



Land monitoring: information for better policy guidance

An OECD perspective



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Main trends

- **Rising demand for “evidence” to support policy-making**
 - *i.e. new data and methodologies for policy-relevant indicators*
- **Rising demand for more “targeted” policy advice**
 - *by level of government, social strata, spatially*
- **Mainstreaming** environmental and green growth considerations across the government



Current needs (1)

Time series of globally consistent land cover datasets at spatial, temporal and thematic resolutions suitable to detect change

- To assess countries' environmental performance and monitor their progress towards green growth
 - Land cover as a best-available proxy to monitor pressures on biodiversity and ecosystems
 - To quantify conversion of natural ecosystems to anthropogenic ones (urban and cropland); to monitor habitat fragmentation
 - Currently, measuring LC change globally is not possible
- Minimum: 100m, OECD+G20, subset of 8-10 classes (incl. wetlands) aligned with LCCS, annual intervals**



Current needs (2)

*Time series of globally consistent land cover **and land use** datasets at spatial, temporal and thematic resolutions suitable to detect change*

- To support quantitative policy analyses, e.g.
 - The role of spatial planning and land use regulations in managing urban sprawl
 - Trade-offs between pollution exposure and urban spatial patterns
- Panel data needed for econometric identification
- Currently, trade-offs between country-level historic time series versus a global cross-section

Minimum: <100m, OECD+G20, greater thematic resolution (incl. urban land uses), annual intervals



Current needs (3)

Other related

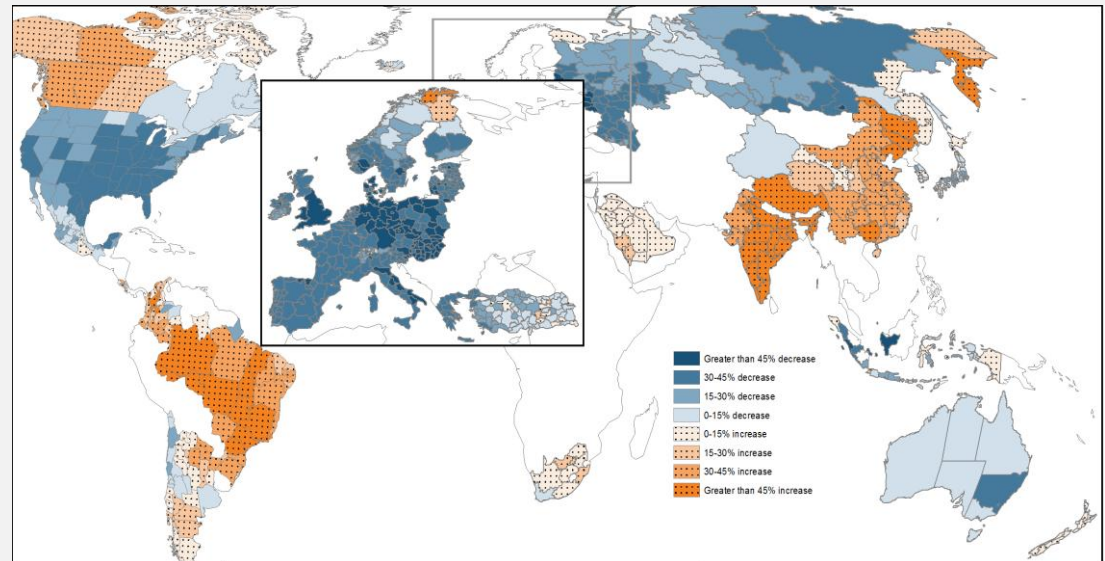
- Soil organic carbon, soil health, erosion levels
- Freshwater resources
- Water quality and pollution levels
- Renewable energy resources
- Ecosystem services in agriculture
- Ecosystem accounting (SEEA)

Gridded demographic and socio-economic data, Geo-referenced public administration data

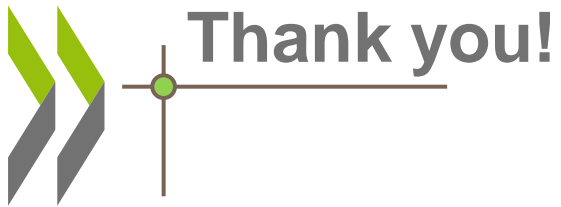
- To combine with Earth observation information
- The next frontier for assessing the **quality of life** and **environmental risks**

E.g. population exposure to air pollution ($PM_{2.5}$), health effects and economic costs

- *Sub-national information*
- *Variation in exposure by household income?*



Change in mean exposure 1990-2013. OECD calculations based on GBD (2013). Administrative boundaries from FAO GAUL (2014). See http://dotstat.oecd.org/Index.aspx?DataSetCode=EXP_PM2_5



For more information:

oe.cd/ggi

oe.cd/env-data

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