Geophysical Research Abstracts Vol. 17, EGU2015-4881, 2015 EGU General Assembly 2015 © Author(s) 2015. CC Attribution 3.0 License.



## Impact of Land Reclamation on the Coastal Areas in Istanbul

Selmin Burak (1) and Emrah Kucukakca (2)

(1) Istanbul University, Institute of Marine Sciences and Management, Marine Environment Dpt, Turkey (sburak@istanbul.edu.tr), (2) Istanbul University, Institute of Marine Sciences and Management, Marine Environment Dpt, Turkey (emrahkucukakca@hotmail.com)

Istanbul lies on both sides of the Bosphorus, the Golden Horn and the Marmara Sea which is an inland sea. The city is a large metropolis having more than 15 million of population that has been subjected to heavy and unplanned urbanization due to natural growth and immigration from the Eastern regions of Turkey, in particular. This resulted in loss of green areas and gave rise to land reclamation on the coastal areas of the Marmara Sea in order to provide ring roads along the seaside and substitute the lost green areas by newly generated recreational areas. Therefore heavy land reclamation on the coastal areas of the Marmara Sea has been the major environmental concern related to the damage caused to the coastal ecosystems during the last decade. The reclaimed land on the Northern shoreline of the Marmara Sea has reached 80% as of 2014.

As widely known, coastal areas are the main housbandary and spawning areas for coastal ecosystems and pelagic species. Due to inappropriate reclamation processes, significant decrease in coastal ecosystems and species has been reported in several studies, Istanbul is no exception.

Coastal zones are complex systems exhibiting specific environmental and socio-economic particularities. In recent years, many organizations, governments and policy-makers have pointed out the urgent need to develop global, regional, national and local strategies to ensure the protection and sustainable use of coastal zones. A long-term sustainable development of coastal areas cannot be achieved without the preservation of natural resources on which the development relies. The dilemma is to ensure the sustainable development of natural resources which is not the case as reported in several studies.

Continuous exposure of the Istanbul coastal areas to uncontrolled, unplanned and inappropriate reclamation methods from past to present and recently experienced enhanced reclamation has been a major concern that is expressed by the scientific society.

However statistical studies carried out during the present study proved that public opinion is biased with regard to the implementation and consequences of land reclamation along the Marmara Sea. The results of the statistical analyses show that 35% of the population prefers recreational areas realized on reclaimed land; whereas 65% of the population prefers unchanged shoreline and having direct access to the sea.

The conclusion of the study points out that the polemic with regard to land reclamation will still be an issue unless the provisions of the Coast Act cover satisfactorily all the required and relevant parameters and corresponding enforcement