



METHods of Interdisciplinary Environmental Research

Course n° 2

Information Management in Environmental Sciences

february 2007

Montpellier – Maison de la Télédétection



Context



- ✓ An essential prerequisite
 - Increasing amount of « heterogenous » data
 - Importance of the geographic dimension
data localisation / spatial accuracy
 - Complexity of data sets (size, scale, etc.)
 - Technical and legal contexts

- ✓ A still underdeveloped item
 - ... in progress!

Objectives



- ✓ Skills in data management:
 - 'Good practices' in data use and assessment

- ✓ Quality control approaches
 - Meta data management
 - Need for sharing information / Interoperability
 - Data Infrastructures

4 sequences



1. Geographic and environmental data in the scientific field
an overview of EIS at different scales / scientific issues
2. Geographic databases and conceptual modelling
the designing of adequate DB structures
3. Acquisition & processing of geographic and environmental data
acquisition techniques, scale changes & spatial analysis
4. Management & dissemination of geographic and environmental data
cataloguing & metadata / standards & norms

Key issues (1)



- ✓ Environmental datasets
 - More and more available data
 - all is not good!
 - Correct quality?
 - Adequate data?

- ✓ Interdisciplinary approaches
 - o Different theoretical frames? different scales? same data?
 - o Sharing Data / sharing Information
 - o Combined approaches (human & social sciences)
 - Territorial analysis, social & economic stakes
 - Exple : 'mapping according to actors'

Key issues (2)



- ✓ What is at stake in environmental knowledge ?
 - Social expectations
 - A trend: environmental policies / regulation (Arhus, Inspire)

- ✓ Environmental policies
 - Diagnosis
 - Decision making
 - Following up and assessment of policies ('in itinere' & final)



interlinked I.S.

Deciders expect to manage:



✓ The cost of environmental protection

the “burden” issue

✓ The environmental performance of our economy

the “decoupling” issue

✓ The cost of insufficient environmental protection

the “externalities” issue

✓ The assessment of policies

the “effectiveness / efficiency” issue

according to Ph. Crouzet (EEA)