

An antagonist holding a mirror: the Seine estuary**A. Romaña**

IFREMER

Over the centuries nature has shaped the estuaries and conferred on them great biological potential. Because estuaries are located at interfaces between the river catchment's area and the sea, their physical, chemical and biological characteristics have been strongly modified by human activities through settlements, contaminants inputs and waterways constructions to satisfy navigation. The same processes which give them their biological richness (salinity gradient and mud retention) are also those which contribute with the action of pollutants to their degradation. Like the Scheldt, the Seine estuary illustrates these problems.

After outlining the actual estuary characteristics, we will examine: (1) the shape history and progressive lost of volume and surface, (2) the economic activities related to the Seine estuary and their consequences, (3) the classical progressive increase of problems of water quality and measures adopted to improve it, (4) the restoration prospects, and finally (5) the initiative to build a multidisciplinary and applied scientific program (Seine-Aval) to support political decision in solving these kinds of problems.

On the other hand, the recent awareness of the state of extreme degradation of this particular environment and a new important harbour project have conducted to the idea of a "global management of the Seine estuary". We are going to explain how today this general idea has begun to be applied.