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

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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

Global Environmental Change Programmes

WCRP (World Climate Research Programme)
DIVERSITAS (an international programme of biodiversity science)
IHDP (International Human Dimensions Programme on Global Environmental Change)
IGBP (International Geosphere-Biosphere Programme)

FUTURE EARTH

and their partnership

all co-sponsored by ICSU
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.
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
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

Affiliated projects

Alumni & networks
Coastal zones and coastal peoples – turning the tide of global sustainability

Cross-Cutting Activities

- 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

LOICZ Priorities: Scientific Hotspots

Cross Cutting Activities
Living on the Margin in the Anthropocene: engagement arenas for sustainability research and action at the ocean-land interface

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.
Our Coastal Futures – Conceptual Step-wise process

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
Our Coastal Futures – Conceptual Step-wise process

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.
Our Coastal Futures — Conceptual Step-wise process

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 long-term, 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.
Our Coastal Futures – Conceptual Step-wise process

**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
Circum-Arctic Coastal Communities Knowledge Network

... building linkages for capacity sharing, co-learning, and sustainability
Arctic Regional Engagement Network

CACCON seed network

Proposed or pending

Population in CAFF region

100,000

1,000

Existing peer-peer exchange
CACCON network links

Permafrost - continuous
Permafrost - discontinuous
Permafrost - sporadic

Pacific Ocean

Future Earth Coasts
land-ocean interactions in the coastal zone
Health and Population
• Infant Mortality; Net-migration

Material Well-being
• Per capita household income; Composite index

Education
• Ratio of students successfully completing post-secondary education

Cultural Well-being
• Language retention; culture index

Closeness to Nature
• Harvest of country foods

Fate Control
• Fate Control Index
NEAT- Nested Environmental status Assessment Tool

Update

• Developed in EU DEVOTES project http://www.devotes-project.eu/

• Prototype demonstrated 17th Regional 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
NEAT - Nested Environmental status Assessment Tool

• Developed for environmental assessment of regional seas

• Incorporates a catalogue of more than 600 indicators using drop-down selection menus, (Teixeira et al., 2014). More can be added based on regional requirements.

• Tested at 10 sites in 4 Regional Seas (Baltic, N.E.Atlantic, Mediterranean, Black Sea) Uusitalo et al. (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** ([Carstensen & Lindegarth, 2016](#))
- **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/

• User friendly 😊 and support material including manual and webinar