



## ICRI Member's Report

### CORDIO East Africa

Reporting period December 2017 – November 2018

1. **Reporting on the ICRI Plan of Action 2016-2018.** *Your responses will help inform the Secretariat about members' contributions toward the previous Plan of Action.*

- a. **Please list any relevant examples from your organisation/country of investment/projects to protect and restore the natural infrastructure of reefs and mangroves.** (See Goal (1) 2 [ICRI Recommendation for supporting investments in the natural infrastructure of reefs and mangroves to increase climate resilience](#)).
- b. **Has your organisation/country made any progress in the following areas to target anthropogenic pressures?** Please give detail below. Note: If no change since your last ICRI member report, please write 'no change'.

**Encourage ban of plastic microbeads in cosmetic products.** (See Goal (3) 2 & [See ICRI Recommendation to reduce plastic microbeads pollution in marine environment](#)):

**Improve regulation and enforcement to reduce direct anthropogenic damage due to dredging and physical alteration of reef structures.** (See Goal (3) 3 & [ICRI Recommendation to reduce damage due to dredging and dumping on coral reefs](#)):

CORDIO acted as an expert witness in the High Court of Kenya, for a case brought by the local NGO Save Lamu and other residents of Lamu island and surroundings, against the LAPPSET Development project's uncontrolled dredging of the Port. The High Court hearings were held in 2017, but the decision was delayed till early 2018. Currently, monitoring of compliance is being investigated by the court, though it is highly unlikely that effective cessation of dredging and its impacts will occur.

**Deployment of mooring devices limiting the mechanical destruction of coral reefs and seagrasses.** (See Goal (3) 4).

- c. **Did your organisation/country celebrate International Year of the Reef?** Please give details below. (See Goal (5) 1 & [ICRI Recommendation designating 2018 as the third International Year of the Reef](#)):

*Yes we hosted a Chasing coral screening – 8 September, Nyali Cinemax. This was a public event at the main movie theatre in Mombasa, with almost 300 attendees (capacity 350). It had a panel of four scientists/managers and is reported on the IYOR website.*

- 2. Contribution to the ICRI Plan of Action 2018-2020 and upcoming ICRI general meetings.** *Your responses to the following questions will assist the Secretariat in assessing contributions towards the major themes of the draft ICRI Plan of Action 2018-2020.*

**Theme 1 – Promote effective and adaptable solutions to improve the protection of coral reefs**

- a. **Which of the below topics do you consider to be the three top challenges that your organisation faces in managing coral reefs?** Please select from the options below:

- Climate change impacts
- Inadequate planning, zoning and management
- Unsustainable resource extraction
- Tourism and recreation
- Shipping
- Coastal development
- Dredging
- Illegal and destructive fishing
- Fish and coral trade
- Marine debris
- Other. Please specify:

- b. **Please list any examples of innovative management practices that your organisation/country is involved in, such as use of VMS, drones & ecological mooring devices.** Include their limits, conditions of implementation, financing and an assessment of their results and links for more information if possible.

*Supporting co-management through a learning approach with fishing communities, focused on identifying and supporting their needs in capacity building and trials of best practices in Community-based Natural Research management*

- c. **Please list any examples of innovative funding for management that your organisation/country is involved in.** Include their limits, conditions of implementation, financing and an assessment of their results and links for more information if possible.

- d. **Please list any examples of leading practices, techniques and strategies for building reef resilience that your organisation/country is involved in.** Include their limits, conditions of implementation, financing and an assessment of their

results and links for more information if possible.

*Starting in mid-2018 we have funding to implement a Red List of Ecosystems for coral reefs of the Western Indian Ocean. This is a vulnerability analysis of ecosystem health, and is intended to provide more nuanced and spatially explicit information to inform reef management at sub-national, national and regional levels.*

- e. **Please list any examples of leading practice reef restoration mechanisms that your organisation/country is involved in.** Include their limits, conditions of implementation, financing and an assessment of their results and links for more information if possible.

*The Red List of Ecosystems approach in 2.d. will also be targeted at providing better data to inform site- and technique-selection for coral reef restoration, to avoid mismatch of efforts to ongoing conditions that may render restoration ineffective.*

### **Theme 3 – Support communities reliant on coral reefs**

- f. **Is sustainable tourism development a significant challenge for your organisation?** If so please include detail below of the kinds of challenges faced and your strategies to deal with them.
- g. **Is your organisation involved in activities to raise awareness and encourage action to support communities reliant on coral reefs?** Please include details below.

*Yes, working with fishing communities is one of the three pillars of CORDIO East Africa, and central to our major funding proposals and a wide range of small grants we obtain for working in Kenya. Further, our overall approach is to ensure that sustainable use is a cornerstone of efforts to secure coral reefs in the future, so community support and resilience is a key goal alongside reef conservation.*

### **Theme 4 – Help to reduce anthropogenic threats to coral reefs, particularly those that occur at a global or regional scale**

- h. **What activities is your organisation involved in to elevate awareness of the global nature of the threat of climate change to coral reefs?** Please include details below

*CORDIO is very active in regional and global coral reef networks promoting this message, and working at the interface between science and policy. Examples include the IUCN (we chair the Coral Specialist Group), Global Ocean Observing System of UNESCO, under CBD processes (including EBSAs and on coral reef actions), the Western Indian Ocean Marine Science Association and others.*

*We undertook a scenarios planning process with WWF focused on the Northern Mozambique Channel/Western Indian Ocean to produce future scenarios for sustainable development of the region, including for coral reefs. See references below, and the videos/publications at [www.wiofutures.net](http://www.wiofutures.net).*

*We participated in the Sustainable Blue Economy Conference in Nairobi with two appearances in high level events highlighting the importance of coral reefs to sustainable blue economy, and their vulnerability to climate change – in the main*

*thematic panel on "Management and Sustaining of Marine Life, Conservation and Sustainable Economic Activities" and in the Mayors and Governors Convention session on "Dead-zones to Clean Zones". See [www.cordioea.net/sbec](http://www.cordioea.net/sbec).*

*On this and other events, we are increasingly writing for a popular audience (in the Conversation Africa) and appearing in radio and TV news/interviews to spread the message (e.g. the South African Broadcasting Channel in May 2018, and BBC radio and TV (focus on Africa) on 26 November 2018. See [www.cordioea.net/media](http://www.cordioea.net/media).*

**i. Has your organisation made any progress in dealing with destructive fishing and trade?** Please include details below.

*We work on sustainable communities and fishing practices to discourage overfishing and destructive fishing – though we don't work directly on destructive practices.*

**j. Has your organisation made any progress in dealing with marine debris?** Please include details below.

*CORDIO started an 'SDG Lab' project in mid 2018, supported by Swedbio and the National Research Foundation (South Africa) and the US Embassy environment funds (Kenya) to reduce waste in the ocean (SDG 14) by connecting to solutions in waste management in neighbourhoods (SDG 11). This project is ongoing, trying to link energy around beach clean-ups to more sustainable and upstream actions on waste collection and recycling.*

**3. Would you like to report on your activities during the ICRI GM?** Please give details below.

No

**4. International events.** Please list any upcoming international events relevant to ICRI which someone from your organisation plans to attend in 2018-2019.

ICRI GM, Monaco, 5-7 Dec 2018

Conference of the Parties to the United Nations Framework Convention on Climate Change, 3-14 Dec 2018

Reef Futures 2018: A Coral Restoration and Intervention-Science Symposium, Florida, 10-14 Dec 2018

Global World Heritage Marine Managers meeting, Alaska, US, 26-31 May 2019

Other:

-- 29 Apr – 4 May 2019, IPBES Plenary, Paris.

-- 1-6 Jul WIOMSA Symposium, Mauritius

-- 16-20 September 09 OceanObs19, Honolulu

**5. Publications.** Please list relevant publications and reports you have released during this reporting period.

***Policy-relevant***

- Obura D, Magner C, Chrysostomidis Y, Mpofu L, Owen S, Bourquin V, Dresy L, Scheren P, Ralison H. (2018) East and southern Africa - coastal and ocean futures - future scenarios for countries of the Western Indian Ocean and the Northern Mozambique Channel. Northern Mozambique Channel initiative (WWF/CORDIO East Africa). [www.wiofutures.net](http://www.wiofutures.net)
- Obura, DO (2018) Ocean health in the blue economy. In: A Handbook on the Blue Economy in the Indian Ocean Region. Editor: Prof VN Attri. Indian Ocean Rim Association (IORA), Economic and Social Research Council, South Africa. pp 410-435.

### ***Research/science***

- Obura DO, Bandeira SO, Bodin N, Burgener V, Braulik G, Chassot E, Gullström M, Kochzius M, Nicoll M, Osuka K, Ralison HO, Richmond M, Samoily MA, Scheren P, Ternon J-F (2019) The Northern Mozambique Channel. In: World Seas: an Environmental Valuation, Volume II: The Indian Ocean to the Pacific, Second Edition. Editor: Charles Sheppard. Elsevier. pp 75-99.
- Cowburn, B., Samoily, M.A., Obura, D. (2018). The current status of coral reefs and their vulnerability to climate change and multiple human stresses in the Comoros Archipelago, Western Indian Ocean. *Marine Pollution Bulletin* 133: 956-969.
- Samoily, MA, Roche, R, Koldewey H, Turner, JT (2018). Patterns in reef fish assemblages: insights from the Chagos Archipelago. *Plos One* 13(1): e0191448.
- Majambo J. Gamoyo (submitted) Modelling dispersal and connectivity of broadcast spawning corals in the Western Indian Ocean. Department of Oceanography University of Cape Town. Thesis Presented for the Degree of Doctor of Philosophy. University of Cape Town. October 2018
- Obura DO, Bigot L, Benzoni F (2018) Coral responses to a repeat bleaching event in Mayotte in 2010. *PeerJ* 6:e5305; DOI 10.7717/peerj.5305
- Beyer H.L., Kennedy E.V., Beger M., Chen C.A., Cinner J.E., Darling E.S., Eakin C.M., Gates R.D., Heron S.F., Knowlton N., Obura D.O., Palumbi S.R., Possingham H.P., Puotinen M., Runting R.K., Skirving W.J., Spalding M., Wilson K.A., Wood S., Veron J.E., & Hoegh-Guldberg O. (2018) Risk-sensitive planning for conserving coral reefs under rapid climate change. *Conservation Letters*, 109, e12587.
- Gudka M, Obura D, Ahamada S, Kloiber U, Holter T (in review) Participatory reporting of the 2016 bleaching event in the Western Indian Ocean. *Coral Reefs*.
- Samoily, MA, Osuka, K., Maina G.W. Obura D.O. (2017). Artisanal fisheries on Kenya's coral reefs: decadal trends reveal management needs. *Fisheries Research* 186 (Feb 2017): 177-191.
- Kawaka, J.A., Samoily, M., Murunga, M., Church, J. Abunge, C., Maina, G.W. (2017) Developing Locally Managed Marine Areas (LMMAs): lessons learnt from Kenya. *Ocean and Coastal Management*. 135 (2017) 1-10.

### ***Monitoring/data***

- Stephenson, P.J., Bakarr, M., Bowles-Newark, N., Kleinschroth, F., Mapendembe, A., Ntiamoa-Baidu, Y., Obura, D., Ratsifandrihamana, N., Simaika, J., Sitati, N., Sumbi, P. & Teferi, T. 2018. Conservation science in Africa: Mainstreaming biodiversity information into decision-making. In Ferreira, C. & Klütsch, C.F.C. (eds.), *Closing the Knowledge-Implementation Gap in Conservation Science - Evidence transfer across spatiotemporal scales and different stakeholders*. Wildlife Research Monograph Number 3. Springer, New York, USA.
- Bax NJ, Appletans W & 21 others including Obura D.O. (2018, in review) Linking capacity development to monitoring networks to achieve sustained ocean observation. *Frontiers in Marine Science*.

- Muller-Karger FE, Miloslavich P and 34 others including Obura D.O. (2018) Advancing Marine Biological Observations and Data Requirements of the Complementary Essential Ocean Variables (EOVs) and Essential Biodiversity Variables (EBVs) Frameworks. *Frontiers in Marine Science*.
- Miloslavich P, Bax NJ, Simmons SE, et al (incl. Obura, DO). (2018) Essential ocean variables for global sustained observations of biodiversity and ecosystem changes. *Glob Change Biol*. 2018;00:1–18. <https://doi.org/10.1111/gcb.14108>
- Gudka Mishal, David Obura, Jelvas Mwaura, Sean Porter, Saleh Yahya and Randall Mabwa (2018). Impact of the 3rd Global Coral Bleaching Event on the Western Indian Ocean in 2016. *Global Coral Reef Monitoring Network (GCRMN)/Indian Ocean Commission*. pp. 65

6. **ICRI Member Feedback.** What do you find most valuable about the ICRI member reports? If you have any ideas for improvement please list below:

7. **General Information.** (Note that this information will be posted on the ICRI website on your member page: <http://www.icriforum.org/about-icri/members-networks>.)

Member type (Country / Organisation):	
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*Thank you very much for sharing your valuable experiences and information with ICRI.*