



WWF

SUSTAINABLE
FINANCE
REPORT

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RESILIENT AND SUSTAINABLE PORTFOLIOS: A FRAMEWORK FOR RESPONSIBLE INVESTMENT

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WWF is one of the world's largest and most experienced conservation organizations, with over 5 million supporters and a global network active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which people live in harmony with nature. WWF has worked with the finance sector for more than a decade via innovative collaborations that seek to integrate ESG risks and opportunities into mainstream finance so as to redirect financial flows to support the global sustainable development agenda. Our approach to sustainable finance leverages WWF's conservation expertise as well as our partnerships with companies on key issues such as water, energy, climate and food to drive sustainability. Positioned at the cutting-edge of sustainable finance internationally, WWF contributes directly to leading initiatives, including the European Commission's Technical Expert Group on Sustainable Finance and the development of an international green bonds standard. WWF also works directly with some of the largest asset owners in the world on decarbonizing investment portfolios. This has allowed us to strengthen lending and investment criteria for key industry sectors, provide insights and data on environmental and social risks, fulfil critical research gaps, help unlock innovations in sustainable finance products and convene key stakeholders to progress the sustainable finance agenda.

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FOREWORD

Responsible investment has momentum all over the world, indicated by an unprecedented number of financial institutions now being signatories to the

Principles for Responsible Investment (PRI). The responsible investment agenda has also become more goal-oriented with the introduction of the UN Sustainable Development Goals, which represent a consensus view on the world we want in 2030.



Lars Erik Mangset
Senior Advisor,
Responsible Investment
KLP

With the ever increasing support, it may feel like sailing with a tailwind—a steady course towards a future where prosperity within planetary boundaries is secured for everyone. But in order to assess if we are indeed heading in the right direction – we need to measure performance. The fundamental building block for businesses in decision-making and performance measurement is data. As such there is a need to address the elephant in the room, the lack of reliable, complete and preferably verified ESG data.

It is useful to consider the possible dual use of ESG data. For many asset managers, the integration of ESG aims to reduce financial risks by measuring, assessing and managing a wider scope of financial risk factors. The introduction of the Task Force on Climate-related Financial Disclosures (TCFD) falls nicely within this line of thinking.

However, if you were to ask “what kind of contribution does company A have on the SDGs?” and “to what extent is my investment portfolio aligned with the ambition of limiting global warming well below 2°C?” – then traditional ESG ratings data have limitations. Such data typically captures a company’s ambitions, guidelines and systems for addressing ESG factors, without directly considering the effect a company’s production, services and products have on nature, society and people. In the universe of traditional ESG data, an oil producer may enjoy a better rating than a solar energy developer, since their products’ outcomes and sustainability impacts are not directly measured.

If the financial industry is to improve its planetary stewardship, we must measure investments’ contributions to the SDGs. This will enable us to create investment and engagement strategies that have positive impacts in “the real world”.

Moving towards such a vision, we need to increase the adoption and diffusion of science-based data, criteria and targets, harmonized with the SDGs and the Paris Agreement. The approach to responsible investment offered by WWF in this new report and framework offers investors a way forward towards achieving this vision. In particular, the framework will help asset owners refine their internal ESG approaches, and for those using external asset managers, to better assess which ones are able to deliver on responsible investment mandates.

It will certainly take time for the industry to properly embed science-based data into core processes. But this journey is one on which we all have a common interest to succeed. A sustainable world and societies are fundamental to the long-term stability of financial markets. We all depend on healthy ecosystems, societies and people in creating sustainable economic growth.

Lars Erik Mangset
Senior Advisor, Responsible Investment
KLP

FOREWORD

We live in challenging yet inspiring times. On the one hand, our societies are putting enormous pressure on the ecosystems we all depend on.



Syed Hamadah Syed Othman
Chief Executive Officer
Retirement Fund
(Incorporated) or KWAP

Climate change, biodiversity loss and human rights violations are just a few of the pressing issues that we collectively need to address.

On the other hand, we are witnessing unparalleled global momentum in the finance sector's efforts to address these challenges by practising responsible investment. There is growing evidence for the materiality of climate change and other sustainability risks for investment portfolios. This has facilitated the entrance of ESG into asset owners' understanding of fiduciary duty. Regulators and supervisory authorities in emerging and developed markets alike are also driving the agenda by taking steps to ensure that voluntary endeavours on ESG, including more disclosure, scenario analysis and active ownership, will become the new norm.

Globally, asset owners are responding. A recent Morgan Stanley survey found that 70 per cent of the 118 global asset owners surveyed incorporate ESG into their investments. At last count, asset owner signatories to the Principles for Responsible Investment controlled US\$19 trillion, with 86 per cent of them including ESG as a criterion for selecting and managing external managers.

As Malaysia's second largest pension fund and a PRI signatory as of February 2018, KWAP too recognizes the importance of integrating sustainability into our investment strategy. We are also a signatory of the Malaysian Code for Institutional Investors and actively play a leadership role in promoting stewardship and ESG in Malaysia. We have recently measured the carbon footprint of our equity portfolio, which we will use to inform our engagement priorities moving forward.

We are committed to continuous improvement in our climate strategy. Leading asset owners globally are following up on commitments with concrete actions that we hope to follow. These include assessing and disclosing the alignment of their portfolios with a 2°C warming scenario, committing to set science-based targets, and implementing the TCFD recommendations.

Despite this encouraging progress, the IPCC's Special Report on Global Warming of 1.5 °C warns that action must be accelerated to avoid unprecedented economic loss. While no one sector or institution holds the solution, asset owners and asset managers have inordinate potential to drive the changes needed. Asset managers must adopt best practice ESG integration across their businesses, and asset owners need to support them by asking for this in their mandates and leading by example in their own investments.

We believe that best practice frameworks and methodologies for ESG integration should, to the greatest extent possible, be based on criteria and metrics informed by science. This is key to ensure that asset owners and asset managers alike invest in businesses aligned with the Paris Agreement and Sustainable Development Goals, helping them build resilient and sustainable portfolios in the process.

In this respect, this new report from WWF is timely and critical. Significantly, it combines existing best practice with WWF's sustainable finance expertise, deep scientific knowledge and transformative work with corporates. We encourage asset owners and asset managers alike to refer to this framework when assessing and developing their approaches to responsible investment, and also for asset owners to use the framework to help inform their selection and management of external managers.

Syed Hamadah Syed Othman
Chief Executive Officer
Retirement Fund (Incorporated) or KWAP

INTRODUCTION

The 2015 Paris Agreement represented a landmark moment, when governments around the world recognized the need for urgent action

to address climate change and prevent catastrophic consequences for both people and planet. Climate change is the result of unsustainable business practices, which are also causing deforestation and biodiversity loss and the degradation of other ecosystems, including freshwater basins and oceans. The combined effect is the degradation of natural capital—the stocks of natural resources such as air, water, soils, forests, plants and animals.



Natural capital underpins all human life, and therefore all businesses and economies, by providing the flow of critical ecosystem goods and services such as climate regulation, fresh water and foods. Climate change is but one, albeit the most violent and visible, of the consequences of operating beyond planetary boundaries and degrading natural capital. Failure to halt climate change and other aspects of natural capital degradation threatens the very survival of humanity.

Sadly, while the Paris Agreement signalled global recognition of the existential crisis facing humanity, this has not translated into the action urgently needed, neither through sufficiently ambitious commitments nor timely implementation of existing government commitments. This is clearly reflected in the recent growth in annual CO₂ emissions, which, after remaining stable from 2014 to 2016, grew by 1.4% in 2017 and, worryingly, by 2.1% in 2018.¹ We now face unprecedented levels of risk related to climate change, as outlined by the October 2018 Special Report on 1.5°C by the Intergovernmental Panel on Climate Change (IPCC).² According to the report, our current emissions trajectory will take us to 1.5 degrees of warming by 2030, effectively leaving 12 years to finance and implement the sweeping changes required to avoid this fate.³ Failure to do so will see climate crisis arising as early as 2040.⁴



With our critical dependence on fast-deteriorating natural capital, relying on governments alone to resolve the ongoing crisis is a high-risk bet that puts human lives and political-economic stability at stake. No single actor can resolve the crisis on their own. For this reason, leadership and collective action by the private sector are crucial, and significant shifts in capital flows towards sustainable development are required. Achieving the UN Sustainable Development Goals (SDGs) by 2030 will require investments estimated at US\$12 trillion, of which US\$5 trillion pertains to Asia, in four key areas: food and agriculture, cities, energy and materials, and health and well-being.⁵

The finance sector holds significant potential to address these challenges and drive sustainable development. It can influence mainstream businesses to improve their operational and supply chain sustainability or provide financing to scale up new businesses and technologies that offer much-needed solutions.

While all actors in the financial system have a role to play, this report focuses on asset managers, who wield considerable influence as shareholders over multiple companies across a range of sectors and geographies. Via financial decision-making processes, from stock selection, monitoring, engagement and proxy voting, through to the development of green investment products, asset managers can encourage companies to adopt science-based sustainability practices that will ensure businesses operate within planetary boundaries and contribute to sustainable development.



A handful of leading asset managers globally have recognized this potential and are integrating sustainability, or environmental, social and governance (ESG), factors into their core businesses using science-based criteria—what we will refer to as responsible investment. They understand that by doing so they can provide part of the solution to, rather than exacerbate, the crisis facing humanity, and simultaneously improve their ability to manage risk and returns to create resilient portfolios. As such, they have taken significant steps to addressing sustainability through their investments. However, there remains room for industry leaders to improve by more deeply incorporating science into decision-making processes and an urgent need for the rest of the industry to catch up.

The goal of this report is to support the asset management industry in this regard by providing a framework that outlines WWF's perspective on responsible investment for listed equities—one that is not only holistic in its procedural rigour but rooted in the scientific consensus and criteria underlying the environmental and social issues at hand. While we recognize its importance to responsible investment, this report and framework deliberately do not focus on corporate governance as asset managers generally already have significant experience addressing these issues. However, where relevant the framework does address the asset manager's own sustainability governance.

By making use of the framework for either self-assessment or benchmarking against peers, multiple stakeholders along the investment supply chain can help move the asset management industry forward on responsible investment. In doing so, financial capital can be deployed in a way that protects and preserves both natural and social capital.



ASSET MANAGERS (INCLUDING INTERNAL MANAGERS OF ASSET OWNERS) CAN USE THE FRAMEWORK TO:

- Assess their own responsible investment capabilities and identify gaps and areas for improvement;
- Demonstrate how their investment decisions and engagement activities can influence portfolio companies to adopt more sustainable operating practices and increase the resilience of their business models;
- Structure and improve disclosures on responsible investment, thereby improving accountability to stakeholders, including clients, shareholders, regulators and civil society.



ASSET OWNERS CAN USE THE FRAMEWORK TO:

- Assess if the environmental and social impacts related to the deployment of their capital aligns with their values and those of their beneficiaries;
- Understand if asset managers are incorporating science-based criteria to maximize investment portfolio resilience to climate and other ESG risks;
- Enhance sustainability criteria and improve transparency around expectations from external managers in their investment mandates;
- Complement consultant assessments and benefit from a more complete perspective when evaluating external managers' responsible investment capabilities and awarding mandates;
- Form the basis for engaging with external managers over performance on responsible investment.



REGULATORS CAN USE THE FRAMEWORK TO:

- Improve capital market transparency on sustainability by encouraging asset managers to disclose according to the framework;
- Identify ways to increase eligibility and competitiveness of their asset management industries to better respond to asset owner mandates;
- Ensure asset managers have robust risk management processes, thereby increasing finance sector resilience to climate and other ESG risks and better protecting beneficiaries.

In the rest of this report, we outline in greater detail the need and rationale for this framework before describing the framework itself.

RESPONSIBLE INVESTMENT: THE GLOBAL CONTEXT



THE IMPERATIVE OF 1.5°C

The October 2018 IPCC Special Report on 1.5°C underscored the urgent need for action from all sectors of the economy and society, finding that even if governments meet their currently stated national greenhouse gas reduction targets, we are on track for global warming of 3°C by 2100.⁶ The consequences of this scale of warming are severe. They include more extreme weather patterns and sea-level rise which, together with drivers of climate change like deforestation, degrade our natural capital and threaten the functioning of ecological systems that crucially support societies and businesses.

The 2015 Paris Agreement identified the need to make “finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development”.⁷ The IPCC Special Report reinforced and elaborated upon this, calling for a “portfolio shift towards long-term low-emission assets that would help redirect capital away from potential stranded assets” in order to keep warming below 1.5°C.⁸ This statement references the fundamental transition that businesses will need to undertake in the face of changes in regulations, technologies and market preferences necessary to achieve the Paris Agreement goals. Examples of such changes include carbon pricing, greater investment in emergent low-carbon technologies and shifting consumer preferences for low-carbon products and services. Financial institutions and other organizations may also be increasingly exposed to litigation risk should they fail to disclose how they are managing climate and other material environmental and social risks in order to protect shareholder value.

Last, climate change holds physical risks for businesses, which will experience increased economic losses from direct damage and business disruptions linked to more frequent and intense extreme weather events, such as flooding, heatwaves and drought. Businesses will also be hampered by chronic risks related to longer-term shifts in climate patterns. For example, among other consequences, higher temperatures cause greater heat stress, lower productivity and higher incidence of disease, while lower rainfall harms agricultural yields and hampers hydropower generation.



Urgent action is also required to address biodiversity loss. Climate change exacerbates biodiversity loss by reducing species' suitable climatic ranges. Climate change also shares a common driver with biodiversity loss, as deforestation and other forms of land-use change account for 24 per cent of man-made greenhouse gas emissions.⁹ Biodiversity is a key component of natural capital and contributes to crucial human support systems like food production, e.g. directly through insect pollination or indirectly through maintenance of soil quality. Research suggests that biodiversity loss has occurred to the point that it could irreversibly impair other natural capital and reduce its ability to support societies and businesses.¹⁰



To rally support for biodiversity conservation, scientists have called for a “Global Deal for Nature” similar to the Paris Agreement in terms of ambition, scale and high-level political commitment.¹¹ Agreeing such a deal would help mobilize critical financing for creating protected areas and restoring habitats, which could cost up to US\$76 billion per year for terrestrial ecosystems alone.¹² There has also been growing focus globally on conserving marine ecosystems and maintaining ocean health, which is threatened by climate change and other human impacts such as plastic pollution and fertilizer runoff. Healthy oceans not only underpin the generation of economic value to the tune of US\$2.5 trillion annually via the blue economy,¹³ but absorb 30 per cent of global carbon dioxide emissions and 93 per cent of added heat from human economic activity.¹⁴ Protecting the function and biodiversity of terrestrial and marine ecosystems can therefore also provide natural climate solutions. For instance, conservation, restoration and improved land management can offer up to 37 per cent of the emissions reductions needed between now and 2030 to keep us below 2°C.¹⁵ Achieving a Global Deal for Nature and ensuring the continued sustainability of the blue economy will be key for achieving the goals of the Paris Agreement.

INVESTOR RESPONSES AND MOMENTUM ON CLIMATE CHANGE AND SUSTAINABILITY



Among other finance sector stakeholders, institutional investors have a clear role and responsibility to play a part in averting climate disaster, conserving biodiversity and driving sustainable development more broadly. **Overall, momentum in the global finance sector suggests that investors are starting to embrace this role, as a few statistics illustrate:**

Table 1: Summary of investor initiatives linked to responsible investment and climate change

INITIATIVE	DESCRIPTION
PRINCIPLES FOR RESPONSIBLE INVESTMENT (PRI)	<ul style="list-style-type: none"> 2,372 signatories as of June 2019; US\$86 trillion AUM (10% CAGR since April 2015)¹⁶
INVESTOR LETTER TO G20 GOVERNMENTS	<ul style="list-style-type: none"> Signed letter to G20 governments calling upon them to fulfil Paris Agreement commitments and take policy measures to enable more low-carbon investments¹⁷ 631 investors with over US\$37 trillion AUM signed the Global Investor Statement to Governments on Climate Change in December 2019¹⁸
CLIMATE ACTION 100+	<ul style="list-style-type: none"> 370 signatories as of December 2019¹⁹ Collective engagement with world’s largest corporate greenhouse gas emitters, calling on them to reduce emissions and disclose in line with TCFD
TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD) JULY 2017	<ul style="list-style-type: none"> Supported by 374 financial institutions; US\$118 trillion AUM as of June 2019²⁰ 20 institutional investors completed pilot testing of the TCFD recommendations in 2019, in collaboration with the United Nations Environment Programme Finance Initiative (UNEP FI)²¹
THE INVESTOR AGENDA	<ul style="list-style-type: none"> Nearly 1,200 investors have taken action in one or more of the Investor Agenda’s focus areas since its launch in September 2018, which includes making commitments to integrate climate change into investments and reporting in line with TCFD on top of participating in Climate Action 100+ and signing the Global Investor Statement to Governments on Climate Change²² Pledged to take action and report activity on at least one of four areas in relation to climate action: investment, corporate engagement, investor disclosure and policy advocacy

Beyond climate change, investor initiatives and commitments focused on other sustainability issues such as deforestation,²³ plastics,²⁴ labour rights²⁵ and human rights²⁶ have emerged, each drawing trillions of investor AUM in support. Building on the Paris Agreement, a number of factors appear to have contributed to this momentum on climate change and sustainability, in particular regulatory activity on climate risk, stewardship codes and the growing expectation of responsible investment among millennials.



GROWING REGULATORY ACTIVITY

Recognizing the risks that climate change poses to the financial system, regulators have taken a range of actions to start addressing these risks. These include introducing expectations and requirements for institutional investors to disclose how they are assessing and integrating sustainability factors into their decision-making processes. Notably, the French government recently revised Article 173 of its Energy Transition Law to require disclosure of nature, as well as climate-related risks. Some are also reviewing their financial sectors to assess how financial institutions manage and respond to climate risk. Last, regulators have also started assessing the extent of climate risk in their financial sectors through recommending or requiring financial institutions to undertake climate-related scenario analysis and stress tests. Additionally, the European Commission’s Sustainable Finance Action Plan, which is intended to support the financial system’s ability to drive sustainable development, includes the development of a taxonomy that classifies economic activities according to their sustainability.

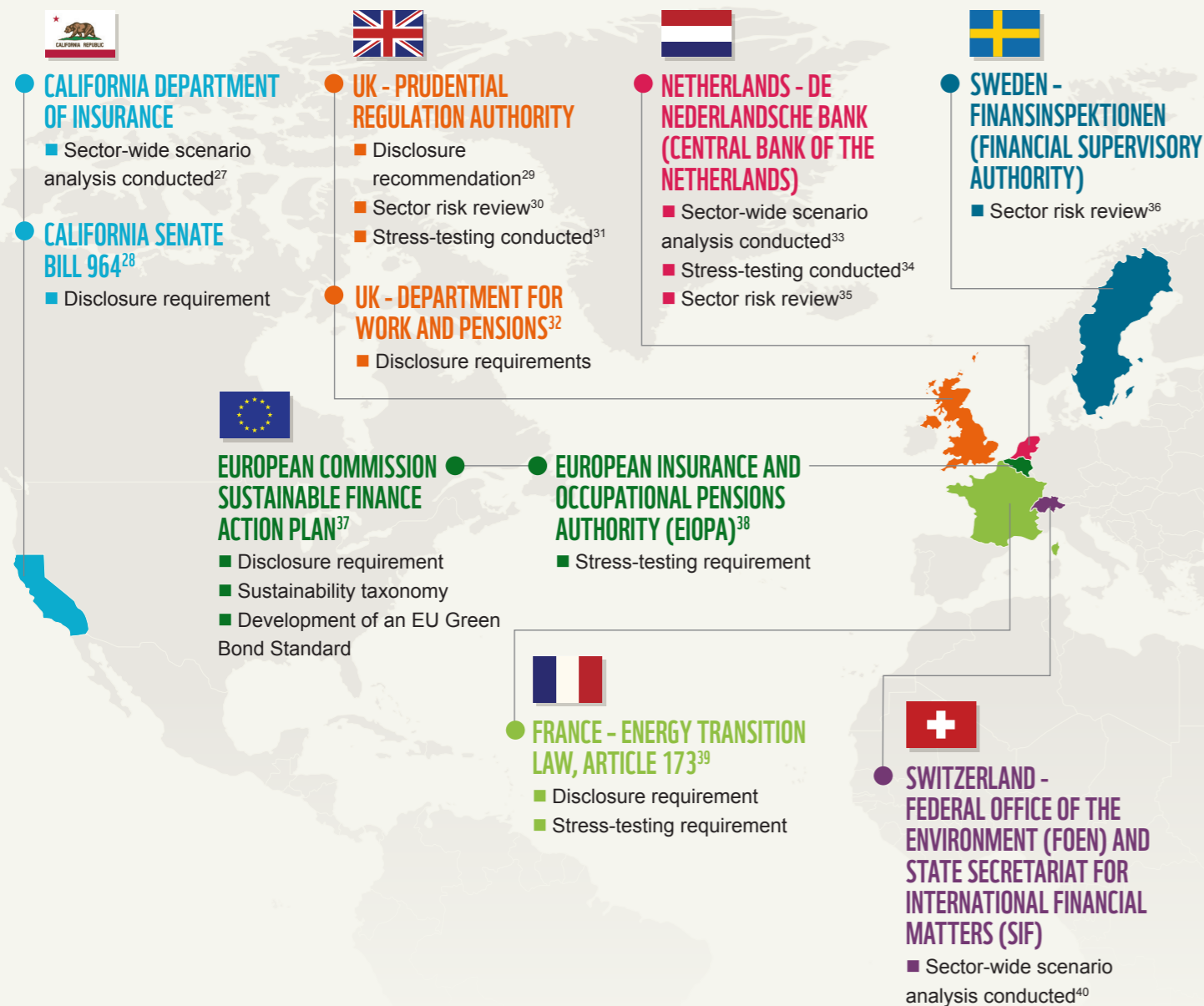


Figure 1: Examples of regulatory actions and initiatives on climate risk

National regulators have also come together to form the Central Banks and Supervisors Network for Greening the Financial System (NGFS), which now counts over 51 members and 12 observers; representation is global, including eight from Asia— China, Hong Kong, Indonesia, Japan, South Korea, Malaysia, Singapore and Thailand. The NGFS will share knowledge and best practice on measures to assess and mitigate climate risk in the financial sector, integrate these risks into their own portfolio management, and identify ways to increase investment in climate mitigation and adaptation measures.⁴¹ Moving forward we anticipate NGFS members who have not done so already will take similar steps to those outlined in Figure 1.

EMERGING STEWARDSHIP CODES

In Asia, voluntary stewardship codes have been one driver of responsible investment in countries with major asset owner pools. These codes recommend that signatory investors take actions to monitor portfolio companies' environmental and social performance and engage company management over environmental and social issues.

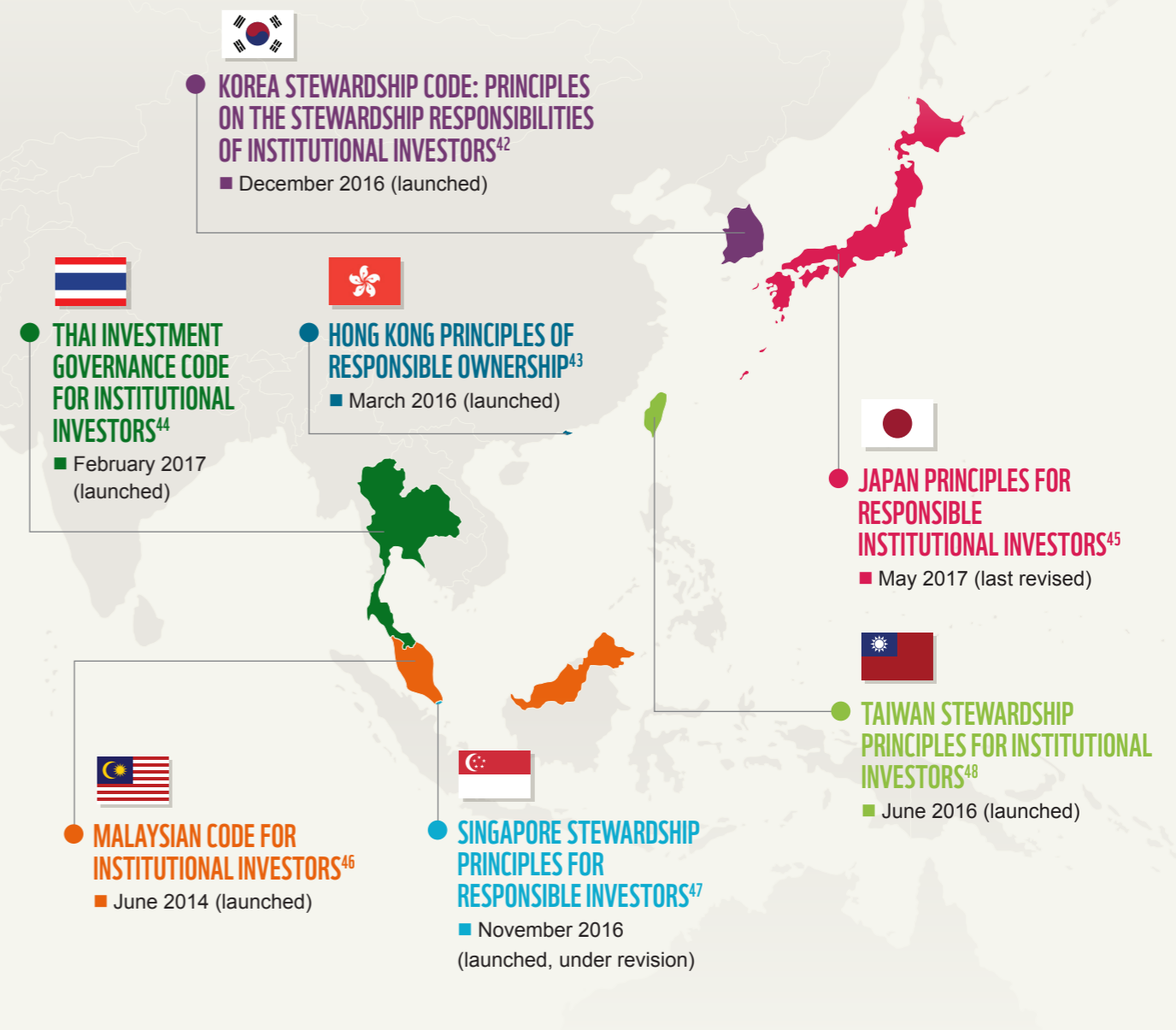


Figure 2: Voluntary stewardship codes adopted in Asia

The codes also expect that asset owner signatories require any external managers they employ to also implement the code.

MILLENNIAL EXPECTATIONS



A growing proportion of beneficial owners are now millennials, who are increasingly motivated by a need to have positive environmental and social impacts in their lives and careers. Surveys and research have registered this interest flowing into their investment preferences as well, finding that millennials are more interested than other demographic groups in having their investments contribute to better environmental and social outcomes.⁴⁹

All of the above drivers (regulatory activity, stewardship codes, millennial expectations) create greater pressure for asset owners to ensure that financial flows are aligned with their respective national agenda on sustainable development and global goals such as the Paris Agreement.

CREATING SUSTAINABLE AND RESILIENT PORTFOLIOS



Asset owners have begun to look at responsible investment much more seriously, in response to the above trends regarding the changing role and responsibility of the finance sector to help fulfil the SDGs and Paris Agreement, as well as the growing recognition that climate change and other ESG issues pose material transition, physical and litigation risks to businesses and portfolios.

This is increasingly reflected in asset owners' own internal investment processes and sustainability beliefs and policies, as well as in their expectations of external asset managers, as reflected in the guidelines and parameters stipulated in investment mandates.

To stay competitive, asset managers have responded by improving their responsible investment expertise and capabilities. However, much variation exists in terms of what different asset managers mean by this. Differences exist in how and to what extent they have made the changes to their governance and investment frameworks, policies, personnel and portfolio-level risk management necessary for integrating sustainability across their mainstream businesses. By this, we refer to the extent to which they have integrated ESG considerations into their core business processes, as opposed to limiting these considerations to specific products, such as socially responsible investing or sustainability-themed funds. In this respect, there is a general lack of disclosure and transparency from asset managers, public or private, on how they are performing responsible investment.

Even where asset managers have integrated ESG across the entirety of their businesses, it is unclear if such efforts lead to the positive ESG impacts on the ground needed for their portfolio companies to support rather than undermine the achievement of the SDGs and Paris Agreement. Nor is it clear whether their ESG efforts will actually change these companies' business models to the extent required to create climate resilience and protect shareholder value. The reason is a continuing disconnect between the metrics and criteria used by investors to assess the sustainability of an investee company or project and the science underlying these sustainability issues. By addressing this disconnect, asset managers can significantly enhance the overall resilience of their portfolios to climate and other material ESG risks.



Although they already exist, there is currently limited application of science-based criteria, tools and methodologies for assessing and integrating environmental and social risks into investment processes. Investors that use them fundamentally improve their ability to price risk and allocate capital in ways that are consistent with supporting sustainable development while protecting natural capital and strengthening portfolio resilience. These criteria, tools and methodologies address varied issues, and many link data on companies' physical assets (e.g. plants, mines, concessions, infrastructure, etc.) with scientific data on environmental or social issues. This permits users to assess a company's exposure to such risks, often in geospatially explicit ways, and often in terms of financial impacts.

Table 2: Summary of science-based criteria, tools and methodologies for assessing environmental risks

ORGANIZATIONS	NAME	DESCRIPTION	ISSUE ADDRESSED
WORLD RESOURCES INSTITUTE	Global Forest Watch / Global Forest Watch Pro	Assesses and monitors deforestation and fire risk based on user uploaded locations of concessions and other physical assets	 DEFORESTATION, BIODIVERSITY LOSS, WORLD HERITAGE SITES
WWF	WWF-SIGHT Analytics	Offers overlays of protected areas such as World Heritage Sites and Key Biodiversity Areas with user uploaded locations of concessions or other physical assets	
20 Investing Initiative	Paris Agreement Capital Transition Assessment (PACTA)	Uses asset-level data with known capital expenditure plans to assess investor portfolio alignment with technology/fuel mixes associated with different climate scenarios	 CLIMATE CHANGE
CDP DISCLOSURE INSIGHT ACTION WWF WORLD RESOURCES INSTITUTE UN GLOBAL COMPACT	Science Based Targets initiative (SBTi)	Helps corporations identify pathways and set targets for decarbonization that are aligned with emissions reductions required to achieve a well-below 2°C warming scenario Methodology under development for financial institutions	
WWF	WWF Water Risk Filter	Assesses exposure to and financial impact of different types of water risk based on user uploaded asset location data	 WATER
WORLD RESOURCES INSTITUTE	WRI Aqueduct	Assesses exposure to different types of water risk based on user uploaded asset location data	
NATURAL CAPITAL FINANCE ALLIANCE Finance sector leadership on natural capital	Corporate Bonds Water Credit Risk Tool	Assesses impact of water stress on corporate credit ratings	 MULTIPLE
UNEP FINANCE INITIATIVE global canopy	Drought Stress Testing Tool	Shows impact of different drought scenarios on banks' loan portfolios	
global canopy	Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE)	Identifies business risks arising from economic dependencies on natural capital	
global canopy	Soft Commodity Risk Platform (SCRIPT)	Benchmarks companies on the strength of their soft commodity production, sourcing or financing policies Assesses portfolio exposure to deforestation, biodiversity loss and other soft commodity sector risks (e.g. climate, human/labour/community rights)	
MULTI-STAKEHOLDER	Sustainability certification	Multi-stakeholder, independent third-party assured certification standards that indicate sustainability best practices (e.g. ISEAL Alliance members)	

Aaa	AAA
Aa	AA
A-1, A	A
Baa-1, Baa	BBB
Ba	BB
B, Caa	B, CCC, CC
Ca, C	D

Despite the existence of the criteria, tools and methodologies listed in Table 2, the data and criteria that asset managers currently rely on to assess ESG risks/opportunities are not always science-based nor standardized. Corporates often report the data on a group-wide basis in their sustainability reports, without any specificity relating to geospatial location or underlying production assets and technologies. This makes it difficult to properly assess and compare ESG impacts, whether at company or project level. Data providers currently offer ESG ratings for a very large coverage universe that can be useful for identifying outliers in each sector for deeper analysis. However, these ratings often differ for the same company as a result of methodological differences.⁵⁰ At best, analysts need to develop a good understanding of their provider's methodology and use this to overlay their own proprietary weighting and rating system; at worst, analysts rely on single ratings and as a result are exposed to their data provider's methodological biases.

When ESG ratings and other criteria without scientific bases are used to evaluate companies' ESG performance or measure the impacts of financing instruments such as green bonds, green loans or sustainability-linked loans, it is unclear if the financing will create the necessary environmental and social impacts. By this, we refer to impacts that are meaningful in the context of the issues being addressed, e.g. for climate change, emissions reductions that are aligned with the decarbonization pathway associated with a well-below 2°C scenario; or for water use, water use reduction that is in line with local basin availability and governance of water. This is true regardless of the procedural rigour of monitoring, evaluation and reporting on use of proceeds and project progress. As a result, investor confidence in the impacts and additionality of such instruments may suffer, as may the resilience of their wider portfolios to climate and other material ESG risks.

WHY IS THIS FRAMEWORK NEEDED?



In light of the above, there is a growing need for greater transparency, particularly through increased disclosure, from asset managers over how they are integrating ESG factors into their core businesses in a way that is aligned to science. This will improve asset owners' ability to assess the ESG capabilities of their external managers. It will also increase asset managers' accountability to regulators, civil society and the greater public. Last, for publicly listed asset managers, increased disclosure about responsible investment will improve accountability to shareholders over the management of ESG portfolio risk and whether the asset manager itself is transitioning its business model to match a low-carbon, resource-constrained future.

The goal of this report is to spark action to address the needs for transparency, accountability and alignment to planetary boundaries to create resilience and real economy change. We do this by introducing and outlining a framework that describes a science-based, holistic approach to responsible investment for asset managers, and which can be used as a basis to address these needs. Such frameworks already exist and have been developed by institutional investors, investor associations, consultants and data providers, with the PRI reporting framework the most notable among them.⁵¹ Our framework builds on these existing frameworks by integrating WWF's science-based insights and experience (see Section 4).

The framework not only outlines best practices in responsible investment regarding governance and other procedural aspects of responsible investment, but is also prescriptive in the kinds of issues and criteria that should be referenced in the process. For example, in addition to disclosing investment policies on cross-cutting ESG risks and sensitive sectors, asset managers should also reference relevant internationally recognized, science-based criteria in these policies. Similarly, such criteria should also be applied when assessing ESG risk at the portfolio level. As outlined above, using science-based criteria ensures that investments do not finance the destruction of natural capital, which provides ecosystem services that businesses and society ultimately rely upon. Doing so helps create and maintain investment portfolios that are resilient to climate and other ESG risks.

Furthermore, scaling up private sector investment will be crucial for achieving the SDGs—we have already highlighted the scale of the opportunities at hand. In addition to increasing portfolio and business resilience through improved ESG risk management and active ownership, investor portfolios need to create additional impacts on the ground to help achieve the SDGs. For this reason, the framework also examines asset managers' offerings of thematic or solutions-oriented investment products that look to address specific ESG issues, as well as whether they track the overall contribution of their portfolios to positive ESG impacts.



THE GLOBAL GOALS
For Sustainable Development



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THE SIX PILLAR FRAMEWORK

The framework for responsible investment revolves around six “pillars”, shown below. Asset managers need to recognize that sustainability is a necessary condition for resilient long-term portfolio growth and that they have a crucial role to play in financing sustainable development.

This is their **purpose** and link to the real economy and protecting natural capital. They need to develop **policies** to guide the integration of ESG principles into internal **processes** for investment and active ownership. To do so, they need to have well-trained **people** in place with clear roles and responsibilities and board and senior management level accountability via robust governance frameworks. Responsible investment is not just about risk management: it is also about ensuring that asset managers are taking advantage of opportunities with the right **product** offerings. In order to manage risks and opportunities and ensure that the asset manager’s business model is both resilient and properly embraces sustainability, a strategic overview and target setting at the **portfolio** level is critical.

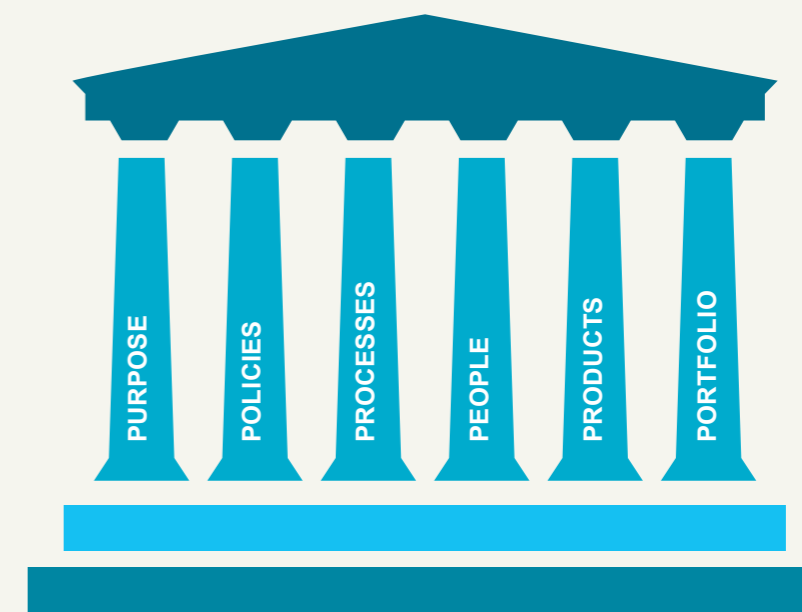


Figure 3: The six pillar framework for responsible investment

Behind the six pillars are 14 indicators and 74 sub indicators for evaluating an asset manager’s (AM) level of science-based responsible investment (RI), as applied to listed equities (see Figure 4).

Figure 4: Indicators for evaluating an asset manager’s level of science-based responsible investment



THE FRAMEWORK’S DEVELOPMENT WAS INFORMED BY:

- 1) WWF’s ongoing contributions to advancing sustainable finance, e.g. through its representation on both the European Commission’s High Level Expert Group and Technical Expert Working Group on Sustainable Finance, active involvement in the development of ISO standards for green bonds, climate finance and sustainable finance, as well as participation in relevant initiatives such as Science-Based Targets for Financial Institutions;
- 2) WWF’s transformation work with corporates to help them manage supply chain risks and transition their business models to be aligned with science and planetary boundaries;
- 3) WWF’s expertise developing robust multi-stakeholder sustainability standards and initiatives, such as the SBTi, Roundtable on Sustainable Palm Oil (RSPO), Forest Stewardship Council (FSC), Alliance for Water Stewardship (AWS), the Standard for Sustainable and Resilient Infrastructure (SuRe), etc.;
- 4) WWF’s on-the-ground conservation programmes that bring direct, frontier experience with the issues at hand.

In addition to drawing on this in-house expertise, the process of creating our responsible investment assessment framework included extensive review of current best-practice methodologies and frameworks, including but not limited to those produced by the following organizations and initiatives (full list available in Appendix I):

- Asian Investor Group on Climate Change
- International Corporate Governance Network
- Principles for Responsible Investment
- Task Force on Climate-related Financial Disclosures

ESG INTEGRATION PILLARS

PURPOSE



1. RELEVANCE OF SUSTAINABILITY IN ORGANIZATION’S STRATEGY AND INVESTMENT BELIEFS

An asset manager should recognize that like other financial institutions, it has major impacts on society and the environment via the companies it finances, i.e. its indirect ESG footprint. As such, it plays a crucial role in financing sustainable development. It also needs to understand and acknowledge that long-term sustainable development and the integrity of natural capital is vital for the well-being of businesses and society, and by extension, material to its investment returns and portfolio resilience and consistent with fiduciary duty. As such, sustainability is a key strategic issue. Reference to the global SDGs framework and feedback from stakeholder engagement ensure that a balanced approach is taken toward three dimensions of sustainable development: the economic, social and environmental.

NO.	SUB INDICATORS - PURPOSE
1	Does the AM publicly articulate its beliefs regarding sustainability or ESG in its investment beliefs or elsewhere?
2	Does the AM publicly acknowledge that sustainability or ESG factors impact its investment performance, return objectives or risk management?
3	Does the AM publicly recognize that climate change poses long-term risks to business and society?
4	Does the AM make reference to the SDGs?
5	Does the AM engage stakeholders, including communities and civil society?
6	Does the AM disclose a list of stakeholder groups engaged?

2. INDUSTRY COLLABORATION AND PARTICIPATION

An asset manager can publicly embrace its role in driving sustainable development by participating in commitment-based sustainable finance initiatives and going beyond regulatory compliance. Through these, the asset manager can set ambitious goals for themselves, stay abreast of important developments and benefit from peer-to-peer knowledge sharing. Collaborating with other asset managers and wider stakeholders to engage policymakers and regulators to help create an enabling policy environment for responsible investment is also crucial.

NO.	SUB INDICATORS - PURPOSE
7	Is the AM a signatory of the PRI?
8	Is the AM a signatory to any national stewardship code in a region in which they operate, and/or do they subscribe to the ICGN Global Stewardship Principles?
9	Is the AM a supporter of The Investor Agenda?
10	Does the AM participate in any collaborative initiatives such as the Institutional Investors Group on Climate Change (IIGCC), UNEP FI, CDP, or the Sustainable Blue Economy Finance Principles?
11	Does the AM publicly support the TCFD recommendations?
12	Does the AM advance the sustainability agenda by driving awareness through thought leadership, events or research?
13	Does the AM support or engage on public policy interventions that support the shift to a sustainable economy (e.g. carbon pricing, mandatory ESG disclosures for listed companies, etc.)?

POLICIES



3. RESPONSIBLE INVESTMENT POLICIES

Having articulated and demonstrated purpose with regards to sustainability and responsible investment, an asset manager must have responsible investment policies in place to translate this purpose into actual business conduct. Policies outline the asset manager's approach to responsible investment and its scope of application. Public disclosure of policies reinforces the asset manager's public commitments and signals to portfolio companies, clients and other stakeholders that the organization is transparent and willing to be held accountable about its ESG risk management and criteria.

NO.	SUB INDICATORS - POLICIES
14	Does the AM have an RI policy or equivalent section in its investment policy?
15	Does this policy cover all listed equities funds and geographies?
16	Does the AM explain how it applies relevant national stewardship code(s)?
17	Does the AM disclose its proxy voting policies or guidelines?
18	Does the AM periodically review its RI policies?

4. ISSUE-SPECIFIC POLICIES

Policies also outline an asset manager's stance on key cross-cutting environmental and social issues and indicate that considerations of such issues are incorporated into investment decision-making and active ownership. Policies should encapsulate the commitments and management practices that asset managers expect of clients for each issue. By referencing science-based standards and criteria or internationally accepted best practices and frameworks in these expectations, an asset manager can ensure that its portfolio companies are managing these issues in a way that minimizes risk exposure and maximizes value creation. Sector-specific policies with more granular requirements may also be required for particularly sensitive or high-risk sectors. Last, the asset manager should have exclusion lists to indicate absolute no-go areas for portfolio companies, which demonstrates that asset managers understand some risks and activities should not be accepted under any circumstances.

NO.	SUB INDICATORS - POLICIES
19	a. Does the AM have a policy or statement explaining that climate change is incorporated into investment decision-making? b. Does the AM expect all companies to set and align to Science Based Targets or the TCFD recommendations? c. Does the AM's voting policy have a statement on how climate-related issues will be voted?
20	a. Does the AM have a policy or statement explaining that water risk is incorporated into investment decision-making? b. Does the AM expect all companies to understand their water risk and practise water stewardship? c. Does the AM's voting policy have a statement on how water risk-related issues will be voted?
21	a. Does the AM have a policy or statement explaining that deforestation and biodiversity loss are incorporated into its investment decision-making? b. Does the AM expect all companies to obtain certification from or otherwise support relevant multi-stakeholder sustainability standards (e.g. ASC, MSC, RSPO, FSC, SuRe, etc.) to address deforestation and biodiversity loss? c. Does the AM's voting policy have a statement on how deforestation or biodiversity issues will be voted?

22	a. Does the AM have a policy or statement explaining that the sustainable use of oceans, seas and marine resources is incorporated into investment decision-making? b. Does the AM expect all portfolio companies to obtain certification from or otherwise support relevant multistakeholder sustainability standards (e.g. ASC, MSC, SuRe, etc.) to ensure the sustainable use of oceans, seas and marine resources? c. Does the AM's voting policy have a statement on how issues pertaining to the sustainable use of oceans, seas and marine resources will be voted?
23	a. Does the AM have a policy or statement explaining that labour standards are incorporated into its investment decision-making? b. Does the AM expect all portfolio companies to adhere to international labour standards as outlined by the International Labour Organization's Fundamental Conventions? c. Does the AM's voting policy have a statement on how labour-related issues will be voted? d. Does the AM expect all portfolio companies to commit to increasing diversity on their management teams and/or boards? (e.g. gender)
24	a. Does the AM have a policy or statement explaining that human rights are incorporated into its investment decision-making? b. Does the AM expect all portfolio companies to adhere to the UN Global Compact? c. Does the AM's voting policy have a statement on how human rights-related issues will be voted?
25	Does the AM disclose sector policies for high risk/impact sectors?
26	Does the AM disclose exclusion policies for certain issues, sectors or companies?

PROCESSES



5. RESEARCH, STOCK SELECTION, AND MONITORING

Policies will only be effective if ESG considerations are fully embedded along an asset manager's entire investment process, which ensures that the full range of ESG risks and opportunities are taken into account. If given equal weight to traditional financial analysis and factored into stock selection and portfolio construction, systematic ESG research and analysis can enhance the investment process by identifying areas of risk or value that are not yet priced by the market. It should rely on credible sources and where possible, employ science-based tools, methodologies and criteria, e.g. assessing corporate emissions reductions' alignment with a 1.5°C warming scenario or context-based water risk assessment. Monitoring portfolio company performance using well-chosen ESG metrics ensures that ESG risk levels stay within acceptable parameters.

NO.	SUB INDICATORS - PROCESSES
27	Does the AM research global and regional ESG trends and identify how these can be applied to the investment process?
28	Does the AM disclose its source(s) of obtaining ESG data and research?
29	Does the AM screen out companies by any ESG issues or criteria?
30	Does the AM's ESG analysis lead to quantitative adjustments in stock selection or portfolio construction (e.g. adjusting company valuations or portfolio weightings)?
31	Does the AM employ science-based tools, methodologies or criteria to assess portfolio companies' risks or opportunities?
32	Does the AM expect companies to assess and report on ESG issues?
33	Does the AM proactively monitor and review the ESG performance of portfolio companies?
34	Has the AM defined key metrics for monitoring ESG performance of portfolio companies (e.g. greenhouse gas emissions, water consumption, training hours, supply chain audits)?
35	Does the AM periodically review its RI processes?
36	Does the AM periodically audit its RI policies and processes?

6. ACTIVE OWNERSHIP

In addition to assessing and monitoring ESG performance, active ownership processes are critical not only for managing ESG risk, but also for maximizing long-term shareholder value due to the emphasis on influencing portfolio companies to address problems and capture opportunities through engagement and proxy voting. Where ESG performance falls below requirements or expectations, asset managers need not necessarily divest since ESG considerations are longer term. Conversely, engaging the investee to address the issue by creating time-bound action plans can even create an upside. Treating divestment as a last resort ensures the asset manager retains a seat at the table for as long as possible, which maximizes its potential to drive sustainability by influencing portfolio companies. Understanding and appropriately utilizing the full range of options for engagement improves the chances of a successful engagement.

NO.	SUB INDICATORS - PROCESSES
37	Does the AM directly communicate its ESG expectations to all investee companies, including those outside of current engagements?
38	Where companies fall short of expectations, does the AM attempt to introduce measures requiring time-bound action plans to meet these?
39	Does the AM engage with companies on ESG issues (e.g. climate change, water risk, deforestation and biodiversity loss, ocean sustainability, labour rights, human rights)?
40	Has the AM participated in any collective engagements on ESG issues in the last reporting year?
41	Is there a mechanism for escalation if engagement fails (e.g. shareholder resolutions, divestment)?
42	Does the AM vote on resolutions related to ESG at investee companies?

PEOPLE



7. GOVERNANCE

To properly implement responsible investment processes, leadership at the top of the organization on sustainability is necessary. This ensures that sustainability is integrated into the asset manager's strategy and secures buy-in at an organizational level. There must be clear roles and responsibilities for sustainability, including at board and senior management level, to create accountability and ensure clear directives for action.

NO.	SUB INDICATORS - PEOPLE
43	Does the AM state who is responsible for RI oversight and implementation?
44	Is there board-level responsibility for RI?
45	Is there board-level responsibility for climate risk, e.g. is climate risk management included in the board mandate?
46	Do the terms of reference of the board's nominating committee or the criteria used in appointing new directors cover a requirement to consider sustainability?
47	Do the terms of reference of the board's audit committee or the criteria used cover a requirement to consider sustainability?
48	Does the AM have a commitment to increase diversity at the board/senior management level, and/or for portfolio managers/the investment team? (e.g. gender)

8. SKILLS

People who understand sustainability risks and opportunities and how to manage them are required. Ensuring portfolio managers are well trained allows them to act and speak with authority on sustainability matters to clients and portfolio companies and facilitates better integration of ESG factors into the investment process. Related to this, a dedicated ESG team can be a hub for subject matter expertise. However, it should not only be a reference point when controversy strikes. Rather, it should participate in regular meetings with investment teams to facilitate capacity building on how ESG impacts business prospects. Last, training on ESG for board and senior management is also critical as ESG trends are often complex and hold strategic implications for the organization.

NO.	SUB INDICATORS - PEOPLE
49	Does the AM have dedicated RI specialists via either in-house personnel or specialist stewardship services?
50	Does the ESG team have a role in portfolio review and/or investment committees?
51	Does the AM provide training on ESG for portfolio managers?
52	a. Does the AM provide training on ESG for senior management (e.g. investment committee, CEO, CIO)? b. Does the AM provide training on ESG for the board and/or ensure that the board has ESG capacity through its composition (board members)?

9. INCENTIVES

Including ESG-based key performance indicators in the overall appraisal and remuneration structure aligns staff incentives with the purpose of the asset manager as it pertains to sustainability and responsible investment. This will create the necessary incentives to boost efforts among the asset manager's personnel.

NO.	SUB INDICATORS - PEOPLE
53	Do the terms of reference of the board's remuneration committee or the criteria used in its remuneration policies cover a requirement to consider sustainability?
54	Are ESG metrics part of KPIs or other staff performance metrics?
55	Is fixed or variable remuneration of senior management and/or portfolio managers linked to ESG?

PRODUCTS



10. PRODUCT AVAILABILITY

Responsible investment is not just about managing ESG risks, but also about taking advantage of opportunities arising from trends towards responsible investment in client and beneficiary preferences. An asset manager must be cognizant of these trends to ensure that their investment models and offerings remain attractive. By demonstrating robust responsible investment capabilities or creating specialized investment products such as solutions investing or thematic funds, the asset manager can better serve existing clients and target new client pools. For example, it can offer products that support positive sustainability outcomes, such as thematic funds focused on solutions (e.g. clean energy or sustainable infrastructure funds) or best-in-class funds that screen for sustainability leaders; this allows it to tap into increasing asset owner allocations to sustainable investment products.

NO.	SUB INDICATORS - PRODUCTS
56	Does the AM offer ESG products for institutional investors and/or retail investors?
57	Does the AM offer listed equity funds focusing on any specific ESG themes (e.g. climate change, deforestation, water, human rights) or apply any best-in-class screens?
58	Does the AM use any performance benchmark that integrates ESG (including passive ESG index/indices tracking)?

11. PROMOTION OF PRODUCTS TO CLIENTS

An asset manager can capture a rapidly growing market segment and create additional demand for its services and products by raising awareness among clients about sustainability-related risks and opportunities. Doing so helps strengthen the business case for responsible investment.

NO.	SUB INDICATORS - PRODUCTS
59	Does the AM discuss sustainable investment approaches and preferences for RI products with clients?

PORTFOLIO



12. RISK ASSESSMENT

Assessing ESG risks and opportunities at the portfolio level is fundamental to good enterprise risk management. When aggregated across a portfolio, ESG issues can have a potentially significant impact at the fund or portfolio level. Continually assessing portfolio-level risk helps asset managers understand overall exposure to climate change and other ESG risks, e.g. through climate-related scenario analysis and risk assessment.

NO.	SUB INDICATORS - PORTFOLIO
60	Does the AM routinely assess the ESG risks to its portfolio?
61	Does the AM conduct climate risk assessments or scenario analysis (e.g. PACTA) at the portfolio level?
62	Does the AM disclose how it prioritizes issues and companies for engagement?

13. METRICS AND TARGETS

Portfolio risk assessment must involve the use and disclosure of the appropriate metrics and targets. As when monitoring individual investments, picking the right metrics allows a more complete and accurate picture of ESG risk in the portfolio. However, metrics alone only offer a snapshot of the portfolio in time. Setting targets helps define the future trajectory of the portfolio and ensure it aligns with the asset manager's sustainability strategy. Metrics and targets should be science-based so as to ensure that the asset manager's portfolio trajectory is consistent with natural capital preservation goals, e.g. through alignment with a 1.5°C warming scenario. The same approach should be applied to other key sustainability issues, such as water risk, deforestation and human rights.

NO.	SUB INDICATORS - PORTFOLIO
63	Does the AM calculate and disclose its carbon footprint or intensity at the portfolio level?
64	Does the AM disclose other metrics and targets used to assess and manage the ESG impacts of its portfolio beyond carbon (e.g. water risk, deforestation, human rights, etc.)?
65	Has the AM developed and explained a strategy or methodology for decarbonizing its portfolio?
66	Has/will the AM set targets to align its portfolio to a 1.5°C scenario?

14. DISCLOSURE

Portfolio-level disclosure looks at whether the asset manager tracks and reports on both the ESG and financial performance of its investments, as well as activities and outcomes linked with responsible investment, including engagement and voting. Asset managers can further improve their responsible investment processes by analysing their investments' ESG assessments or ratings against financial performance to identify the impact of ESG laggards and leaders on fund performance. Reporting on these outcomes demonstrates to clients and other stakeholders the asset manager's robust understanding of and capability to manage ESG issues to maximize performance. It also shows that the asset manager is able to invest clients' funds in a manner that drives sustainable development.

NO.	SUB INDICATORS - PORTFOLIO
67	Does the AM disclose its holdings?
68	Does the AM report on RI actions and progress at least annually?
69	Does the AM disclose engagement activity (no. of engagements) aggregated by E&S issue?
70	Does the AM evaluate and disclose progress made across all engagements?
71	Does the AM disclose how it voted and the reasons for these votes, to reflect E&S concerns?
72	Does the AM disclose the outcomes and/or impacts of its investments (e.g. impact by SDGs)?
73	Does the AM measure and report on the impact of integrating ESG on fund performance?
74	Does the AM disclose the ESG performance of its funds?

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ABBREVIATIONS

AM	asset manager
AUM	assets under management
ASC	Aquaculture Stewardship Council
AWS	Alliance for Water Stewardship
ESG	environmental, social and governance
FSC	Forest Stewardship Council
IPCC	Intergovernmental Panel on Climate Change
MSC	Marine Stewardship Council
NGFS	Central Banks and Supervisors Network for Greening the Financial System
PACTA	Paris Agreement Capital Transition Assessment
PRI	Principles for Responsible Investment
RI	responsible investment
RSPO	Roundtable on Sustainable Palm Oil
SBTi	Science Based Targets initiative
SDGs	Sustainable Development Goals
SuRe	The Standard for Sustainable and Resilient Infrastructure
TCFD	Task Force on Climate-related Financial Disclosures
UNEP FI	United Nations Environment Programme Finance Initiative
WRI	World Resources Institute

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