

Thriving within planetary boundaries

Professor Johan Rockstrom, Executive Director Stockholm Resilience

Report by Maria Peters

The Ford Foundation recently hosted *B Team Live* which looked into Business and the Global Goals for 2015 by bringing together some of the world's most pioneering and ambitious leaders. Panellists and Speakers discussed how business leaders can do more to help meet the UN Sustainable Development Goals, and what the barriers and conditions for success are likely to be.

Professor Johan Rockstrom was the second speaker to take to the stage and his presentation was a timely reminder of the critical factors to guiding the necessary human transition to sustainable development. He reviewed how our planet has enabled us to continue to live and flourish worldwide over thousands of years, and explained the dangers of exhausting resources and under-rating the warning signs of tipping points ahead. Professor Rockstrom also reinforced the importance of centring people and planet at the heart of all things, and expressed his view that business should lead the economic revolution.

Three key points from this presentation:

- 1: Now is the time to try something new, even if that means taking-on and embracing disruptive change
- 2: A big world on a small planet; humanity is fast approaching a hard-wired tipping point
- 3: Bringing about a balanced Holocene through new systems in business that put people and planet at the heart of all things

Now is the time to try something new, even if that means taking-on and embracing disruptive change

Professor Rockstrom believes there could be no better time for a new economic revolution. In his view, he recognises the 17 Global Goals as an acknowledgement that world leaders have listened to science, and a reinforcement that when the world listens to logic, it can strive towards a stable and resilient planet. For example, Goals 13, 14 and 15 are all global environmental goals designed to encourage more and more people to pursue a much needed journey of ecological transformation into a new future. He states that 'as scientists we are celebrating a new era' and a 'remarkable turn of page'.

Furthermore, in a recent Earth Statement of earth systems created by some of the world's leading scientists, the notion of a 'new logic' was put forward to avoid ecological catastrophe. The Statement also demonstrates the ineffective and indeed hazardous nature of current systems, and reinforces Professor Rockstrom's view that the new logic should

integrate people and planet into the heart of all agendas across society. Whilst this may cause uneasy and disruptive change, there is no alternative; we are rapidly becoming too much for the planet and science predicts that if continue along the same path with the same or increased trends for much longer, we will cause catastrophic, irrevocable damage.

Therefore, embedding the new logic across society must become a reality, something for which Professor Rockstrom believes that business can become a catalytic driver of change. Since the Global Goals were launched and businesses have begun to tune-in to the logic behind the necessary changes ahead, the world must let science guide it's transitions into new, sustainable and responsible systems. and Professor Rockstrom believes that business should be in the driving seat.

A big world on a small planet; humanity is fast approaching a hard-wired tipping point

Science tells us that humanity is reaching a saturation point, or as Professor Rockstrom phrased it, we're starting to 'hit the ceiling of the planetary capacity to support humanity'. As such, our world needs to introduce and implement new systems that regulate the resilience of the planetary system.

Today, scientists are unaware of any other planetary states that can support the prosperity of humanity, other than the 'Holocene'. The Holocene encompasses the growth and impacts of the human race worldwide, including all its written history, development of major civilisations and overall significant transition towards urban living in the present - so we know that it works for our planet. However, whilst there are many varied and widespread contributing factors towards maintaining this planetary state, there are also limits and boundaries. Boundaries which must not be over stretched.

Rockstrom explained that the limitations are not something that scientists have chosen to place on the shoulders of society, they are simply 'hard-wired, non negotiable tipping points' that are actually acting as warning signs to us all. He states, "We need to stay within a safe boundary to allow humanity to prosper in the future".

Defining planetary boundaries is essential to regulating the Holocene equilibrium

In 2009 Professor Rockstrom and his team put forward nine big systems which are necessary to regulate the Holocene equilibrium. They then challenged scientists to explore the boundaries themselves and to respond with their take on what the best measures for regulating the necessary planetary state.

Over a thousand critical analysis have taken place and over one hundred papers published to significantly assess the situation.

Encouragingly, the scientists reached the same outcomes as Professor Rockstrom which supported the same nine systems; Climate Change, Ocean Acidification, Stratospheric Ozone, Biogeochemical, Global fresh water use, Land System Change, Rate of Biodiversity Loss, Chemical Pollution and Atmospheric Aerosol Loading.

Professor Rockstrom clearly demonstrated that science does have the answer that humanity will need in the face of these tipping points. His presentation reinforced the undesirability of a journey away from our planetary boundaries and emphasised the importance of accepting our shared responsibility of the planet as human beings;

"If we can be stewards of these nine systems we have a very high chance of securing a prosperous future for humanity."

Bringing about a balanced Holocene through new systems in business that put people and planet at the heart of all things

The key message that we took from this presentation was that there is no better way for the world to understand the fierce urgency of the global change that is needed than to connect people and planet at the centre of all things.

By raising a conscious and moral awareness of our responsibility to the planet as individuals, and bringing our shared responsibility into the heart of our decision making, we can acknowledge the facts and recognise what's actually happening to the planet on a much wider scale.

Crucially, we must disregard the notion that we can have growth without limits. Sticking to the status quo is no longer an option and more people need to become aware of where the earth really stands. We all have a role to play in this, a role which Professor Rockstrom believes should be led by business.

"If there's something that science tells today it is that to achieve zero poverty in the world requires zero carbon emissions by mid-century and zero biodiversity loss in the future. We can have a new paradigm where we can grow within planetary limits and where we can thrive within planetary boundaries; and I can see no part of society in a better place to act that business".