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Quantifying sustainability performance in the food industry through Life Cycle Assessment



March 16, 2015

Sustainable Food Supply Chain Workshop

Princeton University

Our values



Our team

60 experts in 5 countries



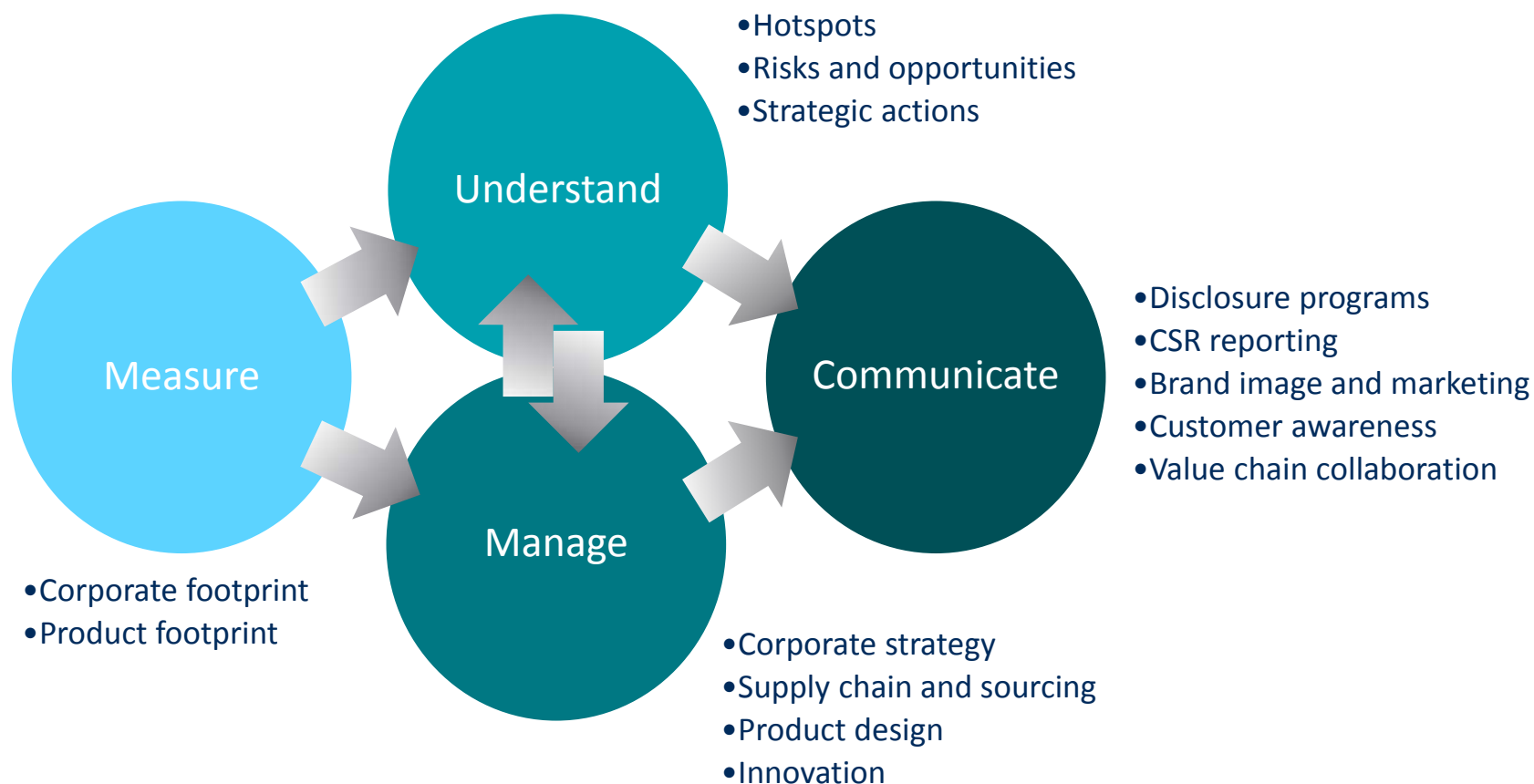
Our mission

Help companies measure, understand, manage and communicate on the sustainability story of their products, services and operations.

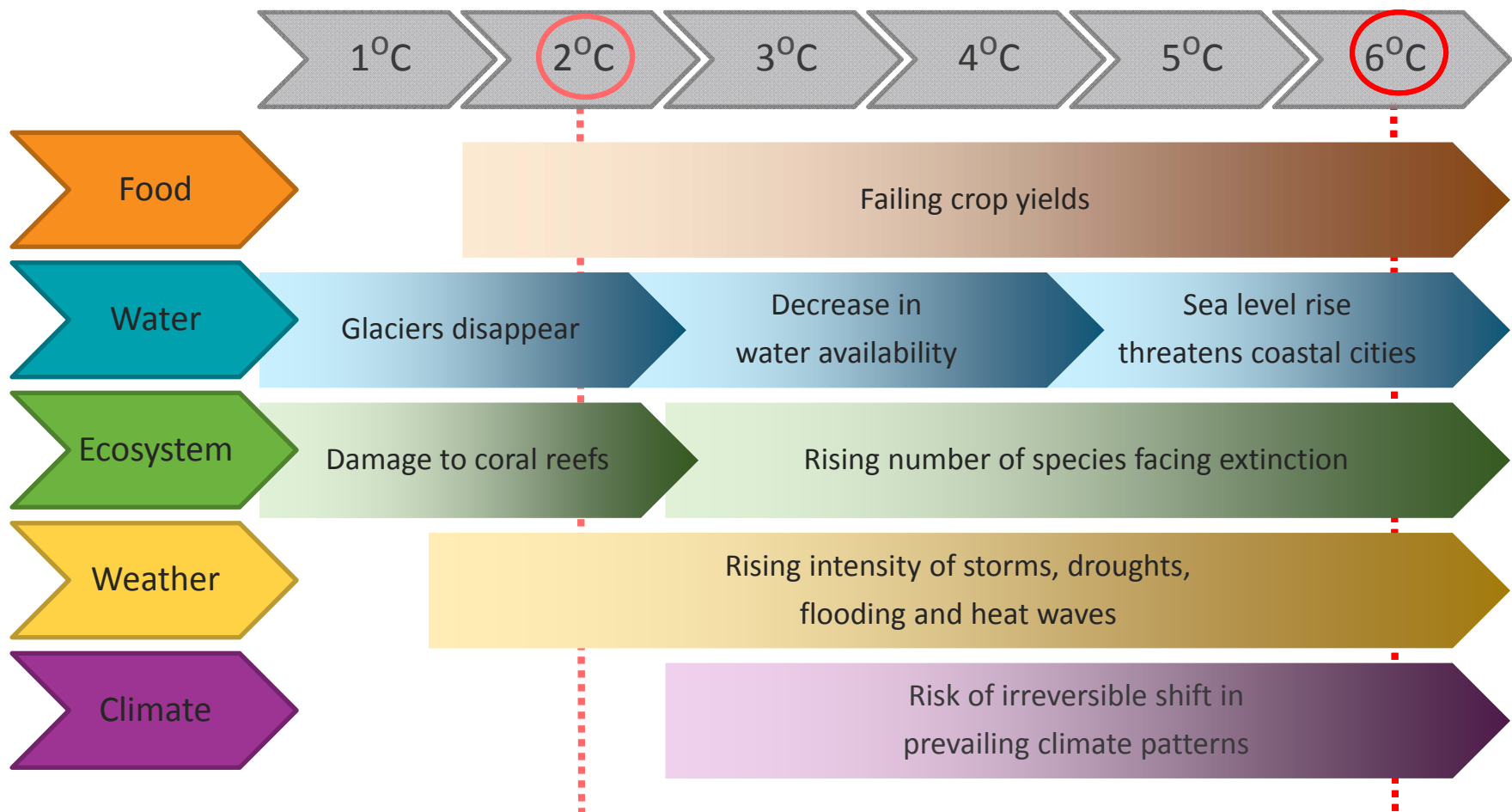
Guiding our clients



Meaningful metrics underlie successful sustainability management

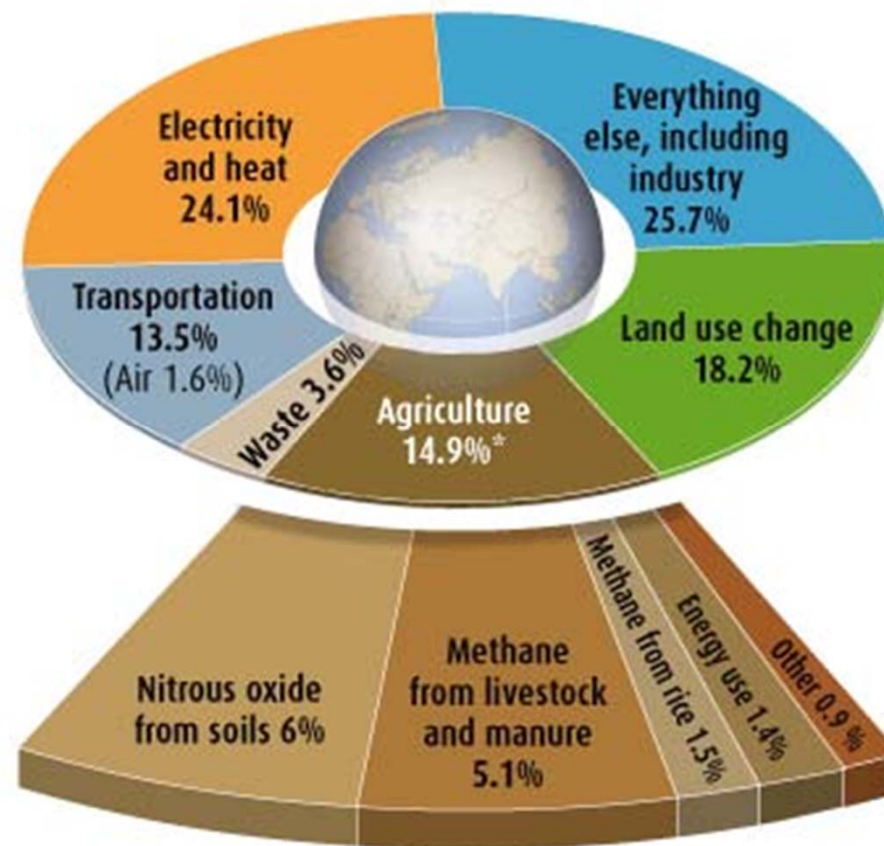


The status quo results in an increase in average temperature by 6°C .
A 2° increase is viewed as a necessary to prevent catastrophic consequences.



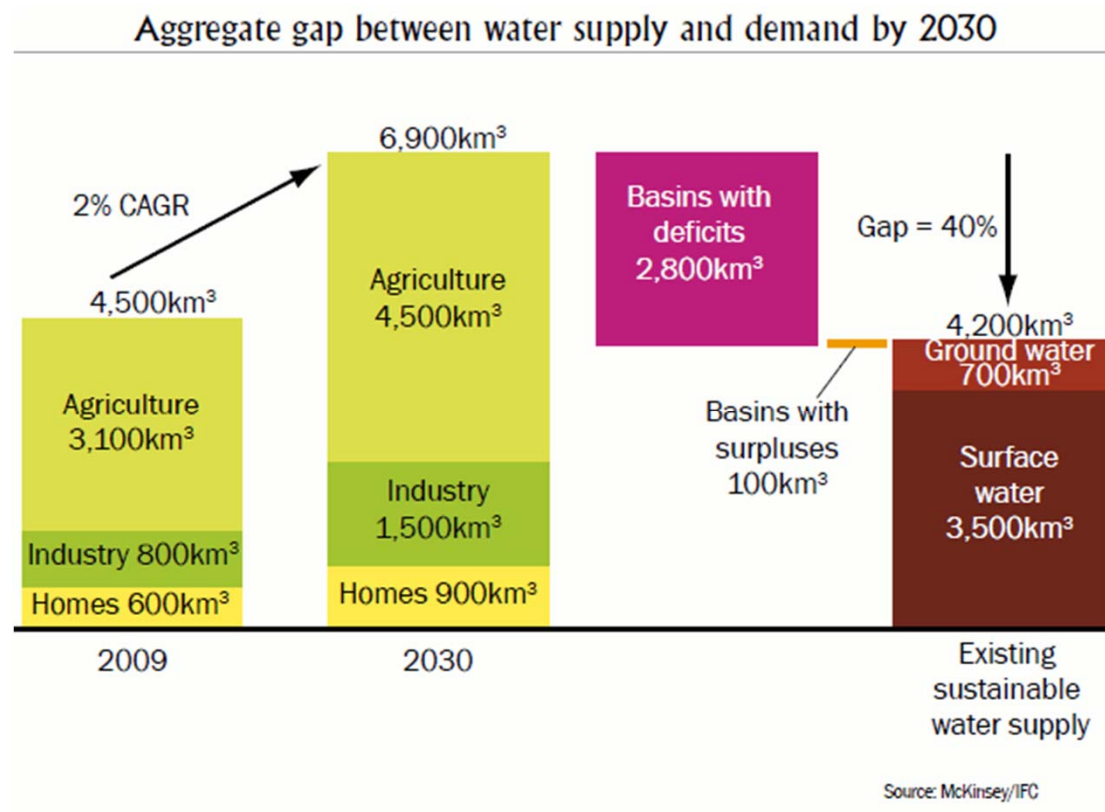
The food sector is currently associated with 15% of direct GHG emissions and >20% including land use change/ other activities

Global greenhouse gas emissions

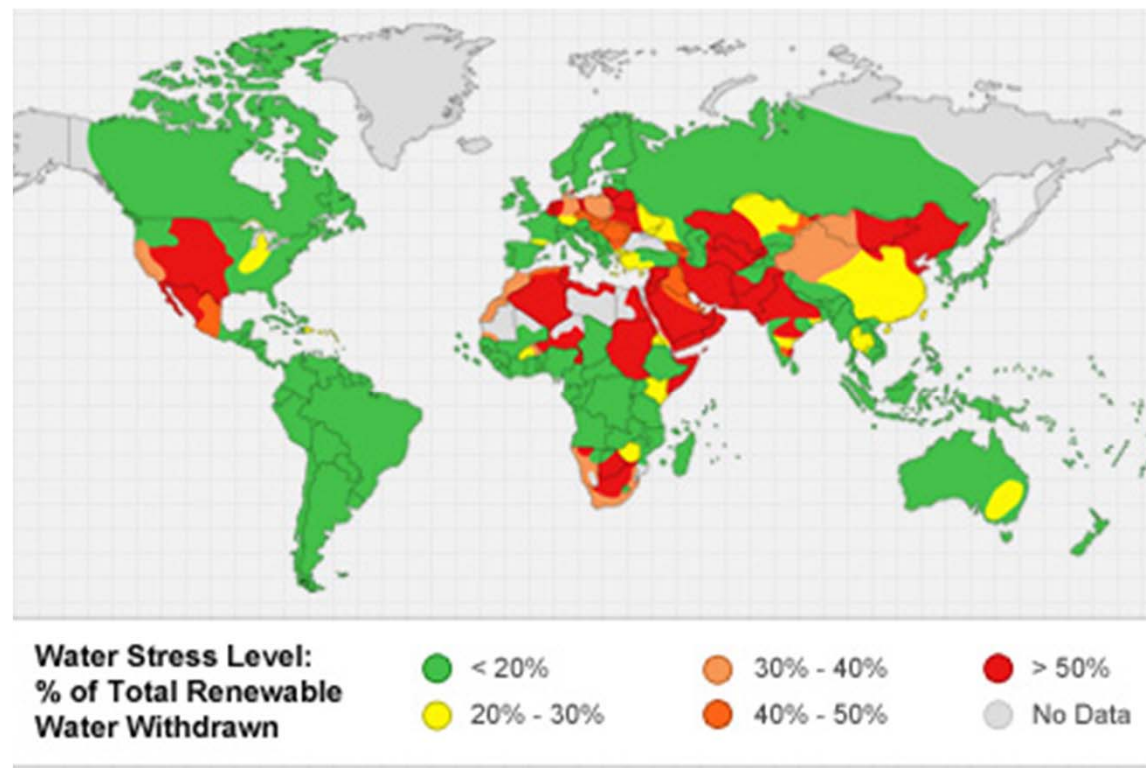


Source: World Resources Institute

Global water use is believed to already be at a level that cannot be sustained in the long-term.



Water shortages will manifest differently between regions and could be particularly severe in areas that depend on glaciers/icepack and deep aquifers for their sources

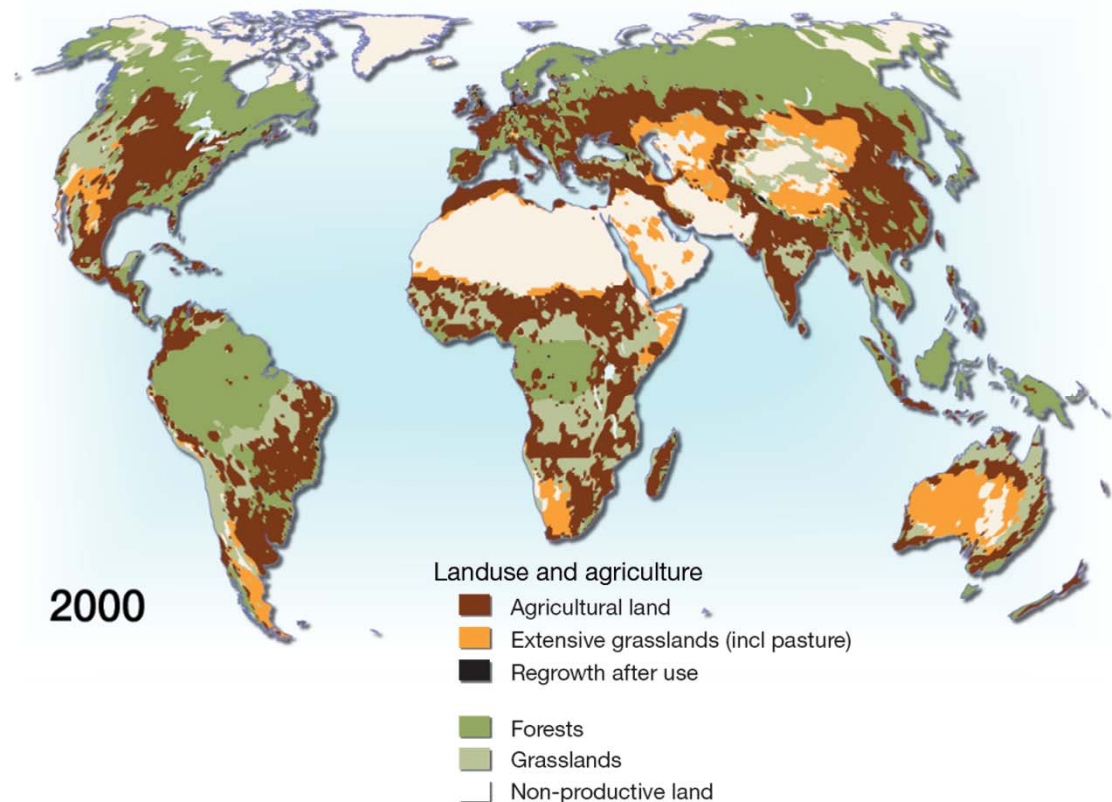


Source: www.growingblue.com

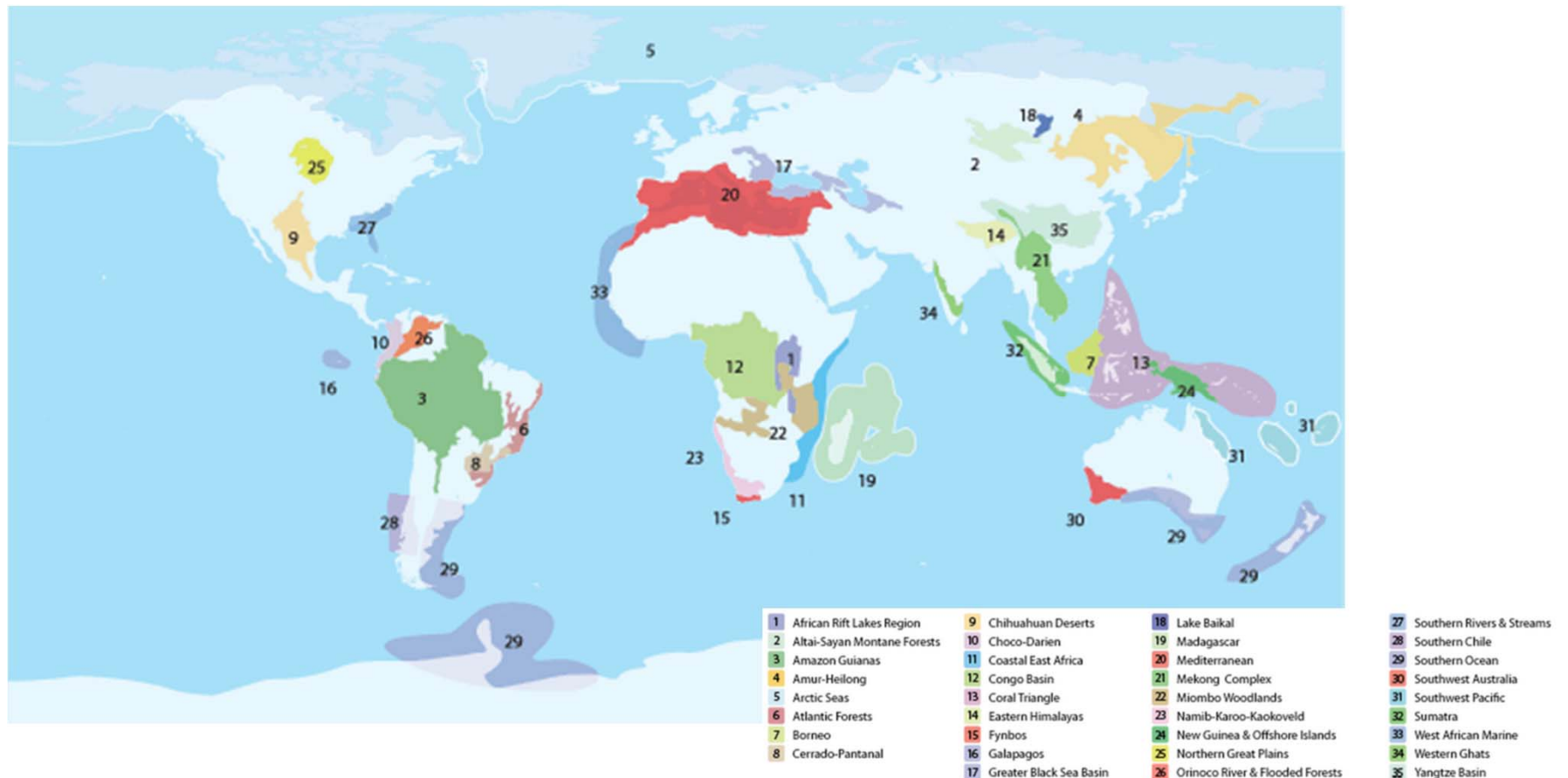
There is little ability to put more land into cultivation without encroaching on high-value habitat.

Agriculture is already occupying the majority of high quality arable land globally.

Remaining areas with high potential to be put in cultivation are also high value conservation zone.



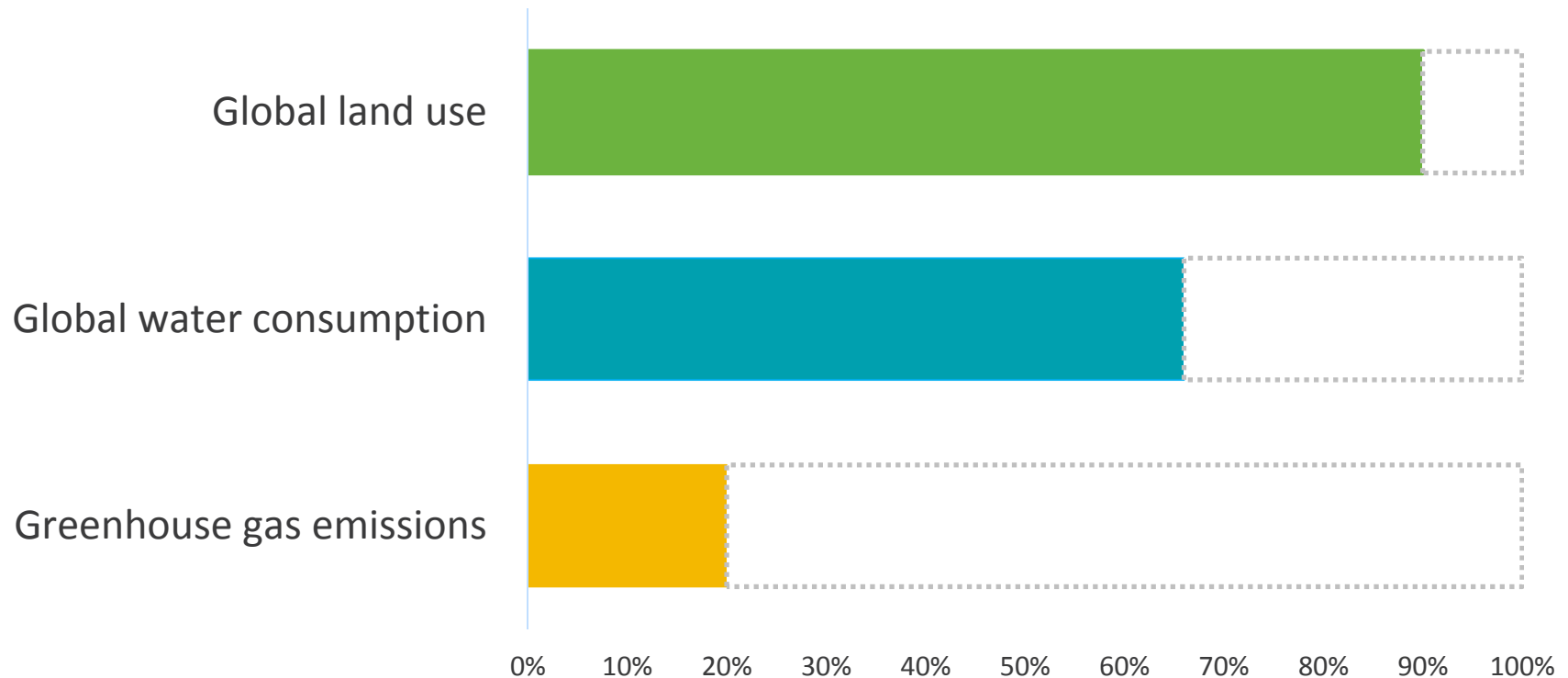
Where land is used will matter in protecting the world's high value conservation zones



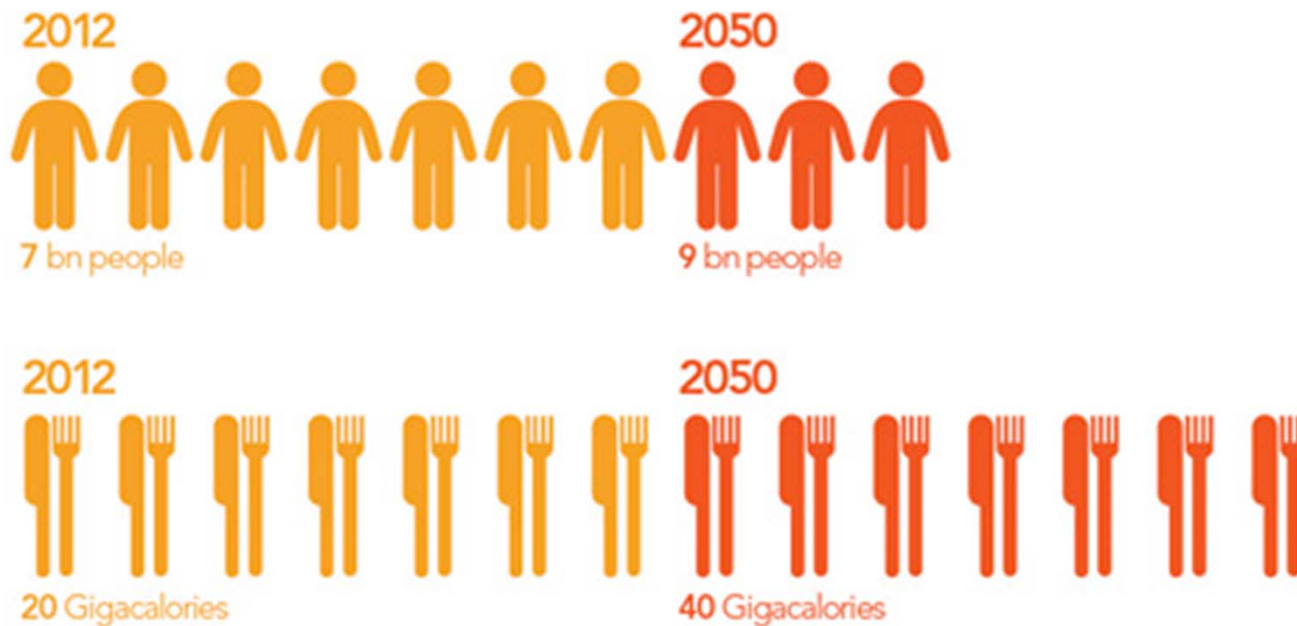
Source: WWF, "Earth's most special places"

The food industry plays a central role in these issues
and will feel the constraints most acutely

Contribution of food/agriculture to land, water and climate issues



Meanwhile, food demand per capita is rising and total food demand may double by 2050



Sustainability:

How do we get our measuring tape around that?



What does it mean for a product to be “sustainable”?

“Sustainability” is a property of the earth as a whole, including all human and natural activities.

- Individual, people, companies, products, etc., cannot alone be “sustainable.”
- We’re all in this together: either the world as a whole is sustainable or it is not.

Instead of asking “Am I being sustainable?” It makes more sense to ask:

- How am I contributing to sustainability?
- Am I doing better or worse than in the past?
- Am I doing better or worse than peers/competitors?

What is my performance on the key things I can measure that indicate my contribution to sustainability?

LCA related approaches give you wide coverage of sustainability issues across the full value chain



Sustainability is a multi-dimensional problem

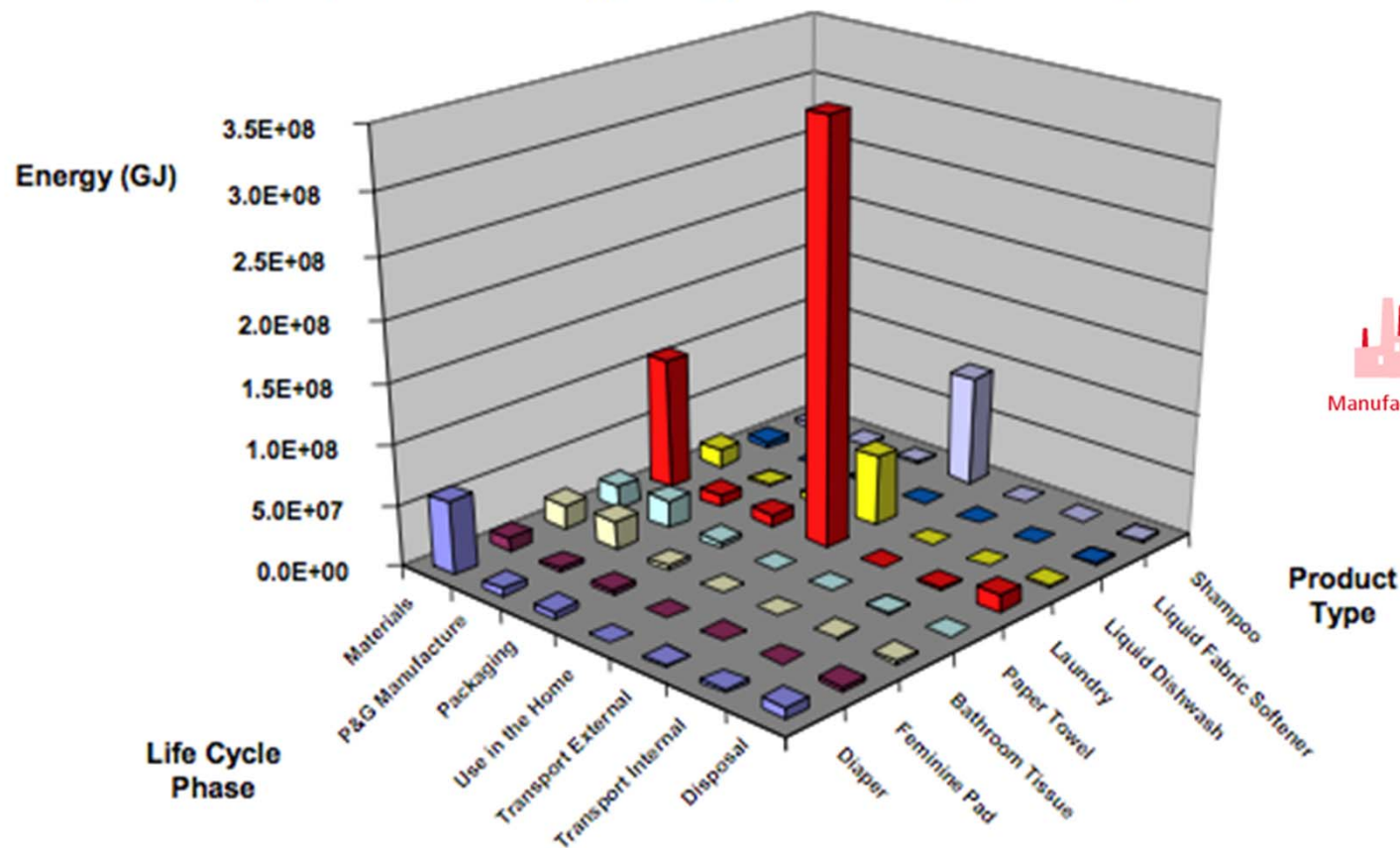


Need to see the bigger picture:

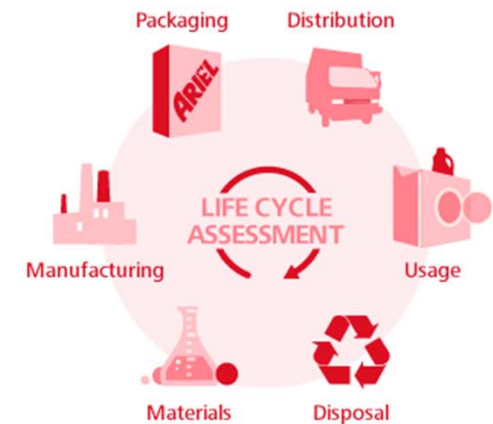


The biggest portion of our footprint happens in consumer's washing machines

Company Product Energy Usage from Life Cycle Perspective



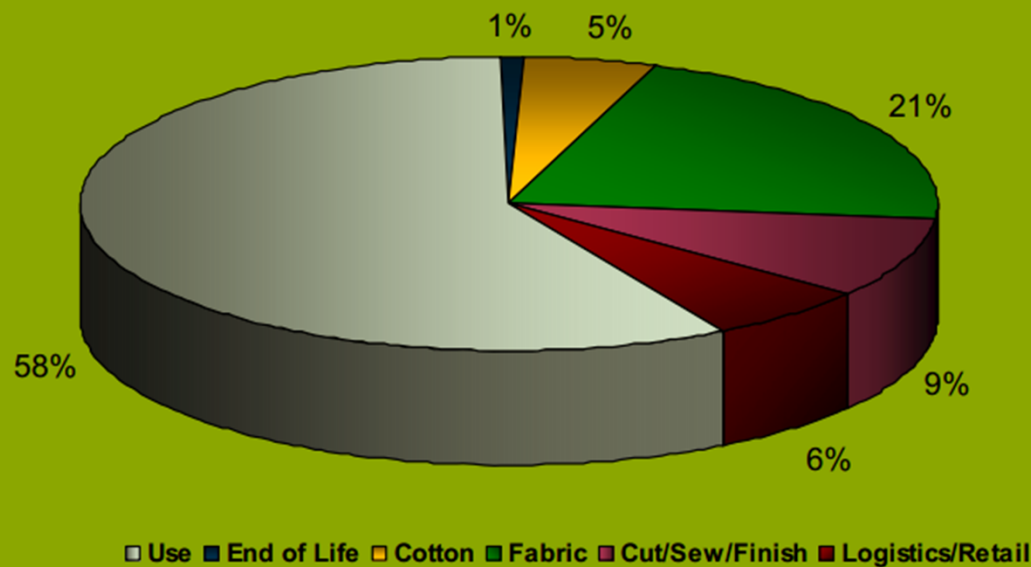
P&G



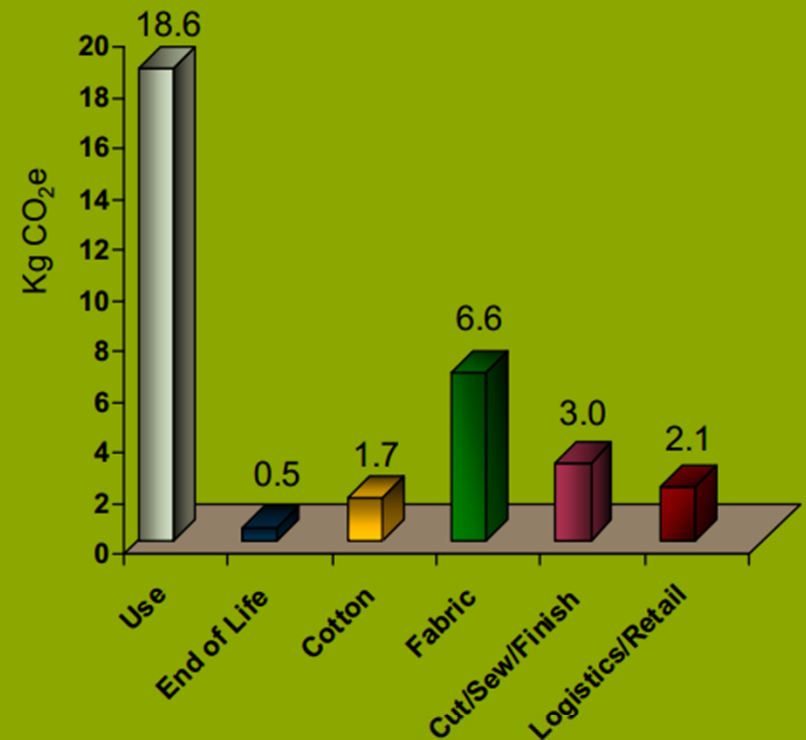
The biggest portion of our footprint happens in consumer's washing machines

Levi's

Cradle-to-Grave Climate Change,
% by Phase



Cradle-to-Grave Climate Change,
Amount by Phase



**For the studied Levi's® 501® jeans (cradle to grave),
the climate-change impact was highest at the consumer-use phase (58%)**

Saving people money to live better @Walmart Blog!

MONDAY, FEBRUARY 9, 2009

Levi's, Tide Pair Up at Walmart

Levi Strauss & Co. and Procter & Gamble's Tide have been helping Walmart shoppers cut costs and conserve energy while doing their laundry. Co-branded pallet displays in Action Alley are instructing shoppers to "save energy & money" by washing Levi's Signature denim apparel with Tide Coldwater detergent, which is formulated to fight stains and protect colors in cold water. The pallets, which merchandise Signature jeans on one side and Tide Coldwater on the other, began rolling out to Walmart stores in December. (The Levi's Signature line is also sold at Target, Kmart and Meijer.) The display is part of a national campaign by Signature, Tide and the Alliance to Save Energy, a non-profit coalition that promotes energy efficiency. The campaign provides "ways to save money and energy in 2009," according to press materials. Levi's features additional tips on reducing hot water and energy consumption during laundry on Signature's website, which declares that "up to 80% of the energy used while washing your clothes is used to heat the water."

Walmart stores have been further showcasing Tide products on endcaps stocking concentrated detergent from sub-brands Coldwater, Total Care, Tide with Downy and Tide with Febreze.

WALMART



SO WHAT IS THIS SITE ALL ABOUT?

I am pleased to announce that this is a Walmart outreach to all respectable employees and valuable customers -blog- that will consist of EVERYTHING Walmart! There are many areas and activities that we can inside and outside

“The most serious mistakes are not being made as a result of wrong answers. The truly dangerous thing is asking the wrong question”

-Peter Drucker

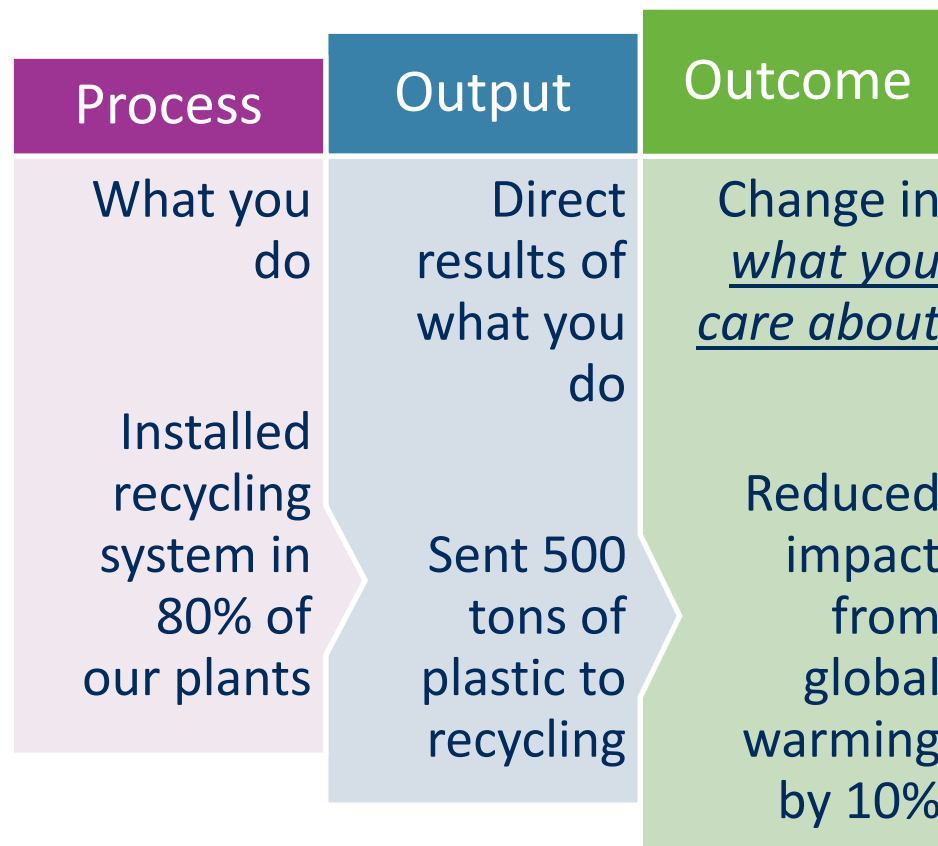
Example of considering food waste: Life Cycle Assessment of coffee brewing methods



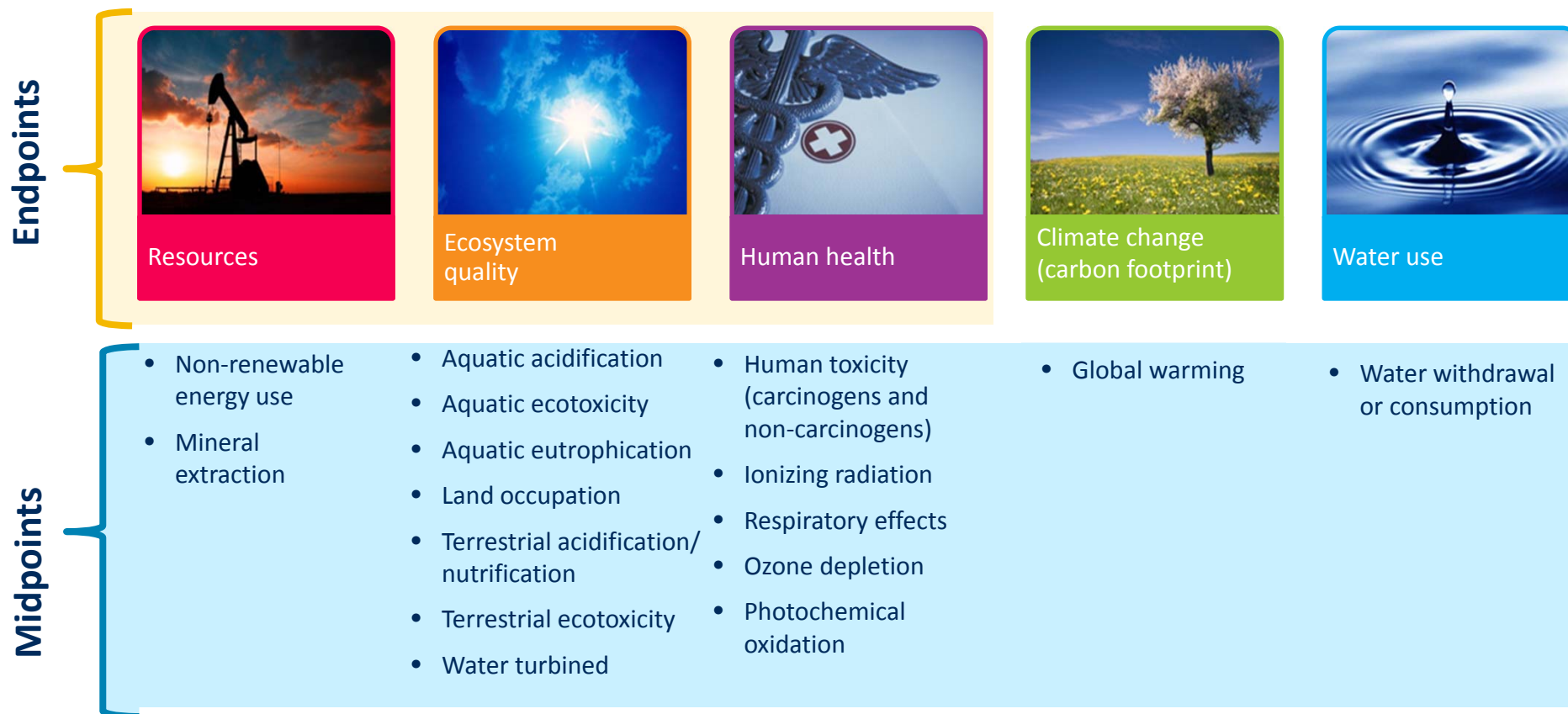
or



To understand our progress toward our goals, it is important to emphasize metrics that focus on outcomes



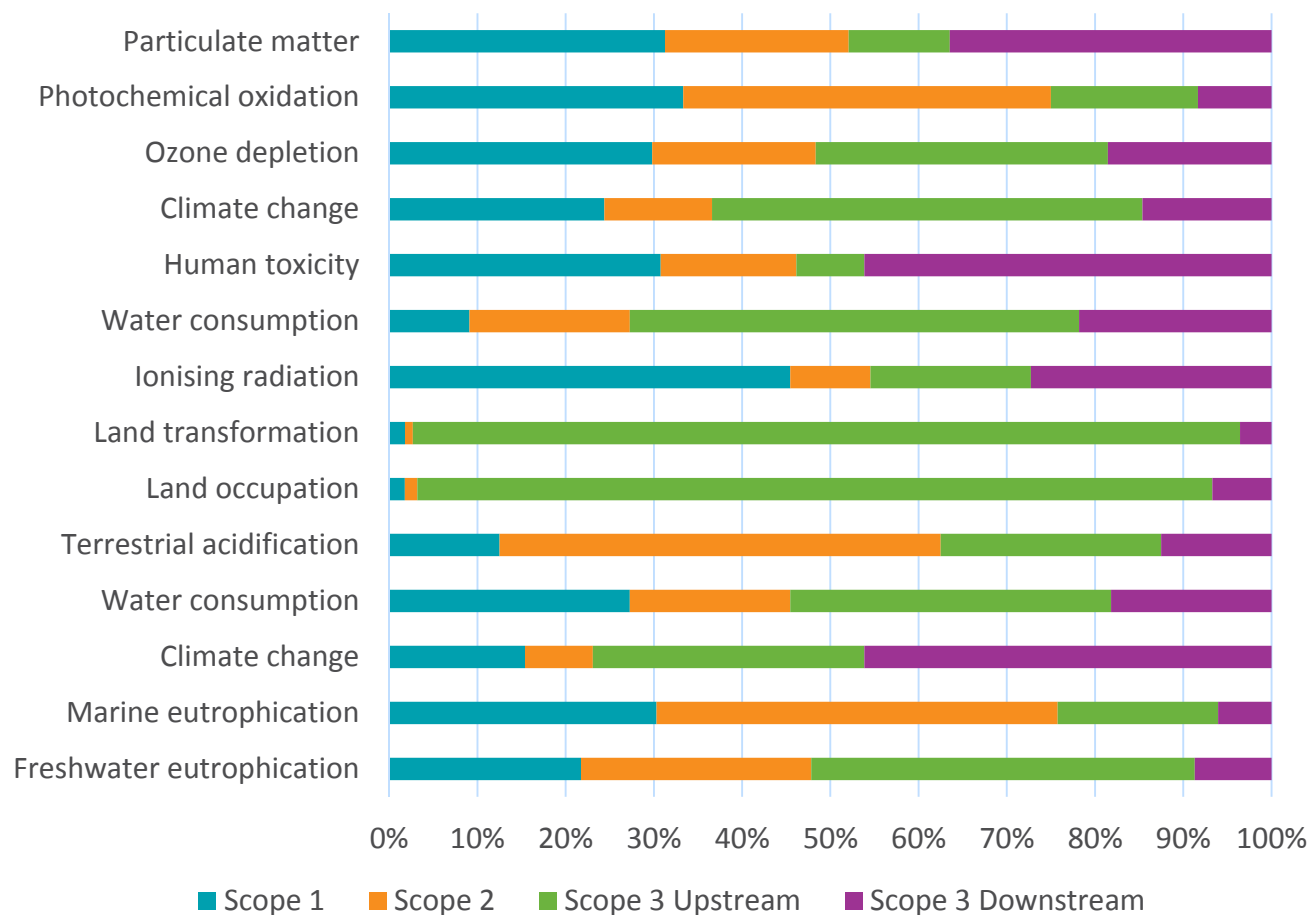
LCA can address a wide range of outcome-based environmental metrics



Life Cycle Assessment can also capture social impacts

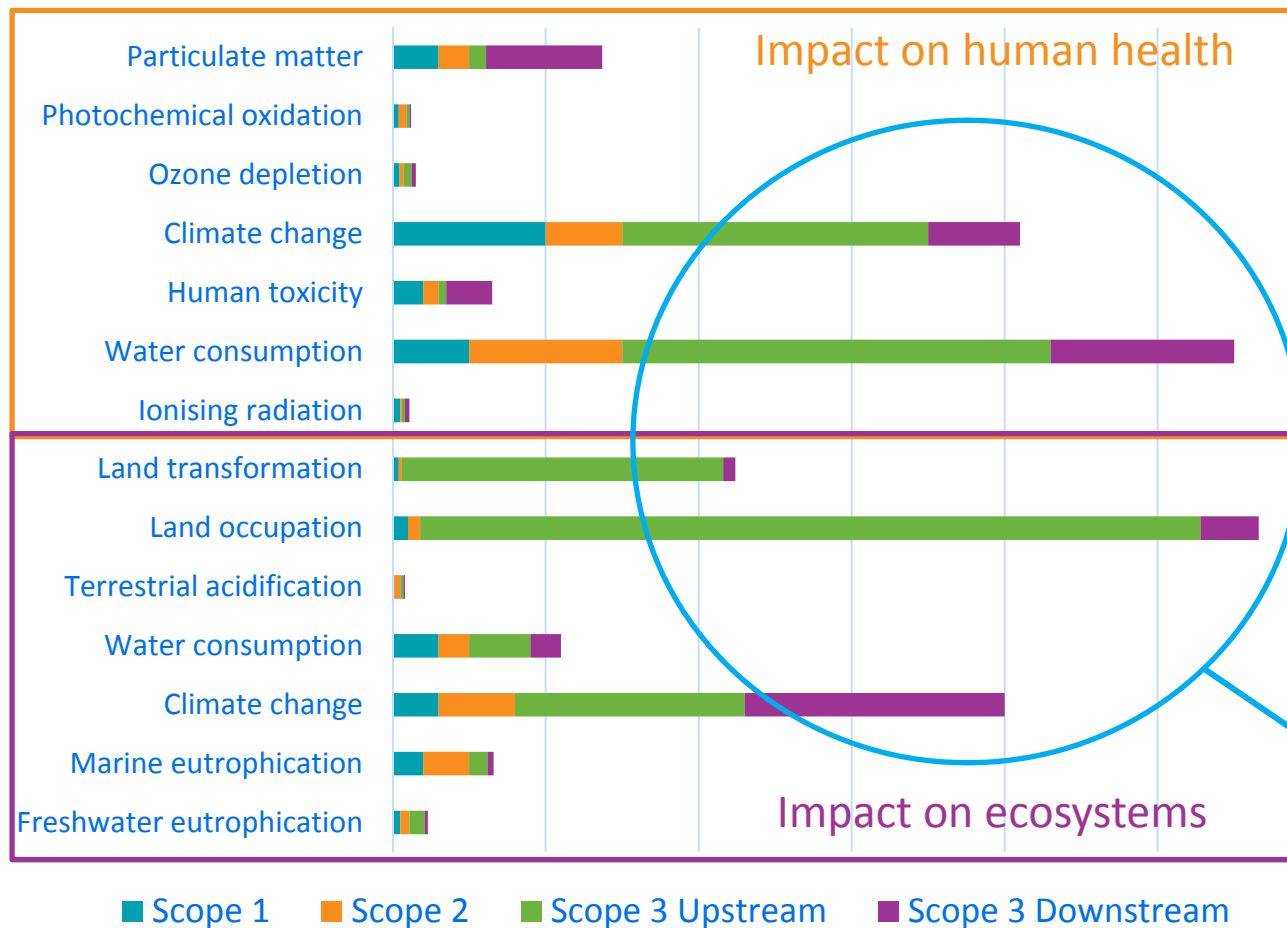


We can quickly be overwhelmed by lists of environmental concerns. Which are important?



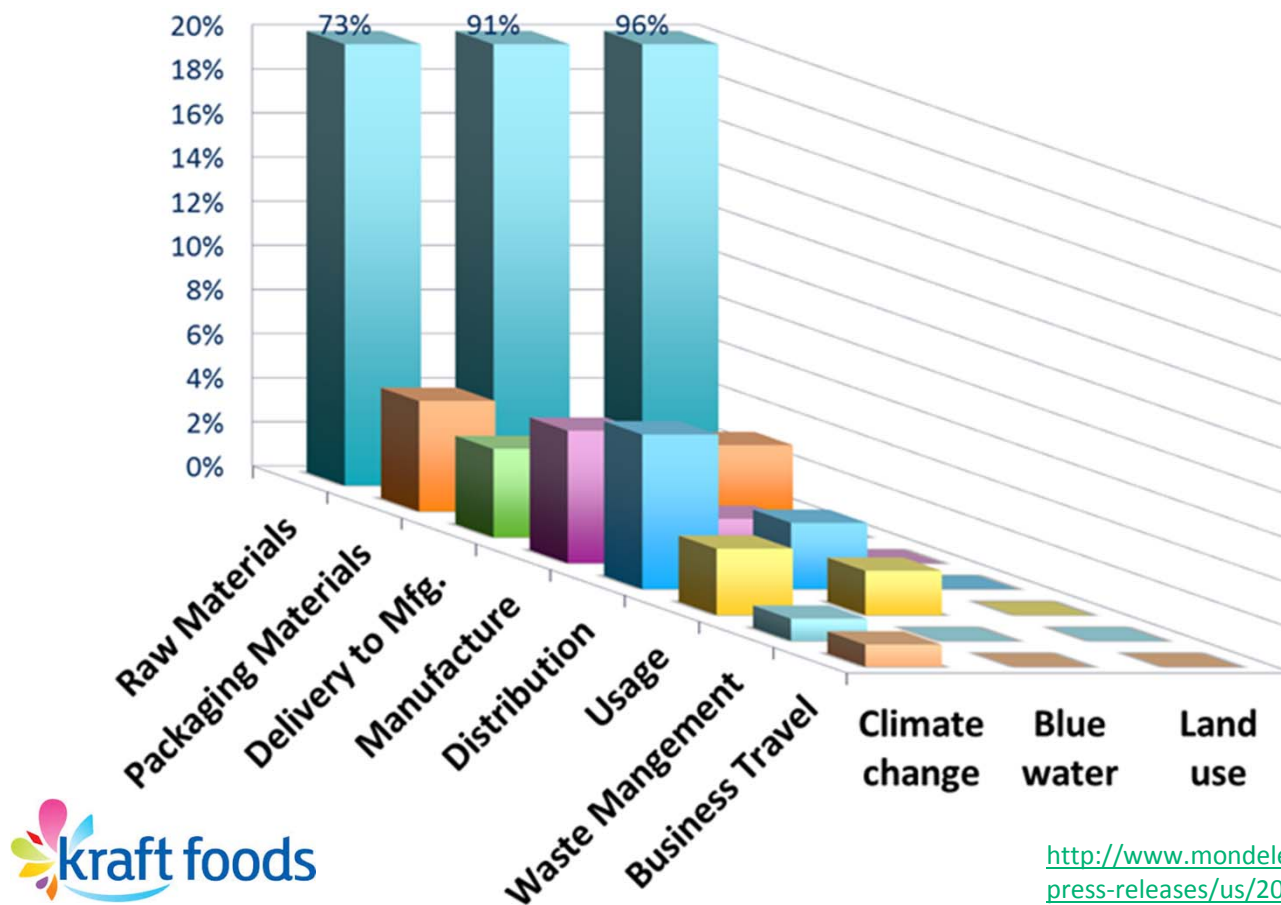
We can evaluate each impact category in to understand its hotspots in our value chain.

We can compare the categories at the “endpoint” to identify which are most impacting.

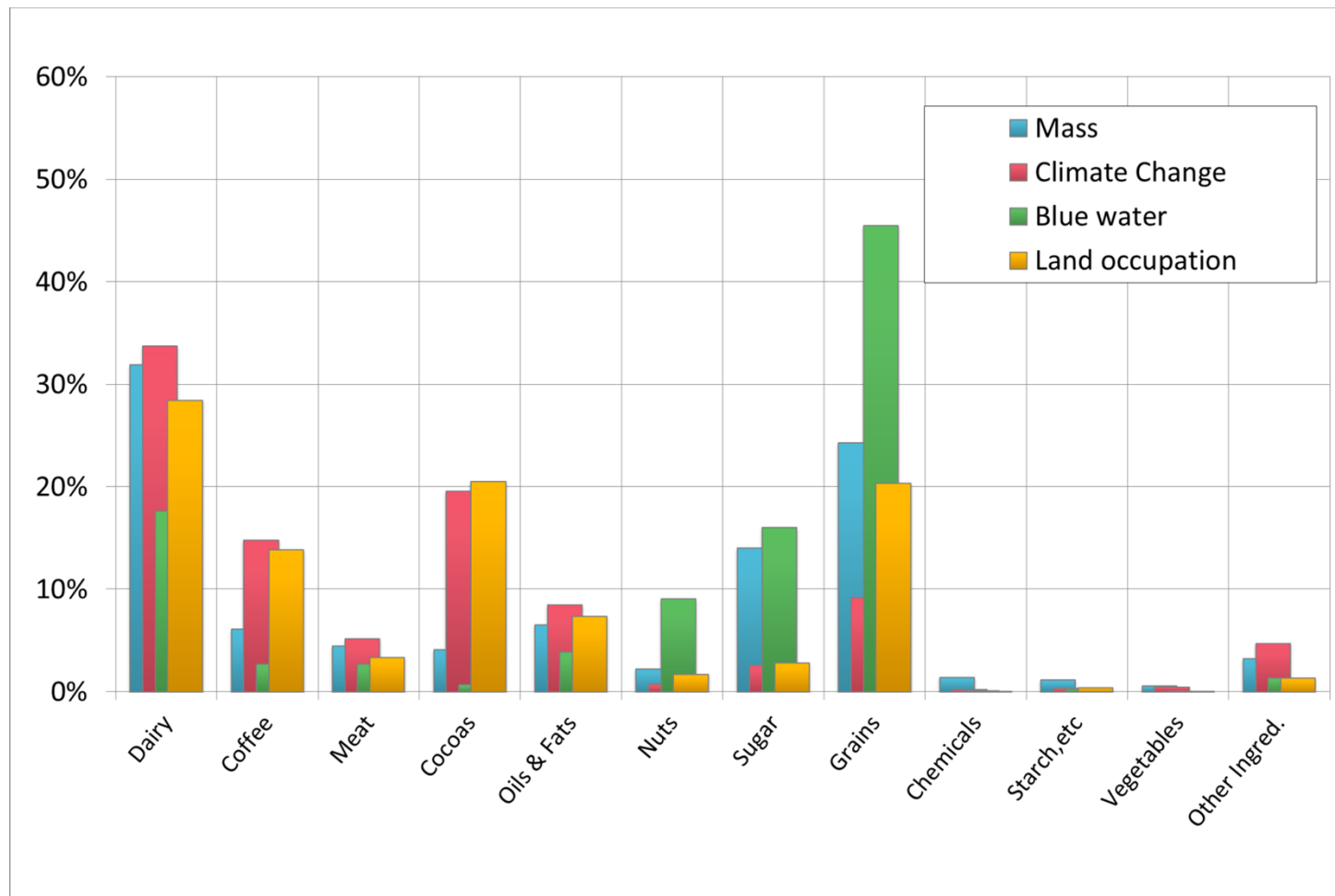


This example justifies a heavy focus on a few issues

Example of Kraft Foods: Corporate footprinting validates strategy to focus on supply chain



Digging a little deeper to identify hot-spots in the corporate supply chain



The background of the slide is a photograph of a large number of commercial airplanes parked on an airfield. The planes are of various colors and livery, including VIA, Air Canada, and others. They are arranged in rows, creating a sense of depth and scale. The sky is overcast and grey.

Thank you for flying
with Quantis

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