

(5) Scope of the Study:

The scope of the proposed study consists of:

- assessment of benthic communities characteristic to marine shallow waters (up to 10m);
- assessment of medium/long term coastal erosion based on analyses of the littoral environment (wind, waves, currents and sea level), sediment fluxes and shoreline changes;
- evaluation of the existing coastal hydro-technical structures (design, efficiency, present state, perspective);
- supply of scientific-technical based solutions (immediate-"soft engineering coastal protection solution"- and long term - "hard engineering protection structures") for local/general protection of the shore;
- elaboration of the Master Plan on Integrated Coastal Management;
- elaboration of the Feasibility Study on Conservation of Littoral Ecosystem and Beach Management.

(6) Study Schedule:

The work plan covers 24 months, with different types of activities scheduled according to the Annex IV.

It starts with the ecological monitoring will be carried out seasonal depends on different types of new monitoring scheme established for each category of shoreline identified. The ecological survey will going on for entire period of the study. The data base design and loading of the existing data on beach profiles (months 1-12), paralleled by new data collection (months 1-12). During this period, new monitoring schemes for different types of shore (beach, cliff, hydro-technical structures) will be developed (months 6-8), and the monitoring will start immediately afterwards and will be carried out until the end of the study.

The study begins with a meeting (month 1) intended to present and discuss the study program. At the end, a final symposium will be held, with the participation of the research and design specialists, of the local and national regulatory and administrative agencies delegates, of the interested NGO and mass media representatives (month 24). Meanwhile, two expert workshops (months 7, and 13) will discuss partial results and improve the outlines of the study.

Master Plan report (month 13) and draft of final feasibility study will submitted at the end of the study and will be discussed in the last symposium. At the same time, during the last six months, a pilot project be prepared and submitted to the appropriate bodies.

For all the project duration, there will be a continuous dissemination of partial results and information toward the local, regional and national regulatory and administrative agencies, as well as to the economic agents and local communities. This will be done through the workshop reports, periodic notes to the authorities, mass media communicates, creation of a dedicated web site.

(7) Expected Major Outputs of the Study:

- databases on ecosystem and coastal processes;
- assessment reports of coastal ecosystem coastal erosion;
- a set of thematic and integrated maps;
- demonstrative projects in important touristic place for Romanian coast protection/rehabilitation.

(8) Possibility to be implemented / Expected funding resources:

The study can be implemented through bilateral cooperation between Romanian and Japanese agencies. Practical use of the proposed solutions depends on the future economy evolution. Nevertheless, it is assumed that this issue will have a high priority in the governmental short, medium and long-term policy.

(9) Request of the Study to other donor agencies, if any:

Presently, there are no pending requests for other foreign funding of this study. At this moment, a reduced version was launched for the Ministry of the Education and Research national project competition.

(10) Other relevant information:

The NIMRD was carrying out systematic research by shore topographic surveys, near-shore bathymetry, sediment nature and composition, wave regime, and sea level for over 30 years. It has a specialized research vessel and smaller motor boats for coastal work, classic oceanographic instruments, computer equipment, communication means (RMRI/MIMRD brochure).

The study area includes the coastal part of the eastern limit of the Danube Delta Biosphere Reserve.

The Danube Delta (together with the Razim-Sinoe lagoons) was declared in 1990 a world biosphere reserve, amongst other 352 reserves from 87 countries and is included in UNESCO's Cultural Heritage List. According to the Ramsar Convention, the Danube Delta includes 600 wet zones being on the 8th position as the worldwide largest wet zone and on the 22nd position as

the largest delta in the world and the third in Europe. The total area is 4178 sq. km, from which 82% (3466sq. km) in Romania and 18% (732sq. km) in Ukraine. It includes 30 types of ecosystems, with more than 5000 species of flora and fauna (1150 plant species, 3400 species of aquatic fauna, 280 bird species, about 160 fish species, and 50 mammal species)

3. Facilities and information for the Study

(1) Assignment of counterpart personnel of the implementing agency for the Study:

The personnel involved in this study includes 4 Ph.D., 8 senior scientists, and 4 researchers from NIMRD (cf. CVs attached), supplemented by several highly qualified specialists from the "Ovidius" University of Constanta.

(2) Available data, information, documents, maps, etc. related to the Study:

The NIMRD has a large amount of data regarding the long-term shore evolution, including topographic and bathymetric information for different areas, as well as on the nature, grain size and chemical composition of the sediments; there are official navigational maps for the region. Also, there exist several studies concerning both the coastal trend evolution, and the environmental factors (Annex V).

(3) Information on the security conditions in the Study Area:

All the area is safe for the study, without any access restrictions. However, in the Danube Delta Biosphere Reserve (DDBR), an official authorization is needed, but NIMRD is a partner of the Administration of the DDBR. In this area, the research and living conditions are quite difficult.

Also, the NIMRD has cooperation protocols with the Frontier Police.

(1) Environmental components (such as pollution control, water supply, sewage, environmental management, forestry, biodiversity) of the Project, if any.

The project is focused on environmental issues, especially on coastal protection.

(2) Anticipated environmental impacts (both natural and social) by the Project, if any.

The project will improve the environmental conditions (including the landscape esthetics) along the Romanian shore. This will lead to a higher employment degree, better efficiency in the economic activities.

(3) Women as main beneficiaries or not.

There is no legal discrimination in the benefits of the projects, but, due to the fact that women are prevailing in the tourist industry, they will be privileged.

(4) Project components, which require special considerations for women (such as gender difference, women specific role, women s participation), if any.

In all the project stages, the task distribution between men and women will not differentiate the requirements. For some hard field works, the women can be less involved.

(5) Anticipated impacts on women caused by the Project, if any

The women will benefit from the project results both directly, by their increased employment, and indirectly, due to the increase in the house revenues.

(6) Poverty alleviation components of the Project, if any.

Also this issue is not relevant, any improvement in the employment leads to an increase of the living standards for the population of this region.

(7) Any constraints against the low-income people caused by the Project.

On the contrary, the low-income people will benefit from the implementation of the project results.

5. Undertakings of the Government of Romania

In order to facilitate the smooth and efficient conduct of the Study, the Government of Romania shall take necessary measures:

- (1) to secure the safety of the Study Team,
- (2) to permit the members of the Study Team to enter, leave and sojourn in Romania in connection with their assignment therein, and exempt them from foreign registration requirements and consular fees,
- (3) to exempt the Study Team from taxes, duties and any other charges on equipment, machinery and other materials brought into and out of Romania for the conduct of the Study,
- (4) to exempt the Study Team from income tax and charges of any kind imposed on or in connection with the implementation of the Study,
- (5) to provide necessary facilities to the Study Team for remittance as well as utilization of the funds introduced in Romania from Japan in connection with the implementation of the Study,
- (6) to secure permission for entry into private properties or restricted areas for the conduct of the Study,