



Future Directions for the Environmental Vulnerability Index (EVI) Project

OBJECTIVE

To develop a robust operational environmental vulnerability index which provides a relatively quick and inexpensive way of characterising the vulnerability of natural systems (at the level of a region, state, province or island). The common basis on which the index is developed will therefore allow comparisons.

Background

The EVI Project began in 1998 and has undergone two phases of development. Reports include:

- The Demonstration Environmental Vulnerability Index (EVI). April 2003 (SOPAC Technical Report 356)
- Environmental Vulnerability Index (EVI) to summarise national environmental vulnerability profiles (SOPAC Technical Report 275)
- Report on the Environmental Vulnerability Index (EVI) Think Tank, 7 – 10 September 1999, Pacific Harbour, Fiji (SOPAC Technical Report 299)
- Report of the Meeting of Experts on the Environmental Vulnerability Index, Valletta, Malta, 29 November – 3 December 1999
- Environmental Vulnerability Index: Development and provisional indices and profiles for Fiji, Samoa, Tuvalu and Vanuatu (SOPAC Technical Report 306)
- Environmental Vulnerability Index (EVI) Project – Progress Towards a Global EVI (SOPAC Miscellaneous Report 405)
- Globalising the Environmental Vulnerability Index (EVI): Proceedings of the EVI Globalisation Meeting, 27 – 29 August 2001, Geneva, Switzerland (SOPAC Technical Report 345).
- Towards Managing Environmental Vulnerability in Small Island Developing States (SIDS) (SOPAC Miscellaneous Report 461)
- Towards a Global Environmental Vulnerability Index (EVI): Update on Progress March – June 2002 and Revised Funding Proposal 2002 – 2003. Progress Report (SOPAC Miscellaneous Report 465)

International Importance and Uses of the EVI

- Provides a comprehensive measure of environmental vulnerability of a country
- Predictive value for identifying vulnerability issues, types of hazards and approaches to stewardship of the environment of a state
- Identify problem areas for external assistance to a country
- Provides performance indicator for donor funding

- Can be used as a measure of change in environmental vulnerability if repeated assessments are made (every 5 years)
- Tool for raising awareness of environmental vulnerability and the actions that increase or decrease it
- Tool for monitoring sustainable development
- Useful for state of the environment report by identifying the mechanisms that would tend to degrade the state of the environment
- Consideration by the United Nations Committee on Development Policy as a possible criterion for classification as a Least Developed Country

Regional and International Participation in EVI Development

- The Pacific Island countries have expressed repeatedly through the Pacific Island Forum Communiqués their support for the EVI development work being carried out by SOPAC
- New Zealand has provided ongoing consistent support to the development of an EVI
- Several other countries including Ireland, Norway and Italy have provided support for the further development and refinement of the EVI
- Several Caribbean, Indian Ocean and Mediterranean SIDS represented by Barbados, Jamaica, Malta, Mauritius, St Lucia and Trinidad and Tobago have committed their support to provide country environmental vulnerability data for future refinement and testing of the EVI

Next Steps Towards Completion of the EVI

The EVI is now undergoing comprehensive testing. The development of the Demonstration EVI clearly highlights the data gaps remaining and urgent need for global data to be compiled to enable the final testing and refinement of the EVI.

At the Expert Think Tank in 1999 it was recommended that at least 15 countries that represent the possible extremes for environmental systems should be represented which will require the support of several countries in the provision of environmental vulnerability data for use in the testing and refinement of the EVI to ensure its global applicability, workability and robustness. The selection criteria for countries inclusion into the EVI has been based upon ecosystem criteria to ensure that all aspects of various environmental extremes, types of ecosystems, ecosystem functions are all included in the selection of countries for the next phase. Ten countries have been primarily targeted for inclusion in the next phase of EVI development. Several of these attended the Global EVI Meeting convened in Geneva by UNEP and SOPAC to begin the process of collecting data from a global suite of countries. The meeting was aimed at providing a forum for discussion about issues surrounding environmental vulnerability and encouraging country participation and voluntary collaboration from as many targeted countries as possible.

ENVIRONMENTAL VULNERABILITY INDEX COUNTRY TARGET LIST				
SECURED	PRIMARY TARGETS		SECONDARY TARGETS	
	PACIFIC	INTERNATIONAL	INTERNATIONAL	
Barbados	Australia	Bolivia	Antigua & Barbuda	Kuwait
Cook Islands	Guam	Botswana	Bahrain	Laos
Fiji	New Caledonia	Brazil	Bangladesh	Lesotho
FSM	New Zealand	Costa Rica	Canada	Malaysia
Jamaica	Solomon Islands	Greece	Cape Verde	Mexico
Kiribati	Tahiti	Ireland	China	Netherlands
Malta		Israel	Croatia	Paraguay
Marshall Islands		Italy	Cyprus	Poland
Mauritius		Kenya	Czech Republic	Slovakia
Nauru		Kyrgyz Republic	Denmark	Sri Lanka
Niue		Maldives	Egypt	Sweden
Papua New Guinea		Mongolia	Finland	Tanzania
Samoa		Nepal	France	U.A.E.
St Lucia		Norway	Guyana	Uganda
Tonga		Philippines	Haiti	United Kingdom
Trinidad		Singapore	India	United States
Tuvalu		Switzerland	Indonesia	Vietnam
Vanuatu		Thailand	Japan	

The provision of environmental vulnerability data from at least 15 international countries is critical as it provides the basis for mathematical and statistical testing and refinement part of the EVI. This country data is extremely important for the testing of the overall EVI to ensure indicators reflect environmental vulnerability as well as provide a reasonable spread between countries and eliminates redundancy and correlation. Testing of the EVI will also involve the use of different weighting methods and establishment of a suitable method of weighting if necessary. Sensitivity testing of EVI as well as statistical analyses will help to refine the model into a robust tool.

To ensure that the EVI tool undergoes rigorous international peer-review an Expert Group Meeting will be convened later in 2003 to determine the robustness and operationality of the EVI based on the requirements established by the first Think Tank. For complete testing and validation of the EVI a separate independent exercise will be required.

Expected Overall Project Outputs (subject to total funding)

- Internationally reviewed, tested and operational EVI
- EVI values and vulnerability profiles for at least 20 countries
- Strengthened capacity with the Pacific region to handle environmental data and manage environmental vulnerability
- EVI Database and electronic calculator
- Publication of EVI in international peer-reviewed journal
- Report summarising testing procedures and outcomes – refined robust EVI