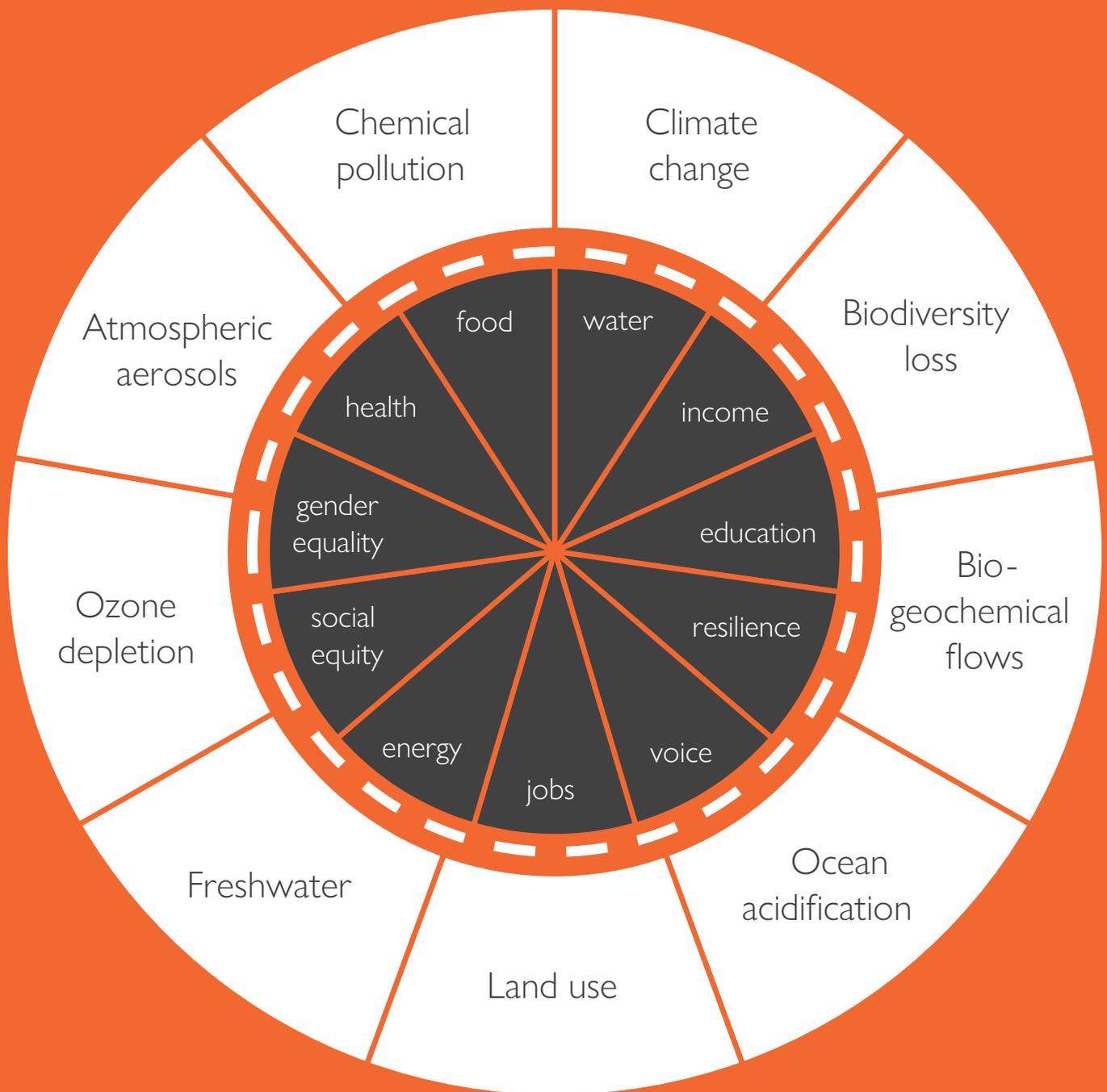


# Planetary Boundaries and Social Thresholds: How do companies measure up?

*A practitioner's perspective*

EXECUTIVE SUMMARY – 2016

**13**



Rockström, J., Steffen, W., et al. 2009. Planetary boundaries: exploring the safe operating space for humanity. *Ecology and society*, 14(2).

Raworth, K., 2012. A safe and just space for humanity: can we live within the doughnut. *Oxfam Policy and Practice: Climate Change and Resilience*.

# What are planetary boundaries and social thresholds?

## Context

In 2009, Rockström *et al.* identified boundaries for nine Earth system processes. If these are crossed, it could lead to catastrophic non-linear environmental changes at a continental or planetary-scale. This framework set out a *safe operating space for humanity*, by emphasizing that ecosystems, and by extension Earth systems, have tipping points. Focusing on tipping points

challenges previous 'limit-based' models in which, it is theorised that, resource scarcity leads to increases in cost and a resultant decline in resource use or an increase in alternatives.

Thresholds are different. They cannot be equated with a

'scarcity-cost' relationship, as once the tipping point is passed,

irreversible and fundamental changes can occur which may never be corrected. In 2012 Oxfam extended this framework, by combining Rockström *et al.*'s nine planetary boundaries with eleven social thresholds into a single framework, which – shaped like a doughnut – aims to define a *safe and just space for humanity* (see diagram opposite).

Planetary boundaries and social thresholds are being increasingly recognized, for instance within the United Nation's Sustainable Development Goals (SDGs). Yet despite regulations and reporting guidelines, notions of planetary boundaries and social thresholds are rarely considered within corporate planning or reporting.

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*“We have our foot on the accelerator driving towards the Abyss...”*

Ban Ki-moon (2009)

“

*Issues of sustainability are ultimately issues about limits... We do not have to worry so much about how an expanding pie is divided, but a constant or shrinking pie presents real problems.”*

Costanza (1992)

## Our research

As practitioners, in 2013, we began our research, asking *if organisations were translating notions of planetary boundaries to the scale of their organisation and, if so, what were the drivers and barriers?* Since then, there have been a number of developments linking global sustainability challenges with business practice, for example:

- **The Global Reporting Initiative's latest Guidance (G4)** re-stated the importance of the 'Sustainability Context' Principle: “A report should present the organisation's performance in the wider context of sustainability”
- **The UN's SDGs** placed renewed emphasis on the role of businesses to deliver, as partners, the global goals
- **The Paris agreement on Climate Change** was accompanied by a commitment by over 150 companies to adopt science- based targets, thereby linking their GHG emissions reductions to global targets.

Given these developments in 2016, we revisited this research, and asked: **How organisations are translating 'planetary boundaries' and 'social thresholds' to make them relevant to their organisation – and will that be enough to operate within the safe and just space for humanity?**

### QUALITATIVE

- In-depth interviews with 38 sustainability experts
- What are the business drivers?
- What boundaries matters most?
- Barriers, tools, methodologies and emerging practice?

### QUANTITATIVE

- Benchmark of the sustainability targets for 220\* companies
- What targets?
- How much?
- By when?
- \$12,979 billion in annual revenues

\*The sample of companies were selected based on their ability to impact planetary boundaries (e.g. multinational/large revenue) and public commitments to sustainability (e.g. the organisation has published a Sustainability Report). In addition, the sample sought to include representatives of the largest companies by regional stock-exchange and by industry sector. As such, in November 2016, we reviewed an additional 9 companies from Africa, to upweight the continent's representation. In this December 2016 version, we also incorporate additional findings for the social threshold, Voice.

# What we found

Findings based on published information / targets found within company's latest corporate responsibility or sustainability report (within our sample of 220 companies).

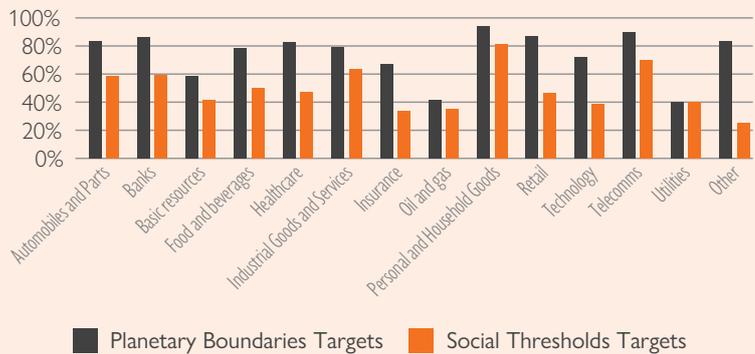
## 1 The majority of companies do not currently report how they apply planetary boundaries and social thresholds to their business

- 0 direct references to Rockström et al. Planetary Boundaries or Oxfam's Social Threshold frameworks
- 62 companies (28%) have not set a target against a planetary boundary
- 116 companies (53%) have not set a target against a social threshold.



## 2 Reporting against planetary boundaries and social thresholds varies considerably by sector, for instance

- 94% of Personal and Household Goods companies have targets against at least 1 planetary boundary, as have 90% of Telecoms and 87% of Retail companies
- 81% of Personal and Household Goods companies have set targets against at least 1 social threshold, as have 70% of Telecoms companies



## 3 Limited evidence was identified that company targets are being linked to a wider sustainability context, such as local, national, or global targets

- 30 companies (14%) made reference to some form of wider 'context' (e.g. national goals) informing their targets
- 17 companies (8%) referenced the 'Sustainability Context' in their latest Sustainability or Corporate Responsibility report
- For 12 of these 17 companies, this reference was only made in relation to their GRI reporting process.

**“**

**Sustainability Context**

*The underlying question of sustainability reporting is how an organization contributes, or aims to contribute in the future, to the improvement or deterioration of economic, environmental and social conditions, developments, and trends at the local, regional or global level. Reporting only on trends in individual performance (or the efficiency of the organization) fails to respond to this underlying question. Reports should therefore seek to present performance in relation to broader concepts of sustainability. This involves discussing the performance of the organization in the context of the limits and demands placed on environmental or social resources at the sector, local, regional, or global level.”*

**”**

## 4 Emerging frameworks and models for reporting include the United Nation's Sustainable Development Goals and Science-Based carbon targets

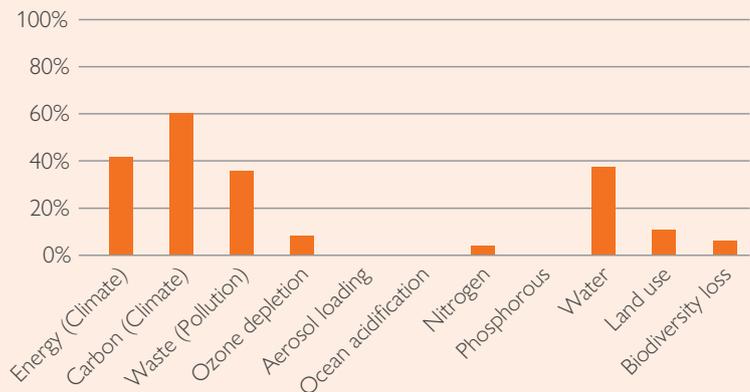
- 81 companies (37%) cite the UN SDGs in their latest sustainability or corporate responsibility report
- 27 companies (12%) make specific reference to adopting science-based carbon targets\*, thereby supporting international targets designed to avoid a 2°C increase in global temperature.

\* Targets adopted by companies to reduce greenhouse gas (GHG) emissions are considered "science-based" if they are in line with the level of decarbonization required to keep global temperature increase below 2 degrees Celsius compared to pre-industrial temperatures, as described in the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.



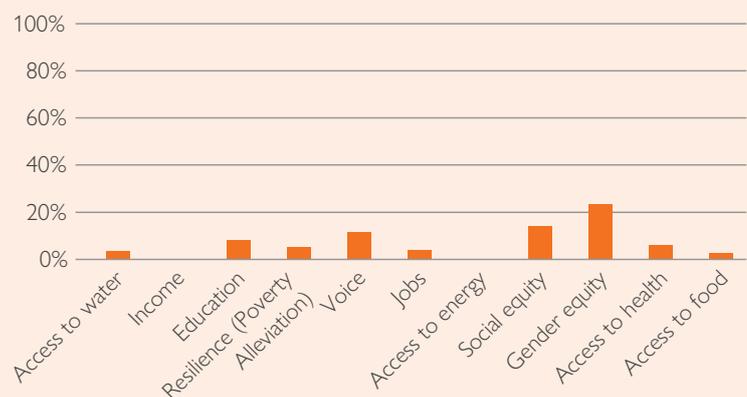
## 5 Of the nine planetary boundaries identified by Rockström et al, the majority of companies' targets focus on climate change, freshwater and waste

- 133 companies (60%) set targets for carbon and 92 companies (42%) set targets for lower-carbon energy
- 82 companies (37%) set targets for water
- 79 companies (36%) set targets for waste
- Far fewer targets for land use (11%), ozone depletion (8%), biodiversity (6%), nitrogen (4%), phosphorus (4%), aerosol loading or ocean acidification.



## 6 Of the eleven social thresholds identified by Oxfam, the majority of companies' targets focus on gender equality, social equity, voice, access to education and access to health

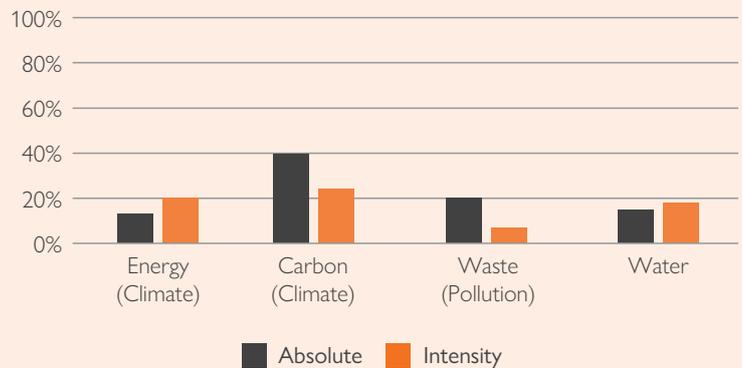
- 50 companies (23%) set targets related to gender equality and 32 companies (15%) for social equity
- 24 companies (11%) have set targets for voice
- 16 companies (7%) have set targets for access to education and 13 companies (6%) for access to health.



**7** Whilst, there is a wide range of different targets being set, for instance...

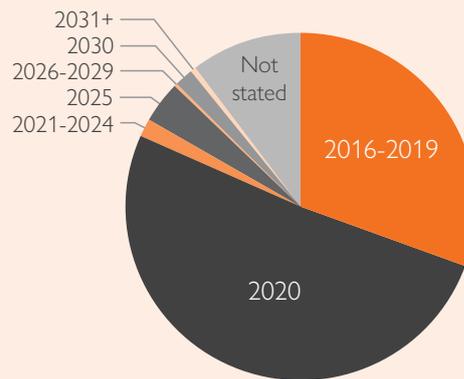
- 53 companies (24%) have set carbon intensity reduction targets (e.g. 5% less carbon per unit),
- 29 companies (13%) have set absolute energy reduction targets (e.g. reduce our energy by 20%).

...There is less clarity for how these were established and the science or context behind these targets.



**8** The majority of corporate sustainability targets addressing a planetary boundary or social threshold are based on a 5-year timeframe:

- A significant majority of targets are set to be achieved by 2020 (46%) or before 2020 (28%)
- There was limited evidence that companies are thinking longer-term, with only 2% of targets set to 2030 and 0.3% of targets set beyond 2030.



“  
 An environmental or social indicator only becomes a sustainability indicator (or un-sustainability indicator) with the addition of time, limit, or target.”  
 [Meadows 1998]

Meadows, D., (Ed), 1998. Indicators and Information Systems for Sustainable Development.

# Findings and where next: What this means for businesses

## Reporting

- **The 'Sustainability Context' Principle:** While companies are reporting in greater depth against the GRI's principles of 'Materiality' and 'Stakeholder Inclusiveness', there needs to be more guidance and practical examples of how organisations can report against the GRI's Sustainability Context principle
- **Multiple reporting standards, frameworks and indexes can create confusion:** Collaboration is needed to focus reporting on the issues which matter most, at a business, stakeholder, and planetary scale.

## Materiality

- **Why it matters:** More evidence is needed to demonstrate the relevance and materiality of different planetary boundaries and social thresholds. For example, nitrogen and phosphorus boundaries are particularly relevant to the food sector, while aerosol loading is important for companies across their supply chains
- **Agreeing the thresholds:** The lack of formalised, and agreed, thresholds is preventing corporations using the framework to set baselines to report against. Where no boundaries have been set, a precautionary principle (e.g. zero impact or net-positive approach) needs to be adopted
- **Supply chain perspective:** Understanding the impact of, and impact upon, supply chains from a planetary boundary perspective is particularly important
- **Fair-share of resources:** There is limited evidence for how organisations are approaching discussions relating to fair access to resources or 'fair-share' of environmental burdens. There needs to be greater stakeholder engagement undertaken to understand, and build consensus, on how to approach 'fair-share'.

## Measurement and targets

- **Science- or context-based models for targets:** While evidence was found that companies are using science-based targets, for climate change and water, and linking targets for access to education and health to global targets (e.g. the WHO), this practice remains limited. All targets should strive to incorporate as much context as possible. For example, through relating the target to local needs, national targets, and global goals.
- **Local vs. global:** Companies need support in establishing targets that address issues that matter locally, yet can be scaled up, and communicated, at a group level.
- **Transparency on targets:** The research identified a range of targets spanning qualitative, quantitative, absolute, and intensity targets. Greater transparency is needed on how and why these targets are established, and if they are based upon a science- or context-basis.
- **Short-term vs. long-term targets:** The majority of targets identified were based on a 5-year timeframe designed 'not to overwhelm the business' and to fit with business cycles. A challenge therefore remains in setting joined up long-term targets to enable transformative impact.

“

*We now have far too many competing frameworks. We need better collaboration and focus. Cross-referencing isn't the same as consolidating. Less would be more. It would also allow us to extend consensus thinking to more issues, instead of, for example, the multiple options available!”*

[Interviewee – mining sector]

“

*Companies need to link planetary boundaries to their core business model, by de-coupling economic growth from their impact on planetary limits, and linking economic growth with the delivery of social thresholds.”*

[Article 13 perspective]

“

*We need to help partners in a local context. To adapt, and speak about the things that are relevant, not necessarily a global water dialogue, or health strategy. Don't simplify everything to global materiality, start with the local.”*

[Interviewee – pharmaceutical sector]

# Article 13

We are practitioners. Our teams of experts help companies around the world to integrate and embed people and planet into their business strategy. We do this by...

- Identifying the issues which matter most to your organisation, your stakeholders and to the planet and global society...
- Supporting internal teams embed this insight into organisational strategy, performance, practice and culture by identifying the commercial risks and opportunities...
- To ultimately create trusted positive value.

We are pleased to announce that we have begun Year 2 of our three-year practitioner research on Planetary Boundaries and Social Thresholds. If you would like to be involved please contact Jim at [jimo@article13.com](mailto:jimo@article13.com) or Jane Fiona at [janfionac@article13.com](mailto:janfionac@article13.com).

## Article 13

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