

Introduction

Coastal management in Iceland

- Definition
- Management organization
- Responsibilities
- Uses and users
- Issues and conflicts

Global trend, agendas and issues

- ICZM:
 - What ?
 - Why?
 - Ways

Coastal zone defined

- *“dynamic zone of interaction between the land and the sea, where the sea influences the land and vice versa”* (Cicin-Sain & Knetch 1998)
- Includes: Intertidal zones, tidal flats, shallow waters, estuaries, reefs, dunes and beaches.

Coastal zones

“are the places where agency authority changes abruptly, where storms hit, where waterfront development locates, where boats make their landfalls, and where some of the richest aquatic habitats are found. It is also the places where terrestrial-type planning and resource management programs are at their weakest”

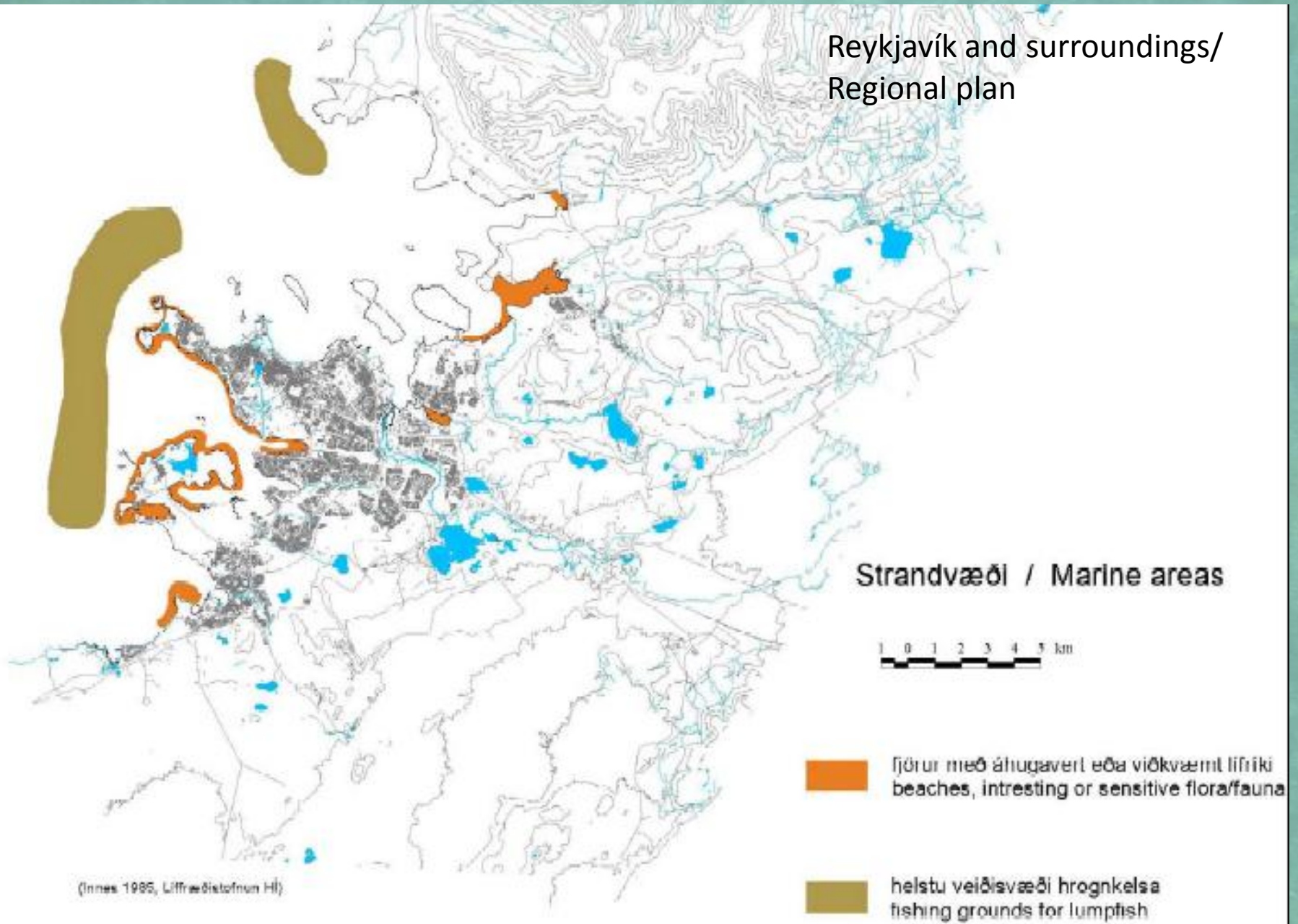
(Clark, 1996)

Coastal zone in Iceland

Seaward boundaries

- No attempts for setting forth comprehensive uniform definitions by the Icelandic legislator
 - Exclusive economic zone 200nm
 - Territorial waters 12nm
 - Net laws (Netlög) from 1281. Defines the user rights of landowners, farmers and fishermen, within 115 m from low water mark.
- Not defined but used commonly
 - Regional plan for the Reykjavík and surrounding towns

Reykjavík and surroundings/
Regional plan

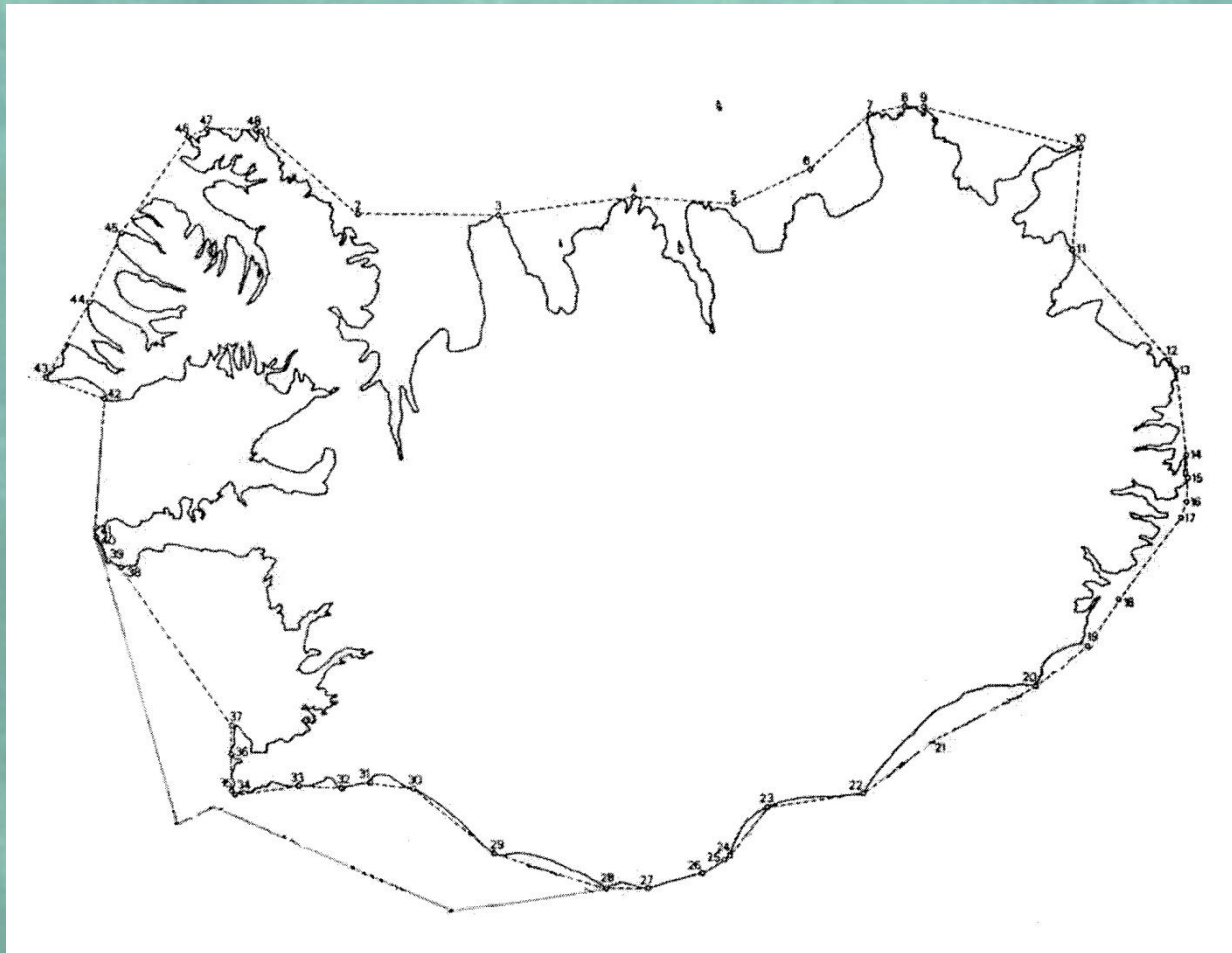


Coastal seas

Seaward boundaries

- Regulation on sewage and sewage treatment (Reglugerð um fráveitur og skólp, nr.798/1999):
“*Strandsjór* er sjór sem nær frá fjörumörkum og ferskvatnsmörkum í vatnsföllum að mengunarlögsögu”
- Water directive Framework (2008):
"Coastal water" means surface water on the landward side of a line, every point of which is at a distance of ***one nautical mile on the seaward side from the nearest point of the baseline*** from which the breadth of territorial waters is measured, extending where appropriate up to the outer limit of transitional waters.

So we have the seaward boundaries?



Baseline

Landward boundaries ???

These two legal documents have thought “tale” to tell:

- Planning act from 1998:
 - It is not allowed to built within 50 meters from the coast, only applies to rural areas (Exact benchmark is though not mentioned)
- Law on the protection of Breiðafjörður
 - Only the coastline, up to the high tide limits, are protected, not land near on shore area....Conflicts

Management organization

Internationally

- Ramsar Convention, 1971
- UN Global Program of Action for the Protection of the Marine Environment from Land-based Activities, 1995
- OSPAR, 1997
- UNCED:Chapter 17 in Agenda 21, 1992

Management organization

National level

- In Icelandic legislation there are no specific laws for the management of the coastal zones as such, although there are a few general laws and regulations that regulate ocean and coastal activities:
 - Act on Protection against Pollution on the Sea and Coast
 - The Nature Conservation Act
 - Environmental impact Assessment
 - Strategic Environmental Assessment
 - Planning and Building Act.

Management organization

National level:

- The fisheries management act
- Icelandic national ownership of seabed resource act
- Treatment and the processing and distribution of marine products act
- Act on coastal protection

Responsabilities

- National governmental agencies have jurisdiction within the EEZ from the net laying line/netlög (115 meters from the low-water mark) out to a distance of 200 nautical miles.
- The local government, however, extends its jurisdiction on land and up to 115 meters into the sea from the low-water mark.

Responsabilities

- **Ministry for the Environment**
 - The Environmental Agency
 - The National Planning Agency.
- **Ministry of Fisheries and Agriculture**
 - Directorate of Fisheries
 - The Marine Research Institute
 - Matís - Icelandic food research,
- **Ministry of Industry Energy and Tourism**
 - The Institute of Regional Development
 - National Energy Authority of Iceland
 - Icelandic tourist board
- **The Ministry of Justice and Ecclesiastical Affairs**
 - The Icelandic Coast Guard.
- **The Ministry of Communications**
 - The Icelandic Maritime Administration
 - The Public Road Administration.

Coastal uses

- **Aquaculture:** Salmon, Cod, Arctic char, mussel and more
 - 1% of total value of exported fish products
 - 50 fish farms: 30 producing juveniles, 12 cage farms and 8 mussels farm (2008)
- **Fishing:** Lumpfish, inshore shrimps, schallops fishery and small demersal fisheries (ITQ and coastal fisheries).
 - The quantity of catches of coastal fisheries is approximately 4% of total catches but encompasses 8% of total value
 - Half of fleet, 700, are small boats (<7m)
- **Whaling:** Quotas: 200 minke whales and 150 fin whales

Coastal uses

- **Tourism:** Whale watching, cruise ships, bird watching, sea angling.
 - Annually 115.000 people go for whale watching (14% annual growth), revenues 16,5 million USD (2 billion ISK)
 - In the summer 2008 almost 60.000 tourists came with cruise ships to Reykjavík
 - 3000 tourist came to the Westfjords during the 2008 season for sea angling

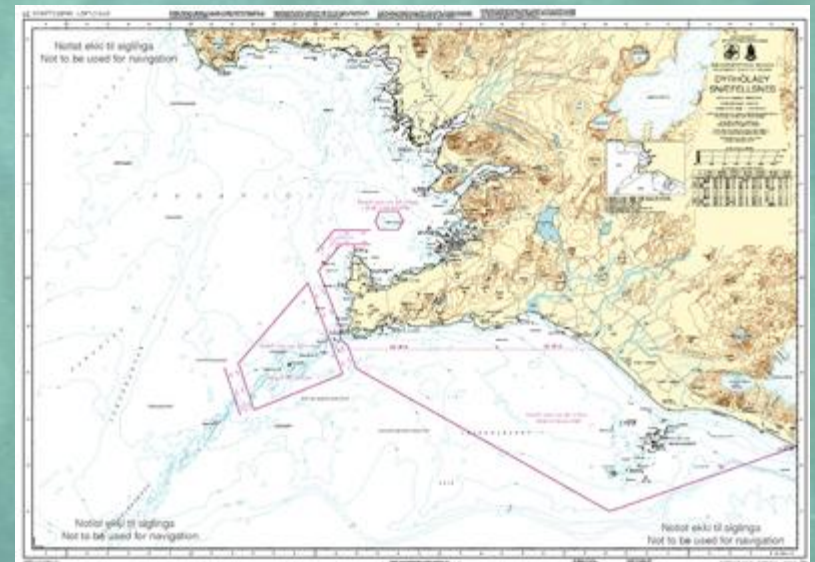
Coastal uses

- **Leisure:** Recreational boating and fishing, kayaks, swimming and outdoor activities of various kind.
- **Infrastructure development:** Roads, urban development, communication infrastructure, dams
- **Waste disposal**
- **Landfills**



Coastal uses

- **Aggregate dredging:**
 - Total of 1,3 million m³
- **Navigation and communication**
- **Research**



Issues

- Lack of governmental policy integration and holistic management approach for coastal areas:
 - ***The governmental institutions don't have a common vision*** (Sigríður Ólafsdóttir, 2008 and Maria Eugenia Cauhépe, 2006)
 - ***The lack of political will for integration*** (Maria Eugenia Cauhépé, 2006)
 - ***The infrastructure of the administration is today not able to sustain ICZM*** (Áslaug Eir Hólmgeirsdóttir, 2007)

Issues

- Lack of community partnership in coastal matters and shortage of urban planning in coastal areas
 - *“According to the survey, institutional stakeholders do not consider, private interests, interest groups, NGOs, or users of the coastal area as definitive or direct stakeholders whose interests and participation should be taken for granted”.*

(Maria Eugenia Cauhépé, 2006)

Issues

- Lack of proper frameworks for:
 - Aggregate dredging
 - Aquaculture
 - Ship strandings and responses
 - Pollution in coastal areas
 - Marine protected areas

Problems

- Little knowledge of the benthic life and the processes in ocean and coastal environment
 - We can't compare areas
 - Limited uses of EIA
- “The greatest shock to scientists in the 20th Century was the realisation that you can understand nothing, absolutely nothing, about the whole by understanding the parts.”
- (Capra, F.,1996, The Web of Life)

ICZM

What?

Integrated coastal management is a process of governance consisting of the legal and institutional framework necessary to ensure that development and management plans for coastal zones are integrated with environmental (including social) goals and are made with the participation of those affected.

(The World Bank, 1993)

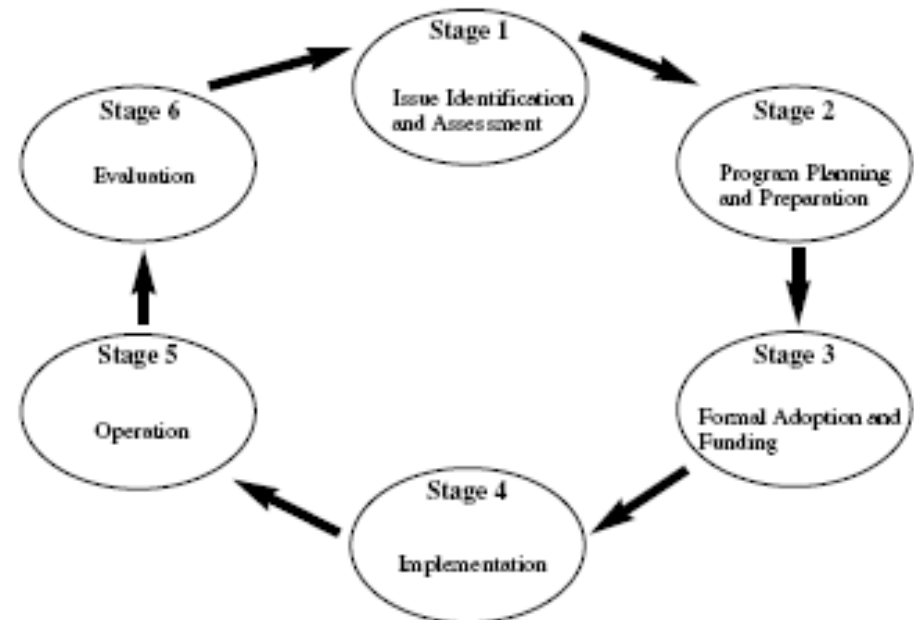
ICZM

What?

Key words:

- **Process – series of actions**
- **Integration**
 - Overcome sectoral management approach
 - Overcome split in jurisdiction among levels of government at land-water interface
 - Between disciplines and with management
 - Of different activities
- **Participation – participatory**
 - All stakeholders
- **Sustainable development**
 - Intra-generational Equity
 - Inter-generational Equity
 - Bio-Diversity
 - Precautionary Principle
 - Internalization of Cost

Figure 2.2. The Six Stages of an ICM Process



Source: Adapted, with modifications, from Olsen 1993.

ICZM

Why?

- Chapter 17 of Agenda 21:
 - Each coastal state should consider establishing, or where necessary strengthening, appropriate coordinating mechanisms for integrated management and sustainable development of coastal and marine areas, at both the local and national levels (Par.17.6)

ICZM

- Problems and issues:
 - Depletion or decrease of natural resources
 - Pollution
 - Migration to coastal areas
 - Need to regulate urban and industrial growth along the coastlines
 - Conflicts

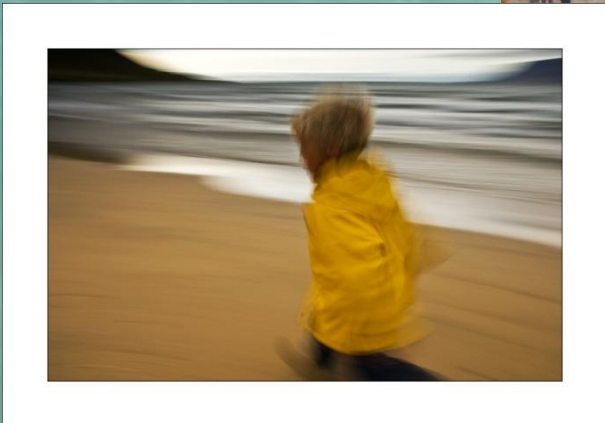
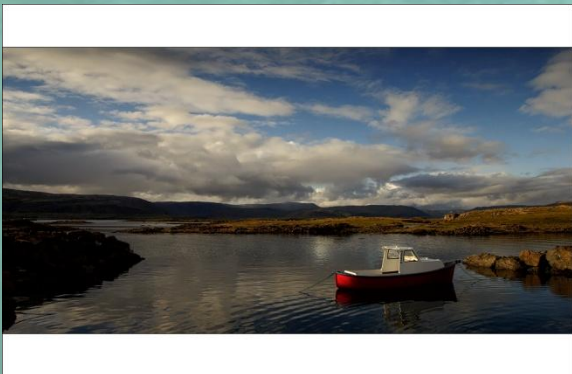
ICZM

Ways

Major function:

- Area Planning
- Promotion of Economic Development
- Stewardship of Resources
- Conflict Resolution
- Protection of Public Safety
- Manage resources with good economic returns to the public.

Takk fyrir



- Practical problem solving in complex, human dominated
- ecosystems requires the integration of three
- elements: (1) active and ongoing envisioning of both how the
- world works and how we would like the world to be, (2) systematic
- analysis appropriate to and consistent with the vision,
- and (3) implementation appropriate to the vision. Scientists
- generally focus on only the second of these steps, but integrating
- all three is essential to both good science and effective
- management. Subjective values enter in the vision element,
- both in terms of the formation of broad social goals and in
- the creation of a preanalytic vision, which necessarily precedes
- any form of scientific analysis.
- Visions, Values, Valuation, and the Need for an Ecological Economics
- ROBERT COSTANZA
- *June 2001 / Vol. 51 No. 6 • BioScience 459*