:

- Assessment of prices offers.
- Purchasing equipment.
- Training the association staff.
- Promoting community awareness.
- Conducting cleaning campaign.
- Implementing the project/ collecting fees.
- Monitoring and evaluating the project.

Project estimated cost:

- LE 28.000

Governorate contribution:

- Allocating the land for the project.
- Facilitating obtaining the governmental approvals.
- Providing the data and information required for the project.
- Creating the enabling conditions that help the project success.

Environmental Projects for Beni Suef Governorate

Fifth Project

Project name:

- Solid Wastes Integrated Management of Wasta markaz and city.

Project goal:

- Improving the Solid Wastes Integrated Management System of Wasta markaz and city.

Project environmental objectives:

- Improving solid wastes collection in the city.
- Mitigating the emission of heavy smoke from the dumpsite due to burning the wastes.
- Mitigating the spread of rodents and bad odors.
- Promoting the awareness of solid wastes issues among the staff of waste management project in Wasta.

Project desired results:

- Sustainable solid wastes management system to serve the city.
- Repairing waste transportation vehicles, tractors, and trailers.
- Providing wheel loader and vehicle to transport wastes.
- Providing new hand carts of two containers 120L each.
- Providing the dumpsite with a tractor equipped with front device to load the wastes and back device to place and cover the wastes.
- Prompting the public awareness of solid wastes issues in the city.

Project description:

- Assessment of prices offers.
- Purchasing equipment.
- Promoting community awareness.
- Conducting cleaning campaign.
- Implementing the project/ collecting fees.
- Monitoring and evaluating the project.

Project estimated cost:

- LE 200.000

Governorate contribution:

- Allocating the land for the project.
- Facilitating obtaining the governmental approvals.
- Providing the data and information required for the project.
- Creating the enabling conditions that help the project success.

14) Port Said Governorate

Environmental Projects for Port Said Governorate

First Project

Project name:

- Renovation and replacement of rigs working in Manzala Lake and providing maintenance and spare parts on regular basis.

Project goal:

- Keeping the current space of Manzala Lake.

Project environmental objectives:

- Removing aggressions on the Lake and preventing drying any part of it.
- Preserving and developing the natural resources.

Project desired results:

- New rigs of high capacity.
- Mitigating the aggressions that decreasing the Lake space and impede water movement.
- Mitigating fishing violations, which create monopoly areas and prevent equal and free fishing.
- Protecting the natural water movement inside the Lake through removing the obstacles within the waterway and the siltation in the water crosscutting and waterways.

Project description:

- Natural movement of the water in Manzala Lake suffers from factors that impede this movement.
- Fishermen build blocks in different parts of the Lake to obtain the largest quantity possible of fish, which impedes the natural movement of the water.
- Also, some citizens dry parts of the Lake to carry out various activities.
- The Public Authority for Fishing operates three rigs to remove the aggressions on the Lake and to clear water course in the Lake.
- Due to the long period of operating these rigs without renovation programs, they became depreciated and inefficient, which allowed increased aggressions and impediment of water course in the Lake.
- Therefore, the proposed project is very important to restore the natural water movement in the Lake.

Project estimated cost:

- LE10 millions.

Governorate contribution:

- Allocating the necessary land for the project.
- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects for Port Said Governorate (cont'd)

Second Project

Project name:

- Producing bio diesel from restaurants wastes.

Project goal:

- Reuse of used oils and greases in restaurants, hotels, clubs and hospitals instead of discharging it in the wastewater network.

Project environmental objectives:

- Preventing discharging oils and greases into wastewater network, which decreases the efficiency of the treatment plant.
- Safe disposal of oils and greases.
- Promoting public awareness of restaurants and hotels' owners.

Project desired results:

- Producing clean and renewable energy.
- Increasing wastewater treatment plant efficiency.
- Support the commitment of restaurants, hotels, clubs, and hospitals of the requirements of law 93/1962.
- Providing jobs for young people.
- Obtaining big financial returns.

Project description:

- Port Said governorate has 200 restaurants in addition to the restaurants in big hotels and clubs as well as hospitals kitchens. All these facilities produce big quantities of oils and greases resulting from cooking different foods.
- Discharging these oils and greases into wastewater network result in blocking the network and wastewater overflow. Also, they affect the efficiency of the treatment plant and inefficient disengagement of them, which result in discharging wastewater not complying with law 48, 1982 into Manzala Lake.
- As law 93, 1962 forbids restaurants to discharge oils and greases into wastewater network, the proposed project shall help these facilities to comply with the law, as it provides them with necessary tools to separate the oils at source and collect it into a unit to produce bio diesel, which is a clean fuel with much less emissions than the ordinary diesel and is totally sulfur oxides-free. It also can be used in machines running on normal diesel with no needs to make any changes in the engine.

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- It is worth noting that bio diesel production technology from oils and greases is known in the research centers in Egypt and shall be used on commercial basis in the coming years.
 - We propose that the project shall be implemented by a private company as the expected profitability is high. The governorate shall tighten the monitoring on restaurants, hotels, clubs, and hospitals to enforce law 93, 1962, which ensures sending enough quantities of oils and greases from such facilities to the bio diesel production unit.

Project estimated cost:

- LE2 millions.

Governorate contribution:

- Allocating the necessary land for the project.
- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects for Port Said Governorate (cont'd)
Third Project

Project name:

- Developing the communities of south Port Said.

Project goal:

- Developing slum areas in Port Said governorate and providing them with services.

Project environmental objectives:

- Preventing building unlicensed houses in the governorate.
- Improving living standards.
- Promoting the environmental and health awareness.

Project desired results:

- Modern residential areas rich in services.
- Mitigating negative environmental impacts resulting from population density and lack of infrastructure services.
- Improving public health after modernization.

Project description:

- Slum areas are focused in south Port Said governorate and comprising Cap, Om Khala, and Bahr El Bakar areas.
- The space of the slum areas in these communities is 290 feddans and its population is 32.000 capita.
- The governorate exerted great efforts to extend the infrastructure to serve its population until the full development takes place.
- The proposed project includes extending of electricity, potable water, wastewater networks and paving main roads in the deprived areas of such communities.

Project estimated cost:

- LE36 millions.

Governorate contribution:

- Allocating the necessary land for the project.
- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects for Port Said Governorate (cont'd)
Fourth Project

Project name:

- Developing the communities of west Port Said.

Project goal:

- Developing slum areas in Port Said governorate and providing them with services.

Project environmental objectives:

- Preventing building unlicensed houses in the governorate.
- Improving living standards.
- Promoting the environmental and health awareness.

Project desired results:

- Modern residential areas rich in services.
- Mitigating negative environmental impacts resulting from population density and lack of infrastructure services.
- Improving public health after modernization.

Project description:

- Slum areas are focused in south Port Said governorate and comprising Arbeen, Graba'a, Manasra, and Deepa areas.
- The space of the slum areas in these communities is 250 feddans and its population is 11.000 capita.
- The governorate exerted great efforts to extend the infrastructure to serve its population until the full development takes place.
- Detailed plans of such villages are approved as governorate satellites.
- The proposed project includes extending of electricity, potable water, wastewater networks and paving main roads in the deprived areas of such communities.

Project estimated cost:

- LE 7 millions.

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects for Port Said Governorate (cont'd)
Fifth Project

Project name:

- Removing slum areas in Zerzara area and Ezbet Abu Oaf.

Project goal:

- Removing slum areas in (Zerzara area and Ezbet Abu Oaf), which is not capable for development and improving living standards of their residents and housing them in residential units.

Project environmental objectives:

- Mitigating water pollution in slum areas lacking services.
- Mitigating solid wastes accumulation in slum areas lacking services.
- Promoting environmental awareness of the residents of the slum areas.
- Removing slum areas that are not capable for development and completing the development of the rest of the slum areas in the governorate.

Project desired results:

- Providing residential units for slum areas residents.
- Removing slum areas not capable for development.
- Mitigating negative environmental impacts resulting from population high density and lacking of infrastructure services.
- Improving health conditions after resettlement.
- Making sound environmental planning to the region after removal.

Project description:

- Zerzara slum area is located in Dawahi area and has a space of 27.5 feddans with full utilities. It was planned to be an urgent shelter, then slum cages were built by citizens (amounted in last toll to 2426 around 744 residential units originally built for urgent sheltering).
- 1440 residential units were built in the first phase in Sayeda Nafisa area to house the residents of the shelters and from other areas.
- Zerzara area was divided into 3 sectors. Residents of sector 3 were housed in Sayeda Nafisa area in the context of slum areas development plan (Ard el Gabal – Khan el Khalili – Drysa). This was done partly, and the procedure was not continued for the other sectors.

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- Ezbet Abu Oaf is located in El Zohour district in the west part of Port Said cardoon, its space is 13 feddans, which was utilized for the housing of cleaning workers and contractors and their animals, in addition to some cattle barns. The resident families there are 300 families. The area occupies a unique location, as it is next to the governorate wholesale market and to Port Said Airport. The governorate plan is remove the area and utilize the location.
 - The proposed project deals with the slums of the whole area by removal after housing its residents according to integrated plan developed for the region.

Project estimated cost:

- LE50 millions (preliminary estimated cost).

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects for Port Said Governorate (cont'd)
Sixth Project

Project name:

- Purchasing 1600hp water pump with accessories to clean and deepen straits feeding Manzala Lack with water and fish.

Project goal:

- Ensuring the efficiency of Manzala lake water's exchange with Mediterranean water and ensures water circulation in the Lake.

Project environmental objectives:

- Removing aggressions and fishing violations, which impede water movement in the Lake and cleaning and deepening waterways between different areas of the Lake to facilitate water movement.
- Reducing pollution rates in the Lake.
- Mitigating natural resources consuming.

Project desired results:

- Providing 1600 hp pump with accessories to clean and deepening the old and new Gameel straits and linking canal of Kabotti arcade for good exchange of water and fish between the sea and the Lake.
- Preserving the chemical and biological balance through the natural exchange between the sea and the Lake due to efficient straits.
- Keeping the Lake productivity of fish.

Project description:

- Regular cleaning and deepening of straits to remove sediments that affect water exchange between the sea and the Lake.
- This water exchange keeps the salinity of the lake and the entrance of the small sea fish to the lake and cleaning it from accumulated pollutants.

Project estimated cost:

- LE 39 millions.

Governorate contribution:

- Allocating land for the project.
- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects for Port Said Governorate (cont'd)
Seventh Project

Project name:

- Collecting hazard industrial wastes and mineral oils.

Project goal:

- Safe disposal of consumed hazard industrial wastes and mineral oils and preventing discharging it into the wastewater network.

Project environmental objectives:

- Enforcing all industrial facilities and workshops not to discharge hazard industrial wastes and mineral oils into the wastewater network.
- Stopping the pollution of Manzala Lake with hazard industrial wastes and mineral oils.
- Promoting environmental awareness on the risks of hazard industrial wastes and mineral oils.

Project desired results:

- Safe disposal of consumed hazard industrial wastes and mineral oils.
- Increasing the efficiency of wastewater treatment plant.
- Industrial facilities commitment of environmental law standards concerning hazard wastes management.
- Industrial facilities awareness and realization of the importance of safe disposal of consumed hazard industrial wastes and mineral oils.

Project description:

- Collecting hazard wastes and mineral oils.
- Temporary storage outside the residential area.
- Safe transportation to approved hazard wastes disposal sites (as in Alexandria and Ismailia) or to mineral oils refining plants which recovering mineral oils wastes (as in Alexandria).
- It is proposed that the project shall be implemented by a private company, as the project can achieve high profits. Port Said governorate shall tighten the monitoring on industrial facilities and workshops and contracting a certified company to dispose hazard wastes and mineral oils as well as developing suitable monitoring mechanism for such facilities to ensure they do not discharge mineral oils into the wastewater networks.

Project estimated cost:

- LE 2 millions.

Governorate contribution:

- Allocating land for the project.
- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects for Port Said Governorate (cont'd)

Eighth Project

Project name:

- Sludge treatment and using it in composting.

Project goal:

- Reusing sludge of wastewater treatment plant in agriculture purposes.

Project environmental objectives:

- Mitigating disposing sludge in waterways and unassigned places.
- Mitigating using untreated sludge of wastewater treatment plants in agriculture.
- Promoting the public awareness of the risks of using untreated sludge of wastewater treatment plants in agriculture.
- Minimizing the use of chemical fertilizers.

Project desired results:

- Producing compost for agriculture soil.
- Avoiding infections of virus diseases.
- Saving natural resources through avoiding assigning lands for sanitary landfill of sludge.

Project description:

- Wastewater treatment plants produce (according to treated loads) about 30 m³ / day of dry sludge.
- Sludge is pumped to sludge drying pools in the treatment plants. Since starting the plant operations, 6 sludge drying pools were filled (out of 20 pools in the plant) where 18.000 m³ of dry sludge is stored.
- In light of the increased discharges and organic loads coming to the plant and operating other plants that do not have enough spaces to dry the sludge, the remaining sludge drying pools shall be filled in the coming few years, which needs to empty the dry sludge from the plant and dispose it in sanitary landfill. This is among the environmental challenges in the governorate, as there is very limited area available for landfills.
- The proposed project aims at using the resulted sludge as bio fertilizer after treating the sludge according to the executive regulations of law 93/1962 and the Egyptian Code of using treated wastewater in agriculture.

Project estimated cost:

- LE 5 millions.

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects for Port Said Governorate (cont'd)
Ninth Project

Project name:

- Completing the project of using treated wastewater in irrigating timber trees.

Project goal:

- Reuse of treated wastewater in agriculture.

Project environmental objectives:

- Utilizing treated wastewater in implementing the forestation of the middle island of Port Said – Ismailia Road and timber forest around the airport.
- Mitigating the pollution of Manzala Lake with wastewater.
- Preserving the natural resources.

Project desired results:

- Providing pumping stations for treated wastewater.
- Optimizing the use of treated wastewater.
- Producing timber trees of big financial return for the governorate.
- Rationalizing the use of water resources and using turbid water in other applications.
- Increasing the greenery and landscaping Port Said – Ismailia Road and the area around the airport.

Project description:

- Port Said wastewater treatment plant receives 140.000 m³ / day of wastewater, which is treated and disposed into Manzala Lake.
- The proposed project aims at using the treated wastewater in irrigating unfruitful trees in the middle island of Port Said – Ismailia Road at 38 km long and 10 m width. This space is irrigated now with turbid water.
- The project aims also at planting trees forestation next to Port Said airport using the treated wastewater. The first phase of the project was implemented by installing double pumping station next to the treatment plant and a forcemain at 315 mm diameter and 85 km long. The project was not completed due to lack of funding.

Project estimated cost:

- LE 5 millions for second and third phases (first phase cost was LE2 millions).

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects for Port Said Governorate (cont'd)

Tenth Project

Project name:

- Lining of Port Said Canal and fixing its sides with stones.

Project goal:

- Improving the canal water quality and protecting it from pollution with agriculture wastewater.

Project environmental objectives:

- Mitigating the pollution of the canal water with agricultural wastewater and its chemical fertilizers and pesticides.
- Improving agricultural discharge systems for the farms on the canal banks.
- Completing the current programs of weed mitigation.
- Protecting public health.

Project desired results:

- Potable water (produced in Raswa plant) of good quality and free of pollutants.
- Keeping the level of the water in the canal at the desired level.
- Eliminating fungus and plants floating on the surface of the canal water.
- Reducing the costs of manual, chemical, and biological cleaning of the canal.

Project description:

- Existence of plants on the canal banks and non lining of its bottom and lack of stones on its sides result in leakage of nitrogen and phosphorus into the canal water with the agricultural wastewater.
- This helps the occurrence of Eutrophication, where nitrogen and phosphorus salts provide food for the floating fungus and plants, which increase dramatically and cover the water surface of the canal and prevent sunlight from deeper areas of the canal and affect the flora and also change the taste and smell of the incoming water to Raswa water plant.
- The proposed plant aims at lining the canal bottom and fixing stones on its sides in front of the cultivated areas to minimize agricultural wastewater reaching the canal. In addition, solutions shall be developed to divert the agricultural wastewater to the nearest agricultural drain.

Project estimated cost:

- LE 50 millions.

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects for Port Said Governorate (cont'd)
Eleventh Project

Project name:

- Reducing the loss of potable water and promoting public awareness of rationalizing consumption.

Project goal:

- Improving potable water quality and reducing the loss of potable water.

Project environmental objectives:

- Protecting potable water source (the canal) from pollution.
- Promoting the public awareness of the risks of dumping wastes into the canal.
- Promoting the public awareness of the importance of rationalizing water consumption.
- Removing slums on the canal banks.
- Mitigating leakage of wastes of poultry farms and slums into the canal.

Project desired results:

- Improving potable water quality.
- Rationalizing water consumption.
- Reducing the cost water production per cubic meter due to reducing the loss and increasing the available water.
- Eliminating wrong behaviors of citizens and promoting their awareness of the importance of rationalizing water consumption and water protection.
- Increase the efficiency of water distribution networks and protecting it from pollution.
- Protecting the public health.

Project description:

- Despite there are still areas deprived from regular supply of potable water, yet a big portion of the produced water is lost in distribution networks due to water leakage, in addition to big quantities lost due to mal behaviors of citizens in using the water.
- The project aims at clarifying the economic and environmental benefits of reducing water loss through modernizing distribution network in a pilot area and simultaneously promoting citizens' awareness in that area to rationalize the water use, in addition to public awareness of the risks of dumping the wastes into Port Said canal.

Project estimated cost:

- LE 5 millions.

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects for Port Said Governorate (cont'd)
Twelfth Project

Project name:

- Establishing dual treatment plant for the wastewater of pumping station (S 10).

Project goal:

- Providing suitable treatment for the wastewater of pumping station S 10.

Project environmental objectives:

- Mitigating the pollution of wastewater with chemical and organic pollutants.
- Mitigating the pollution of Manzala Lake through preventing discharging quantities of untreated sanitary and industrial wastewater into the connection canal and Manzala Lake.
- Committing the industrial and commercial facilities not to discharge wastewater into the public network beyond the legal limits.

Project desired results:

- Establishing and operating biological treatment plants to be connected to all wastewater networks in the governorate.
- Improving the environmental conditions of Manzala Lake.
- Facilities to commit to the permissible limits of the applicable laws in the field of sanitary and industrial wastewater.

Project description:

- Pumping station S10 receives now 40.000 m³/day of wastewater of Kabooti and Dawahi area as well as part of Hay el Arab and the free industrial zone for investment.
- Due to the increasing discharges received by the plant, its capacity was increased form 25.000 m³/day to 60.000 m³/day.
- The plant discharges the incoming sanitary and industrial wastewater into the connection canal and then into Manzala Lake. This deteriorates the water quality in the Lake, which is eco-sensitive as it is among the most important sources of fishing in Egypt and due to the fact that it is the meeting point of all agricultural drains' wastewaters emerging from Nile River and the salted Mediterranean sea, which increases the Lake sensitivity to the changes in water quality.
- The proposed project treats a key environmental pollution problem.

Project estimated cost:

- LE 25 millions.

Governorate contribution:

- Allocating the required land for the project.
- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

Environmental Projects for Port Said Governorate (cont'd)
Thirteenth Project

Project name:

- Integrated sanitary drainage project for Deepa village, west Port Said.

Project goal:

- Covering the deprived areas with sanitary drainage service.

Project environmental objectives:

- Mitigating the groundwater pollution.
- Mitigating soil pollution.
- Providing services for citizens.

Project desired results:

- Providing wastewater networks for deprived areas (el Deepa) and link it to current and future treatment plants.
- Improving the health and environmental conditions of the residents of Deepa village.
- Preventing wastewater leakage to soil and groundwater.
- Stopping trenches irregular cleaning operations, which discharge cleaning wastes into surface waterways.

Project description:

- Population of Deepa village is 9000 capita and it is the remaining village in west Port Said, which has no sanitary drainage service.
- Village population depends now on collecting wastewaters in trenches to be discharged into tankers to the nearest wastewater network.
- Wastewater trenches shall be redesigned to be unopened from the bottom to leak the collected fluids to the lower soil, which leads to soil pollution.
- Sometimes trenches are cleaned by uncertified contractors, who discharge the cleaning wastes into surface waterways, in addition to health and environmental problems due to the overflow of these trenches.
- The proposed project aims at handling such problems in Deepa village, especially with the expansion of the industrial activity in this area.

Project estimated cost:

- LE20 millions.

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.
- Creating the enabling conditions that may help project success.

15) North Sinai Governorate

Environmental Projects for North Sinai Governorate

First Project

Project name:

- Increasing potable water resources in Tamd area.

Project goal:

- Improving living conditions of the residents and limit their migration and resettling.

Project environmental objectives:

- Protecting the public health through providing clean potable water permanently.
- Reuse of returning water to the plant in cultivating agricultural lands.

Project desired results:

- Providing deep water well to secure water.
- Providing water desalination unit.
- Providing water distribution network inside the village.
- Providing a tank to pump water to nearby communities.
- Providing clean potable water on permanent basis.
- Local citizens' stability in their lands.
- Cultivating over 20 feddans.
- Increasing pure potable water supplies for human use.
- Reducing the cost of water transportation.

Project description:

- Digging up deep water well to secure water on permanent basis.
- Installing water desalination and treatment unit.
- Providing water distribution network inside the village.
- Providing a tank to pump water to nearby communities.
- Reclaiming over 20 feddans and extending sprinkle irrigation network and tank and irrigate it by after returning to the plant.

Project estimated cost:

- LE 9 millions.

Governorate contribution:

- Allocating the land required for digging the well, establishing the plant and the tank as well as the lands to be cultivated next to the plant.
- Obtaining the approvals of establishing the well and the plant and providing electricity source to operate the plant.
- Providing data and information about the wells in the project areas and water-born layers as well as water quality and studies conducted in the area.
- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Second Project

Project name:

- Protecting Areesh valley reservoir (groundwater reservoir) against deterioration quantitatively and qualitatively.

Project goal:

- Saving water balance of Wadi Areesh reservoir.

Project environmental objectives:

- Preventing groundwater pollution in the area resulting from wastewater plant.
- Preventing salted seawater from overlapping with groundwater reservoir.
- Protecting agricultural soil from over salination.
- Increasing the cultivated land spaces.

Project desired results:

- Providing wastewater treatment plant.
- Improving the quality of the groundwater reservoir.
- Optimizing the reuse of treated wastewater.
- Increasing the cultivated lands.
- The soil is valid for cultivating all crops.

Project description:

- Establishing wastewater tri and bio treatment plant and implementing pipelines network at 40 km long for supply and dispatching, and then digging 100m deep wells to dispatch bio treated water and follow up water quality in the ground reservoir of Wadi Areesh.

Project estimated cost:

- LE6 millions.

Governorate contribution:

- Allocating the land required for establishing the tri treatment plant.
- Facilitating obtaining the governmental approvals of establishing the pipeline at 40 km long and digging 10 wells at 100m deep in Wadi Areesh.
- Providing data and information about the water quality in the ground reservoir area and water-born layers as well as exploring information of earth layers sequence.
- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Third Project

Project name:

- Monitoring of different emissions from industrial facilities.

Project goal:

- Controlling the environmental pollutants resulting from the industrial activities.

Project environmental objectives:

- Mitigating air pollution.
- Mitigating water pollution.
- Mitigating soil and agricultural land pollution.
- Protecting the health of the workers in industrial facilities.
- Protecting citizens from the impacts of the environmental pollution.
- Making workplace environment complying with environmental legislations.

Project desired results:

- Reducing harmful emissions from industrial facilities.
- Promoting the public and facilities owners' awareness of the importance of environmental protection.
- Providing equipment to measure emissions from the industry.
- Providing a lab to collect and analyze samples regularly.
- Providing a trained work team.

Project description:

- Establishing lab to collect and analyze samples - providing equipment and chemical devices and providing training for the lab staff on sampling and analyzing – conducting awareness seminars for facilities owners and citizens – developing publications and handouts for public awareness.

Project estimated cost:

- LE 200.000.

Governorate contribution:

- Allocating the land required for establishing the lab.
- Facilitating obtaining the governmental approvals by City Council.
- Providing data and information on the industrial activities and facilities, its inputs and outputs.
- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Fourth Project

Project name:

- Establishing sanitary wastewater treatment plant in the industrial zone.

Project goal:

- Wastewater treatment plant in the industrial zone.

Project environmental objectives:

- Mitigating water pollution.
- Mitigating soil and agricultural land pollution.
- Protecting citizens from the impacts of the environmental pollution.
- Cultivating greenery inside the industrial zone depending on wastewater irrigation.

Project desired results:

- Providing sanitary wastewater treatment unit.
- Optimizing the utilization of the treated wastewater
- Increasing greenery in the zone.
- Reducing rates of pollution by liquid wastewater.

Project description:

- Establishing wastewater treatment unit.
- Establishing pipeline network to collect and transport wastewater before treatment.
- Installing pump to pump the water and then establishing distribution areas for the wastewater to irrigate the greenery.

Project estimated cost:

- LE500.000.

Governorate contribution:

- Allocating the land required for establishing the treatment plant and the greenery.
- Facilitating obtaining the governmental approvals by City Council and Ministry of Agriculture.

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- Providing data and information on the area, activities, number of workers, and water quality
 - Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Fifth Project

Project name:

- Listing and registering medical plants in middle Sinai and breeding of endangered plants.

Project goal:

- Protecting the biodiversity in the middle of Sinai.

Project environmental objectives:

- Protecting the plants from deterioration.
- Breeding the endangered plants.
- Documenting and developing a scientific register including types of plants in the area.
- Providing alternatives for plants to be used as fodder by local residents.
- Discovering the active substance of the medical plants.

Project desired results:

- Protecting plants and preserving them.
- Issuing encyclopedia comprises types and specifications of plants in the middle Sinai.
- Promoting the local public awareness of the importance of the plants.
- Using medical plants in middle Sinai in manufacturing of medicines.

Project description:

- Developing programs to list the plants and developing awareness promotion programs for the local citizens.
- Breeding the endangered plants by establishing a nursery including green house, irrigation network, tanks, engine, and agriculture tools.
- Providing alternative grazing and dry fodder, and solar ovens.
- Plant analysis and determine the active substances and developing encyclopedia of plants in the middle Sinai
- Purchasing double cabin vehicle for listing and breeding works.

Project estimated cost:

- LE 1.500.000.

Governorate contribution:

- Allocating the land required for establishing 5 nurseries.
- Facilitating obtaining the governmental approvals (Ministry of Agriculture – Irrigation).
- Providing data and information on plantation areas, valleys, plant breeding methods and the watering needs of each type.
- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Sixth Project

Project name:

- Providing ovens running on gas instead of burning woods in the current ovens in Zraneek Protectorate.

Project goal:

- Protecting the environment and biodiversity in Zraneek Protectorate.

Project environmental objectives:

- Protecting biodiversity.
- Mitigating air pollution.
- Relying on clean energy source.

Project desired results:

- Providing gas ovens for the local residents.
- Protecting plants.
- Protectorate environment free of air pollution.
- Promoting local public awareness.

Project description:

- Listing the number of existing families inside the Protectorate and around it (500 families).
- Purchasing 500 gas ovens (one for each family) with gas cylinder and distributing them on the residents inside and around the Protectorate.
- Distributing ovens and cylinders on families.

Project estimated cost:

- LE 500.000.

Governorate contribution:

- Facilitating obtaining the governmental approvals (Ministry of Agriculture – Irrigation).
- Providing data and information on population and families, determining the neediest families for such ovens.

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- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Seventh Project

Project name:

- Establishing escapes in the southeast area of the governorate.

Project goal:

- Collecting storm water and using it as a source for drinking and cultivation.

Project environmental objectives:

- Providing clean potable water.
- Cultivating different spaces of land according to water quantity.
- Help stabilization of local residents in their lands.
- Providing clean potable water.
- Cultivating different spaces of land according to water quantity.
- Help stabilization of local residents in their lands.

Project desired results:

- Providing escapes in the southeast area of the governorate.
- Increasing potable water quantities.
- Increasing the space of the cultivated land, this increases the income of the local residents.
- Optimizing the use of storm water.
- Non migration of local residents.

Project description:

- Building 25 escapes in different areas southeast the governorate and establishing concrete walls with specifications in compliance with the nature of the slopes in the area.
- Purchasing engines to pump the water.

Project estimated cost:

- LE 600.000.

Governorate contribution:

- Allocating suitable sites and most needy of such escapes.
- Obtaining the required approvals of Agriculture and Irrigation.
- Providing data and information on selected sites, rain water quantities, rain falling rates, soil characteristics, population in the area.
- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Eighth Project

Project name:

- Rehabilitation of public waste dumpsites.

Project goal:

- Safe disposal of solid wastes.

Project environmental objectives:

- Minimizing the solid wastes accumulation.
- Mitigating open burning of solid wastes.
- Mitigating self-ignition of solid wastes.
- Protecting the health and safety of the areas adjacent to the public dumpsites and workers and visitors of such dumps.
- Mitigating air pollution.
- Eliminating the problem of insects and rodents breeding in such dumps.

Project desired results:

- Rehabilitated public dumpsites.
- Safe disposal of solid wastes.
- Reducing air pollutants.
- Reducing numbers of insects and rodents.

Project description:

- Building fences around dumpsites.
- Afforestation of the outside area with suitable trees.
- Installing a balance to weigh wastes.
- Providing fire fighting equipment.
- Design and build internal roads in the dumpsite.
- Providing the dumpsite with infrastructure.
- Providing necessary equipment.
- Providing daily covering of wastes.

Project estimated cost:

- LE 5.5 millions (Five and half millions).

Governorate contribution:

- Allocating the current sites as public dumpsites.
- Providing data and information on solid wastes quantities, types, collection methods, and number of workers.
- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Ninth Project

Project name:

- Establishing landfill in Areesh Markaz.

Project goal:

- Safe disposal of solid and hazard wastes.

Project environmental objectives:

- Mitigating air pollution.
- Protecting groundwater from pollution.
- Mitigating soil pollution.
- Containing large quantities of hazard wastes over 15 years.

Project desired results:

- Providing sanitary landfill for solid and hazard wastes disposal.
- Safe disposal of different types of hazard wastes.
- Utilizing the methane gas produced from organic wastes decomposition.
- Providing work opportunities for fresh graduates.

Project description:

- Selecting the suitable site complying with environmental requirements and establishing cells for wastes, and then building internal network to collect leachate resulting from wastes and a network to collect gases as well as establishing a treatment plant for the leachate – building the access roads to cells – providing the necessary tools.

Project estimated cost:

- LE1.00 million (one million).

Governorate contribution:

- Allocating the required land for the landfill.
- Facilitating obtaining the governmental approvals.
- Providing data and information on hazard wastes quantities, generation places, and collection methods.

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- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate **Tenth Project**

Project name:

- Establishing 3 recycling units for solid wastes in the governorate.

Project goal:

- Reuse and recycle of solid wastes.

Project environmental objectives:

- Recycling big portion of solid wastes and converting it to compost.
- Minimizing the use of chemical fertilizers.
- Mitigating the breeding of insects and rodents.
- Preventing self-ignition of wastes and protecting the environment from air pollution.
- Protecting natural resources.

Project desired results:

- Establishing 3 recycling units for solid wastes in the governorate.
- Producing compost.
- Protecting the environment from solid wastes pollution.
- Rationalizing the use of chemical fertilizers.
- Protecting the health of the citizens and protecting them from insects and rodents.
- Achieving financial return from selling the products of the recycling units.
- Creating jobs for young people.

Project description:

- Selecting a piece of land next to the current dumpsites in the governorate, purchasing the necessary equipment, building fences around the selected sites, forestation of the outside area of the recycling units, and providing the equipment and personal protection gear for the workers.

Project estimated cost:

- LE10.00 million (ten millions).

Governorate contribution:

- Allocating the required land for the recycling units.
- Facilitating obtaining the governmental approvals (Ministry of Industry and Local Management).
- Providing data and information on solid wastes quantities, types, collection places, and providing labors - forestation.
- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Eleventh Project

Project name:

- Stabilizing sand dunes.

Project goal:

- Protecting the infrastructure of roads, canals, and drains from sand dunes creeping.

Project environmental objectives:

- Managing sand dunes creeping by increasing the number of cultivated plants and trees.
- Mitigating desertification.
- Protecting the agriculture soil from deterioration.
- Protecting the waterways from deterioration.

Project desired results:

- Providing trees and plants necessary for mitigating sand dunes.
- Eliminating sand dunes creeping.

Project description:

- Establishing 4 nurseries in the coastal districts – digging 4 surface wells – purchasing and installing irrigation network – purchasing necessary agriculture medications and equipment – locating the sand dunes areas – preparing suitable saplings and planting them.

Project estimated cost:

- LE2.00 million (two millions).

Governorate contribution:

- Allocating the required land for establishing 4 nurseries and 4 sanitary wells.
- Facilitating obtaining the governmental approvals (Ministry of Agriculture, Irrigation and Local Management).
- Providing data and information on soil nature, movable sand dunes places, earth layers, and types of saplings suitable for the environmental conditions of such areas.

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- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Twelfth Project

Project name:

- Integrated Mitigation of Agricultural Pests in Coastal Districts.

Project goal:

- Eliminating agricultural pests and rationalizing the use of pesticides.

Project environmental objectives:

- Protecting the groundwater from pollution with pesticides.
- Protecting citizens from the harmful impacts of pesticides.
- Protecting the pests' bio enemies.

Project desired results:

- Producing crops free of pesticides and of high competitiveness.
- Protecting the public health against food and potable water pollution with pesticides.
- Protecting the environmental balance.

Project description:

- Purchasing electrical pests' killers and sexual attracting devices and breeding of bests bio enemies and distribute them on the farmers. Developing and assessing awareness programs for the farmers on the importance of integrated mitigation methods and the risks of using the pesticides.

Project estimated cost:

- LE2.00 million (two millions).

Governorate contribution:

- Allocating the required land for the project.
- Facilitating obtaining the governmental approvals (Ministry of Agriculture).
- Providing data and information on pests in coastal districts and their bio enemies and how to breed such enemies – distributing the pests killers and sexual attracting devices on the farmers.

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- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate **Thirteenth Project**

Project name:

- Developing and increasing of palm trees in the governorate.

Project goal:

- Increasing palm trees numbers in the governorate.

Project environmental objectives:

- Benefiting from palm trees products and wastes.
- Stabilizing the soil and increasing oxygen ratio.
- Mitigating the green house processes and increasing carbon dioxide in the air.

Project desired results:

- Providing a wealth of palm trees.
- Establishing various industries based on palm trees and its products.
- Great economic return.
- Providing jobs for young graduates.

Project description:

- Establishing nursery to breeding palm trees bushes – establishing irrigation network – digging surface well – training of young graduates group – purchasing hydraulic ladder for different palm trees operations – providing equipment and tools for the nursery.

Project estimated cost:

- LE2.00 million (two millions).

Governorate contribution:

- Allocating the required land for establishing the nursery.
- Providing the necessary labors for the nursery and palm trees operations.
- Facilitating obtaining the governmental approvals (Ministry of Agriculture, Irrigation).

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- Providing data and information on soil nature, earth layers, and palm trees numbers as well as the endangered areas.
 - Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Fourteenth Project

Project name:

- Mitigating Jellyfish.

Project goal:

- Refreshing domestic tourism and protecting the summer visitors and the local residents from jellyfish.

Project environmental objectives:

- Ideal use of the governorate beaches.
- Safe disposal of dead jellyfish.
- Restoring the environmental balance of the fauna and flora.

Project desired results:

- Providing suitable equipment for fishing the jellyfish.
- Reducing the number of the jellyfish.
- Refreshing the domestic tourism.
- Protecting citizens from skin infections and diseases resulting from exposure to jellyfish.

Project description:

- Purchasing 4 fishing boats equipped for jellyfish fishing.
- Purchasing fishing equipment.
- Purchasing equipment to collect jellyfish.
- Establishing suitable storehouse to keep the jellyfish until the safe disposal of them.

Project estimated cost:

- LE1.00 million (one millions).

Governorate contribution:

- Facilitating obtaining the governmental approvals.
- Providing data and information required for the project.

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- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Fifteenth Project

Project name:

- Safe disposal of hazard medical wastes.

Project goal:

- Protecting citizens from risks of exposure to hazard medical wastes.

Project environmental objectives:

- Mitigating water pollution with hazard medical wastes.
- Mitigating soil wastes with hazard medical wastes.
- Mitigating the reuse of the hazard medical wastes.
- Safe disposal of medical wastes.
- Mitigating catching infectious diseases.
- Protecting normal solid wastes collectors from diseases.

Project desired results:

- Providing a system to collect, transport, and handle hazard medical wastes.
- Providing equipped vehicles to transport hazard medical wastes.
- Providing medical incinerators to dispose the hazard medical wastes.
- Providing special cells in the landfills to dispose the ashes of the medical incinerators.
- Providing trained labors on how to handle hazard medical wastes.
- Protecting citizens fro infections of diseases and epidemics.
- Protecting the environment from pollution.

Project description:

- Procuring incinerators and 6 vehicles of suitable specs to transport medical wastes, establishing store room to store the wastes, establishing a garage, and purchasing protection gears for the workers of the project.

Project estimated cost:

- LE4.566.000 million (four millions, five hundred sixty six thousands).

Governorate contribution:

- Allocating the required land for establishing incinerators, storage room, and the garage
- Facilitating obtaining the governmental approvals (Ministry of Health).
- Providing data and information on hazard wastes quantity, types, healthcare facilities numbers, and numbers of beds.
- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate **Sixteenth Project**

Project name:

- Relocating crafts workshops from the city to crafts industrial zone.

Project goal:

- Protecting the environment from pollution and providing comfort and safety for the citizens.

Project environmental objectives:

- Mitigating environmental problems caused by crafts workshops like noise and disturbing.
- Controlling and mitigating the pollutants from the crafts workshops.

Project desired results:

- Providing industrial zone outside the residential area o relocate the crafts industries.
- Protecting the environment.
- Protecting the public health.
- Landscaping the city.
- Financial return.
- Providing jobs for young graduates.

Project description:

- Conducting EIA for relocating workshops – water, electricity, wastewater networks for the new area – paving roads in the industrial zone – aforestation of the area to reduce pollution.

Project estimated cost:

- LE5.125.000 million (five millions, one hundred twenty five thousands).

Governorate contribution:

- Allocating the required land for establishing the project and determining the required spaces for these workshops according to environmental requirements.
- Facilitating obtaining the governmental approvals (Ministry of Labor, City Councils).
- Providing data and information on workshops numbers, types, and pollutants types resulting from such workshops.

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- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate **Seventeenth Project**

Project name:

- Mitigating flies and mosquitoes in the villages of Markaz El Abd.

Project goal:

- Protecting citizens from being infected by diseases caused by flies and mosquitoes.

Project environmental objectives:

- Mitigating the breeding of flies and mosquitoes on the domestic fertilizers.
- Mitigating the spread of communicable diseases, especially among children.
- Mitigating the epidemic impact of disease communicators from the area to nearby areas.

Project desired results:

- Decreasing numbers of flies and mosquitoes.
- Decreasing numbers of infected people with communicable diseases.
- Optimal use of the beaches of Beer El Abd and Romana.

Project description:

- Listing the locations of pile stocks of the targeted organic fertilizers – establishing pits in these sites and making the required operations to improve the organic fertilizer, and then covering these pits with plastic cover, in addition to producing handouts and video tapes to promote the public awareness.

Project estimated cost:

- LE44.000 (forty four thousand).

Governorate contribution:

- Listing the sites of the organic fertilizers.
- Producing the handouts and video tapes.
- Facilitating obtaining the governmental approvals.

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- Providing required information on fertilizer sites and establishing pits
 - Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate **Eighteenth Project**

Project name:

- Sorting healthcare wastes from household wastes.

Project goal:

- Reducing ratio of catching communicable diseases due to handling wastes.

Project environmental objectives:

- Protecting normal solid wastes collectors from exposure to hazard medical wastes.
- Increasing the efficiency of collecting and transporting hazard medical wastes and reducing catching communicable diseases.
- Promoting the public awareness of the risks of the hazard medical wastes.

Project desired results:

- Sorting the medical wastes from household into special color bags.
- Safe disposal of hazard medical wastes.
- Protecting labors in the field of collecting, transporting, and sorting solid wastes from being infected with communicable diseases through medical wastes.

Project description:

- The project is implemented in 3 districts. Purchasing of 3 motorcycles equipped with special box, purchasing color bags to be distributed on the districts, conducting 12 public awareness seminars and producing handouts and publications to be distributed on the citizens in houses and commercial shops.

Project estimated cost:

- LE124.200 (one hundred twenty four thousand and two hundreds).

Governorate contribution:

- Licenses of motorcycles to transport wastes.
- Providing the required labors for project management and operations.
- Distributing bags and publications on citizens.

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- Facilitating obtaining the governmental approvals.
 - Providing required data and information required by the project.
 - Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Nineteenth Project

Project name:

- Aforestation of industrial zone.

Project goal:

- Protecting the industrial zone from sand dunes creeping.

Project environmental objectives:

- Improving air and environment quality in the industrial zone.
- Soil stabilization.
- Increasing numbers of trees and plants around the zone.

Project desired results:

- Providing permanent trees and plants fence around the zone.
- Clean and pollutant-free environment.
- Protecting soil against deterioration.
- Providing jobs for citizens of the governorate.

Project description:

- Purchasing saplings and fertilizer for trees – transporting the saplings.

Project estimated cost:

- LE107.000 (one hundred seven thousand).

Governorate contribution:

- Locating the sites of the proposed plant fence – providing technical supervision.
- Facilitating obtaining the governmental approvals.
- Providing required data and information required for the project on sand dunes around the zone, its space, and stabilizing targeted area.
- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate **Twentieth Project**

Project name:

- Protecting marine turtles.

Project goal:

- Protecting marine turtles against extinction.

Project environmental objectives:

- Identifying the important turtles landing areas o protect it during the landing season to lay eggs and declare the region a protected area temporarily during that period.
- Selecting a protection area within the protectorate to be considered as breeding area for turtles through moving eggs from egg laying places to this area and providing care until incubation and ensuring the arrival of the incubated turtles to the sea.
- Protecting the turtles in the area and its incubation nests, as the favorite food of the turtles is the jellyfish.
- Promoting public awareness (fishermen – Coast Guard – fisheries – fish traders).

Project desired results:

- Protecting turtles in the area and their eggs laying nests.
- Keeping Egypt commitment to Biodiversity Protection Agreement with other countries.
- Protecting the tourism season in north Sinai, where turtles destroy jellyfish that harm the tourism.
- Promoting public awareness among various community categories on the importance of marine turtles.

Project description:

- All marine turtles are endangered species of extinction all over the world. All kinds of sea turtles are integrated in the list no. (1), attached to the international agreement CITES, which forbidden the trading of endangered species at the world level.
- Mediterranean coast of north Sinai is among the key landing areas of the turtles to lay eggs, especially the green and big headed turtles, which were monitored in different sites on the coastline.

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- Monitoring process is taking place on large scale, not only in Zraneek Protectorate, but also on 7 km area, starting from Sheikh Zowayd area in the east to the end of the Protectorate borders on the Mediterranean coast in the west.
 - Key landing areas of turtles are monitored on regular basis since the landing to lay the eggs until the incubation time and the return of the small turtles back to its sea environment.

Project estimated cost:

- LE600.000 (six hundred thousand).

Governorate contribution:

- Facilitating obtaining the governmental approvals like Coast Guard, Tourism promotion Authority and City Council.
- Providing required information required for the project.
- Creating enabling conditions that can help project success.

Environmental Projects for North Sinai Governorate

Twenty first Project

Project name:

- Treating wastewater with EM substance to be used in forestation.

Project goal:

- Optimal use of wastewaters.

Project environmental objectives:

- Protecting the environment from pollution.
- Protecting the groundwater from pollution with untreated wastewater.
- Minimizing the planting of vegetables and fruits on wastewater.
- Benefiting from treated wastewater as non traditional source of water.

Project desired results:

- Treated wastewater.
- Increasing greenery and timber trees.
- Pollution-free environment.
- Protecting the groundwater.
- Producing pollution-free crops.

Project description:

- Purchasing enough quantities of EM substance to treat wastewater – purchasing bushes of timber trees to utilize the treated wastewater- purchasing and installing irrigation network.

Project estimated cost:

- LE8.00 (eight millions).

Governorate contribution:

- Allocating land to establish the timber trees forest.
- Facilitating obtaining the governmental approvals from Local Management - Agriculture.

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- Providing required information required for the project on wastewater quantity – trees quality – soil nature.
 - Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate
Twenty second Project

Project name:

- Rationalizing the use of electrical energy and mitigating thermal emissions.

Project goal:

- Mitigating the thermal emissions.

Project environmental objectives:

- Protecting the environment from pollution.
- Protecting the biodiversity.
- Saving electrical power.

Project desired results:

- Free-pollution environment.
- Protecting the biodiversity.
- Saving power.

Project description:

- Purchasing of energy-saving lamps – purchasing of power generators for remote communities – developing and implementing awareness seminars and programs for the local residents.
- Purchasing of energy-saving lamps – purchasing of power generators for remote communities – developing and implementing awareness seminars and programs for the local residents.

Project estimated cost:

- LE4.00 (four millions).

Governorate contribution:

- Allocating land to install the generators.
- Facilitating obtaining the governmental approvals from Local Management - Electricity.

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- Providing required information required for the project on remote communities – population density areas.
 - Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.

Environmental Projects for North Sinai Governorate

Twenty third Project

Project name:

- Providing cleaning vehicles for the deprived areas from wastewater services.

Project goal:

- Disposal of wastewater.

Project environmental objectives:

- Protecting the environment from environmental pollution with wastewater.
- Protecting the citizens from disease mediators in the wastewater.
- Protecting the groundwater from pollution.
- Protecting the soil.

Project desired results:

- Providing cleaning vehicles to dispose wastewater.
- Environment free of wastewater pollution.
- Protecting the public health.
- Protecting the groundwater.
- Protecting the soil.

Project description:

- Purchasing 12 tankers – Developing and implementing awareness seminars and programs for the local residents.

Project estimated cost:

- LE4.00 (four millions).

Governorate contribution:

- Allocating land to establish the project.
- Facilitating obtaining the governmental approvals.
- Providing required information required for the project on population communities, deprived areas from wastewater services – high density populated areas.

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- Creating enabling conditions that can help project success by forming a follow up team. The governorate shall activate laws and solve problems in the context of legislations and project monitoring as well as overcoming any challenges facing the implementation of the projects.