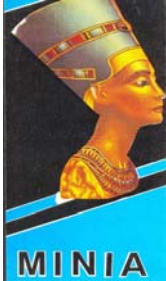


Menia Governorate

Ministry of State for Environmental Affairs

Environmental Management Unit

Egyptian Environmental Affairs Agency



Environmental Action Plan

Menia Governorate

April 2008

Introduction of the Minister of State for Environmental Affairs

Introduction of the Governor of Menia

Thanks

The Environmental Management Unit is funded by the Danish Agency for International Development "DANIDA". We deeply thank all those who participated in preparing the environmental action Plan of Menia Governorate.

We would like also to thank and point out to task force who the participation and spent their efforts and time to prepare the Environmental Action Plan. We strongly believe that the action plan can not be done without the real participation of the people of the governorate itself.

We would like present our special thanks to Dr. Ahmed Diao El-Deen, Menia governorate who took much care personally in supporting this work and gave much of his time to follow the practical steps of preparing this valuable action plan.

We have appreciated the efforts of the Secretary General, General Ali Selim Shoury the Secretary General Assistant, Medhat Mohamed Salah El-Deen and working groups who coordinated in the Environmental Management Unit in Menia Governorate for their strong efforts and hard work in preparing the action plan.

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1- The Environmental Profile of Menia in brief

Location:

Menia governorate lay between the longitude 40-28degree and 37- 32 degree of east and between the latitude 40-27 degree 45-28 degrees north. The total area of Menia is 32,279km². The length of Menia is 135km. It is far from Cairo 247km. Menia city is the capital of Menia Governorate. The borders of Menia are Beni Sweef governorate is from the north, Giza governorate and New Valley governorate from the west, Red Sea governorate from the east and Assyuit governorate from the south.

The Historical importance:

Menia's history goes back to the Pharos age. Tal El-Amarnaa village, in Deer Mawas Markaz, was the new capital to Aton sister during the period of 1358-1375 BC. Akhenaton and his beautiful wife Nefertiti had the call of monotheism, real art and the refusal of racial discrimination by worshipping the God Atone. The agriculture, industry, fishing and sports were in very good standards more than two thousands of years. Menia has many monumental sites.

The area of Menia

The total area of Menia is 32279 km. 1840km sq is an agricultural land while the rest of the governorate is desert land. It is very clear that the desert represents the great part of the Mania's land.

Population

The population of Menia according to the Mobilization and Statistics Agency on 2006 is 4,179,309. The inhabited area is about 4.2 thousand kilo meter. It represents about 7.5 % of the total area of Menia. Menia's population is considered the second biggest governorate in Upper Egypt after Giza governorate. The rural atmosphere is very clear in the governorate since 82% of its population from rural areas while the urban area represents about 18%

Weather

Menia's weather is continental. The summer is very hot. The degree reaches to 40 while in winter is very warm. The humidity increases in autumn and reaches to 62%. The annual rate of rain is very rare, it is about 4mm.

Administrative division

Menia has nine markazes from north to south. They are Edwa, Maghagah, Bani Mazar, Matai, Samalout, Menia, Abu Kourkas, Malawy and Deer Mawas. These markazes have 61 mother villages, 359 satellites and 1713 hamlets.

The economic Base

The main economic activity is the agriculture. 2.7 million of the manpower represents 58% of the total population work in the agriculture. 33% works in the service sector while 9% only works in the industrial field. The small acquisition of land is very wide spread in Menia. It is about 535m² for the individual. The traditional way of agriculture is the common. Cotton and grains are about 66% of the total agricultural land. Fodders and main crops represent around 16.7%. In addition to the animal, poultry and fish stock. In the river Nile 103,000 fishermen work while there are 84 fisheries. The bees' cells are wide- spread in the governorate. Menia has about 210 thousand cells. The service sector is in the second classmen. The main service is in general service and trade. Those who work in this field are about 200,000 people. They work in 14,500 establishments. There are 23 central Markets. There are about 9,000 wandering salesmen. In the deep desert of Menia, there are some quarries. Menia has about 334 quarries and create jobs for about 4,000 workers. Menia's per capita is very lowest in the five governorates of Upper Egypt.

Industry:

The industrial field comes in the third classmen for the people of Menia. It can be divided into three sectors according to the number of workers. The first sector is the traditional and simple industry which has 26,700 workers represents 7.2 establishments. The different activities are the transferring industries such as (furniture- foodstuff- beverage- tobacco). The second sector is the professional activities .It has 3.2 thousand establishments with 4.3 thousand workers. The most important activities are (wood- metals- weaving and spinning). The third sector is in the east of Menia. The governorate has sugar and cement factories.

Education and culture:

The university has played a very vital role in the governorate. The civil society and the private sector participate in providing educational service, besides the governmental and Azhar ones. The students of secondary industrial education have increased more than the other secondary educational types. There are many people who are still in the status of illiteracy. Most of them are in the rural areas. They represent 3.3 millions.

Health service:

There are about 407 health centers, hospitals, blood banks, private clinics and private pharmacies establishments. It has 4.7 thousand beds served by 1.75 thousand doctors and 3.12 thousand nurses.

Mental wealth:

The desert of Menia has many different natural resources such as the marble, stones, ground water and mental substances.

Map of Administrative Division of Menia Governorate



2-

The Environmental action plan as the strategic framework

2-1 Introduction and identification of the environmental action plan

The environmental action plan has all the activities and projects which improve the life quality of the people of Menia. It has many strategies and local prior of environmental projects. The plan aims at protecting the environmental resources from the negative impacts of the present and future development works. The plan aims at merging the social, economic and environmental dimensions to achieve the sustainable development.

The plan has many solutions for the socio-economic activities that go with the five-year plan (2007-2012). It will try to provide sanitation system to all urban markazes. The plan also contains the priorities of the national environmental action plan NEAP of 1992 such as the solid waste, land use and water resources. Moreover, the plan participates in Egypt's international protocols' commitments according to Rio Development's aims in the 21st Century Agenda. During the preparation of the environmental action plan, the Environmental profile has been published which includes the environmental prior issues.

2-2 why do we need the environmental action plan

2-1 The environmental action plan aims at supporting the structure and system of the environmental unit through practical methodology with integrated vision to the environmental issues. How we can mange them, how can we implement projects and how can we help the governorate to deal with the most important issues.

- The equal saving, active management to the environmental main issues :

(Solid waste- Potable water- Sanitation)

Planning the natural resources of the governorate- management of

the cultural heritage in sustainable way (Land- Water- Air –cultural heritage)

- The reduction and control of the pollution which affects on the natural resources
- This system helps in the measurements of follow-up and evaluation.

It helps also in participation of the environmental action plan. It has many economic and social benefits that develop the natural resources.

The economic and financial benefits

Improve planning -allocate resources - magnify the services and utilities- avoid the high costs of waste water treatment- reduce of medical treatment cost- environmental pollution- land use- use the suitable technologies.

Social and human benefits

Improve the health for having environmental services- reduce of pollution- raise the training and environmental awareness- improve the standard of living – increase the private properties- increase the participation in planning and executing.

Environmental benefits

Improve the water in irrigation - develop industry in quality and quantity. Improve land sanitation and protect the soil - reduce the consumption of natural resources

2-3 How did we prepare the action plan?

The EMU formed five working groups to cover all the important environmental issues according to the environmental profile of the government.

- Working group of the water resources
- Working group of the industrial abatement and hazardous waste.
- Working group of the solid and health care waste.
- Working group of the sanitation and potable water.
- Working group of the environmental awareness and capacity building.

A coordinator was selected by the EMU to each working group. The working group consists of civil servants, private sector employees, and non-governmental volunteers. Annex no. (1) Shows the forms of the working groups which participated in the plan and workshops as part of the Environmental action plan.

3- The environmental issues and priorities

3-1 Brief of environmental issues of the environmental profile

High priorities issues

S. No.	Priority	Related issues
1	Sanitation	Sanitation network is not available in most of the villages – the suction pumps and sanitation ill-prepared trucks-pouring contaminated water in the streets, roads and lanes- the contamination of the ground water.
2	Solid waste Management	No system for the solid waste management in most of the villages- insufficient number of trucks, containers and manpower. Most of the solid waste was disposed by burning in the open air. The insects, rodents and diseases increase rapidly due to lack of environmental awareness
3/4	Water supply and water quality	The low pressure of water- the poor maintenance of the pipelines – contaminated ground water- leakage of waste water to the potable water pipelines -
5	Water resources and coast management	The different resources of contaminated water includes canals, drains and high rate of misuse of water
6	Environmental awareness weakness	Weakness of the environmental awareness for all categories, to the civil servants, citizens- poor coordination among different responsible governmental agencies.
7	Industrial Abatement and industrial waste	The poor implementations of laws- spread of lung diseases and other related diseases
8	Slums	The numbers of poor areas increase in entire governorate- shortage of the social and health service

3-2 The environmental priorities and working groups

The main priorities in Menia governorate:

- The potable water and sanitation
- Safe disposal of solid, agricultural and hazardous waste
- Water resources irrigation and sanitation
- Activate the laws and environmental regulations
- The health and environment
- The industrial abatement
- The support of the institutional capacity
- The environmental awareness
- Improve the poor areas

4- The future vision in 2012

The goal of the environmental action plan is to improve the quality of environment to the people of Menia. The plan deals with all the main problems which face the people and affect their performance. It may be seen as a contradictory issue in the short run. Therefore the main goals of the environmental action plan are to achieve a balance between population and environment in order to have the real protection of environment. The plan aims at utilizing the natural resources in way to keep them in proper condition to the forthcoming generations. In order to achieve this goal the environment action plan has taken much care of the rights of the people to insure their livings. They need suitable education, good jobs, clean water, hygienic services, well-made sanitation, solid waste management system, electricity and power supply, protection of environment, water resources besides the environmental awareness.

The vision of the environmental action plan in the governorate

Environmental health:

The potable water and sanitation to be provided for all the citizens of Menia

Sustainable development:

The natural resources have to be managed in suitable way to improve the economic development for both the present and the future generations
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Integrated development

The governmental agencies, the other components of the civil society and the EMU have to coordinate in order to activate the different development targets.

Sustainable institutional plan

All the different agencies (governmental, private sector, NGOs) have to be supplied by financial, technical, human and administrative support to have effective execution of the environmental works.

The participation of the society

All the people of Menia have to participate in decision making by the active sharing to support of the decentralization

5- Environmental priorities

5-1 the water resources, potable water and sanitation

5-1-1 General background

Menia governorate depends on its water resources on the River Nile and main canals (Ibrahimia -Youssef canal which go from south to north) besides the ground water. The

capacity of the water is 4.323 m³/ year. The consumption in agriculture is 84 %, 2% in potable water, around 14% in industry. The ground water consumption is 612 millions m³/year. 89.7 % is used for agriculture, 9.8% is used for potable water and household needs and the remaining are for the industry. The production of the ground water comes from two main storages, the Nile storage under the valley and the cracking of limestone storage.

Although the governorate and Ministry of Public Works and Irrigation have tried to protect the natural resources from the pollution and to manage them in proper ways, they are still many problems such as the covering drains in the dwelling areas, how to improve the irrigation and the sanitation networks. We found that many studies have shown the high rates of the pollution. The pollution focuses are in three main sources:

- The agriculture waste capacity is about 13 billion m³/year allover Egypt. Menia's share is about 567 millions m³/year. The water has the remaining of cement, phosphor, and phosphate, nitrates, ammonia and nitrogen. It has also the remaining of insecticide which lay long time in water. This contaminated water affect on the aquatic organisms and animals. As a result of this, man's health is affected by different sorts of cancers and infectious diseases.
- The sanitation capacity is about 1.6 billion m³/ year in Egypt. Menia's share is about 62 million m³/ year.
- The industrial sanitation of Menia is about 44 millions m³/year. Most of the industrial water is not treated. It is the result of Abu Kurkas Sugar Factory and some of the dried agricultural crops factories, the foodstuff factories in some of the cities in the governorate which have sanitized on Mohit drain, then to the Nile River. This waste water causes high rate of activate oxygen mixed with chemical and biological pollutants of industries which affect on the fish stock.

It is noteworthy that the drainage of the three types (agricultural- industrial - hygienic drainage) mixed together in the mouth of the sub canals in the Mohit drain, which is considered the main drain in the governorate. This drain is the most important problem for Menia. It has the highest capacity of the organic materials (COD 57 ton / day–BOD 21.7 ton/day) the solid and suspended objects of waste such as fats, oils and iron which reflect the dangerous mixtures of these contaminated substances in Nile River.

In Menia which has a population more than 4.2 million people. The potable water operations in the 2007-2008 have reached to 213 operations. Around 86 million m³/ year of potable water are produced of 63% of the total production. The potable water reached to 78% of the total population of the governorate. In the urban areas reach to 96% and in the rural areas 70%. The leakage of water reaches to 25-30 %. The per capita of potable water is 87 liter /day. The collection fees of portable water are about 64% of the target.

Although the capacity of the potable water production has increased in the last period as a result of building and operating new potable water plants such as Maghaghah, Bani Mazar and Matai plants and extension of Kedwan Plant, but there are many problems such as the contaminated potable water mixed with sanitation. There are still many problems to supply pure potable water to many villages. The misuses of consumption and ordination have led to high rate of waste potable water.

The problem of sanitation is one of the main problems in Menia. Although there are many built sanitation plants, the capacity of these plants is 170 thousands m³/day. 25% of the population receives the sanitation service. 13% of population has not any sanitation service. The remaining of the population depends on the open waste water ground tanks to get rid of the waste water. The suction of these tanks by trucks goes to the sub-drains and sub- canals to reach untreated to Mohit main drain, then to the Nile River. Some of the plants receive waste water over their capacity; the result is to sanitize the waste water to drains without any sort of treatment. Both of the surface and ground water are contaminated to raise the level of the ground water to affect negatively on the dwelling areas and monumental zones. The citizens' health is affected negatively. This problem influences deeply on the population production.

The three sectors (potable water- sanitation- water resources) are related to each other. The problem of one sector affects on the other two sectors. The public health of the citizens and the national economic as well are affected deeply. Therefore, we have to find solutions to the problems of sanitation in (agriculture- industry- hygiene).

The most important of this document is the achievements of the potable water, sanitation and water resources. At the same time, we shed light on the problems of the present and future projects, vision and goals to be implemented.

5-1-2 The water resources

5-1-2-1 The achievements in the last five years

5-1-2-1-1 the decisions and measurements

- Cooperation protocol has been signed between the governorate and the Nuclear Power Authority to have water map for the governorate to find the areas which can be reclaimed for agriculture.
- Decree of the governor of Menia to develop and maintain the dried sub-canals in Menia to protect the villages and hamlets which are near to these sub-canals.

5-1-2-1-2 the technical and administrative support

- The Directorate of Water Resources and Irrigation has been supported technically by the required tools and equipment to purify the drains and canals from water weeds. This will help to have the water for irrigation in good flow. The river Nile has to be provided with the same equipment to protect it from algae and Nile flowers near the catchments.

5-1-2-1-3 the implemented projects and programs

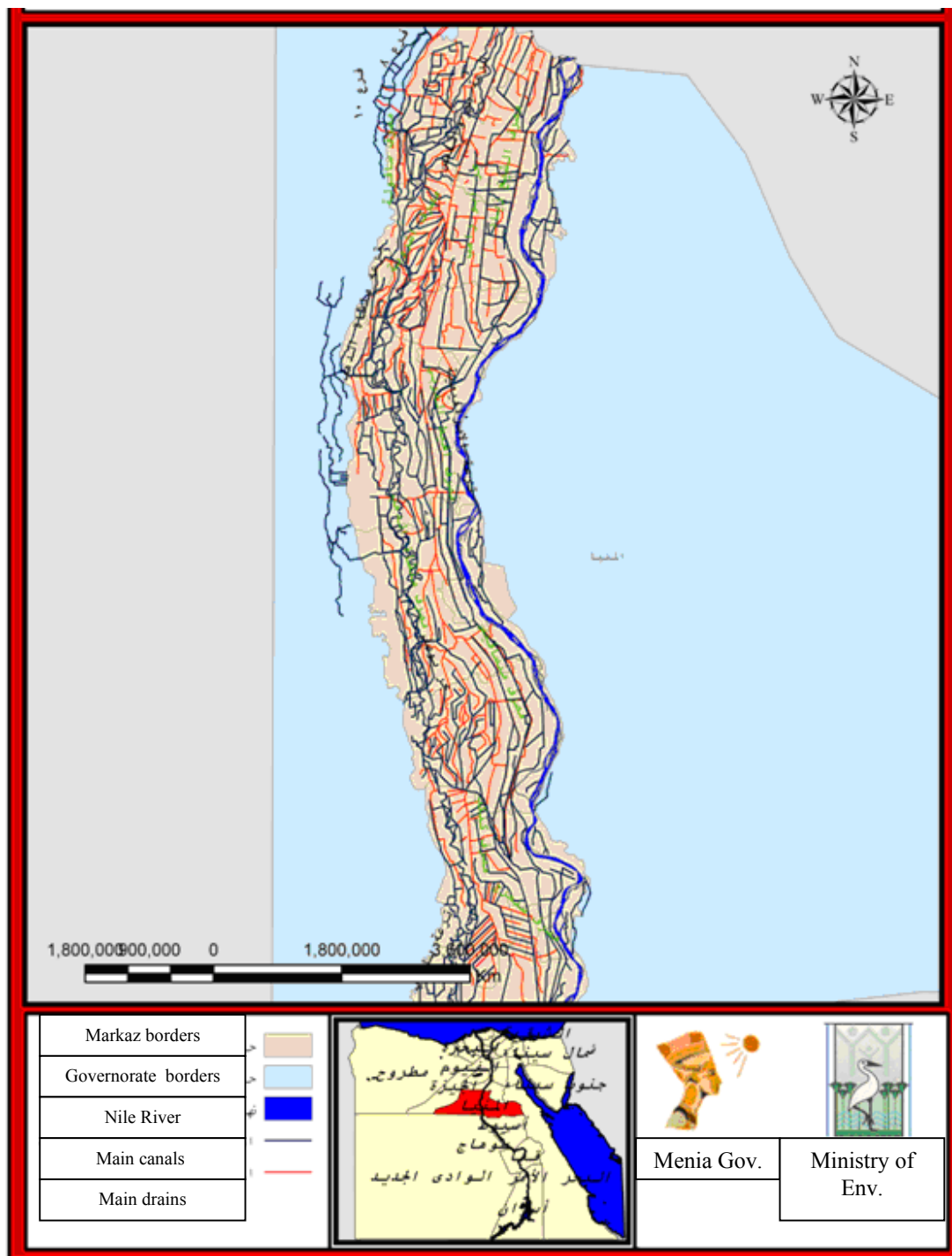
- Renewal and replacement of the industrial works of Afmam and Hagez reservoirs in all the water canals (irrigation and sanitation) in the governorate in order to improve the water flow all over Menia.
- Covering many drains in the dwelling areas with cost of 41.3 million Egyptian pounds funded by the social fund and the Ministry of Public works and Irrigation.
- The banks of the Nile have been protected with cost of 48.7 million Egyptian pounds.
- Built new covered networks area of 250 thousand feddans with cost of 75 million Egyptian pounds
- Renewal and replacement of covered networks of 65 thousand feddans with cost of 97 million Egyptian pounds.

- Improve the water canals by purifying of 63 thousands feddan with cost of 103 million Egyptian pounds.

5-1-2-1-4 projects and programs under construction

- purify the Mohit drain.
- Covering drains are in the dwelling areas of the five-year plan with the cost of 45 million Egyptian pounds.

Map of Menia - Canals and drains in Menia



5-2-1-1 The current situation: Causes and effects of the problems

Current situation	Problems	Causes	Planning
All the sub-canal and the sub-drains of waste water go to Mohit drain then to the river Nile	All the drains are polluted with huge volumes of chemicals, insecticides and heavy poisonous substances. Bad odors, spread of different kinds of diseases	-Insufficient studies -Lack of required experiences. - Inefficiency of waste water treatment plants. -no sanitation plants -inefficiency of treatment unit in Abu Korkas. -No alternatives for the agriculture waste	-Develop the current treatment units -Complete other plants -Follow-up the industrial establishments -raise the environmental awareness
Raise of the ground water level in entire governorate	-Contaminated of the ground water. -Impacts on the buildings and utilities -agricultural lands salutory	-75 % of the houses depend on open ground tanks -waste water is untreated -inefficiency of the agricultural drains -Use of the traditional methods	-renewal and replacement of sanitation networks - build new sanitation networks -support the villages with sanitation sucking trucks
Accumulation of the solid, agricultural, dead animals, insecticides and empty containers in the drains and sub canals	-Contaminated of the catchments water - wide spread of insects and bad odors -Shortage of water for agriculture -Contaminated of crops -negative impacts on the citizens' health	- The ill-behavior of citizens -low standard of environmental awareness -Open sub-canal and drains in the dwelling areas. -Solid waste disposal in canals - Insufficient places for solid waste	-seminars of environmental awareness -participate of NGOs, governmental agencies and Directorate of Agriculture

5-2-1-2 the vision and goals

The vision of the governorate on the water resources can be achieved by the following steps:

- The reduction of the contamination of both the surface and ground water
- The proper use of the water resources for both the surface and ground water

5-2-1-3 The goals and required works

The goal	The main goal in the next five years	Decisions, measurements and institutional support
The new vision of the current situation of the both the surface and ground water	<ul style="list-style-type: none"> -Reduction of the contamination of the sanitation in the cities and villages - Reduction of overusing of fertilizers, insecticides and chemicals -Reduction of pollutants of the industrial activities - Reduction of agricultural and dead animals and chemicals containers dispose in the sub- canals and drains. -Improve the efficiency of the waste water treatment units 	<p>Prepare a plan for all cities- towns- villages.</p> <ul style="list-style-type: none"> - Prevent using the open ground tanks to save water from any kind of contamination - Raise the campaigns of the environmental awareness and agricultural guidance - Industrial establishments should have industrial waste water treatment units. -sufficient fund - cover the drains and canals in the dwelling areas - raise the efficiency of the current treatment plants
The proper use of the available water resources	<ul style="list-style-type: none"> - evaluate both the current surface and ground water to reclaim lands in the deserts - use the sanitation and industrial treated waste in having wood forests in the near desert. - Apply the new irrigation methods in reclamation to ordinate water consumption - Protect the soil quality and reduce the level of ground water - Encourage the users of water to have water management system in the agricultural lands - Support of the decentralization in the water resources management 	<ul style="list-style-type: none"> - prepare the water map of the governorate which includes the ground water storage and untraditional methods of using the water resources - The new scientific technologies to use the treated water to cultivate economic crops and wood forests - build waste water treatment plants in the desert -Have sufficient fund to implement demonstration projects by the help of the Ministry of Agriculture, Agricultural research centers to use the desert background - Sufficient funds for the environmental awareness

5—1-2-2 -5 The projects of the five-year plan (2007-2012)

Covering the canals and drains in the dwelling areas

(48 projects with cost of 45 million Pounds)

5-1-3 Potable water

5-1-3-1 The achievements in the last five years

5-1-3-1-1 The decisions and measurements

- The presidential decree no.135 of 2004 to establish the holding company of Potable water and Sanitation in Menia. This decree helps to reform the potable water and sanitation sector.
- Holding many chemical operations on the ground water which are not applicable to the drinking water criteria. These networks have to be connected to the main networks and according to the criteria.

5-1-3-1-2 the technical and administrative support

- Increase the allocations in the budget to the potable water and sanitation after establishing the holding company in 2004.
- Support the central laboratory of the potable water and sanitation with modern equipment for water analysis. The establishments are in sub-labs in the nine markazes on the governorate. The cost of technical support reached to 4 millions Egyptian pounds.
- Purchase of 9 trucks for the sub-labs and central one to have an entire coverage of the governorate. Samples have been taken for chemical and bacteriological analysis in order to be tested under the recognized criteria.

5-1-3-1-3 The implemented programs and projects

- The National Authority for Potable Water and Sanitation built the following plants in Menia
- Magahgah water plant in Azbet el-Saidah (sanitize of 800 liter/second).
The plant is for the use of Maghagah and Edwa cities and Markazes.
- Bani Mazar water plant on the river Nile (sanitize of 400 liter / second).
The plant is for the use of Bani Mazar city and around satellites
- Matai water plant in Matai city on the river Nile (sanitize 400 liter/second).
The plant uses for Matai city and satellite except Abgag El-Hatab Village.
- Improve and develop Kedwan water plant from 300 liter /second to 600 liter /second
- Water Pipelines have been dug under the rail ways and Ibrahimiah Canal to supply

water to west of Menia city and shalabi and university areas.

- Build of Maasarah water plant in Greater Malawi near the bank of river Nile.
- Water plants for different areas in bani Ghani- Deer Gabal El-Teer- El-Behio- Zohra- Tahna El-Gabal- Saft El-Khomsrah- Sultanah east of Menia- Abu Kourkas city-Tal Bani Omran- Tal Bani Omran in Deer Mawas-
- Hold all the old operations to eliminate the salutory, iron and manganese in some areas.

5-1-3-1-4 Projects under construction

- The Potable water and sanitation company in Menia has to cooperate with the consultancy offices to have studies on the hydraulics of networks to know both the weak and strong points in the water pressure

5-1-3-5 The current situation: Causes and effects of the problems

Current situation	Problems	Causes	Planning
More than 20 % of the govern rate's population has no potable water	1- Use of the habashi pumps to get potable water 2- The negative impact on the health of citizens 3- Wide spread of diseases as result of contaminated water	- Rapid increase of population in the needed areas. - no fund for having water networks	-Company operates three plants in Magahagah-Bani Mazar- Matai -support of the needed areas with new networks in the plan
Old methods of traditional treatments to purify the potable water	- Use the traditional device - some of the purifying substances increase pollution as result of inter actions - some of these substances lead to carcinogenic effects	- No sufficient funds for scientific research to improve the methods of treatment - No strategic plan for cooperation with scientific research centers to improve potable water	- There is no plan for develop the technical devices for the time being
Increase of buildings which lead to over acquisition of plants lands	- Wide -spread of sanitation open tanks near the wells lead to contamination of potable water. - Water analysis shows the main causes of diseases	- There is no fence on most of the plants buildings - The wide-spread of buildings lead to pollution - The impacts on the potable water plants	- The company has already built fence on some of the plants -Installation of 116 system for ground water to avoid the un applicable bacteriological samples
The old distribution networks in	- The wide waste of water as a result of the poor pumping- different	- The old buildings of the distribution networks and expiry date of most of them.	-Renewal and replacement of the old water pipelines.

some areas	operations of reparation - Contamination of potable water because of the use up of pipelines which have negative impacts on the analysis and citizens' health	- No fund for renewal and replacement - The old pipelines can not bear the high pressure of usage due to increase in demand	-Renewal and replacement of the old water plants which have poor pumping by new ones.
Mudding	The increase of quantity of mud leads to stop the water pumping in some areas.	New islands in the Nile extend to the catchments which have led to blocking of water supply.	- Ministry of Irrigation and Water Resources purifies these sites
The dryness of ground water wells	- Shortage of having potable water in some villages leads to problems -People use the unhealthy habashi pumps to have potable water -increase of diseases	- The wrong method of pumping water from wells - The nature of the land's well -Mudding blocks in the wells	Neither plans nor programs for ordination of the ground water or for digging new wells.
The leakage reached to 25-30 % of the potable water because of the misused of potable water	- The misuse of great quantity of potable water which has negative impacts on the national economy since the cost of purifying and treated water costs are very high.	- The low environmental awareness in using the potable water. - The collection fees of potable water equalize between those who have and those who have not. -Governmental Agencies, mosques and Churches do not pay any fees for consumption of potable water	Neither plans nor programs for environmental awareness and how to ordinate the consumption
Increase of the salutary percentage in the operations	- The invalidity of the water wells for drinking and industrial uses	-The ground water storage in Menia	No measurements
No plants to water in these areas	- The difficulty of maintenance operations concerning the old spare part ,and hydraulic analysis and the distribution of the pressures	- The inefficiency of the networks and maps. The random installation of the pipelines in some areas	- The potable water and sanitation company cooperate with the consultancy offices to have studies to repair the water plans

5-1-3-3 The vision and goals

The vision of the potable water to make it reach to all the parts of the governorate

- Prepare panoramic view of the current situation and the supplies of potable water all over the governorate.
- Improve the supply service of potable water and increase the current capacity to meet the present and future demands.
- Improve the used techniques of treatment and purifying the potable water in the governorate.
- Improve the water quality to match with the Egyptian criteria.
- Increase the environmental awareness by reducing the consumption and protecting the water from contamination

5-1-3-4 the targets and the required works

The goal	The main goal in the next five years	Decisions, measurements and institutional support
The new vision of the current situation water supply on the level of the governorate	<ul style="list-style-type: none"> -Prepare an action plan to build new plants according to the actual needs - Recognize the up used networks and unqualified wells- -The negative points can be treated by renewal and replacement 	<ul style="list-style-type: none"> -Available funds -Elaborate Potable water of the administrative and technical structure -Decentralization of administration in the potable water and sanitation company to have decisions on proper way
Improve the supply of Potable water service	<ul style="list-style-type: none"> - The extension and supply of network to the needed areas and raise the capacity of the water pressure -Build small compact plants to increase the water capacity in the villages and to limit the uses of ground water wells -Reduce the waste of water in the networks - Eliminate the uses of Habashi pumps - Evaluate the transfer units to be distribute in different places 	<ul style="list-style-type: none"> - Renewal and replacement of the old networks to reduce the leakage and prevent the pollution - Complete vision of the actual needs of actual plants -Integrated conception of have pay back of cost of the treated and purified water to be used in maintenance and new water supply - plan and design practical needs - available funds - The continuous technical training for operation and maintenance of the plants
The improve and develop of the used techniques in water treatment and purifying water in the governorate	Prepare the scientific studies of the water treatment techniques. The studies have to include the alter natives and proper ways of usage	<ul style="list-style-type: none"> -Prepare cooperation program between the General authority of the Potable water, Menia University and research centers in water - Execute of the some of the solutions and evaluate the out comes to be implemented in different parts in the governorate
Improve the water quality	<ul style="list-style-type: none"> - Hold the ground water operation which are not applicable to criteria - Build an integrated system to monitor the water quality and revise the outcome of analysis - Activate the participation of concerned parties to supervise the washing and purifying operations 	<ul style="list-style-type: none"> - Issue decrees of removing the overuse of ground wells - Plan for restricted monitoring on the pollution resources for both the surface and ground water - Issue a decree of causes of the pollution in the ground water.
environmental awareness in the entire governorate	<ul style="list-style-type: none"> Prepare an environmental awareness programs by having media campaigns - use of private sector , civil 	<ul style="list-style-type: none"> - Design environmental programs on the potable water - The concerned parties which will participate in this campaigns.

about the proper way of using water	society and NGOs in these campaigns -Workshops training courses for citizens with religious dimension	
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5-1-3-5 A list of the proposed projects

5-1-3-5-1 the high prior projects

Name of City and Markaz	Sub-Projects	Agency in charge	Implementation Agency	Estimated Budget	Time framework	Funding agency
Menia	Raise of the capacity of Abu Kourkas Water plant from 60 liter / second to 200 liter /second	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	5 millions	one year	- Self funding - Grants& loans - funding by the National Authority of potable water and sanitation
	Raise of the capacity Water plant of Bnai Hassan village in Abu Kourkas	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	3 millions	one year	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation
	Potable water network for the needed areas in Letoukh El Kheel with 25km long and nazlet Hussein village	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	3 millions	one year	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation

	Improve the Owishah plant in Samlalout	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	2 millions	one year	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation
	Water network in the needed areas in Samlaout with 50 km long.	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	2.5 millions	one year	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation
	Purifying plant in Bahr Youssef in Samalout city	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	4 millions	one year	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation
	Purifying plant in Bahr Youssef in bartabah village in Magahagha markez	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	2 millions	one year	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation
	Renewal and replacement of water network in Menia City	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	4 millions	one year	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation

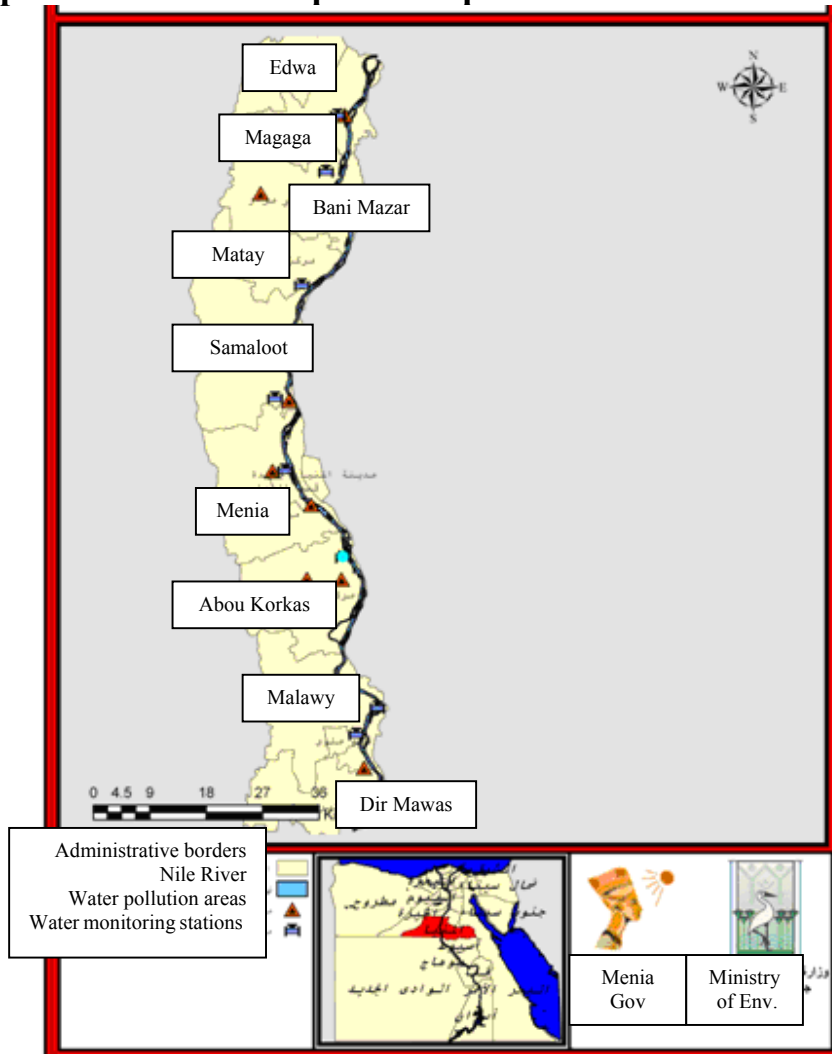
•-1-3-5-2 Medium priority projects

Name of City and Markaz	Sub-Project	Agency in charge	Implementation Agency	Estimated Budget	Time framework	Funding agency
Menia	Complete the second phase of Deer Abu Hans plant	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	4 m	one year	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation
	Complete the upper storage of Matai El-Balad water plant	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	5 m	one year	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation
	Alternative the water networks by PVC pipelines	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	60 m	one year	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation
	Study of develop the treatment and purifying water plant	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	1 m	one year	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation -EPF

•-1-3-5- ٣ Low priority projects

Name of City and Markaz	Sub-Project	Agency in charge	Implementation Agency	Estimated Budget	Time framework	Funding agency
Menia	Build fence on the water plants on all the governorate	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	5 m	Five year	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation
	Raise the environmental awareness to all citizens of the potable water	National authority for potable water and sanitation In Menia	National authority for potable water and sanitation In Menia	1 m	Six months	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation

Map of Menia with the polluted spots and water treatment plants



5-1-3-6 The profile of some of the prior projects

Description of the problem

Abu Kourkas city and markaz depends on the ground water. After building the plant, part of the city depends on ground water with high salutory in water.

The purified water is mixed with the ground water to have high turbid water in some places

Description of the project and its elements

- Have a study to increase the filters
- The pressure of water to stop the ground water
- Increase the use of pumps in the catchments

Implementing Agency

Potable water and sanitation Company in Menia

Estimated cost

- Around 6 millions Egyptian pounds

Build a sandy filter in Bartabah village in Maghagah Markaz

Description of the problem

- Rise of the salutory level in water.
- The none applicability of the criteria
- The villages and satellites depend on the ground water
- Negative impacts on the health of the citizens

Description of the project and its elements

- Two sand filters for 15 liter / second
- Land storage must not be less than 1000 m³
- New catchments with pumps

Implementing Agency

Potable Water and Sanitation Company in Menia

Estimated cost

- Around 5 millions Egyptian pounds

5-1-4 sanitation

5-1-4-1-2 the technical and administrative support

- The governorate form a special department to follow up the potable water and sanitation under the name of "the follow-up potable water and sanitation Department" with all the local units in the markazes of the governorate.
- The governorate supports the sanitation sector with equipment and sanitation sucking Trucks

- The local units purchased sucking trailers for sanitation from the poor houses

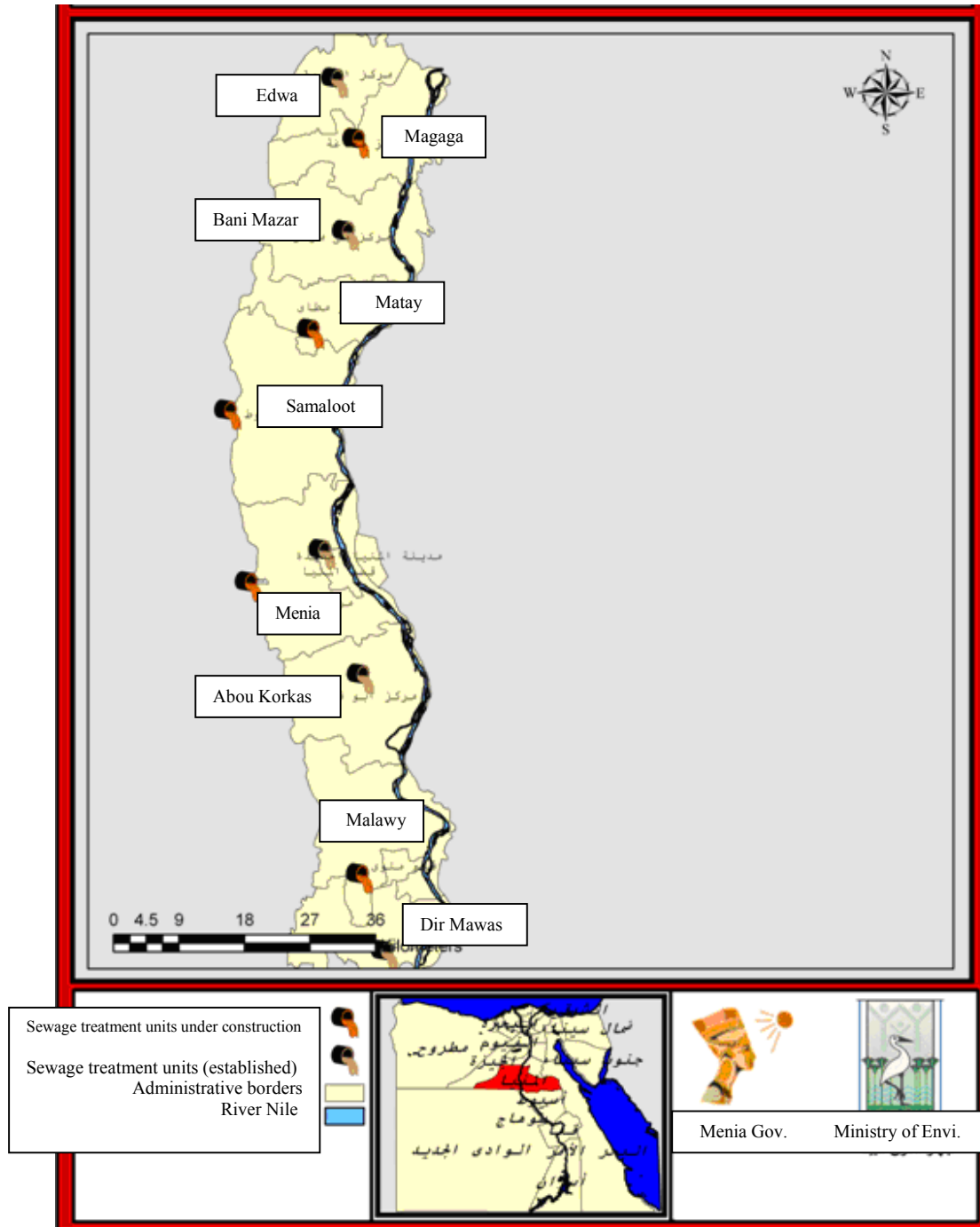
5-1-4-1-3 the unimplemented programs and projects

- An integrated sanitation project in Edwa Markaz and Deer Mawas with capacity of 10 thousands m³ / day.
- An integrated sanitation project in Abu Kurkas markaz with capacity of 40 thousands m³/day.
- Build a new plant in Menia city in the desert background with capacity of 90 thousands m³ /day.
- Extend the villages of Talah, Maqusah, Damaris with sanitation networks connected to Menia sanitation plant.
- Build the sanitation project in Bahansah village with capacity of 2000 m³/day.

5-1-4-1-4 Programs and projects under construction

- Complete the withdrawing line of the waste of sanitation from the old sanitation plant in Menia to the new sanitation plant in the desert background.
- Complete the second phase of the treatment plant in Menia with capacity of 120,000 m³/day
- Complete the integrated projects of sanitation in the rest of the cities of the governorate (Magahagahah- Bani Mazar- Matai- Samalout- Malawi) and some villages (Delga in Deer Mawas Markaz - Bani Ebed in Abu Kourkas Markaez)

Map of the waste water treatment plants in Menia



5-1-4-2 The current situation: the problems and causes

Current situation	Problems and their Negative effects	Causes of the problems	Plans and programs in the current situation
<ul style="list-style-type: none"> -More than 75% of the houses have no safe sanitation -13% have no sanitation 	<ul style="list-style-type: none"> - All the citizens depend on the open ground tanks - The random disposal of sanitation in the desert - Some of the sanitation sucking trucks pour the waste water in Mohit drain then to River Nile - Negative impacts on both the surface and ground water as potable water - Negative impact on the citizens health - The raise of the ground water level and its impacts on the buildings and monuments -The high contains of BOD and COD in the waste water and organic solid waste. - Dead organisms in water due to high rate of oxygen. - Bad odors in Etsah 	<ul style="list-style-type: none"> - Shortage of the supply service in most of the cities and markezes - No general strategic plan to require from the citizens of closed designed sanitation tanks - Unavailability of the sanitation sucking trucks - Polluting ground water by pouring in the desert background - The poor supervision of Markezes on the sanitation process 	<ul style="list-style-type: none"> - Complete of the plants in the remaining five cities and some villages (Bnai –Ebed – delga) - Some pf the projects of sanction in the five- year plan - Sanction projects in some villages are on process
Non applicable of the analysis of waste water of Menia plant on the final criteria	<ul style="list-style-type: none"> - The inefficiency of the treatment operation and dispose of the untreated water to Mohit drain then to Nile River. - Negative impacts on citizens with many diseases 	<ul style="list-style-type: none"> - The over sanitation on Menia plant, it reached to the double capacity - Old waste water treatment plant of Menia which was built on 1965 with capacity of 40 thousands m³ /day 	The first phase of new plant in Minia desert back ground with capacity of 90 thousands m ³ /day, new withdrawing line is on process with 23 km long.

5-1-4-3 the vision and goals

The vision of the governorate is to find suitable solutions to dispose of the waste water to protect the people of Menia from the harms of the waste water. This can be done by the followings:

- Available funds for all the sanitation and potable water projects
- Magnify the waste of the sanitation of the treated water or the slugs.
- Execute some of the projects near to the sanitation plants.
- Accelerate the projects which are still on process.
- Raise the capacity building of the staff of the potable water and sanitation
- Availability of tools and equipment for the staff.
- Protection and safety for the staff
- Develop the system of sanitation
- Reuse of the waste water in agriculture
- Monitor of the waste water to reduce the pollution
- New solution to the open sanitation tanks which will be used for long time to come
- Study of the slugs to be used in the desert background

5-1-4-4 Goals and required works

The goal	The main goal in the next five years	Decisions, measurements and institutional support
Extension of the sanitation service	<ul style="list-style-type: none"> -Complete the sanitation projects in the cities and villages which have started since 1998 - Participation of the private sector and foreign donors - execute the sanction plan which are near to the current plants - Use the sanction sucking trucks which can use the drains and sub canals 	<ul style="list-style-type: none"> - Available funds for complete the sanitation projects - Make a connection between the sanction network and the sanitation sucking trucks - Improve the administrative process
Improve the sanitation service in Menia city and needed areas	<ul style="list-style-type: none"> - Reduction of the sanitation in the Mohit drain which is treated or partially treated in the river Nile 	<ul style="list-style-type: none"> - Renewal and replacement of the old sanitation networks - Complete the pipelines in the old plant in Menia and build a new one in the desert background - Available fund - Develop the efficiency of the waste water treatment units
Raise the level of technical training and increase the maintenances and safety methods	<ul style="list-style-type: none"> - Set a cooperation plan between the concerned parties for the training of the staff - Selection of the staff to be trained - Set programs of trainings to raise the environmental awareness of the staff 	<ul style="list-style-type: none"> - Prepare the technical training for the staff - Available fund for the training and safety uniform for the staff -Activate the environment law no. 4 of 1994
Develop the system of waste water treatment and reuse of the treated water in the agriculture	<ul style="list-style-type: none"> -Use the modern technology and the micro-organisms to reduce the slugs and safety - The different control methods in the process of treatment. - Strategic plan to know the needs and required equipment - Use the desert background in waste water treatment 	<ul style="list-style-type: none"> -Prepare the financial plan - Select the frame work for the use of the treated water and the Egyptian code and WHO criteria - Set a protocol; between the ministry of agriculture and research centers

The restricted monitoring of the waste water treatment and the forbidden of contaminating the lands	<ul style="list-style-type: none"> - For a committee of the concerned parties (potable water company- Directorate of Health- EEAA regional office) to monitor the waste water treatment and the sample of the chemical analysis -The sound treatment before sanitize to the river Nile 	<ul style="list-style-type: none"> - Activate law no 48 of 1982 of the sanitation and water canals - The continuous use of the criteria of the treated water in agriculture -Use of the protocol between the ministry of agriculture and the private sector and foreign donors
Solutions of the open sanitation tanks in the cities and villages of the needed areas which will be a problem for a long time	<ul style="list-style-type: none"> - The solid tanks instead of open sanitation tanks - The solid sanitation tank design must be part of obtaining the building license -Restricted control on the execution of the sanitation sucking process. - Safe sites for the sanitation waste of the tanks 	<ul style="list-style-type: none"> - Administrative decrees for the engineering department to have a accredited sanction solid tank design to prevent any leakage to the ground water - Sanitation solid tank design to be one of the documents for the building license
Feasibility study of compost factory in the desert background	<ul style="list-style-type: none"> - The safe disposal of the slugs of the treatment operations to have compost 	<ul style="list-style-type: none"> - detailed study about the recycling of the slugs -use the high technology in dealing with slugs - have comprehensive conception design for the economic feasibility study

5-1-4-5 proposed projects in the five-year plan

5-1-4-5-1 high prior projects

The sub-project	The agency in charge	The proposed implementing agency	Estimated Budget in LE	Period of the project	Financial support
Renewal and replacement of slop network expel lines in Menia city	Potable water and sanitation company in Menia	Potable water and sanitation company in Menia	3 millions	one year	Foreign donors- Social Fund- Private Sector
Extension and support of sanitation in Magahaghah city	Potable water and sanitation company in Menia	Potable water and sanitation company in Menia	54 millions	One year	Foreign donors- Social Fund- Private Sector
Extension and support of sanitation in Bani Mazar city	Potable water and sanitation company in Menia	Potable water and sanitation company in Menia	40 millions	6month	Foreign donors- National Authority for Potable Water and Sanitation
Extension and support of sanitation in matai city	Potable water and sanitation company in	Potable water and sanitation company in Menia	40 millions	5 years	Foreign donors Authority for Potable Water and Sanitation

	Menia				
Extension and support of sanitation in Samalout city	Potable water and sanitation company in Menia	Potable water and sanitation company in Menia	80 millions	One year	Foreign donors Authority for Potable Water and Sanitation
Extension and support of sanitation in Malawi city	Potable water and sanitation company in Menia	Potable water and sanitation company in Menia	60 millions	5 years	Foreign donors Authority for Potable Water and Sanitation
Extension and support of sanitation to the needed area in cities	Potable water and sanitation company in v	Potable water and sanitation company in Menia	50 millions	5 years	Foreign donors Authority for Potable Water and Sanitation

5-1-4-5-2 Medium Prior Projects

The sub-project	The agency in charge	The proposed implementing agency	Estimated Budget in LE	Period of the project	Financial support
Complete the sanitation in Delga village Deer Mawas Markaz	Potable water and sanitation company in Menia	Potable water and sanitation company in Menia	٢٠ millions	one year	Foreign donors- Social Fund- Private Sector
Complete the sanitation in industrial area in Matahrah	Potable water and sanitation company in Menia	Potable water and sanitation company in Menia	٢١ millions	4 years	Foreign donors- Social Fund- Private Sector
Complete the sanitation in Abu Kourkas Markaz	Potable water and sanitation company in Menia	Potable water and sanitation company in Menia	5 millions	one year	Foreign donors- National Authority for Potable Water and Sanitation
Study of the waste water treatment and using of treated water in agriculture	Potable water and sanitation company in Menia	Potable water and sanitation company in Menia	1,5 millions	18 months	Foreign donors Authority for Potable Water and Sanitation EPF

5-1-4-5-3 Low prior projects

The sub-project	The agency in charge	The proposed implementing agency	Estimated Budget in LE	Period of the project	Financial support
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Extension of the sanitation in the treatment plants	Potable water and sanitation company in Menia	Potable water and sanitation company in Menia	10• millions	five years	Foreign donors- Social Fund- Private Sector
The method of dealing with slugs and use of compost	Potable water and sanitation company in Menia	Potable water and sanitation company in Menia	2 millions	2 years	Foreign donors- Social Fund- Private Sector
Detailed Study of sanitation and waste water networks	Potable water and sanitation company in Menia	Potable water and sanitation company in Menia	2 millions	2 years	Foreign donors- National Authority for Potable Water and Sanitation EPF

5-1-4-6 Profile of the projects and programs of priority

Study of the method of dealing with slugs

Description of the problem

- The slug is considered a big problem in Menia. The governorate can use it as compost. Now the sanitation company disposes it without treatment which causes many diseases.
- There is no study to deal with the slugs and how to deal with them according to the environmental and hygienic criteria

Description of the project and its elements

- The study has to deal with the volume of slugs on the entire governorate.
- The specifications of the slugs
- The best methods to dry, treat, store, use and reuse the slugs.
- The economic study has to deal with the pay back period and environmental value
- The study of the compost and move the slugs to be mixed with compost as a part of new big factory in the desert background

Implementing agencies

- Potable water and Sanitation Company in Menia
- Research centers

Estimated cost of the project

- Two million Egyptian pounds

Project of complete the sanitation in Abu Kourkas El-Bald

Description of the problem

- The village depends on the open sanitation tanks.
- The contaminated of ground water

Description of the project and its elements

- The pumping station in the village to transfer the treatment unit in Abu Kourkas

Implementing Agency

Potable water and Sanitation Company in Menia

Estimated cost

Around 5 millions Egyptian pounds

Project of integrated sanitation in Delga village in Deer Maous Markaz**Description of the problem**

-Delga village is considered the biggest
Village is the biggest in the entire governorate.
The population depends on the open sanitation tanks.
The contaminated of ground water
The ground water is the main source of potable water

Description of the project and its elements

- The village is near to the desert background
- It is very ease to dispose the waste water
- The project needs pumping station- treatment unit- pipelines and slop lines
- Studies are available

Implementing agency

Potable water and Sanitation Company in Menia

Estimated cost

-20 million Egyptian pounds

5-2 The solid, hazardous and agricultural waste**5-2-1 General Background**

The solid waste management is directed by the local units in markzes and cities. There are no actual estimations of the volume of solid waste in both the rural and urban areas Menia governorate. According to the reports of the local units that daily solid waste is about 940 tons /day. While the governorate estimated that the daily generated solid waste is about 0.7 tons /day, while the solid is 2900 tons as per statistics of 2006. The population of Menia is about 4.2 millions. What has been collected from the solid waste is not more than 32% of the total generated solid waste. The staffs that is responsible for this task is 2726 permanent workers and 820 temporary workers. Some of the cities have two shifts per day while others have only one shift. There are metal up used containers in the corners of the streets. There are 9 dumping sites in Menia. The number of trucks is 137 and 112 actors 10 graders for cleaning the streets. The finance of the solid waste management in the governorate comes from incomes of cleaning fees and cleaning fund and the recycling factories. The total amount of these collections is not more than 4 million Egyptian pounds. The total annual operation costs are 25.07 million

Egyptian pounds. The shortage can be covered of the budget from loans and grants. The dumping sites are different from one city to another. Some of these land fills are near to the dwelling and agricultural areas such as Malwai, Bani Mazar, Magaghah, Samlaout and Deer Mawas while others land fills are far from the dwelling areas and near the desert background such as Menia, Abu Kourkas and Edwa. There are two compost factories in Edwa and Malawi. There is also a factory in Menia city as part of the increasing the capacity of recycling.

Although Menia has big potentialities but the process of the solid waste management has much inefficiency (collection- transport- disposal). The accumulated solid waste in the streets of Menia is wide spread even in the banks of the canals. This problem has a negative impact in the environment and general health of citizens. The open air burning of the solid waste in the streets and the accumulated solid waste in the canals have led to pollution.

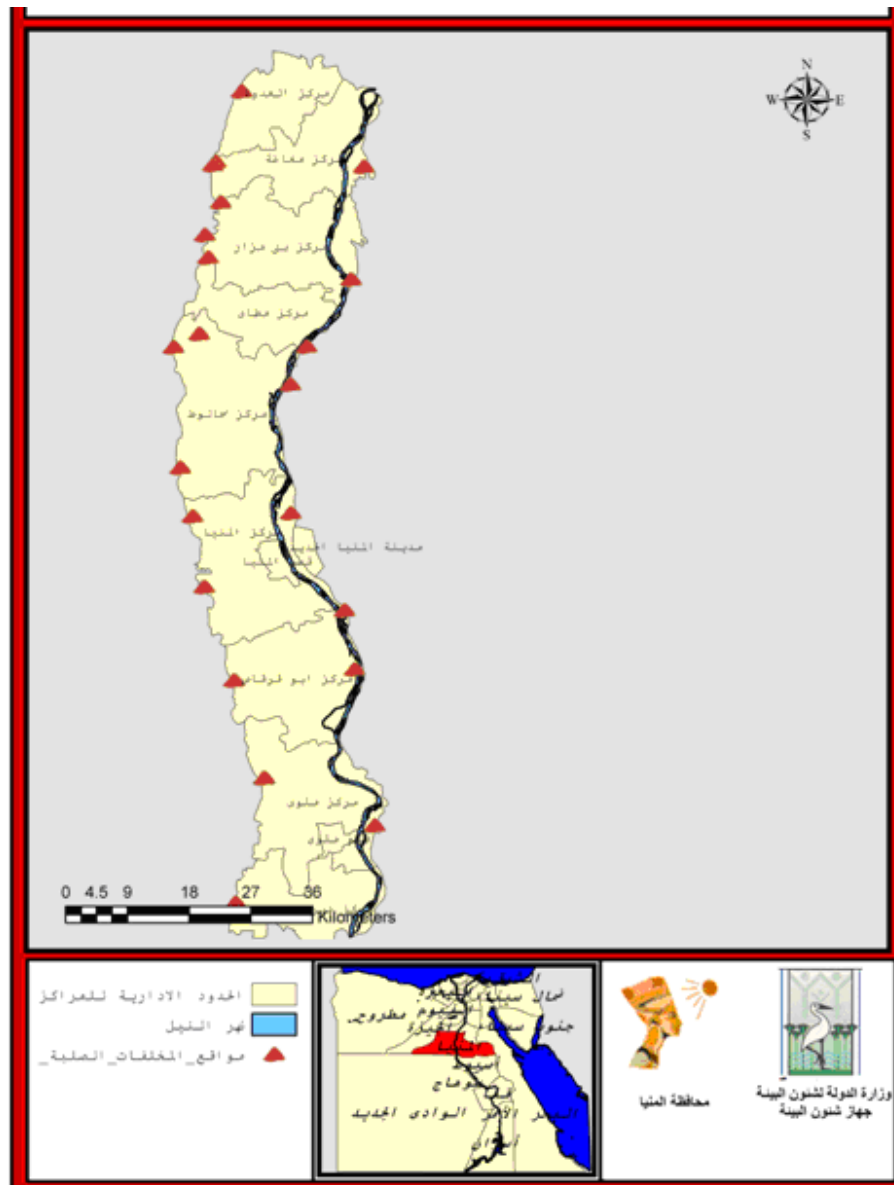
The hazardous waste of the health care agencies has the same problem of the solid waste. There are no actual estimated records. Most of the records come from the Directorate of Health and Population is estimation. There are 101 hospital and medical centers. There are 1234 medical units. The daily generated hazardous waste is about 4 tons /day. The disposal of the hazardous waste is done by 17 incinerators in the central and public hospitals and blood bank.

The hospitals and markazes which have not incinerators transfer their hazardous waste to the nearest incinerator by the solid waste trucks. There are no special specifications for transferring of the hazardous waste. The estimated daily volume of the hazardous waste is not actual one since the hazardous waste of Menia city is about 2 ton/ day.

Although there are many incinerators in many markazes but the real capacity is very limited because some of them are in very bad conditions. There is no integrated health care waste management system to use the incinerators in proper way. The hazardous waste mixed with the solid waste and transport to the land fills. Some of these wastes are assorted to go to the scrapes traders. This is very dangerous matter which affect on the health of collection and assorting staff. The production of the agricultural waste of summer and winter crops is about 1.32 tons per year. The total agricultural land is about 0.52 million feddans of maize. Some of this agricultural waste is used as compost, fodder and fuel. Most of the agricultural waste is disposed by burning and throwing on the water canals. This negative impacts lead to pollution of the water and air. It leads to obstacles in the water canals and irrigation.

This part shows the achievements in the last five years and the analysis of the problems and solutions. It has the vision and goals of the governorate. It has also the profile of all the prior projects.

The land fills of the solid and Hazardous waste in Menia Governorate.



5-2-2 the achievements in the last five years

5-2-2-1 Decisions and measurements

- The application of the law 10/ 2005 for collecting fees of solid waste of 3 pounds per month for houses and 10 pound per month for commercial shops.
 - The increase of the environmental awareness among farmers to use the agricultural waste in the compost and sludge.
- There must be a condition of having a hazardous waste license for the medical centers and clinics from the Directorate of Health and Population.
- The training of staff in the infections departments and different sections in dealing with the hazardous waste.
- Set up the solid waste management unit in the governorate and form units in the nine markazes to have integrated solid waste management system. This can be done on having sufficient fund and having a data base.

5-2-2-2 The technical and administrative support

- A study of the transfer station for the solid waste near Maqustah of Menia City.
- Study for a land fill for Menia city in the Safa traffic check point on the desert road of Menia-Assyuit. The total cost of the first phase is 6 million Egyptian pounds.
- Purchase of Mercedes Truck of 16m to serve the transfer station and to have spill truck for the same reason, besides 2 trucks of capacity 10m³ to increase efficiency.
- Develop of the compost factory near Menia city with total with cost of 1.94 million Egyptian pounds. Menia Governorate, Ministry of State for Environmental Affairs and the Egyptian-Italian Solid Waste Management Project finance the solid waste system.
- The 10 incinerators in Public hospitals have been supported

5-2-2-3 Implemented projects and programs

- The operating of the compost factories in Malawi and Edwa besides Menia factory.
- Land fill is done in Abu Kourkas city
- Remove the accumulated solid waste in the city of Abu Kourkas and Sheikh Issa area and the drain of Maquousah and Manshyah street.
- Develop the West district in Menia city by the Egyptian –Swiss fund
- The Egyptian- Italian project is funded by the cooperation program between Italy and Egypt. It was done to improve and develop the solid waste management.
- Recycling factory was built in Kalsouna village in Samalout with a capacity between 350-400 tons /day
- Recycling factory of the agricultural waste in the industrial area in Matahra in Menia with capacity of 18,000 tons per year.

5-2-2-4 projects under construction

- Build a transfer station for the solid waste near Maqusah in Menia in the area of 2400m sq.
- Prepare piles of compost and sludge in the agriculture guide lines in the Directorate

of Agriculture.

5-2-3 Current situation: Problems and causes

Current situation	Problems and their passive effects	Causes of the problems	Plans and programs in the current situation
No integrated solid waste management system	<ul style="list-style-type: none"> - There is no specializations in the administrative structure - poor role of NGOs in the solid waste - No agency for monitoring the cleaning works -No action plan but permanent program - the inefficiency of the current system to collect, transport ,assort the solid waste - Poor technical supervision - accumulated solid waste in different areas -Negative impacts in health, economic ,social and environmental matters 	<ul style="list-style-type: none"> - Centralization of administration in the solid waste management unit -Affliction of the department to the Organizing department -Poor experiences and skills of the NGOs - The imbalance between the state's budget and the actual income -Shortage of data and inaccurate information - Shortage of experience of planning and integrated solid waste management system. 	<ul style="list-style-type: none"> - Prepare some studies funded by the Egyptian- Italian project - More data and information of the solid waste management unit in the governorate - Set a framework of planning and capacity building - West district has been supported by NGO.
Uncontrolled current land fills	<ul style="list-style-type: none"> - The self-burning solid waste as a result of smokes, poisonous gases, bad odors - Uncontrolled of the solid waste as a result of environmental awareness - Negative impacts on citizens 	<ul style="list-style-type: none"> - no standardization on the land fill -unavailability of the equipment and tools -No financial resources - No health or environmental conditions 	<ul style="list-style-type: none"> - study of the land fill to serve Menia city near the desert road of Menia-Assyuit - Select six sites for land fills in the desert background
The wide spread of assorting collectors in most of the cities	<ul style="list-style-type: none"> - The wide- spread of random solid waste which leads to increase the solid waste problem 	<ul style="list-style-type: none"> - No legalization for the assorting solid waste collection 	-----
No results of the recycling solid waste	<ul style="list-style-type: none"> - Poor income of the recycling factories -increase of the operation cost 	<ul style="list-style-type: none"> - poor volume of solid waste reach to the recycling factories -mix of the building waste 	<ul style="list-style-type: none"> - Restricted control on the drivers of the truck to the recycling factories
The expected of quantity and quality	<ul style="list-style-type: none"> - Recycling factories do not expect to have good income. - No technical supervision - Random disposal of the solid waste Wide- spread of insects and rodents 	<ul style="list-style-type: none"> - No sufficient equipment and tools - Raise of capital costs of out of work equipment - Poor supervision -Poor operation control - No assorting of the hazardous 	<ul style="list-style-type: none"> - Restricted control of building damage waste

		waste from resources	
Pay back of the cost of the solid waste	<ul style="list-style-type: none"> - Financial imbalance between solid waste and the governmental funds - Imbalance between the actual cost and the income - Low standard of solid waste service - Negative impact on the citizens of the governorate 	<ul style="list-style-type: none"> - 40% of the cleaning fees are very low in the local units. - 26% is the actual cleaning fees - Shortage of collectors and mis distribution of them - Raise of the salaries cost - Raise of capital cost - No collection department 	<ul style="list-style-type: none"> - The shortage of fund covered by loans and grants to cover the operation cost and maintenance - The limited participation of the private sector
The random disposal of the agricultural waste	<ul style="list-style-type: none"> - Disposal of the solid waste in the canals and drains. - Burning of the agricultural waste in the open air - Negative impact on the air and quality of water - Storage of agricultural waste at houses which lead to increase of insects and rodents - Most of the agricultural waste is not used in recycling process 	<ul style="list-style-type: none"> - Low environmental awareness - Limited number of the recycling factories - No financial support for the directorate of Agriculture 	<ul style="list-style-type: none"> - No private recycling factory - Very small factory in Algeria village for the recycling of waste - Compost piles on the field by the help of the Directorate of Agriculture
Un-integrated hazardous waste management system	<ul style="list-style-type: none"> - The mix between the solid and hazardous waste in the land fills and staff. - Scrape traders use this hazardous waste to reuse them. - Disposal of the solid waste in the public incinerators 	<ul style="list-style-type: none"> - The inefficiency of the incinerators - Bad designs and limited spare parts - Unskillful staff - No equipment - No specified trucks - No statistics and actual data for the hazardous waste - The actual waste is more than expected - Poor control and supervision and monitoring 	<ul style="list-style-type: none"> - The full use of the incinerators - Training of the staff - Restricted control on the public hospitals for the use of the hazardous waste
Low environmental awareness	<ul style="list-style-type: none"> - The random disposal of the solid waste with different types of solid (animals- birds) - None commitment of the citizens - None cooperation of the citizens - Open burning of solid waste before houses and workshops - 	<ul style="list-style-type: none"> - no programs or awareness campaigns in the solid and hazardous waste - No financial support for awareness campaigns - Poor participation of NGOs - Ill -behavior of citizens - No environmental awareness 	<ul style="list-style-type: none"> - Participation between the governmental agencies and the NGOs - participation of the media in all the environmental campaigns - inspection campaigns as per law 4 of 1994
Inefficiency of the equipment to raise the solid waste in different areas	<ul style="list-style-type: none"> - Accumulated of solid waste in different sites for long time - Random disposal of solid waste and disposal of waste of trucks in different places. 	<ul style="list-style-type: none"> - Few number of trucks for collecting solid waste. - The up used trucks and the repeated out of work trucks - No financial funds for the mechanical fleet 	<ul style="list-style-type: none"> - Center for maintenance in the cities and markazes - Support the local units with cleaning equipment in the next five year plan.

5-2-4 vision and goals

The governorate vision in the solid, agricultural and hazardous waste management can be achieved by the following steps:

- Integrated solid waste management system to be done in all the cities of the governorate.
- The good use of the agricultural waste by recycling and produce of compost
- have an integrated system of the health care waste on the entire governorate

5-2-5 the goals and required works

The Main goal	Required in the next 5 years	Decisions & measurements
Strategic plan for having integrated solid waste management system and solutions for the suspended problems	<ul style="list-style-type: none"> - An action plan can be done for the solid waste management in the governorate with the experience of the West district of Menia city - design and execution of the solid waste in the cities and villages - participation of the private sector in the solid waste management - practical solution for the problems -set up a new central department of the solid waste management 	<ul style="list-style-type: none"> - Prepare designs with specifications for the cleaning service and the solid waste management in every city - Privatize the solid waste management in the governorate with certain specifications and conditions as other governorates did - Participation of the NGOs and contractors in the service of the solid waste management unit -Restructure and reform of the administrative form in three levels to raise capacity and potentialities and make an economic balance - Submit tenders according to law 89 of 1998 and its modifications
Development of current system of the solid waste management and support the institutional , financial and legal framework	<ul style="list-style-type: none"> - Improve the efficiency of collecting fees - Balance between the actual cost and the collection income in the solid waste management units - Achieve the target of the complete pay back of service to have the sustainability - The reduction of the illegal way of solid waste disposal - Plan for the improvement of the follow- up and monitoring of service 	<ul style="list-style-type: none"> - Support the follow-up in the solid waste management unit -Increase the number of the collectors fees -Revise the collection fees - A gap between the income and expenses -Expenses have to cover most of the actual works - Have a flow of data and information about the solid waste management - Check the maintenance of the trucks, equipment and required staff and their salaries
Improve of	- Improve the management of	- Gradual steps of the private sector

the operations of the service and utilities of the solid waste	<p>the compost factories</p> <ul style="list-style-type: none"> - Prepare the measurements of actual budgets for the cost of the solid waste management - Application of the clear plan and vision for follow- up and monitoring in the solid waste management units - Application of the proper programs of maintenance of trucks and equipment -Participation of the civil society 	<p>in the solid waste management</p> <ul style="list-style-type: none"> -Encourage the private sector to invest in the solid waste and the treatment of the solid waste. - Have the experiences of the other governorates in this field.
The planning of land fill sites to have safe dumping sites	<ul style="list-style-type: none"> - Planning and building land fill in the desert background near to the main cities - Improve the current sites - Availability of required equipment of the solid waste -Support the operations tenders - Gradual close up of the current land fills -New sites for building waste 	<ul style="list-style-type: none"> - Action plan for cleaning the current illegal sites - Application of restricted control on the current dumping sites - Availability of tractors for compacting of the solid waste in the land fills
The safe and continuous recycling of agricultural waste	<ul style="list-style-type: none"> -Support of the compost and recycling of the agricultural waste - Magnify the recycling of the useful materials - The good use of the agricultural waste in the villages 	<ul style="list-style-type: none"> - The feasibility study of recycling factories in the main cities (bani Mazar- Samalout- Abu Kourkas- Deer Mawas) - Support of the current factories by required equipment and skillful staff. - Restricted control on the trucks to transfer solid waste from collecting places to the sites - Availability of agricultural compactors and devices of transferring this waste to the factories - Build demonstration projects for the recycling in the villages -Use the media for these projects
Have an integrated health care waste management system	<ul style="list-style-type: none"> - Collect all the hazardous waste and separate it from the solid waste - Have a good treatment of the hazardous waste by burning or other methods in the incinerators - The control of the waste by forbidding the scrape traders from using the waste 	<ul style="list-style-type: none"> - Study of encouraging the private sector to participate in investing the hazardous waste - Study for getting the most benefit from the hazardous waste -Restricted measures on the health care establishments by training the staff - Provide the hospitals and clinics with safe containers for the hazardous waste -Build other sites for the new incinerators which have high

	<ul style="list-style-type: none"> - Magnify the uses of the actual potentialities (incinerators – skillful staff) to reduce the operations cost 	<p>technology and treatment of poisonous gases</p> <ul style="list-style-type: none"> - Availability of safe cells - Availability of transportation by the support of the EEAA - Collection fees from the hazardous waste have to be separate from the solid waste
Raise the environmental awareness to deal with the hazardous waste in safe way	<ul style="list-style-type: none"> - Improve the conditions of the staff who deal with the hazardous waste - Raise the skills of the staff of the solid waste by continuous training - Provide the staff with protection devices - Continues training of the dangers of the hazardous waste - Participation of the people in different areas in the cities and villages of Menia - Raise the awareness among the farmers in the governorate to use the agricultural waste - Change the citizens' behavior to deal with new service 	<ul style="list-style-type: none"> - Prepare the environmental awareness in the different governmental agencies - Use the media devices in increase the importance of safe dealing with solid, agricultural and hazardous waste. - Availability of the funds.

5-2-6 List of the sub- projects in the five- year plan

5-2-6-1 The high property projects

Name of City and Markaz	Sub-Project	Agency in charge	Implementati on Agency	Estimated Budget	Time framework	Funding agency
Menia	Integrated hazardous waste management system (collection-transportation-treatment- final disposal)	Directorate of Health and population in Menia	Private sector	5 millions	2 years	- Self funding - Grants& loans - EPF -DoH -Governorate Fund
	Improve the system of collection, transportation and final disposal in the 9 cities	Solid waste management unit in the governorate	Local units and private sector and solid waste management unit in the governorate	25-30 millions	5 years	- Donors -governorate
	Build and prepare land fills in the desert background	Solid waste management unit in the governorate	Local units and private sector and solid waste management unit in the governorate	25-30 millions	5 years	- Donors -governorate - Private sector -EEAA

5-2-6-2 the medium prior projects

Name of City and Markaz	Sub-Project	Agency in charge	Implementation Agency	Estimated Budget	Time framework	Funding agency
Menia	Recycling factories for the solid waste in the entire governorate	Governorate	Local Units	20 millions	5 years	- foreign donors - ministry of local development
	Build land fill to the solid waste in the desert back ground of Menia city	Governorate	Governorate	10 millions	2 years	- foreign donors
	Build agricultural waste recycling factories in different villages	Governorate	Local Units	10 millions	one year	- foreign donors - EPF

5-2-7 Profile of the prior projects and programs

Build a restricted and controlled land fill for the solid waste in the desert back ground for the nine local units

Description of the problem

- The random disposal of the solid waste and accumulated solid waste in the streets and canals and drains.
- Increase of the insects and rodents
- The disqualified open land fills which considered the final step of solid waste disposal.
- Increase of the assorting pickers who recycle in improper way the solid waste
- The strong winds of sand and dust which affect negatively on the health of citizens

Description of the project and its elements

- The suitable site for the land fills and study of EIA are very important
- The concerned parties have to take action to carry out the proposal.
- The conception design of the site and the required specifications has to be submitted to the contractors
- Prepare the required equipment and required tools and training for staff in the land fill

Implementing agency

- The governorate

Estimated cost of the project

- Around 250,000 million Egyptian Pounds

Integrated hazardous waste management system

Description of the problem

- The mixture of the solid and hazardous wastes in the public land fills
- There is no integrated hazardous waste management system although there are many incinerators in the governorate.
- There is no hazardous waste land fill
- The suffer of the staff who works in the hazardous waste

Description of the project and its elements

- Prepare studies for solid and hazardous wastes to know the required area for the land fill
- Form and set up the hazardous waste in the directorate of Health and Population.
- Allocate the hazardous waste land fill
- Prepare the designs and engineering the specifications of the land fill.
- Availability of equipment and trucks according to the environment law no.4 of 1994
- Training of the staff of the hazardous waste to raise their capacity building and how to protect them from the dangers of the hazardous waste

Implementing agency

- Directorate of Health and Population

Estimated cost of the project

- Around 5 million Egyptian pounds

Demonstration project of the solid waste in one of the cities of the governorate with the participation of the private sector

Description of the problem

- The accumulated solid waste in different places in the dwelling areas
- No regular system for safe disposal.

- Wide- spread of insects and rodents
- Economic loss
- Random disposal of the solid waste in the cities
- The social dimension of the solid waste
- Inefficiency of the equipment
- Unavailability of the fund
- Problem of maintenance

Description of the project and its elements

- Prepare a field study to know the quantity and volume of solid waste
- Prepare the specifications of the land fill according to law 89 of 1998
- The contract with contractor
- Environmental awareness campaigns

Implementing agency

- Private sector and NGOs

Estimated cost of the project

- Around 5 million Egyptian pounds

Building of agricultural waste recycling factories

Description of the problem

- The accumulated agricultural waste in the most of the villages
- The none use of the agricultural waste
- Burning of the agricultural waste in the open air
- Increase of the air pollution and low standard of air quality
- Increase of the insects and rodents
- Disposal of the agriculture waste in the canals and drains
- Block of the drains
- Negative impact on the water quality and flow of irrigation water

Description of the project and its elements

- Field study to the different uses of the agricultural waste
- The allocation of the suitable site for the agricultural waste
- Prepare the engineering designs
- Prepare the feasibility study
- Prepare EIA
- Prepare the official approvals from the concerned parties
- Prepare the required equipment
- Training of the staff

Implementing Agency

- Private sector

Estimated cost of the project

- Around 7 million Egyptian pounds

5-3 The industrial abetment and hazardous waste

5-3-1 General back ground

The rate of the industrial abetment in Menia governorate is very limited. This volume of the industries and industrial development in the governorate is still very limited. The agricultural activities are the main economic base in Menia. However, the industrial activities play a very important part in the economic life of the governorate.

The number of the industrial establishments in Menia is about 7.7 thousands. The number of workers is 2.6 thousands. The number of technical workshops is 8.4 thousands. The number of workers in these workshops is 1.63 thousands. Moreover, there are 334 quarries of the lame stones. The number of workers is 4 thousands.

The industrial abetment in Menia is very limited in some parts. The main industries in Menia are the sugar, cement and cotton. There are some mills in the industrial area in Menia. The pollutants of the small and medium industries are not dangerous.

The gases emissions and the dust and smoke of the sugar factories in Abu Kourkas, the cement factory in Bani Khaled, Samlout markaz, the Molas factory and super phosphate, and lame stones use the heavy fuel. The mazot, the heavy fuel, is the main resource of industrial abetment. The sugar factory consumes about 950 thousand tones of sugar canes to produce 110 thousand tons of white sugar. It consumes 28.5 thousands tons of mazot and around 2000 ton of coal. The harmful emissions of the sugar are very limited. There are about 70 pressers in the different areas in the governorate. The total consumption of the sugar canes is about 9- 10 tones /day. It is used as fuel. The super phosphate and lame stones have negative impacts on the workers of the industrial area. The Quarries and stone breakers are widely spread in the desert background of the governorate. There is no environmental preservation condition. The painting cars workshops are scattered in the dwelling areas. The coal ovens, pottery ovens and brick factories are also scattered in the dwelling areas.

The noise which comes from the scattered workshops in the dwelling areas is considered the main cause of noise pollution. The big factories do not have any problem since they are in the desert background.

The waste water of the sugar factory in Abu Kourkas is the biggest resource of pollution which pours in Mohit drain, then to the River Nile. The total outcome of waste water is 43 thousand m³/year. The operations of the factory are about the eight months. The draining water is about 0.008 m³/second from Nile Company for cotton. The factory has been completely held since it was privatized. In addition, there are some small factories which have very limited impacts.

The main solid waste of these factories comes from the sugar factory in Abu Kourkas. It has about 183 thousands tons /year of sugar. It has also 1350 tons of molas comes from the filtering of sugar. There is a very limited agriculture waste come from the other factories such tahina

factory, dried agricultural crops factory in Magahagah Markaz and the white dust of the cement industry.

The hazardous waste generated from the sugar factory and cement factory is handled to some suppliers who deal with them.

In the last few years some of the industrial establishments have complied with the environment law. The cement factory has been monitored by the EEAA monitoring network to measure the harmful emissions. At the same time, the by pass of the quarries is used in the glass and marble industries.

The sugar factory has built waste water treatment unit and dust filter to reduce the harmful emissions. The inspection committee in the governorate and EEAA monitor the establishment and implement the regulations of environment law.

The governorate supports the industrial area by building the infrastructure. The investments reach to 103.63 million Egyptian pounds. 92.37 million Egyptian pounds spent so far.

Although the efforts of the industrial establishments have tried to comply with environment law, the EEAA regional office inspect on the emissions of the cement factory and sugar one. The waste water will increase 1000 m³ /day.

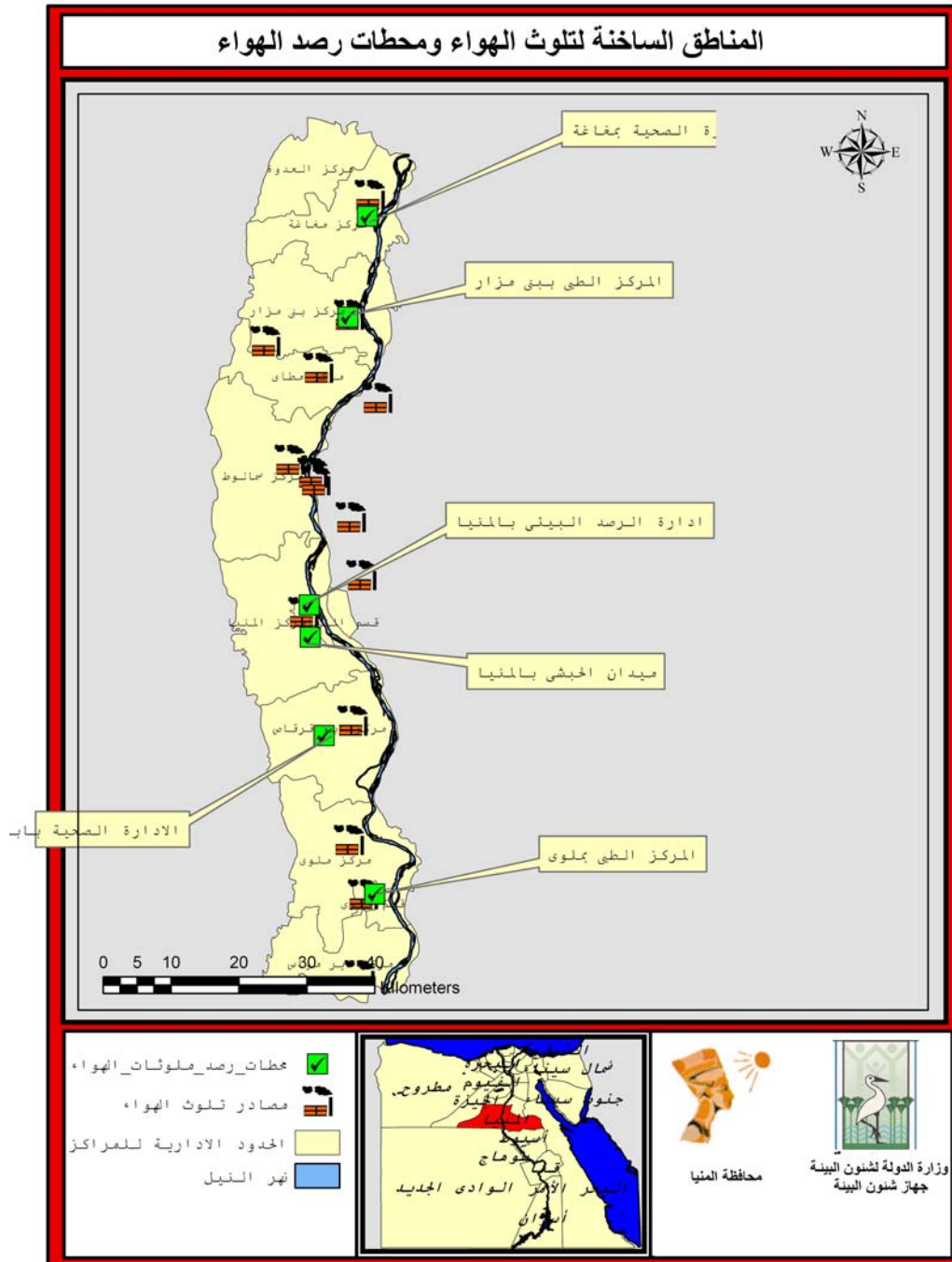
The negative impacts are on the dwelling areas which are near tot the sugar factory. Insects and rodents increase in this area.

The craft men area in New Menia city has no environmental dimension. Some of the projects are affected by the random extension to some projects.

The emissions of the quarries have very bad effects on the workers and have negative impacts on their health.

The chapter shows the achievements in the last five years and the problems, causes, visions and goals.

Map of the hot spots and the air monitoring plants



5-3-

5-3-2 the achievements in the last five-year plan.

5-3-2-1 the decisions and measurements

- Forbidden any license to any industrial establishment till it receives the environmental approval as per environment law no. 4 of 1994
- The regular inspections and follow up of the industrial establishments as per environment law.
- The environmental approval for craftsmen workshops must be temporary till the craftsmen city is completed.
- The term no.36 of the environment law of not using the equipment that exceed the allowed limits
- The heavy fuel and oil productions are not allowed to be used in the dwelling areas.
- The decrees of the cement factory have to go with safety and environmental regulations.
- The ISO 1400 of the environmental certificate for the White cement factory in Bani Khaled Village.

5-3-2-2 The technical and administrative support

- The allocation of industrial area in Menia. This area will be extended to be 43 feddans to have the small and medium craftsmen industries in Menia city.
- The land will be free for any industrial project and the utilities will be free to encourage the investors to come to Menia.
- The plan to use the treated waste water in order to have wood forest in 660 feddans. The industrial area will be cultivated for 14 km.
- The industrial investors have to build their waste water treatment units to comply with the environment law.
- Build an investment unit affiliated to Tebeen Institute in the industrial area to evaluate the technical and environmental constancies.

5-3-2-3 the implemented projects and programs

- **75 %** of the potable water and 50 % of the sanitation network, 45% of the power network, 50 % of paving the internal roads, and communication center with capacity of 900 land lines is made to any extension of the industrial area.
- Encourage the investors to come to see the industrial area.
- The sugar factory has installed biological treatment unit for the waste water.
- Build cool towers for thematically contaminated water.
- Transfer the waste water drain far from the dwelling area.
- The white cement factory has installed filter for the emissions
- Install stacks that enable the EEAA regional office to monitor the quality of air.
- Early warning network for the power of the factory which cost 2 million Egyptian

Pounds.

- Pave the internal roads and cultivate 138 thousand meter of trees
- The Directorate of Supply in Menia has to improve all the mills to reduce the dust emissions from the factory.
- The first phase in the craftsmen city will be completed to remove the workshops to this city.

5-3-2-4 the projects and programs under construction

- The complete of the infrastructure of the industrial area (Potable water-sanitation- roads- power)
- Complete the utilities in the craftsmen area in Menia city.
- The white cement will comply with the environment law by having textile filter for the lines of production.
- Elimination of the by pass dust by dealing with contractor to have covered trucks.

5-3-3 the current situation: Problems and causes

Current situation	Passive impacts on the current situation	Causes of the problem	Current plans
Sugar factory and pressers use bagas as fuel	<ul style="list-style-type: none"> - The gas emissions and smoke of big industries - negative impacts on the health of the citizens 	<ul style="list-style-type: none"> - No alternative fuel - solar is failed experience, - Cooperation with EEAA is not affected -Low price of bagas as fuel - good economic revenue 	<ul style="list-style-type: none"> -Natural gas will be extended to Menia as part of the natural gas national plan. -The natural gas will be a better alternative than mazot
The industrial liquid waste of the sugar factory is treated partially in most of the time	<ul style="list-style-type: none"> - Contaminated canals (mohit drain) with the industrial waste of the sugar factory. -Most of the waste goes to the river Nile. -Bad odors, BOD and COD affect the marine organisms Wide-spread of insects and rodents -Negative impacts on citizens 	<ul style="list-style-type: none"> - Inefficiency and poor capacity of the treatment unit - The increase of the waste over the capacity of the treatment unit -Unavailability of fund of the factory to have extra treatment unit - 	<ul style="list-style-type: none"> -The drain of the factory has to be transferred far from the dwelling area - The nearest drain has to be covered

	and the agricultural lands		
The scattering of craftsmen workshops and some factories in the dwelling areas	<ul style="list-style-type: none"> - The random disposal of the industrial waste in the dwelling and agricultural areas and drains. - negative impacts on the development and economy of Menia - noise of these industrial establishments -negative impacts on health of citizens --crowded streets and roads causes traffic jams to service vehicles(ambulance–fire trucks) 	<ul style="list-style-type: none"> - No craftsmen areas in both The villages and cities - Inefficiency of the solid waste management units - No units in most of the villages - Most of the crafts men works out side their workshops - The uncommitments of the workshops of the working hours. 	<ul style="list-style-type: none"> -Intensive inspections on the workshops during and after the working hours with the concerned parties -The environmental law -Forbidden of any industrial activities in the dwelling areas -Temporary approvals of the workshops till building the new craftsmen city
Wide spread of the brick factories, coal ovens and pottery ovens in the dwelling areas	<ul style="list-style-type: none"> - Activities of the craftsmen without licenses - Use of mazot and used oil as fuel in the dwelling areas - Bad and poisonous as a result of burnings -Negative impacts on the health of the citizens 	<ul style="list-style-type: none"> - Dependence on these activities as the main source of living -No fund for removing activities to the new craftsmen industrial area - Most of the craft men works in the weekends to stop any inspections of the concerned parties 	<ul style="list-style-type: none"> -The intensive inspection on the workshops during and after working hours -The immediate removal of any fine
The negative impacts of the white cement factory on the citizens	<ul style="list-style-type: none"> - the factory is very near to the dwelling area -the floating of the emissions measurements -the impacts of the emissions on the public health and citizens -the negative impacts on the agricultural lands 	<ul style="list-style-type: none"> -the factory was built before the environment law - Filter separation in various times -Hug volume of cement dust in time of separation - The increase of the volume of CO 	<ul style="list-style-type: none"> - the factory has to be linked with theEEAA monitoring Network - Regular and spot inspection to be sure of the factory commitments
The emissions of the quarries in the desert background and lame stones pressers and super phosphate factory	<ul style="list-style-type: none"> - The intensive emissions of the factories, pressers and quarries during the daily operations and activities of shredding and sawing - The negative impacts on the health of the workers and serious lungs diseases -Bad performance of the workers as a result of the bad 	<ul style="list-style-type: none"> -The traditional equipment in the quarries - No protection for the workers -the strength of the workers is the main source of work -No health insurance against the negative 	<ul style="list-style-type: none"> - The restricted control and inspections on the mines, quarries in the governorate. - The directorate of manpower has to participate with the EMU to inspect and control the harmful

	health conditions -Negative impacts on the development of the area -Negative impacts on the economy of the factories -No health insurance on the workers.	impacts of these industries -High cost of the modern equipment and technology - Quarries remove from one place to another -Most of the workers are temporary workers. -No health insurance and no social insurance	activities of these industries
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5-3-4- The vision and the goals

The industrial abetment is one of the main resources of pollution. It has negative impacts on the Menia citizens. The governorate has to take these steps in order to reduce the industrial abetment.

- All the industrial establishments have to be committed to the environment law and its regulations
- Improve the environmental circumstances of the small and medium industries
- The safe disposal of the industrial and hazardous wastes
- Reduce the activities of the quarries and mining.

5-3-5 The goals and required works

The Main goal	Required in the next 5 years	Decisions & measurements
Reduction of the industrial abetment in the big factories	<ul style="list-style-type: none"> - The big industries have to improve its equipment and use the modern technology to reduce the pollution - They have to comply with the environment law and regulations -Evaluate the performance of the sugar factory by using the modern technology -Study of improve the factory and the pressers in economic and hygienic methods - Practical solutions to the big industries by removing them to the industrial area and away from the dwelling areas. 	<ul style="list-style-type: none"> -The regular and spot inspection - Commitments of the big industries to follow the environmental law and regulations - Help the big industries to comply with environment law -Cooperate with the NGOs for having media campaign on the environmental awareness - Use the environmental awareness to know more about the legalization of the environment. -Accelerate the switching of the natural gas as friendly fuel.

The safe disposal of the industrial hazardous wastes	<ul style="list-style-type: none"> - Each industrial establishment must have solid waste management unit - The protection of the water resources from industrial pollution - Encourage the system of intensives and fines -The maintenance of the treatment units in regular base -The dangerous materials have to be stored properly -A list of all the dangerous materials and to be submitted to EMU or the regional office of EEAA 	<ul style="list-style-type: none"> - Require of the big industries to install the reduction of pollution equipment - Reduce the intensive to any industrial establishment break the law and does not comply with the environment law. -Fines and compensation on the breaking law establishments -the coordination with the legal parties.
The reduction of the level of the industrial abetment in the dwelling areas	<ul style="list-style-type: none"> - Guild new industrial areas far from the dwelling areas - Remove all the small and medium industries to the new industrial area -Available area to the activities of the workshops - The industries must have the technology which consider the environment and pollution and noise - New suitable sites to the brick factories, coal ovens and pottery ovens -Social and hygienic insurance of the workers 	<ul style="list-style-type: none"> - Accelerate the allocation of land in the proper sites away from the dwelling areas -Prepare the EIA -Forbidden of any new polluted industrial factories -Have strong intensives such as the suitable price for land and availability of all utilities -Study of availability of soft loans - The area of each activity ahs to be reconsidered - Availability of fund from the social fund, center of the modernizing industries
Reduction of the emissions of the car , furniture workshops	<ul style="list-style-type: none"> - The spray of the cars' paint (deco) has to be limited and away from the dwelling areas - Encourage the painting and cars repair workshops to use modern equipment and tools to reduce the harmful emissions 	<ul style="list-style-type: none"> - The forbidden of the licenses of any industrial activity inside the dwelling areas -the activity has to get the approval from the environment first - The empty pacts have to be returned to certain dealer for not being used in improper way. -Use the modern technology in painting materials to reduce all sorts of abetment - Close down the workshops which break the law and be removed to the industrial area

Reduction of the impacts of the quarries and mining	<ul style="list-style-type: none"> - Reduction of the dust coming from quarries - Application of the measurements of safety such as the storage-filling holes with sands -Use the technology of less harm to the environment to reduce the emissions -Use modern equipment and tools 	<ul style="list-style-type: none"> - Impose restricted measures on the quarries operations - Stop giving licenses to all activities do not comply with environment -Support of EMU to perform in the proper way. - Coordinate with the research centers for the proper way of using modern technology to reduce the harmful emissions during the operations of these factories
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5-3-6 the proposed projects
5-3-6-1 the high prior projects

Name of City and Markaz	Sub-Projects	Agency in charge	Implementation Agency	Estimated Budget	Time framework	Funding agency
Menia	Build craftmen areas in all markazes	The governorate	Private sector	7 millions	5 years	- Private sector
	Develop and improve the capacity of the sugar factory in Abu Kourkas	The factory administration	The factory administration	25 millions	one year	EPF Loan

	Improve and develop the pressers	Pressers owners	Private sector	250,000 for each presser	5 month For each presser	Self funding - Grants& loans - funding by the National Authority of potable water and sanitation
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5-3-6-2 medium projects

Name of City and Markaz	Sub-Projects	Agency in charge	Implementation Agency	Estimated Budget	Time framework	Funding agency
Menia	Build wood factory from the waste of the sugar canes and switch fuel to natural gas	Private sector	Private sector	15millions	2 years	- Private sector
	Develop and improve the coal ovens	Coal oven owners	Private sector	250,000 for each presser	5 month For each presser	EPF Loan Private sector

5-3-7 The profile of the prior projects

The land fill of the old and new white cement in Bani Khalid village-Samalout Markaz

Description of the problem

- The dust of the cement is a big burden to the factory
- The random disposal of the cement by selling or storing out side the factory

- The wind spreads the cement dust in different area
- The negative impact on the health of the citizens

The description of the project and its elements

- The field study to select the best site for this land fill
- Administrative measures to get the different approvals from concerned parties
- Prepare the details of the engineering designs
- Training of the staff of the EMU of the uses of the land fill

Implementing agency

- Private sector

Estimated cost of the project

- Around 50 millions Egyptian pounds

Industrial treatment unit with capacity of 200m³/ hour instead of 50m³/ hour in the sugar factory in Abu Kourkas

Description of the problem

- Insufficient of the current treatment unit
- The industrial waste breaks the laws
- The contamination of the Mohit drain as result of the many different sorts of wastes
- The negative impacts on agricultural land and crops
- Unavailability of fund for any sort of development and improvement

The description of the project and its elements

- The field study and required analysis to have the required treatment unit
- Prepare the study of the estimated cost
- Prepare the detailed study and the engineering designs
- Training of the staff and the treatment unit department

Implementing agency

- Private sector

Estimated cost of the project

- Around 25 million Egyptian pounds

Develop the factories of Honey in the Malwi and Deer Mawas Markazes

Description of the problem

- Harmful gases and smokes in the dwelling areas
- The contamination of the ground water as a result of the sanitize on the drain
- No cleaning inside the factories

- Primitive technology

Description of the projects and its elements

- Field study to the pressers
- Detailed study on the pressers
- Environmental awareness to the staff and owners of the pressers

Implementing agency

Private sector

Estimated cost of the project

- Around 250,000 Egyptian pounds for each presser

Replacement of textile filter instead of the electrostatic filter for the production line of the white cement factory in Bani Khaled – Samalout markaz

Description of the problem

- The electrostatic filter has high financial burden on repairing it. It consumes big volume of electricity
- The filter causes much of cement dust which has CO.

Description of the project and its elements

- Field study to the factory
- Detailed study on the factory
- Environmental awareness to the staff and owners of the factory

Implementing agency

- Private sector

Estimated cost of the project

- Around 20 million Egyptian pounds

Build wood factory from the waste of the sugar canes factory

Description of the problem

- The harmful emissions of gases and smoke
- Negative impacts on the health of citizens who live near the factory
- Reduction of the economic value of the dwelling areas near the factory

Description of the project and its elements

- Field study to the factory
- Detailed study on the factory
- Environmental awareness to the staff and owners of the factory

Implementing agency

- Private sector

Estimated cost of the project

- Around 15 million Egyptian pounds

The coal ovens project**Description of the problem**

- The use of the mazot and different kinds of oil
- Bad odors and poisonous gases
- Negative impacts on the health of the citizens
- Reduce the economic value of the dwelling area
- The activities of the coal ovens in the dwelling areas

Description of the project and its elements

- Field study to the factory
- Detailed study on the factory
- Environmental awareness to the staff and owners of the factory

Implementing agency

- Private sector

Estimated cost of the project

- Around 250,000 for each coal oven

The switching of the sugar factory fuel from mazot to natural gas

Description of the problem

- The use of mazot and bagas which cause harmful emissions
- The negative impacts on the health of the citizens
- The reduction of the economic value of the dwelling area
- The failure of using solar instead of mazot
- High cost of mazot

Description of the project and its elements

- Field study to the factory
- Detailed study on the factory
- Environmental awareness to the staff and owners of the factory

Implementing agency

- Private sector

Estimated cost of the project

- Around 5 million Egyptian Pounds

5-4 The development of the slums and dwelling areas**4-4-1 General background**

Menia is a rural governorate. The standard of living is very low. Menia is ranking no.19 in low income for per capita. The number of poor people is about 38.2 % and those who under poverty level is 10.2 % of the total population. The illiteracy is about 41 % of population. Those who live in the rural area are 82 % and those who live in the urban area are 18% .Those that live in slums, small villages and hamlets are great number. There are 61 mother villages, 359 small villages and 1713 satellites. The population is very low in the desert background. Most of the poor people try to find shelter near the urban areas. That is why most of slums are very near to the villages and cities. This leads many people to immigrate to the urban areas and misuse the agricultural lands. There are 30 slims in different cities. The urban areas have huts, old buildings and tanner houses. Most of the houses are very close to each other and the craftsmen workshops are scattered in cities. There is no security in these areas which lead to criminal works.

During the last few years, the governorate extends the sanitation network in slums in Menia city. 95% of the houses have sanitation connection networks. There are many waste water treatment plants in Abu Kourkas, Edwa and Deer Mawas cities to serve these cities. The potable water networks have been extended to many villages such as Bahnsa and Telah. 78% of the population has potable water while electricity has extended to 95%. Some of the medical establishments have been improved and developed such as two central hospitals, 4 specialized hospitals, 6 rural hospitals, 90 health centers. The governorate will build three new health centers in every five-year plan and improve 9 rural villages. The number of the physicians who work in the Directorate of the Health and Population are 5.2 physicians to each 10,000 patients. The number has been increased more than 2003 year. It was 4.6 physicians for 10,000 patients. 9.4 nurses are for 10,000 patients and 11.1 beds are for 10,000 patients. The Number of the medical units is 2028 schools including 22765 classrooms. The number of students is 933,987.

Some of the NGOs do service for people such as collection, transportation, recycling solid, agricultural wastes, potable water connections to poor houses and hygienic water closets. Most of the fund for these services finance by the governorate, foreign donors and social fund. The small projects can create jobs for poor people.

Although many plans have been implemented and financed by the governorate, NGOs and social fund, there are about 40% of the population in the villages and 10% of the populations live in the slums and have not potable water. Moreover most of the villages depend on the ground water for drinking although the water is not applicable to the drinking water criteria. At the same time, the sanitation network does not reach 75% of the poor houses. The sanitation networks are still under construction in five cities and villages. There are over burdens on the sanitation networks in Edwa and Menia. There is no available fund for implementing sanitation plants in many villages. Although the waste water of poor houses is a big problem for both the surface and ground water.

In addition, there are no post lamps in most of the villages and some cities. There is no system for the solid and health care wastes. That is why most of the people throw off the solid waste in the streets and canals. The medical services are still in a very low standard. The illiteracy reaches to 40 % of the total population.

Most of slums suffer from the service and utilities particularly in the fields of health and education. This is because the people suffer from the contaminated atmosphere. The rate of

crime increases due to the low standard of living and the under poverty level. More over most of the families encourage their children to work instead of to go to schools.

5-4-2 the achievements during the last five years

5-4-2-1 the decisions and measurements

- The removal of the polluted environmental activities far from the dwelling areas such as the coal ovens in some markazes
- Forbidden of licenses to café shops in the public streets
- Approval of the governorate to extend the potable water to the poor houses by the local units with three year installation
- The extension of the utilities to slims regardless to the buildings laws
- The budget of these activities had been inserted to the united development plan of the governorate.
- Prepare the specifications and conditions of some projects of the solid waste management in the cities and slims.
- Support the NGOs by both grants and soft loans to improve the different areas.

5-4-2-2- the technical and administrative support

- The limits of the villages and cities planning **are on process.**
- 10 million Egyptian pounds have been spent to support slims with all sorts of utilities such as electricity, sanitation, potable water, paving roads.
- The participation of the local development ministry by buying trucks, tractors, trailers, loaders and hydraulic vehicles
- Build sanitation solid tanks and water closets with estimated cost of 600 million Egyptian pounds in most of the villages in the governorate

5-4-2-3 The implemented projects and programs

- The building of the waste water treatment plans in Edwa and Deer Mawas finished to serve many other villages
- Some of the sanitation works have been finished in Delga in deer mawas- Bani Obeed in Abu Kourkas.
- New sanitation plant in the Menia city in the desert background has been finished with capacity of 120, 000 m³ /day.
- 13km of the expel line has been finished with cost of 43 million Egyptian pounds. This line is a link between the waste water treatment plant in old Menia and the new plant in the desert background.

5-4-3-4 the projects and programs under construction

- The project of environmental treatment funded by UNCIEF. It will be implemented by the National Authority of potable water and sanitation. The budget of this project is 2 million Egyptian pounds.
- Some projects funded by Egyptian-Italian program. The budget is 6.8 million Egyptian pounds. This project is supported by the National Council of women.

- Build and prepare schools supported by the Egyptian- Italian program. The budget of this project is 5 million Egyptian pounds
- Complete the projects of sanitation in cities of Magaghah, Bani Mazar, Matai- Samlout- Malawi Markazes
- Complete the expel line of waste water treatment plant in the old city of Menia to the new city of Menia in the desert background.
- Develop and prepare the hospitals and medical units in villages.
- Increase the projects of illiteracy in all the markazes
- Raise the environmental awareness and medical tours
- New connections to the potable water. This can be done by both grants and soft loans
- Develop of the south district of Menia city by the support of the World Bank

5-4-3 current situation: problems and causes

Current situation	Passive impacts on the current situation	Causes of the problem	Current plans
There is no system for the solid waste management in slims and dwelling areas in villages and cities	<ul style="list-style-type: none"> - The random disposal of the building waste in the agricultural lands ,canals and public roads - No system of solid waste in most of the cities - The bad odors -Increase of insects and rodents -Negative impacts on citizens' health. 	<ul style="list-style-type: none"> -No service of collection-transportation- assorting-the random disposal -Shortage of manpower -unavailability of equipment - Shortage of the land fills in villages and desert background - Up use equipment - No studies for available land fills 	<ul style="list-style-type: none"> -Neither plans nor programs for the solid waste management system -Prepare specifications and conditions of solid waste under revision -Operate recycling factories in three cities at least to solve the problem - Free lands have to be settled according to the law 38 of 1967
75% of the dwelling areas have no sanitation	<ul style="list-style-type: none"> - the sanitation waste has been thrown on the water canals - Contaminated quality water -Affect of the open waste water tanks on the surface and ground water -Increase the insects and rodents -Bad odors -Poverty increases the environmental side effects - The raise of the ground water level on buildings and monuments 	<ul style="list-style-type: none"> - Unavailability of sanitation network in most of the dwelling areas -Poor capacity of the waste water treatment plants in Menia and Edwa cities -The poverty prevents the poor houses from having sanitation - Incomplete sanitation networks in most of the cities - Difficulty of extending 	<ul style="list-style-type: none"> - Some of the villages will have sanitation networks in the five-year plan (2007-2012)

		narrow roads and lanes -Unavailability of sanitation sucking trucks	
shortage of Potable water service in cities- villages and slums	<ul style="list-style-type: none"> - Use of habashi pumps. - The water canals use for washing. - Digestive diseases because of the contaminated water - The widespread of poverty -Low environmental awareness 	<ul style="list-style-type: none"> - Unavailability of sanitation network in most of the dwelling areas -Poor capacity of the waste water treatment plants in Menia and Edwa cities -The poverty prevents the poor houses from having sanitation - Incomplete sanitation networks in most of the cities - Difficulty of extending narrow roads and lanes -unavailability of sanitation sucking trucks 	<ul style="list-style-type: none"> - Participate of the NGOs to support the poor people - Support of the local units for have potable water in three year installation
Unavailability of the medical service in most of the cities and villages	<ul style="list-style-type: none"> - The low standard of medical service - Suffer of patients from transport from villages to cities -Increase and wide spread of diseases which can not be treated and cured - The direct and indirect impact of the citizens in their ability to work 	<ul style="list-style-type: none"> - The far distance of service - Unavailability of physicians in the medical units in the villages - Physicians prefer to have their private clinics instead of working in the medical units during working hours - Unavailability of treatment devices -High cost of treatment for poor people 	<ul style="list-style-type: none"> - Medical tours and environmental awareness in the distance areas -Availability of physician in every medical unit
Shortage of educational services and social awareness in most of the cities	<ul style="list-style-type: none"> -The raise of illiteracy in these areas - Raise of those who leave education in primary education -Raise of the number of students in these areas - the ill behavior among students - Increase of the rate of crime and depression among residents of these areas 	<ul style="list-style-type: none"> - The low standard of education in most of these areas - The raise of the educational cost and the private lessons - No awareness of the importance of education due to poverty and need for work more than education - Shortage of skillful teachers -The negative impacts on teachers since they do not have any power for 	<ul style="list-style-type: none"> -Open one class system - Consternate on these areas by the awareness campaigns - Availability of land for building new schools as per five-year plan.

		bringing up students	
the craftsmen workshops in these areas	<ul style="list-style-type: none"> - Unlicensed workshops in these area - Most of the workshops work during night hours - The wide spread of the child labor because of the poverty - The noise pollution has negative impacts on the residents of these areas 	<ul style="list-style-type: none"> - The low social and economic standard of these areas - Low standard of living - No crafts men area - Workshops at houses 	-Craftsmen workshops are on process
the shortage of service (Ambulance and fire service)	<ul style="list-style-type: none"> - The urgent use of ambulance has led to suffer of the patient in emergency status to death - The buildings and properties are in danger of fire and disasters 	<ul style="list-style-type: none"> - Unavailability of ambulance cars to these areas - Narrow streets and lanes to let the car enter such areas - The long distance of these places 	- The planning are on process

5-4-4 vision and goals

Have an action plan to improve the slums in cities and raise the standard of services in the rural areas (health- education- potable water- sanitation- solid waste- environmental awareness)

5-4-5 the goals and required works

The Main goal	Required in the next 5 years	Decisions & measurements
Develop the slims in cities and other dwelling areas	<ul style="list-style-type: none"> - Plan for using the desert background - Facilitate the license of having land in the planned desert - Stop the random building in cities and villages - Termination for cities planning and apply the rules of buildings and remove the breaking laws. - Strategic plan for have industrial and agricultural blocks in cities and villages to create jobs a 	<ul style="list-style-type: none"> - Proper planning to the random extensions of villages and cities. - vertical and horizontal extension to be considered - Importance of the service projects such as potable eater and sanitation and paving roads, covering canals in the dwelling areas - Activate the laws to prevent building on the agriculture land - prevent on building any craftsmen workshops in these areas - Have new sites for the workshops to move them

	<ul style="list-style-type: none"> - Remove the service centers to these new areas. - Gradual remove of the governmental agencies to the new areas 	<ul style="list-style-type: none"> - Participate of the funds in building the infrastructure of new areas.
the raise of the main service and dwelling areas	<ul style="list-style-type: none"> - Availability of infrastructure to the slims - Availability of the sanitation to these area by extension of the networks analysis, use of the waste - Availability of the medical care in the medical units. Medical centers ,(number of physicians – specializations – drugs- emergency service) restricted control of the directorate of Health - Availability of the schools and skillful teachers – less number in classrooms - Availability of the electricity in the streets - Regular maintenance paving roads to the long distance areas - Availability of the land fills for the solid waste and recycling them - The raise of the environmental awareness 	<ul style="list-style-type: none"> - Support the potable water and sanitation to be available for all the people. - Support the NGOs by the grants and soft loans to help poor people - social support for the poor families - All these services have to be under the supervision of the governorate and the local units. - increase the support of the state to the health care to these areas - Support the hospitals by financial aids - Health insurance has to be widely spread - Restricted monitoring and control over the financed areas - financial support of building g schools - Have skillful teachers for these schools. - Detailed studies to be done by the foreign aids - Have data base for all the negative and positive impacts in these areas - Study of recycling the agricultural and solid waste. available land for these projects - Impalement the Agenda no. 21 chapter 7 paragraphs 6 and 9 part no 13

5-4-6 The proposed projects

The development of slums depends on the availability of the main services from the potable water, sanitation and solid waste. These projects have been covered in all the parts. The following table shows how we can improve and develop these areas and the said projects

The sub-project	The agency in charge	The proposed implementing agency	Estimated Budget in LE	Period of the project	Financial support
community projects of Potable water to the needed areas	Governorate of Menia	NOGs and local units	25 millions	5 years	Foreign donors- Social Fund- EPF
community projects on group of villages of solid	Governorate of Menia	NOGs and private sector	10 millions	5 years	Foreign donors- EPF

waste and recycling					
Community projects closed sanitation tanks availability of the sanitation sucking trucks	Governorate of Menia	NOGs , private sector and local units	10 millions	6 years	Foreign donors, private sector and local units
detailed studies on slums and needed areas and data base and actual needs	Governorate of Menia	research centers, university of Menia , consultancy offices Authority of building plans	3 millions	1 year	EPF, Authority of building plans , Foreign donors

5-4-7 The profile of prior projects

- Social detailed assignments to slums and dwelling areas

- The description of the problem

- There is no data base includes the slums areas and their needs
- The negative impacts on the needs of these areas

The projects and its elements

- The allocations of the slums areas in the governorate
- The needs and shortage in slums
- Projects that can be implemented in these areas
(Potable water- sanitation- solid waste – recycling)

The implementing agency

- University of Menia
- Authority of building planning

Estimated cost of the project

One million Egyptian pounds

5-5 Environmental awareness & Institutional capacity building

1-5-5 Raising the Environmental awareness

1-1-5-5 General background

The successful achievement for the actions mentioned in the GEAP aims to a more effective development, in addition to spread the environmental awareness in different sectors and categories of the society. Raising the environmental awareness is considered one of the important. Factors have to succeed the environmental management components in Menia, and also one of the priority society needs especially with offering or improving services to develop the environmental condition or treat a current problem.

In Menia there are many parties that can do awareness actions like local mass media (channel no.7, North upper Egypt Radio) as well as educational institutions, NGO's and social development organizations, communication centers, agriculture guidance medical convoys and country side etc.

Some of these authorities implemented many awareness campaigns (including symposiums, competitions, camps, distributing garbage bags among families in public parks).

Programs of these campaigns aim to treat different issues such as random disposal of solid and agriculture waste, protecting water resources and safe disposal of sewage waste water, and agriculture pesticides, health and population, population culture, protecting natural resources... etc, these activities were done depending on self financing or self efforts of the implementing organization or some donors.

Environmental substances were used as tools in these campaigns which included posters, public videos, TV. Programs, Radio programs in addition to special messages can be transferred by Sheikh in mosques and other religious leaderships.

Although all these achievements in the field of raising the environmental awareness but it was not enough. Menia governorate needs to awareness campaigns in most of the fields specially in the areas where literacy increases, and also at the beginning of implementing the GEAP to create new schemes of behavior towards the environmental among individuals, groups and all society through raising awareness, knowledge, attitudes and participation. Also still there are behaviors that can destroy all achievements to improve the environmental situation in these societies, and also. There are still some customs that may have a negative impact on the GEAP's projects, more over the wrong understanding for development among project's owners and industrial establishments managers, and illiteracy of citizens of the negatives of the current situation and its impact on their health and the future generations specially in their treatment with water & natural resources, sewage waste water, usage of pesticides, chemical fertilizers, treating trees in the streets, public parks, preserving the cleanness of streets and public parks, and governmental institutions, places of public services children leaking from schools, working children phenomena, industrial factories owners ignorance for safe internal environment and their ignorance for the different dangers face the workers inside these factories.

This part of the GEAP represents the past 5 years achievements, and the most important issues & problems in the field of environmental awareness also

causes and negative impacts and analysis of these problems & issues, as well as the required actions to raise public awareness.

2-1-5-5 Achievements in the past 5 years in the field of raising the environmental awareness:

1-2-1-5-5 Procedures & decisions

- Singing a protocol between Ministry of State for Environmental Affairs and Ministry of State for Local Development to support EMU's in governorates including establishment of an environmental communication section in the EMU department.
- Participation of the environmental officer in achievement of some symposiums & meetings regarding the identification of law of environmental and punishments of breaking this law.
- Making Radio & TV meetings with the environmental officer in the governorate to identify the important environmental issues and to reply citizen's inquires in this regard.

2-2-1-5-5 Administrative & technical *Support*:

- Support NGO's and social development organizations, direct some donors towards these organizations to implement awareness programs among citizens.
- Contribution of the governorate in awareness campaigns to implement some projects like developing the Western neighborhood of Menia city.
- Sign a protocol between the governorate represented by the EMU and between the Union for environmental NGO's to hold workshops & symposiums for small industries owners.

3-2-1-5-5- Implement projects:

- The EMU hold about 45 cultural symposiums and 73 environmental lectures with University Youth, Youth Centers, summer camps, NGO's to aware the new generation in schools & universities, and raise the environmental awareness of these youth because of their effect on their parent's customs and behavior, and also due to their effect on the society where they live more over these youth are the pioneers of this society and its future leaderships. Also 90 meetings were held to discuss some environmental issues with some concerned parties, and 25 interviews in Radio and TV programs as well as newspapers, 41 field visits to follow up awareness & communication activities in some locations & companies.
- Information center in Menia implemented 639 meetings (included symposiums, training course, workshops, meetings during some school visits to the information center, 14 theater show, 251 cinema show, 280 competition. Targets of these activities reached 56 507 citizen from different categories.
- Agriculture guidance (country side information committee) in Directorate of Agriculture in cooperation with different sectors in the governorate held awareness symposiums exceeds more than 2000 symposium for farmers regarding the ideal usage of chemical fertilizers and agriculture & insect pesticides well as biological fighting methods, as well as recycle of agriculture wastes and the danger of storing them in houses, population culture, health & population.

- Youth directorate implemented 60 awareness symposiums, 60 camps for awareness & cleaning 7 environmental competitions, 3 theater shows concerning environmental issues.
- Some environmental NGO's formed a union and implemented some awareness activities and spreading of environmental awareness for small & micro project's owners to put the environmental dimension into consideration in these projects, in addition to the activities of other NGO's including symposiums, workshops, and competitions, these activities were done individually.

4-2-1-5-5 On going activities implemented to raise the environmental awareness:

- Resume awareness campaigns through NGO's and social development organizations, as well as agriculture guidance and information centers.
- Awareness campaigns regarding bird's flu decease with knowledge of Health, Agriculture, Vet Medicine & Environmental authorities.
- Awareness campaigns about harms of smoking & shisha in cooperation with ENU with some NGO's and Culture Castel and channel 7 in TV.

3-1-5-5 Current situation : problems & causes

Current situation	Main problems & negative impacts for the current situation	Main causes of the problems	Current plans & programs to deal with the current situation
Spread of negative behaviors between different categories in the society	<ul style="list-style-type: none"> - Bad usage and treatment with water resources, disposal of wastes in water canals causing spread of digestive system deceases. - Non awareness in treating with hazardous medical wastes causing spread of epidemics and viral diseases - Burning wastes in streets & public roads - Spread of smoking among youths children and girls. 	<ul style="list-style-type: none"> * Not enough awareness campaigns in different media. * No ability of concerned authorities to make awareness actions to cover all areas because of weak finance and not enough number of qualified & trained employees to do awareness activities 	<ul style="list-style-type: none"> * Some governmental sectors & NGO's in cooperation with EMU in the governorate implemented symposiums, competitions, workshops, training courses in the field of awareness theater shows depending of budget in these authorities * CDECA in EEAA (Central Department for Environmental Communication & Awareness) supplied the governorate with the equipped communication mobile unit (car) for 2 days only in 2006
Absence of integrated and	- Focusing on certain areas ignoring others awareness	- No enough cooperation between concerned parties	* Hold monthly meetings in Agriculture directory for the

Current situation	Main problems & negative impacts for the current situation	Main causes of the problems	Current plans & programs to deal with the current situation
organized system for awareness actions	<p>campaigns are repeated from different parties in a certain areas without directing to other locations</p> <p>- No ability to follow up the results of these campaigns, so their effects vanish as soon as they finish and efforts are wasted.</p>	<p>or sectors that implement environmental awareness campaigns.</p> <p>- Not enough budgets in all authorities in charge of environmental awareness & communication most of them depend on donors.</p>	<p>countryside information committee including some sectors related with the governorate</p> <p>* Depending on self efforts and budget in these authorities</p>
EEAA roll in organizing awareness campaigns which have no enough finance	Weak finance for awareness campaigns, and no ability for different sectors to implement their programmes for raising the environmental awareness	<p>* EEAA focuses on limited governorates in this awareness campaigns lately</p> <p>* Not enough budget to spend on awareness programmes.</p> <p>* Increase the price of materials and cost of communication campaigns .</p> <p>* No specialized environmental library.</p>	Some sectors in the governorate (like agriculture, health, education, university, youth & sport) depend on the public budget, donors are financing NGO's & civil society organization and non governmental organizations

Current situation	Main problems & negative impacts for the current situation	Main causes of the problems	Current plans & programs to deal with the current situation
Weak interest in awareness of villagers and residential compounds	Bad usage and wasted of natural resources, failure of projects held in these areas, spread of wrong behaviors and crimes, increase of literacy percentage, spread of deceases related with environmental pollution	Absence of coordination and planning between different authorities to raise the environmental awareness in these areas	Coordinate between active NGO's to focus on these areas

4-1-5-5 Vision & goals

Increase the public awareness for citizens regarding different environmental issues and the citizen's behavior towards the environment and its resources through achieving the following goals:

- Targeting all society sectors to understand preserving the environment and developing the society and working on avoiding problems to happen.
- Support the environmental awareness and focusing on the link between the social, political and ecological sides in rural areas.
- Offering the chance for everybody to acquire knowledge and commitment spirit and individual skills to protect the environment.

create new schemes of behavior towards the environment among individual and groups and the whole society.

5-1-5-5 Targets & required actions to raise the environmental awareness

Main target	Targets for the next 5 years to achieve the main target	Decisions & Procedures and institutional support required projects & programs to achieve the target
Raise the general awareness of citizens in rural areas & residential compounds regarding the environmental issues	<ul style="list-style-type: none"> - Support individuals & groups to acquire awareness towards the environmental issues. - Offering the chance for individuals and groups to participate actively on all levels to act on solving the environmental problems related to natural resources. - Basic understanding for environment and problems related to services (drinking water, sewage, solid wastes, health, education, safe agriculture and safe usage of pesticides) 	<ul style="list-style-type: none"> * Put programs & plans for awareness through different sectors & authorities, coordinate between them and focus on these areas. * Support NGO's technically and financially to achieve awareness programs in these areas and announce for the GEAP and priorities of the environmental issues. * Offer financial support to implement these plans & programs.
Coordinate communication activities and awareness Campaigns and efforts to target all	<ul style="list-style-type: none"> - Prepare a communication and environmental awareness plan under the supervision of the Higher Committee of Environment in which all concerned parts participate to raise the environmental awareness in 	<ul style="list-style-type: none"> - Form a sub committee from the Higher committee of Environment for communication & training and raise the capacity building to supervise the implementation of communication plan. - Focusing efforts from the environmental leaders in

Main target	Targets for the next 5 years to achieve the main target	Decisions & Procedures and institutional support required projects & programs to achieve the target
<p>society Categories to support achieving the GEAP goals in Menia</p>	<p>the Governorate</p> <ul style="list-style-type: none"> * Using awareness campaigns in all locations during the annual environmental ceremonies, environmental competitions, cleaning & planting trees campaigns, that can be implemented under the sponsorship of donors or private sector to promote for the GEAP and its goals. - Targeting schools & Universities to raise the student's awareness due to their effect on their society behavior & customs, and also because they are the society future leaders. 	<p>Egypt to support a high level of environmental awareness among university professors, school teachers and also to guarantee their commit and support to GEAP goals</p> <ul style="list-style-type: none"> - Coordinate communication activities in the governorate with the communication office in EEAA and its RBO
<p>Focus on the priority environmental issues during the awareness campaigns</p>	<ul style="list-style-type: none"> - Preserve water & natural resources - Safe disposal of sewage wastes and avoid disposal in water courses. - Offer improved management for wastes and drinking water supply & 	<ul style="list-style-type: none"> - Prepare programs aim for preserving water - Prepare programs aim the random disposal of solid, industrial, medical and agriculture, solid & industrial wastes and its effects on general health. - Prepare programs for awareness of workers in

Main target	Targets for the next 5 years to achieve the main target	Decisions & Procedures and institutional support required projects & programs to achieve the target
	<p>sewage services</p> <ul style="list-style-type: none"> - Using of solid & agriculture wastes their recycle, fighting methods for agriculture pests. - Industrial sector required self follow up for the effects of wrong disposal of industrial wastes on the surrounding communities, and the importance for factory owners to improve working environment. 	<p>different industries.</p> <ul style="list-style-type: none"> - Support from EEAA to these campaigns technically & financially - Direct some donations to finance implementation of awareness programs with focus on villages & residential compounds as well as promoting the GEAP activities
Good follow up by time passes for the effects of these campaigns	<ul style="list-style-type: none"> - Checking how far is the change occurred in the behavior of targeted groups. - Develop the design and methods of the awareness campaigns as well developing its management & follow up to guarantee its effects. 	<ul style="list-style-type: none"> - Make researches to evaluate the results of these campaigns by specialized parties. - Offer the financial resources to implement such researches

6-1-5-5 Proposed projects

Project	Authority in charge	Proposed authorities for implementation	Proposed fund	Time schedule	Donors
Raising the environmental awareness of villagers and residential compounds regarding import and environmental issues and announcing the GEAP projects in Menia and focusing on the participation of civil society & grander	Governorate & local units	Communication center, NGO's, non governmental organizations	5 Million L.E.	5 years	Private sector and donors
Raising the environmental awareness campaigns for students and youth in schools and Universities and Youth centers	University, Ministry of Education, Youth & sport	University Ministry of Education, Youth & sport in coordination with EEAA and the Governorate	2 Million L.E.	5 years	Budget from implementation authorities and EPF
Specialized campaigns for Industrial installations owners and workers	The Governorate	NGO's union in cooperation with EMU in the	500 thousand L.E.	5 years	Donors and EPF

Project	Authority in charge	Proposed authorities for implementation	Proposed fund	Time schedule	Donors
		governorate and EEAA RBO in A suit			

2-5-5 Institutional support & capacity building:

1-2-5-5 General Background :

As achieving the actions in the GEAP needs huge investments & financial sources, also achieving actions requires bigger interest in organizational structures and required incentives to achieve and implement these actions to guarantee sustainability of these activities.

There is an organizational structure in Menia Government represented in the EMU in the Governorate, this EMU works on coordinate the activities between different parties in the field of environment, and implementing Law number 4/1994 and other laws on the local level inside the governorate. There are EMU director and 3 employees only. In his department (total number of EMU employees is 16 persons) have the concerning the 4/1994, the EMU belongs administratively to his Excellency the Governor directly in the organizational structure of the Governorate , and EMU belongs technically to EEAA. The EMU's in the 9 governorates cities & localities (markaz) follow the main EMU in the Governorate. They cooperate with the EMU in its activities, thus these EMU's achieve their tasks authorized to them through the main EMU in the Governorate.

The Markaz Chief has concerning the law 4/1994, also there is an environmental communication officer in village units to support EMU in locality (markaz).

Menia Governorate follows EEAA RBO in Asuit which is responsible for implementing EEAA policies on the level of the territory; its tasks include inspection activities, review EIA studies and implementing EEAA instructions. Also some directories in the Governorate established environmental units have

environmental responsibilities according to different laws and have important roles to achieve.

Even though, there is no effective system for planning & environmental management although it is one of the important requirements to achieve and sustain the activities of the GEAP of Menia Governorate, also weak ability of the environmental management due to weak capabilities of these departments, as EEAA did not show interest for EMU's in governorates except in the recent years through offering these departments with some equipments and training, but it is not enough comparing with the activities assigned for these departments. Also there is no budget to train employees of EMU in localities and communication officer in villages which affects negatively on the institutional support for EMU's, also weak environmental management in different sectors and directories and weak coordination between each other and between EMU in the Governorate although their big environmental responsibilities.

This part illustrates the current situation for the organizational structure for the environmental management and its institutional abilities, also shows the general goals for developing abilities and capacity building for EMU in the Governorate, also requirement of raising abilities and capacity building of EMU.

2-2-5-5 Achievements during the pasts years :

1-2-2-5-5 Decisions & procedures:

- Sign a protocol between Ministry of State for Environmental Affairs and Ministry of State for Local Development to support EMU's in Governorates and the fellowship of these EMU's technically to EEAA and administratively to the Governorate.

- Giving to 3 inspectors from the EMU concerning law 4/1994
- Directors of EMU's in localities became members in projects license committees according their specialization.
- EMU Director in the Governorate is a member in land committee in the Industrial area.
- Formation of the Higher Committee for Environment.

2-2-2-5-5 Administrative & Technical support:

- 56 training courses were implemented by EEAA targeting EMU employees in the Governorate to raise their technical abilities.
- Supporting the EMU in the Governorate with equipments and some field measuring equipments, in addition to a GPS machine, data show, Photocopy machine and a digital camera.
- Support the EMU in the Governorate with vehicles for achieving installations and to follow up the environmental conditions and accomplish the department's assignments.

3-2-2-5-5 Implemented projects:

- Prepare the Governmental Environmental Profile by EEAA (in Cairo) financing & supervision.
- Establish a GIS unit in the EMU.
- Establish Environmental units in some sectors in the Governorate.

4-2-2-5-5 On going projects:

- Prepare the Governorate's GEAP, financed and supervised by EEAA in Cairo.

- Completing the GIS unit and establishing data bases.

Joining the EMU with the information and data base network of EEAA and its RBO in Asuit

3-2-5-5 current situation: Reasons & problems:

Current situation	Problem & effects	Causes	Current plans & programs to deal with current situation
Weak organization structure of the EMU's in governorate& Markaz	<ul style="list-style-type: none"> - weak effect & quality of decentralization of environmental management - Responsibilities & specializations of employees in these departments are not clear. - Weakness of the administrative planning more over weakness of goals identification and goal implementation requirements. - Absence of a strategic environmental planning or long or medium range integrated for the environmental activities. 	<ul style="list-style-type: none"> - EMU's specially in markaz are not supported with specialized technical persons - There is no certified organization structure in the EMU's suits with their assignments 	Non

Current situation	Problem & effects	Causes	Current plans & programs to deal with current situation
Weakness of planning & environmental management	<ul style="list-style-type: none"> * non coordination between main concerned parts to improve the environmental services and rationalization of consumption of resources and protecting it and applying the cur procedures * weak follow up and weak effective monitoring and weak commitment with the environmental laws and prepare measurements for environmental performance * No guarantee for supporting & sustaining of the GEAP * There is no incentives for employees in EMU's matching with their responsibilities like their colleagues in EEAA.' 	<ul style="list-style-type: none"> - Depending on personal views or personal estimation for management * Administrative process is weak (planning – organizing – guidance – control) * No budget to spend on training environmental officers in markaz & village - Small number of qualified technical cadres to do training for officers in markaz & villages * Centralization of planning for environmental management in EEAA 	<ul style="list-style-type: none"> - Making advanced training courses for employees specialized for EMU in the governorate to qualify them technically and administratively or as TOT for employees in other departments.

		and its RBO's	
Current situation	Problem & effects	Causes	Current plans & programs to deal with current situation
Weak coordination between EMU & different main authorities responsible for environment regarding completion of their environmental responsibilities	<ul style="list-style-type: none"> - No ability for effective planning and managing programs & environmental projects. * Un familiarity with important environmental issues related with these sectors. * Un ability to offer and prepare correct accurate data base about these issues to help the higher level officers to take the correct decisions to solve these issues. * Difficulty in solving the environmental problems and priority issues with an effective and quick form. 	<ul style="list-style-type: none"> - Non regulation meetings & periodical appointments with environmental responsible in these sectors to identify the urgent environmental problems & issues * Non establishment of environmental units in some sectors & authorities 	<ul style="list-style-type: none"> - Monthly meeting with environmental officers in markaz to cooperate between these departments to present these urgent problems in these markaz. * Inviting some officers in different sectors to obtain the required data to prepare a correct data base reflects the current situation in the governorate.

3-2-5-5 Current situation: Reasons & problems:

Current situation	Problem & effects	Causes	Current plans & programs to deal with current situation
Weak organization structure of the EMU's in governorate& Markaz	<ul style="list-style-type: none"> - weak effect & quality of decentralization of environmental management - Responsibilities & specializations of employees in these departments are not clear. - Weakness of the administrative planning more over weakness of goals identification and goal implementation requirements. - Absence of a strategic environmental planning or long or medium range integrated for the environmental activities. 	<ul style="list-style-type: none"> - EMU's specially in markaz are not supported with specialized technical persons - There is no certified organization structure in the EMU's suits with their assignments 	Non

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Weakness of planning & environmental management	<ul style="list-style-type: none"> * non coordination between main concerned parts to improve the environmental services and rationalization of consumption of resources and protecting it and applying the cur procedures * weak follow up and weak effective monitoring and weak commitment with the environmental laws and prepare measurements for environmental performance * No guarantee for supporting & sustaining of the GEAP * There is no incentives for employees in EMU's matching with their responsibilities like their colleagues in EEAA.' 	<ul style="list-style-type: none"> - Depending on personal views or personal estimation for management * Administrative process is weak (planning – organizing – guidance – control) * No budget to spend on training environmental officers in markaz & village - Small number of qualified technical cadres to do training for officers in markaz & villages * Centralization of planning for environmental management in EEAA and its RBO's 	<ul style="list-style-type: none"> - Making advanced training courses for employees specialized for EMU in the governorate to qualify them technically and administratively or as TOT for employees in other departments.

Current situation	Problem & effects	Causes	Current plans & programs to deal with current situation
<p>Weak coordination between EMU & different main authorities responsible for environment regarding completion of their environmental responsibilities</p>	<p>- No ability for effective planning and managing programs & environmental projects.</p> <p>* Un familiarity with important environmental issues related with these sectors.</p> <p>* Un ability to offer and prepare correct accurate data base about these issues to help the higher level officers to take the correct decisions to solve these issues.</p> <p>* Difficulty in solving the environmental problems and priority issues with an effective and quick form.</p>	<p>- Non regulation meetings & periodical appointments with environmental responsible in these sectors to identify the urgent environmental problems & issues</p> <p>* Non establishment of environmental units in some sectors & authorities</p>	<p>- Monthly meeting with environmental officers in markaz to cooperate between these departments to present these urgent problems in these markaz.</p> <p>* Inviting some officers in different sectors to obtain the required data to prepare a correct data base reflects the current situation in the governorate.</p>

4-2-5-5 Goals & Vision

Improve the institutional support and capacity building for EMU's in governorate & markaz since they are linked with all sectors and actions related to sustainable development and preserve the public health through:

- Establishing an effective system for planning & environmental management in the governorate.
- Support the capabilities of the current authority in charge of the environmental issues and coordinate between each other, with recognizing the importance of the private sector & civil society role in improving the environment that they live in.

5-5-2-5 Targets and required actions for institutional support & capacity building

Main target	Targets during the next 5 years to achieve the goal	Decisions & procedures & institute support and required programme to achieve the targets
Raising the administrative level in the governorate from a department to a general departments	<ul style="list-style-type: none"> - Capacity building to implement and follow up the laws. - Improve the ability to deal with emergency. - develop the technical & administrative training for the main employees to increase the value of their work * Raise the employee's level in these department technically, administratively and financially * Support the GIS unit to help in planning & follow up, and establishing an environmental geographical data base in cooperation with Information center in the governorate and the local Development. 	<ul style="list-style-type: none"> - Take required procedure to raise the department level in the governorate to be a general department followed by EMU's in localities (markaz) - Improve incentives for the employees in these departments according to their responsibilities

Main target	Targets during the next 5 years to achieve the goal	Decisions & procedures & institute support and required programme to achieve the targets
Support establishment of an effective system for environmental management & planning	<ul style="list-style-type: none"> - Improve the effectiveness of the environmental management and capacity building for the environmental management & planning in different sectors in the governorate. - Put a system for the environmental officers in villages. - Improve the coordination between different sectors concerned with environmental in the governorate to improve the environmental services and of resources & protect them, as well as applying the curing procedures. - guarantee support & sustainability of the GEAP - To have the ability to face the priority issues in 	<ul style="list-style-type: none"> - Put an organized and planning methodology for environmental management under supervise of the Higher Committee for Environmental. - Prepare an effective decentralization system for planning & environmental management. * Establish a Joint network to coordinate between all groups, authorities & sector concerned & interested in improving the environmental services & preserve resources

Main target	Targets during the next 5 years to achieve the goal	Decisions & procedures & institute support and required programme to achieve the targets
	<p>cooperation with each of the government & private sector & NGO's</p> <p>- Increase public awareness and consulting with the community regarding the environmental issues.</p> <p>* Improve the follow up & effective control and commitment with the environmental laws.</p> <p>* Guarantee the highest levels of commitment inside the governorate to adopt & implement the environmental action plan (GEAP)</p>	
Capacity building for the specialists in EMU's	- Implement adhesive training courses for the main employees in the EMU in the governorate and EMU's in markaz in different fields specially information and the need for transparency &	- EEAA puts specialized training programs & plans for the main employees in the EMU to guarantee their continuously in the work and utilize of

Main target	Targets during the next 5 years to achieve the goal	Decisions & procedures & institute support and required programme to achieve the targets
	<p>exchange of information</p> <p>- develop the technical & administrative training for main specialists in the governorate & localities to increase the value of their work and maintain sustainability</p> <p>*Emphasize the importance of the financial planning for operation & maintenances of training programs in different authorities</p>	<p>these courses with regard to specialization commitment that the EMU specifies in its organizational structure</p> <p>- Training for specialists of GEAP programs & projects and prepare for the environmental projects.</p> <p>* Put intensive system for employees in EMU in governorate & markaz according to their responsibilities.</p>
Support the authorities and sectors and non-governmental organizations	- Capacity building for NGO's and social development organizations to be more able to specify the community needs and implement projects that are based on making awareness campaigns.	- Establish a training unit in the EMU in the governorate and supply it with financial resources to cover the training courses in the fields of environmental

Main target	Targets during the next 5 years to achieve the goal	Decisions & procedures & institute support and required programme to achieve the targets
	<ul style="list-style-type: none"> - Support the educational institutions and responsible for environmental activities in schools - Support private sector projects to plan & implement environmental plans & projects. - Hire environmental officers in the sectors, authorities and organizations with environmental responsibilities to support follow up and environmental performance improvement. 	<p>services & resources maintenance and public communication skills</p> <p>* This unit supports the communication links between EEAA or RBO and Menia University, NGO's, private sector, donors to supply the required support to achieve capacity building of environmental responsible in these sectors & organizations and finance some priority environmental projects.</p> <p>- Supply the human & financial resources for EMU's and local units sectors & organizations</p>

6-2-5-5 General requirements for institutional support and capacity building:

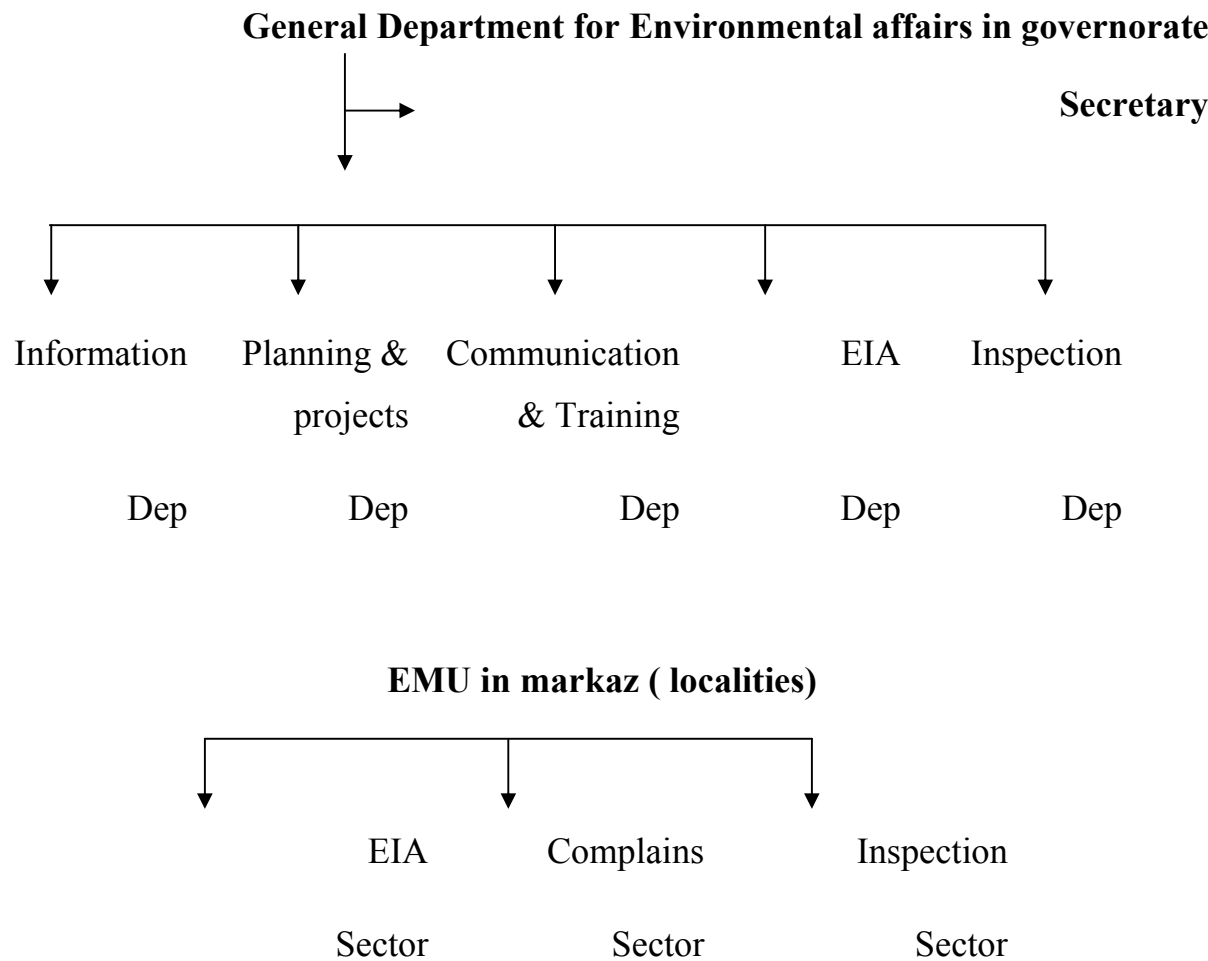
- 1- Prepare an effective decentralization system for environmental planning & management to implement and sustain the activities of the GEAP (Environmental Action plan) of the governorate based on a planned & organized methodology for the environmental management, under the supervision of the higher committee of Environment who take charge of review & update this system periodically to insure the commitment with the issues raised.
- 2- The environmental planning system also contributes in implementing the following general functions:
 - Capacity building through training and employment as well as operating an effective leading services.
 - Coordinate between the concerned groups to improve the environmental services and preserve, protect and cure the resources.
 - To apply the land – use scheme which considers the environmental laws through applying the EIA conditions & obligations.
 - Strategic planning to insure the sustainable development.
 - Preparing the required human & financial sources to implement the programs & projects of the governorate's Action plan.
 - Effective follow up & applying the environmental laws as well as putting the environmental standards & performance incentives.
- 3- To issue a decree draft to raise the level of the EMU in the governorate into a general Department includes sub departments & sections, such as: EIA, Inspection & complains, Communication & training, planning &

project's follow up, then following up after that the EMU in markaz and environmental officers in villages.

- 4- EEAA continues to support EIA through organizing training programs targeting the main employees according to their specialization till the training achieves its goals.
- 5- Establishing environmental units in the Industrial areas and other involved authorities which have environmental responsibilities and not yet including environmental units such as housing authority more over to hives an environmental representative in the authorities that have indirect relation.
- 6- Capacity building for the environmental representatives in villages & markaz through training.
- 7- Capacity building for the representatives of Education authority who are in charge of the supporting environmental activities in schools on markaz level.
- 8- Environment unit in social solidarity authority supports the role of NGO's working in the field of environment & manages it more effectively.
- 9- Support the attitude to establish a central unit for solid waste management to be responsible of planning, supporting and co-coordinating the solid waste management activities, as well as support the services privatization including follow up the job of solid waste collectors from private sector, and how far they are committed and to insure the good disposal of construction wastes.

- 10- Establishing Awareness & guiding unit to support many small, medium & big projects to apply the safe environmental friendly technology as well as proper environmental management actions.
- 11- Support the agriculture guidance employees regarding the environmental issues, specially the usage of agriculture pesticides & chemical fertilizers.
- 12- Capacity building of the employees in Ministry of Health to make them able of good handling for hazardous & medical wastes which in considered one of the main environmental issues.
- 13- Environmental training unit in the governorate takes charge of all training activities involving environmental services and preserving resources, communication skills, support communication links between EEAA or the RBO or other sectors or authorities or grant organizations.

The proposed structure to raise the level of the EMU into a General Department for Environmental Affairs



Needs & training programs & target groups in Menia governorate:

Target group/ authority	Training needs
EMU in governorate & sub departments in markaz	<ul style="list-style-type: none"> - Inspection on different industrial establishments, advanced courses & field visits. - Advanced EIA - GIS (Geographical Information system). - Planning & project follow up as well as feasibility studies for environmental projects. - Environmental law & legalizations preparing environmental data bases. - TOT in different fields. - Communication & raising the environmental awareness. - Hazardous wastes Management.
Environmental Communication officers	<ul style="list-style-type: none"> - Environmental communication representative manual.
NGO'S & social development organizations	<ul style="list-style-type: none"> - Environmental projects Management. - Financial management & project fund sustainability. - Writing the environmental & development project's proposals. - How to deal with the donating authorities. - Promoting & getting support for the Governorate's Action

	plan projects as well as other environmental projects.
Owners of industrial projects and technical workshops, and environmental representative in the industrial areas	<ul style="list-style-type: none"> - Cleaner production. - Plans for environmental management in industry.
Environment unit & agriculture guidance in agriculture authority	<ul style="list-style-type: none"> - Usage of chemical & organic fertilizers and insect pesticides, and Biological pest systems & irrigation methods.
Environment unit in Drinking water & sewage company	<ul style="list-style-type: none"> - Waste water treatment methods. - Usage of treated waste water in planting. - Operation & maintenance of domestic waste water networks and the systems used in the treatment stations. - Operating & maintenance of drinking water networks as well as treatment stations. - Methods of measuring the leakage & losses in water networks. - Drinking water quality control. - General awareness programs regarding the rationalization of drinking water.
Environmental health department in health authority	<ul style="list-style-type: none"> - Monitoring & follow up for all emissions. - Good management & safe disposal of medical hazardous wastes.

Solid wastes	<ul style="list-style-type: none"> - Capacity building for employees in solid & hazardous wastes departments. - Safe disposal of solid and hazardous wastes. - Developing the participation of private sector in solid waste management.
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6- Required actions to raise the general environmental awareness in the governorate:

Awareness campaigns must be planned to aim all society sectors, because the new methods and concepts that support achieving the goals of the GEAP take long time to affect, and it is also a process that needs big supporting sources. In early stages of achieving the GEAP, there must be awareness campaigns to take place regarding the priority issues in the GEAP, with regard to programmes targeting the following:

*** Main concerned authorities:**

- Methods of preserving the underground water and consumption rationalization.
- Random dumping of wastes & its effect.
- Domestic waste water & personal health.

*** Secondary concerned authorities:**

- Importance of offering good management for solid wastes & water services and sewerage services.

- Needs of the Industrial private sector for self follow up of the effects of wrong industrial wastes disposal on the surrounding societies, in addition to the necessity to improve the work conditions.
- Protecting natural resources.

General awareness can be guided through many authorities: mass media, Educational departments & schools, youth centers, NGQ'S as well as employees in the field of industrial security. In order to support implementing the GEAP in the governorate, it is scheduled to apply some promotion including posters and video films as well as TV & Radio programs; in addition to some especially messages can be transferred through religion leaderships.

Media activities in the GEAP will be co-coordinated with current general awareness campaigns including the environmental occasions and competitions under the auspices of the Governor, in addition to cleaning & planting campaigns than can be implemented under the auspices of the donating organizations or the private sector.

More over schools & universities must be targeted to raise the environmental awareness of the students due to their effect on the customs & behavior of their parents, also because these students are the future leaderships in the society of Menia.

As a first step, efforts must focus on supporting a high level of environmental awareness for University professors and also teachers in schools, also to focus on their commitment and support to the goals of Menia GEAP.

These activities must be co- ordinate with the central department of environmental communication & Awareness (CDECA) in EEAA, as CDECA had issued a collection of posters, procedures and flyers for public awareness.

It is important to make a good follow up as time passes to check the effect of these campaigns, this includes making researches on the change of behavior & thoughts for the target groups, the results of these researches will contribute in designing, manage and follow up the companies to insure its effect.

7- Institutional support & capacity building in Environmental Management of the governorate:

7-1 Institutional support & capacity building:

The successful implementation for the actions included in Menia GEAP will lead to a more sufficient usage for the available resources.

This requires new investments especially for the proposed infrastructure. In both cases this matter will requires improving the institutional structures and systems that support the implementation process.

Most main organizational are present in Menia, this part of the report includes some of the necessary actions to support the current organizations and increase the effective coordination between each other.

Recently, the governorate formed a higher committee for Environmental by the decree number (594) for the year 2005 dated 22/10/2005, to take charge of facilitating the implementation the GEAP.

Also the governorate has its own EMU and recently some EMU on the level of markaz have been established.

As for the concerned Ministries, such as Ministry of Housing, Ministry of Irrigation, Ministry of Health they have an environmental responsibilities according to different laws, as well as important roles they have to fulfill, therefore they will need capacity building to be able to act their roles, also their institutional structures will need support to ease the effective contribution procedures from private sector & NGO'S and also society development NGO'S and all the society sectors together.

7-2 Planning system & environmental management:

Preparing an effective decentralization system for planning and environmental management is considered one of the important requirements to implement and sustain the activities of the GEAP in Menia. This matter requires creating a structure to manage and assess and improve the effectiveness and quality of the environmental management decentralization on the governorate level.

Planning and environmental management system must be established on a planned and organized methodology under the supervision of the higher committee of Environment, and this methodology will be reviewed and updated periodically to insure its fitness to the discussed issues. The planning & environmental management system will have the following general functions:

- Strategic planning to insure the environmental friendly sustainable development.
- Implementing land- use planning that takes into consideration the environmental laws through applying EIA conditions and be committed with it.

- Co-ordinate between the concerned groups activities to improve the environmental services, and preserve, protect and cure the resources,
- Increase the public awareness and consult the society about the environmental issues.
- Capacity building through training & hiring the effective guidance services.
- Supply the required financial and human resources to implement the projects of the GEAP of Menia.
- Effective follow up and applying the environmental laws and put standards and for environmental act.
- Support the governorate GEAP and insure its sustainability and update.
- Institutional support is important for the following reasons:
 - Develop the planning and environmental management system to act on effective treatment for the priorities of issues mentioned in part 5 of the GEAP on the government, private and society levels.
 - Insure the commitment to apply & implement the governorate GEAP and to admit it on the higher levels inside the governorate.
 - Support and facilitate the contribution of all concerned groups who are interested in improving the environmental services and preserve the natural resources.
- Establish a link network to coordinate between all the concerned groups in order to keep the sustainability of Menia GEAP.

The planning environmental management system does not assume any new bureaucratic restrictions, as the system depends on the current management in the governorate, this system consists of:

- Higher committee of Environmental (recently established) to be in charge of coordinating and including the planning and environmental management activities on the governorate level.

Menia governorate is currently making a process to specify the organizational structure of the council and distributing roles & responsibilities which are expected to include the following:

- Preparing mechanisms to merge the GEAP strategic priorities into the general planning and preparing programs and budgets as well as specializing resources.
- Support more coordination & information exchange between ministers on the level of the governorate.
- Increase the coordination & cooperation between sectors on the level of the governorate.
- Conducting opinions to the central bodies like (EEAA) and increasing the local inputs in policies & national environmental plans (National environmental action plan)
- Follow up the implementation and update of the GEAP priorities and insure merging the environmental issues into development plans.
- Act as a consultant for the Governor regarding the strategic environmental issues.

*** Insuring the implementation of environmental plans & priorities mentioned in the GEAP is considered one of the important priorities for the higher committee of environmental.**

- Establish environmental units (Each one includes 1-2 employees) in each concerned and environmental related authorities such as Ministries of Housing, Health, Agriculture, Industry, Irrigation, Tourism.
- Hire environmental communication employees in other authorities.
- Hire environmental communication employees for each village.
- Support the ability of recent environmental units in markaz.
- The General Economic Authority for managing drinking water & domestic waste improves the standards of planning, maintenance and collecting fees as well as raising the awareness and ability for environmental management.
- To hire a representative for environmental coordination and development in the Social Affairs authority in order to support the role of NGO'S and social development organization in the field of environmental management to be more effectively.
- Support the sources & abilities of the representative of education authority in charge of supporting environmental activities in schools on markaz level.

The central unit for solid waste management to plan, support and co-ordinate the solid waste management activities, as well as supporting the privatization of services including follow up of the performance for services employees from private sector and how much is their commitment.

Employees in this department must get training on solid wastes in general as well as financial & strategic planning.

Also an awareness and guidance unit will be established to support many of the small & medium projects on applying the environmental safe technology as well as the good environmental management actions.

* The initiatives that started on the central level to support decentralization of environmental management include:

- Issue a decree draft to divert the EMU'S in all governorates to be general departments for environmental affairs. The implementation of this decree will give more importance for environmental issues; also will support the environmental management decentralization process. The Egyptian program for environmental polices (supported from USAID) in Co-operation with EEAA presented that decree draft in front of his Excellency the Prime Minister for his approval.

EMU in some governorates have been changed into general departments such as New valley & Red sea. Menia governorate will have to move fast to support the capacity of this new department and offer the required support to implement the governorate GEAP.

- Integrated cooperation for the environmental activities in all EMU'S /markaz / authorities inside the governorate is included among the main tasks for the General Department for environmental affairs, this also includes preparing the environmental strategic plans & programs. This general department can also act as a communication office for awareness & environmental complains which will help an environmental follow up, and offering environmental training as well as raising the environmental awareness.

7-3 Main Environmental authorities:

An environmental management & planning system must be established according to the current system of decentralization of environmental management (table 1), also this system must support the coordination & support the effectiveness of the other main authorities in Menia governorate in order to fulfill its environmental responsibilities, as illustrated in the following table:

Table (1): Main Environment authorities (Responsibilities & coordination)

Authorities	Fields of Environment responsibilities	Coordination with other authorities
Ministry of water resources & irrigation, water resources & irrigation authority (specialized mainly with distributing water, cleaning water canals from wastes	Apply law 12/1984 regarding irrigation & draining, as well as apply related decisions prepare estimated demands for irrigation water and present them to the central Ministry. - Manage the main infra structure to supply irrigation water & drain services, also operation and distribution of these services according to agriculture lands. - Increase the efficiency of transfusing water to the needed lands.	Health authorities take samples to measure water quality to preserve public health - Raise any complain regarding any irrigation problems to the central Ministry - Presents the Violation cases (beside law 48) to the EMU in the governorate or any other concerned authority - Raise any irrigation water quality problem to the central Ministry of water resources & irrigation.

Authorities	Fields of Environment responsibilities	Coordination with other authorities
	<ul style="list-style-type: none"> - Renew the old drain networks - Apply law 48/1982 through inspection in cooperation with water surfaces police. 	
<ul style="list-style-type: none"> - Ministry of housing - General authority for sewerage 	<p>Apply law 48/1982</p> <p>Regarding sewerage disposal and other related decisions to guarantee matching sewerage collect and treatment services with the Egyptian laws;</p> <ul style="list-style-type: none"> - Encourage reuse of treated waste water & sludge - Supply enough infra structure for collecting and treatment to small villages & country side areas. - Guarantee supply of enough treatment infra structure for industrial wastes. - Guarantee the matching of domestic waste water & industrial waste water which are disposed 	<p>Program in health authority to follow up industrial waste liquids which are disposed into public sewerage network</p> <ul style="list-style-type: none"> - Health authority makes tests on the liquid wastes on behalf of EMU or the sewerage department according to their request. - Raise the violations related to water pollution to water surfaces police

Authorities	Fields of Environment responsibilities	Coordination with other authorities
	<p>through public sewage network with the Egyptian standards</p> <ul style="list-style-type: none"> - Prepare small sewerage projects, (pipes) systems, plumbers as well as big projects <p>Projects through central ministers as well as management of these projects through the governorate.</p> <ul style="list-style-type: none"> -Supervise locality employees; follow up the projects implemented through private sector contractors. - Locality employees are in charge of checking & leaking cases or bad pipes, and bad odors coming from treatment units, as well as pollution resulted from untreated sewage waste water 	
Ministry of agriculture and land Reclamation, Agriculture	<ul style="list-style-type: none"> - Apply law 53/1966 and related decisions - Offer marketing and financial 	<ul style="list-style-type: none"> - Ministry of Health & the Developing Exports authority make control on the agriculture production quality

Authorities	Fields of Environment responsibilities	Coordination with other authorities
authority	<p>services, agriculture cooperation</p> <ul style="list-style-type: none"> - Support agriculture sector to fight pests & deceases - Support in preserving soil quality (for example by making researches on soil) - Encourage land reclamation projects - Manage & cleaning of irrigation & drain of water resources as Ministry of Water Resource & irrigation is responsible for management of main canals, Ministry of Agriculture is responsible of management of sub – canals) - Supply information, training, agriculture guidance service regarding agriculture practices (fighting pests, usage of fertilizers, animal) - Giving license for animal 	<ul style="list-style-type: none"> - Agriculture authority informs the environmental units in localities (markaz) with the environmental violations

Authorities	Fields of Environment responsibilities	Coordination with other authorities
	industries which requires many licenses.	
<ul style="list-style-type: none"> - Ministry of Health & population - Health authority 	<ul style="list-style-type: none"> - Take samples from drinking water sources, water treatment stations, waste liquids resulted from waste water treatment stations also drain water in local sewage networks and water cannels. - Analyzing these samples (or send them to the central Ministry of health to make analysis) - Take and analyses samples from the industrial pollution sources and other pollution sources according to other authorities request. - Monitor the surrounding air quality (through 2 fixed monitor points and one mobile monitor units). - Implement vaccination programs 	<ul style="list-style-type: none"> - In case of presence of any problem regarding drinking water quality, a committee is formed from EMU, water company to check the problem \ - samples taken from suspect locations in the Nile river are sent to the central Ministry for analysis, then the governorate is reported after words if any problem is found

Authorities	Fields of Environment responsibilities	Coordination with other authorities
	<p>to prevent diseases.</p> <p>- Health authority is not responsible directly for law implement commitment</p>	

7-4 organizational support for other organization:

Organizational support & capacity building must not be included for governmental authorities only, big efforts must also be directed to make capacity building for NGO's and society NGO's, public educational organizations and private sector to support their abilities in the field of planning programs, environmental projects & management.

Initiatives must also include encourage the attitude to hire environmental communication employee in the technical unions and commercial offices to support the self follow up of the participated companies to improve their environmental act.

8- Roles & responsibilities:

Every goal in the Environmental Action plan will have its own authorities that will be responsible for implementing it as illustrated in table (2). The EMU will be responsible for coordinating the preparation of policy & control the results as well as presenting the achievement results as well as presenting the achievement report in this regard and finally presenting recommendations for performance improvement

Table (2): Responsibilities of implementing the GEAP in the Governorate

Issues & Goals	Main Implementing organization	Main Participates authorities
Sewage		
Supply sewerage Services to all urban & countryside areas	Public Company for drinking water & sewerage	Health Authority
Institutional capacity building and support for different sectors on governorates level	City councils, village councils, public company for drinking water & sewerage	Menia governorate and EMU
Maximize the reuse of treated waste water & sludge	Agriculture authority, company for drinking water & sewerage	EMU, agriculture cooperation employees of agriculture guidance
Solid waste management		
Put an appropriate strategy for integrated waste management in Menia governorate	Solid waste department	EMU in city council village councils, society development organization

Improve the operation & maintenance of waste services	City council , village council	EMU
Improve the current systems for collecting & transporting wastes	City councils village councils	EMU
Adopting appropriate high quality systems to treat with wastes and its disposal	City council, village council, hospitals and factories	EMU, Health authority
Guarantee safe and sustainable recycle for wastes	City councils, village councils, hospitals and factories	EMU, Health authority
- Put appropriate systems for managing medical & hazardous wastes	City councils, hospitals and factories	AMU and health authority
Improving the institutional system and capacity building for employees	City councils & village councils	Menia governorate
Water supply and water quality:		
To make service cover 100% and increase production to meet with	Public Company for drinking water & sewerage	Menia governorate and drinking water company

expected demand		and sewerage
Improve water service quality to cope with the by the year 2010	Public Company for drinking water & sewerage	Company for drinking water & sewerage, Health authority
Raise the level of collecting fees from 65% to 85% and decreasing the loss in networks from 25% to 20%	City councils, village councils, factories NGO's social development organizations	Company for drinking water & sewerage, NGO's and social development organizations
Capacity building to improve water supply service and service network	Local people's council in the governorate, city council, village councils	Company of drinking water & sewerage
Water Resources:		
Improve surface & underground water resources management	Ministry of water resources & irrigation.	EMU
Improve the surface & underground water resources quality	Ministry of water resources & irrigation, Health authority	EMU
Decrease pollution of surface and underground water resources	Factories, EMU, Agriculture authority, water resources authority, health	EEAA, water resources police

	authority	
Agriculture :		
Improve soil and irrigation quality	Agriculture authority	Ministry of water resources and irrigation
Usage of fertilizers & pesticides	Agriculture authority	Ministry of agriculture and land reclamation
Support fish production	Agriculture authority	General authority for developing fish wealth
Decrease the harvest loss and dealing with it	Agriculture authority	Ministry of agriculture and land reclamation
Developing institutional management	Agriculture authority	Menia governorate
Industrial pollution :		
Guarantee safe storage for hazardous wastes and safe disposal	Factories	EEAA, EMU Health authority, ministry of working power
Decrease minute & gas emissions from big factories by 50%	Factories	EMU, water Resources & general authority
Increasing the governmental	General Economic	Menia governorates,

ability to manage industrial activities	authority, city & village councils	EMU's
Law public environmental awareness		
Increase the environmental awareness among governmental employees & citizens of Menia	Menia governorate, EMU, EEAA, Education authority	City & village councils, health authority
Improve services supply to help citizens to follow good healthy practices	Company for drinking water and sewerage	National authority for drinking water & sewage health authority
Natural Resources:		
Support planning operations, organizing & operating mines & quarries	Mines & quarries department	Menia governorate
Improve EIA studies	EMU, environmental units	Menia governorate
Capacity building for mines & quarries	Mines & quarries department EMU	Menia governorate
Decrease the effects of mines & quarries activities	Mines & quarries department	Menia governorate
Culture Heritage		

Support management of culture locations and areas of environmental importance	Monuments Department	Menia governorate
Support capacity building	Monuments Department	Menia governorate higher council for
Protect the culture heritage	Menia governorate guidance department	Higher council for
Protect the area found between Tal Hamarna and Bani Hasan, Touna Elgabal area – Shiek Ebada area- Ancient cemeteries – Holly family passing area	Monuments Department	Menia governorate
Protecting Biodiversity		
Put a program for environmental and biodiversity maintenance	Menia governorate, Agriculture, authority, EEAA, Education authority	EMU's, city councils
Management of National protected areas	Menia governorate, agriculture authority, EEAA	EMU, city councils

Limitation of environmental dangers (threats)	Menia governorate, agriculture authority, EEAA	EMU, city councils
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9- Finance & implementing the plan:

9-1 Implementation priorities:

The proposed actions in the governorate GEAP put into consideration to offer low cost and practical solutions, but the limitation of the available resources stands as an obstacles in front of implementing the required improvements, though the 6 main issues with high priorities need quick interventions:

- 1- Improving domestic waste water.
- 2- Developing the solid waste management.
- 3- Improving drinking water supply & quality.
- 4- Reduction of industrial pollution.
- 5- Raising the environmental awareness for employees in government and of the citizens of Menia.
- 6- Developing Random areas and residential areas.

As for the 3 first environmental priorities, the governorate has the biggest responsibility to deal with them in the form of supplying the environmental utilities services (although there must be real opportunities for the participation of private sector).

As for the fourth priority, it is included in the responsibility of private & public companies.

As for the responsibility of the fifth priority it is done through the department concerned for spreading of public awareness in Menia governorate.

The last priority is the responsibility of scientific organizations to cooperate with each other to implement it like the University with the governorate.

*** Budget & Five-Year Plan for implementation:**

The governorate (after finishing the preparation of the GEAP) will contact with the authorities and concerned parts who are responsible of dealing with the priority issues mentioned above.

These authorities will be supported for merging the related parts in the GEAP in their practical plans and identifying the implementation plans will increase the implementation of current budget usage and will identify the priorities that need additional resources to achieve the goals of the GEAP.

Identifying the priorities of the activities in each component must be done with in the implementation plan.

For example, it may be necessary to admit giving the priority to offer the main governmental services for the poorer areas or to support activities in order to attract the environmental friendly investments like establishing an industrial city.

*** Strengthen the control abilities:**

The governorate must identify from the beginning a number of measured indicators to identify the progress in the GEAP activities, also the authorities & companies must be encouraged to put individual & administrative goals as mentioned previously in table (2). This will help in implementing more effectiveness and purposeful usage of the limited resources to give a more useful effect and a more developed environmental practice.

*** Spreading the governorate GEAP to attract additional resources:**

Implementing the priorities of the GEAP will mobilize the resources inside Menia governorate on all levels starting from the governorate passing through the NGO's and society NGO's. The GEAP will offer a clear action framework to guide the finance to the priority issues through it.

The GEAP must also be raised so the main concerned ministries and donating organization & national organization, with its clear action frame work in the form of an objective purposeful plan to get the support of these organizations for the efforts of environmental management in the governorate.

The support and gain the continuous support from higher levels may help in getting additional financial support to implement the GEAP of Menia governorate.

*** Establishing an effective legal & economical action framework:**

The effective legal action frame work will be concerned about applying and activating the current environmental laws, this matter may require a necessity to impose additional fees to insure the environmental improvements, applying different environmental laws is the responsibility of many authorities in the EMU in the governorate, and to support on coherent and cooperated implementation of these laws the governorate must create a control & implementation department, then the EMU may reach to a self finance funding through collecting fines from the law breakers.

*** Attracting the private sector participation to offer infrastructure services:**

The governorate must put an economical & legal frame work to support the participation of private sector and support also the investment in supply & conductive the environmental services. This will minimize the financial & administrative burdens on the governorate, and will work on improving the quality, coverage & conductive the environmental services.

9-2 Finance organizations and foreign donating organizations:

The governorate & donating organizations finance a number of water supply and domestic waste water projects, for this reason 6 environmental project proposals were chosen with regard to the society participation, these projects included priority environmental issues and were implemented in the most environmental degradation villages, "Cenact" program funded them.

Menia governorate implemented recently a number of solid wastes initiatives on a wide range included is establishment of house waste collecting system through the fund presented from " Cenact " and other donating organizations, and there is a possibility to repeat these initiatives in other locations in Menia governorates.

The employees in the governorate also showed a big interest by effective encouragement improvement. Table (3) shows the donors working in Menia governorate in the present time & the funded projects

Table (3) Donors working in Menia and their scope of works:

No	Donors	Scope of work	Participating authorities	Notes
1	Egyptian Switzerland fund	Developing civil environment for West Menia neighbor hood focusing on solid waste management in the location.	Coptic Evangelical Organization for Social Services (CEOSS)	Currently on going
2	Egyptian Italian project	Establish a solid waste department in the governorate	General office of governorate, local units in markaz	First stage finished
3	Canadian environmental support project	- Solid waste management process - Recycle agriculture wastes	24 NGO's	Project still on going in different villages in Menia
4	Vera fenland organization	Supply drinking water & establish health toilets	NGO's	Different villages in Menia
5	DANIDA	Supply drinking water to poor people houses, make sewage link pipes (90%	21 NGO's in the first stage other 4 NGO's in the second stage	Different villages in Menia

		implemented		
6	World Bank	Developing south neighborhood in Menia city (on going project)	The governorate + NGO's + civil & society	Southern neighborhood in Menia city

9-3 Financing organization & local donors:

The effective participation for the government in preparing the GEAP process is considered a main element to guarantee and stress its ownership that was why the governmental representative participated a big participation in working groups to prepare the government profile and identify the GEAP priorities.

The executive authorities in the governorate will cooperate with local donors like the Social Development Fund and other financing authorities to implement the priorities of the GEAP.

9-4 Private sector:

The private sector has an important role in supporting the implementation of Menia GEAP, developing this role is necessary and linked with other concerned groups specially the governorate, as the governorate has to specify the different ways by which the private sector can participate this can include for example: increasing the private sector role in presenting environmental services (such as developing solid waste collecting & disposal, water supply, treatment of waste

water and build more constructive partnerships between EMU in the governorate & industrial sectors & investors to treat the EIA commitment issue and impact on factories.

Also stimulate and support responsibility of private sector companies for example through applying improvement systems for self follow up or apply good environmental management practices.

9-5 NGO's

There are many NGO's and social development organizations in Menia working in the field of environment and aims through their programs to improve the environmental situation in the governorate. In the past years NGO's were able to attract a number of foreign finance resources through the support of donors & local donors to implement a number of important environmental initiatives. Here we mention a number of projects that are being done now on the governorate's land implemented by NGO'S with support of some donors (like solid waste management projects financed from the Egyptian Canadian Fund) Table (4) shows the NGO's that could get a finance to implement environmental projects in Menia governorate.

NGO'S can play an important role in implementing the GEAP through successful initiatives with international & local donors.

Table (4) NGO'S obtained finance from " Cenact " to implement environmental projects in Menia governorate (2007)

No	Name of NGO	Project name	Project area	Finance in L.E.
1	Ragaa for integrated development	Solid waste management	Bani Ahmed sharkya – Menia	115190
2	Wafaa & Amal for special needs persons	Solid waste management	Bani Ahmed sharkai –Menia	116210
3	Tayeba for development actions	Solid waste management	Tayeba – Samaloot	121690
4	El Karama for development and society serving	Solid waste management	Manehry – Abou Korkas	112690
5	Delga sons for social development	Solid waste management	Delga – Dir Mawas	89821
6	Egyptian for countryside development and services	Solid waste management	Senedfa – Bani Mazar	112690

7	Islamic Righteousness and piety	Solid waste management	Bergaya – Menia	12469 O
8	Wataniya for Human sights	Recycling of agriculture wastes	Samaloot	<u>10760</u>
9	Kholafaa Rashedeen	Recycling of agriculture wastes	Tala – Menia	12368
10	For you my country	Recycling of agriculture wastes	Bani Abied Abou Korkas	11724
11	Fursan for integrated development	Recycling of agriculture wastes	El Bergaya Menia	11862
12	Youth of hope for development	Recycling of agriculture wastes	Demsha & Hashim- Menia	11587
13	Society development in nazlet El Asaker	Solid waste management	Soultan corner Menia	112212
14	Science and faith	Solid waste management	Saft El Laban – Menia	112212

15		Solid waste management	Tokh El khiei – Menia	112212
16	Society Development	Recycle of agriculture waste	Soltan corner	111405
17	Egypt Ladies for environmental affairs	Solid waste management	Khandool Malawie	118212
18	Society development	Recycle of agriculture wastes	Abass Rhamy, Matay	116405
19	Ahliya for country side development	Solid waste management	East soft Menia	112212
20	Islamic Khayria	Solid waste management	El Nasseria Dir Mawas	112212
21	Developing the country side woman	Solid waste management	Tokh- dir Mawas	112812
22	Khashaba for development &	Solid waste management	Abioha- Abou Korkas	112212

	hiring graduates			
23	Developing local society	Solid waste management	Zahra Menia	6112
24	Raising & developing villages of Malawy markaz	Recycling of agriculture wastes	Derwa – Malawy	118405

10- Contribution in effecting on the National & International issues:

No doubt that implementing the environmental priorities included in the governorate GEAP and stated previously will lead to the improvement of the environmental situation on the national level, as these problems came among the action priorities on the National level as the GEAP also includes the priority issues mentioned in the National plan for environmental action issued in 1992 regarding the solid waste management field, land – use and water use fields, this expected environmental improvement will match with the international agenda to improve the quality of life for people specially decreasing the industrial pollution.

The stated procedures will also contribute in the GEAP to meet Egypt commitments according to the International protocols, especially in Agenda 21 issued from Reo Conference and the sustainable development goals.

11- Plan implementation follow up & evaluation:

Menia GEAP was designed that can be measured and followed up periodically regarding the present progress in the environmental activities with priority.

The related priority environmental activities were specified as well as identifying the goals through which the success of these activities can be measured. Therefore it is necessary to design a simple attractive follow up system to help on measuring the activities progress. For example if we want to measure. The progress happened in:

- Solid waste management system, it is better at first to agree on simple indications that can be measured like waste quantity that 1 worker collects per day, number of burning landfill.
- In case of water supply (measures of the pipes that are maintained per day, total collected fees).
- It is expected that the leader organizations (who have the main role to achieve these goals) will be responsible for following up the activities achievements and present the results to the Higher Committee for Environment.
- In addition to the role of the main authorities to support and follow up the achievements with the leader organizations. Though the Higher Committee for Environment is responsible for follow up and updating the GEAP issues as some changes can occur on the priorities by time passes.

11-1 Annual evaluation:

The environmental condition report must be prepared and passed to the Higher Committee for Environment annually including a brief about:

- Achievements related to the agreed activities (Implementation).
- Environmental improvement occurred due to a direct result for achieving the GEAP activities.
- Areas require bigger interest cause of weak performance or obstacles.
- Required changes recommended cause of changing priorities environmental circumstances.

EMU in the governorate must coordinate in preparing this report. Though environmental units and environmental communication representatives work in the governorate (as a part of the Environmental management and planning system) have to have contributions in preparing this report. Also NGO'S is and private sector, public leaderships must participate effectively in the evaluation process.

11-2 GEAP as a continuous process:

GEAP must be characterized by effectiveness & flexibility to guarantee its sustainability. Also policies, goals and included activities must be updated to reflect the changes in the local circumstances. In addition learned lessons must be recorded in the GEAP follow up reports to make use of them in implementing environmental plans in other places.

For updating the GEAP activities and goals it must be done by an organized way.

Follow up reports must be prepared annually; updating GEAP must be prepared every 2-3 years. In the GEAP cycle we must consider the following:

- Preparing and updating detailed implementation plans (3-5 years) and the required budget for the annual priority activities.

- Follow up and evaluating achievements and executive performance.
- Continuing the consultants with primary & secondary concerned parts and their opinions and support for coming environmental plans.
- Specify the necessary new activities as a result of changing circumstances (like laws, or new standards)
- Review and put goals and new appropriate activities.
- Attracting investments in certain locations due to outside changes. (like changes in the National policy)
- Continuous tries to attract foreign investments either form the government or private sector or donors.
- Cope with technological development which can contribute in presenting useful economical and effective solutions for environmental problems.
- Respond with changed requirements especially for institutional support and capacity building.

12- Annexes:

Annex number (1); list of the participants in preparing the GEAP

General Supervision:

- 1- General / Ail Selim Shory, General Secretary of the governorate.
- 2- General / Medhat Mohamed Salah El Din. Assistant General Secretary.
- 3- Mr. Mostafa Ismaiel Ibrahim EMU Director in the governorate.

*** General coordinator for working groups:**

Eng./ Mamdoh Salama Mousa:

Planning & project officer in Menia EMU

1- Water Resources, drinking water & sewerage working group:	
Dr. Nada Ashour Abdel zaher	Environmental Inspector in Menia EMU
Ch / Ishak Moawed	Drinking water & sewerage company in Menia
Eng/Mohamed Abdel Salam Ahmed	Irrigation Directorate – Menia
Mr. Mohamed Ali Mohamed	EMU – Samalout Locality
Dr. Nesiem Sobhy Labib	Environmental Health Dep. Health authority - Menia

2- Solid waste, agriculture, hazard wastes working group	
Eng/Mostafa Ismaiel Ibrahim	General Manager EMU – Menia
Eng/Mohamed Saad Hasan	Environmental inspector EMU
Dr. Nasiem Sobhy Labib	Environmental Health Dep. Health authority – Menia.
Eng/ Naser Yousef Yazied	EMU, agriculture <u>authority</u> Menia
Eng/ Ahmed Mahmod Ali	EMU Matai Markaz
Eng/Ahmed Mahmod Taha	EMU- Menia Locality
Eng/ Mohamed Reda Abdel crhany	EMU Abou Korkas Locality
Eng/ Sayed Abdel Fatah Mahmod	EMU Malawi Locality
3- Industrial pollution and Hazardous waste working group:	
Eng/Adel Mohamed Rafaat	Environmental Inspector Menia governorate

Eng/ Hussien Ali Ahmed	Environmental officer in Industrial area
Eng/Mohamed Hashim Hussein	Environmental officer in Sugar factory- Abou Korkas
Eng/Mahmoud Ali Abdel shafi	Environmental responsible in White cement factory Samalot.
Eng/ Somia Mahmoud Ahmed	Environmental Inspector in Abo Korkas Markaz and city
4- Developing Random areas & Residential compounds working group:	
Eng/ Mamdoh Salama Mousa	Planning & project officer EMU- Menia governorate
Eng/Mahmod Ali Mahmoud El hawy	Housing authority representative in Menia
Eng/ Omar Ibrahim Amar	Development Dep. officer in the governorate
Eng/Medhat Lois Abdel Sayed	Follow up and planning officer in governorate
Eng/ Maswa Farouk Mohamed	EMU director in local unit – Menia Markaz
Eng/Hamdy	Inhabitant planning Dep. In Menia

Abdellah	
5- Environmental awareness & institutional capacity working group:	
Mr. Nagati Abdel Magied Haridy	Communication & training officer – EMU
Mr. Mostafa Husieny	Communication Center Director –Menia
Ms. Manal Mohmed Ezat	Communication center Menia
Mr. Ahmed Galal Mohamed saber	Youth & sport authority Menia
Mr. Naser Yousef Yazied	EMU Director in Agriculture authority – Menia

Annex number (2) List of workshops implemented as a part of Menia GEAP.

*** Water resources, drinking water & sewerage working group:**

Work shops	Responsible	Date
Work shops No (1) for all working groups & supportive parts	EMU in Menia governorate	21/6/2007

Work shops No (2)	EMU in Menia governorate	26/6/2007
Work shop No (3) for all working groups	EEAA in cooperation with EMU in Menia	1/7/2007
Work shop No (4)	EMU in Menia	4/7/2007
Work shop No (5)	EMU in Menia	12/7/2007
Work shop No (6)	EMU in Menia	19/7/2007
Work shop No (7)	EMU in Menia	25/7/2007
Work shop No (8)	EMU in Menia & GEAP Consultant	12/9/2007

*** Medical and solid wastes Group:**

Work shops	Responsible	Date
Work shops No (1)	EMU in Menia	1/7/2007
Work shops No (2)	EMU in Menia	15/7/2007
Work shop No (3)	EMU in Menia	22/7/2007

Work shop No (4)	EMU in Menia	30/7/2007
Work shop No (5)	EMU in Menia with GEAP consultant	12/7/2007

*** Industrial pollution & hazard waste group:**

Work shops	Responsible	Date
Work shops No (1) for all working groups & supporting bodies	EMU in Menia	21/6/2007
Work shops No (2)	EMU in Menia	28/6/2007
Work shop No (3) for all working groups	EEAA in cooperation with EMU in Menia	1/7/2007
Work shop No (4)	EMU in Menia	16/7/2007
Work shop No (5)	EMU in Menia	21/7/2007
Work shop No (6)	EMU in Menia	9/7/2007
Work shop No (7)	EMU in Menia with GEAP consultant	12/7/2007

*** Developing Random areas & housing compounds:**

Work shops	Responsible	Date
Work shops No (1) for all working groups and supporting parts	EMU in Menia	21/6/2007
Work shops No (2)	EMU in Menia	26/7/2007
Work shop No (3) for all working groups	EEAA in cooperation with EMU in Menia	1/7/2007
Work shop No (4)	EMU in Menia	15/7/2007
Work shop No (5)	EMU in Menia	19/7/2007
Work shop No (6)	EMU in Menia	30/7/2007
Work shop No (7)	EMU in Menia with GEAP consultant	12/7/2007

*** Environmental awareness & institutional capacity building working group:**

Work shops	Responsible	Date
Work shops No (1) for all working groups	EMU in Menia	21/6/2007
Work shops No (2)	EMU in Menia	27/6/2007
Work shop No (3)	EEAA in cooperation with EMU	1/7/2007
Work shop No (4)	EMU in Menia	24/7/2007
Work shop No (5)	EMU in Menia	30/7/2007
Work shop No (6)	EMU in Menia and GEAP consultant	12/9/2007

Annex no (3) List of Random areas in Menia:

City/ neighborhood	Area name	Location area in m²	Number of population
Edwa	Eastern neighborhood	285600	4000
	Middle neighborhood	210000	4549
	Western neighborhood	260400	6500
Total		756000	15049
Magaga	Bahary neighborhood	65996	8345
	Eastern neighborhood	152432	10166
	Western neighborhood	137593	10196
	Middle neighborhood	600600	15095
Total		956622	
Bani Mazar	First area	71000	5000
	Second area	325000	7500
	Third area	292000	8000
	Fourth area	545000	10000

	Fifth area	184000	16000
Total		1346000	41500
Matay	Western neighborhood	802200	15080
	North neighborhood	195300	9100
	Eastern neighborhood	182700	6720
Total		1180200	30900
Samaloot	South neighborhood	949896	39530
	Eastern neighborhood	881760	25502
	Western neighborhood	989996	35480
Total		2821632	82330
Menia	Western neighborhood	791475	112240
	South neighborhood	832000	130000
Total		1623475	242240
Abokorkes	North neighborhood	250000	7000
	Eastern neighborhood	150000	4000

	South neighborhood	200000	3000
Total		420000	14000
Malawi	North neighborhood	41381	19000
	South neighborhood	20950	17000
Total		62331	36000
Dir Mawas	North neighborhood	48000	12100
	South neighborhood	14100	3315
	Middle neighborhood	18800	7900
	Western neighborhood	7150	350
	Eastern neighborhood	3155	180
Total		92205	23845

Annex no (4): Reports used for preparing the GEAP

*** Water resources, drinking water and sewerage:**

Report	Issuing authority	Date of issue
Menia	EMU	2007
Menia overall scheme till 2022 (drinking water & sewerage report)	Physical planning unit in the governorate	August 2005
General Indicator for the Environmental situation in Egypt (Environment & Human rights)	Electronic newsletter for Haby center for Human rights	30 November 2004
Drinking water crisis in Egypt between water pollution and maintenance weakness	Electronic newsletter for Earth center for human rights	2007
Away from dispute with Nile River countries, wasting 40% of water in Egypt.	We and the World Electronic magazine	June 2004

Report	Issuing authority	Date of issue
Nile pollution kills Egyptians and fish wealth	my Environment, electronic magazine	2007
Water problems in the Egyptian country side between corruption and bad planning	Electronic newsletter for "Earth" center for human sights	October 2005
Data from drinking water & sewerage company in Menia Data from Irrigation authority, Data from Health authority (Environment Health Dep.) & Data from the 9 localities (markaz)	Drinking water & sewerage company, Irrigation authority in Menia, Health authority, 9 EMU's in localities (Markaz)	July 2007

*** Solid and Medical wasters:**

Report	Issuing authority	Date of issue
Menia profile	EMU	2007
Documents of local units	Local units in the governorate	8/7/2007
Documents of agriculture authority	Agriculture authority	8/7/2007
Documents of Health and population authority	Health and population authority	8/7/2007
Documents of the Egyptian Italian project for solid waste management`	Egyptian Italian project for solid waste management in the governorate	2006

*** Hazardous & Industrial wastes:**

Report	Issuing authority	Date of issue
Menia profile Environment	EMU in Menia Governorate	2007
Over scheme for Menia governorate	Physical planning unit in Menia governorate	2006

Documents & papers from big factories (Sugar factory cement factory – black honey crushes and industrial area	Department of these points	2007
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*** Developing Random areas & residential compounds**

Report	Issuing authority	Date of issue
Menia Environment profile	EMU in the governorate	2007
Over scheme of Menia	Physical planning unit in Menia governorate	2006
Documents & papers from local units in the 9 markaz in Menia	EMU's in the local units	29/7/2007
Local Development plan in Menia 20/12/2007	Ministry of state for local Development, Ministry of state for Economical Development	2007
Agenda 21 Doc	UNDP	14/6/1992
A reference in the field of	EEAA, DANIDA project	1999

Environmental education		
Poverty & street children paper prepared by Dr./ Maha El Kordi	National center for Social & Criminal researches	2007
Health & Environment Dr./ Mohamed Kamal Abdel Aziz	Tala'a printing House " second edition"	2000

*** Environmental awareness & institutional capacity building working group:**

Report	Issuing authority	Date of issue
Menia Environmental profile	Menia governorate	2007
Documents & papers of Communication Center	Communication Center in Menia	5/7/2007
Documents & papers of Youth & Sports authority	Youth & sports authority in Menia	15/7/2007
Documents & papers from Agriculture authority	Agriculture authority in Menia	19/7/2007

5-5 Environmental awareness & Institutional capacity building

1-5-5 Raising the Environmental awareness

1-1-5-5 General background

The successful achievement for the actions mentioned in the GEAP aims to a more effective development, in addition to spread the environmental awareness in different sectors and categories of the society. Raising the environmental awareness is considered one of the important. Factors have to succeed the environmental management components in Menia, and also one of the priority society needs especially with offering or improving services to develop the environmental condition or treat a current problem.

In Menia there are many parties that can do awareness actions like local mass media (channel no.7, North upper Egypt Radio) as well as educational institutions, NGO's and social development organizations, communication centers, agriculture guidance medical convoys and country side etc.

Some of these authorities implemented many awareness campaigns (including symposiums, competitions, camps, distributing garbage bags among families in public parks) .

Programs of these campaigns aim to treat different issues such as random disposal of solid and agriculture waste, protecting water resources and safe disposal of sewage waste water, and agriculture pesticides, health and population, population culture, protecting natural resources... etc, these activities were done depending on self financing or self efforts of the implementing organization or some donors.

Environmental substances were used as tools in these campaigns which included posters, public videos, TV. Programs, Radio programs in addition to special messages can be transferred by Sheikh in mosques and other religious leaderships.

Although all these achievements in the field of raising the environmental awareness but it was not enough. Menia governorate needs to awareness campaigns in most of the fields specially in the areas where literacy increases, and also at the beginning of implementing the GEAP to create new schemes of behavior towards the environmental among individuals, groups and all society through raising awareness, knowledge, attitudes and participation. Also still there are behaviors that can destroy all achievements to improve the environmental situation in these societies, and also. There are still some customs that may have a negative impact on the GEAP's projects, more over the wrong understanding for development among project's owners and industrial establishments managers, and illiteracy of citizens of the negatives of the current situation and its impact on their health and the future generations specially in their treatment with water & natural resources, sewage waste water, usage of pesticides, chemical fertilizers, treating trees in the streets, public parks, preserving the cleanness of streets and public parks, and governmental institutions, places of public services children leaking from schools, working children phenomena, industrial factories owners ignorance for safe internal environment and their ignorance for the different dangers face the workers inside these factories.

This part of the GEAP represents the past 5 years achievements, and the most important issues & problems in the field of environmental awareness also

causes and negative impacts and analysis of these problems & issues, as well as the required actions to raise public awareness.

2-1-5-5 Achievements in the past 5 years in the field of raising the environmental awareness:

1-2-1-5-5 Procedures & decisions

- Singing a protocol between Ministry of State for Environmental Affairs and Ministry of State for Local Development to support EMU's in governorates including establishment of an environmental communication section in the EMU department.
- Participation of the environmental officer in achievement of some symposiums & meetings regarding the identification of law of environmental and punishments of breaking this law.
- Making Radio & TV meetings with the environmental officer in the governorate to identify the important environmental issues and to reply citizen's inquires in this regard.

2-2-1-5-5 Administrative & technical *Support*:

- Support NGO's and social development organizations, direct some donors towards these organizations to implement awareness programs among citizens.
- Contribution of the governorate in awareness campaigns to implement some projects like developing the Western neighborhood of Menia city.
- Sign a protocol between the governorate, represented by the EMU, and between the Union for environmental NGO's to hold workshops & symposiums for small industries owners.

3-2-1-5-5- Implement projects:

- The EMU hold about 45 cultural symposiums and 73 environmental lectures with University Youth, Youth Centers, summer camps, NGO's to aware the new generation in schools & universities, and raise the environmental awareness of these youth because of their effect on their parent's customs and behavior, and also due to their effect on the society where they live more over these youth are the pioneers of this society and its future leaderships. Also 90 meetings were held to discuss some environmental issues with some concerned parties, and 25 interviews in Radio and TV programs as well as newspapers, 41 field visits to follow up awareness & communication activities in some locations & companies.
- Information center in Menia implemented 639 meetings (included symposiums, training course, workshops, meetings during some school visits to the information center, 14 theater show, 251 cinema show, 280 competition. Targets of these activities reached 56 507 citizen from different categories.
- Agriculture guidance (country side information committee) in Directorate of Agriculture in cooperation with different sectors in the governorate held awareness symposiums exceeds more than 2000 symposium for farmers regarding the ideal usage of chemical fertilizers and agriculture & insect pesticides well as biological fighting methods, as well as recycle of agriculture wastes and the danger of storing them in houses, population culture, health & population.

- Youth directorate implemented 60 awareness symposiums, 60 camps for awareness & cleaning 7 environmental competitions, 3 theater shows concerning environmental issues.
- Some environmental NGO's formed a union and implemented some awareness activities and spreading of environmental awareness for small & micro project's owners to put the environmental dimension into consideration in these projects, in addition to the activities of other NGO's including symposiums, workshops, and competitions, these activities were done individually.

4-2-1-5-5 On going activities implemented to raise the environmental awareness:

- Resume awareness campaigns through NGO's and social development organizations, as well as agriculture guidance and information centers.
- Awareness campaigns regarding bird's flu decease with knowledge of Health, Agriculture, Vet Medicine & Environmental authorities.
- Awareness campaigns about harms of smoking & shisha in cooperation with ENU with some NGO's and Culture Castel and channel 7 in TV.

3-1-5-5 Current situation : problems & causes

Current situation	Main problems & negative impacts for the current situation	Main causes of the problems	Current plans & programs to deal with the current situation
Spread of negative behaviors between different categories in the society	<ul style="list-style-type: none"> - Bad usage and treatment with water resources, disposal of wastes in water canals causing spread of digestive system deceases. - Non awareness in treating with hazardous medical wastes causing spread of epidemics and viral diseases - Burning wastes in streets & public roads - Spread of smoking among youths children and girls. 	<ul style="list-style-type: none"> * Not enough awareness campaigns in different media. * No ability of concerned authorities to make awareness actions to cover all areas because of weak finance and not enough number of qualified & trained employees to do awareness activities 	<ul style="list-style-type: none"> * Some governmental sectors & NGO's in cooperation with EMU in the governorate implemented symposiums, competitions, workshops, training courses in the field of awareness theater shows depending of budget in these authorities * CDECA in EEAA (Central Department for Environmental Communication & Awareness) supplied the governorate with the equipped communication mobile unit (car) for 2 days only in 2006
Absence of integrated and	- Focusing on certain areas ignoring others awareness	- No enough cooperation between concerned parties	* Hold monthly meetings in Agriculture Directorate for

Current situation	Main problems & negative impacts for the current situation	Main causes of the problems	Current plans & programs to deal with the current situation
organized system for awareness actions	<p>campaigns are repeated from different parties in a certain areas without directing to other locations</p> <p>- No ability to follow up the results of these campaigns, so their effects vanish as soon as they finish and efforts are wasted.</p>	<p>or sectors that implement environmental awareness campaigns.</p> <p>- Not enough budgets in all authorities in charge of environmental awareness & communication most of them depend on donors.</p>	<p>the countryside information committee including some sectors related with the governorate</p> <p>* Depending on self efforts and budget in these authorities</p>
EEAA roll in organizing awareness campaigns which have no enough finance	Weak finance for awareness campaigns, and no ability for different sectors to implement their programs for raising the environmental awareness	<p>* EEAA focuses on limited governorates in this awareness campaigns lately</p> <p>* Not enough budget to spend on awareness programs.</p> <p>* Increase the price of materials and cost of communication campaigns.</p> <p>* No specialized environmental library.</p>	Some sectors in the governorate (like agriculture, health, education, university, youth & sport) depend on the public budget, donors are financing NGO's & civil society organization and non governmental organizations

Current situation	Main problems & negative impacts for the current situation	Main causes of the problems	Current plans & programs to deal with the current situation
Weak interest in awareness of villagers and residential compounds	Bad usage and wasted of natural resources, failure of projects held in these areas, spread of wrong behaviors and crimes, increase of literacy percentage, spread of deceases related with environmental pollution	Absence of coordination and planning between different authorities to raise the environmental awareness in these areas	Coordinate between active NGO's to focus on these areas

4-1-5-5 Vision & goals

Increase the public awareness for citizens regarding different environmental issues and the citizen's behavior towards the environment and its resources through achieving the following goals:

- Targeting all society sectors to understand preserving the environment and developing the society and working on avoiding problems to happen.
- Support the environmental awareness and focusing on the link between the social, political and ecological sides in rural areas.
- Offering the chance for everybody to acquire knowledge and commitment spirit and individual skills to protect the environment.

Create new schemes of behavior towards the environment among individual and groups and the whole society.

5-1-5-5 Targets & required actions to raise the environmental awareness

Main target	Targets for the next 5 years to achieve the main target	Decisions & Procedures and institutional support required projects & programs to achieve the target
Raise the general awareness of citizens in rural areas & residential compounds regarding the environmental issues	<ul style="list-style-type: none"> - Support individuals & groups to acquire awareness towards the environmental issues. - Offering the chance for individuals and groups to participate actively on all levels to act on solving the environmental problems related to natural resources. - Basic understanding for environment and problems related to services (drinking water, sewage, solid wastes, health, education, safe agriculture and safe usage of pesticides) 	<ul style="list-style-type: none"> * Put programs & plans for awareness through different sectors & authorities, coordinate between them and focus on these areas. * Support NGO's technically and financially to achieve awareness programs in these areas and announce for the GEAP and priorities of the environmental issues. * Offer financial support to implement these plans & programs.
Coordinate communication activities and awareness Campaigns and efforts to target all	- Prepare a communication and environmental awareness plan under the supervision of the Higher Committee of Environment in which all concerned parts participate to raise the	- Form a sub committee from the Higher committee of Environment for communication & training and raise the capacity building to supervise the implementation of communication plan.

Main target	Targets for the next 5 years to achieve the main target	Decisions & Procedures and institutional support required projects & programs to achieve the target
<p>society Categories to support achieving the GEAP goals in Menia</p>	<p>environmental awareness in the Governorate</p> <p>* Using awareness campaigns in all locations during the annual environmental ceremonies, environmental competitions, cleaning & planting trees campaigns, that can be implemented under the sponsorship of donors or private sector to promote for the GEAP and its goals.</p> <p>- Targeting schools & Universities to raise the student's awareness due to their effect on their society behavior & customs, and also because they are the society future leaders.</p>	<p>- Focusing efforts from the environmental leaders in Egypt to support a high level of environmental awareness among university professors, school teachers and also to guarantee their commit and support to GEAP goals</p> <p>- Coordinate communication activities in the governorate with the communication office in EEAA and its RBO</p>
<p>Focus on the priority environmental</p>	<p>- Preserve water & natural resources</p> <p>- Safe disposal of sewage wastes</p>	<p>- Prepare programs aim for preserving water</p> <p>- Prepare programs aim the random disposal of solid, industrial, medical and agriculture, solid</p>

Main target	Targets for the next 5 years to achieve the main target	Decisions & Procedures and institutional support required projects & programs to achieve the target
<p>issues during the awareness campaigns</p>	<p>and avoid disposal in water courses.</p> <ul style="list-style-type: none"> - Offer improved management for wastes and drinking water supply & sewage services - Using of solid & agriculture wastes their recycle, fighting methods for agriculture pests. - Industrial sector required self follow up for the effects of wrong disposal of industrial wastes on the surrounding communities, and the importance for factory owners to improve working environment. 	<p>& industrial wastes and its effects on general health.</p> <ul style="list-style-type: none"> - Prepare programs for awareness of workers in different industries. - Support from EEAA to these campaigns technically & financially - Direct some donations to finance implementation of awareness programmes with focus on villages & residential compounds as well as promoting the GEAP activities
<p>Good follow up by time passes for the effects of these campaigns</p>	<ul style="list-style-type: none"> - Checking how far the change is occurred in the behavior of targeted groups. - Develop the design and methods of the awareness campaigns as well 	<ul style="list-style-type: none"> - Make researches to evaluate the results of these campaigns by specialized parties. - Offer the financial resources to implement such researches

Main target	Targets for the next 5 years to achieve the main target	Decisions & Procedures and institutional support required projects & programs to achieve the target
	developing its management & follow up to guarantee its effects.	

6-1-5-5 Proposed projects

Project	Authority in charge	Proposed authorities for implementation	Proposed fund	Time schedule	Donors
Raising the environmental awareness of villagers and residential compounds regarding import and environmental issues and announcing the GEAP projects in Menia and focusing on the participation of civil society & grander	Governorate & local units	Communication center, NGO's, non governmental organizations	5 Million L.E.	5 years	Private sector and donors
Raising the environmental awareness campaigns for students and youth in schools and Universities and Youth centers	University, Ministry of Education, Youth & sport	University Ministry of Education, Youth & sport in coordination with EEAA and the Governorate	2 Million L.E.	5 years	Budget from implementation authorities and EPF
Specialized campaigns for Industrial installations owners and workers	The Governorate	NGO's union in cooperation with EMU in the	500 thousand L.E.	5 years	Donors and EPF

Project	Authority in charge	Proposed authorities for implementation	Proposed fund	Time schedule	Donors
		governorate and EEAA RBO in A suit			

2-5-5 Institutional support & capacity building:

1-2-5-5 General Background :

As achieving the actions in the GEAP needs huge investments & financial sources, also achieving actions requires bigger interest in organizational structures and required incentives to achieve and implement these actions to guarantee sustainability of these activities.

There is an organizational structure in Menia Government represented in the EMU in the Governorate, this EMU works on coordinate the activities between different parties in the field of environment, and implementing Law number 4/1994 and other laws on the local level inside the governorate. There are The EMU director and 3 employees only. In his department (total number of EMU employees is 16 persons) have the concerning the 4/1994, the EMU belongs administratively to his Excellency the Governor directly in the organizational structure of the Governorate , and EMU belongs technically to EEAA. The EMU's in the 9 governorates cities & localities (markaz) follow the main EMU in the Governorate. They cooperate with the EMU in its activities, thus these EMU's achieve their tasks authorized to them through the main EMU in the Governorate.

The Markaz Chief has concerning the law 4/1994; also there is an environmental communication officer in village units to support EMU in locality (markaz).

Menia Governorate follows EEAA RBO in Asuit which is responsible for implementing EEAA policies on the level of the territory; its tasks include inspection activities, review EIA studies and implementing EEAA instructions. Also some directories in the Governorate established environmental units have

environmental responsibilities according to different laws and have important roles to achieve.

Even though, there is no effective system for planning & environmental management although it is one of the important requirements to achieve and sustain the activities of the GEAP of Menia Governorate, also weak ability of the environmental management due to weak capabilities of these departments, as EEAA did not show interest for EMU's in governorates except in the recent years through offering these departments with some equipments and training, but it is not enough comparing with the activities assigned for these departments. Also there is no budget to train employees of EMU in localities and communication officer in villages which affects negatively on the institutional support for EMU's, also weak environmental management in different sectors and directories and weak coordination between each other and between EMU in the Governorate although their big environmental responsibilities.

This part illustrates the current situation for the organizational structure for the environmental management and its institutional abilities, also shows the general goals for developing abilities and capacity building for EMU in the Governorate, also requirement of raising abilities and capacity building of EMU.

2-2-5-5 Achievements during the pasts years :

1-2-2-5-5 Decisions & procedures:

- Sign a protocol between Ministry of State for Environmental Affairs and Ministry of State for Local Development to support EMU's in Governorates and the fellowship of these EMU's technically to EEAA and administratively to the Governorate.

- Giving to 3 inspectors from the EMU concerning law 4/1994
- Directors of EMU's in localities became members in projects license committees according their specialization.
- EMU Director in the Governorate is a member in land committee in the Industrial area.
- Formation of the Higher Committee for Environment.

2-2-2-5-5 Administrative & Technical support:

- 56 training courses were implemented by EEAA targeting EMU employees in the Governorate to raise their technical abilities.
- Supporting the EMU in the Governorate with equipments and some field measuring equipments, in addition to a GPS machine, data show, Photocopy machine and a digital camera.
- Support the EMU in the Governorate with vehicles for achieving installations and to follow up the environmental conditions and accomplish the department's assignments.

3-2-2-5-5 Implemented projects:

- Prepare the Governmental Environmental Profile by EEAA (in Cairo) financing & supervision.
- Establish a GIS unit in the EMU.
- Establish Environmental units in some sectors in the Governorate.

4-2-2-5-5 On going projects:

- Prepare the Governorate's GEAP, financed and supervised by EEAA in Cairo.

- Completing the GIS unit and establishing data bases.

Joining the EMU with the information and data base network of EEAA
and its RBO in Asuit.

3-2-5-5 current situation: Reasons & problems:

Current situation	Problem & effects	Causes	Current plans & programs to deal with current situation
<p>Weak organization structure of the EMU's in governorate& Markaz</p>	<ul style="list-style-type: none"> - Weak effect & quality of decentralization of environmental management - Responsibilities & specializations of employees in these departments are not clear. - Weakness of the administrative planning more over weakness of goals identification and goal implementation requirements. - Absence of a strategic environmental planning or long or medium range integrated for the environmental activities. 	<ul style="list-style-type: none"> - EMU's specially in markaz are not supported with specialized technical persons - There is no certified organization structure in the EMU's suits with their assignments 	<p>Non</p>

Current situation	Problem & effects	Causes	Current plans & programs to deal with current situation
Weakness of planning & environmental management	<ul style="list-style-type: none"> * Non coordination between main concerned parts to improve the environmental services and rationalization of consumption of resources and protecting it and applying the cur procedures * Weak follow up and weak effective monitoring and weak commitment with the environmental laws and prepare measurements for environmental performance * No guarantee for supporting & sustaining of the GEAP * There is no incentives for employees in EMU's matching with their responsibilities like their colleagues in EEAA.' 	<ul style="list-style-type: none"> - Depending on personal views or personal estimation for management * Administrative process is weak (planning – organizing – guidance – control) * No budget to spend on training environmental officers in markaz & village - Small number of qualified technical cadres to do training for officers in markaz & villages * Centralization of planning for environmental management in EEAA 	<ul style="list-style-type: none"> - Making advanced training courses for employees specialized for EMU in the governorate to qualify them technically and administratively or as TOT for employees in other departments.

		and its RBO's	
Current situation	Problem & effects	Causes	Current plans & programs to deal with current situation
Weak coordination between EMU & different main authorities responsible for environment regarding completion of their environmental responsibilities	<ul style="list-style-type: none"> - No ability for effective planning and managing programs & environmental projects. * Un familiarity with important environmental issues related with these sectors. * Un ability to offer and prepare correct accurate data base about these issues to help the higher level officers to take the correct decisions to solve these issues. * Difficulty in solving the environmental problems and priority issues with an effective and quick form. 	<ul style="list-style-type: none"> - Non regulation meetings & periodical appointments with environmental responsible in these sectors to identify the urgent environmental problems & issues * Non establishment of environmental units in some sectors & authorities 	<ul style="list-style-type: none"> - Monthly meeting with environmental officers in markaz to cooperate between these departments to present these urgent problems in these markaz. * Inviting some officers in different sectors to obtain the required data to prepare a correct data base reflects the current situation in the governorate.

3-2-5-5 Current situation: Reasons & problems:

Current situation	Problem & effects	Causes	Current plans & programs to deal with current situation
Weak organization structure of the EMU's in governorate& Markaz	<ul style="list-style-type: none"> - weak effect & quality of decentralization of environmental management - Responsibilities & specializations of employees in these departments are not clear. - Weakness of the administrative planning more over weakness of goals identification and goal implementation requirements. - Absence of a strategic environmental planning or long or medium range integrated for the environmental activities. 	<ul style="list-style-type: none"> - EMU's specially in markaz are not supported with specialized technical persons - There is no certified organization structure in the EMU's suits with their assignments 	Non

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Weakness of planning & environmental management	<ul style="list-style-type: none"> * Non coordination between main concerned parts to improve the environmental services and rationalization of consumption of resources and protecting it and applying the cur procedures * Weak follow up and weak effective monitoring and weak commitment with the environmental laws and prepare measurements for environmental performance * No guarantee for supporting & sustaining of the GEAP * There is no incentives for employees in EMU's matching with their responsibilities like their colleagues in EEAA.' 	<ul style="list-style-type: none"> - Depending on personal views or personal estimation for management * Administrative process is weak (planning – organizing – guidance – control) * No budget to spend on training environmental officers in markaz & village - Small number of qualified technical cadres to do training for officers in markaz & villages * Centralization of planning for environmental management in EEAA 	<ul style="list-style-type: none"> - Making advanced training courses for employees specialized for EMU in the governorate to qualify them technically and administratively or as TOT for employees in other departments.

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Current situation	Problem & effects	Causes	Current plans & programs to deal with current situation
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4-2-5-5 Goals & Vision

Improve the institutional support and capacity building for EMU's in governorate & markaz since they are linked with all sectors and actions related to sustainable development and preserve the public health through:

- Establishing an effective system for planning & environmental management in the governorate.
- Support the capabilities of the current authority in charge of the environmental issues and coordinate between each other, with recognizing the importance of the private sector & civil society role in improving the environment that they live in.

5-5-2-5 Targets and required actions for institutional support & capacity building

Main target	Targets during the next 5 years to achieve the goal	Decisions & procedures & institute support and required programe to achieve the targets
<p>Raising the administrative level in the governorate from a department to a general departments</p>	<ul style="list-style-type: none"> - Capacity building to implement and follow up the laws. - Improve the ability to deal with emergency. - develop the technical & administrative training for the main employees to increase the value of their work * Raise the employee's level in these department technically, administratively and financially * Support the GIS unit to help in planning & follow up, and establishing an environmental geographical data base in cooperation with Information center in the governorate and the local Development. 	<ul style="list-style-type: none"> - Take required procedure to raise the department level in the governorate to be a general department followed by EMU's in localities (markaz) - Improve incentives for the employees in these departments according to their responsibilities

Main target	Targets during the next 5 years to achieve the goal	Decisions & procedures & institute support and required programe to achieve the targets
Support establishment of an effective system for environmental management & planning	<ul style="list-style-type: none"> - Improve the effectiveness of the environmental management and capacity building for the environmental management & planning in different sectors in the governorate. - Put a system for the environmental officers in villages. - Improve the coordination between different sectors concerned with environmental in the governorate to improve the environmental services and of resources & protect them, as well as applying the curing procedures. - guarantee support & sustainability of the GEAP - To have the ability to face the priority issues in 	<ul style="list-style-type: none"> - Put an organized and planning methodology for environmental management under supervise of the Higher Committee for Environmental. - Prepare an effective decentralization system for planning & environmental management. * Establish a Joint network to coordinate between all groups, authorities & sector concerned & interested in improving the environmental services & preserve resources

Main target	Targets during the next 5 years to achieve the goal	Decisions & procedures & institute support and required programe to achieve the targets
	<p>cooperation with each of the government & private sector & NGO's</p> <p>- Increase public awareness and consulting with the community regarding the environmental issues.</p> <p>* Improve the follow up & effective control and commitment with the environmental laws.</p> <p>* Guarantee the highest levels of commitment inside the governorate to adopt & implement the environmental action plan (GEAP)</p>	
Capacity building for the specialists in EMU's	- Implement adhesive training courses for the main employees in the EMU in the governorate and EMU's in markaz in different fields specially information and the need for transparency &	- EEAA puts specialized training programs & plans for the main employees in the EMU to guarantee their continuously in the work and utilize of

Main target	Targets during the next 5 years to achieve the goal	Decisions & procedures & institute support and required programe to achieve the targets
	<p>exchange of information</p> <p>- develop the technical & administrative training for main specialists in the governorate & localities to increase the value of their work and maintain sustainability</p> <p>*Emphasize the importance of the financial planning for operation & maintenances of training programs in different authorities</p>	<p>these courses with regard to specialization commitment that the EMU specifies in its organizational structure</p> <p>- Training for specialists of GEAP programs & projects and prepare for the environmental projects.</p> <p>* Put intensive system for employees in EMU in governorate & markaz according to their responsibilities.</p>
Support the authorities and sectors and non-governmental organizations	- Capacity building for NGO's and social development organizations to be more able to specify the community needs and implement projects that are based on making awareness campaigns.	- Establish a training unit in the EMU in the governorate and supply it with financial resources to cover the training courses in the fields of environmental

Main target	Targets during the next 5 years to achieve the goal	Decisions & procedures & institute support and required programe to achieve the targets
	<ul style="list-style-type: none"> - Support the educational institutions and responsible for environmental activities in schools - Support private rector projects to plan & implement environmental plans & projects. - Hire environmental officers in the sectors, authorities and organizations with environmental responsibilities to support follow up and environmental performance improvement. 	<p>services & resources maintenance and public communication skills</p> <p>* This unit supports the communication links between EEAA or RBO and Menia University, NGO's, private sector, donors to supply the required support to achieve capacity building of environmental responsible in these sectors& organizations and finance some priority environmental projects.</p> <p>- Supply the human & financial resources for EMU's and local units sectors & organizations</p>

6-2-5-5 General requirements for institutional support and capacity building:

14- Prepare an effective decentralization system for environmental planning & management to implement and sustain the activities of the GEAP (Environmental Action plan) of the governorate based on a planned & organized methodology for the environmental management, under the supervision of the higher committee of Environment who take charge of review & update this system periodically to insure the commitment with the issues raised.

15- The environmental planning system also contributes in implementing the following general functions:

- Capacity building through training and employment as well as operating an effective leading services.
- Coordinate between the concerned groups to improve the environmental services and preserve, protect and cure the resources.
- To apply the land – use scheme which considers the environmental laws through applying the EIA conditions & obligations.
- Strategic planning to insure the sustainable development.
- Preparing the required human & financial sources to implement the programs & projects of the governorate's Action plan.
- Effective follow up & applying the environmental laws as well as putting the environmental standards & performance incentives.

16- To issue a decree draft to raise the level of the EMU in the governorate into a general Department includes sub departments &

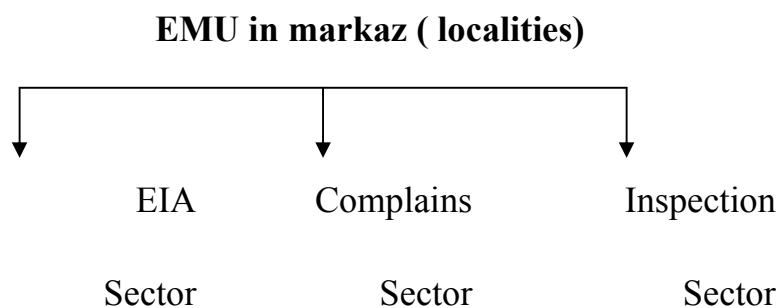
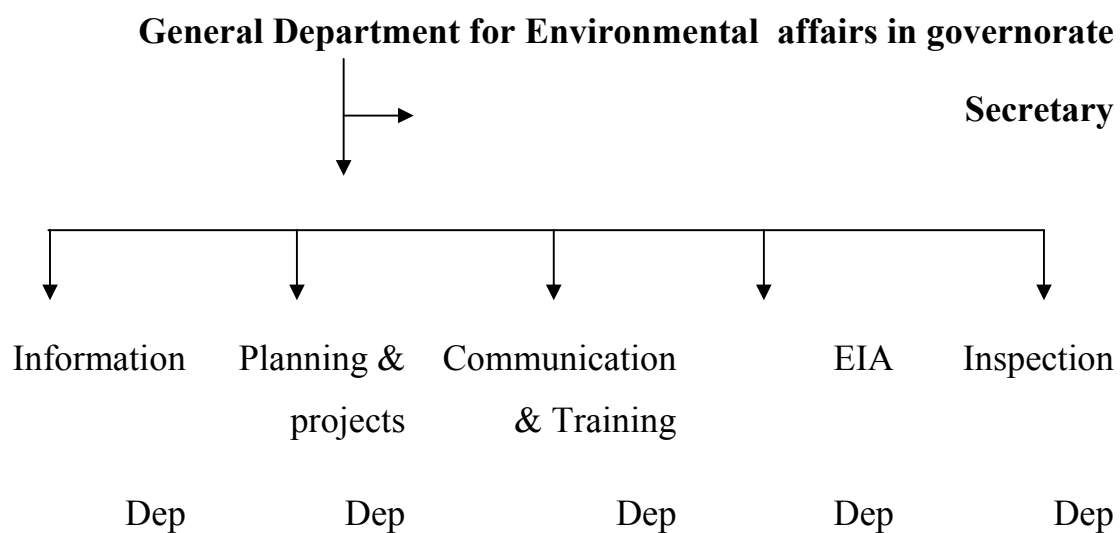
sections, such as: EIA, Inspection & complains, Communication & training, planning & project's follow up, then following up after that the EMU in markaz and environmental officers in villages.

- 17- EEAA continues to support EIA through organizing training programs targeting the main employees according to their specialization till the training achieves its goals.
- 18- Establishing environmental units in the Industrial areas and other involved authorities which have environmental responsibilities and not yet including environmental units such as housing authority more over to hives an environmental representative in the authorities that have indirect relation.
- 19- Capacity building for the environmental representatives in villages & markaz through training.
- 20- Capacity building for the representatives of Education authority who are in charge of the supporting environmental activities in schools on markaz level.
- 21- Environment unit in social solidarity authority supports the role of NGO's working in the field of environment & manages it more effectively.
- 22- Support the attitude to establish a central unit for solid waste management to be responsible of planning, supporting and co-ordinating the solid waste management activities, as well as support the services privatization including follow up the job of

solid waste collectors from private sector, and how far they are committed and to insure the good disposal of construction wastes.

- 23- Establishing an Awareness & guiding unit to support many small, medium & big projects to apply the safe environmental friendly technology as well as proper environmental management actions.
- 24- Support the agriculture guidance employees regarding the environmental issues, specially the usage of agriculture pesticides & chemical fertilizers.
- 25- Capacity building of the employees in Ministry of Health to make them able of good handling for hazardous & medical wastes which in considered one of the main environmental issues.
- 26- Environmental training unit in the governorate takes charge of all training activities involving environmental services and preserving resources, communication skills, support communication links between EEAA or the RBO or other sectors or authorities or grant organizations.

The proposed structure to raise the level of the EMU into a General Department for Environmental Affairs



Needs & training programs & target groups in Menia governorate:

Target group/ authority	Training needs
EMU in governorate & sub departments in markaz	<ul style="list-style-type: none"> - Inspection on different industrial establishments, advanced courses & field visits. - Advanced EIA - GIS (Geographical Information system). - Planning & project follow up as well as feasibility studies for environmental projects. - Environmental law & legalizations preparing environmental data bases. - TOT in different fields. - Communication & raising the environmental awareness. - Hazardous wastes Management.
Environmental Communication officers	<ul style="list-style-type: none"> - Environmental communication representative manual.
NGO'S & social development organizations	<ul style="list-style-type: none"> - Environmental projects Management. - Financial management & project fund sustainability. - Writing the environmental & development project's proposals. - How to deal with the donating authorities. - Promoting & getting support for the Governorate's Action

	plan projects as well as other environmental projects.
Owners of industrial projects and technical workshops, and environmental representative in the industrial areas	<ul style="list-style-type: none"> - Cleaner production. - Plans for environmental management in industry.
Environment unit & agriculture guidance in agriculture authority	<ul style="list-style-type: none"> - Usage of chemical & organic fertilizers and insect pesticides, and Biological pest systems & irrigation methods.
Environment unit in Drinking water & sewage company	<ul style="list-style-type: none"> - Waste water treatment methods. - Usage of treated waste water in planting. - Operation & maintenance of domestic waste water networks and the systems used in the treatment stations. - Operating & maintenance of drinking water networks as well as treatment stations. - Methods of measuring the leakage & losses in water networks. - Drinking water quality control. - General awareness programs regarding the rationalization of drinking water.
Environmental health department in health	<ul style="list-style-type: none"> - Monitoring & follow up for all emissions. - Good management & safe disposal of medical hazardous

authority	wastes.
Solid wastes	<ul style="list-style-type: none"> - Capacity building for employees in solid & hazardous wastes departments. - Safe disposal of solid and hazardous wastes. - Developing the participation of private sector in solid waste management.

6- Required actions to raise the general environmental awareness in the governorate:

Awareness campaigns must be planned to aim all society sectors, because the new methods and concepts that support achieving the goals of the GEAP take long time to affect, and it is also a process that needs big supporting sources. In early stages of achieving the GEAP, there must be awareness campaigns to take place regarding the priority issues in the GEAP, with regard to programs targeting the following:

*** Main concerned authorities:**

- Methods of preserving the underground water and consumption rationalization.
- Random dumping of wastes & its effect.
- Domestic waste water & personal health.

*** Secondary concerned authorities:**

- Importance of offering good management for solid wastes & water services and sewerage services.

- Needs of the Industrial private sector for self follow up of the effects of wrong industrial wastes disposal on the surrounding societies, in addition to the necessity to improve the work conditions.
- Protecting natural resources.

General awareness can be guided through many authorities: mass media, Educational departments & schools, youth centers, NGQ'S as well as employees in the field of industrial security. In order to support implementing the GEAP in the governorate, it is scheduled to apply some promotion including posters and video films as well as TV & Radio programmes, in addition to some specially messages can be transferred through religion leaderships.

Media activities in the GEAP will be co-coordinated with current general awareness campaigns including the environmental occasions and competitions under the auspices of the Governor, in addition to cleaning & planting campaigns than can be implemented under the auspices of the donating organizations or the private sector.

More over schools & universities must be targeted to raise the environmental awareness of the students due to their effect on the customs & behavior of their parents, also because these students are the future leaderships in the society of Menia.

As a first step, efforts must focus on supporting a high level of environmental awareness for University professors and also teachers in schools, also to focus on their commitment and support to the goals of Menia GEAP.

These activities must be co- ordinate with the central department of environmental communication & Awareness (CDECA) in EEAA, as CDECA had issued a collection of posters, procedures and flyers for public awareness.

It is important to make a good follow up as time passes to check the effect of these campaigns, this includes making researches on the change of behavior & thoughts for the target groups, the results of these researches will contribute in designing, manage and follow up the companies to insure its effect.

7- Institutional support & capacity building in Environmental Management of the governorate:

7-1 Institutional support & capacity building:

The successful implementation for the actions included in Menia GEAP will lead to a more sufficient usage for the available resources.

This requires new investments specially for the proposed infrastructure. In both cases this matter will requires improving the institutional structures and systems that support the implementation process.

Most main organizational are present in Menia, this part of the report includes some of the necessary actions to support the current organizations and increase the effective coordination between each other.

Recently, the governorate formed a higher committee for Environmental by the decree number (594) for the year 2005 dated 22/10/2005, to take charge of facilitating the implementation the GEAP.

Also the governorate has its own EMU and recently some EMU on the level of markaz have been established.

As for the concerned Ministries, such as Ministry of Housing, Ministry of Irrigation, Ministry of Health they have an environmental responsibilities according to different laws, as well as important roles they have to fulfill, therefore they will need capacity building to be able to act their roles, also their institutional structures will need support to ease the effective contribution procedures from private sector & NGO'S and also society development NGO'S and all the society sectors together.

7-2 Planning system & environmental management:

Preparing an effective decentralization system for planning and environmental management is considered one of the important requirements to implement and sustain the activities of the GEAP in Menia. This matter requires creating a structure to manage and assess and improve the effectiveness and quality of the environmental management decentralization on the governorate level.

Planning and environmental management system must be established on a planned and organized methodology under the supervision of the higher committee of Environment, and this methodology will be reviewed and updated periodically to insure its fitness to the discussed issues. The planning & environmental management system will have the following general functions:

- Strategic planning to insure the environmental friendly sustainable development.

- Implementing land- use planning that takes into consideration the environmental laws through applying EIA conditions and be committed with it.
- Co-ordinate between the concerned groups activities to improve the environmental services, and preserve, protect and cure the resources,
- Increase the public awareness and consult the society about the environmental issues.
- Capacity building through training & hiring the effective guidance services.
- Supply the required financial and human resources to implement the projects of the GEAP of Menia.
- Effective follow up and applying the environmental laws and put standards and for environmental act.
- Support the governorate GEAP and insure its sustainability and update.
- Institutional support is important for the following reasons:
 - Develop the planning and environmental management system to act on effective treatment for the priorities of issues mentioned in part 5 of the GEAP on the government, private and society levels.
 - Insure the commitment to apply & implement the governorate GEAP and to admit it on the higher levels inside the governorate.

- Support and facilitate the contribution of all concerned groups who are interested in improving the environmental services and preserve the natural resources.
- Establish a link network to coordinate between all the concerned groups in order to keep the sustainability of Menia GEAP.

The planning environmental management system does not assume any new bureaucratic restrictions, as the system depends on the current management in the governorate, this system consists of:

- Higher committee of Environmental (recently established) to be in charge of coordinating and including the planning and environmental management activities on the governorate level.

Menia governorate is currently making a process to specify the organizational structure of the council and distributing roles & responsibilities which are expected to include the following:

- Preparing mechanisms to merge the GEAP strategic priorities into the general planning and preparing programs and budgets as well as specializing resources.
- Support more coordination & information exchange between ministers on the level of the governorate.
- Increase the coordination & cooperation between sectors on the level of the governorate.
- Conducting opinions to the central bodies like (EEAA) and increasing the local inputs in polices & national environmental plans (National environmental action plan)

- Follow up the implementation and update of the GEAP priorities and insure merging the environmental issues into development plans.
- Act as a consultant for the Governor regarding the strategic environmental issues.

*** Insuring the implementation of environmental plans & priorities mentioned in the GEAP is considered one of the important priorities for the higher committee of environmental.**

- Establish environmental units (Each one includes 1-2 employees) in each concerned and environmental related authorities such as Ministries of Housing, Health, Agriculture, Industry, Irrigation, Tourism.
- Hire environmental communication employees in other authorities.
- Hire environmental communication employees for each village.
- Support the ability of recent environmental units in markaz.
- The General Economic Authority for managing drinking water & domestic waste improves the standards of planning, maintenance and collecting fees as well as raising the awareness and ability for environmental management.
- To hire a representative for environmental coordination and development in the Social Affairs authority in order to support the role of NGO'S and social development organization in the field of environmental management to be more effectively.

- Support the sources & abilities of the representative of education authority in charge of supporting environmental activities in schools on markaz level.

The central unit for solid waste management to plan, support and co-ordinate the solid waste management activities, as well as supporting the privatization of services including follow up of the performance for services employees from private sector and how much is their commitment.

Employees in this department must get training on solid wastes in general as well as financial & strategic planning.

Also an awareness and guidance unit will be established to support many of the small & medium projects on applying the environmental safe technology as well as the good environmental management actions.

* The initiatives that started on the central level to support decentralization of environmental management include:

- Issue a decree draft to divert the EMU'S in all governorates to be general departments for environmental affairs. The implementation of this decree will give more importance for environmental issues, also will support the environmental management decentralization process. The Egyptian program for environmental polices (supported from USAID) in Co-operation with EEAA presented that decree draft in front of his Excellency the Prime Minister for his approval.

EMU in some governorates have been changed into general departments such as New valley & Red sea. Menia governorate will have to move fast to

support the capacity of this new department and offer the required support to implement the governorate GEAP.

- Integrated cooperation for the environmental activities in all EMU'S /markaz / authorities inside the governorate is included among the main tasks for the General Department for environmental affairs, this also includes preparing the environmental strategic plans & programs. This general department can also act as a communication office for awareness & environmental complains which will help an environmental follow up, and offering environmental training as well as raising the environmental awareness.

7-3 Main Environmental authorities:

An environmental management & planning system must be established according to the current system of decentralization of environmental management (table 1), also this system must support the coordination & support the effectiveness of the other main authorities in Menia governorate in order to fulfill its environmental responsibilities, as illustrated in the following table:

Table (1): Main Environment authorities (Responsibilities & coordination)

Authorities	Fields of Environment responsibilities	Coordination with other authorities
Ministry of water resources &	Apply law 12/1984 regarding irrigation & draining, as well as	Health authorities take samples to measure water quality to

Authorities	Fields of Environment responsibilities	Coordination with other authorities
irrigation, water resources & irrigation authority (specialized mainly with distributing water, cleaning water canals from wastes	<p>apply related decisions prepare estimated demands for irrigation water and present them to the central Ministry.</p> <ul style="list-style-type: none"> - Manage the main infra structure to supply irrigation water & drain services, also operation and distribution of these services according to agriculture lands. - Increase the efficiency of transfusing water to the needed lands. - Renew the old drain networks - Apply law 48/1982 through inspection in cooperation with water surfaces police. 	<p>preserve public health</p> <ul style="list-style-type: none"> - Raise any complain regarding any irrigation problems to the central Ministry - Presents the Violation cases (beside law 48) to the EMU in the governorate or any other concerned authority - Raise any irrigation water quality problem to the central Ministry of water resources & irrigation.
<ul style="list-style-type: none"> - Ministry of housing - General authority for sewerage 	<p>Apply law 48/1982</p> <p>Regarding sewerage disposal and other related decisions to guarantee matching sewerage collect and treatment services with</p>	<p>Program in health authority to follow up industrial waste liquids which are disposed into public sewerage network</p> <ul style="list-style-type: none"> - Health authority makes tests on the liquid wastes on behalf of

Authorities	Fields of Environment responsibilities	Coordination with other authorities
	<p>the Egyptian laws;</p> <ul style="list-style-type: none"> - Encourage reuse of treated waste water & sludge - Supply enough infra structure for collecting and treatment to small villages & country side areas. - Guarantee supply of enough treatment infra structure for industrial wastes. - Guarantee the matching of domestic waste water & industrial waste water which are disposed through public sewage network with the Egyptian standards - prepare small sewerage projects, (pipes) systems, plumbers as well as big projects <p>Projects through central ministers as well as management of these projects through the governorate.</p> <ul style="list-style-type: none"> - supervise locality employees, follow up the projects 	<p>EMU or the sewerage department according to their request.</p> <ul style="list-style-type: none"> - Raise the violations related to water pollution to water surfaces police

Authorities	Fields of Environment responsibilities	Coordination with other authorities
	<p>implemented through private sector contractors.</p> <p>- Locality employees are in charge of checking & leaking cases or bad pipes, and bad odors coming from treatment units, as well as pollution resulted from untreated sewage waste water</p>	
<p>Ministry of agriculture and land Reclamation, Agriculture authority</p>	<ul style="list-style-type: none"> - Apply law 53/1966 and related decisions - Offer marketing and financial services, agriculture cooperation - Support agriculture sector to fight pests & deceases - Support in preserving soil quality (for example by making researches on soil) - Encourage land reclamation projects - Manage & cleaning of irrigation & drain of water resources as 	<ul style="list-style-type: none"> - Ministry of Health & the Developing Exports authority make control on the agriculture production quality - Agriculture authority informs the environmental units in localities (markaz) with the environmental violations

Authorities	Fields of Environment responsibilities	Coordination with other authorities
	<p>Ministry of Water Resource & irrigation is responsible for management of main canals, ministry of Agriculture is responsible of management of sub – canals)</p> <ul style="list-style-type: none"> - supply information, training, agriculture guidance service regarding agriculture practices (fighting pests, usage of fertilizers, animal) - Giving license for animal industries which requires many licenses. 	
<ul style="list-style-type: none"> - Ministry of Health & population - Health authority 	<ul style="list-style-type: none"> - take samples from drinking water sources, water treatment stations, waste liquids resulted from waste water treatment stations also drain water in local sewage networks and water cannels. - Analyzing these samples (or 	<ul style="list-style-type: none"> - In case of presence of any problem regarding drinking water quality, a committee is formed from EMU, water company to check the problem \ - samples taken from suspect locations in the Nile river are sent to the central Ministry for

Authorities	Fields of Environment responsibilities	Coordination with other authorities
	<p>send them to the central Ministry of health to make analysis)</p> <ul style="list-style-type: none"> - Take and analyses samples from the industrial pollution sources and other pollution sources according to other authorities request. - Monitor the surrounding air quality (through 2 fixed monitor points and one mobile monitor units). - Implement vaccination programs to prevent diseases. - Health authority is not responsible directly for law implement commitment 	<p>analysis, then the governorate is reported after words if any problem is found</p>

7-4 organizational support for other organization:

Organizational support & capacity building must not be included for governmental authorities only, big efforts must also be directed to make capacity building for NGO's and society NGO's, public educational organizations and private sector to support their abilities in the field of planning programs, environmental projects & management.

Initiatives must also include encourage the attitude to hire environmental communication employee in the technical unions and commercial offices to support the self follow up of the participated companies to improve their environmental act.

8- Roles & responsibilities:

Every goal in the Environmental Action plan will have its own authorities that will be responsible for implementing it as illustrated in table (2). The EMU will be responsible for coordinating the preparation of policy & control the results as well as presenting the achievement results as well as presenting the achievement report in this regard and finally presenting recommendations for performance improvement.

Table (2): Responsibilities of implementing the GEAP in the Governorate

Issues & Goals	Main Implementing organization	Main Participates authorities
Sewage		
Supply sewerage Services to all urban & countryside areas	Public Company for drinking water & sewerage	Health Authority
Institutional capacity building and support for different sectors on	City councils, village councils, public company for drinking water &	Menia governorate and EMU

governorates level	sewerage	
Maximize the reuse of treated waste water & sludge	Agriculture authority, company for drinking water & sewerage	EMU, agriculture cooperation employees of agriculture guidance
Solid waste management		
Put an appropriate strategy for integrated waste management in Menia governorate	Solid waste department	EMU in city council village councils, society development organization
Improve the operation & maintenance of waste services	City council , village council	EMU
Improve the current systems for collecting & transporting wastes	City councils village councils	EMU
Adopting appropriate high quality systems to treat with wastes and its disposal	City council, village council, hospitals and factories	EMU, Health authority
Guarantee safe and sustainable recycle for wastes	City councils, village councils, hospitals and factories	EMU, Health authority

- Put appropriate systems for managing medical & hazardous wastes	City councils, hospitals and factories	AMU and health authority
Improving the institutional system and capacity building for employees	City councils & village councils	Menia governorate
Water supply and water quality:		
To make service cover 100% and increase production to meet with expected demand	Public Company for drinking water & sewerage	Menia governorate and drinking water company and sewerage
Improve water service quality to cope with the by the year 2010	Public Company for drinking water & sewerage	Company for drinking water & sewerage, Health authority
Raise the level of collecting fees from 65% to 85% and decreasing the loss in networks from 25% to 20%	City councils, village councils, factories NGO's social development organizations	Company for drinking water & sewerage, NGO's and social development organizations
Capacity building to improve water supply service and service network	Local people's council in the governorate, city council, village councils	Company of drinking water & sewerage

Water Resources:		
Improve surface & underground water resources management	Ministry of water resources & irrigation.	EMU
Improve the surface & underground water resources quality	Ministry of water resources & irrigation, Health authority	EMU
Decrease pollution of surface and underground water resources	Factories, EMU, Agriculture authority, water resources authority, health authority	EEAA, water resources police
Agriculture :		
Improve soil and irrigation quality	Agriculture authority	Ministry of water resources and irrigation
Usage of fertilizers & pesticides	Agriculture authority	Ministry of agriculture and land reclamation
Support fish production	Agriculture authority	General authority for developing fish wealth
Decrease the harvest loss and dealing with it	Agriculture authority	Ministry of agriculture and land reclamation

Developing institutional management	Agriculture authority	Menia governorate
Industrial pollution :		
Guarantee safe storage for hazardous wastes and safe disposal	Factories	EEAA, EMU Health authority, ministry of working power
Decrease minute & gas emissions from big factories by 50%	Factories	EMU, water Resources & general authority
Increasing the governmental ability to manage industrial activities	General Economic authority, city & village councils	Menia governorates, EMU's
Law public environmental awareness		
Increase the environmental awareness among governmental employees & citizens of Menia	Menia governorate, EMU, EEAA, Education authority	City & village councils, health authority
Improve services supply to help citizens to follow good healthy practices	Company for drinking water and sewerage	National authority for drinking water & sewage health authority
Natural Resources:		

Support planning operations, organizing & operating mines & quarries	Mines & quarries department	Menia governorate
Improve EIA studies	EMU, environmental units	Menia governorate
Capacity building for mines & quarries	Mines & quarries department EMU	Menia governorate
Decrease the effects of mines & quarries activities	Mines & quarries department	Menia governorate
Culture Heritage		
Support management of culture locations and areas of environmental importance	Monuments Department	Menia governorate
Support capacity building	Monuments Department	Menia governorate higher council for
Protect the culture heritage	Menia governorate guidance department	Higher council for
Protect the area found between Tal Hamarna and Bani Hasan, Touna Elgabal area – Shiek Ebada area-	Monuments Department	Menia governorate

Ancient cemeteries – Holly family passing area		
Protecting Biodiversity		
Put a program for environmental and biodiversity maintenance	Menia governorate, Agriculture, authority, EEAA, Education authority	EMU's, city councils
Management of National protected areas	Menia governorate, agriculture authority, EEAA	EMU, city councils
Limitation of environmental dangers (threats)	Menia governorate, agriculture authority, EEAA	EMU, city councils

9- Finance & implementing the plan:

9-1 Implementation priorities:

The proposed actions in the governorate GEAP put into consideration to offer low cost and practical solutions, but the limitation of the available resources stands as an obstacles in front of implementing the required improvements, though the 6 main issues with high priorities need quick interventions:

- 7- Improving domestic waste water.
- 8- Developing the solid waste management.
- 9- Improving drinking water supply & quality.

- 10- Reduction of industrial pollution.
- 11- Raising the environmental awareness for employees in government and of the citizens of Menia.
- 12- Developing Random areas and residential areas.

As for the 3 first environmental priorities, the governorate has the biggest responsibility to deal with them in the from of supplying the environmental utilities services (although there must be real opportunities for the participation of private sector).

As for the fourth priority, it is included in the responsibility of private & public companies.

As for the responsibility of the fifth priority it is done through the department concerned for spreading of public awareness in Menia governorate.

The last priority is the responsibility of scientific organizations to cooperate with each other to implement it like the University with the governorate.

*** Budget & Five-Year Plan for implementation:**

The governorate (after finishing the preparation of the GEAP) will contact with the authorities and concerned parts who are responsible of dealing with the priority issues mentioned above.

These authorities will be supported for merging the related parts in the GEAP in their practical plans and identifying the implementation plans will increase the implementation of current budget usage and will identify the priorities that need additional resources to achieve the goals of the GEAP.

Identifying the priorities of the activities in each component must be done with in the implementation plan.

For example, it may be necessary to admit giving the priority to offer the main governmental services for the most poor areas or to support activities in order to attract the environmental friendly investments like establishing an industrial city.

*** Strengthen the control abilities:**

The governorate must identify from the beginning a number of measured indicators to identify the progress in the GEAP activities, also the authorities & companies must be encouraged to put individual & administrative goals as mentioned previously in table (2). This will help in implementing more effectiveness and purposeful usage of the limited resources to give a more useful effect and a more developed environmental practice.

*** Spreading the governorate GEAP to attract additional resources:**

Implementing the priorities of the GEAP will mobilize the resources inside Menia governorate on all levels starting from the governorate passing through the NGO's and society NGO's. The GEAP will offer a clear action framework to guide the finance to the priority issues through it.

The GEAP must also be raised so the main concerned ministries and donating organization & national organization, with its clear action frame work in the form of an objective purposeful plan to get the support of these organizations for the efforts of environmental management in the governorate.

The support and gain the continuous support from higher levels may help in getting additional financial support to implement the GEAP of Menia governorate.

*** Establishing an effective legal & economical action framework:**

The effective legal action frame work will be concerned about applying and activating the current environmental laws, this matter may require a necessity to impose additional fees to insure the environmental improvements, applying different environmental laws is the responsibility of many authorities in the EMU in the governorate, and to support on coherent and cooperated implementation of these laws the governorate must create a control & implementation department, then the EMU may reach to a self finance funding through collecting fines from the law breakers.

*** Attracting the private sector participation to offer infrastructure services:**

The governorate must put an economical & legal frame work to support the participation of private sector and support also the investment in supply & conductive the environmental services. This will minimize the financial & administrative burdens on the governorate, and will work on improving the quality, coverage & conductive the environmental services.

9-2 Finance organizations and foreign donating organizations:

The governorate & donating organizations finance a number of water supply and domestic waste water projects, for this reason 6 environmental

project proposals were chosen with regard to the society participation, these projects included priority environmental issues and were implemented in the most environmental degradation villages, "Sinact" program funded them.

Menia governorate implemented recently a number of solid wastes initiatives on a wide range included is establishment of house waste collecting system through the fund presented from "Sinact" and other donating organizations, and there is a possibility to repeat these initiatives in other locations in Menia governorates.

The employees in the governorate also showed a big interest by effective encouragement improvement. Table (3) shows the donors working in Menia governorate in the present time & the funded projects

Table (3) Donors working in Menia and their scope of works:

No	Donors	Scope of work	Participating authorities	Notes
1	Egyptian Switzerland fund	Developing civil environment for West Menia neighbor hood focusing on solid waste management in the location.	Coptic Evangelical Organization for Social Services (CEOSS)	Currently on going
2	Egyptian Italian project	Establish a solid waste department in the governorate	General office of governorate, local units in markaz	First stage finished

3	Canadian environmental support project	- Solid waste management process - Recycle agriculture wastes	24 NGO's	Project still on going in different villages in Menia
4	Vera fenland organization	Supply drinking water & establish health toilets	NGO's	Different villages in Menia
5	DANIDA	Supply drinking water to poor people houses, make sewage link pipes (90% implemented	21 NGO's in the first stage other 4 NGO's in the second stage	Different villages in Menia
6	World Bank	Developing south neighborhood in Menia city (on going project)	The governorate + NGO's + civil & society	Southern neighborhood in Menia city

9-3 Financing organization & local donors:

The effective participation for the government in preparing the GEAP process is considered a main element to guarantee and stress its ownership that was why the governmental representative participated a big participation

in working groups to prepare the government profile and identify the GEAP priorities.

The executive authorities in the governorate will cooperate with local donors like the Social Development Fund and other financing authorities to implement the priorities of the GEAP.

9-4 Private sector:

The private sector has an important role in supporting the implementation of Menia GEAP, developing this role is necessary and linked with other concerned groups specially the governorate, as the governorate has to specify the different ways by which the private sector can participate this can include for example: increasing the private sector role in presenting environmental services (such as developing solid waste collecting & disposal, water supply, treatment of waste water and build more constructive partnerships between EMU in the governorate & industrial sectors & investors to treat the EIA commitment issue and impaction on factories.

Also stimulate and support responsibility of private rector companies for example through applying improvement systems for self follow up or apply good environmental management practices.

9-5 NGO's

There are many NGO's and social development organizations in Menia working in the field of environment and aims through their programs to improve the environmental situation in the governorate. In the past years

NGO's were able to attract a number of foreign finance resources through the support of donors & local donors to implement a number of important environmental initiatives. Here we mention a number of projects that are being done now on the governorate's land implemented by NGO'S with support of some donors (like solid waste management projects financed from the Egyptian Canadian Fund) Table (4) shows the NGO's that could get a finance to implement environmental projects in Menia governorate.

NGO'S can play an important role in implementing the GEAP through successful initiatives with international & local donors.

Table (4) NGO'S obtained finance from "Sinact" to implement environmental projects in Menia governorate (2007)

No	Name of NGO	Project name	Project area	Finance in L.E.
1	Ragaa for integrated development	Solid waste management	Bani Ahmed sharkya – Menia	115190
2	Wafaa & Amal for special needs persons	Solid waste management	Bani Ahmed sharkai –Menia	116210
3	Tayeba for development actions	Solid waste management	Tayeba – Samaloot	121690

4	El Karama for development and society serving	Solid waste management	Manehry – Abou Korkas	112690
5	Delga sons for social development	Solid waste management	Delga – Dir Mawas	89821
6	Egyptian for countryside development and services	Solid waste management	Senedfa – Bani Mazar	112690
7	Islamic Righteousness and piety	Solid waste management	Bergaya – Menia	12469 O
8	Wataniya for Human sights	Recycling of agriculture wastes	Samaloot	<u>10760</u>
9	Kholafaa Rashdeen	Recycling of agriculture wastes	Tala – Menia	12368
10	For you my country	Recycling of agriculture wastes	Bani Abied Abou Korkas	11724
11	Fursan for integrated	Recycling of agriculture	El Bergaya Menia	11862

	development	wastes		
12	Youth of hope for development	Recycling of agriculture wastes	Demsha & Hashim- Menia	11587
13	Society development in nazlet El Asaker	Solid waste management	Soultan corner Menia	112212
14	Science and faith	Solid waste management	Saft El Laban – Menia	112212
15		Solid waste management	Tokh El khiel – Menia	112212
16	Society Development	Recycle of agriculture waste	Soltan corner	111405
17	Egypt Ladies for environmental affairs	Solid waste management	Khandool Malawie	118212
18	Society development	Recycle of agriculture wastes	Abass Rhamy, Matay	116405

19	Ahliya for country side development	Solid waste management	East soft Menia	112212
20	Islamic Khayria	Solid waste management	El Nasseria Dir Mawas	112212
21	Developing the country side woman	Solid waste management	Tokh- dir Mawas	112812
22	Khashaba for development & hiring graduates	Solid waste management	Abioha- Abou Korkas	112212
23	Developing local society	Solid waste management	Zahra Menia	6112
24	Raising & developing villages of Malawy markaz	Recycling of agriculture wastes	Derwa – Malawy	118405

10- Contribution in effecting on the National & International issues:

No doubt that implementing the environmental priorities included in the governorate GEAP and stated previously will lead to the improvement of the environmental situation on the national level, as these problems came

among the action priorities on the National level as the GEAP also includes the priority issues mentioned in the National plan for environmental action issued in 1992 regarding the solid waste management field, land – use and water use fields, this expected environmental improvement will match with the international agenda to improve the quality of life for people specially decreasing the industrial pollution.

The stated procedures will also contribute in the GEAP to meet Egypt commitments according to the International protocols, specially in Agenda 21 issued from Rio Conference and the sustainable development goals.

11- Plan implementation follow up & evaluation:

Menia GEAP was designed that can be measured and followed up periodically regarding the present progress in the environmental activities with priority.

The related priority environmental activities were specified as well as identifying the goals through which the success of these activities can be measured. Therefore it is necessary to design a simple attractive follow up system to help on measuring the activities progress. For example if we want to measure. The progress happened in:

- Solid waste management system, it is better at first to agree on simple indications that can be measured like waste quantity that 1 worker collects per day, number of burning landfill.
- In case of water supply (measures of the pipes that are maintained per day, total collected fees).

- It is expected that the leader organizations (who have the main role to achieve these goals) will be responsible for following up the activities achievements and present the results to the Higher Committee for Environment.
- In addition to the role of the main authorities to support and follow up the achievements with the leader organizations. Though the Higher Committee for Environment is responsible for follow up and updating the GEAP issues as some changes can occur on the priorities by time passes.

11-1 Annual evaluation:

The environmental condition report must be prepared and passed to the Higher Committee for Environment annually including a brief about:

- Achievements related to the agreed activities (Implementation).
- Environmental improvement occurred due to a direct result for achieving the GEAP activities.
- Areas require bigger interest cause of weak performance or obstacles.
- Required changes recommended cause of changing priorities environmental circumstances.

EMU in the governorate must coordinate in preparing this report.

Though environmental units and environmental communication representatives working in the governorate (as a part of the Environmental management and planning system) have to have contributions in preparing this report. Also NGO'S is and private sector, public leaderships must participate effectively in the evaluation process.

11-2 GEAP as a continuous process:

GEAP must be characterized by effectiveness & flexibility to guarantee its sustainability. Also policies, goals and included activities must be updated to reflect the changes in the local circumstances. In addition learned lessons must be recorded in the GEAP follow up reports to make use of them in implementing environmental plans in other places.

For updating the GEAP activities and goals it must be done by an organized way.

Follow up reports must be prepared annually, updating GEAP must be prepared every 2-3 years. In the GEAP cycle we must consider the following:

- Preparing and updating detailed implementation plans (3-5 years) and the required budget for the annual priority activities.
- Follow up and evaluating achievements and executive performance.
- Continuing the consultations with primary & secondary concerned parts and their opinions and support for coming environmental plans.
- Specify the necessary new activities as a result of changing circumstances (like laws, or new standards)
- Review and put goals and new appropriate activities.
- Attracting investments in certain locations due to outside changes. (like changes in the National policy)
- Continuous tries to attract foreign investments either from the government or private sector or donors.

- Cope with technological development which can contribute in presenting useful economical and effective solutions for environmental problems.
- Respond with changed requirements especially for institutional support and capacity building.

12- Annexes:

Annex number (1); list of the participants in preparing the GEAP

General Supervision:

- 4- General / Ail Selim Shory, General Secretary of the governorate.
- 5- General / Medhat Mohamed Salah El Din. Assistant General Secretary.
- 6- Mr. Mostafa Ismaiel Ibrahim EMU Director in the governorate.

*** General coordinator for working groups:**

Eng./ Mamdoh Salama Mousa:

Planning & project officer in Menia EMU

1- Water Resources, drinking water & sewerage working group:	
Dr. Nada Ashour Abdel zaher	Environmental Inspector in Menia EMU
Ch / Ishak Moawed	Drinking water & sewerage company in Menia
Eng/Mohamed Abdel Salam Ahmed	Irrigation Directorate – Menia
Mr. Mohamed Ali Mohamed	EMU – Samalout Locality
Dr. Nesiem Sobhy	Environmental Health Dep. Health authority -

Labib	Menia
2- Solid waste, agriculture, hazard wastes working group	
Eng/Mostafa Ismaiel Ibrahim	General Manager EMU – Menia
Eng/Mohamed Saad Hasan	Environmental inspector EMU
Dr. Nasiem Sobhy Labib	Environmental Health Dep. Health authority – Menia.
Eng/ Naser Yousef Yazied	EMU, agriculture <u>authority</u> Menia
Eng/ Ahmed Mahmod Ali	EMU Matai Markaz
Eng/Ahmed Mahmod Taha	EMU- Menia Locality
Eng/ Mohamed Reda Abdel crhany	EMU Abou Korkas Locality
Eng/ Sayed Abdel Fatah Mahmod	EMU Malawi Locality
3- Industrial pollution and Hazardous waste working group:	

Eng/Adel Mohamed Rafaat	Environmental Inspector Menia governorate
Eng/ Hussien Ali Ahmed	Environmental officer in Industrial area
Eng/Mohamed Hashim Hussein	Environmental officer in Sugar factory- Abou Korkas
Eng/Mahmoud Ali Abdel shafi	Environmental responsible in White cement factory Samalot.
Eng/ Somia Mahmoud Ahmed	Environmental Inspector in Abo Korkas Markaz and city
4- Developing Random areas & Residential compounds working group:	
Eng/ Mamdoh Salama Mousa	Planning & project officer EMU- Menia governorate
Eng/Mahmod Ali Mahmoud El hawy	Housing authority representative in Menia
Eng/ Omar Ibrahim Amar	Development Dep. officer in the governorate
Eng/Medhat Lois Abdel Sayed	Follow up and planning officer in governorate
Eng/ Maswa Farouk	EMU director in local unit – Menia Markaz

Mohamed	
Eng/Hamdy Abdellah	Inhabitant planning Dep. In Menia
5- Environmental awareness & institutional capacity working group:	
Mr. Nagati Abdel Magied Haridy	Communication & training officer – EMU
Mr. Mostafa Husieny	Communication Center Director –Menia
Ms. Manal Mohmed Ezat	Communication center Menia
Mr. Ahmed Galal Mohamed saber	Youth & sport authority Menia
Mr. Naser Yousef Yazied	EMU Director in Agriculture authority – Menia

Annex number (2) List of workshops implemented as a part of Menia GEAP.

*** Water resources, drinking water & sewerage working group:**

Work shops	Responsible	Date
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Work shops No (1) for all working groups & supportive parts	EMU in Menia governorate	21/6/2007
Work shops No (2)	EMU in Menia governorate	26/6/2007
Work shop No (3) for all working groups	EEAA in cooperation with EMU in Menia	1/7/2007
Work shop No (4)	EMU in Menia	4/7/2007
Work shop No (5)	EMU in Menia	12/7/2007
Work shop No (6)	EMU in Menia	19/7/2007
Work shop No (7)	EMU in Menia	25/7/2007
Work shop No (8)	EMU in Menia & GEAP Consultant	12/9/2007

*** Medical and solid wastes Group:**

Work shops	Responsible	Date
Work shops No (1)	EMU in Menia	1/7/2007

Work shops No (2)	EMU in Menia	15/7/2007
Work shop No (3)	EMU in Menia	22/7/2007
Work shop No (4)	EMU in Menia	30/7/2007
Work shop No (5)	EMU in Menia with GEAP consultant	12/7/2007

*** Industrial pollution & hazard waste group:**

Work shops	Responsible	Date
Work shops No (1) for all working groups & supporting bodies	EMU in Menia	21/6/2007
Work shops No (2)	EMU in Menia	28/6/2007
Work shop No (3) for all working groups	EEAA in cooperation with EMU in Menia	1/7/2007
Work shop No (4)	EMU in Menia	16/7/2007
Work shop No (5)	EMU in Menia	21/7/2007
Work shop No (6)	EMU in Menia	9/7/2007
Work shop No (7)	EMU in Menia with GEAP consultant	12/7/2007

*** Developing Random areas & housing compounds:**

Work shops	Responsible	Date
Work shops No (1) for all working groups and supporting parts	EMU in Menia	21/6/2007
Work shops No (2)	EMU in Menia	26/7/2007
Work shop No (3) for all working groups	EEAA in cooperation with EMU in Menia	1/7/2007
Work shop No (4)	EMU in Menia	15/7/2007
Work shop No (5)	EMU in Menia	19/7/2007
Work shop No (6)	EMU in Menia	30/7/2007
Work shop No (7)	EMU in Menia with GEAP consultant	12/7/2007

*** Environmental awareness & institutional capacity building working group:**

Work shops	Responsible	Date
Work shops No (1) for all working groups	EMU in Menia	21/6/2007
Work shops No (2)	EMU in Menia	27/6/2007
Work shop No (3)	EEAA in cooperation with EMU	1/7/2007
Work shop No (4)	EMU in Menia	24/7/2007
Work shop No (5)	EMU in Menia	30/7/2007
Work shop No (6)	EMU in Menia and GEAP consultant	12/9/2007

Annex no (3) List of Random areas in Menia:

City/ neighborhood	Area name	Location area in m²	Number of population
Edwa	Eastern neighborhood	285600	4000
	Middle neighborhood	210000	4549
	Western neighborhood	260400	6500
Total		756000	15049
Magaga	Bahary neighborhood	65996	8345
	Eastern neighborhood	152432	10166
	Western neighborhood	137593	10196
	Middle neighborhood	600600	15095
Total		956622	
Bani Mazar	First area	71000	5000
	Second area	325000	7500
	Third area	292000	8000

	Fourth area	545000	10000
	Fifth area	184000	16000
Total		1346000	41500
Matay	Western neighborhood	802200	15080
	North neighborhood	195300	9100
	Eastern neighborhood	182700	6720
Total		1180200	30900
Samaloot	South neighborhood	949896	39530
	Eastern neighborhood	881760	25502
	Western neighborhood	989996	35480
Total		2821632	82330
Menia	Western neighborhood	791475	112240
	South neighborhood	832000	130000
Total		1623475	242240
Abokorkes	North neighborhood	250000	7000
	Eastern neighborhood	150000	4000
	South neighborhood	200000	3000
Total		420000	14000

Malawi	North neighborhood	41381	19000
	South neighborhood	20950	17000
Total		62331	36000
Dir Mawas	North neighborhood	48000	12100
	South neighborhood	14100	3315
	Middle neighborhood	18800	7900
	Western neighborhood	7150	350
	Eastern neighborhood	3155	180
Total		92205	23845

Annex no (4): Reports used for preparing the GEAP

*** Water resources, drinking water and sewerage:**

Report	Issuing authority	Date of issue
Menia	EMU	2007
Menia overall scheme till 2022 (drinking water & sewerage report)	Physical planning unit in the governorate	August 2005
General Indicator for the Environmental situation in Egypt (Environment & Human rights)	Electronic newsletter for Haby center for Human rights	30 November 2004
Drinking water crisis in Egypt between water pollution and maintenance weakness	Electronic newsletter for Earth center for human rights	2007
Away from dispute with Nile River countries, wasting 40% of water in Egypt.	We and the World Electronic magazine	June 2004

Report	Issuing authority	Date of issue
Nile pollution kills Egyptians and fish wealth	my Environment, electronic magazine	2007
Water problems in the Egyptian country side between corruption and bad planning	Electronic newsletter for "Earth" center for human sights	October 2005
Data from drinking water & sewerage company in Menia Data from Irrigation authority, Data from Health authority (Environment Health Dep.) & Data from the 9 localities (markaz)	Drinking water & sewerage company, Irrigation authority in Menia, Health authority, 9 EMU's in localities (Markaz)	July 2007

*** Solid and Medical wasters:**

Report	Issuing authority	Date of issue
Menia profile	EMU	2007
Documents of local units	Local units in the governorate	8/7/2007
Documents of agriculture authority	Agriculture authority	8/7/2007
Documents of Health and population authority	Health and population authority	8/7/2007
Documents of the Egyptian Italian project for solid waste management`	Egyptian Italian project for solid waste management in the governorate	2006

*** Hazardous & Industrial wastes:**

Report	Issuing authority	Date of issue
Menia profile Environment	EMU in Menia Governorate	2007
Over scheme for Menia governorate	Physical planning unit in Menia governorate	2006

Documents & papers from big factories (Sugar factory cement factory – black honey crushes and industrial area	Department of these points	2007
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*** Developing Random areas & residential compounds**

Report	Issuing authority	Date of issue
Menia Environment profile	EMU in the governorate	2007
Over scheme of Menia	Physical planning unit in Menia governorate	2006
Documents & papers from local units in the 9 markaz in Menia	EMU's in the local units	29/7/2007
Local Development plan in Menia 20/12/2007	Ministry of state for local Development, Ministry of state for Economical Development	2007
Agenda 21 Doc	UNDP	14/6/1992

A reference in the field of Environmental education	EEAA, DANIDA project	1999
Poverty & street children paper prepared by Dr./ Maha El Kordi	National center for Social & Criminal researches	2007
Health & Environment Dr./ Mohamed Kamal Abdel Aziz	Tala'a printing House " second edition"	2000

*** Environmental awareness & institutional capacity building working group:**

Report	Issuing authority	Date of issue
Menia Environmental profile	Menia governorate	2007
Documents & papers of Communication Center	Communication Center in Menia	5/7/2007
Documents & papers of Youth & Sports authority	Youth & sports authority in Menia	15/7/2007
Documents & papers from Agriculture authority	Agriculture authority in Menia	19/7/2007

