



Over one-half
of the world's population lives
within **100 kilometres**
of the sea.



Coral Reef Ecosystem Management: Priorities for the Next Ten Years

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Priority Issues for Coral Reef Conservation in the next 5-10 years

- Raising public awareness about reefs
 - Getting coral reefs on the radar screen of the public and politicians
 - Communicating the value of coral reefs....Why should we care?
 - Identifying the major threats and how these are linked to human activity: human footprint on reefs, upstream downstream linkages
- Climate change ←.....
- Overfishing ←
- Pollution/poor water quality ←
- Habitat loss



Priority Issues for Coral Reef Conservation

- Climate Change is a major catalyst for coral reef decline—need to keep pressure on policymakers to address this
- Focus for managers should be on reducing local human pressures on reefs that cause cumulative stress and erode system resilience
 - destructive fishing, over fishing, IUU fishing
 - flow of nutrients, sediments, hazardous wastes from point and non-point sources
- Communicate successes, replicate



What are some innovative **concepts**, tools and solutions we can apply?

- **Principle of subsidiarity-- Better community engagement--** working at lowest possible level to effect change. This means working locally, with local communities and stakeholders closest to the resource to take action...while
- **Building political support to create the enabling environment** for better management: stronger regulations, better monitoring and enforcement, economic instruments to provide resources and influence behavior



What are some innovative concepts, tools and solutions we can apply?

- Ecosystem approach → ICM +
 - Mapping system boundaries, integrated approach to managing land, water and natural resources, maximizing net benefits of system to society
- Reducing overcapacity in fisheries
 - Providing alternative livelihoods—up the value chain our outside the sector
- Scaling up marine management
 - Alternatives to MPAs to close/regulate access
 - Rights-based fisheries/co-management arrangements
 - Allocation of fishing rights to communities through concessions (Chile), marine extractive reserves (Brazil), LMMA (Pacific) or other exclusive access arrangements that stop tragedy of the commons, create an entry point for CBM and biodiversity conservation
 - Involves developing sustainable management plans and monitoring and reporting on the state of resources to stakeholders.



What are some innovative concepts, tools and solutions we can apply?

Response dynamics of coral reefs to environmental stress is complex. Need science to help us understand interactions and thresholds

- Better monitoring of coral reef health (disease/water)
- Remote sensing—increasingly important to assess change over time and space and to link with climate signals and other environmental variables; anticipate bleaching and other events; identify resilient communities; incorporate into spatial planning
- Modeling –scenario building to communicate different futures to decision-makers and the public (Al Gore)
- Stress markers in coral reef organisms
- Restoration where feasible/viable





What are some innovative concepts, tools, solutions we can apply?

- Good governance
 - Transparency, voice, accountability
 - Enforcement (fine polluter pays, remove licenses, confiscate catch)
 - Independent politics—take on special interests, avoid elite capture
- Creating incentives for compliance
 - Flows from good governance
 - Economic instruments
 - Name and shame



Partnerships and innovative solutions?

- **Engage the Private Sector**
 - Enlightened self interest (AllFish)
 - Good PR (CI auctioning species naming rights)
 - Corporate Social Responsibility-Green practices
 - Voluntary but increasingly driven by
 - Consumer demand for quality and sustainability in products/services
 - Tourism industry (dive tourism, cruise ships)
 - Eco-labeling (seafood, hotel, industry in sensitive zones)
 - Communications, outreach, Social Marketing
 - New resources
- **Expand partnerships with NGOs**
 - Champions, change agents, community activists



Partnerships and innovative solutions?

Expand International Partnerships

- NOAA –Coral Watch Program, Coral Reef Conservation Program are excellent and need to be scaled up; making remote sensing and satellite imagery accessible to developing countries has been powerful tool
- USAID—important source of grant financing to coral reef countries; leverages other donor financing (e.g., GEF, Multi-laterals, Trust Funds)
- NCRIs—scientific leadership, capacity building, outreach
- ICRI—U.S. leadership role critical in maintaining momentum; USCRTF an excellent model for member countries in developing national coral reef initiatives



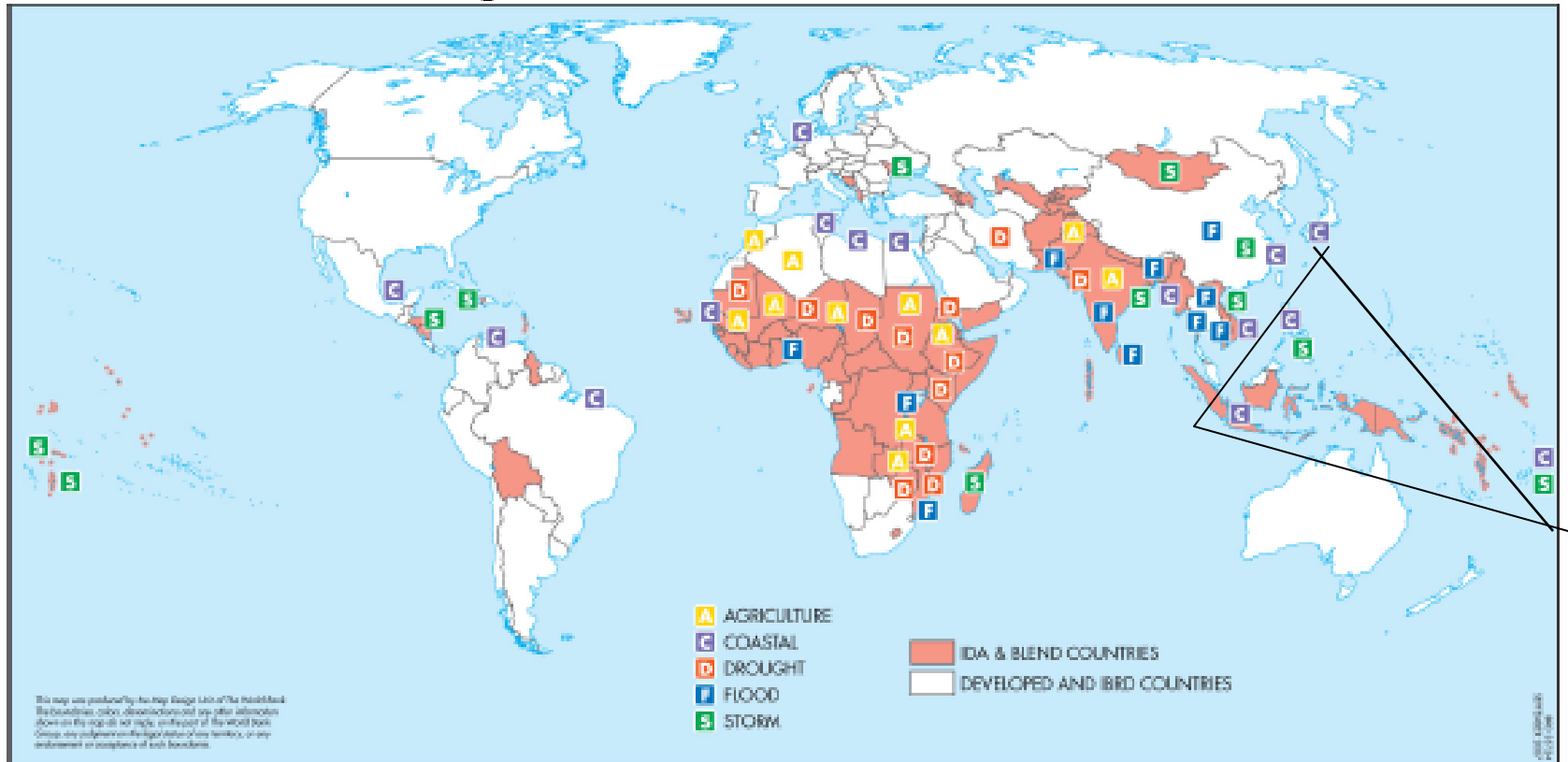
New Resources for coral reef conservation

- **Adaptation Funds for Climate Change**
 - To assist poorest countries prepare for climate change impacts
 - Will mostly likely come on line in next two years
 - Crucial that the adaptation agenda include enhancing the resilience of natural ecosystems to periodic shocks (e.g., storms, SST anomalies) and more chronic stress (disease, acidification, sea level rise) from Climate Change and \uparrow [CO₂] atm.



Poorest Countries Most at Risk from CC Impacts --Many are coral reef countries

Figure 4. Distribution of world climate risks



Note: See Annex C for details.



