Riga's Doughnut Economics City Portrait

A future where people and nature can thrive together.

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Welcome to Riga's very first Doughnut Economics City Data Portrait!

This is a summary of a longer report <u>(available here)</u> in which Doughnut Economics framework is applied to Riga for the first time, analysing the city's current social and ecological situation through the Doughnut Data Portrait of Place. This outlook provides insight into how the city is doing now and how it can become a thriving and safe place for everyone in the future. Let's imagine Riga as leader in environmental regeneration, biodiversity, social equity, and human wellbeing.

Doughnut Economics, developed by economist Kate Raworth, provides a new approach to understanding sustainability and human prosperity. It is an economic framework through which we can assess whether the place we live in (our neighbourhood, town, region, nation, or even the globe) allows both humans and nature to thrive. It offers a vision of what it means for humanity to prosper in the 21st century and explores the mindset and ways of thinking needed to achieve that goal.

The starting point of Doughnut Economics is to shift the focus from endless GDP growth to thriving within a socially and ecologically just space – i.e. within the Doughnut.

How is Doughnut Economics relevant to cities?

The Doughnut Economics is highly relevant to cities as it provides a holistic and actionable approach to sustainable urban development. Cities are key drivers of economic activity, resource consumption, and innovation, yet they also face social inequalities and environmental challenges that need urgent solutions. The Doughnut City Portrait helps urban policymakers, businesses, and residents visualise and measure a city's impact both locally and globally, ensuring that development aligns with ecological limits and social well-being.

Applying the Doughnut to Riga involves assessing how well the city supports its residents while minimising harm to ecosystems both locally and globally. The categories assessed within the Doughnut are not arbitrary – they are based on scientifically established concepts, including the <u>United Nations' Sustainable</u> Development Goals and the Planetary Boundaries.

The Ecological Ceiling (outer ring)

Representing planetary boundaries such as climate stability, biodiversity, pollution control, and resource use. Exceeding this boundary leads to environmental degradation: climate change, air and water pollution, biodiversity loss, etc. The **Doughnut is a conceptual shape** consisting of two rings and the space between them

The Social Foundation (inner ring)

Ensuring that everyone has access to basic needs such as food, water, housing, healthcare, education, etc. Falling below this foundation means people experience deprivation and do not have their basic meets met.

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The Doughnut

This is the safe zone, or "green corridor", where humanity can thrive, maximising social wellbeing while ensuring that the planet is not overburdened.

Our context

Riga, the capital of Latvia, is a vibrant and historic city with a population of approximately 600,000 residents, making it one of the major urban centres in the Baltics. As an economic, cultural, and transport hub, Riga plays a crucial role in Latvia's development. However, like many modern cities, it faces pressing environmental and social challenges, including income inequality, pollution, urban heat islands, and reliance on resource-intensive imports. These challenges raise an important question: **How can Riga ensure a high quality of life for its residents while operating within planetary boundaries?**

In this summary, we examine Riga's social and ecological performance through four interconnected lenses, offering a holistic view of the city's sustainability and global impact. For each lens, different indicators of deprivation or degradation were selected. Once the indicators were chosen, we gathered the most recent data available for each. **Most indicators were from the past two years, overall covering the period from 2018 to 2024.** Explore these lenses in detail by clicking on each and see where they lead you!

These four lenses are deeply interconnected. For example:

· If Riga improves local social well-being, it can reduce inequalities that drive overconsumption

• If Riga enhances local ecological sustainability, it can lower its global ecological impact by reducing emissions and resource use.

• Ethical consumption choices in Riga can improve social conditions globally, while also lowering deforestation and pollution worldwide.

By applying these four lenses, Riga can identify key challenges and develop policies that create a fairer, more sustainable future for both its residents and the planet.

What are the four lenses?

Local Social Lens



Local Ecological Lens

Is Riga as generous as the surrounding nature? Think of the city as a giant garden – if we pollute the air, overuse fertilisers, cut down trees, and generate excessive waste, the garden withers. Preserving green spaces, clean air, and healthy water ensures that Riga remains a place where both people and nature can flourish.

Is everyone in Riga able to thrive? Imagine a city where everyone has access to

struggle just to meet their basic needs. However, if people cannot afford rent,

face job insecurity, or lack quality public transport, it signals a social shortfall.

good housing, healthcare, education, jobs, and strong communities-no one should

Global Social Lens

Is Riga respecting the well-being of people worldwide? If the clothes we wear, the food we eat, or the gadgets we buy come from unfair working conditions, child labour, or unsafe factories, then our choices carry a hidden human cost. A fair city ensures that what it consumes does not come at the expense of workers around the globe.



Global

Local

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Global Ecological Lens

Is Riga respecting the health of the entire planet? Every product we import – whether coffee, electronics, or timber – leaves an environmental footprint somewhere. If Riga's consumption habits contribute to deforestation, climate change, and pollution abroad, then we are using more than our fair share of the Earth's resources.

Ecological ceiling

Local ecological

Is Riga as generous as the surrounding nature?

Local social Is everyone in Rigg able to thrive? **Giobal ecological** Is Riga respecting the health of the entire planet?

Global social

Is Riga respecting the well-being of people worldwide?

Social foundation

Riga's Local Social Lens

First, let's examine **how well Riga is meeting the needs of its residents.** To determine whether people in Riga are able to thrive, we assessed fifteen different categories, including work, healthcare, housing, and transport. Take a look at all the categories below!

Water

Do residents have

access to clean water

for their daily needs?



Energy

Can residents afford

energy for their

daily needs?

Income & Work

Do all residents have job opportunities and can afford a basic standard of living?



Connectivity

Do residents have access and the skills to use the internet?

Peace & Justice

Can every resident feel a sense of safety in their home and neighbourhoods?

Social Equity

Do Riga's residents experience a socially just and equal environment?



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Culture

Are cultural activities accessible to all Riga's residents?

Community

Can residents fulfil their basic social needs?

Health Do residents have access to primary healthcare and the opportunity to maintain good health?



Can residents afford an adequate and varied diet?

Education Do residents have access

to a basic education?

Enhancing Quality of Life

Riga is committed to improving residents' well-being through strategic planning aligned with the Sustainable Development Strategy until 2030 and the Development Programme for 2022–2027.



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Better housing access – The Housing Policy Guidelines for 2024–2030 aim to increase housing availability and affordability.

Smart city innovation – By 2025, Riga will finalise the Smart City Guidelines, enhancing digital governance and public services.

Stronger education ecosystem – The Education Ecosystem Development Strategy for 2024–2028, pending approval, will promote lifelong learning and high-quality education.

Mobility

Can residents easily access public transportation, travel on foot, and experience a safe transportation environment?

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Housing

Can residents access

housing and decent

living conditions?

Equality in diversity

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Are all residents able to access services and be treated equally, regardless of their ethnic, social, religious background, disability, or sexual orientation?

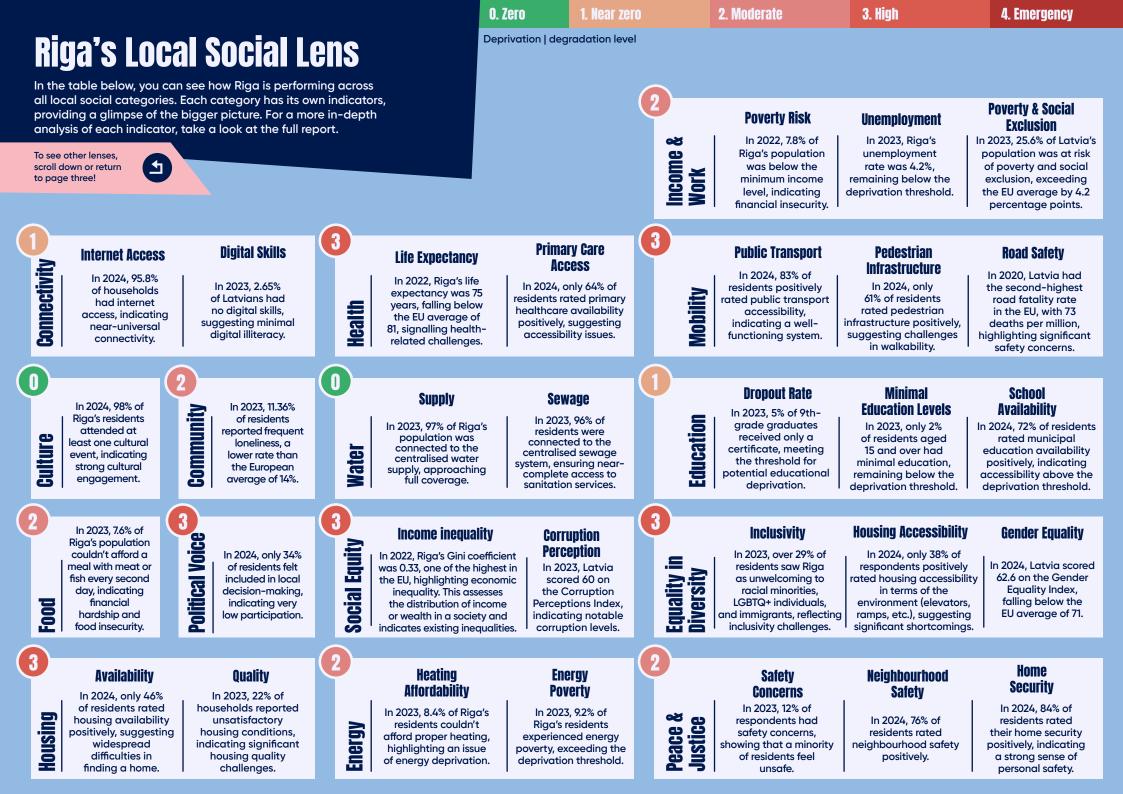
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Political voice

Are all eligible voters able to actively participate in Riga's political life?

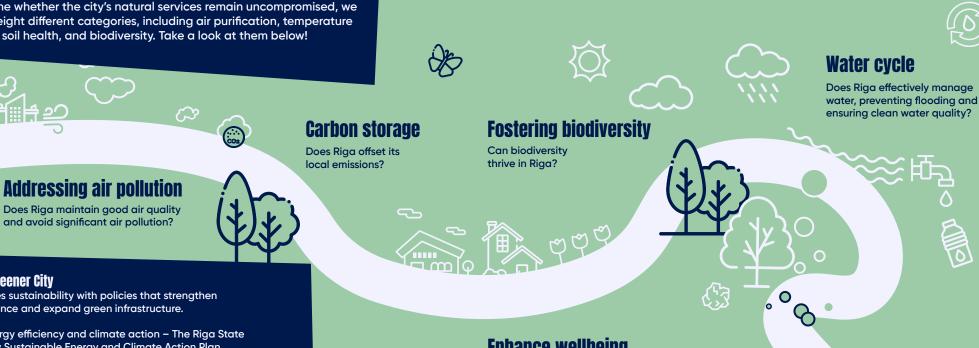
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Riga's Local Ecological Lens

The second lens asks: can Riga be as generous as the surrounding nature? To determine whether the city's natural services remain uncompromised, we examined eight different categories, including air purification, temperature regulation, soil health, and biodiversity. Take a look at them below!



Enhance wellbeing

Is Riga providing an environment that supports wellbeing by maintaining good street hygiene and minimising noise?

Harvest energy

Does Riga use and produce clean energy in its energy production?

Regulate the temperature

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Does Riga effectively regulate its temperature and adapt to extreme heat?

Building a Greener City

Riga prioritizes sustainability with policies that strengthen climate resilience and expand green infrastructure.



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Energy efficiency and climate action – The Riga State **City Sustainable Energy and Climate Action Plan** for 2022-2030 targets lower energy consumption, climate adaptation, and reduced energy poverty.

Urban greening for a healthier environment – The upcoming Riga Urban Environment Greening Plan for 2027–2031 focuses on:

- Preventing urban flooding;
- Reducing heat island effects;
- Restoring biodiversity;
- · Expanding green spaces for residents.

Build & protect soil

Does Riga maintain high soil quality and control erosion?

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Riga's Local Ecological Lens

noise pollution issue.

The table below shows how Riga is performing across all local ecological categories. Each category has its own indicators, providing a snapshot of the bigger picture. For a more detailed analysis of each indicator, take a look at the full report!

To see other lenses, scroll down or return to page three!

O. Zero	1. Near zero	2. Moderate	3. High	4. Emergency
Deprivation deg	gradation level			

and food production.

4 3 2 Water quantity control Water quality **Carbon sequestration** Carbon Soil quality **Erosion regulation** storage ability sequestration In 2023, 2 out In 2023, water quantity control Water cycle In 2023, carbon protect soil In 2023, soil quality In 2023, erosion in Riga was at 49.8% of the of 14 monitored In 2020, Riga's forests **Build and** sequestration in Riga in Riga was 36.1% of water bodies in regulation in Riga was reference level, meeting the absorbed only 1.85% of was at 44.6% of the the reference level, 43.1% of the reference threshold when rounded up, suggesting Riga had poor **Carbon** (total CO₂ emissions, reference level, falling ecological quality, indicating significant level, falling below the minimal degradation. This indicator demonstratina an below the 50% threshold but assesses "the ability of the landscape indicating water dearadation. threshold, showing extremely low capacity remaining close, indicating degradation. notable degradation. to manage and convey a storm event." to offset emissions. moderate dearadation. 3 Air temperature NO, concentration **Extreme heat** PM10 pollution In 2020, 95.76% of electricity Harvest energy vulnerability regulation Addressing air In 2023, the annual average in Riag was generated from **Regulate the** temperature In 2023, the permissible In 2022-2030, municipal In 2023, air temperature NO₂ concentration at all three fossil gas, with only 0.05% PM10 pollution limit was experts deemed Riga's regulation in Riga was 41% of monitoring stations in Riga from solar. However, solar pollution exceeded on 14 days, vulnerability to extreme heat the reference level, falling remained below the upper limit of energy increased more than a decrease from $32 \mu a/m^3$, showing no significant events as 'low,' meaning below the threshold. 15 times by 2023, indicating changes from 2022 and remaining well previous years. significant material or indicatina moderate a positive shift but, still, a indicatina an improvina under the 40 μ g/m³ threshold immaterial losses have degradation and potential strong ongoing reliance on trend in air quality. for human health. not been observed. risks in the future. fossil fuels. 2 Neighbourhood **Biodiversity support Pollinator support** Food web support Noise levels cleanliness biodiversity In 2023, biodiversity support In 2023, pollinator support in In 2023, food web support in In 2024, 74% of residents In 2024, 73% of Riga wellbeing Fostering Enhance in Riga was at 48.4% of the Riga was 41.1% of the reference Riga was 44.8% of the reference residents rated their rated daytime noise levels reference level, slightly below level, highlighting notable level, indicating moderate neiahbourhood cleanliness and 76% rated nighttime the 50% threshold, indicating degradation and a degradation of ecological positively, indicating no noise levels positively, minor degradation. potential risk to biodiversity food chains. major hygiene concerns. suggesting no significant

Riga's Global Social Lens

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We live in an interconnected world, where our local actions can impact the well-being of people globally. **Have you ever wondered who made your shoes?** To explore Riga's impact on communities worldwide, we examined the third lens and analysed twelve different global social categories, ranging from education and child labour (stemming from the consumption of goods) to the exacerbation of political conflict through imports from aggressor countries. Take a look at all the categories below!



Aligning with EU climate goals – Riga is enhancing energy efficiency, expanding renewable energy, and implementing sustainable urban policies.



Community & networks Does Riga threaten the existence

of communities through consumption patterns?

Political voice

Does Riga's consumption indirectly contribute to the suppression of workers' political rights, voices, and freedoms worldwide?

Does Riga's consumption affect health globally?

Health

Riga's Global Social Lens

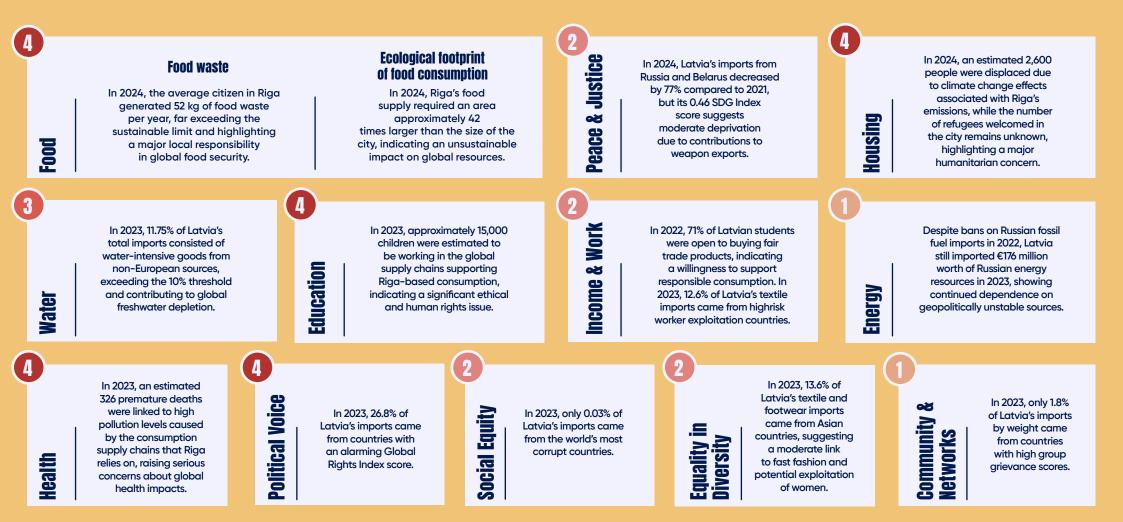
The table below shows how Riga is performing across all global social categories. Each category has its own indicators, providing a snapshot of the bigger picture. For a more detailed analysis of each indicator, take a look at the full report!

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To see other lenses, scroll down or return to page three!

O. Zero	1. Near zero	2. Moderate	3. High	4. Emergency

Deprivation | degradation level



Riga's Global Ecological Lens

Our Earth is a complex and beautiful natural system that is our only home. However, due to irresponsibly high consumption of natural resources, land conversion, construction, and the development of synthetic chemicals, humans have degraded large portions of natural ecosystems, accelerated global warming, and contributed to biodiversity loss. Countries and cities in the Global North bear a greater responsibility for the deterioration of our planet's health than those in the Global South, mainly due to historic emissions and current high consumption per capita. But how is Riga faring? Below, you can explore nine categories, such as climate change, excessive fertiliser use, and others, to understand the footprint of Riga's consumption and production patterns.

Riga's Climate Commitments

Riga has set ambitious goals for carbon reduction and climate neutrality.



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Net-zero commitment – As a European Covenant of Mayors member since 2008, Riga aims to: • Cut CO₂ emissions by 40% by 2030 (from 1990 levels); • Reach full climate neutrality by 2050.

Clean energy and emissions cuts - The Sustainable Energy and Climate Action Plan for 2022–2030 outlines 112 measures, targeting:

- 1,289 GWh in energy savings;
- 1,350 GWh in renewable energy;
- 509,000 tonnes less CO₂.

Sustainable municipal operations - Key efforts include:

- 100% renewable energy in public buildings;
- More efficient infrastructure and street lighting; Greener municipal transport.

Minimising waste and embracing circularity - The Central Latvia Regional Waste Management Plan 2024–2028 supports: Smarter waste collection systems: Prevention initiatives like exchange and home composting.

Air pollution

Does Riga's consumption increase air pollution levels globally?

Climate change

To what extent does Riga contribute to global warming?

Ocean acidification

Does Riga contribute to the acceleration of ocean acidification?

Does Riga exceed the Earth's biocapacity through its consumption of resources,

including land conversion?

Land conversion

Does Riga rely on agriculture

that uses excessive fertilisers?

Chemical pollution Does Riga contribute to chemical pollution through its waste management practices?

Biodiversity loss

Is Riaa endanaerina or causing the extinction of wildlife and plant species?



Ozone layer depletion

Does Riga contribute to the depletion of the ozone layer through its chemical consumption?



Do Riga's consumption patterns lead to excessive freshwater withdrawals?



Excessive fertilizer use

scroll down or return to page three!					
In 2022, Latvia's per capita GHG emissions were 7.8 tonnes CO ₂ equivalent, exceeding the 7.1-tonne carbon budget and requiring urgent reductions. These emissions directly contribute to global heating.	GHG emission tonnes CO2 eco carbon budg reductions. The proxy value for acidification (as	a's consumption-based ons per capita were 7.8 quivalent, exceeding the et and requiring urgent ese emissions serve as a or the impacts on ocean s CO_2 is the main gas that e changes in ocean pH).	Ozone depletion	Production impacts In 2023, Latvia produced O tonnes of HFCs, Class I and Class II ozone- depleting substances, showing no degradation.	EU refrigerant imports In 2023, the EU imported 1,306 metric tonnes of appliances containing refrigerants.
3 In 2023, 11.75% of Latvia's total imports were water-intensive products from non- European countries, exceeding the 10% threshold and contributing to global water depletion.	3 SSOI NISSING IN 2021, 13.8% of species assessments in Latvia had a bad conservation status, showing ongoing biodiversity loss despite better performance than the EU average.	In 2023, only 2.1% of Latvia's manufactured goods imports came from the most air- polluted countries.	Land Conversion	Land use In 2024, Latvia's ecological footprint was 13.5 million hectares, surpassing the country's surface area and indicating severe degradation.	Global comparison In 2022, four planet Earths would have been needed if everyone consumed resources like the average Latvian, showing extreme overuse.
Discrete state sta	tic 0.48% of its total or waste as batteries and the accumulators, indicating	Hazardous waste In 2022, less than 5% of Latvia's hazardous waste was likely exported to Asia or Africa, though hidden trafficking creates uncertainty.	Excessive fertilizer use	Nitogen In 2024, Latvia's Sustainable Nitrogen Management Index was 60.3, falling below the safe threshold and indicating degradation.	Phosphorus In 2024, Latvia's phosphorus surplus score was 52.3, ranking 97th globally and indicating degradation.

Riga's Global Ecological Lens

The table below shows how Riga is performing across all global environmental categories. Each category has its own indicators, providing a snapshot of the bigger picture. For a more detailed analysis of each indicator, take a look at the full report!

To see other lenses,

Deprivation | degradation level

... And when we combine all the lenses into a holistic view, we can finally see the bigger picture.



Emergency deprivation/degradation

Life-threatening deprivations and human right abuses/critical ecological degradations and the breakdown of ecosystems

High deprivation/degradation

Major shortcomings in fulfilling basic needs for a large part of the population/severe ecological degradations

Moderate deprivation/degradation

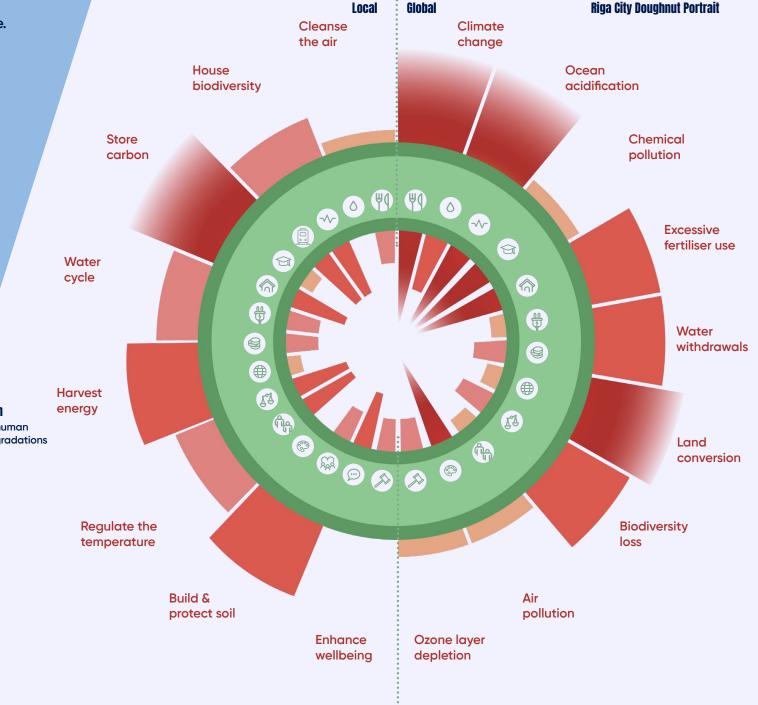
Challenges in fulfilling basic needs of a portion of the population/ocassional and low-impact ecological degradations

Near-zero deprivation/degradation

Deprivation and inequities for a few individuals/rare and minor ecological degradations

Zero deprivation/degradation

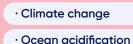
Universal access to essential services and basic needs/human activities respecting ecological limits



Takeaways

From Riga's City Doughnut Portrait, in more than half of the dimensions, both human and ecological thresholds are being exceeded.

We are facing an emergency across several global ecological areas such as:



· Land conversion

which are the hidden consequences of our unsustainable resource use.

Overall, most of the negative impacts are observed within the global context.

There are also multiple categories within the local context that indicate negative impacts and untapped potential for Riga, such as



Local energy harvesting

Soil protection

Similarly, global social needs are also being severely deprived. Unfortunately, Riga's consumption patterns appear to threaten basic aspects of human life around the world, including:

• Health

Food security

Education

Housing

· Political freedom

The social situation of Riga and its citizens clearly reflects that some people lack access to

- Decent healthcare
- Housing
- · Reliable work and income
- · Safe transportation

A few categories do present a positive picture for example:

 \cdot Local air pollution levels are relatively safe around the city (except for specific locations)

 \cdot Drinking water quality is high and it is publicly accessible

 \cdot There is sufficient access to green spaces to support the well-being of locals

Additionally, there are no issues with:

 Providing citizens access to energy and the internet

· Sewage systems and sanitary conditions

• Opportunities for people in Riga to enjoy cultural activities

To explore Riga's Doughnut in detail, take a look at the detailed report (<u>available here</u>)!



Furthermore, the results show that political considerations, social equity, gender equality, and the inclusion of different racial and LGBTQ+ minorities are still too low (as is the case in global consumption chains) and could be significantly improved. These aspects highlight the potential for significant progress that Riga can make for both its citizens and the natural environment within the city.

Vision & Next Steps for a Thriving Riga

There is increasing recognition that the current global economic system is driving ecological crises and exacerbating social deprivation and inequity. Rather than pursuing endless GDP growth, Doughnut Economics offers a growingly recognised guide for a thriving future, focusing on meeting the needs of all people within the planet's ecological limits. It envisions an economy that is embedded within society and the living world, rather than a self-contained market. Its goal is to create economies that are regenerative and distributive by design.

Recommendations

We invite Riga's residents, organisations, and businesses to:



Explore the Doughnut to gain insights into both the local situation and Riga's global impact. By examining the Doughnut snapshot, you can quickly identify critical challenges highlighted by shortfalls and overshoots. The Doughnut is a visualisation tool that makes data easy to understand for everyone.

Engage with the Doughnut, by participating in the process and reflecting on local and global issues. The Doughnut sparks discussions, offering a new narrative and common language that enables everyone to take part in the dialogue. With a shared understanding of current degradations and deprivations, we can engage in constructive discussions. Residents, organisations, and businesses can challenge the thresholds for deprivation and degradation.

The municipality of Riga can use the Doughnut to:



Analyse local and global issues and take accountability. The Doughnut can be applied as a monitoring tool, providing the city with a multi-dimensional diagnostic of the situation. The city can now connect social and environmental lenses on both local and global scales, which is particularly useful for strategies like fostering a socially just energy transition. The Doughnut also reinforces accountability by raising awareness of Riga's global impact, an area where understanding has often been limited due to the lack of assessment of the city's impact on planetary boundaries and social conditions elsewhere. Moreover, the Doughnut framework not only provides a snapshot of the current situation but also allows for monitoring progress.



Set informed priorities and shape new policies. The Doughnut can be used as a decision support tool to help identify priorities and opportunities. It serves as a strategic compass by indicating various levels of degradation and deprivation, guiding municipal action on the most urgent issues (e.g. at emergency levels). It can also assist in the prioritisation of projects during political and budget discussions.

The Doughnut is a great tool for citizens' engagement – **you can** organize a Doughnut event yourself!



How does your city look like? Share your portrait with us!

And lastly, check out Doughnut City Portraits of other places in Doughnut Economics Action Lab website: https://doughnuteconomics.org/

Riga's Doughnut Economics City Portrait

A future where people and nature can thrive together.



Riga's Doughnut City Portrait was developed by the Riga Energy Agency in collaboration with the NGO Green Liberty and the consultancy firm Regenalyze. It is part of the NetZeroCities Pilot Cities Programme – Cohort 2 project, "A Doughnut Economy Approach to Sustainable Decarbonisation and Citizen Engagement" (SEED) and is funded by the European Union's Horizon 2020 research and innovation programme.



Sustainability Portrait of Riga City

More information about the Riga's Doughnut City Portrait is available here: https://rea.riga.lv/doughnut/

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