

# Hydrography by the State

Legislation varies from country to country, with respect to the definition of the maritime, fluvial and lacustrine spaces administered by the state. In general, the sea floor and the water column are encountered seawards from the line defined by the lowest tide. A similar situation is found in navigable rivers and lakes, where the river or lake floor is found from the their normal lowest level.

Another space is also found between the lowest and the highest tide or the normal lowest and highest level of rivers and lakes: the beach. In some places a third sector also exists: the beach terrain, which is a stripe of land adjacent to the beach inland, measured from the highest tide. Its width varies from one country to another (e.g. 80 metres in Chile). All these spaces are national properties for public use. Their use by private or public organisations for activities inhibiting free and open use by the general public is regulated by a variety of legal bodies, administered by different organisms within government. The way of giving them exclusive uses is under a concept known as "Maritime Concession"<sup>TM</sup>, which gives the concessionaire the right to use such space for its exclusive purposes.

Normally these spaces are given to the concessionaires for a limited period of time and are subject to a tariff which is calculated according to the investment to be made and the concession<sup>TM</sup>'s purpose.

Hydrography has a big role to play in the definition of these spaces, since common horizontal and vertical datums are necessary to properly define the boundaries between each sector and between them and private properties.

In many countries the exercise of granting maritime concessions has been going on for several years, way before the definition of common datums, both horizontal and vertical. As a result, very many problems now exist between concessionaires and between them and the state, due to overlapping or misinterpretation of where exactly the concession is located. This can produce acute problems in countries where the aquaculture is growing rapidly, particularly in the case of salmon farming, where the investment in growing centres and the profit expected from them, can mean an enormous amount of money for the concessionaire which gains the right to use the portion of maritime territory.

The authorities in charge of administering maritime territories have to have a proper GIS to register all the attributes related to maritime concessions, as well as complete geo-referencing of all the concessions in force and under the application process, in order to adequately control the granting of new ones, as well as the renewal of existing concessions.

The hydrographer, following a proper set of rules is the professional supposed to assist both the concessionaires and the state in this delicate issue. A forum should be opened within the IHO, to set recommendations to assist countries in the best way possible of looking at these problems, and in a holistic way.