

Remote Sensing

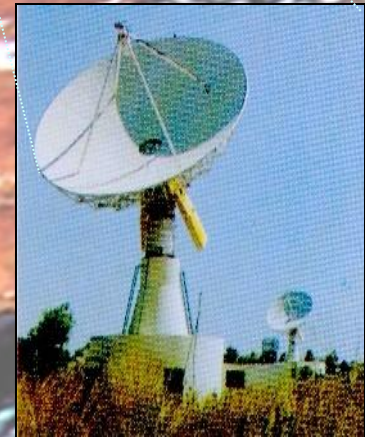
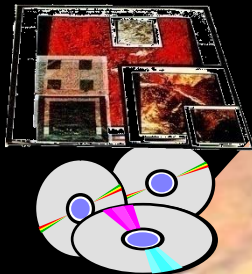
AN EYE IN THE SKY



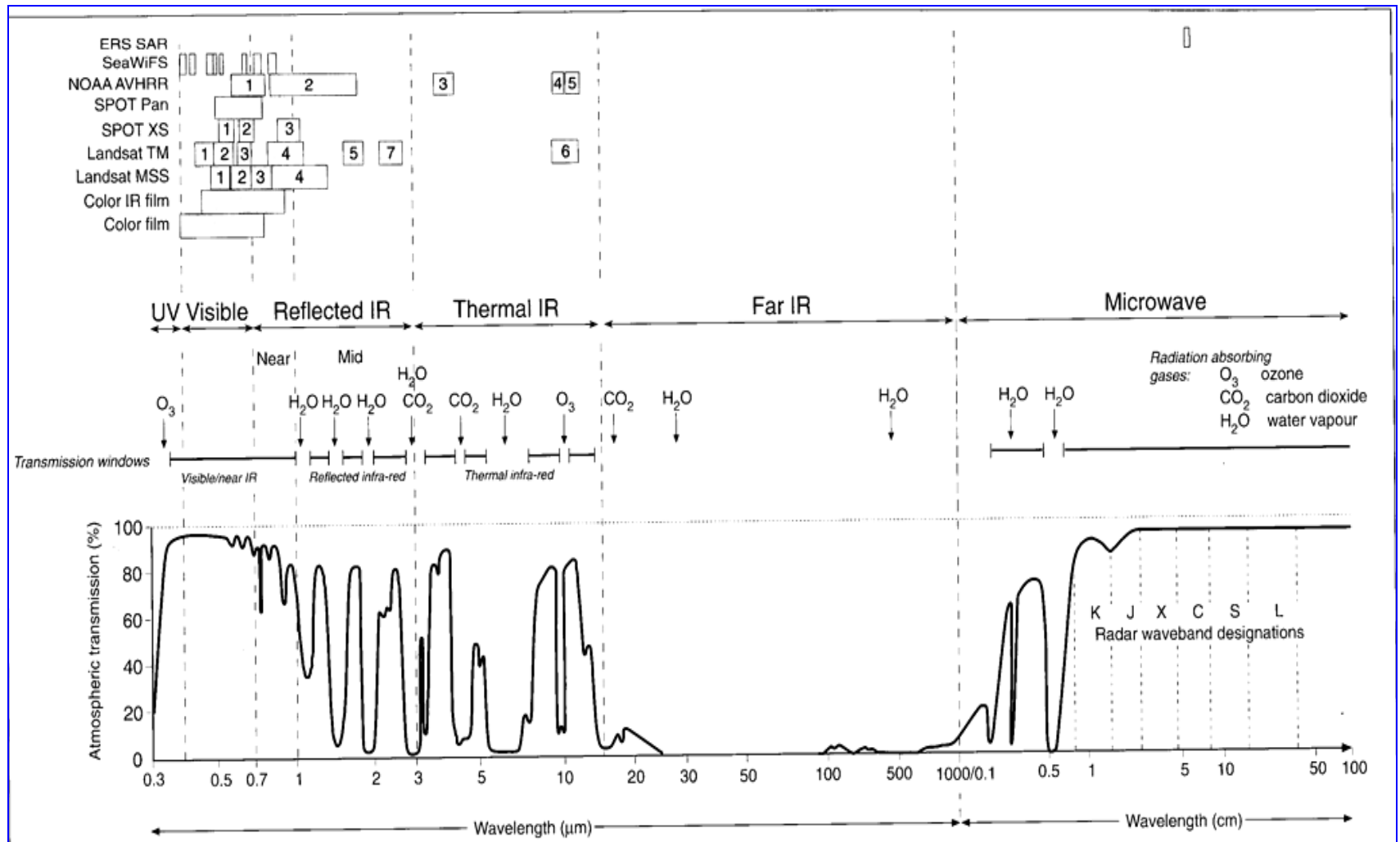
HOW IS THIS DONE? ~~RECEIVING~~ INFORMATION?

- PERIODIC MONITORING AND MANAGEMENT OF EARTH'S NATURAL RESOURCES
- DATA RECEPTION FROM REMOTE SENSING OBJECTS/SURFACE WITHOUT ACTUALLY BEING IN CONTACT WITH IT.
- DISASTER MAPPING AND ASSESSMENT
- ENVIRONMENTAL STUDIES

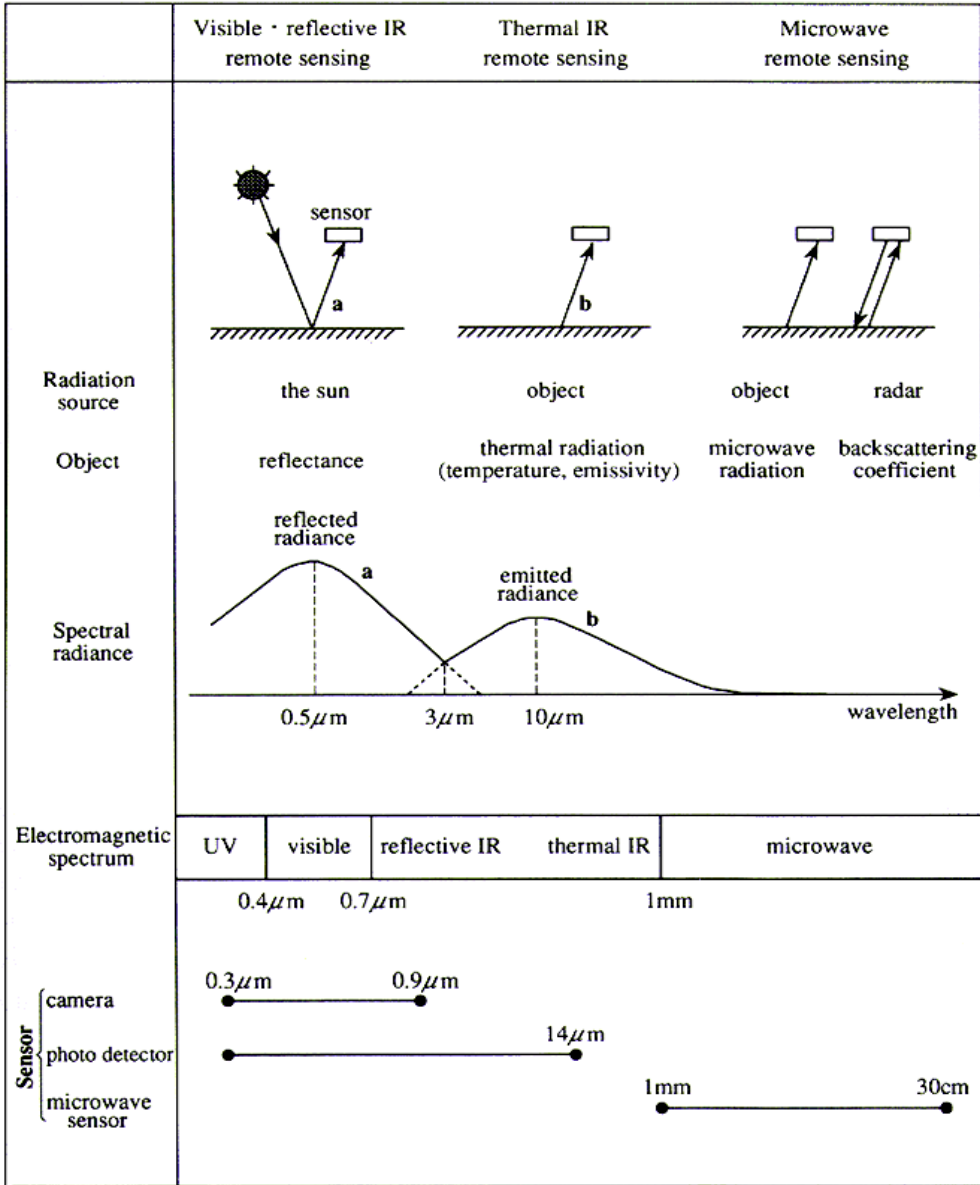
- PRE-PROCESSING AND CORRECTION OF DATA
- ANALYSIS AND INTERPRETATION OF THIS DATA TO DERIVE USEFUL INFORMATION



ELECTROMAGNETIC SPECTRUM



RADIATION SOURCE AND SENSORS



IRS satellites



IRS-1C (1995) LISS-3 (23/70 m,
STEERABLE PAN (5.8 m);
WiFS (188m)



IRS-1D (1997) LISS-3 (23/70m,
STEERABLE PAN (5.8 m);
WiFS (188m)



IRS-P6 (RESOURCESAT-1) 17-10-2003
LISS3 - 23 m; 4 XS
LISS4 - 5.8 m; 3-XS
AWIFS - 70 m; 4-XS



IRS-P2 (1994)
LISS-2

IRS-P3 (1996)
WiFS MOS
X-Ray,



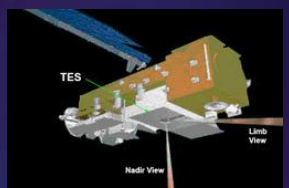
IRS-P4 (1999)
OCEANSAT OCM, MSMR



IRS-P5 (CARTOSAT - 1) 05-05- 2005
PAN - 2.5m, 30 km,



IRS-1A & 1B (1988 & 91)
LISS-1&2 (72/36m, 4 BANDS; VIS & NIR)

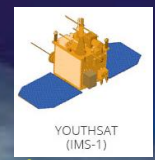


Technology Experiment Satellite
1m 22-10-2001



IRS-P7 (CARTOSAT-2)
10-01-2007

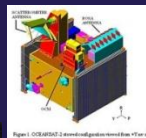
CARTOSAT-2A PAN - 1m 28-04-2008



YOUTHSAT (IMS-1)
IRS-P6 (RESOURCESAT-2) 20-04-2011



OCEANSAT-2 2009



SARAL 25-02-2013
Argos Altika 8mm

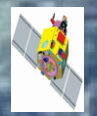
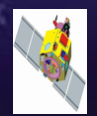


RISAT -1 26-04-2012

LISS3 - 23 m; 4 XS
LISS4 - 5.8 m; 3-XS
AWIFS - 70 m; 4-XS



CARTOSAT 2B 12-07-2010



CARTOSAT 2 15-02-2017



CARTOSAT 2C 22-06-2016

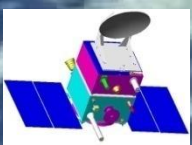
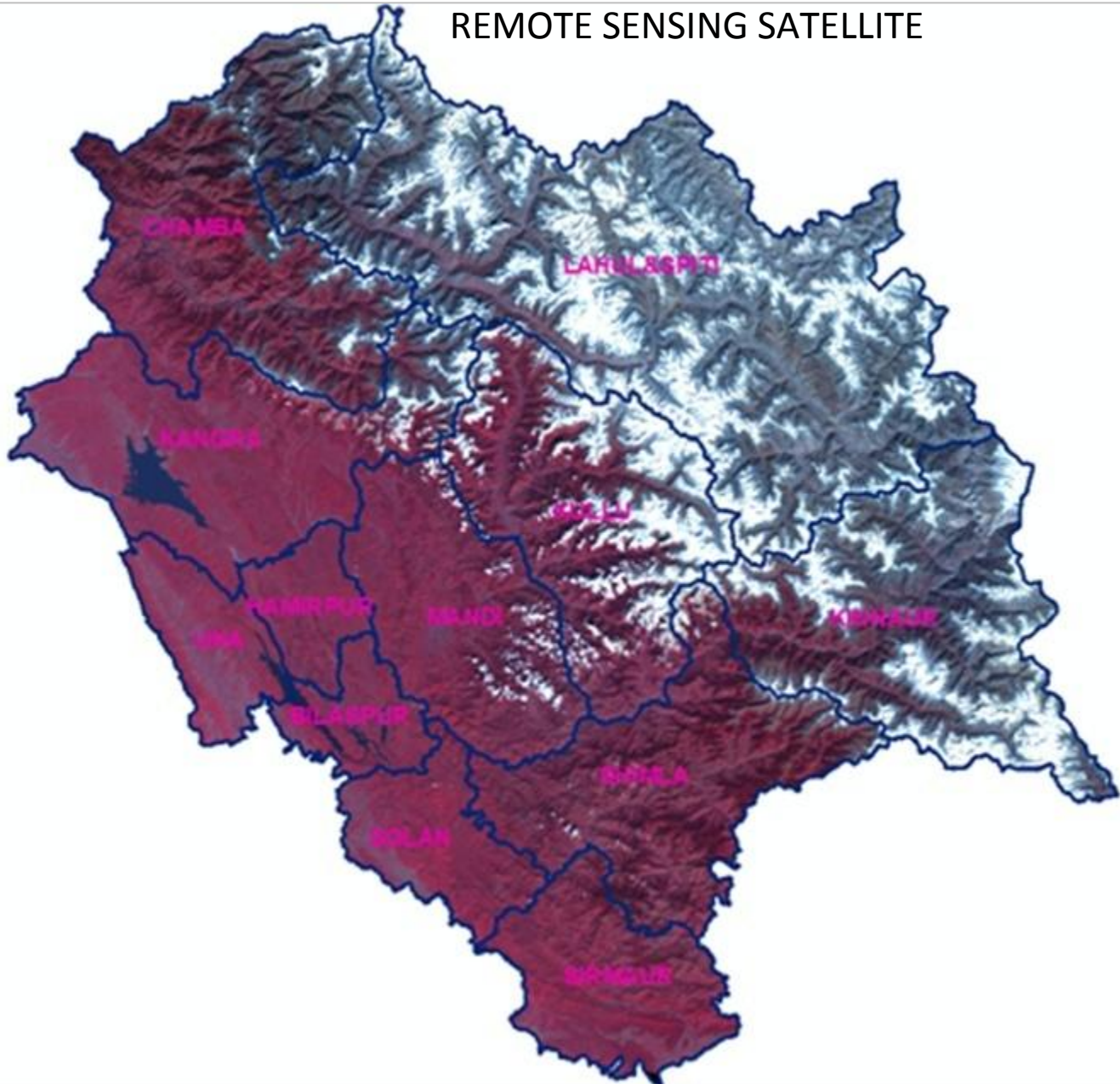


IMAGE OF HIMACHAL PRADESH ACQUIRED BY INDIAN
REMOTE SENSING SATELLITE



Change Detection

Application of GIS (local level)



Dr. Rajender Thapa
Principal Scientific Officer
Himachal Pradesh Remote Sensing Centre
Science Technology & Environment, Shimla

GIS

(Geographic Information System)

Geographic Information System (GIS)

It is an automated tool to ...

- * Capture
- * Storage
- * Retrieve
- * Manipulate (Integration)
- * Both spatial and aspatial data
- * To create various planning scenarios
- * For decision making



What is GIS?

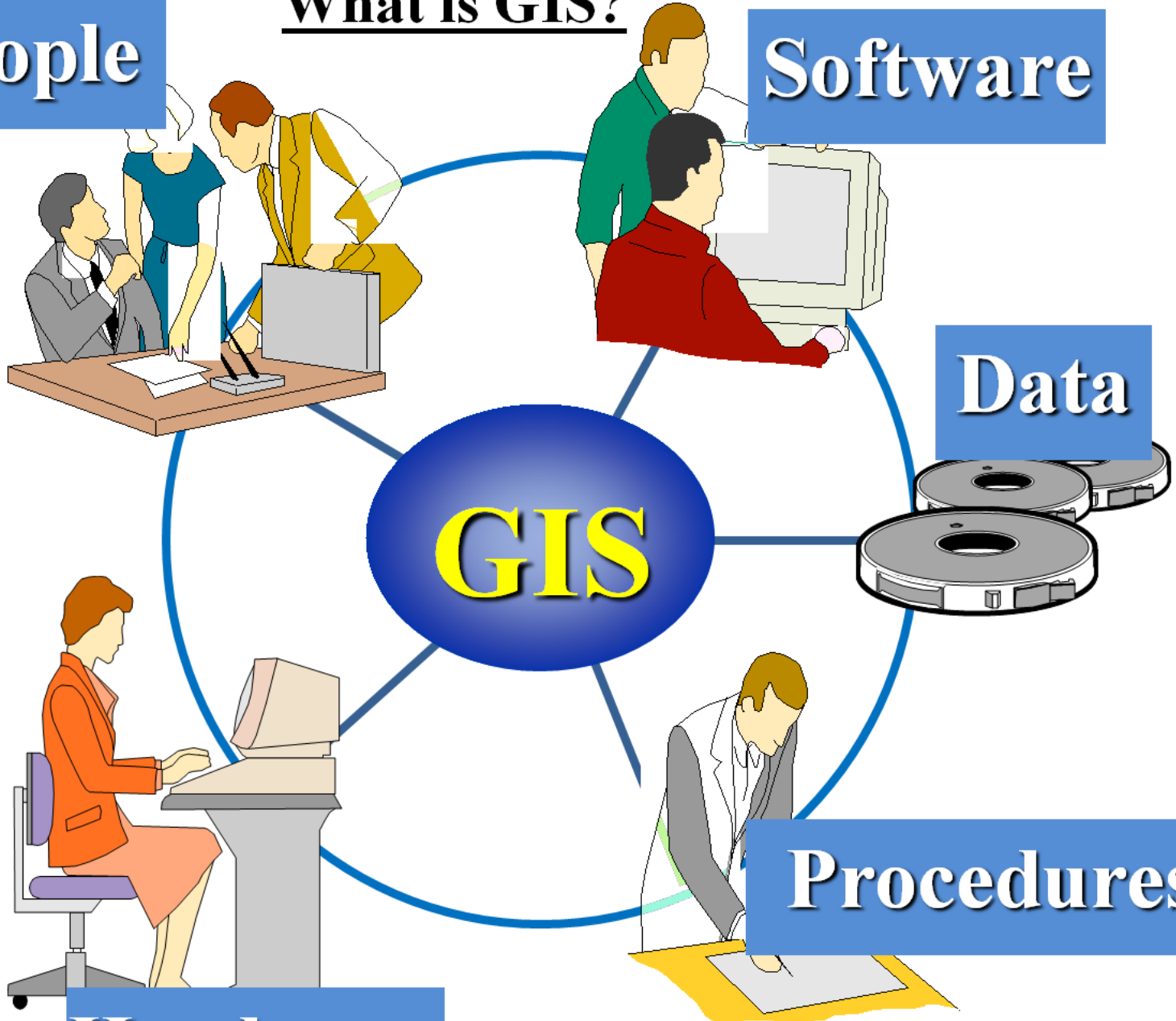
People

Software

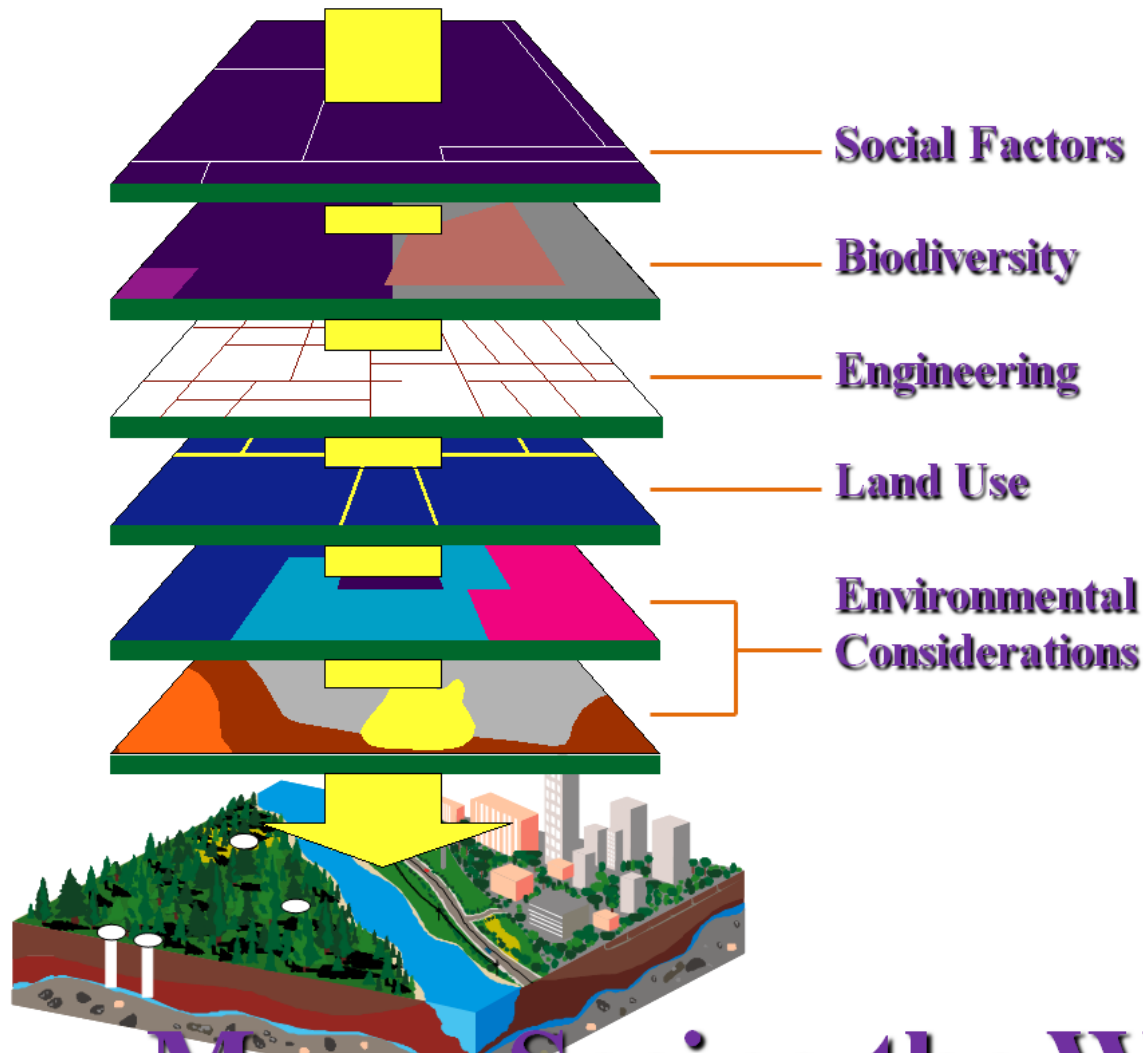
Data

Procedures

Hardware



Measuring and Integrating the Parts...



...Means Seeing the Whole

