Environmental Protection & Monitoring

- **Water Quality Management Plan for the inland waters of Greece,**
  The study was carried out in the framework of Greek - Dutch collaboration for the environment. The objective was a systematic assessment of the quality of surface waters of the country. This was achieved through the development of a database of the rivers, divided into administrative sections, and lakes, which included:
  - all the point and diffuse sources of surface water pollution of the country (towns, industries, irrigated regions etc.)
  - the type of pollution from each source and the water quality parameters affected
  - the available water quality data for each river section and lake
  - the specified uses of water for each river section and lake
  - the permissible limits of each water quality parameter, from national and European legislation.
  - On the basis of the above information, algorithms were developed in the database for:
  - the determination of the river sections and lakes where the permissible limits are exceeded, and
  - the identification of the possible sources of pollution, depending on its characteristics.

  The data and results are presented in graphical form for ease of reference.

- **Research on mathematical models for groundwater pollution assessment**, for the General Secretariat of Research & Technology of the Greek Ministry of Industry, Energy and Technology, in the framework of the Programme for the Development of Industrial Research. The objective of the research effort is to evaluate the internationally available models for groundwater pollution in terms of their effectiveness and applicability in various situations**.**

- **Research on the applicability of remote sensing for survey of water quality parameters in the Mediterranean,** for the Intergovernmental Oceanographic Commission, in the framework of phase II of the Medpol programme of the Mediterranean Action Plan. The objective of this research effort was to identify which water quality parameters could be reliably surveyed remotely, the appropriate instruments & techniques and associated costs.

- **Evaluation of MEDPOL Phase III Programme (1996 – 2005)**
  Evaluation of the execution of Phase III of the MedPol Programme for the Assessment and Control of Pollution in the Mediterranean Region with the objective of improving:
  - the results of the program, and
  - the planning & formulation of Phase IV of the programme

  The evaluation entailed the performance of visits to eight countries and the EU where meetings were held with representatives of the National Authorities, the scientific community, NGOs, and other stakeholders, in addition to four formal meetings with MEDPOL officers in Athens, Greece.

  The evaluation, which was based on the process approach, included:
  - review of the objectives of the programme in the context of its legislative framework (Barcelona Convention & LBS, Hazwaste & Dumping Protocols)
  - evaluation of the degree of achievement of the programme objectives, including assessment of:
    - monitoring activities
    - pollution control activities
    - training & capacity-building activities etc.

- **Specifications and special requirements for the preparation of Enviromental Impact Assessment Studies.** The study was carried out in association with S.Papagrigoriou, A.Paraskevopoulos, G.Vavizos - A.Zanaki - L.Zafiropoulos and associates, sa. for the Ministry of Environment, Physical Planning and Public Works. The aim of the study is to classify projects in groups and categories and to set up the

specifications and special requirements for the preparation of Enviromental Impact Preliminary Study and Enviromental Impact Assessment Study for each category of projects.

- **Sustainable Islands Net (SIN), Research program** in cooperation with National Technical University of Athens (NTUA) financed by the Ministry of Aegean. It involves the layout of a program of action for the development of sustainable islands net and its pilot implementation in the case of Naxos island. The main goals of the program are: a) selection of parameters which should be taken into consideration while defining a national policy for the sustainable development of Aegean islands, b) determination of criteria for the islands inclusion in the program and c) identification of methods, practices and actions to be taken for the sustainable development of Aegean islands.

- **Study of special environmental problems and wetlands delineation in the area of lake Kastoria in NW Greece.** This study is being carried out for the municipality of the town of Kastoria and includes the evaluation of the external factors that affect the quality of the lake, evaluation of the wetland, delineation of the activities around the lake for a sustainable development of the region taking into account the protection of the wetland and the formulation of an environmental management plan of the lake.

- **5-year environmental monitoring programme for the Public Gas Corporation of Greece (DEPA).** The main objective of this programme is monitoring the evolution of the ecosystem (direction and rate of evolution) and the re-instatement measures that have been implemented by DEPA in the zones than have been affected by the construction of the main gas pipe in the sensitive and protected areas of Axios river, Aliakmonas river, lake Kerkini, Strymonas river and the Tempi Valley.

- **Secretary of the Environment, on supervising the realisation of the National Environmental Network.**

  The National Environmental Information Network is an integrated data base system for compiling and processing information related to environmental conditions in local and national level. This network is the main mechanism for storing, handling and publishing data of national importance on environmental issues such as

  - Environmental national and European legislation
  - Water quality monitoring data
  - Air pollution monitoring data
  - Industries
  - Noise
  - Car emissions
  - Solid Wastes
  - Environmental permitting
  - The main users of the system are the Environmental services of the Greek Ministry for the Environment Physical planning and Public works and the Regions. The information is also available to the network (www.edpp.gr)

  The consulting services includes the following:

  - Review of the available input data, for each environmental sector of the project. In order to determine the scheme of the data base
  - Determination of the output information of the data base and of the Geographical Information System
  - Formulation of the specifications and preparation of the Tender documents for the realisation of the project
  - Supervision of the realisation of the National Environmental Network

- **3 – year environmental monitoring programme of the remediation of the vegetation in the parts that passes the gas pipe through the biotope Vistonida – Kavala brunch – Komotini.** It was prepared by ECOS Consulting S.A. for the Public Gas Corporation of Greece. Subject of the programme is the monitoring of the development (target and rate of attainable development) of the vegetation and the progress of the remediation projects that are programmed or are in progress by the Public Gas Corporation of Greece in the zones that have been affected by the construction of the gas pipe and are situated inside the protected area of the biotope of Vistonis lake.
- **3 – year environmental monitoring programme of the remediation of the vegetation on Penteli and Parnitha mountains after the setting of the gas pipe.** It was prepared by ECOS Consulting S.A. for the Public Gas Corporation of Greece. Subject of the programme is the monitoring of the development (target and rate of attainable development) of the vegetation and the progress of the remediation projects that are programmed or are in progress by the Public Gas Corporation of Greece in the zones that have been affected by the construction of the gas pipe and are situated on Penteli and Parnitha mountains.
- **Development of an expert system for industrial pollution control,** for the Association of Greek Industries in the framework of the Integrated Mediterranean Programmes for Information Technology of the European Community; the expert system provides all the requisite information to industries in ten sectors about (i) the expected waste output from their production process and (ii) the best available techniques for reduction of produced waste (including end-of-pipe treatments, recycling, clean technologies etc.).
- **Investigation of ground quality and properties of the proposed site of the Athens Metro depot in Ag. Savvas.** The study involved: (i) chemical analysis of soil samples in association with the Laboratory of Chemical Analysis Andreou, (ii) evaluation of the results in accordance with the Greek and international legislation and (iii) evaluation of disposal options.
- **Research on the applicability of remote sensing for survey of water quality parameters in the Mediterranean,** for the Intergovernmental Oceanographic Commission, in the framework of phase II of the Medpol programme of the Mediterranean Action Plan. The objective of this research effort was to identify which water quality parameters could be reliably surveyed remotely, the appropriate instruments & techniques and associated costs.
- **Contribution to the design of the National Network for Environmental Information,** for the Ministry of the Environment, Physical Planning and Public Works, in association with the Informatics Division of the University of Athens. The network included a database for all environmental data available, including pollution sources and environmental quality measurements and can be connected to other related databases (e.g. meteorological and river discharge database, water quality database of the Ministry).
- **Industrial Compliance Control in the Syrian Arab Republic**
  Technical Assistance to the Ministry of State for the Environment for the preparation of a framework plan for inspections in the industrial sector in the Syrian Arab Republic (S.A.R.). Formulation of recommendations for the setup of an Environmental Inspectorate which included:
  - a review of the industrial pollution problems in the S.A.R.
  - a review of the existing permitting procedure for industry
  - evaluation of the alternative administrative structures of the Inspectorate
  - proposals for the scope of the initial compliance control system in the S.A.R.
  - proposals for the function of the Inspectorate, including:
    - planning, preparation, execution & follow-up of inspections

- enforcement response mechanism in cases of violation
- determination of the required number of inspectors and material resources for the Inspectorate in Damascus.

- **Contribution to the regional Development Programme of Agia Sofia, in the W. Peloponese,** for consultants Angelidis-Pappas-Roumbos, The study focused on measures for the restriction and control of industrial pollution in the area and protection of biotopes.
- **Contribution to the regional Planning Study for the Plastira-Tavropos Lake area in Central Greece,** for the firm THEORIMA Ltd.. The study focused on a sustainable development of the area with provisions for the protection of the natural environment and the sensitive regions.
- **Contribution to the regional development programme of the Korinthiakos Gulf,** for the consulting firm Th. Papagiannis & associates. The study focused on the environmental restrictions to be enforced and the motivations towards sustainability of future development.