18th Global Meeting of the Regional Seas Conventions and Action Plans



- Bruce Glavovic (Co-Chair, SSC, Future Earth Coasts)
- Martin LeTissier (Executive Officer, Future Earth Coasts)
- Alice Newton (Regional Engagement Partner, Future Earth Coasts; DEVOTES)

http://www.futureearthcoasts.org/











- Who / what is Future Earth Coasts?
- What do we do?
- Our Coastal Futures Initiative
- Our work in the Arctic
- UNESCO IOC: Reducing coastal hazard risk and adapting to climate change
- DEVOTES

Future Earth: a framework to unify existing bodies

International Human Dimensions Programme

on Global Environmental Change

Global Environmental Change Programmes Will System Science Ao. World Climate Research Programm **FUTURE** ESSP **EARTH** 1991 2001 1986 1996 2013 1980





all co-sponsored by ICSU

International Geosphere-Biosphere

GLOBAL

Science and Technology Alliance for Global Sustainability















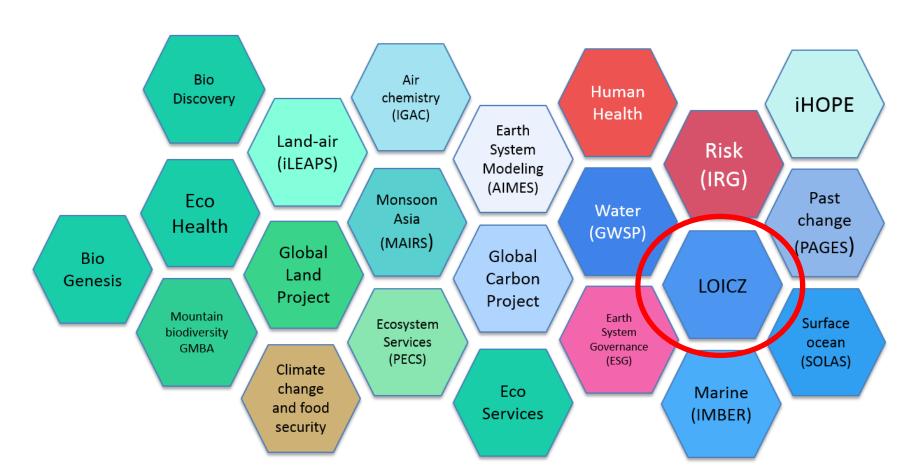








Future Earth - provide the knowledge required for societies in the world to face risks posed by global environmental change and to seize opportunities in a transition to global sustainability







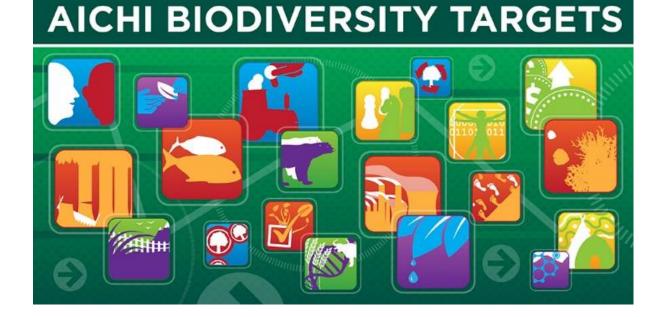
RISK

RESILIENCE

SUSTAINABILITY

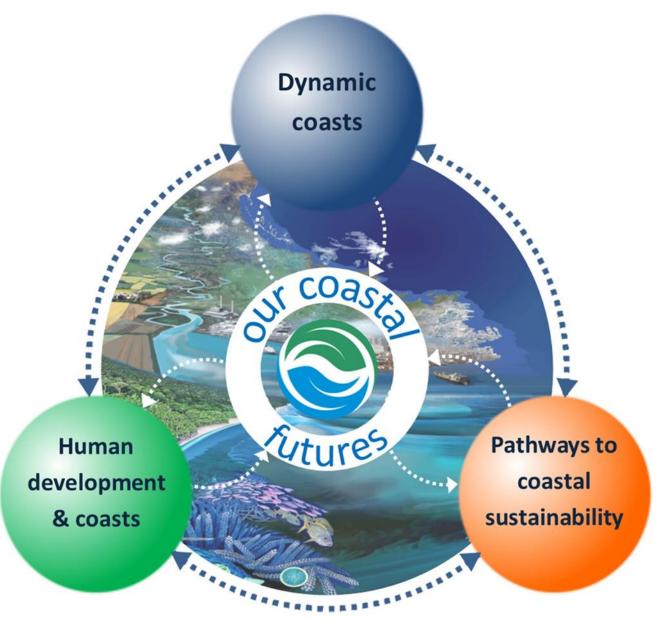


UN World Conference on Disaster Risk Reduction 2015 Sendai Japan





The Future Earth Coasts Vision is to support transformation to a sustainable and resilient future for society and nature on the coast, by facilitating innovative, integrated and impactful knowledge mobilisation.



Coastal zone = frontline of global sustainability challenge



FutureEarthCoasts.org

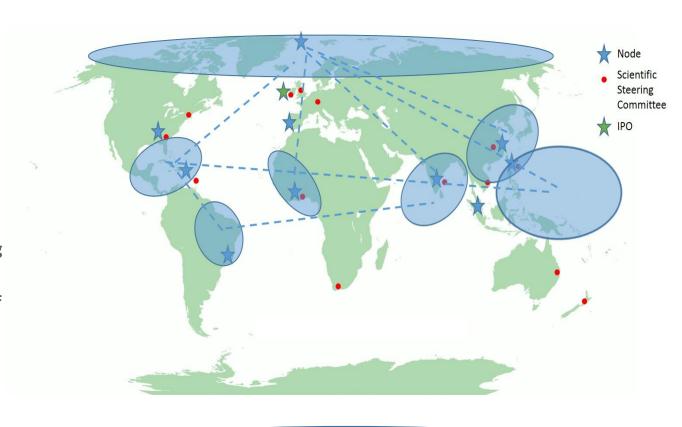
GLOBAL CHANGE IN THE COASTAL ZONE





Become part of our community by joining our mailing list and find out more about how you can contribute to the delivery of the Future Earth Coasts project.

JOIN THE CONVERSATION





The Future Earth
Coasts International
Project Office is
located at MaREI

MaREI.ie

Affiliated projects

Alumni & networks





LOICZ Priorities: Scientific Hotspots



Cross-Cutting Themes

- → Coastal Ecosystem services
- → Modeling and global assessments (e.g. LBPS Synopsis Report UNEP, GEF, IW-learn 2012)
- → Capacity building (Young LOICZ; Budgeting workshops etc)
- → Coastal governance
- → Social-environmental system analysis











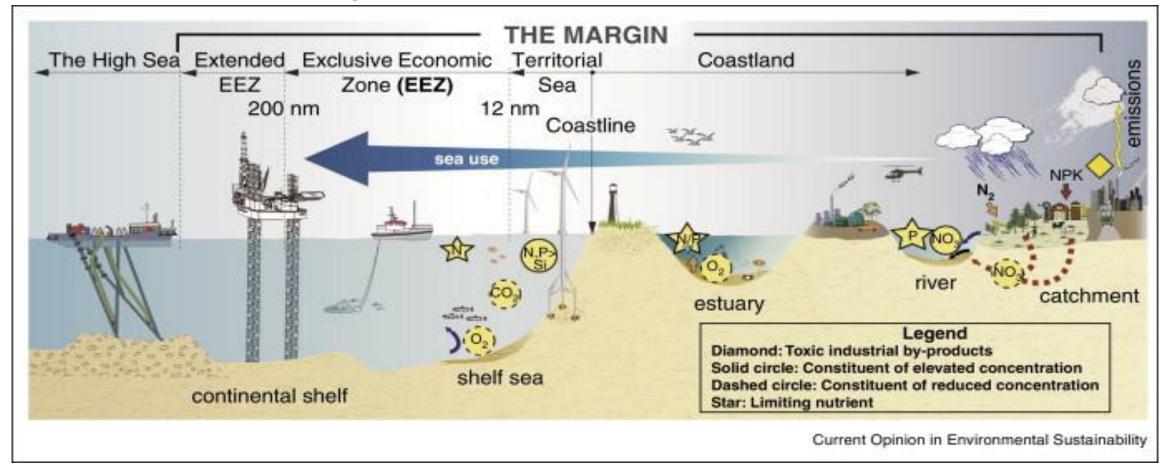


ScienceDirect



Living on the Margin in the Anthropocene: engagement arenas for sustainability research and action at the ocean–land interface

BC Glavovic¹, K Limburg², K-K Liu³, K-C Emeis⁴, H Thomas⁵, H Kremer^{6,12}, B Avril⁷, J Zhang⁸, MR Mulholland⁹, M Glaser¹⁰ and DP Swaney¹¹



Our Coastal Futures Initiative

- Goal = (i) mobilise understanding about coastal sustainability prospects and (ii) institutionalise practices that enable coastal nations and regions to pursue coastal sustainability pathways.
- > status quo / retrospective assessment.
- Bring science, policy and practice together in process of co-design, collaborative coastal sustainability assessment, capability building and institutionalisation of coastal sustainability pathways planning.
- Embedded in legitimate institutional arrangements at appropriate scale (e.g., Arctic Regional Council; Regional Seas Conventions; LMEs; RFMOs; other?)
- Capability building programme at variety of scales.

Step 1: Understand the coastal region

- In partnership with regional stakeholders, governing authorities, experts, etc.
- Establish need & secure mandate at relevant scale
- Agree how regional coastal stakeholders will work together
- Decide how Coastal Futures Initiative will be carried out & mobilise resources

Step 2: Assess the State of the Coast and identify plausible Coastal Futures

- Prepare a State of the Coast report: Include an agreed vision and long-term goals; and the likely outcomes of business as usual.
- Prepare a Coastal Futures Report that maps out plausible coastal scenarios
 e.g., low road versus high road scenarios.
- **Inform and educate** interested and affected parties in the region about the work to date and create opportunities active involvement in the initiative.

Step 3: Agree on Coastal Sustainability Interventions and Pathways

- Identify **priority sustainability issues**, **gaps**, **thresholds**, **barriers and enablers** to transition from the status quo to a desired coastal future.
- Identify, compare and select promising coastal sustainability interventions for short-term action.
- Identify, compare and select promising pathways in the medium- to longterm, informed by salient sustainability thresholds, intervention 'sell-by' dates, and contingency actions.
- Prepare a framework Agreement to build regional coastal sustainability; secure endorsement from regional stakeholder representatives; and ratification from legitimate regional authorities.
- Extend efforts to inform, educate and involve interested and affected parties in the region, complemented by priority interventions on 'burning issues' and pilot testing innovative ideas.

Step 4: Implement Sustainability Actions, Monitor, Review and Adapt to Change

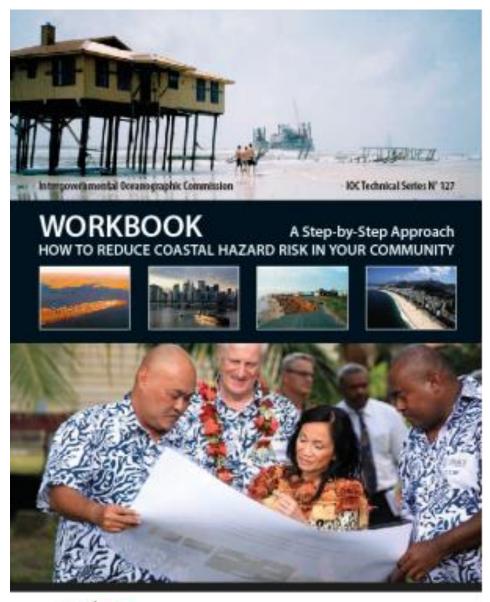
- Implement and enforce ratified framework Agreement.
- Mainstream coastal sustainability interventions.
- Monitor and evaluate coastal sustainability interventions
- Review and revise framework Agreement over time and adapt to change
- Institutionalise ongoing regional capability building, deliberation, social learning and collaborative problem-solving



Guidance for community-based coastal hazard risk reduction

- Workbook
- Community Guide
- Guide to Guide (online resource)
- Capability Building programme

- Release COP 22 (Nov, 2016)
- Pilot testing











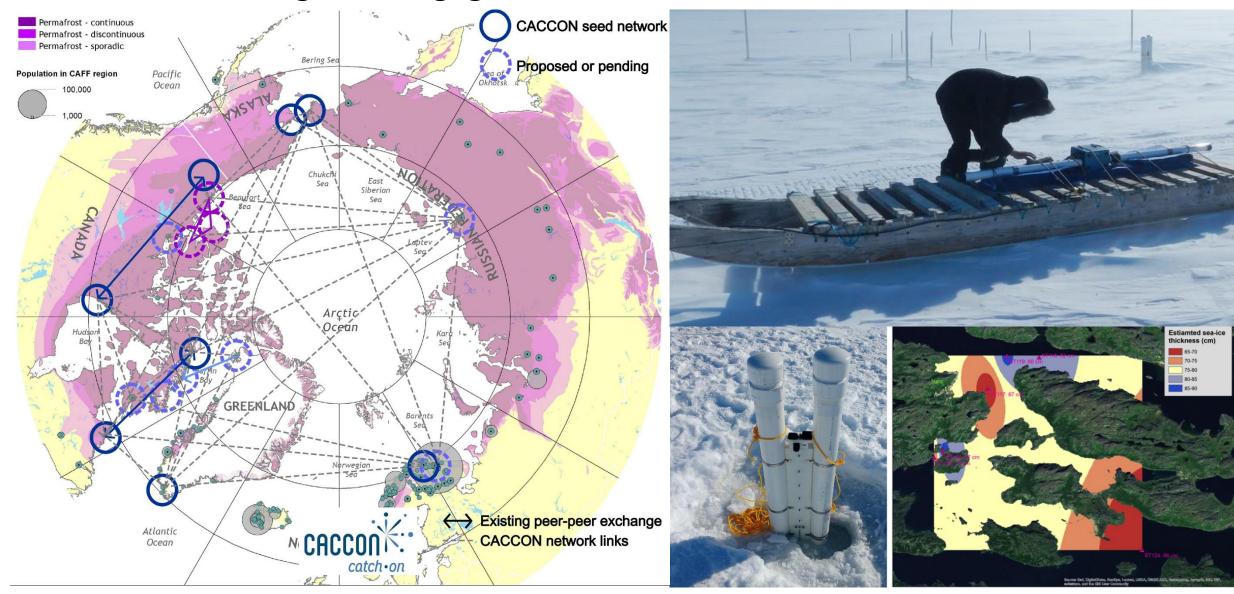
<u>Circum-Arctic Coastal Communities KnOwledge Network</u>

... building linkages for capacity sharing, co-learning, and sustainability





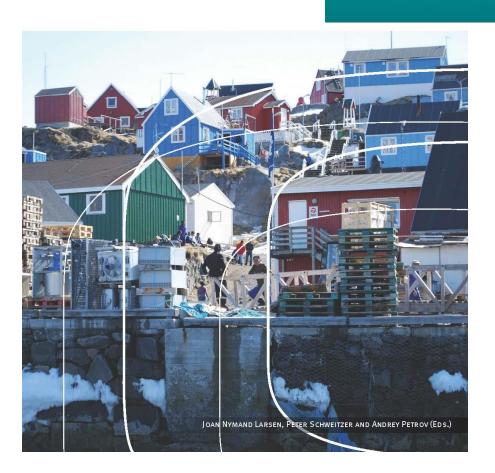
Arctic Regional Engagement Network





Arctic Social Indicators

ASI II: Implementation



State of the Arctic Coast 2010



• Infant Mortality; Net-migration

Material Well-being

• Per capita household income; Composite index

Education

• Ratio of students successfully completing postsecondary education

Cultural Well-being

• Language retension; culture index

Closeness to Nature

• Harvest of country foods

Fate Control

Fate Control Index

NEAT- Nested Environmental status Assessment Tool

Update

- Developed in EU <u>DEVOTES</u> project http://www.devotes-project.eu/
- Prototype demonstrated 17thRegional Seas meeting (Istanbul Oct 2015) by Dr Angel Borja and Dr Alice Newton



The triple I: Indicators, Indices and Integration to assess marine environmental status. The DEVOTES project





FINAL CONFERENCE

MARINE BIODIVERSITY

THE KEY TO HEALTHY AND PRODUCTIVE SEAS

17th - 19th October, 2016

Madou building - European Commission's Directorate-General, BRUSSELS

NEAT- Nested Environmental status Assessment Tool

Developed for environmental assessment of regional seas

- Incorporates a <u>catalogue</u> of more than 600 indicators using drop-down selection menus, (<u>Teixeira et al.</u>, 2014). More can be added based on regional requirements.
- Tested at 10 sites in 4 Regional Seas (Baltic, N.E.Atlantic, Mediterranean, Black Sea) <u>Uusitalo et al.</u> (2016)

NEAT-Main features

- Flexible so users can customize each step of the assessment
- User defines hierarchies of spatial assessment units (SAU) and habitats
- Possible to give a weighting to particular areas that are sensitive, e.g. coral reef
- 5-class **scale** (bad, poor, moderate, good, high) with user defined boundaries
- Calculates uncertainty (<u>Carstensen & Lindegarth, 2016</u>)
- **Aggregates** (Borja et al., 2014) indicator results into integrated assessment

NEAT- Software and support

• Now fully operational, version 1.2 already available

 Freely available in PC and Mac versions http://www.devotes-project.eu/neat/