



SLOVENIA'S ECOLOGICAL FOOTPRINT

2020 SUMMARY REPORT ON THE ECOLOGICAL FOOTPRINT AND BIOCAPACITY OF 12 SLOVENIAN REGIONS

ABOUT THE PROJECT

Implementing change is difficult if it is not monitored and analyzed and the ecological footprint approach is critical for monitoring Slovenia's national resource consumption. The project's purpose is to provide the first regional ecological footprint and biocapacity results for twelve statistical regions calculated using a top-down methodology in order to support the environmental objectives of Slovenia's Sustainable Development Strategy, and inform regional development programs for the 2021-2027 period. Global Footprint Network's purpose is to help countries develop their own national and regional calculations and use effective global practices when planning measures to reduce their ecological footprint.

WHAT'S IN THIS DOCUMENT

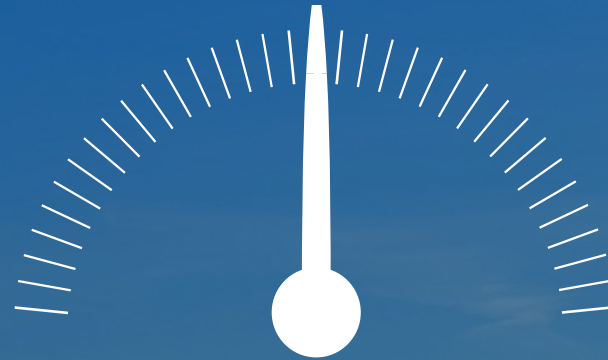
- Ecological footprint accounting and relevance
- Summary of results for Slovenia and twelve statistical regions
- High-level policy recommendations

KEY FINDINGS

- After the 2008 financial crisis, the ecological footprint of Slovenia decreased to its lowest point in 2013 and has since increased 5.7%.
- Per capita ecological footprints do not seem to vary widely between regions. Although this is common in many countries, additional analysis is recommended.
- The southern regions of Jugovzhodna Slovenija and Primorsko-notranjska are proportionally the richest in forest biocapacity and have the highest biocapacity per hectare.
- Pomurska and Podravska in the north, by contrast, have higher proportions of croplands and the lowest biocapacity per hectare.
- Three categories of household consumption make up three quarters of household consumption for all regions:
 1. transportation (25-26%)
 2. housing, water, electricity, gas and other fuels (26-27%)
 3. food and non-alcoholic beverages (21-23%)



RELEVANCE OF THE ECOLOGICAL FOOTPRINT



A fuel gauge for the planet

Planes can fly without a fuel gauge, but it is risky after a few hours in the air. In the same way, it can become risky for countries, cities, or companies to operate in a world of climate change and resource constraints without understanding their resource security. Currently, countries and regions operate without clear resource accounts. This is the gap ecological footprint accounting aims to fill. It shows, in a simple way, how much people demand from the planet compared to what the planet's ecosystems can regenerate.

Physical infrastructure (roads, energy systems, cities, factories) largely determines our resource dependence. This physical infrastructure typically lasts for decades and will have to operate in a future characterized by climate change, biological resource constraints, and phased-out fossil fuels. No country, city, or company can rebuild, retrofit, or repurpose its infrastructure instantaneously. Countries and companies that plan ahead stand a far better chance to thrive than those who keep investing in the obsolete resource-intensive economy.

Ecological footprint accounting is a planning tool to help you prepare, supporting you with needed foresight and guidance for innovation.

What biological resource accounting provides

The most limiting resources are our planet's biological assets—its biological capacity to renew living matter. This includes the use of fossil fuel, as the biosphere's capacity to absorb waste is more limiting than amounts of underground fuels. We call this biological capacity or "biocapacity" and the human demand on it "ecological footprints".

All demands on nature compete for biocapacity: sequestration capacity for CO₂ from fossil fuel burning, demand for food and fiber, energy production, space for roads and buildings, etc.

BIOCAPACITY AND ECOLOGICAL FOOTPRINT CAN BE TRACKED AND COMPARED AGAINST EACH OTHER, BY TWO SIMPLE STEPS:

- 1) one can add up all the competing demands on productive surfaces, i.e., the surfaces that contain the planet's biocapacity;
- 2) scale the demands proportional to their biological productivity so they can be compared using the same standardized unit. The measurement unit used in this metric are "global hectares" which are biologically productive hectares with world average productivity.



Economic relevance

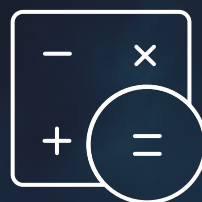
In a world of climate change and resource constraints, running ecological deficits becomes an increasing risk. They are particularly pronounced for populations that are low income, being less able to buy resources from elsewhere. Those risks barely appear in financial analyses because natural capital is still undervalued in monetary terms. But since natural capital is so fundamental, inadequate access can make the entire economy lose in value (e.g., Cape Town without water is not worth much, even though they did not pay that much for the water).



Relevance to climate

Like with COVID-19, effective climate action is largely about self-protection. We know that in the future, countries, cities and companies must function without fossil energy and with some climate change and resource constraints. This is a given, because it is not possible to overuse our planet forever, certainly not as much as we do today. In other words: is your country preparing itself for this future? Or will your country continue to destroy its own ability to operate successfully?

Every country investing into its own long-term success also makes it more likely for other countries (and cities and companies) to succeed - because the success of one leads to the success of others as well. It becomes a positive-sum game. Ecological footprint accounting is a tool that helps countries succeed in a time of increasing ecological constraint.



Calculating ecological footprint and biocapacity for Slovenian regions

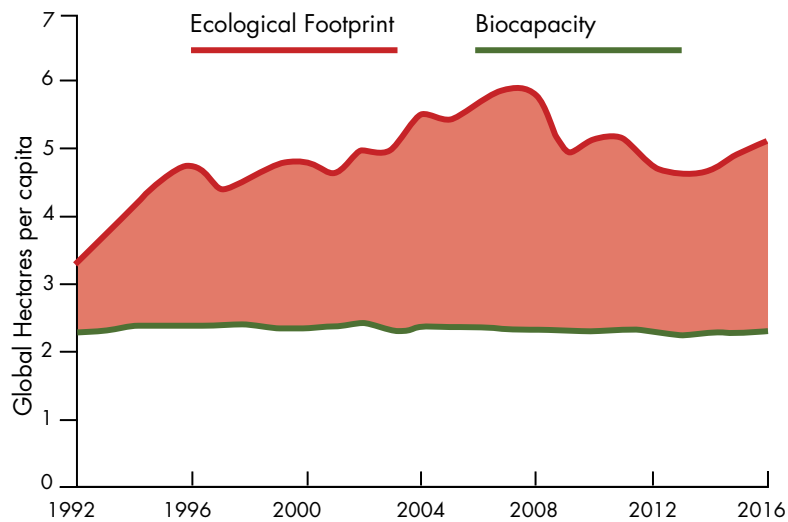
The Ecological Footprint results for the 12 Slovenian regions from 2011 to 2016 are calculated following the top-down approach. This approach starts with the National Footprint and Biocapacity Accounts which are calculated using UN statistics. The same can be applied for countries or regions. Since statistical offices track how households, government and industry spend their money, we can use these estimates to translate land-based ecological footprint results into activity-based Ecological Footprint results. This allows us to shift the conversation from where human pressure is being placed to which human activities are responsible for such pressures.

For more information on how ecological footprint and biocapacity were calculated, see the technical report.

Results and Trends

Figure 1 documents the trends for Slovenia. The green line shows how much biocapacity there is per person in Slovenia, the red how much is used (its Footprint per person). Worldwide there are 1.6 hectares of ecologically productive space available per person. After the 2008 financial crisis, the ecological footprint of Slovenia decreased to its lowest point in 2013 and has since increased 5.7%.

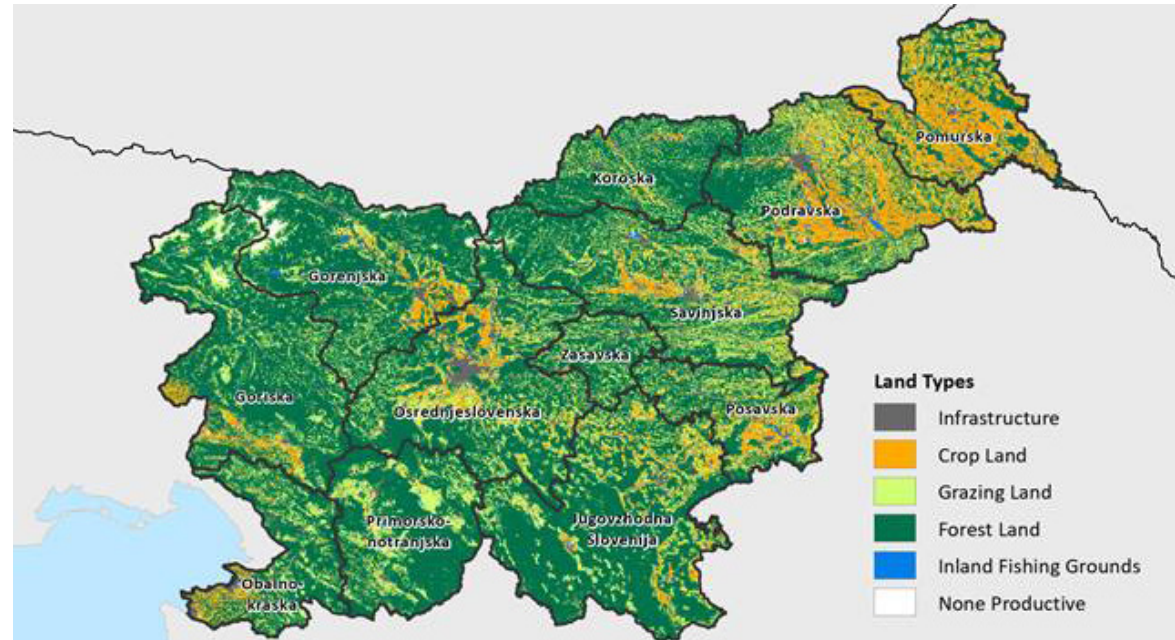
ECOLOGICAL FOOTPRINT AND BIOCAPACITY OF SLOVENIA (1992-2016)



Per capita ecological footprints do not seem to vary widely between regions. Although this is common in many countries, additional analysis is recommended.

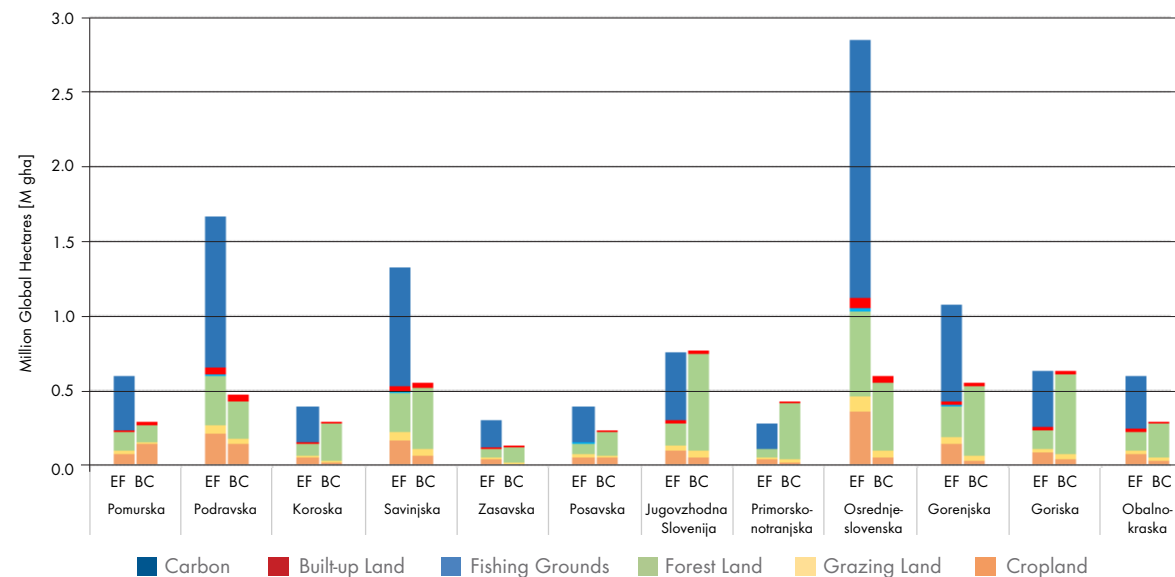
LANDCOVER MAP OF SLOVENIA

Forests are the largest natural asset in all regions. The southern regions of Jugovzhodna Slovenija and Primorsko-notranjska are proportionally the richest in forest biocapacity and have the highest biocapacity per hectare. Pomurska and Podravska in the north, by contrast, have higher proportions of croplands and the lowest biocapacity per hectare.



These findings are surprising as typically regions with the highest proportion of cropland also have the most productive cropland.

ECOLOGICAL FOOTPRINT (EF) AND BIOCAPACITY (BC) OF SLOVENIAN REGIONS (2016)

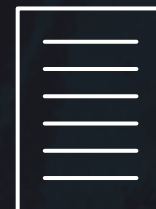


Three categories of household consumption make up three quarters of household consumption for all regions: transportation (25-26%); housing, water, electricity, gas and other fuels (26-27%); and food and non-alcoholic beverages (21-23%).

Summary of recommendations from report

1. Energy-efficient urban planning, including net-zero buildings.

Housing and personal transportation are the two largest ecological footprint categories in Slovenian regions. Identifying population centers and areas of rapid development will be particularly important in setting the stage for Slovenia's success in 2030.



Careful infrastructure planning that reduces energy demand in everyday life, from urban planning to net-zero buildings is a key component of resilient, resource-efficient Slovenia. This is a priority for regions with the largest transportation and housing footprints such as Koroska, Osrednjeslovenska, and Obalno-kraska.

2. Transition to zero-carbon renewable energy systems. Stable and predictable energy systems are key to resilience.

By 2050, we expect to live in a world free of fossil fuel. Energy policy must be forward-looking to avoid the trap of stranded assets associated with industrial, fossil-fuel based economies and seek renewable energy solutions. The sooner regions adapt to this frame of thinking, the more prepared we will be for the future.

3. Prioritize forest management to preserve biocapacity.

Slovenian forests are a vital natural asset. From a biocapacity perspective, over 75% of Slovenia's biocapacity comes from forest, and from a footprint perspective, per-capita consumption of forest products is among the 10 highest in the world. From a biocapacity perspective, over 75% of Slovenia's biocapacity comes from forest, and from a footprint perspective, per-capita consumption of forest products is among the 10 highest in the world.

4. Prioritize regenerative agriculture to enhance cropland biocapacity.

In the northern regions where cropland is primarily located, regenerative practices will improve the biocapacity of the land. This will be a critical need in the future when biocapacity becomes more limited and the cost of natural resources goes up.

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Ministry of the Environment
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For more information on the project, go to:

www.footprintnetwork.org/slovenia