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## Coastal Hazards Management – a climate change challenge

### Abstract

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More than 75 % of the world's population lives in coastal regions, very much depending on local resources, both land based and marine related. Sustainable use and protection of natural resources are highly prioritized and a must. However, the pressure on the regions is considerably increasing, due to urbanization and effects of climate change. Sustainable coastal development and management depends on well implemented strategies and plans, on all levels of society and to be managed on an immediate as well as on a long term basis.

This paper describes positive effects of implementing a multidisciplinary approach to sustainable coastal management in the Philippines. The paper describes the outcome of a fruitful cooperation between SSPA Sweden AB and the DENR, Department of Environment and Natural Resources, Government of the Philippines.

The Philippines is by its marine location and exposed to land based and marine based hazards; cyclones, earthquakes, flooding, landslides, erosion, etc. The country is indeed exposed to climate change effects; increasing number of cyclones, water levels rise, among others. Hazards may be grouped as natural and/ or manmade. Erosions and landslides may be described as natural even though accidental situations originate from not planned exploration of forests, etc. Oil spills from marine transportation is also to be addressed as manmade.

The outcome of a multidisciplinary approach to the coastal hazards on the Philippines is described. The coastal planning process engages various authorities and expert areas. A number of identified stakeholders were engaged in order to analyze the planning processes in coastal regions. Emergency preparedness on national, regional and local levels was analyzed, involving legal and organizational aspects. In workshops long term preparedness plans were analyzed also as seen from climate change perspective. The need of further use of risk analysis, identification of risk areas and consequences in physical coastal planning were identified. Early warning systems were analyzed and discussed as seen from organizational and management points of views.

The multidisciplinary approach and the cooperative process are described. The outcome of a three week workshop is also summarized in a number of recommendations from the participants, addressed to the Philippine government and stakeholders.