



Invertebrate Biocontrol Agents Professional Group Session

Lieselot Van der Veken PhD



Exiting times for Biocontrol

April 2017

The UN report says agrochemicals have “catastrophic impacts on the environment, human health and society as a whole” **“It is time to create a global process to transition toward safer and healthier food and agricultural production.”**

**Momentu
m is Now!**



Key puzzle pieces are being laid

May – June 2019

Opportunities for BC to develop SFVCs
Successful **pilot trials as billboards for agronomical innovation towards sustainable systems**: BC industry, food industry and retailers

October 2019

UN Climate top: Food companies request for agricultural transition
WBSD Coalition:

“We have broken the cycle of life, we need biodiversity back into our fields”



Invitations to do our part



Working together to deliver healthy people and a healthy planet

Published on October 21, 2019

SUSTAINABILITY

Ecological Social Economical



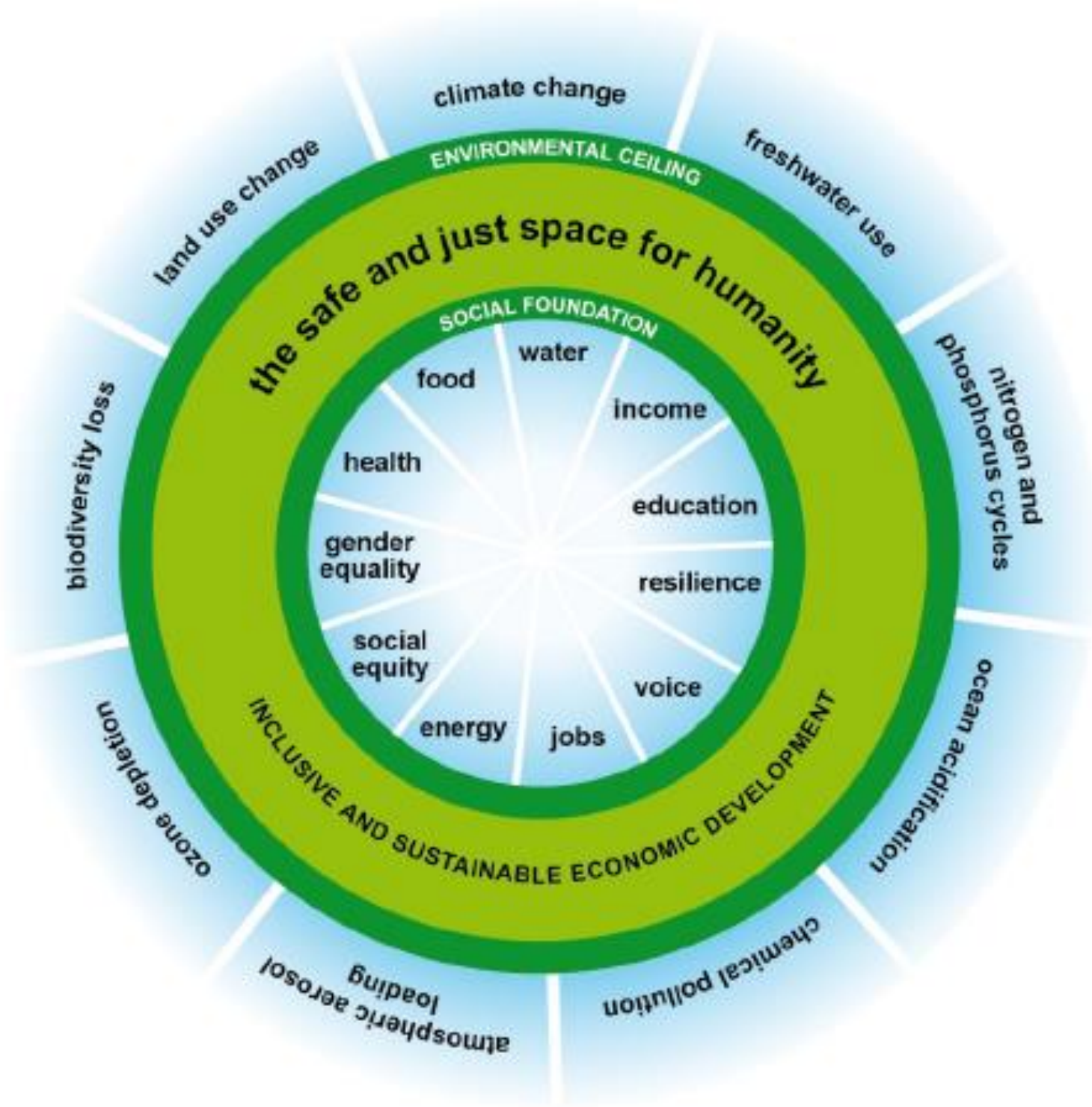
Social Foundations



Can we live within the Donut?



The doughnut: a safe and just space for humanity



 **SUSTAINABLE DEVELOPMENT GOALS**



Source: Oxfam. The 11 dimensions of the social foundation are illustrative and are based on governments' priorities for Rio+20. The nine dimensions of the environmental ceiling are based on the planetary boundaries set out by Rockström et al (2009b)

A SAFE AND JUST SPACE FOR HUMANITY

CAN WE LIVE WITHIN THE DOUGHNUT?



Humanity's challenge in the 21st century is to eradicate poverty and achieve prosperity for all within the means of the planet's limited natural resources

(K. Raworth, Oxfam 2012).

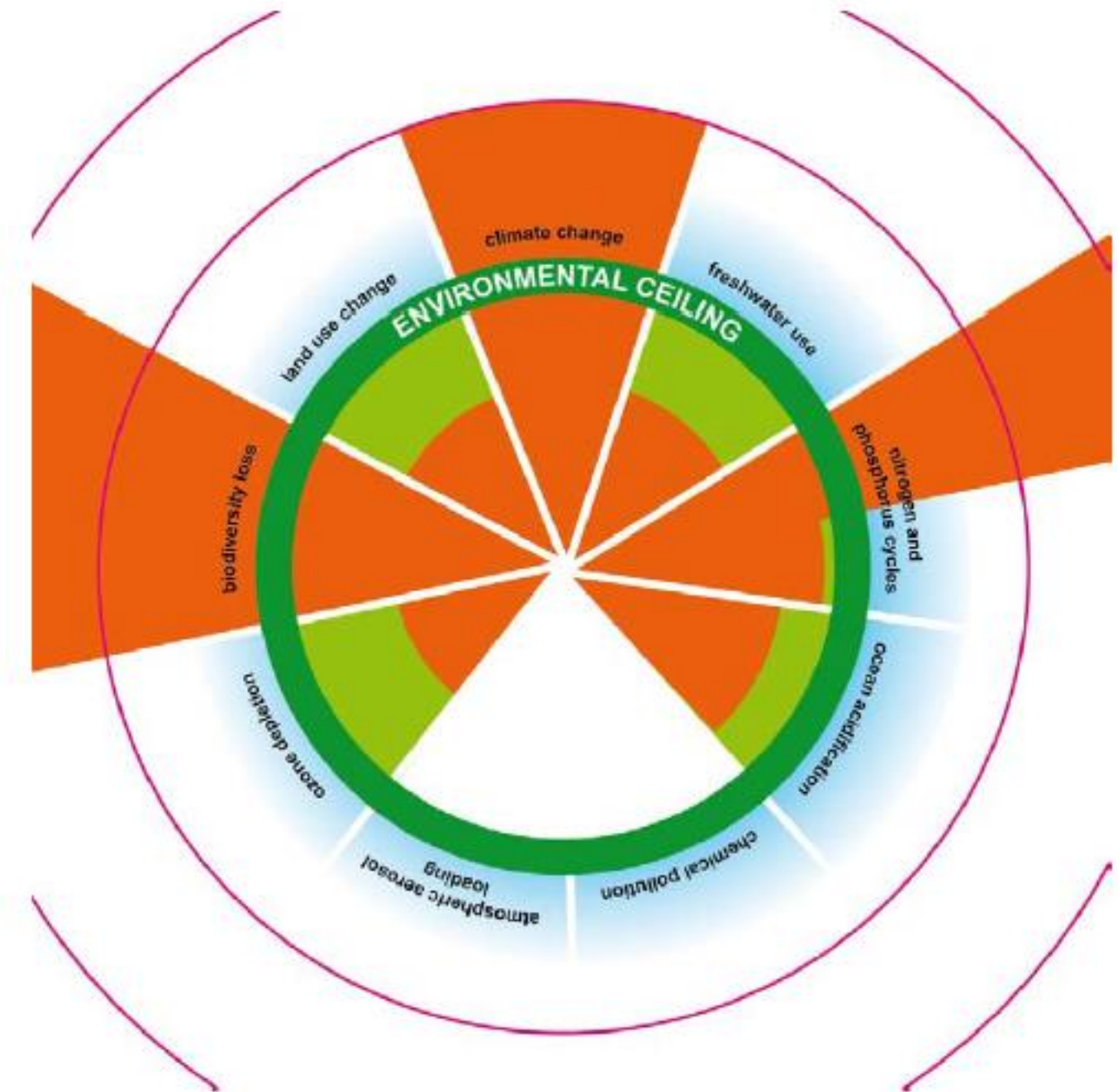
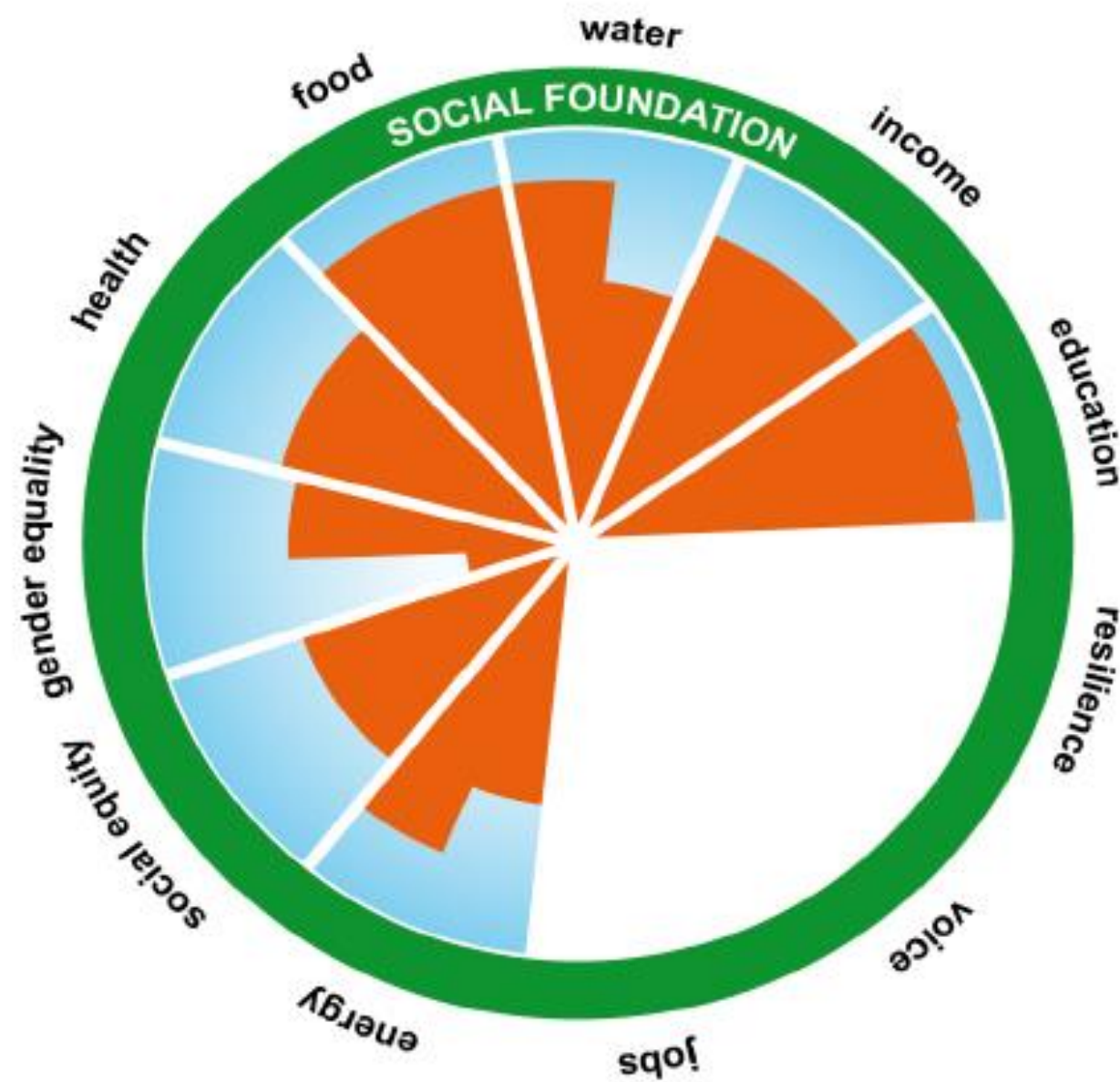


Social foundations

Planetary boundaries

Figure 2. Falling below the social foundation: An illustrative assessment based on Rio+20 priorities

Figure 3. Breaching planetary boundaries



Source: Oxfam, based on data in Table 1 above. Social dimensions with two indicators in Table 1 are represented by split wedges, showing both of the deprivation gaps.

Source: Rockström et al (2009b), based on Table 2 above.

Today's agricultural production accounts for:

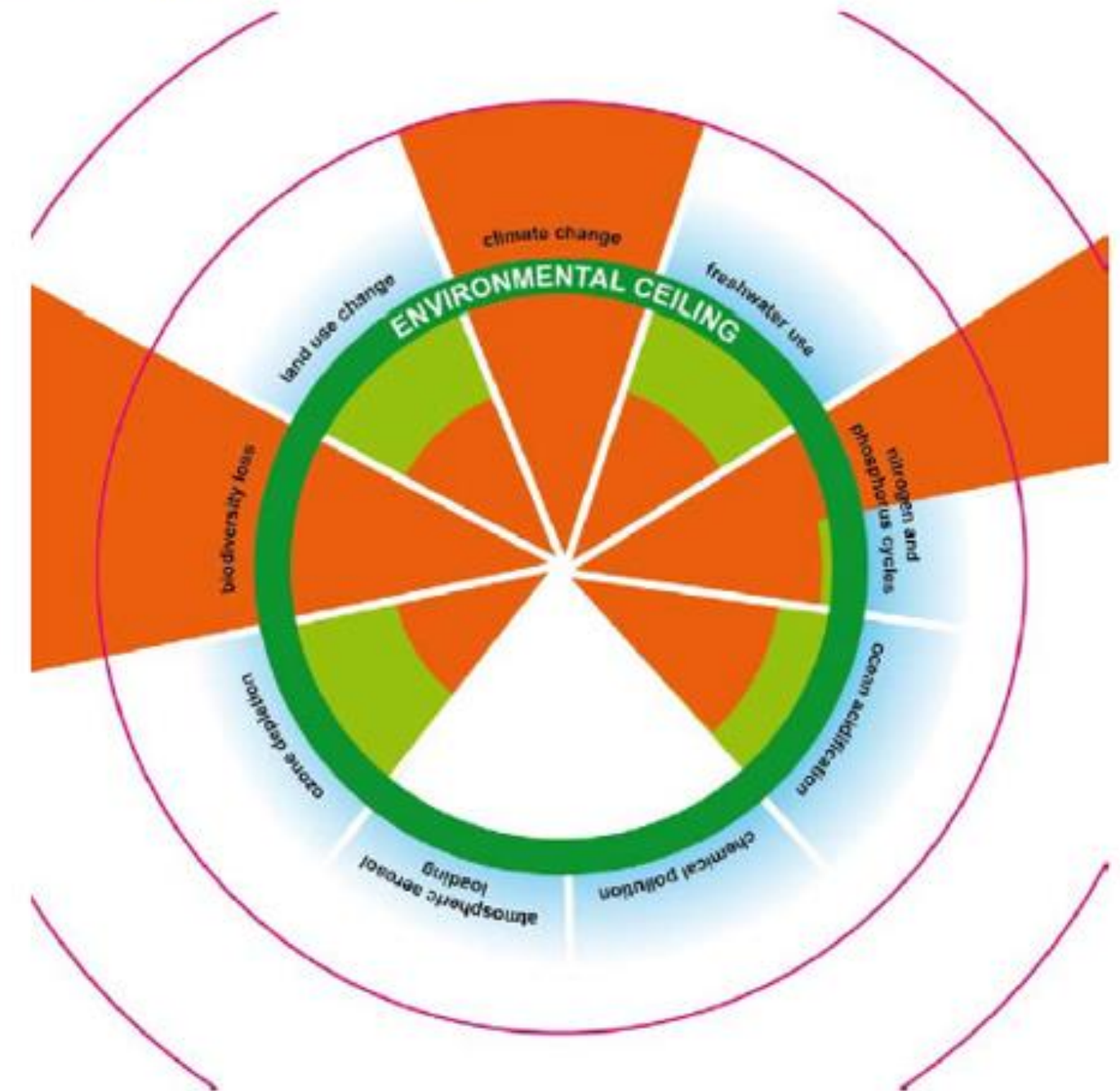
- 10-12% of greenhouse gas emissions causing climate change
- Biodiversity loss between 1970 and 2010 is 52%:

This is 100-1000 x faster than any previous background extinction rate (De Vos, Joppa, Gittleman, Stephens, & Pimm, 2014)

- N,P cycling (release of fossil N and P into system)
- Human and environmental health problems (UN, 2017)

Planetary boundaries

Figure 3. Breaching planetary boundaries



Source: Rockström et al (2009b), based on Table 2 above.

What BC solutions can offer to social sustainability

Improve food security

Increase income from agriculture

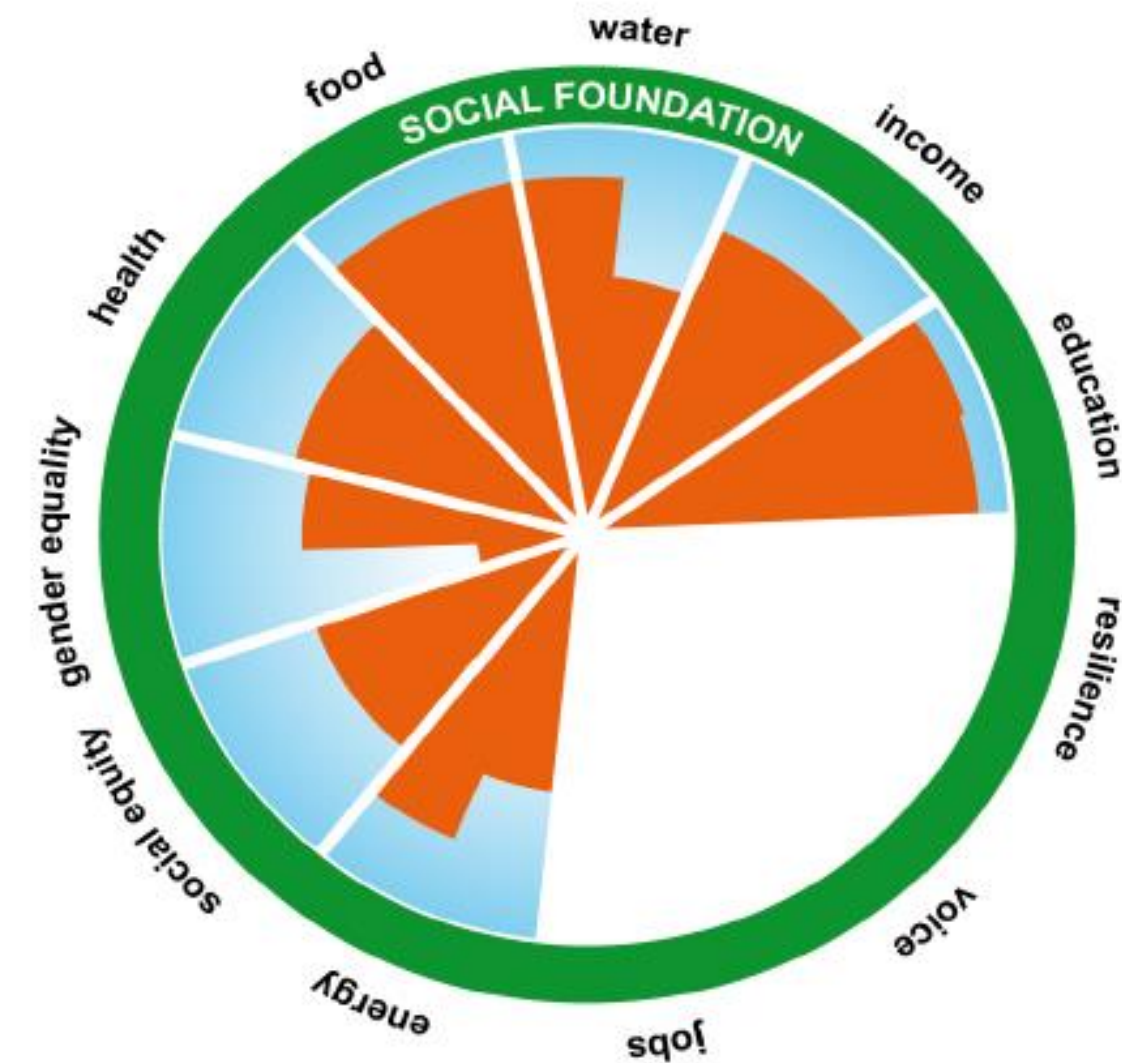
Empower women, the laborers in tropical subsistence farming

Enable education

Improve health by low impact green agro-solutions

Social Foundations

Figure 2. Falling below the social foundation: An illustrative assessment based on Rio+20 priorities



Source: Oxfam, based on data in Table 1 above. Social dimensions with two indicators in Table 1 are represented by split wedges, showing both of the deprivation gaps.

WHY address these challenges as BC industry?

Industry has: (unlike other segments of society)

Resources/ leverage

Agility

Can act pro-actively as sustainability leaders

“Business not addressing sustainability have no right to exist”

“Better address sustainability TODAY as later on it will only be more expensive”

(Paul Polman, CEO Unilever)

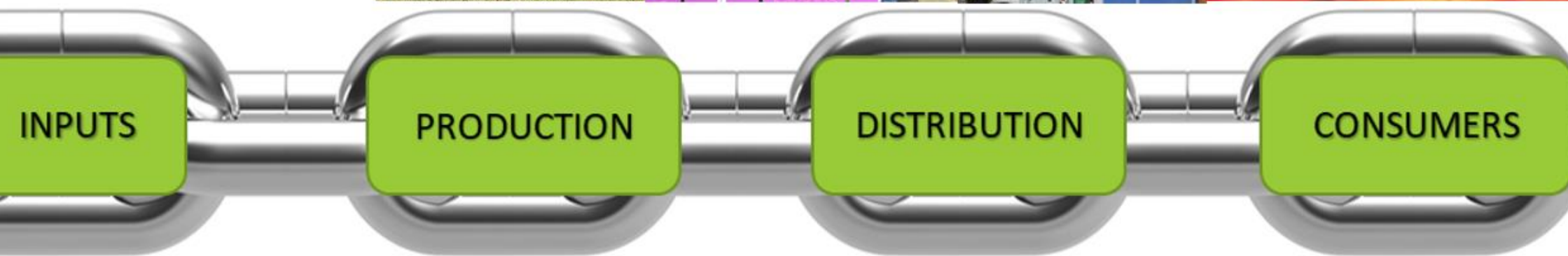
BC industry members have:

valuable green tools for the agro-transition in their portfolio's

How to address these challenges?

- *Co developing sustainable cropping systems addressing farmers' pains through an 'out of the box' holistic approach combining biocontrol, IPM and agro-ecological principles.*
- *Engaging in public affairs and lobbying, comprising education and awareness raising with all stakeholders of the food value chain, and collaborating with policy makers to facilitate developing sustainable agricultural systems.*
- Integrate ecological and social sustainability

Let us Empower Farmers by Nature



Valorize **SUSTAINABLE** practices
across the food value chain