

IPCC Common Methodology

Description	Influential framework first proposed in 1991 that incorporates expert judgment and data analysis of socioeconomic and physical characteristics to assist the user in estimating a broad spectrum of impacts from sea level rise, including the value of lost land and wetlands. It presents a list of analyses that should be done, but does not explicitly instruct the user on how to perform the analyses. Information from this methodology is generally used as a basis for further physical and economic modeling. The user follows seven steps: (1) delineate the case study area; (2) inventory study area characteristics; (3) identify the relevant socioeconomic development factors; (4) assess the physical changes; (5) formulate response strategies; (6) assess the Vulnerability Profile; (7) identify future needs. Adaptation focuses around three generic options: retreat, accommodate or protect.
Appropriate Use	This approach is most useful as an initial, baseline analysis for country level studies where little is known about coastal vulnerability.
Scope	Coastal; and scale; subnational, national, regional and global analysis.
Key Output	Vulnerability profile and the list of future policy needs to adapt both physically and economically. A range of impacts of sea level rise, including land loss and associated value and uses, wetland loss, etc.
Key Input	Physical and socioeconomic characteristics of the study area.
Ease of Use	Requires considerable knowledge on a range of techniques for estimating biophysical and socioeconomic impacts of sea level rise and adaptation.
Training Required	Significant training required to complete the seven steps (weeks or months); often performed by external consultants rather than in-country experts.
Training Available	No formal training currently offered; contact CZMS for technical assistance.
Computer Requirements	Methodology does not explicitly state how to perform analyses; analytical method chosen by the user will determine the computer needs.
Documentation	Original documentation from 1991 is unavailable. Update provided in Appendix C in IPCC CZMS, 1992. Global Climate Change and the Rising Challenge of the Sea. Report of the Coastal Zone Management Subgroup. IPCC Response Strategies Working Group, Rijkswaterstaat, The Hague.

IPCC Common Methodology (cont.)

Applications	<p>Used in many coastal countries, including within the Dutch Country studies program, and in an adapted form in the U.S. CSP (e.g., Egypt, Germany, Poland, Netherlands, Guyana, Vietnam, Bangladesh; Suriname) (e.g., see http://www.netcoast.nl/tools/tools.htm).</p> <p>Examples of studies:</p> <p>O'Callahan, J. (ed.), 1994: <i>Global Climate Change and the Rising Challenge of the Sea</i>. Proceedings of the third IPCC CZMS workshop, Isla de Margarita, Venezuela, 9–13 March 1992, National Oceanic and Atmospheric Administration, Silver Spring, MD, v+691 pp.</p> <p>Hoozemans, F.M.J., M. Marchand, and H.A. Pennekamp. 1993. <i>Sea Level Rise: A Global Vulnerability Assessment — Vulnerability Assessments for Population, Coastal Wetlands and Rice Production on a Global Scale</i>. Second revised edition, Delft Hydraulics and Rijkswaterstaat, Delft and The Hague, The Netherlands, xxiii+184 pp.</p> <p>Nicholls, R.J. and S.P. Leatherman (eds.). 1995. The potential impacts of accelerated sea-level rise on developing countries. <i>Journal of Coastal Research</i>, Special Issue No 14, 323 pp.</p> <p>Mimura, N. and H. Harasawa (eds.). 2000. <i>Data Book of Sea-Level Rise</i>. Center for Global Environmental Research, National Institute for Environmental Studies, Tsukuba, Japan.</p> <p>De La Vega-Leinert, A.C., R.J. Nicholls, and R.S.J. Tol. (eds.). 2000. European Vulnerability & Adaptation to impacts of Accelerated Sea-Level Rise (ASLR). Second workshop, Hamburg, Germany — 19-21 June, Flood Hazard Research Centre, Middlesex University, UK (downloadable at www.survas.mdx.ac.uk).</p> <p>De La Vega-Leinert, A.C. and R.J. Nicholls (eds.). 2001. Proceedings of the Survas Overview Workshop on the Future of Vulnerability and Adaptation Studies. The Royal Chace, London, 28-30 June, Flood Hazard Research Centre, Middlesex University, London (downloadable at www.survas.mdx.ac.uk).</p>
Contacts for Tools, Documentation, Technical Assistance	<p>Coastal Zone Management Centre, P.O. Box 20907, NL-2500 EX, The Hague, The Netherlands; Tel: 1.70.311.4364, Fax: 31.70.311.4380.</p>
Cost	<p>No cost to obtain documentation.</p>
References	<p>Nicholls, R.J. 1995. Synthesis of vulnerability analysis studies. In <i>Proceedings of WORLD COAST 1993</i>, Ministry of Transport, Public Works and Water Management, The Netherlands. pp. 181-216.</p> <p>Bijlsma, L., C.N. Ehler, R.J.T. Klein, S.M. Kulshrestha, R.F. McLean, N. Mimura, R.J. Nicholls, L.A. Nurse, H. Perez Nieto, E.Z. Stakhiv, R.K. Turner, and R.A. Warrick. 1996. Coastal zones and small islands. In <i>Impacts, Adaptations and Mitigation of Climate Change: Scientific-Technical Analyses, The Second Assessment Report of the Intergovernmental Panel on Climate Change, Working Group II</i>, R.T. Watson, M.C. Zinyowera, and R.H. Moss (eds). Cambridge University Press, Cambridge, UK pp. 289-324.</p> <p>Nicholls, R.J. and N. Mimura. 1998. Regional issues raised by sea-level rise and their policy implications. <i>Climate Research</i> 11:5-18.</p> <p>Nicholls, R.J. 1998. Assessing erosion of sandy beaches due to sea-level rise. In <i>Geohazards in Engineering Geology</i>, J.G. Maund and M. Eddleston (eds.). Geological Society, London. Engineering Special Publication, 15:71-76.</p> <p>Klein, R.J.T. and R.J. Nicholls. 1999. Assessment of coastal vulnerability to climate change. <i>Ambio</i> 28(2):182-187.</p>