Global Spatial Data Sets and User Needs at RIVM

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About RIVM

- National Institute of Public Health and the Environment (RIVM), its operates also the "Office for Environmental Assessment (MNP)"
- Total RIVM 1380 people, of which 1/3 in MNP
- RIVM conducts research commissioned by the ministries of Health, Welfare and Sport (VWS), Housing, Spatial Planning and the Environment (VROM) and Agriculture, Nature Management and Fisheries (LNV).
- Located in Bilthoven, The Netherlands

RIVM – some International (Data-)Networks

- UNEP Collaborating Centre, for work on the Global Environmental Outlooks (GEO)
- Dutch National Focal Point for the European Environmental Agency (EEA - EIONET)
- Intergovernmental Panel Climate Change (IPCC)
- UNFCCC – UN Framework Convention on Climate Change ('Climate Secretariat')
- EU-RURALIS, European Future Land Use Modeling Effort
- Coordinating Center for Effects for UN-ECE (Acidifcation, Air pollution, RAINS)
- Sustainable Development Research (collaboration with UNEP/FAO – IMAGE model)
- etc

Most of the network activities require data

Incoming:

- Land use, population, energy statistics, agric. statistics (food/feed, livestock, caloric intake), econ. statistics (GDP), albedo, temp/precip, ocean data (currents, salinity, sea level), elevation, etc.

Main sources: FAO, IEA, WRI, World Bank, Eurostat, WHO, UNEP/GRID

Outgoing:

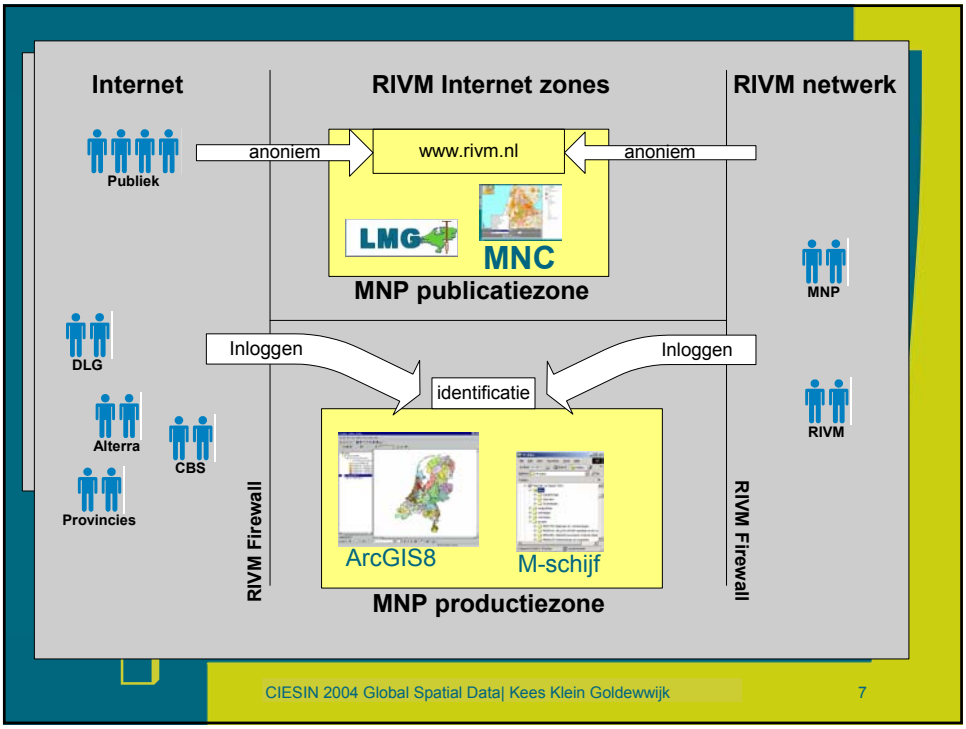
- Future land use, food, sea level rise, climate, emission (profiles), scenario's (e.g. IMAGE, FAIR)
- Historical land use and population (HYDE data base)
- Global Gridded Emissions (EDGAR data base)
- etc

Just an example from a users point of view: the IMAGE model

1. Download data from e.g. FAO website (.csv format)
2. Convert/organize them into IMAGE formats (asciigrid, country/region tables with unique identifiers, Fortran unformatted UNF formats)
3. Model reads input
4. Model computes and generates different output formats
5. Convert temporal and spatial output
6. Publish spatial data through ArcIMS, other data through a User Support System ('M' language) and the internet (www.rivm.nl/ieweb)

Infrastructure & Tools

- ArcGis v.8 (full package, ArcMap, Arc, ArcTools, ArcCatalogue, Spatial Analyst,etc.)
- Oracle data bases
- ArcIMS, ArcPublisher
- Citrix farm (centralized service of ArcGis to all users within RIVM)
- Geoview (in-house tool for standardized mapmaking for regular RIVM publications)
- Centralized data storage / project storage
  (project directory can be accessed from other institutes through login & passwd, full backups)


Internet
RIVM Internet zones
RIVM netwerk
Publiek
anoniem
www.rivm.nl
anoniem
LMG
MNC
MNP publicatiezone
MNP
DLG
Inloggen
Inloggen
identificatie
Alterra
CBS
RIVM
Provincies
RIVM Firewall
RIVM Firewall
ArcGIS8
M-schijf
MNP productiezone
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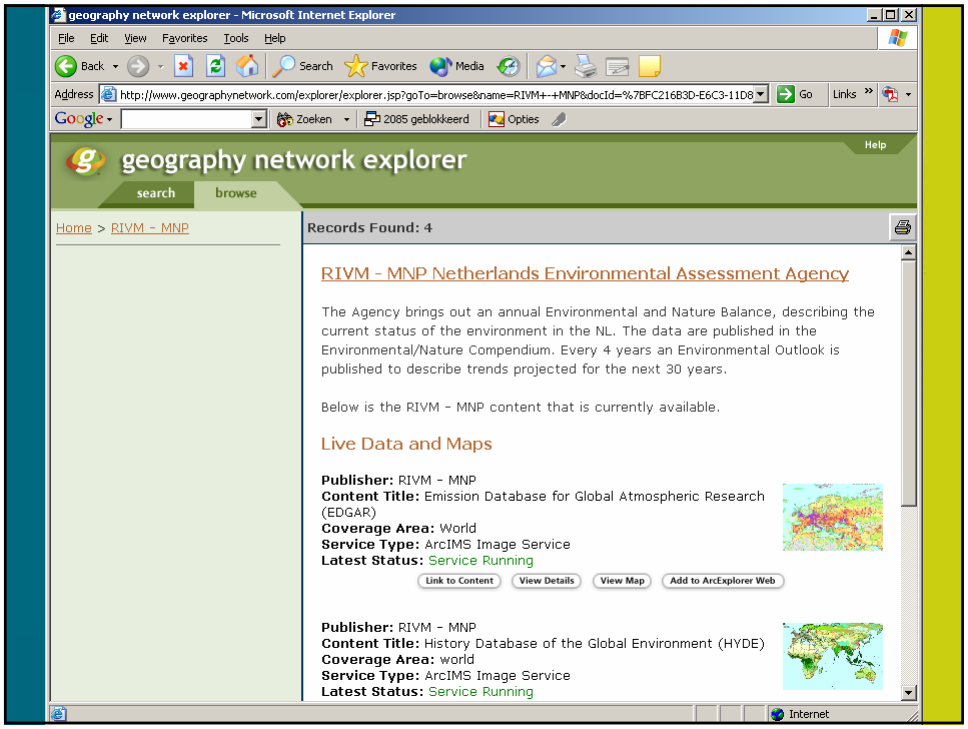
First RIVM international geodata portal
MNP ArcIMS :: Geodata op het internet - Microsoft Internet Explorer
http://milntj34.rivm.nl/directXS/
File Edit View Favorites Tools Help
Address http://milntj34.rivm.nl/directXS/
Milieu Natuur Planbureau :: Geodata op het internet
Geluid en veiligheid rondom Schiphol
Verstedelijking Nederland
Landelijk Meetnet Grondwaterkwaliteit
Groen in en om de stad
History database of the global environment
EDGAR Global Emission Database
http://milntj34.rivm.nl/website/intdata/hyde_hispop
Local intranet



Some thoughts…

- Focus on availability of data, and keep it simple ! Example: Goods Interrupted Homolosine projection is not simple, lat/lon is (a lot of projects spend > 50% time on data search / converting / handling / etc)
- Agree (and use !) upon some basic datasets: Global administrative boundaries, ISO codes.
- Let other people know what you have: publish ! Use metadata, (geography-) or other networks
- Perhaps establish (spatial) data foci ? Population, Land use/cover, Energy, Economics, etc. One place to go searching, instead of the whole internet. Now, multiple versions to be found of one dataset on different locations
- Perhaps some institutes/organizations should focus on just hosting (spatial)data, rather than creating themselves