## Dynamic Interactive Vulnerability Assessment (DIVA)

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| **Description** | DIVA is a new tool for integrated assessment of coastal zones that will be released in late 2004. It is specifically designed to explore the vulnerability of coastal areas to sea level rise. It comprises a global database of natural system and socioeconomic factors, relevant scenarios, a set of impact-adaptation algorithms and a customized graphical-user interface. Factors that are considered include erosion, flooding salinisation and wetland loss. DIVA is inspired by the paper-based Global Vulnerability Assessment (Hoozemans et al., 1993), but it represents a fundamental improvement in terms of data, factors considered (which include adaptation) and use of PC technology. |
| ***Appropriate Use*** | **DIVA is designed for national, regional and global scale analysis of coastal vulnerability, including consideration of broad adaptation issues.** |
| ***Scope*** | All coastal areas at national, regional, and global scales. |
| ***Key Output*** | The impacts of sea level rise under a range of different user-defined scenarios, including some adaptation options. |
| ***Key Input*** | **The user's chosen scenarios.** |
| ***Ease of Use*** | **The software is explicitly intended to be easy to use, and draws on extensive experience in graphical user interfaces.** |
| ***Training Required*** | **Designed to be used without significant training — an interested user should be able to explore this tool without any training.** |
| ***Training Available*** | If required, contact DINAS-COAST consortium — see Contents below. |
| ***Computer Requirements*** | Windows 2000/XP, 2 GHz Pentium, 512 MB memory, 5 GB free hard drive. |
| ***Documentation*** | Included with the DIVA tool. |
| ***Applications*** | **Still under development, but will be national to global in scope.** |
| ***Contacts for Framework, Documentation, Technical Assistance*** | http://www.pik-potsdam.de/dinas-coast/.<br>Richard Klein, Potsdam Institute for Climate Impact Research, Germany; e-mail: Richard.Klein@pik-potsdam.de.<br>Robert Nicholls, University of Southampton, UK; e-mail: rjn@soton.ac.uk.<br>Richard Tol, University of Hamburg, Germany; e-mail: tol@dkrz.de.<br>Onno Kuik, Vrije Universiteit, The Netherlands; e-mail: onno.kuik@ivm.vu.nl.<br>WL Delft Hydraulics, the Netherlands; e-mail: info@wldelft.nl. |
| ***Cost*** | Free download from http://www.pik-potsdam.de/dinas-coast/. |
| **References** | Hoozemans, F.M.J., M. Marchand, and H.A. Pennekamp. 1993. *Sea Level Rise: A Global Vulnerability Assessment — Vulnerability Assessments for Population, Coastal Wetlands and Rice Production on a Global Scale*. Second revised edition, Delft Hydraulics and Rijkswaterstaat, Delft and The Hague, The Netherlands, xxiii+184 pp.<br>Nicholls, R.J. 2002. Analysis of global impacts of sea-level rise: A case study of flooding. *Physics and Chemistry of the Earth* 27:1455-1466.<br>Hinkel J. and R.J.T. Klein. 2003 DINAS-COAST: Developing a method and a tool for dynamic and interactive assessment. *LOICZ Newsletter*, No. 27 (June 2003), pp. 1-4. (downloadable at http://www.nioz.nl/loicz/firstpages/fp-newsletters.htm).<br>Vafeidis, A., R.J. Nicholls, and L. McFadden. 2003. Developing a database for global vulnerability analysis of coastal zones: The DINAS-COAST project and the DIVA tool. In *Proceedings of EARSL 2003, Ghent, Belgium, June 2003.* |