The Global Warming (GW) post pre-industrial era has been considered the main driver of Sea Level Rise (SLR) and all the Climate Changes (CC) we are observing. But which causes from human activity drives the Global Warming? Recent projections of SLR for 21st century, from process-based models to semi-empirical and empirical approach, run from 0.5 to 2.5 m, each one with different impacts on coastal regions, mainly in the low-lying lands. The world population who lives near coast areas is 10 to 12%, and it is expected to increase. A complete and rigorous assessment of SLR risk on the coastal areas, based in the most likely and extreme hazard scenarios, are crucial for the sake of a planned economic sustainability and a greater resilience of the coastal countries and communities. All these issues will be addressed with the author’s latest research, as well as a summary of case studies of the coastal risk assessment on the Atlantic Coast of Portugal mainland.