



Doughnut Model

Figure 1. The Doughnut model, for people and planet ([Piqsels, CC BY 1.0](#))

In early 2020, the city of Amsterdam made headlines by adopting a new framework, called the Doughnut Economics model, to guide its policies. Later that same year, the Copenhagen Kommune indicated that it would consider this framework to direct city development. There is a movement for other 'Doughnut' cities as well.





Figure 2. Amsterdam has adopted the Doughnut Economics model to guide city development ([Raworth, Amsterdam](#))



I have never studied economics (or even if you have!), you might wonder why there is an economic model in the Youth Mayors Field Guide. To understand this, it is important to know what economics is. The first use of the term economics came from the philosopher Xenophon and means 'household management'. If you study economics, you will likely learn a definition of the term that looks something like this:

Economics is the study of how scarce resources are allocated.

At its core, economics is about the goals we set for ourselves, our families, communities, cities, states and internationally, and how we go about achieving those goals with initiative and resources. We are all economists. But you, as an aspiring changemaker, have a particular responsibility to think carefully about goals and how to manage resources -- materials, people, and money -- to achieve them. The Doughnut Economics model can help you do that, just like it is doing now for Amsterdam.

Where did the Doughnut come from?



I



The Doughnut Economics model was built on the Planetary Boundaries framework developed by scientists Johan Rockström and Will Steffan in 2009. This framework defined nine environmental processes that regulate the stability and resilience of the Earth system. The scientists proposed that there are limits, or boundaries, on the human disturbance of those natural systems. If we cross those limits we can cause large-scale, sudden and irreversible environmental changes that may affect humans' ability to thrive or even survive.

So the Planetary Boundaries model helps us to see where we are putting too much pressure on Earth systems with our activities. The radar chart in **Figure 3** shows these nine processes.

In orange, you can see the areas where we are at increasing / high risk of overstepping the planet's limits: in biogeochemical (nitrogen and phosphorus) flows, land use, climate change, biosphere integrity (biodiversity), novel entities (chemical pollution), and green water (water in soil).



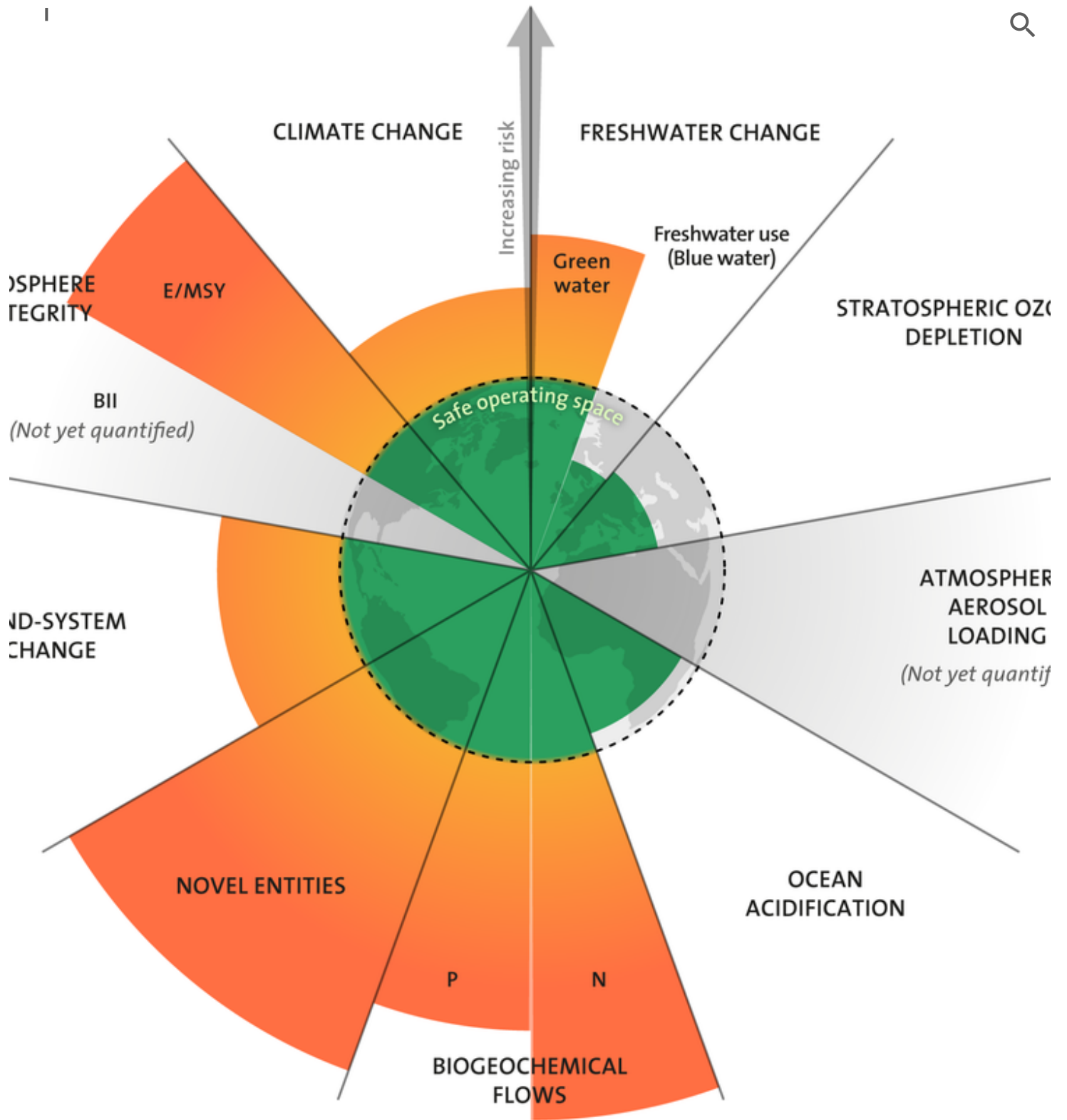


Figure 3. The Planetary Boundaries model shows that we are overstepping Earth’s limits in a number of areas
(The Nine Planetary Boundaries)



- ↳ the Planetary Boundaries model gives us a framework for thinking about protecting the environment, it is well-suited to considering human needs in the context of the planet's resources.

The Doughnut Economics model (**Figure 4**) adds a human layer to the Planetary Boundaries model to consider the goal of “meeting the needs of all within the means of the planet” (Raworth). The resulting diagram has an inner circle representing human needs. The red areas of the inner circle show where human needs are not being met. This has been added to the red areas showing where we have overstepped planetary boundaries. To meet the needs of all within the means of the planet would require being inside the doughnut for human needs (social foundation) and for planetary means (ecological ceiling).

Figure 4. The Doughnut Economics model adds a human dimension (inner circle) to the Planetary Boundaries model ([Raworth "What on Earth"](#))





Practice Activity

Hover over the interactive Doughnut model to find out about the data that has informed the evaluation of the social foundation and ecological ceiling.

You can see in **Figure 5** below that there is a lot of overlap between the Doughnut's inner circle and the United Nations Sustainable Development Goals (SDGs).





Figure 5. UN Sustainable Development Goals - SDGs ("[The 17 Goals](#)")

Practice Activity

Try for yourself! Connect at least 5 of the SDGs to the social foundation (human needs) identified in the Doughnut model.

Interested in reading more about the SDGs and the Doughnut model?

[A Doughnut for the Anthropocene: humanity's compass in the 21st century](#) (Appendix)

Where is the Doughnut going?

In 2020, [Amsterdam adopted the Doughnut model](#) to guide its urban development policies. When Amsterdam government officials focused their future thinking using the Doughnut model, this is the question that came out:

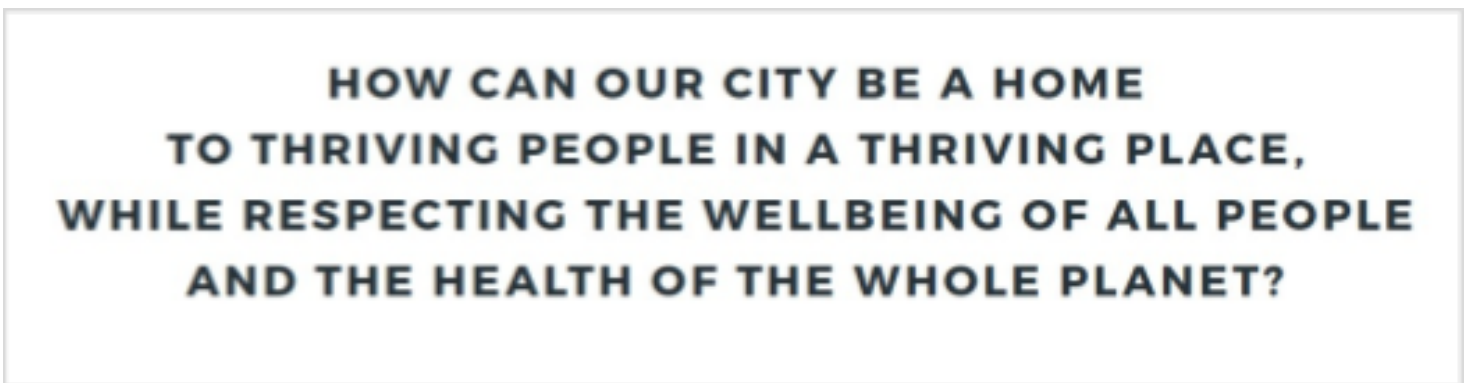



Figure 6. The key question for communities everywhere ([Raworth, Amsterdam](#))

It's a question that combines local goals -- thriving people in a thriving local environment -- with a global responsibility to act in ways that consider the wellbeing of people outside our local community and Earth's systems. This question and the goals behind it can be broken down into 4 lenses, expressed as questions in the matrix for **Figure 7** below, that are useful  focusing your Youth Mayors investigations.

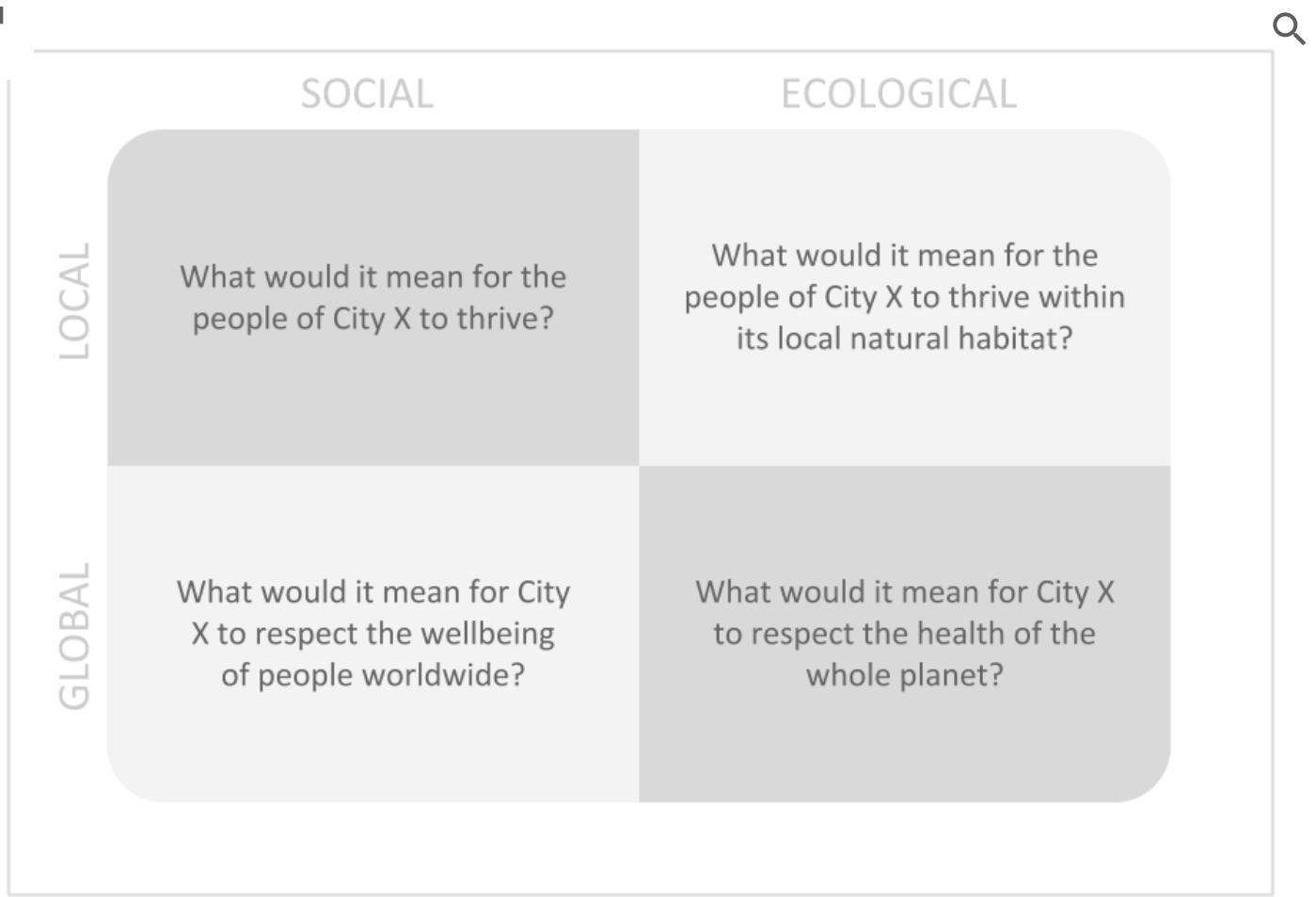


Figure 7. The lenses of the City Doughnut (adapted from [Raworth, Amsterdam](#))

Local-Social Lens

In **Figure 7** above, the local-social lens in the upper left corner asks what it would mean for the people of Amsterdam to thrive, or to experience wellbeing. Wellbeing is associated with being healthy, connected, enabled and empowered. These are four categories that capture the social foundation on the inside of the Doughnut.

In **Figure 8** below, you can see how Amsterdam used the local-social lens to set **targets** for each of the human needs from the inner circle of the Doughnut. The city also identified one fact about the current state of the city related to that target to get a 'snapshot' of the current conditions in the city.



WHAT WOULD IT MEAN FOR THE PEOPLE OF AMSTERDAM TO THRIVE?

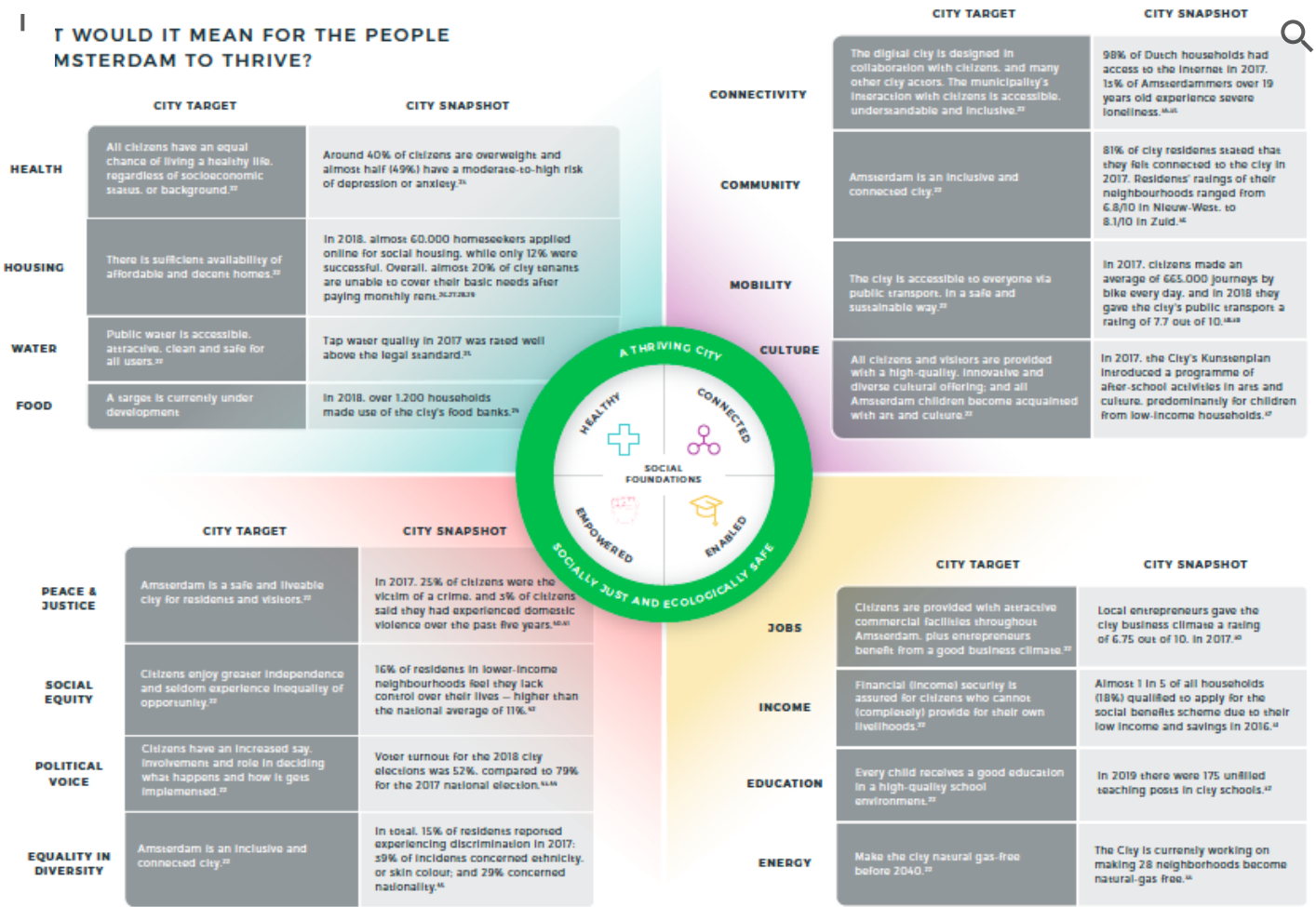


Figure 8. What would it mean for the people of Amsterdam to thrive? (Raworth, Amsterdam)



For example, for the human need of housing, Amsterdam has set a target that “[t]here is sufficient availability of affordable and decent homes” for its residents. However, the snapshot shows that in 2018 almost 60,000 people applied for social (government subsidised) housing. Only 12% of those were able to get it. Some 20% of people living in Amsterdam are not able to meet their basic needs after paying rent on their housing. This indicates that there is not sufficient affordable housing in the city. Amsterdam is missing its target and needs to take steps to improve housing in the city.

The three other lenses in **Figure 7** -- local/ecological, global/social, and global/ecological - each have their own framework to guide thinking about the state of the city and what needs to be done to meet the needs of all within the means of the planet.

The **local/ecological** lens asks changemakers to consider how nature provides its resources and resilience and how our built environment, policies and actions can mimic nature’s genius, a concept called biomimicry.

The **global/social** lens asks changemakers and city residents to consider how consumption patterns and choices can positively and negatively affect people around the world. When we take action in our local community, we need to ensure that we do not harm others elsewhere in the world, for example through exploitative labour conditions in the products we develop for our communities.

Finally, the **global/ecological** lens requires that we consider our actions in terms of the limit of the planet’s resources. Here again we see the Planetary Boundaries framework in action. If you would like to explore the Doughnut’s city lenses in greater detail, you can read [The Amsterdam City Doughnut: A Tool for Transformative Action](#).

In the short video below, Kate Raworth, the creator of the Doughnut model, explains the concept and how Amsterdam is using it to guide its urban development.



How the Dutch are reshaping their post-pandemic economy - BBC REEL



How can the Doughnut help you make better change?



There are a number of ways that the Doughnut model can help you with your Youth Mayors project.



1. Direction - You can get some direction on your Youth Mayors projects by considering the needs of human beings (inner circle) and the limits of the planet (outer circle). The Doughnut can give you inspiration when you are looking for ideas to make positive changes in your communities. For example, housing is listed in the Doughnut. Perhaps you have heard that housing has become unaffordable in your city, or that there is an issue with housing rights in informal settlements. This could be a focus of your changemaking in your community. The Doughnut reminds us of the human needs and planetary boundaries that need our attention.

If you are curious to find out where your country or city falls short in the social foundations or ecological ceiling, you can use the [Good Life tool](#) developed by researchers at the University of Leeds. You could also have a look at the [Sustainable Development Report](#). There are a number of useful dashboards for different regions of the world, and in some cases at a city level, that can point you to areas that need improvement.

2. Evaluation - Secondly, the matrix lenses in **Figure 6** can help you evaluate the ideas you have for your community, developed in Module 2(b). You can use the lenses to make sure that your ideas are also positive for those outside your community, as well as good for the local and global natural environment.

3. Investigation - Finally, you can use the Doughnut model and the lenses to help you research and understand the big picture of your community and how it is or is not meeting the needs of all within the limits of the planet. You could use the framework to see the interconnections and tensions between different academic disciplines, government departments and social groups. You can also use the framework to do a holistic assessment of your household, your school, a business, your local neighbourhood or even your city. We need to establish where we are on human needs and environmental pressures in order to see where we need to go.

Practice Activity

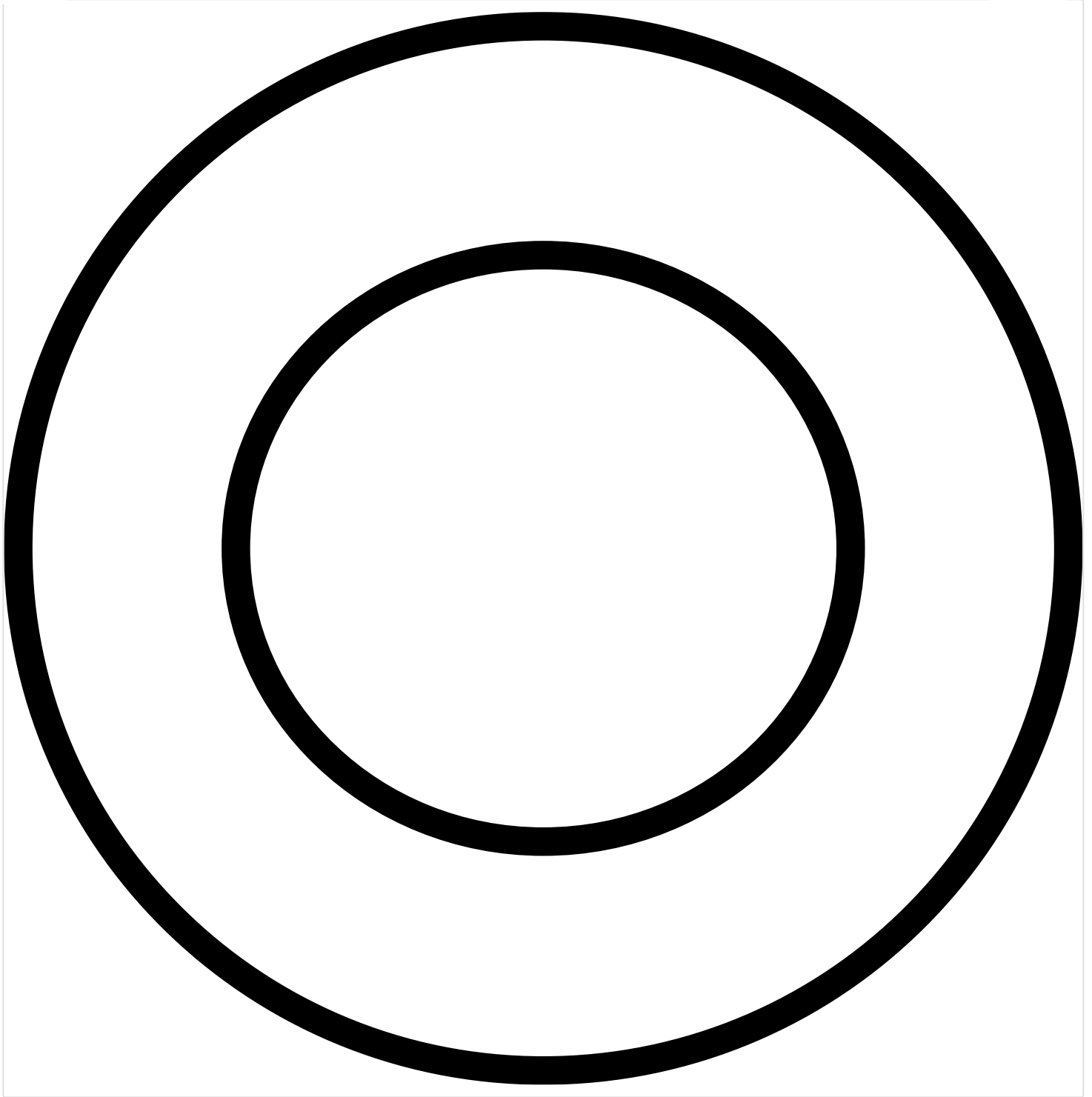
Access the [Good Life tool](#) and find your country.

Identify two areas of the social foundation where your country should make improvements to get into the Doughnut. Try to find out more about the problems, at the country scale or at the local or regional scale, by doing some initial research on the internet.

Identify two areas of the ecological ceiling, where your country has exceeded the Planetary boundaries. Again, try to find out more about the problems, at the country scale or at the local or regional scale, by doing some initial research on the internet.



Consider whether these areas may be of interest to you in guiding your Youth Mayors project.



DOUGHNUT MODEL

A description of the Doughnut Economics Model and the four lenses used to apply the Doughnut at the city-level. Two ways of using the model for Youth Mayors projects are described.

Works cited



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