

## WG Biodiversity and ecological perspectives

### Scope

- 1) Habitats
  - a. Salt marshes
  - b. Intertidal mudflats
  - c. Coastal tundra
  - d. estuaries
- 2) Species
  - a. Salt marsh dependant spp.
  - b. Intertidal communities
  - c. Selected marine mammals
  - d. Selected waterbirds
  - e. Coastal fisheries
  - f. Seabirds....
- 3) Aquaculture
- 4) .....

Build on the ICARP II and ecosystem matrix

ICARP II research questions

1. *Where are the unique and special biodiversity features?*
2. *Why are there? What are the underlying ecological processes for those features?*
3. *Are these biodiversity features likely to persist in face of climate and other changes?*
4. *If the biodiversity features do not persist, what will be their fate?*
5. *What are the consequences of loss of these elements, specifically, in relation to food web dynamics, sustainability, human services and resources extraction and our predictive ability for occurrence and function of ecosystem elements – in other words, would these lost biodiversity features also provide key indicators?*

Condense from a coastal and Arctic perspective

Identify gaps and research needs

Fill the matrix

### Update of ACIA and other assessments

#### ACIA

|               |    |
|---------------|----|
| Permafrost => | TJ |
| Marine=>      | BH |
| Biosphere=>   | LS |
| Human=>       |    |
| Vegetation=>  | LS |

|                           |    |
|---------------------------|----|
| AMSA(AC)                  | TD |
| Oil&Gas (AC) => chapter#6 | CZ |
| EEA – Arctic assessment   | KB |

AHDR (SDWG) (AC)                      KB  
CBMP (CAFF)                                CZ  
SAON  
ABA 2010

### **Drivers/Scenarios**

1. Climate : IPCC/ACIA
  - sea level
  - sea ice
  - temperature/precipitation.
  - Storminess
  - Discharge (Water Gap, others?)
  - Carbon&nutrients flux (ACD?)
  
2. Economic (oil&gas, tourism, agriculture)
  - GLOBIO
  - IMAGE
  - GEO-scenarios
    - Market
    - Policy
    - Security
    - Sustainability
  - Oil&Gas/minerals
  
3. Contaminants
  - pathways ?
  - selection ?
  - scale

### **Responses**

- Adaptation/Mitigation
- Governance/Policy
  - Environmental regulations
  - Protected areas
  - Co-management
  - Sustainability principles & guideline for local/corporate comp. (WWSD principles etc.)
  - Incentives
  - Population/ Depopulation

### **Audiences & Contributors**

- Contribute AC assessment
- Contribute NC assessment
- Contribute EEA assessment
- Oil&Gas IPIECA

-IASC/LOIC  
-UN (UNEP/FAO)

### **State of the art**

- Remote sensing
  - GIS interactive mapping
- Broad resolution \ circumpolar  
/ scale

### **Products**

Workshop report Oct 07  
Keynote Dec 07  
Assessment Dec07/Jan 08  
Mini-ACIA 2009/2010