# Investing in a sustainable future:

## Beyond climate change



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Registered address: 34 St James's Street, London SW1A 1HD - www.earthcapital.net

# Time to see climate change mitigation as an investment opportunity[i]

On September 18 2018 Michael Sabia, CEO of the Caisse de dépôt et placement du Québec (Canada's 2nd largest pension fund), spoke at a roundtable discussion on sustainable finance at a meeting of G7 environment, oceans and energy ministers.[ii]

He stressed that climate change is an environmental problem which requires intervention by both public and private capital. With reference to that summer's climate events such as heat waves, drought, hurricanes, floods and wildfires, Mr Sabia implored his institutional investor colleagues to seize the investment opportunities associated with climate change mitigation and to stop seeing climate change solely as a risk:

***"Climate change ... it's an opportunity to do two things: to contribute positively to the transition to a lower carbon economy and at the same time ... to generate the returns we need to be good stewards of people's savings.... Climate change and responding to climate change is an important investment opportunity.***
***It's a profitable investment opportunity."***[ii]

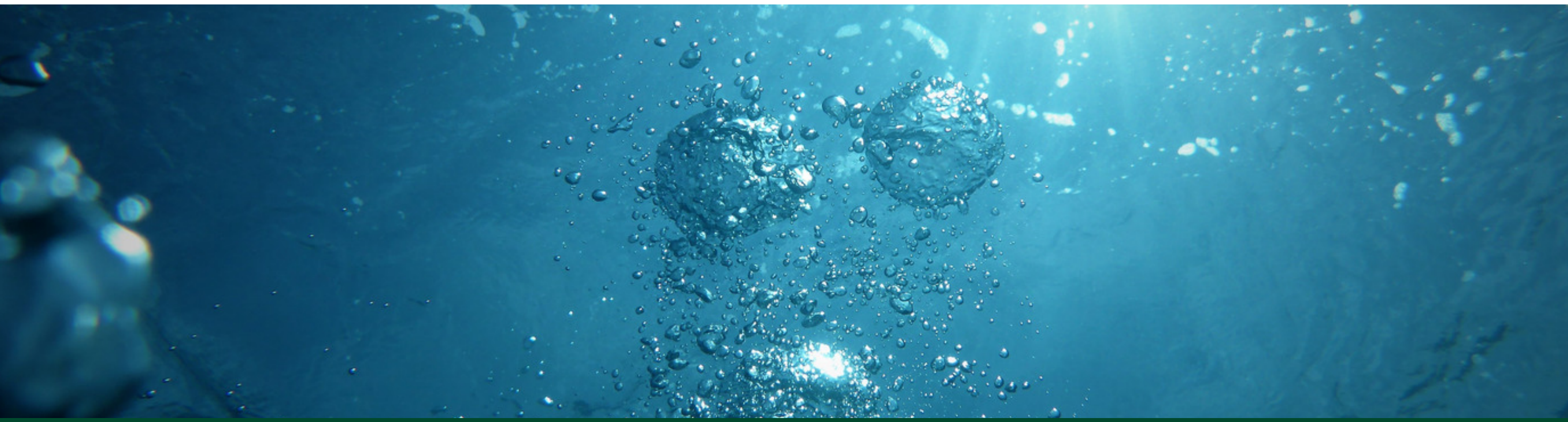
These comments resonate strongly with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).[iiii]

The 2017 TCFD report highlighted that the risk-return profile of corporates and organizations exposed to climate-related risks may change significantly.

Such organizations have become more affected by the physical impacts of climate change and the transition risk posed by policy changes and new technologies.

The resultant value at risk to global stock markets is considered so great that Mark Carney, Governor of the Bank of England and Chairman of the Financial Stability Board, has stressed the material systemic risk to the global financial system posed by a failure to transition to a low carbon economy.

The TCFD report also highlights the tremendous investment opportunity this expected transition creates by requiring “around $1 trillion of investments a year for the foreseeable future”.[v]



# Action on climate change alone is insufficient

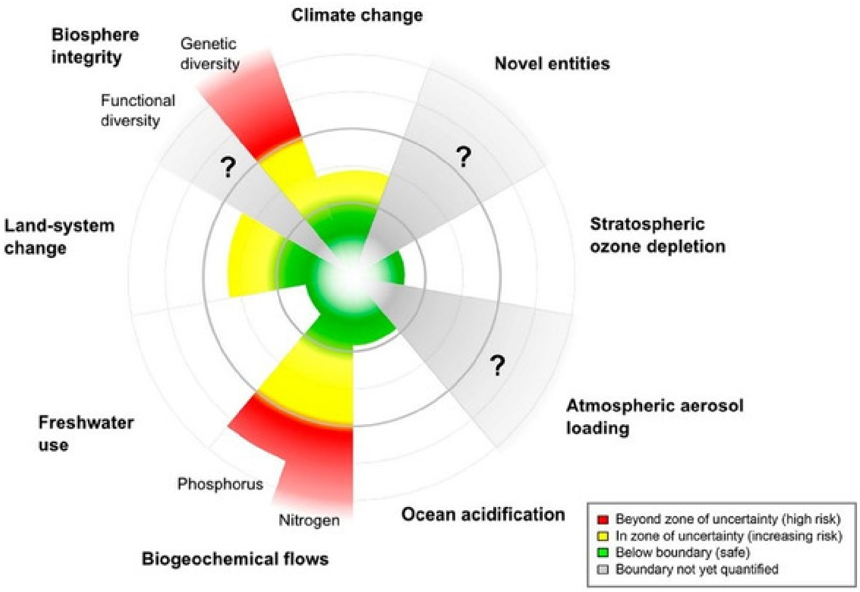
What is also becoming clear is that action on climate alone will not address the issues of sustainable development which threaten long-term socio-economic prosperity. These issues are now understood by both the scientific community and global governments.

The Stockholm Resilience Centre[vi] has produced a leading scientific commentary on the human-induced ecological threats impacting landscape, marine and urban environments.

Their ground-breaking work on planetary boundaries has analysed a range of ecological impacts which threaten a "safe operating space for humanity".

In the figure below,[viii] Climate Change is highlighted as an increasing risk, but of more concern is land system change, the loss of biodiversity and increasing flows of phosphorus and nitrogen into water systems (largely from agriculture). The latter two sets of issues are seen as beyond the "zone of uncertainty" and consequently pose a high risk.[vii]

This framing is an effective lens through which to consider the impact of collective human activity (and especially, business activity) to the current state of our global ecological Earth systems.




It also shows how human (and more specifically economic) development has necessitated a need for "resilience thinking" and understanding on how business decisions impact our ecosystems. It is also clear that "business as usual" thinking around these issues poses material socio-economic risk.

Added to this are a range of social issues causing inter-governmental concern such as persistent levels of global poverty; lack of access to primary energy; rising income inequality and increasing levels of forced human migration

## *The UN Sustainable Development Goals (SDGs)*

The UN SDGs are a collection of 17 inter-governmental global goals launched in 2015. They are the blueprint to achieve a better and more sustainable future to address the global social and economic development challenges we face. These include issues related to poverty, inequality, climate, and environmental degradation with a target to achieve the goals of sustainable development by 2030.

The SDGs have also become a framework for business action and investment to achieve the goals of sustainable development. For institutional investors, they represent a broad universe of investment opportunities which both include and go beyond mere climate change mitigation.

# SDGs are an unavoidable consideration for institutional investors

## *Responsible Investment*

The Principles for Responsible Investment (PRI), the world's largest responsible investment organization, see the SDGs as an unavoidable consideration for "universal owners".[ix]

From a PRI perspective, in relying on modern portfolio theory large institutional investors are considered to be "universal owners". With their highly-diversified, long-term portfolios being broadly representative of global capital markets, they effectively hold a slice of the overall market which makes their investment returns dependent on the continuing good health of the overall economy.

They can, therefore, improve their long-term financial performance by acting in such a way as to encourage sustainable economies and markets. PRI argues that "Failure to achieve the SDGs will impact all countries and sectors to some degree, and as such create macro-financial risks.

"Universal owners' portfolios are inevitably exposed to these growing and widespread economic risks – which are in large part caused by the companies and other entities in which they are invested." [x]

## *Bridging the funding gap*

By acknowledging that governments cannot do it all, the UN recognises that impact investing is critical to bridge the SDG funding gap.[xi]

Other leading institutional investors have already recognised the SDGs as an opportunity for direct investment.

In 2017 Dutch pension managers APG and PGGM released research which identified direct investment opportunities linked to 13 of the United Nations' 17 Sustainable Development Goals (SDGs).[xii]

The results of the research demonstrated areas which they considered as potential "sustainable development investments" (SDIs), bridging the gap between the UN's targets and tangible investment opportunities which meet their own risk-return criteria. The figure on the next page sets out a graphic of their analysis.

In June 2018, six of Denmark's largest pension funds invested in a new DKK 5bn investment fund set up by the Danish government as part of the country's contribution to the UN's Sustainable Development Goals (SDGs).[xiii] The size of the global opportunity is immense with an estimated need for investment of \$2-3 trillion a year.[xiv]

# The investability of the SDGs

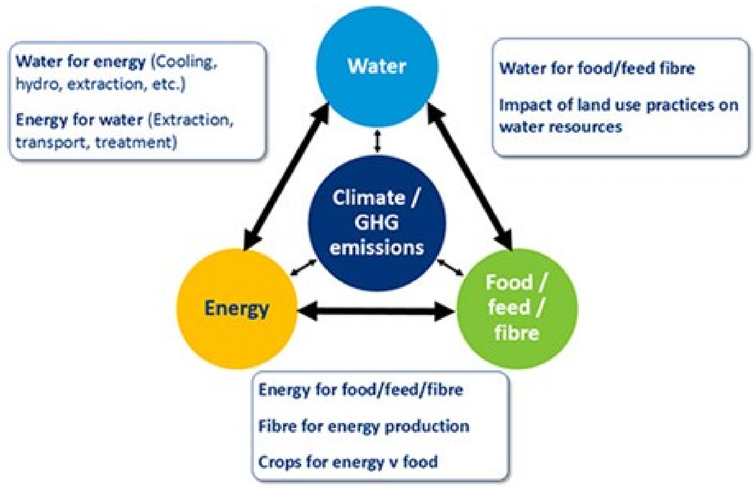
*The figure below shows the areas considered by APG and PGGM as potential sustainable development investments (SDIs), bridging the gap between the UN's targets and tangible investment opportunities which meet their own risk-return criteria.*


Another key takeaway from any analysis of the SDG framework is the inter-connectedness between the areas the SDGs target for development.

The food-water-energy nexus is often cited as central to sustainable development and a prime example of that inter-connectivity.

Demand for all three is increasing, driven by a rising global population, rapid urbanization, changing diets and economic growth.[xv] Climate change affecting the supply of water which affects the supply of food is an example of their inter-connectedness.

## The Energy, Food, Water, Climate Nexus[xvi]



# Substantial global opportunities

The evidence shows substantial global opportunities for new sustainable technologies. By 2050, the planet will host 9.6bn people.[xvii] There will be a 55% increase in demand for water, an 80% increase in demand for energy, and a 60% increase in demand for food.[xviii]

## *Not just climate change*

In summary, the SDGs are not about climate change alone. While the current focus of institutional investors on climate change and the TCFD is critical, their focus should be broader.

Institutional investors as “universal owners” need to ensure that public and private actors also collectively address the SDGs as a broader integrated framework and understand the impacts, both positive and negative, of their business and investment activities.

The SDGs represent a broader universe of significant inter-connected investment opportunities for institutional investors and not just single menu items on an à la carte menu.

## *The SDGs create investment opportunities*

It is clear therefore that action on climate change alone does not address the full range of issues threatening long-term socio-economic prosperity.

Although record heat waves, floods and forest fires focus attention on climate change, global leaders recognize that equally compelling are the investment opportunities from advancing the UN Sustainable Development Goals (SDGs) by investing in sustainable technologies providing, as an example, resource efficiencies for energy, food and water.

These investments in sustainable technologies can protect and enhance value, address social and environmental challenges as well as earn enhanced financial returns.

By investing in the UN SDGs, institutional investors can, for example, invest in clean energy to take action on climate change as well as sustainable technologies for resource efficiencies. But this is just a start.

# Sustainability focussed investing can be good for returns

## *Better-informed investment*

Robeco[xix] argue that by focusing on issues that are financially material, ESG adoption leads to better-informed investment decisions and outperformance.

They draw also on recent academic studies which underpin the analysis. A 2015 study, ‘From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance’ by Oxford University and Arabesque Partners[xx] examined more than 200 sources including academic research, industry reports, newspaper articles and books, and concluded that “80% of the reviewed studies demonstrate that prudent sustainability practices have a positive influence on investment performance".

## *Positive performance*

A second meta-study by Deutsche Bank’s Asset & Wealth Management division in conjunction with the University of Hamburg[xxi] went further and examined a universe of 2,250 academic studies published on this subject since 1970, using data spanning over four decades until 2014.

It concluded that ESG made a positive contribution to corporate financial performance in 62.6% of studies and had negative results in only 10% of cases (the remainder were neutral). On the point of materiality, a 2016 Harvard study revised in 2017 - Corporate Sustainability: First Evidence on Materiality[xxii] - argues that firms with good ratings on material sustainability issues significantly outperform firms with poor ratings on these issues.

***Robeco[xxiii] concludes that a growing body of evidence points to the fact that companies which are progressively more sustainable today will reap the rewards in the future.***

# An impact investing private equity solution

At Earth Capital, we believe impact investing can play a major role in directing growth capital private equity successfully and profitably to address the sustainable development challenges we face today.

The opportunity over the next 20 years is vast as global industries transform in making the necessary but disruptive changes required to transition toward creating a more sustainable economy.

Our approach is centred on a recognition that issues around energy, food and water will become increasingly critical and material in a world of growing population and increasing demand creating the joint challenges of climate change and resource scarcity.

As the Earth's population grows to almost 10 billion people by 2050,[xxiv] an estimated 9.6 billion people will drive 55% - 80% more demand for water, energy and food.[xxv]

To meet the challenges of this increasing demand, evolution toward a more sustainable economy is required.

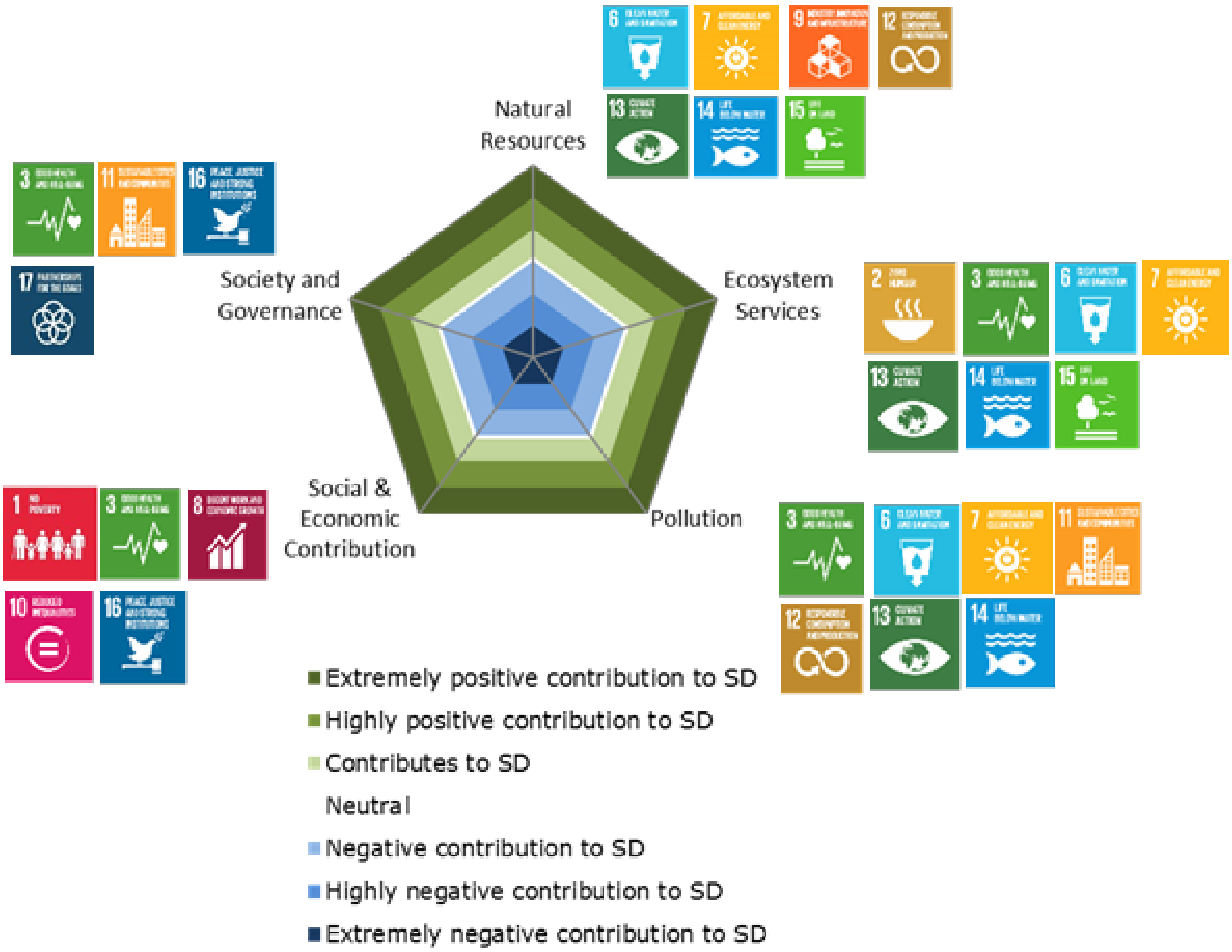
We need to evolve toward total annual consumption (ecological footprint) equaling the Earth’s capacity to regenerate renewable natural resources in that year (biocapacity). This informs our investment approach and our choice of investment themes.

We then subject proposed investments to our proprietary Earth Dividend™ process. It identifies potential areas of risk in the business's value chain which can be better managed or areas where we can innovate further the business model to create additional future value. In this way, Earth Capital is both financing change and changing the way finance is done.

Earth Capital has fully integrated Environment, Social and Governance (ESG) factors into its investment process. Through the Earth Dividend™ scorecard, we assess impacts both positive and negative, across 30 dimensions, including natural resource consumption, ecosystem services, pollution control and social and economic contribution.

# The Earth Dividend™ Scorecard

We have mapped these impacts to the SDGs. These are shown in the Earth Dividend™ Scorecard figure below.




Earth Capital developed the Earth Dividend™ scorecard following review of best practice approaches to the assessment, reporting and assurance of environmental, social and governance issues and performance.

The Earth Dividend™ is assessed and reported annually, at which time each investment held agrees to a performance improvement plan. The plans target improvements in the asset's contribution to sustainable development while also seeking to enhance the underlying commercial performance of the asset.

This forms a critical part of reporting to Earth Capital’s investors.  This is a key driver of financial value which creates dividends from both a financial and societal perspective to help drive sustainable development.

# The solutions to becoming a sustainable economy

The solutions to becoming a sustainable economy exist today as a result of advances in technology, particularly in resource efficiencies as well as clean energy renewables and storage. In addition, the problems and solutions are basically the same around the world. Globalization of these solutions through technology transfers helps solve these problems.

Earth Capital manages the Nobel Sustainability Fund® - a growth capital private equity fund which makes impact investments to address the issues of sustainable development. In order to achieve this, the fund invests in sustainable technologies providing resource efficiencies for energy, food, water and air/environmental as well as in clean energy renewables and storage.

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# Learn more

## Richard Burrett, Chief Sustainability Officer


**Contact number**
+44 (0) 20 7811 4500

**Email address**
richard.burrett@earthcapital.net

**Website**
http://www.earthcapital.net


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# Footnotes

- i https://www.halifaxtoday.ca/local-news/time-to-see-climate-change-mitigation-as-an-economic-opportunity-sabia-says-1052161
- ii https://www.halifaxtoday.ca/local-news/time-to-see-climate-change-mitigation-as-an-economic-opportunity-sabia-says-1052161
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- xv http://www.unwater.org/water-facts/water-food-and-energy/
- xvi “Supply chains are shaping the business models of the future”; Carbon Trust (2014)
- xvii “World Population Prospects The 2012 Revision Key Findings”; UN (2012)
- xviii “Global Forum on Environment: New Perspectives on the Water-Energy-Food-Nexus” (OECD 2014)
- xix https://www.robeco.com/uk/insights/2017/12/fact-or-fiction-sustainability-means-sacrificing-performance.html
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- xxiv "World Population Prospects The 2012 Revision Key Findings”; UN (2012)
- xxv "Global Forum on Environment: New Perspectives on the Water-Energy-Food-Nexus” (OECD 2014)