

ESPON Draft working paper Territorial potentials for green infrastructure

Policy Lab 3: Towards a Greener Territorial Agenda Post 2020

Michaela Gensheimer, ESPON EGTC

Vienna, 6 December 2018

ESPON draft WP – Territorial potentials for GI

Questions addressed:

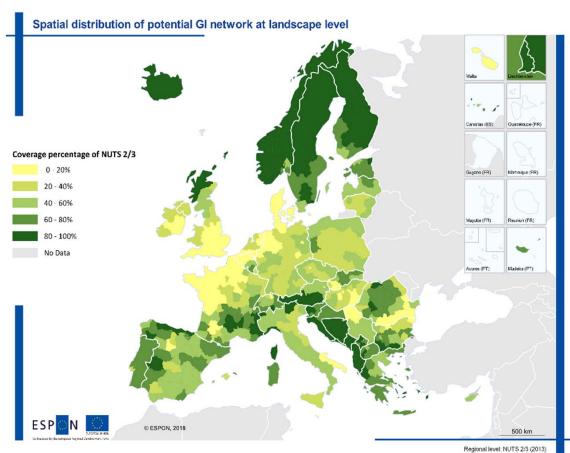
- What are potential positive and negative effects of GI and ecosystem services on European territorial development?
- What does the geographical distribution of GI and ecosystem services look like in European cities and regions?
- How can European cities, regions and national governments be supported in making full use of their GI and ecosystem services development potential?

Positive & negative effects of GI

- Benefits at different scales like e.g. providing food and water, regulating floods, supporting soil formation and offering opportunities for recreation.
- Benefits often appear in bundles and can be mutually reinforcing (resulting in synergies), but there can also be trade-offs.
- Simultaneous maximization of all potential benefits from GI is unlikely, so tradeoffs need to be assessed.
- ⇒ GI networks need to be strategically planned in a way that conservation, protection and restoration of ecosystems are considered to harness the maximum benefits possible.
- Negative effects include eco-(or green) gentrification, adverse effects on human health, higher costs to initiate and maintain GI, risk of invasion by alien species.
- Main issue: lack of understanding of multiple GI benefits that makes it difficult to quantify the cost-benefit relation and discourages implementation.

Where is potential GI?

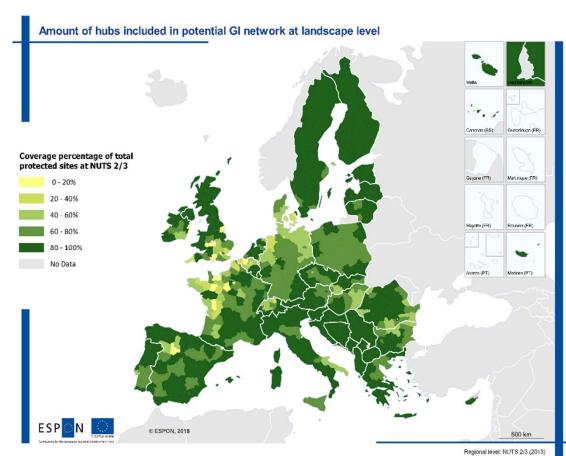
- Low percentage cover in North-Western European regions.
- High percentage cover in Nordic countries, Balkan countries along Adriatic Sea, eastern Alpine region.



Crigin of data: CLC 2012, Copernicus HRL Impervious 2012, OSM 2017, Natura 2000 (EEA 2012). Emerald Network 2012.HNVF (EEA 2015). Ecosystem types may (ETC-ZIA2015). Google Copernicus HRL Impervious 2012, OSM 2017, Natura 2000 (EEA 2012). Emerald Network 2012.HNVF (EEA 2015). Ecosystem types may (ETC-ZIA2015). Google Copernicus HRL Impervious 2012, OSM 2017, Natura 2000 (EEA 2012). Emerald Network 2012.HNVF (EEA 2015). Ecosystem types may (ETC-ZIA2015). Google Copernicus HRL Impervious 2012, OSM 2017, Natura 2000 (EEA 2012). Emerald Network 2012.HNVF (EEA 2015). Ecosystem types may (ETC-ZIA2015).

Contribution of PAs to potential GI?

- For most European regions, >60% of PAs are connected and considered part of a potential GI network at regional level.
- Exceptions occur mainly in North-Western Europe.



Regulate level. NOT 8 26 (2019).

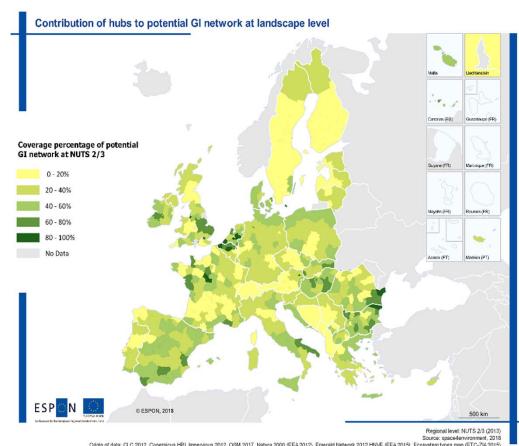
Source: spead-environment, 2018

Origin of data: CLC 2012, Copernicus HRL Impervious 2012, OSM 2017, Natura 2000 (EEA 2012). Emerald Network 2012. HNVF (EEA 2015). Ecosystem types may (ETC-ZIA 2015).

(a) UMS RIVET Et condiministrative boundaries

Where is potential GI not connecting PAs?

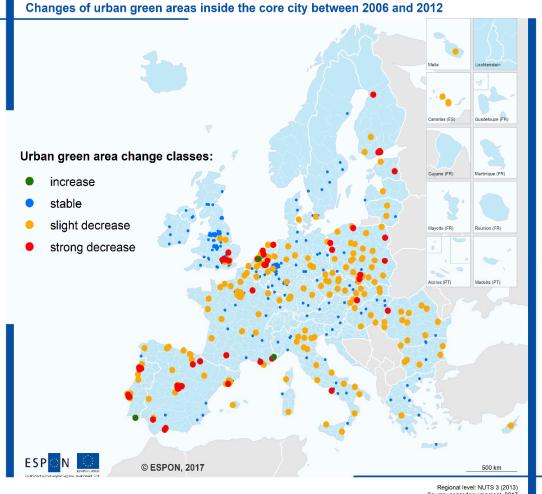
- On average 60% of the potential GI network consists unprotected landscape elements. Special attention is needed here to avoid conversion into urban or intensively agricultural areas.
- Regions with very high percentage cover of potential are among those with lowest contribution of protected hubs to potential GI. Priority needs be given to conservation of unprotected links.



Crigin of data: CLC 2012, Copernicus HRL Impendous 2012, OSM 2017, Natura 2000 (EEA 2012). Emerald Network 2012.HNVF (EEA 2015). Ecosystem types may ETG-ZIA 2015). Go UMS RIATE for administrative boundaries

Changing urban GI 2006-2012

- Stable situation in central and north-western Europe.
- Strong decreases in eastern and southern Europe, the NL and Finland due to e.g. urbanization processes and tourism.



Regional level: NUTS 3 (2013) Source: space4environment, 2017 Origin of data: Urban Audit (2011-2014), Urban Atlas (2006/2012)

Key policy messages

- Protection, restoration, creation and enhancement of GI are particularly important in regions in North-West Europe, where land-use is most intense and natural ecosystems are fragmented.
- Conservation of unprotected links should be a priority in the Nordic countries, the Balkan countries along the Adriatic Sea and eastern Alpine region (high GI potential but low share of protection of core areas).
- Cities in eastern and southern Europe, the Netherlands and Finland need to focus on reversing the loss of green spaces between 2006-2012 to provide healthy living environments for their citizens.

Good practice examples for enhancing biodiversity and ES

- Establish legitimizing multi-level and functional governance structures that ensure GI implementation, e.g. creation of regional planning committees to show long-term political leadership for GI implementation; regular exchange of information on nature conservation across national borders.
- Use innovative policy solutions that ensure GI implementation, e.g. use of lottery grant to restore and enhance wetland environments; compensating private property owners for investing in water management, thereby decreasing flooding risks.
- Develop economic good practice to ensure GI implementation, e.g. strict targets for climate-smart investments to ensure reaching the Paris agreement's goals.
- Invest and support projects that enhance the quality of existing GI, or connect habitats and create new green areas to ensure GI implementation, e.g. integration of GI for flexible and long-term sustainable use of purpose built urban areas.





Thank you for your attention and feedback on the draft working paper

Michaela Gensheimer, ESPON EGTC