

The Regional Training Workshop on Methodologies for Coastal Inventories & Information Management

Appendix XXIII

Data requirements for Component 5

Appropriate Methodology for Monitoring Coral Reefs for the Impacts of Climate Change – Physical Parameters.		
(From the Proceedings of the “Technical Workshop for the Implementation of Component 5: Coral Reef Monitoring for Climate Change” , March 10 to 12 1998, Belize City, Belize.)		
Parameter	Monitoring Method	Comments
salinity pH dissolved oxygen turbidity temperature (max/min)	Portable measuring equipment e.g. YSI Meter	Appropriate methodology will be site dependent. This aspect of methodology can be kept simple. Explore in country capacity to monitor these parameters.
water circulation.		
turbidity	Secchi Disk	
Rain % cloud cover hours of sunshine temp(max/min) wind speed direction.	Data should be accessible from national or institutional meteorological station. Country averages. Rain gage may be sufficient.	
nitrate phosphate BOD chlorophyll sedimentation		may not warrant monitoring if no CC induced run-off at remote site.
Adjacent land use	info from physical planning units, land use maps, GIS surveys.	implications for site selection.
On site water activities		an in country consideration

**Appropriate Methodology for Monitoring Coral Reefs for the Impacts of Climate Change
– Biological Parameters.**

**(From the Proceedings of the “Technical Workshop for the Implementation of
Component 5: Coral Reef Monitoring for Climate Change” , March 10 to 12 1998, Belize
City, Belize.)**

Parameter/Factor	Monitoring Method	Comments
Site selection		Each country selects its own sites. A gradient from less to more impacted sites. A mix of remote and accessible sites. Consider economic & ecological importance.
Depth (existing reef monitoring activities)		Bahamas: 2m -5 m. CARICOMP: 7 m. - 13 m. Belize: Seventeen fore reef sites at 15 m. Nine Patch reef data for one site. Expand depth range improve between country comparability by patch reef sites.
Community composition	Video Point intercept line	Preferred method most logistically simple & practical space occupier record. Backup method 10 x 10 m transects/site/habitat Permanent (a la CARICOMP)
Coral health	Point intercept line random swims photo records aerial photography	Bleaching, disease, recently dead, long dead & size frequency by modifying transect. One time estimate of proportional occurrence of health. <i>A. palmata</i> . Ground truth.
Urchins Map corals	expanded transect	
Coral growth	Schlero-chronology	<i>M. annularis</i> , (10 -20 heads)/ 5 to 20 yr.