Coral reef monitoring and reporting
Brazil

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Brazilian coral reef monitoring

• By 2000 (as per Status of the Reefs report) Brazil was the only country in the SA node that did not have a national coral reef monitoring program
• In 2002 the Ministry of Environment funded a pilot project
• From 2004 onwards a regular monitoring on MPAs was established (MMA, ICMBio, Universities, community members and other partners).
• Participation in GCRMN global reports up to 2008
Purpose of this presentation

• Inform ICRI and GCRMN about the ongoing coral reef monitoring efforts in Brazil
• Contribute to GCRMN and global report
• Report back with guidance to the way forward
3.5 tons pescado/ km²/
Methods

• A basic protocol- Reef Check compatible
• An expanded version- equivalent to new Caribbean GCRMN L2 and L3
• Differences in size of plots and number of replicates.
GCRMN category

• A coral reef monitoring program associated with the National MPA system,
• conservation and research based;
• inclusive of non-specialist,  
  – Volunteers, dive operators, community members
• Considers traditional knowledge.
Stakeholder engagement
Academic engagement

2006...

Monitoramento dos Recifes de Coral do Brasil
Situação Atual e Perspectivas

Monitoramento dos Recifes de Coral

MANUAL de Monitoramento
REEF-CHECK BRASIL
2018
Sampling Coverage and HD cover

Coral cover (%)

30%

7 MPAs
1 Biological Reserve
3 Parks
2 APAs
1 Resex

* ILTER sites/CNPq Program
Coral and Algal cover and species composition
Fish abundance and biomass

Density (fish/100m²)

- Atol das Rocas
- Fernando de Noronha
- Maracajaú
- Tamandaré
- São José da Coroa Grande
- Maragogi
- Recifes das Pinaunas
- Recifes das Caramuanas
- Porto Seguro
- Arquipélago dos Abrolhos
- Parcel dos Abrolhos

Biomass (grams/100m²)

- No take MPAs
- Multiple use MPAs

Groupers > 30cm
Local management

APA Costa dos Corais

Biomass (grams/100m²) Density (fish/100m²)
Coral cover trends

Hard coral

Atol das Rocas

Fernando de Noronha

Tamandaré

Maragogi

Aquipélago dos Abrolhos

Parcel dos Abrolhos

Coral cover (%)

Year


0 10 20 30 40 50 60 70 80
Coral Bleaching
El niño and bleaching in the SE


• 1998- Severe bleaching event in all sectors of the Brazilian coast (KIKUCHI et al., 2003; LEÃO et al., 2003; KELMO et al., 2003; FERREIRA et al., 2006).

• 2003, 2005 and 2010: bleaching recorded in several regions, however 2010 was more widespread, and affected more severely the north part (warm pool) (FERREIRA et al. 2012; MIRANDA et al., 2013)

• 2016: Bleaching more severe in central and southern regions.
Merci!