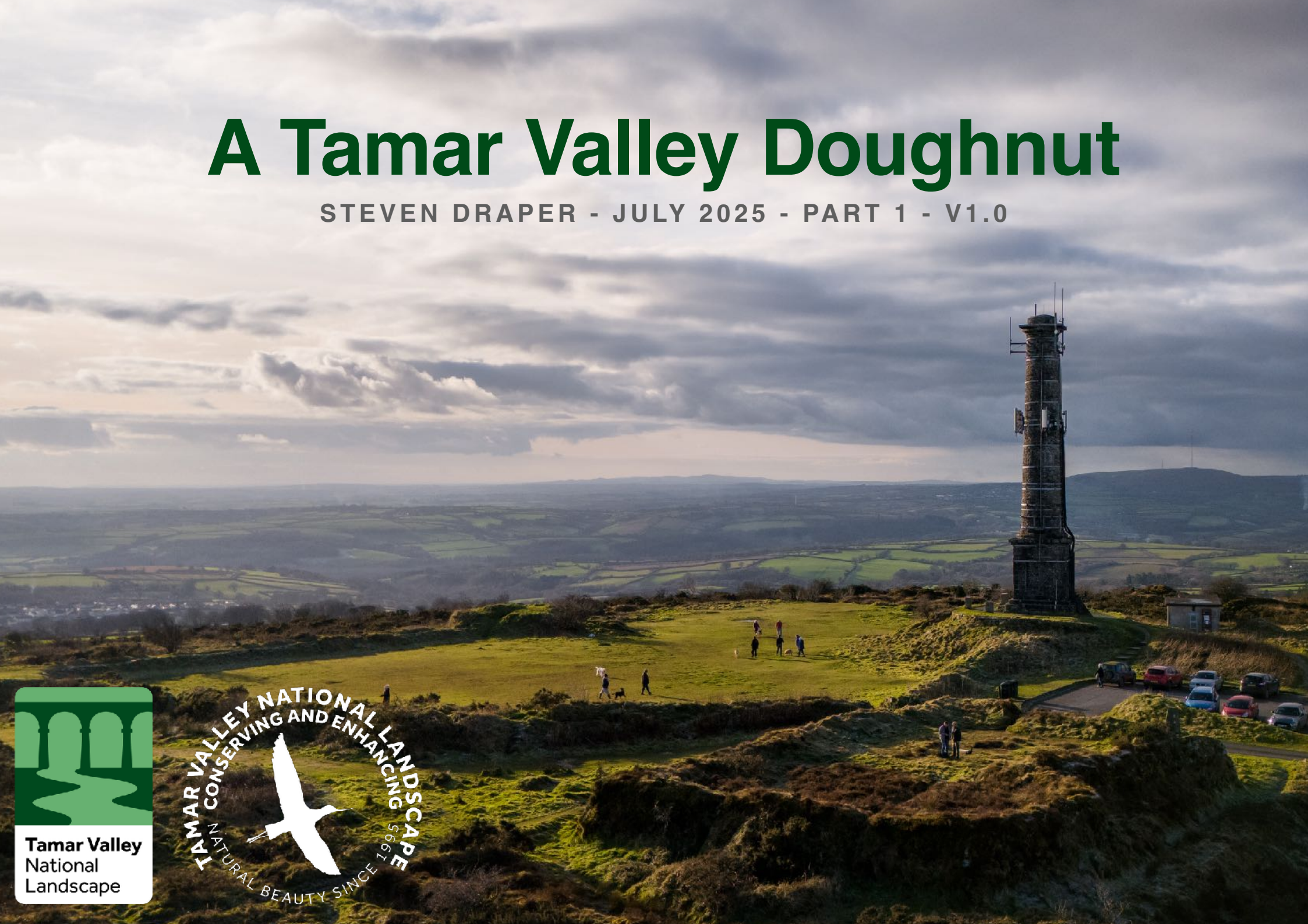
A Tamar Valley Doughnut

STEVEN DRAPER - JULY 2025 - PART 1 - V1.0



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Tamar Valley National Landscape

Steven Draper with Kate Raworth - June 2024

1.0 Executive Summary

To efficiently deliver the objectives of this management plan with the urgency and scale required to have the necessary impact, we must explore new ways to deliver bigger, better more joined up landscapes.

Adapting the concepts of Kate Raworth's 'Doughnut Economics' model of planetary and social thresholds to our National Landscape's needs, we are creating a Tamar Valley National Landscape Doughnut that is:

A Visual, multifunctional tool that enables us to:

- **Work together with partners, landowners and communities to make better decisions.**
- **Monitor progress towards our vision and legal purpose to conserve and enhance the Tamar Valley National Landscape,**
- **in effect, acting as a compass towards all our prosperity.**

Development was approved by the Tamar Valley Executive Partnership in December 2023 and its design has incorporated a number of changes specific for National Landscapes.

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In 2024 the Protected Landscape Target and Outcomes Framework (PLTOF) emphasised our role in protecting, creating and enhancing Natural habitats, accessibility to Nature, heritage and decarbonisation and a drive towards Net Zero.

This important framework brings the aspirations of international agreements to every field, hedge, or community within our local landscape, with ambitious targets set out over the next 25 years. Many of the targets for the Tamar Valley Doughnut will be established from these overall goals.

Established Net Zero legislation, the Environmental Improvement Plan, International agreements, along with the UK's incoming governments five environmental priorities will define the targets and monitoring metrics for the remaining metrics.

All our projects can be cross referenced to the PLTOF and UN Sustainable Development Goals with the Doughnut matrix – and using the Doughnut to engage stakeholders, collaborate together and monitor progress, ensures we will move effectively towards the future we all desire.

This document provides the background, workings and data behind the Tamar Valley Doughnut.

Key Benefits

- **Shared and focused vision.**
- **Better decisions, that consider needs and resources.**
- **Better use of resources, more impact - less waste.**
- **Clear and relevant monitoring and evaluation**

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The River Tamar at Calstock.

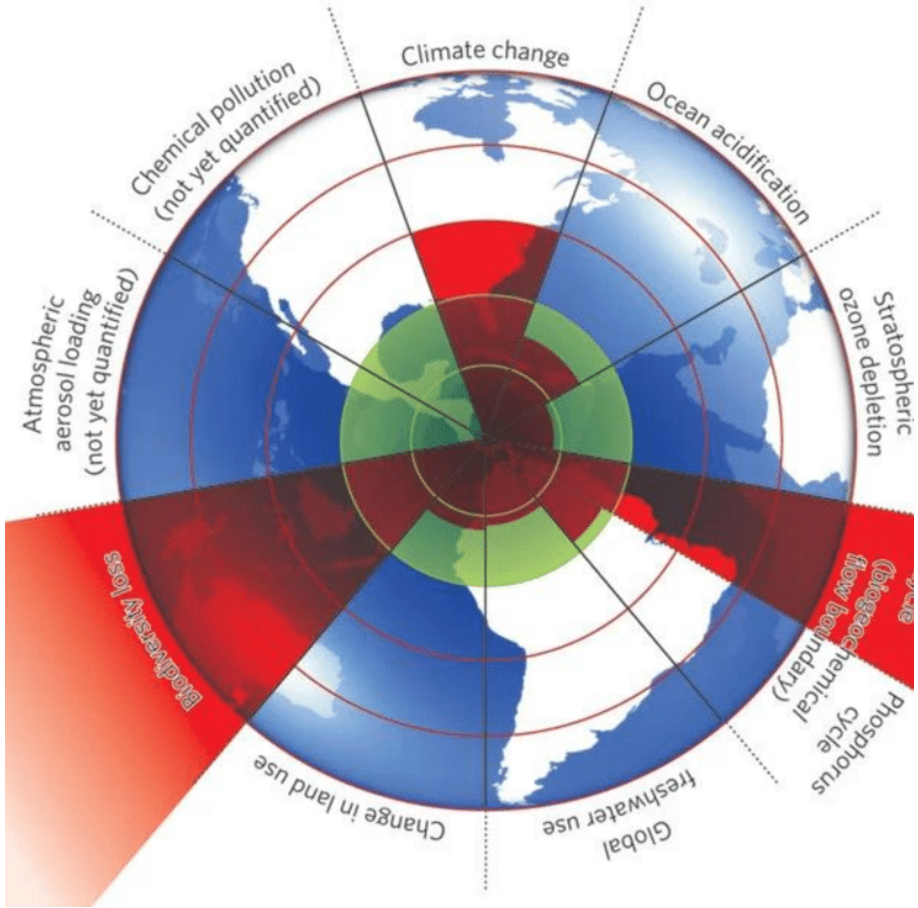
Contents

“We are the first generation to fully understand the consequences of Nature depletion and Climate Change.

We are also the last generation that can take the required action to avoid the worst of them.”

Philip Hygate, Chair National Landscape Association.

3.0 A very brief history of Doughnut Economics



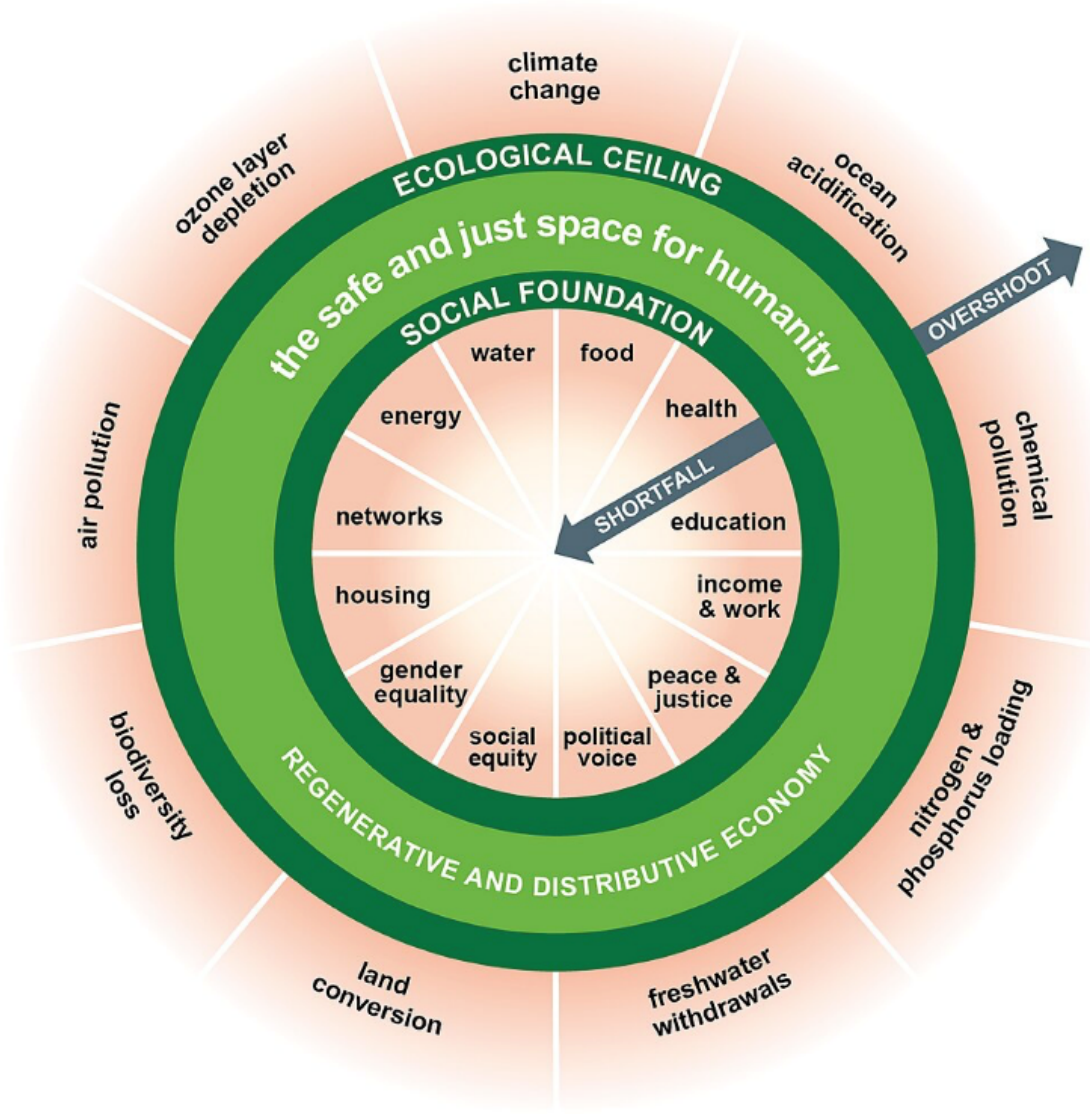
The Rockstrom Model from 2009 is one of the most well documented Planetary models.

During the early 2000's, scientists started to use innovative visual graphs to illustrate that there were planetary boundaries, and we were exceeding some of them already.

Around the same time Dr Kate Raworth, a UK economist, was working for Oxfam. She observed that globally, people with the least were generally impacted the most by the consequences of drought and floods etc, weather events that will become more frequent and more extreme as the climate warmed.

She set about combining the planetary boundaries – referred to as the ecological ceiling in her model, with a social foundation which provided all people with a minimum but acceptably safe level of living standards.

The space between represented living an acceptable life within planetary limits and resources by being more regenerative and distributive – the concept of Doughnut Economics.



Kate Raworth's Doughnut Economic model

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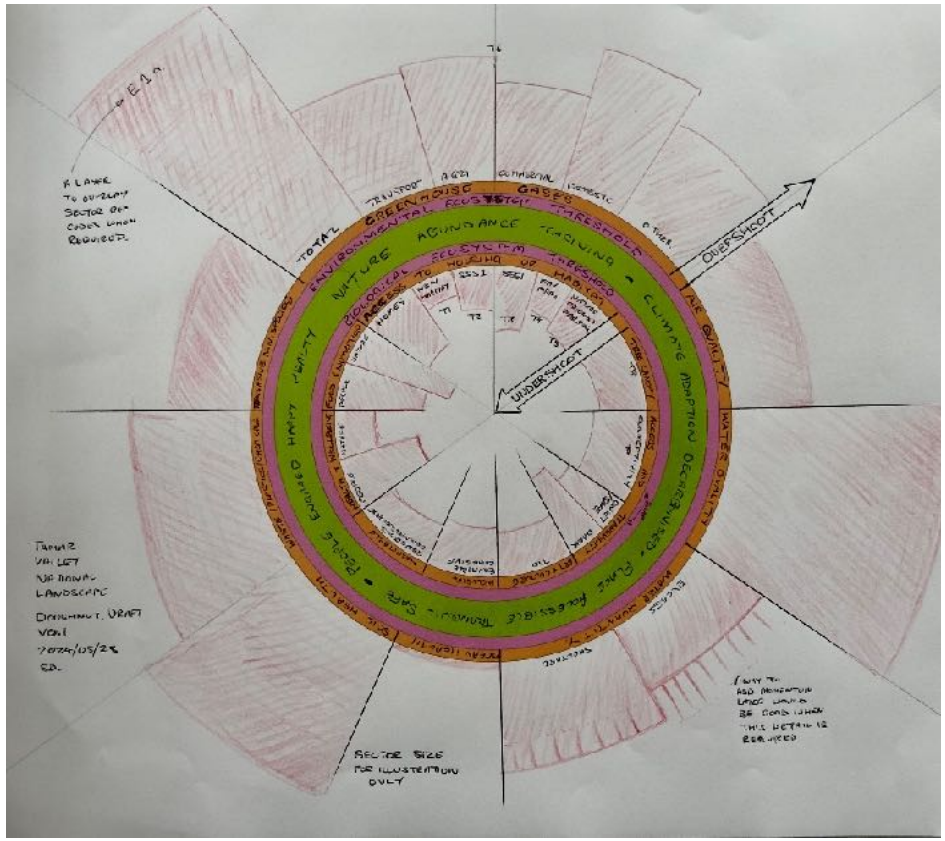


An early draft of the doughnut for Tamar Valley

Many regions, cities and towns around the World are embracing the approach of Doughnut Economics.

The concept is open source, and communities are able to develop the principles for their own purpose. Once the principles are understood, the hardest thing is not over thinking and over complicating it.

Developing a Doughnut model as a central part of Tamar Valley National Landscape Management Plan No.6, was agreed by the Executive Partnership in December 2023.

At first it was thought a very similar approach to Bannau Brycheiniog National Park in Wales could be followed. However, the themes and priorities from engagement sessions with partners, along with Natural England's Protected Landscapes Targets and Outcomes Framework quickly pointed towards a Nature first focus. When Kate challenged the audience with "Could all of living Nature be the centre of the doughnut?" our answer was – Yes.

This is the first doughnut adopted for National Landscape's and the first that places Living Nature in the centre. The next few pages explain the process so far along with the timeline and steps still to be completed.

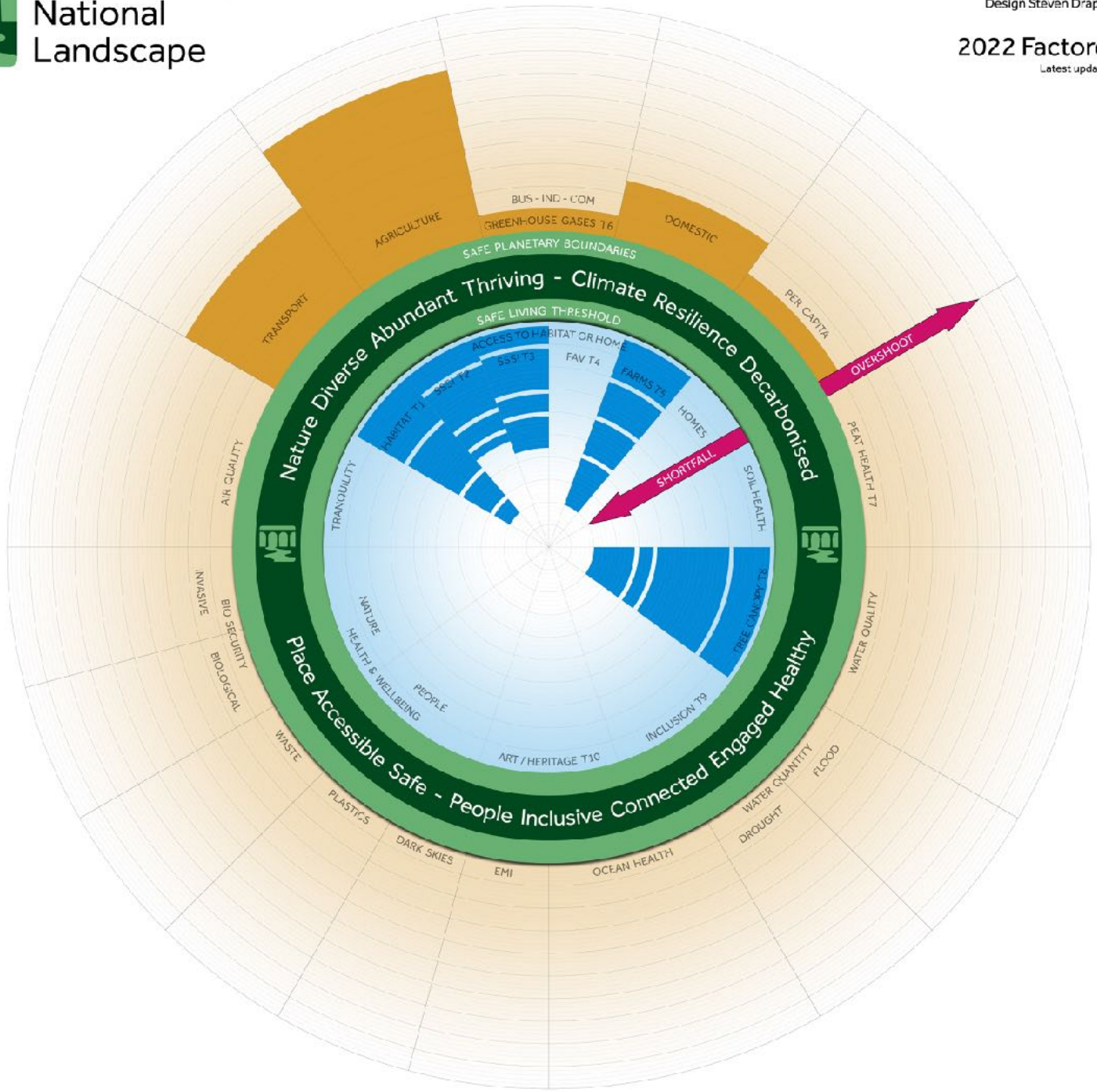
Tamar Valley National Landscape

DOUGHNUT MODEL

Design Steven Draper - Version 4.2

2022 Factored Data

Latest update 2025-07-31 SD



4.0 Anatomy of a Doughnut

Most doughnuts have five key components.

1 - The central ring of the Doughnut represents our aspirations of ‘A Good Life.’ as shared in our management plans vision statement. This is a safe, regenerated space where planetary resources are distributed to ensure all life has enough, but without exceeding the planets resources / capabilities.

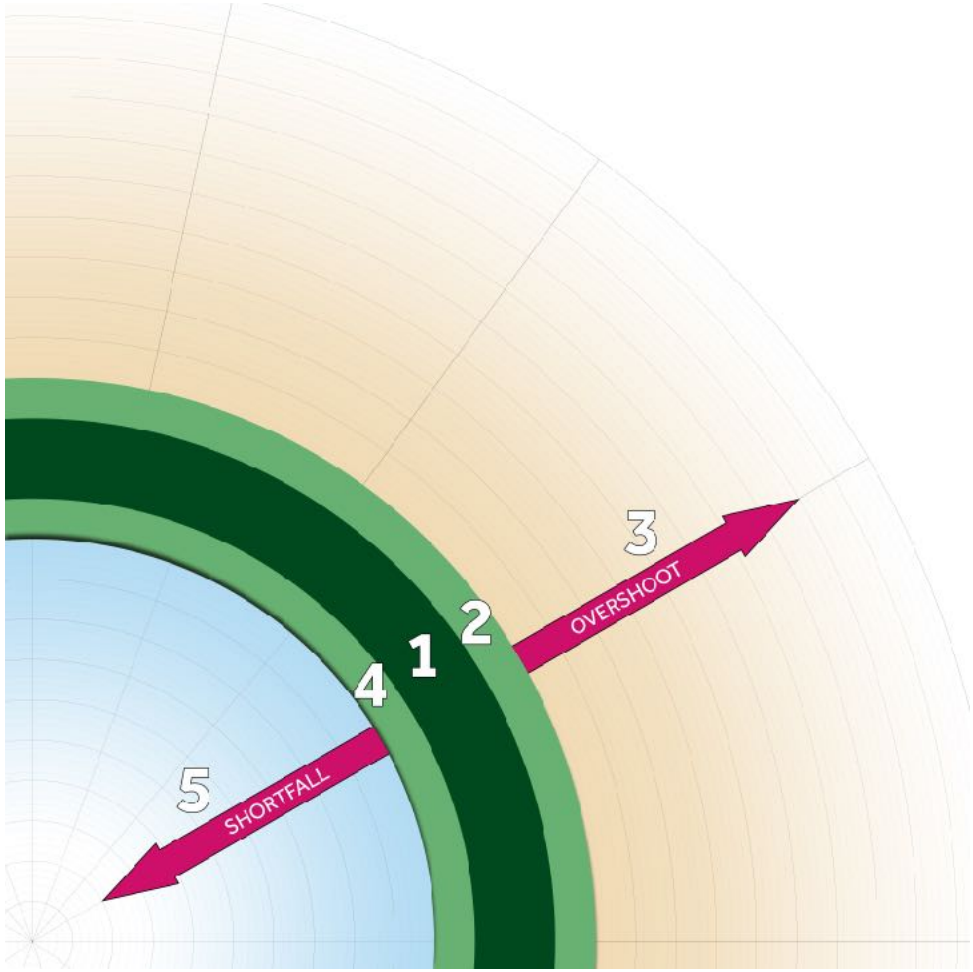
2 - The outer edge represents the safe Planetary Boundaries for environmental systems and resources that would need to be within safe limits to meet our vision.

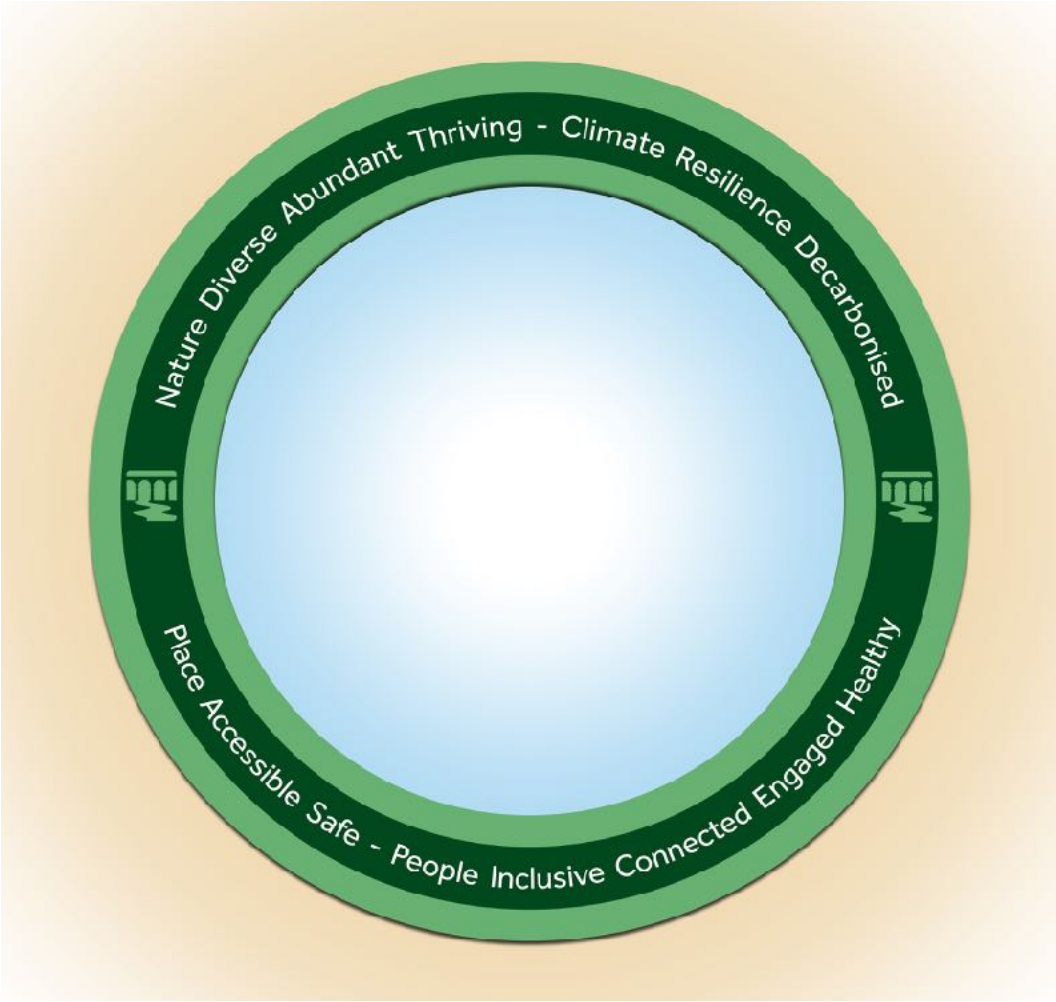
3 - Exceeding any boundary results in an Overshoot and a sector expanding away from the safe zone.

4 - The inner edge represents safe Living Thresholds, where all life within the Tamar Valley, including humans have enough to thrive.

5 - Undershooting safe levels results in a sector shortfall, extending towards the centre of the doughnut.

The objective is projects delivered by this and future management plans reduce the overshoots and shortfall over time.





The Safe space inside our Tamar Valley National Landscape Doughnut - This is the place we would like to be.

4.1 Safe Space - "Where we want to be"

Following engagement with partners, including Natural England and Defra, we were able to establish what a thriving Tamar Valley National Landscape would look like. This became the vision of our management plan.

“By 2055, the Tamar Valley National Landscape has a strong sense of place and wellbeing, as a distinctive and internationally important landscape of high visual quality and a protected green and blue haven where communities and wildlife flourish.

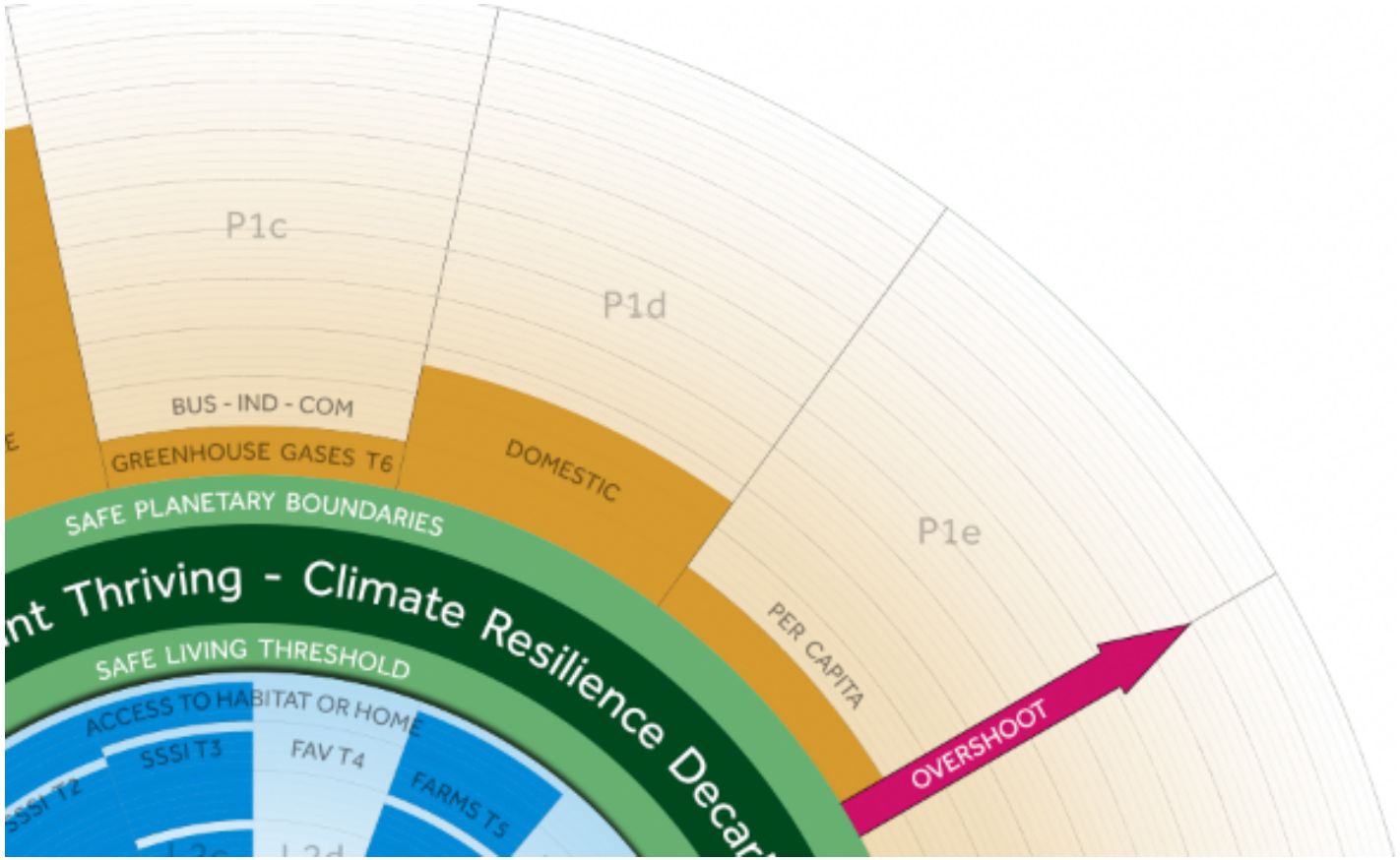
Nature and People are entirely connected, enjoying clear air, clean water, wholesome food, good health and resilience to a changing climate and variable economy…”

A summary of our vision using key words and themes sits in the safe space in the middle of our doughnut as a reminder of our vision for the Tamar Valley National Landscape.

Actions or decisions can be referenced to the words in the safe space with the question of; Is this moving us towards or away from where we want to be?

It is a very simple application, but when considering or discussing ideas, it provides a very powerful way of keeping the direction on track.

4.2 Planetary Boundaries



Our doughnut includes classic Planetary sectors shown in the table.

Each sector describes an element of risk, such as Domestic Green House Gases, and a short reference code, in this case P1d, that relates to our Doughnut Matrix spreadsheet.

If we have appropriate data we can establish a safe value and a current value. If the current value exceeds the safe limit we can plot this on the Doughnut as an overshoot.

The priority is PLTOF data and we will be looking to add additional data sets over the course of management plan No.6

Without data we can still use the doughnut as a discussion and decision wheel based on the likelihood of impact.

We can also use a matrix of perceived impact problem and perceived effort to resolve to create a portrait and we will discuss both these ways of using the doughnut in more detail later.

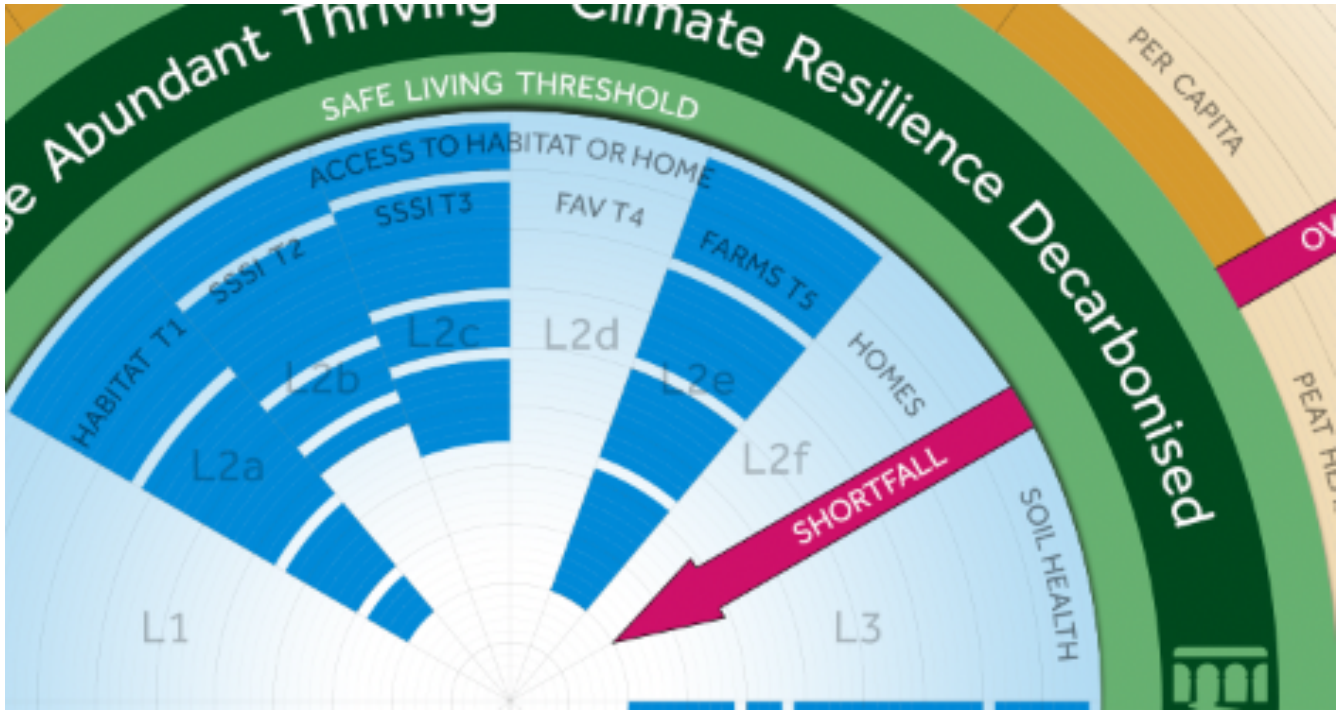
Sector	Ref	PLTOF	SDG	Data	Data / Metrics
Greenhouse Gases - Transport	P1a	T6		Yes	PLTOF – Natural England
Greenhouse Gases - Agri	P1b	T6		Yes	PLTOF – Natural England
Greenhouse Gases - Commercial	P1c	T6		Yes	PLTOF – Natural England
Greenhouse Gases - Domestic	P1d	T6		Yes	PLTOF – Natural England
Greenhouse Gases - Per Capita	P1e	T6		Yes	PLTOF – Natural England
Peat Health	P2	T7		n/a	PLTOF – Natural England - Not applicable for Tamar Valley National Landscape
Water Quality	P3	n/a		WIP	Look to align with EA standards
Quantity of Water - Flood	P4a	n/a			Some kind of Flood and Drought risk - may split – To be Defined
Quantity of Water - Drought	P4b	n/a			Some kind of Flood and Drought risk - may split – To be defined
Ocean Health	P5	n/a		WIP	Critical Planet Health Indicator (Acidification) Working with Plymouth Marine Lab
Electromagnetic pollution	P6a	n/a			To be defined
Dark Skies	P6b	n/a			To be defined
Plastic	P7a	n/a			Expect a Gov metric.
Waste	P7b	n/a			Expect Government Metric
Bio Security - Biological	P8a	n/a			Expect a Gov metric.
Bio Security - INNS	P8b				
Air Quality	P9				Align with National Standards.

4.3 Living Boundaries

Our doughnut departs from a classic look by replacing social thresholds, combining Social and Nature into a Living Threshold.

This decision was in response to a challenge by Kate Raworth into what would improve the Doughnut, and also enables the Protected Landscapes Target and Outcomes Framework to become an integral part of it.

The principles follow the same approach as for the Planetary boundaries.



Sector	Ref	PLTOF	SDG	Data	Data / Metrics
Tranquilty	L1	n/a		No	To be defined
Habitat or Home - Habitat	L2a	T1		Yes	PLTOF – Natural England
Habitat or Home - SSSI T2	L2b	T2		Yes	PLTOF – Natural England
Habitat or Home - SSSI T3	L2c	T3		Yes	PLTOF – Natural England
Habitat or Home - Friendly Farming	L2d	T4		Yes	PLTOF – Natural England
Habitat or Home - Firendly Land Man	L2e	T5		Yes	PLTOF – Natural England
Habitat or Home - Homes	L2f	n/a		WIP	Will require some kind of metric
Soil Quality	L3	n/a			PLTOF – Natural England
Tree Canopy	L4	T8			PLTOF – Natural England
Inclusion	L5	T9		WIP	Will require some kind of metric
Heritage, Arts, Culture	L6	T10			To be Will require some kind of metric
Health & Wellbeing - Humans	L7h	n/a			Will require some kind of metric
Health & Wellbeing - Nature	L7n	30:30			Will require some kind of metric

4.4 Data Sets

The objective of a sectors data set is to understand:

1 - where we are,
2 - where we are heading,
3 - where things are safe.

Data has to be available, reflect the sector it represents and updated frequently.

Of all data qualities, the ability to observe the 'momentum' or directional trends is the most important feature.

Consistent methodology is more important than absolute accuracy, although it may be beneficial to calibrate more closely in some cases from time to time.

To date, all data is a combination of the Natural England Data sets and the targets outlined within this management plan relating to the Protected Landscapes Targets and Outcomes Framework. (PLTOF)

A Part 2 of the appendix will eventually house full data sets, methodology and limitations comprising the additional sectors

To enable data to be plotted onto the onto the doughnut, each sector has been subdivided into 50 increments. Value's can therefore be converted to a value and plotted on the doughnut.

Data sets are therefore plotted to be able to monitor change over time. It is important to note that the relative size of a sector's overshoot or shortfall does not imply a greater or lesser challenge compared to another sector.

While some doughnuts do attempt to weight the area of sector to the impacts and challenges of resolution, this relies on a consistent application of weighting mythology and introduces a certain level of subjective opinion.

For a National Landscape working to PLTOF and 30:30 having an understanding of the actual data being monitored was considered more important in the data doughnut at this point.

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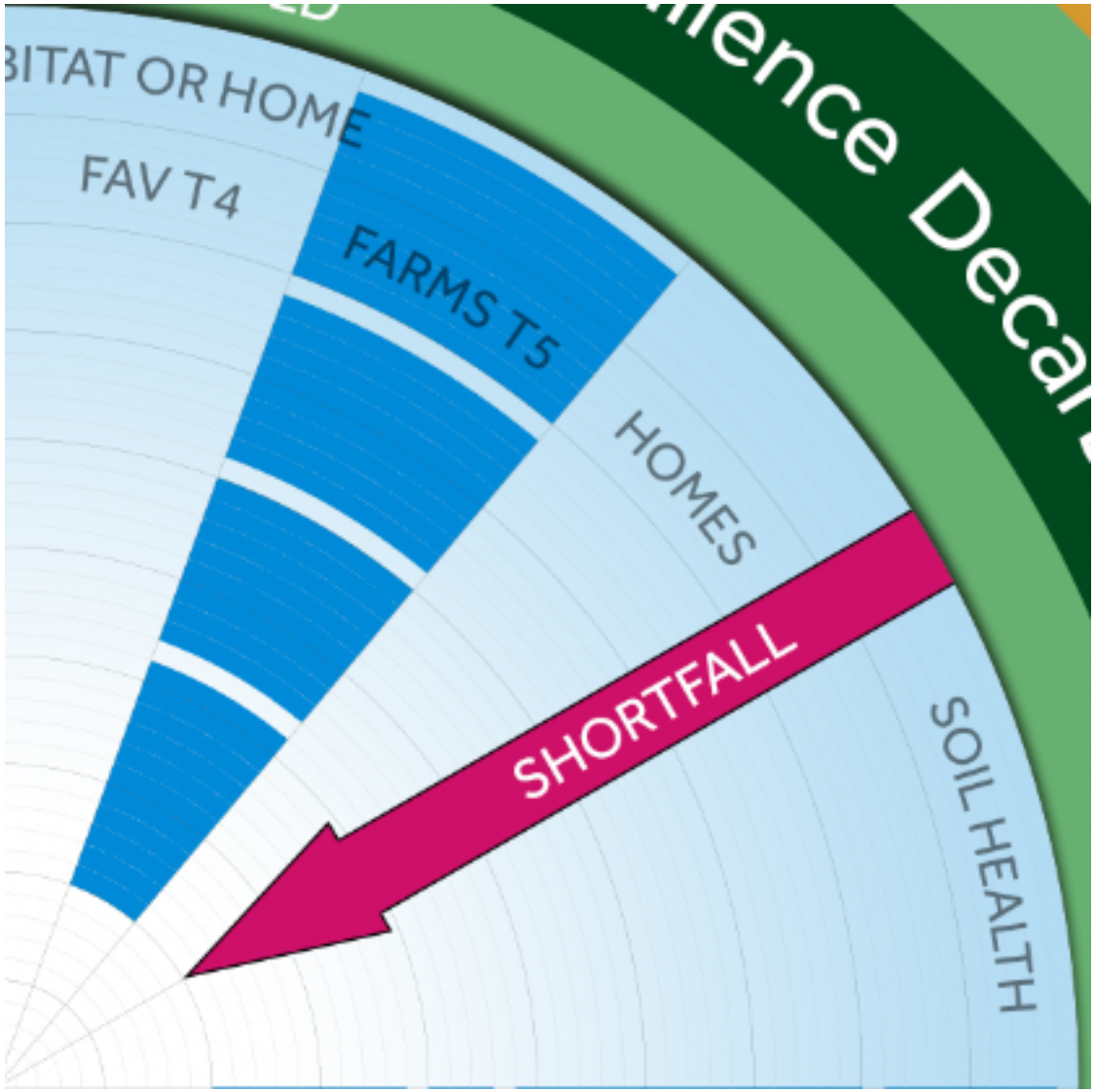
In this example focussing on PLTOF T5, the actions required between the 2022 baseline and the 2050 target is currently shown as a shortfall.

As these actions are carried out, the shortfall will reduce towards the safe line of the Doughnut.

We will be able to create animations that very quickly will show how well progress is being made.

The breaks in the colour indicate 2028, 2030, 2042 and the 2050 targets, highlighting the need to establish quick wins and reflecting increasing resistance as we move towards out target.

When all data sets have been established and after a number of data cycles, an animated doughnut will 'breath' as the impacts of our work together takes effect.



4.5 Momentum

It is important to understand that although in most cases a ‘static’ figure represents or indicates the sector baseline, in reality all sectors have a momentum.

Relying purely on a single reporting cycle, without taking momentum into account, can generate false confidence or unnecessary disappointment.

For example, consider an output that shows results are worse than before. If it wasn’t realised that a sector was previously accelerating away from safe, then the intervention might be seen as a failure. In reality, if the momentum has been slowed, an important step in stabilising and recovering has been achieved.

Assessing how interventions have changed the momentum, often referred to as the additionally, is therefore important. Especially when considering pilots trials, or comparing interventions to establish best practice. While scientific studies generally take underlying directions of travel into account, not all reports do.

It is therefore important when using a doughnut as a discussion, decision and monitoring tool that the momentum of sectors is ideally established.

Even if we know where we are, unless we know the direction of travel, it is not possible to make accurate decisions or conclusions from a single data set.

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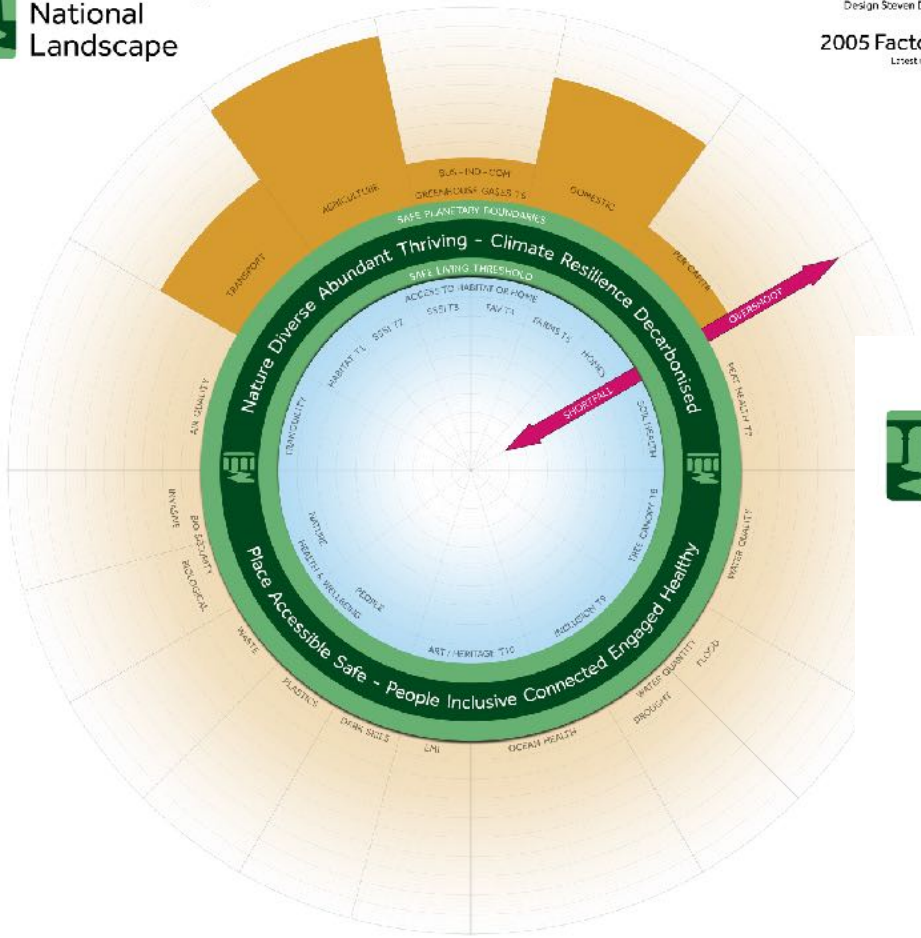

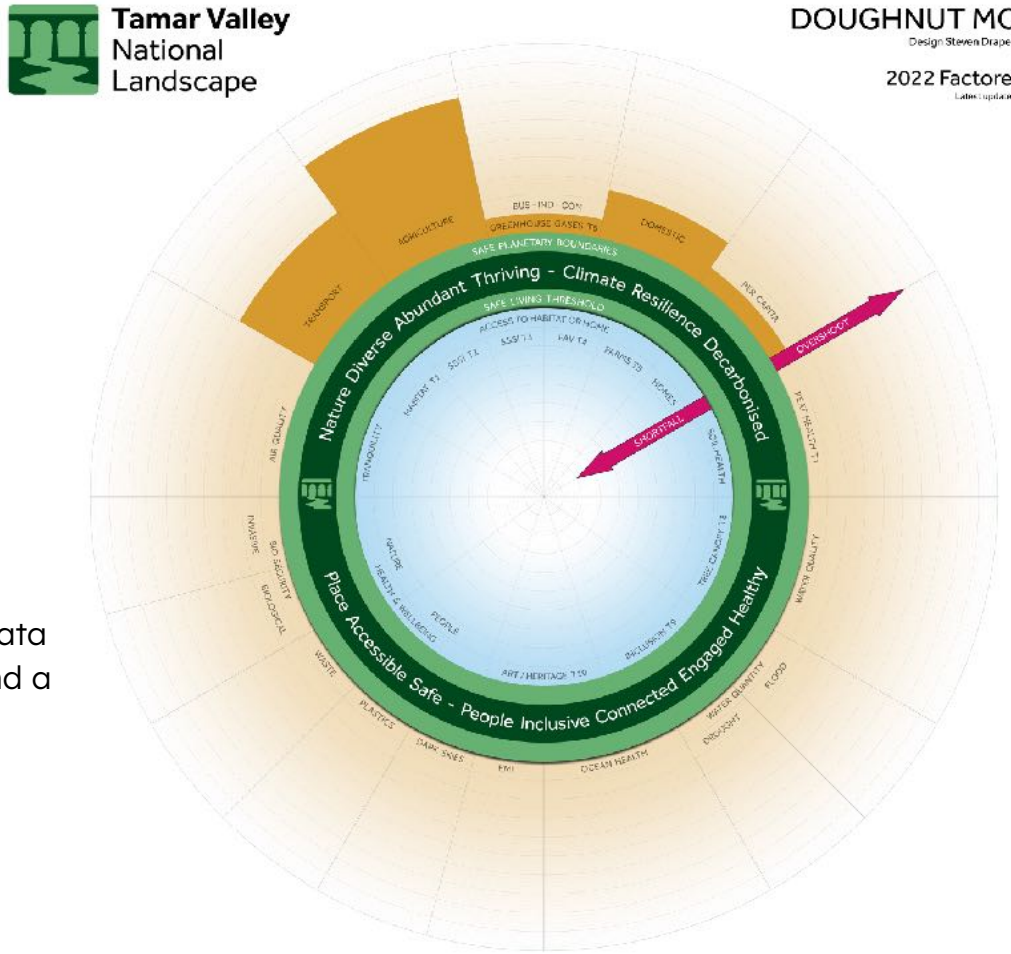

While some people will be able to draw conclusions from data tables, far more people can respond to visual changes - and a real power of Doughnut models is the ability to animate.changes over time.

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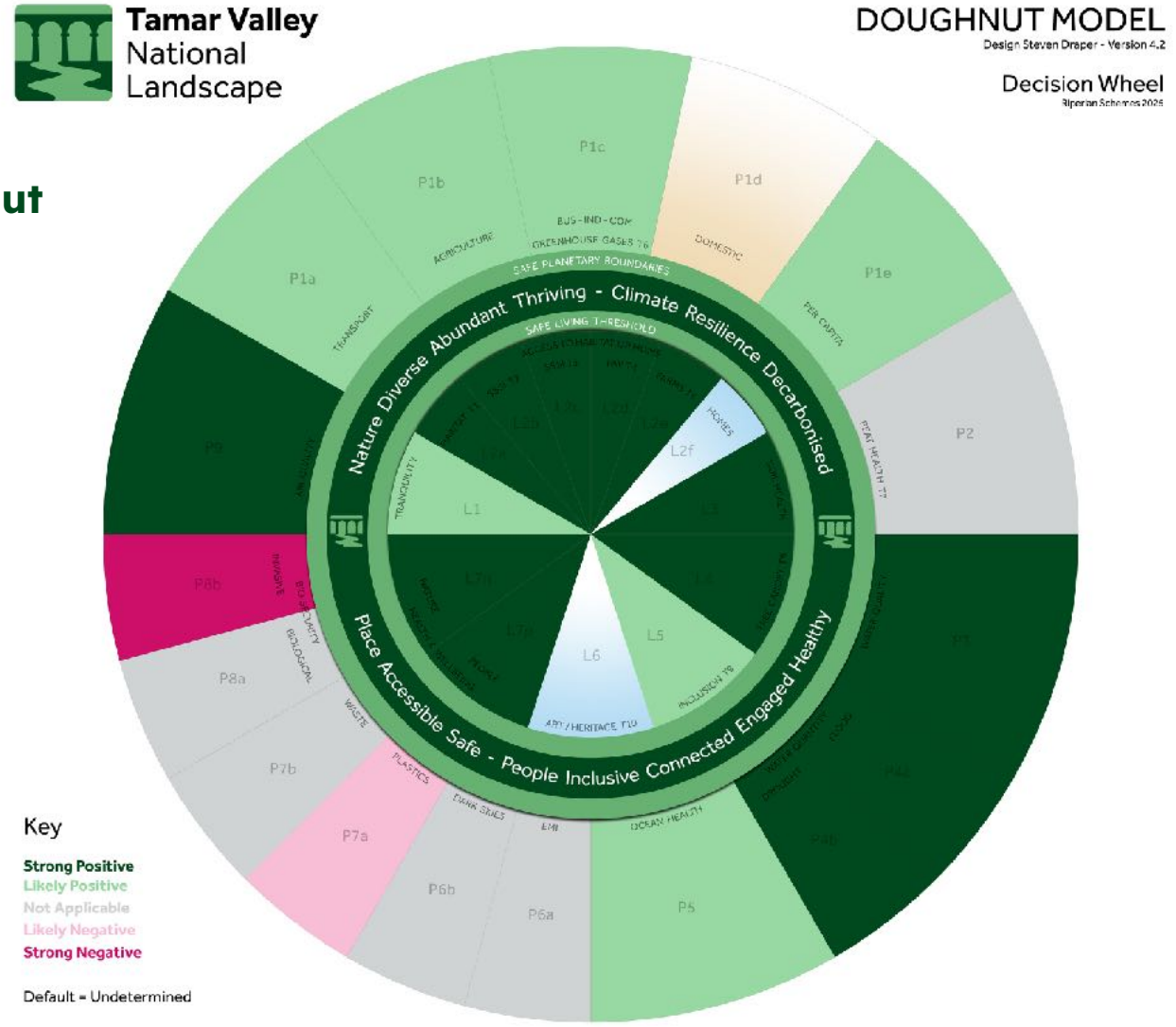
4.6 Discussion and Decision Doughnut

Even if we have not established the current value of shortfall, overshoot or safe value, we can still consider if a project or proposal impacts applicable sectors in a Positive, Negative way, or show as currently undetermined or Not Applicable.

The output of this exercise helps us establish the best value projects, where one intervention delivers multiple positive outcomes and ensures any negative impacts can be identified and mitigated as part of the project design.

In the example of Riperian projects, we see multiple Positives (Green) several areas that are not applicable, a couple where it's not determinable (left as default) and two where mitigation measures would be needed (Magenta / Pink)

This method can be used to evaluate any project, application, policy proposal or management plan.



A Decision Doughnut creates a visualisation of opportunity and risk, while enables an idea of the impact to be established

4.7 Doughnut Risk Portraits

This aspect - currently under exploration with work being carried out by Shropshire Hills National Landscape.

It involves an exercise where a group (independently) or panel (together) consider one, some or all sectors of a doughnut and score two questions between 1 and 10. In our case they would be.

- **Impacts of any current Shortfall / Overshoot.**
- **Effort / Resources required to move to safe / mitigate.**

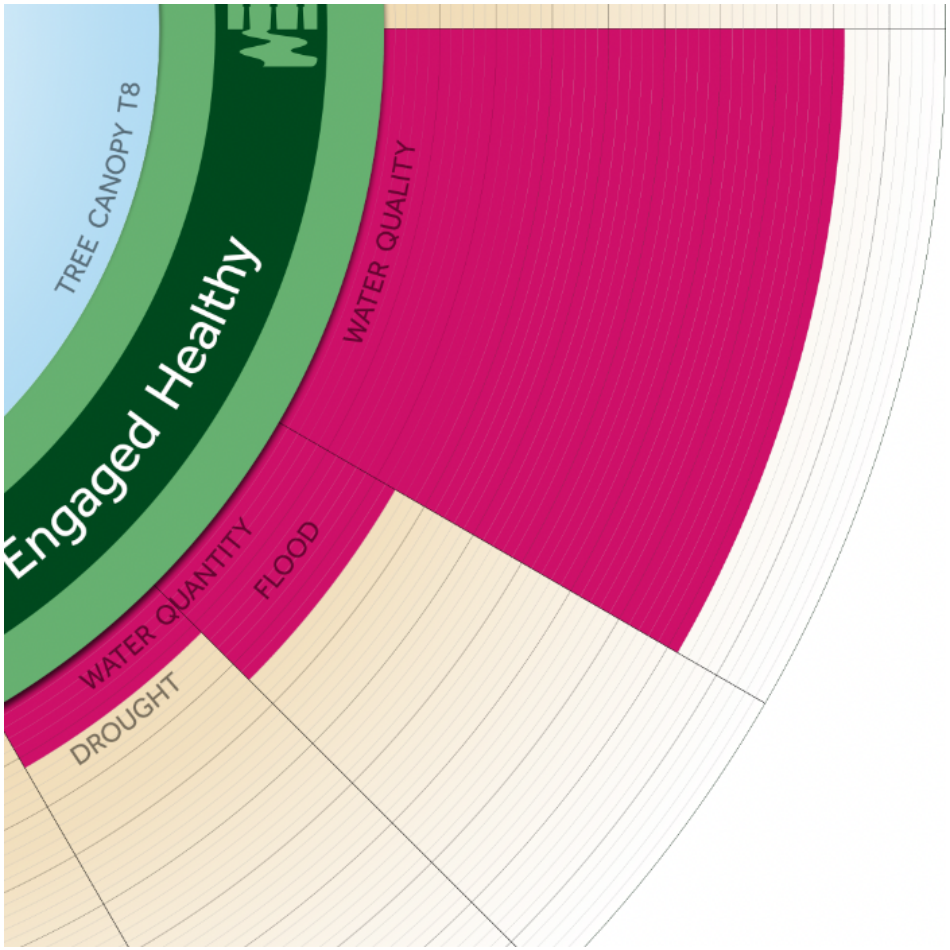
The result is a score of between 1 and 100 for every sector assessed.

These percentage scores can be plotted onto a doughnut to create a Doughnut Portrait.

While they are subjective depending on the knowledge of the sample group, repeated in consistent manner with a similar group over time could generate a perceptive narrative of where we are.

The proposal would be to include the Doughnut Portrait exercise as part of the Tamar Valley National Landscape Annual Forum, with all partner members provided with a score sheet to consider and submit so that an annual portrait could be created and monitored over time.

When sampling groups, more elaborate methods of plotting the range could be incorporated - for example using density of colour. These will be explore further in due course.



In this example,
Water Quality 9x8 = 81
Flood 4x6 = 24
Drought 2x6 = 12

4.8 Doughnut Matrix

"Max Impact - Minimum Waste"

As a National Landscape working together with, landowners, communities and partners to achieve our vision; our decision-making process should be evidence based, justified and transparent. It should ideally identify opportunities for stacking benefits and identify where a positive action to one sector, may risk a negative impact to another.

We need to assess the impacts of our decisions at an early stage of any policy development, project or programme.

Our doughnut, created and calibrated using reliable, consistent data and providing an indication of momentum will allow us to ensure these decisions are informed by a good understanding on the impact of the Planetary boundaries and Living thresholds we aim to bring within safe limits.

The Doughnut Matrix is a spreadsheet that currently enables all the Management plan 6 projects to cross reference with the PLTOF, Key UNSDG's and list which doughnut sectors each project will benefit. It can be downloaded from this web page and is also illustrated within the Tamar Valley Management Plan No.6 Draft v2.

In addition, a National Landscape is often asked to provide comment on the plans of others. Evaluating the proposal by applying the doughnut provides a consistent and objective means to establishing the benefits and risks.

5.0 Development Timelines

JULY AUGUST 2025
Add PLTOF Data and Targets - include within Management Plan No.6

SEPTEMBER 2025
Partner Portraits

Begin to actively use as a Discussion tool and reference during evidencing to policy responses

JULY 2026
Report Annual PLTOF Figures

JULY - MARCH 2026
Work with Partners to establish Targets and Data for Non PLTOF Sectors with priorities being:

Water Quality
Water Quantity
Ocean Acidification

30:30

Add detail to Data sets and Doughnut Appendix Part 2

JULY - MARCH 2026
Share work to date with Doughnut Economics Action Lab and other National Landscapes as required.

Discuss with DEAL what a predictive modelling tool might look like.

Tamar Valley National Landscape

6.0 Conclusion

We wouldn't think of getting into a car and travelling to a new destination without the use of a GPS help us on our way.

Yet it often feels that we are attempting to solve the biggest challenge of our time focused on individual elements of the problem, often searching for absolute proof of outcome through data without stepping back and considering how everything interrelates to everything.

In challenging times for Nature, our landscape and the people who live within, visit or manage it, the Tamar Valley Doughnut will enable partners, communities and landowners to work together to maximise the beneficial impacts to conserve and enhance this Area of Outstanding Natural Beauty and the wider Tamar Catchment for future generations to enjoy.

A Doughnut model provides that compass towards prosperity by giving the confidence to set an ambitions vision based on Planetary and Living needs, discover and understand where we are and then guide us efficiently towards a safe and thriving future together.

Steven Draper - July 2025

Key Benefits

- **Shared and focused vision.**
- **Better decisions, that consider needs and resources.**
- **Better use of resources, more impact - less waste.**
- **Clear and relevant monitoring and evaluation**