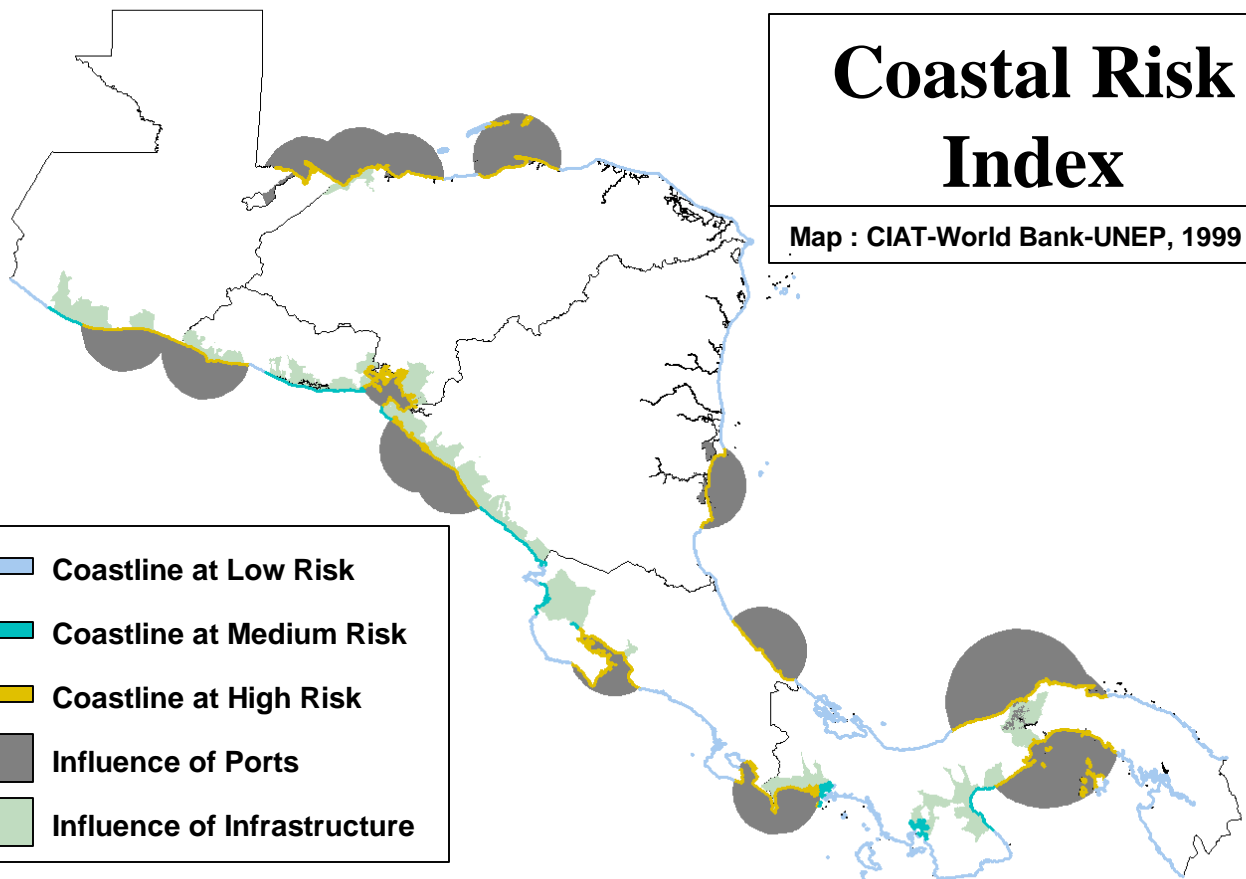
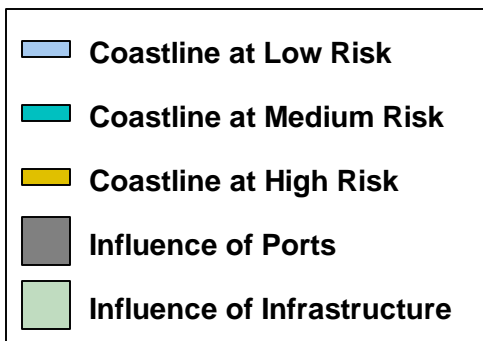


Coastal Risk Index

Map : CIAT-World Bank-UNEP, 1999



Analysis of the Index

A consequence of development in Central America is the increasing exploitation, degradation and transformation of coastal and marine environments. From the map it can be seen that the influence of infrastructure is far greater on the Pacific coasts of the region than on the Atlantic, whilst the pressures from ports exist on both coasts. As a result of these pressures 40% of the region's coasts are at high risk, 10% are at intermediate risk and 50% are at low risk.

Explanation of the Index

This index is roughly based on the "Coastlines at Risk" index (WRI, 1998).

The index as shown in the map is a combination of the coastline (classified into three classes) and the explanation of the classification.

The influence of ports extends to a distance of 60km in the case of medium sized ports or to 100 km in the case of large ports (i.e. Panamá and Colon due to the number of ships rather than amount of cargo). The coastlines affected by the influence of ports are classed at high risk.

The influence of infrastructure uses an average figure for accessibility per coastal administrative district. Accessibility values refer to the time taken for the transportation of goods to markets. The mode of transport, and therefore the speed and accessibility value, are dependent on the topography and quality of the transport infrastructure. Those districts with an average accessibility figure of 2 hours or below are classed as highly accessible. The areas of coastline in these districts are classed at intermediate risk (unless there is also an influence from the ports in which case this takes precedence and they are classed at high risk).

All other coastlines are classified at low risk.

Assumptions

Two major pressures have been chosen that correspond either explicitly or implicitly to 4 of the pressures used in the "Coastlines at Risk" index (WRI, 1998). In Central America all of the large coastal towns were ports and so were included in this class whilst pipeline density is not an issue in Central America. For more information refer to the WRI report on this issue, this gives justifications for the choice of inputs for the index.

Sources

Port Locations: Almanaque Mundial, 1996, Editorial Televisa S.A., Virginia Gardens, FL.

Mean Accessibility: CIAT, 1999.

Coastline: Digital Chart of the World, 1975.

WRI Coastline Index: Coastlines at Risk: An Index of Potential Development-Related Threats to Coastal Ecosystems, Dirk Bryant, Eric Rodenburg, Tara Cox, and Daniel Nielsen, 1998, WRI, <http://www.igc.org/wri/indictrs/coastrsk.htm>