

Impact Measurement and Management in Sustainable Finance

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IMPACT MEASUREMENT AND MANAGEMENT IN SUSTAINABLE FINANCE

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I. Introduction to Impact Measurement

A. Defining Sustainable Impact

Despite a degree of confusion over the taxonomy of “sustainable finance”, some consistency of terminology has coalesced around the construct defined as:

Sustainable finance generally refers to the process of taking due account of environmental, social, and governance (ESG) considerations when making investment decisions in the financial sector, leading to increased longer-term investments into sustainable economic activities and projects.¹

Within this definition, sustainable finance can be subcategorized as either negative or positive. The former categorizes finance deployed (or divested) according to “screens” of impact performance (for example, carbon footprint, labour practices, and supply chain ethics) with investment selection being contingent on superior environmental, social, and governance (ESG) performance relative to others according to screening criteria.² The latter categorizes finance deployed actively to address a sector or social/environmental issue (often integrated with the United Nations [UN] Sustainable Development Goals [SDGs])³ targeted according to criteria that aim to maximize the additionality of impact created by new investment as a Double Delta of impact.⁴ In the context of sustainable finance, “impact” has been defined as:

Impact is a change in an important positive or negative outcome for people or the planet.⁵

¹ https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/overview-sustainable-finance_en.

² <https://www.msci.com/esg-investing>.

³ <https://sdgs.un.org/goals>.

⁴ <https://www.credit-suisse.com/media/assets/microsite/docs/responsibleinvesting/the-double-delta-of-impact-investing.pdf>

⁵ <https://impactmanagementproject.com>.

B. Social and Green Impact

An immediate distinction between social and green impacts can be drawn from this definition. In terms of the former, impact will typically be contingent on changes to the human welfare of individuals or communities across a potentially large range of issues that may demand complex sets of impact data to evidence.

In terms of the latter, impact will typically be contingent on changes to more easily measured and (scientifically) quantifiable variables, such as a reduction in carbon emissions (or overall “carbon footprint”), improvements in water quality, reductions in nitrous oxide levels in the atmosphere, or an increase in the biodiversity within a specified region.⁶ For example, measuring carbon emissions offers a consistent, accurate, and transparent look at the amount of carbon an organization creates. Emissions can be measured by calculating a carbon footprint as the total output of greenhouse gas emissions caused by an organization, event, product, or person.⁷ Similarly, how clean or polluted air is can be measured with an air quality index. The air quality index measures change in the amount of pollution in the air.⁸ Data on water quality is calculated by a range of measures, including water temperature, acidity, dissolved solids, dissolved oxygen, hardness, and levels of suspended sediment.⁹

However, while there is an established set of scientific measures with which to capture environmental impact data, these may not capture all the impact of a green investment. This is because environmental impacts typically have a social element as well, so they need to be assessed from this perspective too if the total positive (or negative) impact of a green investment is to be assessed robustly. This is particularly true of the social or externality costs of pollution. There may also be temporal issues around effective measurement of the “true value” of green investment, both in terms of individual hyperbolic discounting¹⁰ of climate impacts as well as the typical reporting and planning cycles of corporations being focused on short-termism.¹¹

⁶ http://unepinquiry.org/wp-content/uploads/2016/09/5_Outline_Framework_for_Measuring_Progress_on_Green_Finance.pdf.

⁷ <https://www.carbonfootprint.com/measure.html>.

⁸ <https://uk-air.defra.gov.uk>.

⁹ <https://publiclab.org/notes/annngneal/12-08-2017/7-ways-to-measure-monitor-and-evaluate-water-quality>.

¹⁰ <http://www.behaviorlab.org/Papers/Hyperbolic.pdf>.

¹¹ <https://hbr.org/2018/10/why-people-arent-motivated-to-address-climate-change>.

C. Ecosystem of Impact Measurement

Despite the material importance of robust nonfinancial, impact, performance data in terms of making investment decisions in both social and green finance, the landscape of impact measurement, and management remains under-institutionalized and lacks both the standards of metrics and disclosure and the regulatory structures of mainstream investment. Currently, the ecosystem of impact measurement includes a range of actors that intermediate between data producers (investees) and data consumers (investors).¹²

The World Economic Forum¹³ identified eight key stakeholders in the ESG reporting ecosystem, including companies, standard setters, assurance providers, data providers, investment banks, investors, regulators, and research and knowledge management organizations.¹⁴ However, these actors typically fail to collaborate with each other, with the result that little agreement exists over common units of analysis, temporal dimensions (when and for how long it should be measured and reported), the scope of analysis (who and what should be included or excluded),¹⁵ the role of externalities (how one positively or negatively influences another), the applicable level of extent of attribution, causality and attrition of social and environmental impacts (how much can be claimed), and the inherent downside risks on each of these issues.¹⁶ The lack of agreement over these issues adds complexity and transaction costs to the impact measurement process. In this context, to mainstream sustainability impact measurement and management, there is a need for coherent guidelines on how to measure, report, compare, and improve that is currently absent. Today, some progress is being made to address this market failure in the provision of consistent, transparent, and material impact data.

D. Impact Management

To optimize the impact of sustainable finance, impact measurement should be seen as closely linked to impact management defined as:

¹² In practice, existing frameworks typically prioritize the investor perspective on impact data rather than focus on more participatory measurement and reporting systems that engage a wide range of stakeholders, including beneficiaries (Nicholls 2018).

¹³ <https://www.weforum.org/whitepapers/seeking-return-on-esg-advancing-the-reporting-ecosystem-to-unlock-impact-for-business-and-society>.

¹⁴ For example: Ceres, Science Based Targets, the World Business Council for Sustainable Development, and the World Benchmarking Alliance.

¹⁵ http://unepinquiry.org/wp-content/uploads/2016/09/5_Outline_Framework_for_Measuring_Progress_on_Green_Finance.pdf.

¹⁶ Nicholls (2009).

*The process by which impact investors can understand the effects of their investments on people and the planet and set goals to adapt processes and improve outcomes.*¹⁷

Therefore, effective impact measurement and management are integral to making effective sustainable finance investment choices. Impact measurement and management are inherently iterative and best practice follows four phases: (i) setting impact goals, (ii) devising impact strategies to achieve goals, (iii) choosing appropriate metrics and target for the stated goals, and (iv) measuring metrics and using them iteratively to drive decision-making and recalibrate strategy to improve impact performance.¹⁸ In each of these stages, establishing the materiality of impact is an important issue.

II. Materiality

Materiality is a foundational concept in financial accounting. The materiality of data is determined by the judgement of the professional accountant in terms of the relevance to investor decision-making of the available data. Consequently, financial data is generally considered “material” if its omission or misrepresentation could influence the economic decisions of anyone for whom the information is relevant. In financial accounting, according to the Generally Accepted Accounting Principles, materiality is defined as:

*Information is material if its omission or misstatement could influence the economic decision of users taken on the basis of the financial statements. Materiality depends on the size of the item or error judged in the particular circumstances of its omission or misstatement. Thus, materiality provides a threshold or cut-off point rather than being a primary qualitative characteristic which information must have if it is to be useful.*¹⁹

¹⁷ <https://thegiin.org/imm/>.

¹⁸ <https://iris.thegiin.org/introduction/#b1>.

¹⁹ <https://www.accounting.com/resources/gaap/>.

A. Impact Materiality

However, impact materiality is more contested, primarily because, lacking any regulatory guidelines, the definition of what constitutes relevant impact data is far less clear. In contrast to financial materiality, the dimensions of impact relevance cannot, *sui generis*, be confined only to financial metrics (see the discussion of impact monetization in Section V). Further, the definition on what constitutes “good” or “bad” impact performance may differ, depending on different stakeholder perspectives.²⁰ While the investor perspective may still be expected to dominate, this may lead to sub-optimal sustainable finance capital allocations, if it fails to recognize the calibrations of impact performance offered by other stakeholders (most obviously the beneficiaries, who actually “experience” the impact).²¹

1. Definitions

Currently, there are several competing impact materiality definitions. For example, the Sustainability Accounting Standards Board (SASB) defines impact materiality as:²²

*Information that could be viewed by the reasonable investor as having significantly altered the total mix of information made available.*²³

While the SASB’s definition of materiality focuses on the investors as the target audience, the focus of the definition of the Global Reporting Initiative (GRI) is on all stakeholders. GRI’s definition of materiality is:

*Information that could substantively influence the assessments and decisions of stakeholders.*²⁴

The International Integrated Reporting Council (IIRC) expands the boundaries of impact materiality and brings in notions of value creation beyond the purely financial. Here materiality is:

²⁰ However, a key distinction between major approaches to reporting about environmental and social performance is whether materiality is defined solely as what would be considered relevant to a financial investor or shareholder, or whether materiality is defined by all stakeholders who are affected in a significant way by the entity’s activities. https://impactmanagementproject.com/glossary/?_sf_s=materiality.

²¹ Nicholls (2018).

²² To complement its definition, SASB has developed a “materiality map”. <https://materiality.sasb.org>.

²³ <https://www.sasb.org>.

²⁴ <https://www.globalreporting.org>.

*Information that could substantively affect an organisation's ability to create value.*²⁵

Despite these various definitions, the sustainable finance market currently lacks an agreed definition of impact materiality.²⁶ Given the inherent complexity of impact data, such materiality should be attentive both to the contextuality of social and environmental data, and the diversity of stakeholders for whom impact data may be relevant. The absence of a clear definition of impact materiality is also related to the contested nature of impact reporting and disclosure standards.

III. Sustainable Impact Measurement Methods

There are two well-established models that are used often in strategic planning to identify the processes by which impact may be created by an investment or project: The Logic Model and the Theory of Change Model. Each model follows a linear path that sets out how various types of action relate to each other causally with respect to an overall impact pathway or thesis. Typically, these models are used ex ante to establish an impact proposal, but they can be used also as a management tool during the life of an investment or project. Moreover, both models can be used also to develop impact metrics for the various stages of the impact pathway. Despite their widespread use, both models have been criticized also for being oversimplistic and too deterministic.²⁷

A. The Logic Model

A logic model is a linear, multistage process model of how to measure a specific impact.²⁸ A logic model consists of five stages of analysis that can be categorized as either implementation or change.²⁹ Each stage requires different measurement approaches and units of analysis. The implementation stages are inputs, activities, and outputs. The change stages are short-term outcomes and long-term outcomes (Figure 1).

²⁵ <https://integratedreporting.org/>.

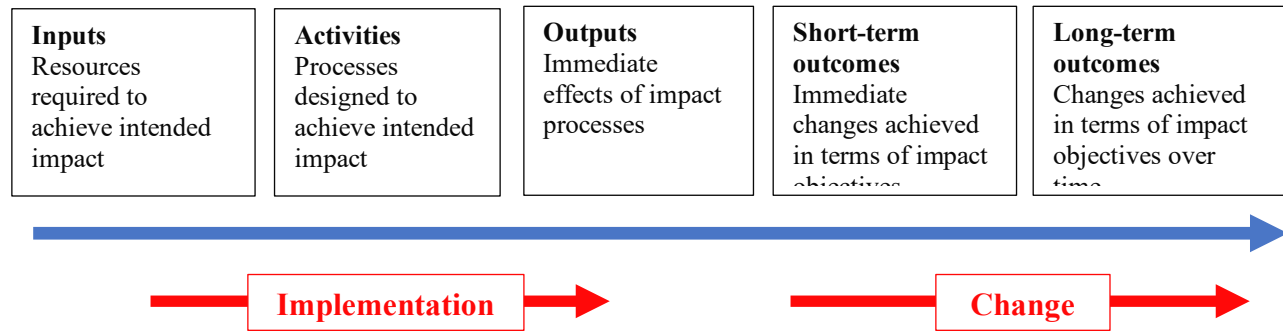
²⁶ <https://www.unpri.org/shaping-the-portfolio-with-an-esg-materiality-profile/166.article>.

²⁷ <https://www.nesta.org.uk/blog/whats-wrong-with-theories-of-change/>.

²⁸ <https://www.sopact.com/theory-of-change>.

²⁹ <https://docs.gatesfoundation.org/documents/guide-to-actionable-measurement.pdf>.

Figure 1: The Logic Model



Source: Author's own research.

Within a Logic Model, in accordance with the definition of impact as evidence of change (as noted in section. 1.A), the impact of the inputs/activities/outputs can only be measured in the outcomes at the end of the model. However, measuring outcomes can be complex and time consuming. Consequently, it is often the case that the organizations/investees will measure/manage/report data from other stages of the logic model as intermediate measures of progress towards impact.

1. Educate Girls Logic Model

An example of a logic model in practice would be the Educate Girls Development Impact Bond (DIB)³⁰ focused on young girls' education in Northern India (Figure 2). The overall objective of the DIB was to change the cultural and economic status quo of education in Rajasthan that excluded many young girls from access to education. In terms of the logic model, the stages were:

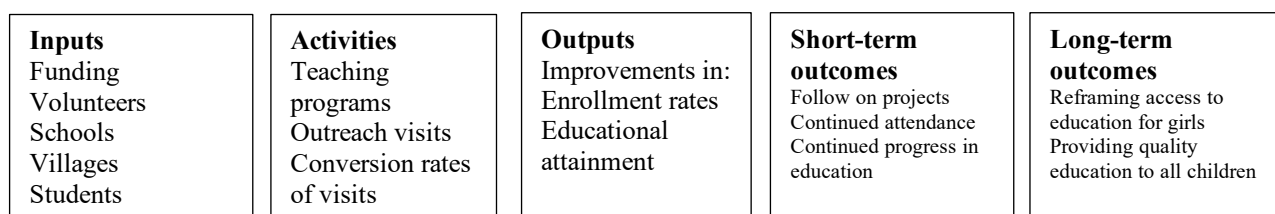
- **Inputs.** The DIB required a funder (UBS Optimus Foundation), an outcomes payer (the Children's Investment Fund Foundation), an experienced and locally embedded service providers (Educate Girls), families willing to enroll their girls, and an existing infrastructure of village schools. Metrics can be applied to funding, number of schools involved, number of volunteers recruited, number of girls enrolled, and number of villages reached.
- **Activities.** Educate Girls offered teaching programs to excluded girls supported by a trained team of community volunteers, aged 18–30, to make door-to-door visits in villages to encourage families to enroll their girls in school and to deliver curriculum enhancement

³⁰ <https://www.educategirls.ngo>.

in public school classrooms. Metrics can be applied to the number of programs delivered, the number of outreach visits, and the conversion rates of visits/student enrollments.

- **Outputs.** The DIB aimed to improve the enrollment and learning outcomes of a control group of girls compared to a sample set that had not be involved in the DIB. Metrics were an enrollment objective of 79% of the girls who were otherwise out of school at the inception of the DIB and a learning objective of the completion of the ACER³¹ test for English, Hindi, and mathematics (grades A–E) compared to a comparison group.³²
- **Short-term outcomes.** The DIB was a success and distributed back new funding to Educate Girls to continue and expand programs as a bonus payment.³³ Subsequent to the Educate Girls DIBs, a larger project was developed to scale the model in India.³⁴ However, these outcomes were not subject to any formal measurement within the DIB logic model. Moreover, there was no follow-on measurement of the girls who had participated in the program though there was a theory of change (TOC) assumption that the Educate Girls program had effectively demonstrated the value of enrolling girls in school and, as such, there would be an incentive for families to continue keeping their girls in education.
- **Long-term outcomes.** The DIB had the potential to play a role in addressing wider cultural biases concerning girls and education and increase the supply of quality education to all children.³⁵ However, this was not measured in the DIB.

Figure 2: The Logic Model Applied to the Educate Girls Development Impact Bond



Source: Author's own research.

³¹ ACER India is an independent, not-for-profit research organisation. We bring ACER's global expertise to South Asia for creating and promoting research-based knowledge, products and services to improve learning: <https://www.acer.org/in/assessment>.

³² https://www.educategirls.ngo/pdf/Educate-Girls-DIB-Final-Evaluation-Report_2018-06-10.pdf; and <https://golab.bsg.ox.ac.uk/knowledge-bank/resources/ecorys-evaluation-dfid-dibs/>.

³³ https://www.ubs.com/global/en/ubs-society/our-stories/2018/first-education-bond.html?campID=SEM-BRAND-s_kwid=AL430!3!388414976334!b!!g!!%2Bdib&ef_id=Cj0KCQjw8fr7BRDSARIsAK0Qqr7bchMhQh1mTSj0niUk6-6QnYpLeFZH3simqeCsHVJSZMyrJo-ozigaAuWWEALw_wcB:G:s&s_kwid=AL430!3!388414976334!b!!g!!%2Bdib!6743337551!78124052303.

³⁴ <https://qualityeducationindiadib.com>.

³⁵ The vision of Educate Girls is stated as we aim to achieve behavioral, social, and economic transformation for all girls towards an India where all children have equal opportunities to access quality education. <https://www.educategirls.ngo/Who-We-Are.aspx#vision-mission-goal>.

B. Theory of Change

A TOC³⁶ model follows the same linear format of a logic model but adds analytic complexity with respect to the set of assumptions being made concerning how a particular action (or set of actions) will create an impact in the short, medium, and long term. It is typically encapsulated in a descriptive diagram, often with an attendant, explanatory narrative.³⁷ A TOC is usually developed as a multistage, predictive, and heuristic model that allows an organization to conceptualize how an intended impact may be achieved over time.³⁸ However, a TOC is also a management tool and can be used to recalibrate strategy as programs progress. Creating an effective TOC typically involves a variety of stakeholders, including investors/funders, senior management, employees, beneficiaries, and other partners. The development process of a TOC, and the questions and decision-making that it involves, is often as important as the final diagram itself. Developing a TOC has a variety of important uses with respect to measuring and managing impact. Primarily, a TOC allows an organization to focus on the evaluation of its impact over time by helping guide decision-making on what types of material data to collect, when and from which sources. In addition, a well-formulated TOC helps simplify the process complexity of creating impact outcomes into clear stages of action and allows an organization to build an impact narrative with which to communicate with investors and other stakeholders. An effective TOC should be:

- Credible and based on previous experience and relevant research,
- Achievable in terms of the necessary resources to carry out the work,
- Supported by the stakeholders who will be involved in defining the TOC
- Testable with agreed and robust indicators prioritized for the measurement of the intended outcomes

Figure 3³⁹ shows an example TOC focused on addressing unemployment among young people. As with a logic model it is a linear, process model moving from activities to outcomes. (In this model, input factors are taken as already in place and are excluded from the model.) However, the TOC adds considerable complexity to logic model by including more variables and multiple

³⁶ https://ssir.org/articles/entry/unpacking_the_theory_of_change.

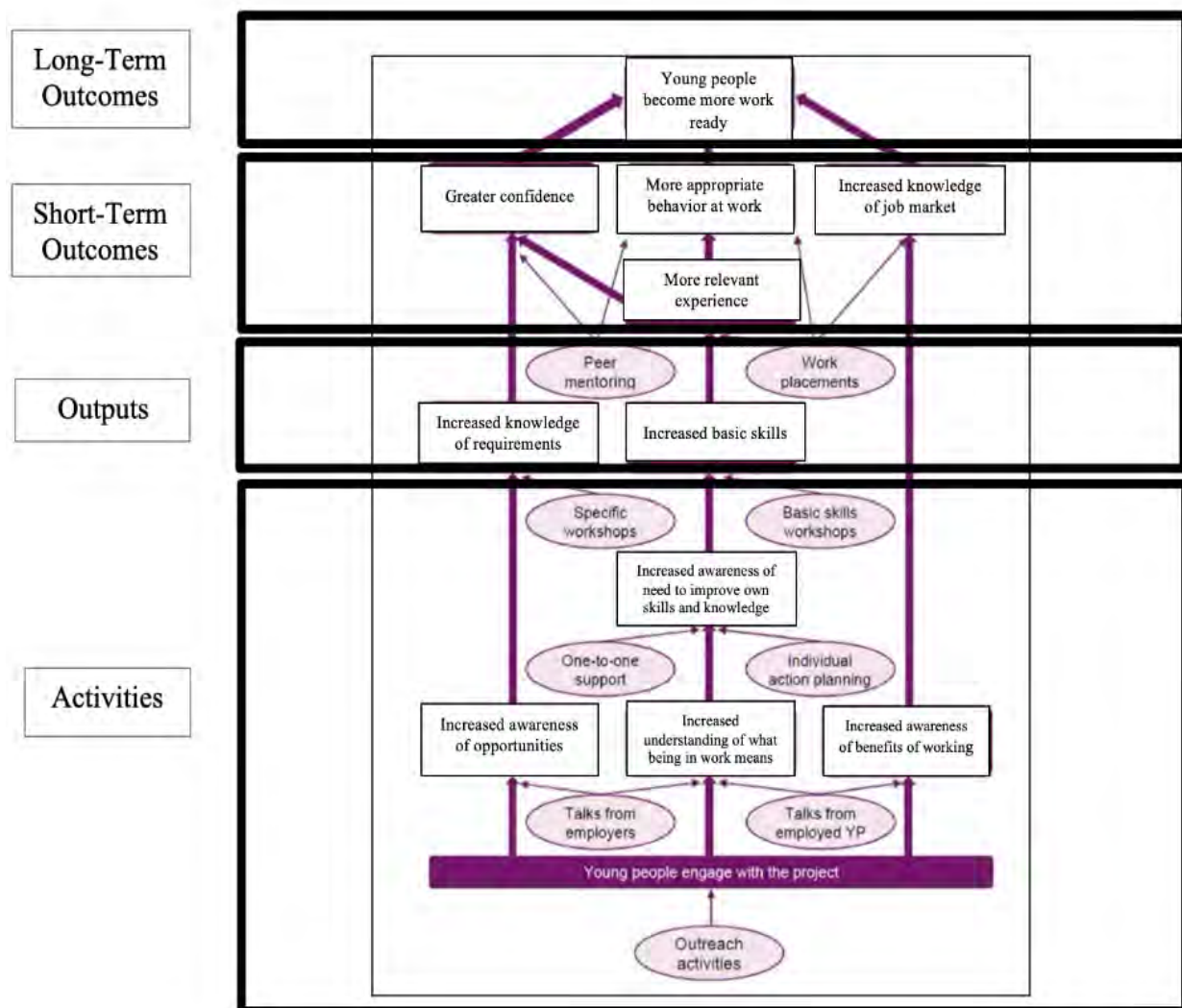
³⁷ <https://knowhow.ncvo.org.uk/how-to/how-to-build-a-theory-of-change>.

³⁸ <https://avpn.asia/insights/a-guide-to-effective-impact-assessment/>.

³⁹ This TOC is taken from <https://knowhow.ncvo.org.uk/organisation/impact/plan-your-impact-and-evaluation/identify-the-difference-you-want-to-make-1/example-theories-of-change>.

pathways toward impact outcomes. The TOC also includes more granular details of specific operational activities and their expected effects. As a strategic management model, the TOC requires more careful design than a logic model but may have more utility in decision-making at the project level.

Figure 3: A Theory of Change for Addressing Youth Unemployment



Source: The National Council for Voluntary Organisations (<https://knowhow.ncvo.org.uk/organisation/impact/plan-your-impact-and-evaluation/identify-the-difference-you-want-to-make-1/example-theories-of-change>).

IV. Sustainable Finance Impact Disclosure: Principles and Standards

There are, as yet no agreed standards of sustainable finance measurement and reporting. The consequence is a lack of consistent and comparative impact data with which to inform investing decision-making and analysis. As a result, it may be difficult to discern which types of investment generate the largest impact, as well as to address more complex questions of how impact performance relates to financial performance and does each have a different risk and return profile. Nevertheless, globally, a range of initiatives aims to resolve this lack of agreed sustainability impact standards, both broad ESG finance standards and more bespoke green finance and social finance standards.

A. ESG Disclosure: Principles

In terms of the measurement and management of the impact of ESG finance, currently, there is a range of initiatives focused on the standardization of reporting and disclosure. Each is considered below.

1. Equator Principles

In 2003, Citigroup, ABN AMRO, Barclays, West LB, and the International Finance Corporation (IFC) created a framework of managing environmental and social risks known as the Equator Principles.⁴⁰ The Equator Principles were established as a financial industry benchmark for determining, assessing, and managing environmental and social risks in large projects. The Equator Principles are intended to provide a minimum standard for due diligence,⁴¹ and monitoring to support responsible risk decision-making. Equator Principles Financial Institutions (EPFIs) apply Equator Principles to new projects (globally and across all industry sectors) across five areas of work: project finance advisory services; project finance; project-related corporate loans; bridging loans, project-related refinance; and project-related acquisition finance. The Equator Principles consists of 10 principles based upon the IFC's environmental and social categorization process:

⁴⁰ <https://equator-principles.com>.

⁴¹ <https://www.pacificcommunityventures.org/2019/07/03/impact-due-diligence-guide/>.

- **Principle 1: Review and Categorization** of the magnitude of potential environmental and social risks and impacts, including those related to human rights, climate change, and biodiversity/category A projects with potential significant adverse environmental and social risks and/or impacts that are diverse, irreversible, or unprecedented. Category B projects with potential limited adverse environmental and few social risks and/or impacts generally site-specific, largely reversible, and readily addressed through mitigation measures. Category C projects with minimal or no adverse environmental and social risks and/or impacts.
- **Principle 2: Environmental and Social Assessment** that captures the relevant environmental and social risks and scale of impacts of the proposed project. The assessment should propose measures to minimize, mitigate, and residual impacts remain, to compensate/offset/remedy for risks and impacts to workers, affected communities, and the environment, in a manner relevant and appropriate to the nature and scale of the proposed project.
- **Principle 3: Applicable Environmental and Social Standards** that are compliant with relevant host country laws, regulations, and permits that pertain to environmental and social issues as well as the IFC standards.
- **Principle 4: Environmental and Social Management System and Equator Principles Action Plan** is required of every investee.
- **Principle 5: Stakeholder Engagement** is required as an ongoing process in a structured and culturally appropriate manner, with affected communities, workers and other stakeholders.
- **Principle 6: Grievance Mechanism** must be designed for use by affected communities and workers, as appropriate, to receive and facilitate resolution of concerns and grievances about the project's environmental and social performance.
- **Principle 7: Independent Review** must be carried out of the assessment process and the stakeholder engagement to assist the EPFI's due diligence and determination of Equator Principles compliance.
- **Principle 8: Covenants** must be linked to compliance. If the investee fails in compliance within an agreed grace period, the EPFI reserves the right to exercise.

- **Principle 9: Independent Monitoring and Reporting** should be provided by an independent environmental and social consultant.
- **Principle 10: Reporting and Transparency** is required at a minimum to offer a summary of human rights and climate change risks and impacts.

By 2020, 111 EPFIs in 37 countries had adopted the Equator Principles, covering the majority of international project finance debt within developed and emerging markets.

2. Principles for Responsible Investment

Founded in 2006, the UN Principles for Responsible Investment (PRI)⁴² represent a global effort to offer a menu of possible actions for incorporating ESG factors into investment practices across asset classes. The PRI are a voluntary and aspirational set of six investment principles that offer a menu of possible actions for incorporating ESG issues into investment practice. As such, they are designed to be flexible and compatible with the investment styles of large, diversified institutional investors that operate within a traditional fiduciary framework. The Equator Principles require signatories to the PRI to:⁴³

- Incorporate ESG issues into investment analysis and decision-making processes
- Be active owners and incorporate ESG issues into ownership policies and practices
- Seek appropriate disclosure on ESG issues by investees
- Promote acceptance and implementation of the Equator Principles within the investment industry
- Work together to enhance the effectiveness of implementing the Equator Principles
- Report on activities and progress towards implementing the Equator Principles

The PRI have built an international network of signatories to the Equator Principles, with the objective of contributing to the development of a more sustainable global financial system. By 2020, the PRI had more than 7,000 signatories from 135 countries, making it the world's largest voluntary corporate ESG initiative. The majority of these signatories are investment managers.

⁴² <https://www.unpri.org>.

⁴³ <https://www.unpri.org/pri/what-are-the-principles-for-responsible-investment>.

The PRI provide guidance to existing best practices across asset classes and sectors but are not standard themselves.

3. International Integrated Reporting Council

Founded in 2010, the IIRC⁴⁴ is a global coalition of regulators, investors, companies, standard setters, accountants, academics, and civil society⁴⁵ with a common interest in the adoption of integrated reporting to improve communication about value creation, advance the evolution of corporate reporting, and make a lasting contribution to financial stability and sustainable development. In 2013, the IIRC issued a Framework for Integrated Reporting,⁴⁶ which sets out a set of seven principles for integrated reporting that focuses on capturing the benefits to all stakeholders of a company's value creation. The guiding principles are:

- Strategic focus and future orientation. Integrated reporting should account for short-, medium-, and long-term value creation.
- Connectivity of information. Integrated reporting should demonstrate a holistic view of the wider effects on various stakeholders and the environment of organizational activity.
- Stakeholder relationships. Integrated reporting should report on the quality of all stakeholder relationships and what feedback mechanism are in place.
- Materiality. Integrated reporting should report all data that is relevant to effective decision-making and value maximizing over time.
- Conciseness. Integrated reporting should be robust and concise.
- Reliability and completeness. Integrated reporting should include all material issues, both positive and negative.
- Consistency. Integrated reporting should be consistent over time and as far as possible, comparable with similar companies

⁴⁴ <https://integratedreporting.org>.

⁴⁵ Funding comes from a range of sources under the umbrella of the IIRC Foundation with further significant support from the Chartered Institute of Management Accountants, the Global Accounting Alliance, and KPMG. <https://integratedreporting.org/iircs-funders/>.

⁴⁶ <https://integratedreporting.org/wp-content/uploads/2013/12/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf>.

Beyond the framework principles, the IIRC sets out eight “content elements” to inform the detail of producing an integrated report, and includes more detailed guidance of what factors to incorporate under each element:

- Organizational overview and external environment. What are the organization’s activities and what are the circumstances under which it operates?
- Governance. How does the organization’s governance structure support its ability to create value over time?
- Business mode. What is the operational model?
- Risk and opportunities. What are the risks and opportunities that affect the value-creation process over time?
- Strategy and resource allocation. What is the strategic direction of the organization and how does it get there?
- Performance. To what extent had the organization achieved its strategic objectives over time?
- Outlook. What challenges and uncertainties are likely to emerge and how may they affect future organizational performance?
- Basis of presentation. How does the organization determine what is material in its reporting? How is data quantified and evaluated?

The IIRC principles are voluntary and do not aim to monetize impact. In terms of aspiration, a 2019 global survey of listed companies suggested that 95% saw integrated reports as either essential or very useful. In terms of adoption, in France, 58% of the top 40 French-listed companies produced integrated reports, while in Australia, 48% of the 200 largest listed companies were leveraging at least some of the principles of integrated reporting. In the United Kingdom (UK), 35% of companies reported that they were considering a variety of types of capitals in their business models. The survey also reported that there were 700 participants in the Brazil integrated reporting network, and in South Africa all of the 372 companies listed on the Johannesburg Stock Exchange were all required to produce an integrated report. In Japan, there were 342 self-declared

integrated reports in 2017, while 100 listed companies in Malaysia prepared integrated reports in 2018.⁴⁷

B. ESG Disclosure: Organizational Standards

In terms of developing a set of organizational standards for corporate ESG disclosure and reporting, two other initiatives have emerged: the GRI⁴⁸ and the SASB.⁴⁹

1. Global Reporting Initiative

Founded in 1997, the GRI is an international standard-setting organization that aims to support businesses, governments, and other organizations understand and communicate their impacts on issues, such as climate change, human rights, and corruption.

In 2000, the GRI launched its first set of sustainability guidelines, which it developed into standards in 2016 and made freely available as a public good.⁵⁰ Across more than 100 indicators, the GRI standards are divided into two main areas: (i) universal standards that require disclosures of the internal management approaches to impact measurement; and (ii) topic-specific standards that require disclosure of sector-specific economic, environmental, and social data.⁵¹ To prepare a sustainability report in accordance with the GRI standards, an organization applies the universal standards to identify its material economic, environmental, and/or social topics. These material topics then determine which specific standards the organization uses to prepare its sustainability reports.⁵² Selected topic-specific standards, or parts of their content, can also be used to report

⁴⁷ <https://www.accountancydaily.co/listed-companies-increase-use-integrated-reporting-says-iirc>; and https://integratedreporting.org/integratedreport2018/integrated_report/2018-performance.html.

⁴⁸ <https://www.globalreporting.org>.

⁴⁹ <https://www.sasb.org>.

⁵⁰ <https://www.globalreporting.org/about-gri/mission-history/>.

⁵¹ <https://esgrobot.com/what-are-gri-standards/>.

⁵² Universal Standards: 100 Series

GRI 101: This is the starting point for using the set of GRI standards. GRI 101 sets out the reporting principles for defining report content and quality. It includes requirements for preparing a sustainability report in accordance with the GRI standards and describes how they can be used and referenced. GRI 101 also includes the specific claims that are required for organizations that are preparing a sustainability report in accordance with the standards, and for those using selected standards to report specific information.

GRI 102: General disclosures are used to report contextual information about an organization and its sustainability in reporting practices. This includes information about an organization's profile, strategy, ethics and integrity, governance, stakeholder engagement practices, and reporting process.

GRI 103: Management approach is used to report information about how an organization manages a material topic. It is designed to be used for each material topic in a sustainability report, including those covered by the topic specific GRI standards (series 200, 300, and 400) and other material topics. Applying GRI 103 with each material topic allows the organization to provide a narrative explanation of why the topic is material, where the impacts occur (the topic boundary), and how the organization manages the impacts.

Topic-specific standards: 200, 300, and 400 series

These are used to report information on an organization's impacts related to economic, environmental, and social topics.

200 Series Economic Standards: In the context of the GRI standards, the economic dimension of sustainability concerns an organization's impacts on the economic conditions of its stakeholders, and on economic systems at local, national, and global levels. The standards in the economic series (200) address the flow of capital among different stakeholders and the main economic impacts of an organization throughout society. Reporting requirements under this series are 201: Economic Performance; 202: Market Presence; 203: Indirect Economic Impacts; 204: Procurement Practices; 205: Anti-corruption; 206: Anti-Competitive Behaviour.

specific information, without preparing a sustainability report. In contrast to the earlier reporting frameworks, the GRI standards have a modular structure, making them easier to update and adapt. Moreover, the GRI standards distinguish between what a company is required to report to fulfill a particular standard and what is recommended. While they remain voluntary, by 2020, the GRI standards were being used by more than 5,000 organizations globally to report on their sustainability performance with more than 23,000 GRI reports having been filed.⁵³ Of the world's largest 250 corporations, 92% reported some form of ESG performance and, of these, 74% used the GRI standards to do so.

2. Social Accounting Standards Board

Founded in 2011, the SASB⁵⁴ is a not-for-profit organization that aims to develop sustainability accounting standards to facilitate the disclosure and reporting of ESG data. Its stated aim is to establish industry-specific disclosure standards across ESG topics that facilitate the communication between companies and investors about financially material, decision-useful ESG information. The SASB follows the model set by the International Accounting Standards Board and the Financial Accounting Standards Board in terms of an aspiration to establish ESG reporting standards similar to those set for mainstream investment in the International Financial Reporting Standards and the Generally Accepted Accounting Principles.

The SASB has developed a conceptual framework of ESG reporting that operates with a set of core principles that guide its approach to standard setting: namely, global applicability, financial materiality, and standard-setting norms that are industry-specific, evidence-based, and market-informed. These principles aim to facilitate sustainability disclosures that provide material, decision-useful information to investors that are cost effective. In addition, the SASB has developed 77 standards across 11 industrial sectors within a Sustainable Industry Classification System that organizes industries using a combination of traditional classification factors and

300 Series Environmental Standards: In the context of the GRI standards, the environmental dimension of sustainability concerns an organization's impacts on living and non-living natural systems, including land, air, water, and ecosystems. Reporting requirements under this series are 301: Materials; 302: Energy; 303: Water; 304: Biodiversity; 305: Emissions; 306: Effluents and Waste; 307: Environmental Compliance; and 308: Supplier Environmental Assessment.

400 Series Social Standards: In the context of the GRI Standards, the social dimension of sustainability concerns an organization's impacts on the social systems within which it operates. Reporting requirements under this series are 401: Employment; 402: Labour/Management Relations; 403: Occupational Health and Safety; 404: Training and Education; 405: Diversity and Equal Opportunity; 406: Non-discrimination; 407: Freedom of Association and Collective Bargaining; 408: Child Labour; 409: Forced or Compulsory Labour; 410: Security Practices; 411: Rights of Indigenous Peoples; 412: Human Rights Assessment; 413: Local Communities; 414: Supplier Social Assessment; 415: Public Policy; 416: Customer Health Safety; 417: Marketing and Labelling; 418: Customer Privacy; and 419: Socio-economic Compliance.

⁵³ <https://fbrh.co.uk/en/80-percent-of-the-world's-250-largest-companies-report-according-to-gri>.

⁵⁴ <https://www.sasb.org>.

sustainability risks and opportunities. Since the SASB standards are geared toward providing decision-useful information to investors, they are designed to generate quantitative, standardized, and comparable data. Moreover, because the standards are investor-driven, evidence of financial materiality is the underpinning principle for the standards. The standards are also industry specific, since sustainability issues manifest differently from one industry to another because of differences in business models, resource dependencies, and other factors. SASB has licensed its standards and related resources to other investment data management organizations, including State Street and Bloomberg. Other licensing organizations include asset managers and asset owners; banks and multilateral organizations; data, analytics, and research firms; and corporate reporting software companies. SASB standards are used by companies around the world in terms of ESG disclosure in annual reports, financial filings, company websites, and sustainability reports. By 2020, more than 120 companies had adopted SASB standards in their ESG reporting.

While SASB's approach differs from that of the GRI, the organizations have stated that their standards complement one another. The GRI standards and the SASB standards are designed for different, but complementary, purposes. The GRI standards focus on the disclosure of ESG performance in terms of an organizational impact, while the SASB standards offer an industry-focused perspective on a subset of issues that are financially material. Many companies, such as ArcelorMittal, Diageo, and Nike, report with both SASB and GRI standards.

3. Harmonized Indicators for Private Sector Operations

Finally, with respect to development finance institutions (DFIs), the Harmonized Indicators for Private Sector Operations (HIPSO)⁵⁵ focus on reducing the reporting transaction costs of DFIs and their clients. The context is that DFIs are often required to report similar indicators, but with different definitions, to capture the same data. In 2012, 20 DFIs formed a Working Group on Indicator Harmonization that agreed to benchmark indicators for private sector investment operations and seek examples of best practice for shared adoption. More than 400 indicators used by the DFIs were reviewed. In 2013, a first set of 27 outputs indicators⁵⁶ was agreed that mandates

⁵⁵ <https://indicators.ifipartnership.org/about/howitalstarted/>.

⁵⁶ For example: export sales, farmers reached, direct employment, students enrolled, power production, patients served, number of mobile phones, and water treated. <https://indicators.ifipartnership.org/indicators/>.

a DFI to use the harmonized definitions and units of measurement to track its impact performance where appropriate indicators are available.

In 2015, 11 additional harmonized indicators were added. The HIPSO indicators are aligned with the SDGs. The 38 reporting indicators are divided across 15 sectors and industries (including some crosscutting). In 2019, the HIPSO launched a work stream designed to provide information on approaches to align the HIPSO indicators with the SDGs.⁵⁷ The objective was to support the scaling up of investments that contribute to the SDGs. Specifically, the work group aimed to harmonize the data requirements of DFI to monitor and report on their contribution to the SDGs. Also, it intended to generate and share knowledge on the role of the private sector in addressing the SDGs, as well as to coordinate with other initiatives around the SDGs to promote the harmonization of approaches.

C. ESG: Green Finance Standards

1. Carbon Disclosure Project

Established in 2002 as an international nonprofit organization based in Germany, the UK, and the United States, the Carbon Disclosure Project (CDP)⁵⁸ aims to enhance the GRI's framing of environmental disclosure at the national level by focusing specifically on individual companies. The CDP has worked with more than 6,000 corporations as well as with more than 550 cities and 100 states and regions to help them design effective carbon emission-reduction strategies, including Walmart, Tesco, Cadbury Schweppes, and Procter and Gamble. CDP-based self-reported data has also been used by more than 800 institutional investors. By 2020, roughly, a fifth of all global greenhouse gas emissions have been reported through CDP. The CDP reporting process requires a company to go through four main steps, starting with disclosure of their current position, moving to awareness of environmental impact, to management, and finally leadership. CDP scores are calculated according to a standardized methodology, which measures whether and how well a company responds to each question. A high CDP score is usually indicative of a company's high environmental awareness, advanced sustainability governance, and leadership to address climate change.

⁵⁷ <https://live-newhipso.pantheonsite.io/workstreams-overview/sustainable-development-goals-work-stream/>.

⁵⁸ <https://www.cdp.net/en>.

2. Joint Reporting Initiative

In 2011, a coalition of multilateral development banks (MDBs) formed a Joint Reporting Initiative on Multilateral Development Banks' Climate Finance,⁵⁹ including the Asian Development Bank, the African Development Bank, the Asian Infrastructure Investment Bank, the European Bank for Reconstruction and Development, the European Investment Bank, the Inter-American Development Bank Group, the Islamic Development Bank, and the World Bank Group. Since 2012, the coalition has issued an annual joint report on climate finance.

In the 2019 Joint Report, the geographical coverage was expanded to report on all economies in which the MDBs operate (including those that are not developing and emerging economies) to make the reporting of MDBs' progress more transparent and consistent towards their joint climate finance commitments for 2025. Collectively, the MDBs committed US\$61,562 million in climate finance in 2019 with US\$46,625 million or 76% of this total for climate change mitigation finance, and US\$14,937 million or 24% for climate change adaptation finance. The net total climate co-financing committed during 2019 alongside MDB resources was US\$102,683 million. Together, MDB climate financing and climate co-financing totalled US\$ 164,245 million.⁶⁰

3. Natural Capital Declaration

In 2012, as a part of the United Nations Environment Programme (UNEP),⁶¹ the UNEP Finance Initiative (UNEP FI) published the Natural Capital Declaration (NCD)⁶² as a commitment by chief executive officers from the finance sector to work towards integrating natural capital criteria into their products and services. It is convened and facilitated on their behalf by a secretariat comprising the UNEP FI, the Global Canopy Programme, and the Center for Sustainability Studies of the Business Administration School of the Getulio Vargas Foundation. The NCD was born out of the insight that financial institutions could benefit from greater guidance to embed specific aspects of ESG factors in their risk management, due diligence, loans, investments, and insurance activities. The NCD sets out a road map as an approach for developing natural capital management methodologies for the sector. By 2019, more than 40 chief executive officers of banks, investors, and insurers worldwide had signed the declaration.

⁵⁹ <https://www.mainstreamingclimate.org/publication/publication-of-the-joint-report-on-multilateral-development-banks-climate-finance/>.

⁶⁰ <https://www.eib.org/attachments/press/1257-joint-report-on-mdbs-climate-finance-2019.pdf>.

⁶¹ <https://www.unep.org>.

⁶² https://www.unepfi.org/fileadmin/documents/ncd_booklet.pdf.

4. Carbon Risk Assessment Framework

Linked to the NCD, in 2012, in collaboration with the World Resources Institute, the UNEP issued a Carbon Risk Assessment Framework.⁶³ This framework was created through a multi-stakeholder process involving primary authors, a drafting team that developed the initial chapter drafts, a technical working group, other expert reviewers who provided input during the process, and a secretariat that organized input from technical working group members and other stakeholders. This framework focuses principally on the “nonphysical risks” associated with carbon and the climate crisis, such as policy, market, and technology risks, rather than the “physical” climate risks, such as storms, floods, and drought. For example, debates around divestment from carbon-intensive stocks reflect a concern over the long-term financial risk of stranded assets on company valuations rather than their climate impacts per se. The framework has three stages to assist in the analysis of such risk: assess exposure, evaluate risk, and manage risk. Each stage is supported by a range of subsidiary strategic actions.

5. Principles for Positive Impact Business and Finance

Following on from the NCD, in 2017, the UNEP FI developed a set of four Principles for Positive Impact Business and Finance focused on building standards for ESG capital.⁶⁴ The four principles are:⁶⁵

- **Principle 1: Definition.** Positive impact finance provides funds to positive impact businesses that aim to make additional contributions to ESG issues and sectors. The principles acknowledge the interconnectedness of ESG issues.
- **Principle 2: Frameworks.** Standard methodologies and tools are required to monitor and manage the impact activities of ESG finance.
- **Principle 3: Transparency.** Full disclosure of ESG impact performance—negative as well as positive—is required. The principles do not prescribe which methodologies to use to identify, analyze, and verify positive impact. They only require that these be disclosed and transparent.

⁶³ https://www.unepfi.org/fileadmin/documents/carbon_asset_risk.pdf.

⁶⁴ <https://www.unepfi.org/positive-impact/principles-for-positive-impact-finance/>.

⁶⁵ <https://www.unepfi.org/wordpress/wp-content/uploads/2017/01/POSITIVE-IMPACT-PRINCIPLES-A-W-WEB.pdf>.

- **Principle 4: Assessment.** The assessment of positive impact finance delivered by entities should be based on the actual impacts achieved, including the magnitude of the impacts delivered; the scale of impacts delivered relative to amount of funds spent; the degree of leverage of private funds relative to public funds and/or donations; the level of additionality or underserved sustainable development need and, hence, constitute a significant step for the attainment of the SDGs).

The principles are supported by a set of model frameworks that provide guidance on how to align the principles with investment, as well as range of impact analysis tools that can be referenced for best practice guidance. UNEP FI acts as a standard-setting body rather than a certifying agency. Consequently, external auditors are required to provide third party assurance. The principles were designed to be inclusive and relevant to all sectors of the economy, and to all types of financing. By virtue of their inclusive, holistic, transparent, and results-oriented nature, the Principles for Positive Impact Business and Finance aimed to provide a framework to enable all financial to transition to an impact-based economy. As of 2020, it was unclear how many organizations have adopted the principles, and there have also been some concerns raised over methodology.⁶⁶

6. Carbon Price Leadership Coalition

In 2015, the Carbon Price Leadership Coalition (CPLC)⁶⁷ was launched on the opening day of the United Nations Framework Convention on Climate Change 21st Conference of Parties meeting in Paris. As of 2019, the CPLC comprised 34 national and subnational governments; 163 private sector organizations from a range of regions and sectors; and 80 strategic partners representing nongovernment organizations, business organizations, and universities.

The CPLC is primarily an advocacy network which is focused on driving the carbon pricing⁶⁸ agenda globally through knowledge sharing, targeted technical analysis, and public–private dialogues that guide successful carbon pricing policy adoption and accelerate implementation. The CPLC works closely with the World Bank and provides Carbon Pricing Dashboard⁶⁹ among other resources.

⁶⁶ <https://storiesforimpact.com/review-of-the-impact-analysis-tools-for-corporations-and-banks-by-the-une-f/>.

⁶⁷ <https://www.carbonpricingleadership.org/who-we-are>.

⁶⁸ <https://www.c2es.org/site/assets/uploads/2017/09/business-pricing-carbon.pdf>.

⁶⁹ <https://carbonpricingdashboard.worldbank.org>.

Launched in 2015, the Portfolio Carbon Initiative is a collaboration between the World Resources Institute, UNEP FI, and the 2 Degrees Investing Initiative.⁷⁰ The Portfolio Carbon Initiative had three work streams, each focused on providing guidance on carbon risk in sustainable investing:

- Work stream 1: Asset owner climate issues. Tailored to asset owners, this work stream produced a comparative analysis of current climate friendliness metrics published in a report as *Climate Strategies and Metrics: Exploring Options for Institutional Investors*.⁷¹
- Work stream 2: Bank climate issues. This work stream provided insights into which metrics public and private sector banks can use, depending on asset class, to report on the extent to which their activities help or harm the transition toward a low-carbon economy metrics published in a report as *Exploring Metrics to Measure the Climate Progress of Banks*.⁷²
- Work stream 3: Carbon asset risk. This work stream provided guidance to explain why and when carbon emissions associated with carbon-intensive assets lead to financial risks, as well as how.⁷³

7. Non-Financial Reporting Directive

In 2017, the European Union (EU) introduced a requirement for reporting standards of nonfinancial data—the Non-Financial Reporting Directive (NFRD)⁷⁴—as an amendment to the Accounting Directive (Directive 2013/34/EU).⁷⁵ The NFRD applies to listed companies, banks, and insurance companies with more than 500 employees, and requires a nonfinancial statement to form a part of their annual public reporting obligations. Companies had to report for the first time in 2018 (for financial year 2017). Specifically, the NFRD requires companies to disclose information about their business model, policies (including implemented due diligence processes), outcomes, risks and risk management, and Key Performance Indicators relevant to the business with respect to four sustainability issues: the environmental, social and employee issues, human rights, and bribery and corruption. However, the NFRD does not require the use of any specific nonfinancial reporting standards or frameworks, nor does it impose detailed disclosure

⁷⁰ <https://ghgprotocol.org/portfolio-carbon-initiative>.

⁷¹ https://www.ghgprotocol.org/sites/default/files/ghgp/standards/Climate%20targets_FINAL_med.pdf.

⁷² <https://ghgprotocol.org/sites/default/files/standards/Exploring%20Metrics%20to%20Measure%20the%20Climate%20Progress%20of%20Banks.pdf>.

⁷³ https://www.ghgprotocol.org/sites/default/files/ghgp/standards/carbon-asset-risk-discussion-framework-ghgp_0.pdf.

⁷⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32014L0095>.

⁷⁵ For an overview: https://www.globalreporting.org/media/5egmieer/nfrd_update-2020.pdf.

requirements, such as lists of indicators per sector; rather, it requires companies to disclose information “to the extent necessary for an understanding of the development, performance, position, and impact of [the company’s] activities.” This means companies should disclose not only how sustainability issues may affect the company, but also how the company affects society and the environment from a “double materiality” perspective. In 2017, following on from the NFRD, the EU published nonbinding guidelines for companies on how to report nonfinancial information.⁷⁶ Then, in 2019, as a part of the Sustainable Finance Action Plan, the EU published additional guidelines on reporting climate-related information, which integrate the recommendations of the Task Force on Climate-Related Financial Disclosures (footnote 75).

However, the initial Directive was widely considered to be insufficient to address the climate crisis and was reviewed with the intention to strengthen and clarify the disclosure requirements to provide more reliable, comparable, and relevant non-financial information to investors and other stakeholders. In 2020, a public consultation was carried out on the NFRD as a part of the EU’s European Green Deal Project.⁷⁷ The intention was to introduce new regulation in 2021.⁷⁸

8. IFRS Standards

In 2020, the International Financial Reporting Standards (IFRS) drafted a consultation paper considering: whether there is a need for global sustainability standards, whether the IFRS Foundation should play a role, and what the scope of that role could be.⁷⁹ Given the global reach and wide-spread adoption of the IFRS accounting standards, the incorporation of sustainability standards under the IFRS framework would be of significant importance in terms of establishing common ESG reporting standards for all organizations.⁸⁰

D. ESG Disclosure: Social Finance Standards⁸¹

1. Impact Reporting and Investing Standards

⁷⁶ [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52017XC0705\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52017XC0705(01)).

⁷⁷ <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12129-Revision-of-Non-Financial-Reporting-Directive/public-consultation>.

⁷⁸ See: <https://www.allenoverly.com/en-gb/global/news-and-insights/publications/review-of-the-non-financial-reporting-directive>.

⁷⁹ <https://www.ifrs.org/projects/work-plan/sustainability-reporting/>.

⁸⁰ The IFRS, are accounting standards issued by the IFRS Foundation and the International Accounting Standards Board (IASB). They constitute a standardised way of describing the company’s financial performance and position so that company financial statements are understandable and comparable across international boundaries. They are particularly relevant for companies with shares or securities listed on a public stock exchange. The IFRS have replaced many different national accounting standards around the world but have not replaced the separate accounting standards in the United States where US GAAP is applied. See: <https://www.ifrs.org>.

⁸¹ See an overview here: <https://www.theimpactprogramme.org.uk/resources/standardisation-in-impact-management-a-summary-paper-by-imp/>.

In 2013, the Global Impact Investing Network (GIIN)⁸² established the Impact Reporting and Investing Standards (IRIS) to help standardize measuring and reporting as a catalogue of generally accepted impact performance metrics and methodologies. Subsequent to this, the IRIS resources were developed as IRIS+ with greater usability and more examples of best practice to advance further the measuring, managing, and optimizing impact.⁸³ The IRIS+ catalogue included both quantitative metrics that can be used in calculations or qualitative values to account for the social, environmental, and financial performance of an investment. The full catalogue is searchable and downloadable as a public good.⁸⁴ IRIS+ metrics are designed to map five dimension of impact measurement onto the Impact Management Project (IMP) as well as to work with other contextualizing factors to produce material impact performance information and the SDGs. By 2020, the IRIS+ had more than 20,000 subscribers and more than 13,000 users from roughly 6,000 organizations.

2. Impact Management Project

Growing out of a client project carried out by Bridges Impact+ and hosted by Bridges Insights,⁸⁵ the IMP was launched in 2016. Today, the IMP represents the primary driver of social finance impact standards globally.⁸⁶ The IMP defines itself as “*a forum for building global consensus on how to measure and manage impacts*” (footnote 85). The IMP consist of four groups:⁸⁷

- Advisory Group of 30 organizations engaged with impact finance, including foundations (such as the Ford Foundation and the MacArthur Foundation), investment banks (such as Deutsche Bank and UBS), fund managers (such as BlackRock and Hermes), and specialist impact investment intermediaries (such as Big Society Capital and Leapfrog Investments).
- Structured Network of 16 existing impact standard setters globally that have impact measurement expertise to work together to design common standards for impact measurement, assessment, and reporting.⁸⁸ Specifically, the objectives of the Structured Network are to build a consensus on impact measurement practice (the processes for

⁸² <https://thegiin.org>.

⁸³ <https://iris.thegiin.org>.

⁸⁴ <https://iris.thegiin.org/standards/>.

⁸⁵ <https://www.bridgesfundmanagement.com/bridges-insights/>.

⁸⁶ <https://impactmanagementproject.com>.

⁸⁷ <https://impactmanagementproject.com/about/>.

⁸⁸ The members of the Structured Network are B-Lab, CDP, CDSB, GIIN, GR,; GSG, IFC, Integrated Reporting, OECD, PRI, SASB, Social Value International, UNDP; UNEP Finance Initiative, UN Global Compact, and World Benchmarking Alliance.

managing impact), performance (the frameworks and indicators for measuring and reporting impacts), and benchmarking (the valuation of impacts).⁸⁹

- Strategic Partners to inform and/or disseminate standards of impact measurement and management to specific communities of practice (such as 60 Decibels, EVPA, and TONIIC).
- Practitioner Community of over 2,000 organizations who bring expertise and experience to establish norms on technical topics and share best practices in impact measurement implementation.

Following a consultation with the Practitioner Group, the IMP derived five dimensions of impact to inform effective impact measurement and management practice (Figure 4).⁹⁰

Figure 4: Impact Management Project Dimensions of Impact Measurement

Impact dimension	Impact questions each dimension seeks to answer
 What	•What outcome is occurring in the period? •Is the outcome positive or negative? •How important is the outcome to the people (or planet) experiencing them?
 Who	•Who experiences the outcome? •How underserved are the affected stakeholders in relation to the outcome?
 How Much	•How much of the outcome is occurring - across scale, depth and duration?
 Contribution	•Would this change likely have happened anyway?
 Risk	•What is the risk to people and planet that impact does not occur as expected?

Source: Impact Management Project (<https://impactmanagementproject.com/impact-management/impact-management-norms/>).

⁸⁹ <https://impactmanagementproject.com/impact-management/structured-network/>.

⁹⁰ <https://impactmanagementproject.com/impact-management/impact-management-norms/>.

In addition, the IMP has set out three categories (ABC) of investee level analysis in terms of their organizational impact:⁹¹

- A. Avoid harm: commitments to reduce carbon emissions, pay a living wage or mitigate nonfinancial risk
- B. Benefit stakeholders: commitments to prioritize positive impact to groups beyond returns to investors, such as employees, suppliers, and local communities
- C. Contribute to solutions: commitments to contribute to systemic change, such as reductions in poverty or the climate crisis

The IMP also provides reports and examples in terms of practical tools and templates for impact management⁹² and impact ratings.⁹³

Despite these important market-building initiatives, there remains a lack of institutional infrastructure in terms of clarity on terminology and the demarcation of the market: market infrastructure, such as intermediaries, consolidated financial performance data sets (particularly in terms of risk-return modelling), and common impact accounting and reporting standards; and coherent national and international policy agendas. Each is considered next.

E. ESG Disclosure: Transnational Standards

1. International Finance Corporation: Operating Principles for Impact Management

At the transnational level, a significant contribution to the development of impact measurement standards has come from the IFC.

In 2019, the IFC launched its Operating Principles for Impact Management.⁹⁴ Developed in collaboration with a range of asset owners, managers, and allocators, the operating principles were

⁹¹ <https://impactmanagementproject.com/impact-management/how-investors-manage-impact/>.

⁹² <https://impactmanagementproject.com/resources/>.

⁹³ https://29kjb3armds2g3gi4lq2sx1-wpengine.netdna-ssl.com/wp-content/uploads/IMP_Impact-ratings-discussion-document.pdf.

⁹⁴ https://www.ifc.org/wps/wcm/connect/720ed26b-48fe-40fb-9807-711d869c5b9f/Impact+Investing_Principles_FINAL_4-25-19_footnote+change_web.pdf?MOD=AJPERES&CVID=mJ20IIA.

designed to be applicable at the corporate, line of business, or fund level; and to complement, rather than replace, existing frameworks and tools.⁹⁵ There are nine principles:

- Principle 1: Define strategic impact objective(s), consistent with the investment strategy.
- Principle 2: Manage strategic impact on a portfolio basis.
- Principle 3: Establish the manager's contribution to the achievement of impact.
- Principle 4: Assess the expected impact of each investment, based on a systematic approach.
- Principle 5: Assess, address, monitor, and manage potential negative impacts of each investment.
- Principle 6: Monitor the progress of each investment in achieving impact against expectations and respond appropriately.
- Principle 7: Conduct exits considering the effect on sustained impact.
- Principle 8: Review, document, and improve decisions and processes based on the achievement of impact and lessons.
- Principle 9: Publicly disclose alignment with the principles and provide regular independent verification of the alignment.

These map against a four-stage linear framework in terms of practical implementation:

- Strategic intent: Define strategic impact objective(s), consistent with the investment strategy; manage strategic impact on a portfolio basis
- Origination and structuring: Establish the manager's contribution to the achievement of impact; assess the expected impact of each investment, based on a systematic approach; assess, address, and monitor potentially negative impacts
- Portfolio management: Monitor the progress of each investment in achieving impact against expectations and respond appropriately; and

⁹⁵ <https://impactmanagementproject.com/investor/managing-impact-at-scale-in-a-blended-private-markets-portfolio/>.

- Impact at exit: Conduct exits considering the effect on sustained impact; and review, document, and improve decisions and processes based on the achievement of impact and lessons.

Across all four standards, independent verification of the operating principles is recommended. By 2021, 148 organizations from 37 countries - managing 422 billion in assets - had published an audited report online demonstrating how they adhered to the Principles.⁹⁶

2. United Nations Development Programme: SDG Standards

In 2020, the United Nations Development Programme (UNDP)-based SDG Impact project⁹⁷ produced three sets of impact investment standards for private equity/debt/venture capital, so-called SDG bonds and enterprises.⁹⁸ These standards are intended to be voluntary and open source and provide a common language and best practice guidance for integrating impact measurement and management into SDG investment. The standards are designed to be a decision-making framework⁹⁹ connecting high-level principles¹⁰⁰ and other impact management tools.¹⁰¹ As such, they were designed to be applicable to other impact measurement systems and reporting frameworks.¹⁰²

The private equity standards focus on four levels of activity across 105 practice indicators:

- Standard 1: Strategy: embedding impact into purpose and strategy.
- Standard 2: Management approach: integrating impact into operations and management approach.
- Standard 3: Transparency: disclosing how impact is integrated into purpose, strategy, management approach, and governance, and reporting on performance.
- Standard 4: Governance: reinforcing commitment to impact governance practices.

⁹⁶ <https://www.impactprinciples.org/signatories-reporting>.

⁹⁷ <https://sdgimpact.undp.org>.

⁹⁸ <https://sdgimpact.undp.org/private-equity.html>.

⁹⁹ The framework is integrated with the UN Guiding Principles for Business and Human Rights, the Ten Principles of UN Global Compact, and the IMP's principles.
¹⁰⁰ These are the IFC's Operating Principles for Impact Management, the UNEP FI's Principles for Positive Impact Finance and Responsible Banking Principles, the Principles for Responsible Investment, Social Value International's Social Value Principles, and the GIIN Core Characteristics of Impact Investors.

¹⁰¹ For example: IRIS+; GRI; the UNCTAD metrics; Voluntary National Reviews on the implementation of the SDGs, SDG Impact Market Intelligence Investor Maps, Nationally Determined Contributions to the Paris Accord, the OECD Guidelines for Multinational Enterprises, Capitals Coalition Natural and Social and Human Capitals Protocols, Social Value International Standards, Blab SDG Action Manager, and UNEP FI Impact Analysis Tools.

¹⁰² Such as Integrated Reporting; SDG Disclosure Recommendations; GRI; and SASB.

Each of the four standards is linked to indicators that determine if they have been achieved. For example: Standard 1 requires the investor to establish an impact thesis focused on the SDG relevant data, Standard 2 requires the investor to pre-screen investments in line with the IMP dimensions of impact, Standard 3 requires the investor to report annually on its impact with full disclosure, and Standard 4 requires the investor to have an internal governance structure that is appropriate to its impact thesis.

F. ESG Disclosure: Legal Forms

1. Community Interest Company

In 2005, the Government of the UK launched a new legal form specifically aimed at social enterprises: the community interest company (CIC). The policy objective of the CIC model was to facilitate more sustainable investment into social enterprises as a recognized legal entity that would ensure an impact focus. As a further incentive, any investment in a CIC attracts Social Investment Tax Relief.¹⁰³ To be eligible to register as a CIC, an organization must already be a company limited by guarantee, a company limited by shares (CLS) or a cooperative, and a mutual or industrial and provident society (a form of mutual company). Registered charities were excluded. To ensure the legitimacy of the social purpose of a CIC, a number of legal requirements were built into the CIC model: an asset lock that does not allow for a CIC to be bought out to realize an asset such as property, a dividend payment cap (for CLSs) of 35% of net annual profits on equity, and a performance-related interest loan cap of 20% of outstanding debt (for companies limited by guarantees).¹⁰⁴ In addition, every CIC was required to file an annual report to the Regulator that sets out some details of their social impact. By mid-2020, more than 19,000 organizations had registered as CICs.¹⁰⁵ However, it remains unclear how much new capital has actually been raised by CICs.¹⁰⁶

2. Benefit Corporation

¹⁰³ <https://www.gov.uk/guidance/venture-capital-schemes-apply-to-use-social-investment-tax-relief>.

¹⁰⁴ <https://www.isonharrison.co.uk/blog/how-could-a-community-interest-company-meet-your-enterprise-needs/>.

¹⁰⁵ <https://communityinterestcompanies.blog.gov.uk/2020/09/09/annual-report-2019-to-2020-community-interest-companies/>.

¹⁰⁶ For example, refer to the rather nebulous comment: “A solid number of CICs are already receiving social investment and this market has grown significantly.” at <https://www.accountingweb.co.uk/business/finance-strategy/community-interest-companies-funding-for-growth/>.

In 2010, a new legal form of incorporation for social purpose organizations was introduced in the US: the Benefit Corporation (B-Corp).¹⁰⁷ In its legally defined goals,¹⁰⁸ the B-Corp form of incorporation includes a positive impact on society, workers, the community, and the environment.¹⁰⁹ By 2020, the legal form has been authorized by 35 US states and the District of Columbia. In 2016, following the US example, the Italian Parliament passed legislation that recognized a new kind of organization based explicitly on the Benefit Corporation: Società Benefit.¹¹⁰ Italy was the first country in the world to make this legal status available across its entire territory. Further, in 2018, British Columbia in Canada passed a bill to amend the Business Corporations Act to incorporate Benefit Companies.¹¹¹

3. European Union Co-operative Society

In 2013, in the European Cooperative Society (SCE)¹¹² was established by statute as a new legal form of cooperative by the EU.¹¹³ Specifically, it aimed to facilitate cross-border and transnational cooperative activities because the members of an SCE cannot all be based in one country. The SCE is required to unite residents from more than one EU country. The Statute for a European Co-operative Society enables five or more European citizens from more than one EU country to create a new European Cooperative Society. The statute also provided a legal instrument for other companies wishing to group together to access markets, achieve economies of scale, or undertake research and development activities. This was the first and, to date, only legal form of pan-European incorporation.

G. ESG Disclosure: Certification Schemes

1. B Corporation

In 2006, B Lab¹¹⁴ was founded in the US as a not-for-profit organization that developed a set of voluntary ESG certification standards for organizations. If an organization conformed to the standards, it was certified as a “B corporation”. Somewhat confusingly, the B corporations certification standards are quite separate from the legal form of the Benefit Corporation. The B

¹⁰⁷ <https://benefitcorp.net>. In some states, such as Delaware, the term ‘public benefit corporation’ is also used.

¹⁰⁸ Classified as “the best interest of the corporation” within its approved corporate bylaws.

¹⁰⁹ <https://bcorporation.net/about-b-lab>.

¹¹⁰ <https://www.societabenefit.net/english-information/>.

¹¹¹ <https://www2.gov.bc.ca/gov/content/employment-business/business/bc-companies/benefit-company>.

¹¹² https://ec.europa.eu/growth/sectors/social-economy/cooperatives/european-cooperative-society_en.

¹¹³ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32003R1435>.

¹¹⁴ <https://bcorporation.net/about-b-lab>.

corporation standards require evidence of transparency, accountability, sustainability, and performance, with a focus on all stakeholders rather than only shareholders. The aim is to measure and report on a company's entire ESG performance.

Assurance of the standards is a function of a company's performance against the B impact assessment (BIA) criteria that evaluate how a company interacts with its workers, customers, community, and environment. Completing a baseline BIA is the first step towards gaining certification. The BIA consists of up to 200 questions, dependent on the size of the organization.¹¹⁵ After completing the BIA, companies undergo a multi-step verification process to determine if they meet the impact performance requirements for certification, including a formal assessment review, a background check, and, if appropriate, site visits. Once certified, B corporations sign a B corporation agreement and are then legally required to consider the impact of their decisions on all their stakeholders as part of the terms of their certification. To maintain their certification, a B corporation must update their assessment every 3 years and provide additional documentation where necessary to support their update. By 2020, there were over 3,500 B corporations certified in 70 countries across 150 sectors. In addition, more than 100,000 companies were using the BIA to help managed their impact.

2. Fair Trade

In addition to B Corps, another significant impact certification standard has developed over the past two decades: Fair Trade. However, unlike B Corps, these standards are consumer, rather than investor, focused. Fair Trade offers an innovative, market-driven, supply chain model that connects small-scale farmers and artisans in developing countries with developed country consumers.

The Fair Trade model aims to address poverty by means of increasing the proportion of the total value chain that is captured by poor producers. Fair Trade has developed a set of product and organizational standards which are audited to provide certification that, in turn, allows a Fair Trade label to be used on all relevant products.¹¹⁶ The standards include a guaranteed minimum input

¹¹⁵ <https://bcorporation.eu/certification/meet-the-requirements>.

¹¹⁶ Nicholls and Opal (2005).

price that is calculated to ensure that producers receive a payment that covers the average costs of sustainable production, typically above the market price, pre-financing, and long-term contracts to allow for income smoothing and product development; agreed labor and environmental standards; and a development premium on top of the contract price that is distributed communally.¹¹⁷ Fair Trade has typically focused on commodities, such as coffee, tea, sugar, bananas, flowers, and cotton. However, the Fair Trade label can be applied also to composite products that include Fair Trade elements and garments, or handicrafts that conform to the standards.

Prior to the emergence of Fair Trade, there had been a long tradition of “world shops” in Europe, such as Oxfam, providing market access to products from developing countries, but the evolution of the Fair Trade standards and label only began in the 1980s. In 1988, the first Fair Trade certification model was created in the Netherlands under the brand name Max Havelaar.¹¹⁸ The objective was to use a certification label to allow Fair Trade goods to be sold not only in world shops but also in mainstream retailers in order to reach a far larger number of consumers.

Subsequent to this, a number of other independent Fair Trade labels emerged. In 1997, these various initiatives came together to create the Fairtrade Organizations International (FLO), later rebranded as Fair Trade International,¹¹⁹ as an umbrella organization that aimed to establish a common set of Fair Trade standards.¹²⁰ Connected to this initiative, FINE was created in 1998 as an informal association of the four Fair Trade networks:

- **F** Fairtrade Labelling Organizations International (FLO)
- **I** International Fair Trade Association, now the World Fair Trade Organization (WFTO)
- **N** Network of European World Shops (NEWS!)
- **E** European Fair Trade Association (EFTA)¹²¹

After a period of discussion, in 2002, FLO launched the International Fairtrade Certification Mark. The goals of the launch were to improve the visibility of the mark on supermarket shelves, facilitate

¹¹⁷ <https://www.fairtrade.net/standard/aims>.

¹¹⁸ <https://www.fairtradenederland.nl>.

¹¹⁹ <https://www.fairtrade.net>.

¹²⁰ In 1998, Fair Trade USA, formerly a licensing agency for the Fairtrade International label, disassociated itself from FLO and launched its own Fair Trade certification scheme. <http://www.fairtradeusa.org>.

¹²¹ <https://en.wikipedia.org/wiki/FINE>.

cross border trade, and simplify procedures for both producers and importers. By 2020, the Fair Trade certification mark was used in more than 50 countries with more than 300,000 products sold with the mark. Global sales were more than \$9.8 billion (2018).¹²² The UK is the largest single market for Fair Trade globally. In the 25 years since the inception of the first Fair Trade mark, UK sales have generated \$1.1 billion premium¹²³ payments to develop poor communities globally. Moreover, in 2001, the UK Fair Trade labelling organization—the Fair Trade Foundation¹²⁴—launched a series of place-based Fair Trade certification schemes offering the mark to towns and, subsequently, universities, schools, and churches, if they satisfy standards criteria, including a commitment to sell Fair Trade products and support Fair Trade agendas.¹²⁵ However, despite the trading success of Fair Trade, the model has increasingly come under stress as mainstream retailers substitute in-house certification scheme for the Fair Trade mark and criticisms are raised concerning its impact.¹²⁶

In 2004, an alternative Fair Trade certification model was launched by the World Fair Trade Organization (WFTO).¹²⁷ The WFTO was created in 1989 and was formerly the International Federation of Alternative Traders (IFAT). In 2018, the WFTO is a membership organization operating in 76 countries with more than 1,000 social enterprises and 1,500 shops. The direct impact of WFTO has supported more than 1 million people, 74% of which are women. The WFTO certification scheme called the Fair Trade Organization Mark was distinctive from the Fair Trade mark as it focused on organizations as opposed to products and guaranteed standards of working conditions, wages, child labour, and the environment. In 2014, the WFTO launched the Fair Trade Program Mark specifically for cocoa, sugar, and cotton producers.

H. Summary

Currently, there is a wide range of competing standards that aim to capture sustainable finance and ESG performance (Table 1). Nevertheless, transnational networks, such as the IMP, are working on consolidating existing standards around a common set of agreed principles. The IFC principles

¹²² https://files.fairtrade.net/publications/2018-19_FI_AnnualReport.pdf.

¹²³ <https://stories.fairtrade.org.uk/annual-report-and-financial-statements-2019/index.html>.

¹²⁴ <https://www.fairtrade.org.uk>.

¹²⁵ <https://www.fairtrade.org.uk/get-involved/in-your-community/communities/>.

¹²⁶ <https://www.theguardian.com/business/2019/jul/23/fairtrade-ethical-certification-supermarkets-sainsburys>; and https://www.mitpressjournals.org/doi/10.1162/REST_a_00512.

¹²⁷ <https://wfto.com/who-we-are>.

and the SDG standards also offer promising initiatives that engage with existing ESG models as the fund and deal levels, respectively. As noted above, the EU nonfinancial information disclosure regulations and the IFRS consultation on sustainable disclosure are very significant steps also towards common standards.

Table 1: Sustainable Finance Standards

Category of Standard	Examples
Models	Logic Model Theory of Change
ESG Disclosure: Principles	Equator Principles Principles for Responsible Investing International Integrated Reporting Council Principles
ESG Disclosure: Organizational Standards	Global Reporting Initiative Social Accounting Standards Board Harmonized Indicators for Private Sector Operations
ESG Disclosure: Green Finance Standards	Carbon Disclosure Project Joint Reporting Initiative Natural Capital Declaration Carbon Risk Assessment Framework Principles for Positive Impact Business and Finance Carbon Price Leadership Coalition
Regulation	European Union Non-Financial Reporting Directive UK Climate Disclosure Regulation IFRS International Sustainability Standards Board
ESG Disclosure: Social Finance Standards	GIIN Impact Reporting and Investing Standards Impact Management Project Dimensions of Impact
ESG Disclosure: Transnational Standards	International Finance Corporation: Operating Principles for Impact Management United Nations Development Programme: SDG Standards
ESG Disclosure: Legal Forms	Community Interest Company Benefit Corporation European Union Co-operative Society
ESG Disclosure: Certification Schemes	B corporation Fair Trade

ESG = environmental, social, and governance; GIIN = Global Impact Investing Network; IFRS = International Financial Reporting Standards; SDG = Sustainable Development Goal.

Source: Author's own research.

V. Monetization¹²⁸

An important feature of impact measurement are approaches to monetize nonfinancial impact. This has several important benefits to investor. First, monetization offers a single, common measure of impact that is comparable across investments. Second, in principle, monetization allows a complete accounting for impact,¹²⁹ including externalities and negative impacts.¹³⁰ Taken together, these factors would allow more sophisticated analyses to be carried out on sustainable finance risk and return by capturing all relevant impact data.

A. Monetizing Social Impact

1. Social Return on Investment

The social return on investment (SROI) is one of the most well-established and widely used accounting methodologies for capturing and valuing social impact. SROI methods combine a set of principles that acknowledge power relations by connecting materiality judgments on what outcomes to include with stakeholder consultation via a cost benefit model that uses the principles of net present value discounting to value future blended value using monetary proxies (financial plus social).

a. Finance Focus

In 1996, the Robert Enterprise Development Fund (REDF),¹³¹ a US venture philanthropy fund,¹³² first developed a SROI model to monetize its social impact.¹³³ Specifically with reference to its grant making into work integration enterprises that aimed to create jobs for individuals who were otherwise excluded from the labour market, REDF's model has six stages:¹³⁴

- Calculate the enterprise value: the present value of excess cash generated by the enterprise.
- Calculate the social purpose (impact) value: the present value of projected social savings and new tax revenue generated by employees.

¹²⁸ For an overview analysis: <https://www.hbs.edu/impact-weighted-accounts/Documents/Mutually%20Compatible.pdf>.

¹²⁹ To include all types of human and natural, as well as financial, capital.

¹³⁰ <https://naturalcapitalcoalition.org/natural-capital-2/>.

¹³¹ <https://redfworkshop.org/wp-content/uploads/2017/06/SROI-Methodology-2001.pdf>.

¹³² <https://evpa.eu.com/about-us/what-is-venture-philanthropy>.

¹³³ <https://redf.org>.

¹³⁴ <https://redfworkshop.org/wp-content/uploads/2017/06/SROI-Methodology-2001.pdf>.

- Calculate blended value: the sum of the enterprise and social purpose values (minus long-term debt).
- Calculate the enterprise index of return: enterprise value divided by the investment to date.
- Calculate the social purpose (impact) index of return: social purpose value divided by the investment needed to achieve the social value (the social “cost”).
- Calculate the blended index of return: total value created divided by total costs.

b. Stakeholder Focus

Over time, SROI has evolved from REDF’s clear focus on attempts at calculative accuracy (paying careful attention to discount rates and the best proxies to monetize social impact) to a more general, principles-based, framework for how to choose the most appropriate (and, therefore, accurate) sources of input data. The shift has been from method to principles with a greater focus on establishing “social value” as a form of impact.¹³⁵ Partly, this reflected a realization that the quest for ever-more accurate numerical models of social impact had not delivered robust, standardized, or comparable data sets.

Today, the SROI methodology is built upon a set of principles that are focused on stakeholder consultation as a key mechanism to frame materiality in its social impact accounting model. SROI focuses analytic attention on the relevance of social impact data in terms of clients and beneficiaries—end-user stakeholders who typically have less power and control of the measurement and reporting process than funders or organizational managers. Recognizing the importance of end-user stakeholder materiality judgments also allows a more nuanced sense of the potentially negative or perverse effects of well-intentioned action for some relevant populations. SROI calculations are typically built on aggregated, individual level, and qualitative information that is, then, given a quantitative value via the application of proxy financial measures. This monetized total value can then be compared to relevant costs. The aim is both to inform better resource allocation decisions internally, as well as more accurately to report social impact performance externally. At its heart, the SROI model is based upon seven core principles:

¹³⁵ <http://www.socialvalueuk.org/what-is-social-value/the-principles-of-social-value/>.

- Involve stakeholders to determine outcomes and assess their relevance
- Understand change in terms of its significance from key stakeholders (significance here means that the real or potential scale of the outcome, both positive and negative, has passed a threshold that means it will influence decisions and actions)
- Value things that matter to key stakeholders
- Only include what is material in terms of significance for decision makers
- Recognize your contribution as part of the system and do not double count or over-claim impact
- Be transparent and demonstrate the basis on which the analysis may be considered accurate and honest and to have engaged stakeholders
- Verify results with independent assurance

The SROI process produces reports that can be submitted to an independent assurance process.¹³⁶ This process allows a judgment to be made on whether a given SROI report shows a good understanding of the SROI process and complies with the SROI principles. However, assurance does not include any verification of stakeholder engagement, data, and calculations. It is only a principles-based assessment of the final SROI report.

Figure 5 shows an example of how to calculate the elements of an SROI assessment. It demonstrates the relationship between categories of stakeholders, key outcomes, indicators of change, and financial proxies. Following the SROI methodology will guide decisions to be made in terms of which outcomes and indicators are most appropriate to capture the meaningful impact of an investment with respect to key stakeholders. Then, the financial proxies will allow a calculation to be made of the value of impact over time, which then can be compared with the relevant costs to calculate the SROI.

¹³⁶ <https://socialvalueint.org>.

Figure 5: Calculation of Social Return of Investment

Stakeholder	Outcome	Indicator	Possible proxies
Person with mental health problem	Improvement in mental health	• Amount of time spent socialising • Extent to which participants engage in new activities • Level of use of mental health services	• Cost of membership of a social club/network • Percentage of income normally spent on leisure, • Cost of counselling sessions
Local community	Improved access to local services	• Take-up of those services, and by whom	• Savings in time and travel costs of being able to access services locally
Person with physical health problem	Improved physical health	• Number of visits to doctor • Extent of improvements in health (self reported) • How often they exercise	• Cost of visiting private doctor clinic • Cost of health insurance • Cost of gym membership
The environment	Less waste	• Amount of waste going to landfill • Level of carbon emissions	• Cost of landfill charges • Cost of CO² emissions
Offenders	Reduced reoffending	• Frequency of offences for which participant is charged • Nature of offence	• Forgone wages due to time spent in prison or doing community service
Care leaver	Reduced homelessness	• Access housing upon leaving care • Satisfaction with appropriateness of housing	• Rent • Cost of hostel accommodation
Women offenders	Improved family relationship	• Child continues living in the family home	• Amount that parents spend on their children annually • Value of time spent with children • Cost of childcare
Local community	Improved perception of the local area	• Residents report improvements in local area	• Change in property prices • Amount spent on home improvements

Source: Social Value UK (<http://www.socialvalueuk.org/resources/sroi-guide/>).

2. Impact Multiple of Money

In 2019, Serafeim et al. (2019) proposed a model of impact weighted accounts.¹³⁷ The model suggested that monetization of impact offered several useful properties above the more complex metrics used more usually to capture impact “value”.¹³⁸

First, money is a unit of analysis already being used in financial accounting and, thus, monetized impact can be incorporated easily into existing corporate performance reporting systems. Second,

¹³⁷ <https://www.hbs.edu/impact-weighted-accounts/Pages/default.aspx>.

¹³⁸ https://www.hbs.edu/impact-weighted-accounts/Documents/Impact-Weighted-Accounts-Report-2019_preview.pdf.

monetized impact value data can be subject to conventional analytic frameworks used in corporate decision-making. However, it is also acknowledged that monetizing impact value has the potentially negative effect of capping the “price” of an impact outside of a market context with potentially perverse outcomes. Impact-weighted accounts do not specify metrics or methodologies but, rather, suggest a series of dimensions that construct the model: scope the source of impact, scope the key impact stakeholders, specify the impact metrics, monetize the impact metrics, and scope the total value created.

Linked to the impact-weighted accounts project is another initiative focusing on monetization known as the Impact Multiple of Money (IMM). Launched in 2019, by the TPG Growth Rise Fund¹³⁹ in conjunction with Y Analytics, the IMM is a six-stage model following a similar methodology to SROI.¹⁴⁰

- Assess relevance and scale of the project or service.
- Identify target and measurable social or environmental outcomes.
- Estimate the economic value of those outcomes to society, based on existing research and evidence.
- Adjust for risks of data integrity.¹⁴¹
- Estimate the terminal value.¹⁴²
- Calculate social return, which will vary between the investee and investor.¹⁴³

To date, it is unclear whether the IMM will become the standard model of monetization or have the global reach of SROI. Indeed, it has already attracted some criticisms.¹⁴⁴

3. Impact Bonds

Impact bonds are distinct from green or social bonds because they are not debt instruments but, rather, are futures contracts structured as a partnership between investors, investees/service

¹³⁹ <http://www.yanalytics.org>.

¹⁴⁰ <https://hbr.org/2019/01/calculating-the-value-of-impact-investing>.

¹⁴¹ The Rise Fund assigns values to six risk categories and totals them to arrive at an impact-probability score on a 100-point scale.

¹⁴² For each investment, the Rise Fund assesses the probability that investee social value will continue to be created for a period of time beyond exit and applies a discount rate to the terminal value.

¹⁴³ The investee can take the estimated value of their social or environmental benefit and divide it by the total investment. However, investors should take account of the proportion of their investment in the ownership or balance sheet of the investee and adjust their proportion of social or environmental value accordingly.

¹⁴⁴ https://ssir.org/articles/entry/cultivating_not_just_calculating_social_impact.

providers, and outcomes payers.¹⁴⁵ In an impact bond, investors provide upfront working capital, service providers use the invested capital to deliver services, and an outcomes payer agrees to repay investors their capital with a return that is linked to agreed outcomes being achieved. To agree the repayment rates to investors based on the effectiveness of the impact bond, outcomes are, effectively, monetized at a price. Often, this is expressed in a rate card that provides a monetary value for the range of outcomes achieved. The logic of using financial proxies to monetize outcomes is similar in an impact bond to an SROI assessment. However, the important distinction is the impact bonds use the monetization of outcomes to structure contracts rather than to project or assess impact performance. In this sense, they demonstrate a “market value” for outcomes set by investors and outcomes payers. Over time, impact bonds may provide ‘prices’ for outcomes that can be used more broadly to monetize impact. However, while 225 impact bonds - mobilizing \$534 million - had been launched globally by 2021,¹⁴⁶ only 47 have completed. So, it is too early for such data to be widely available.

B. Monetizing Green Impact

The metrics for green finance impact are largely well-defined. So, monetizing green impact is more straightforward than was the case with social finance impact.

For example, since carbon is both traded on emissions exchanges (as a part of a Cap and Trade structure)¹⁴⁷ and is also subject to taxation in some countries, giving it a “market” value that is de facto its monetized price.¹⁴⁸ By some estimates,¹⁴⁹ the appropriate carbon price across the world will need to be at least between \$40-80/tCO₂e by 2020, and US\$50-100/tCO₂e by 2030, to be consistent with meeting the goals of the Paris Agreement.¹⁵⁰

With respect to nitrous oxide emissions, the “price” is not set by a market but rather by a calculation of the negative externality social costs of air pollution.¹⁵¹ Similarly, the “price” of

¹⁴⁵ <https://golab.bsg.ox.ac.uk/the-basics/>.

¹⁴⁶ <https://golab.bsg.ox.ac.uk/knowledge-bank/indigo-data-and-visualisation/impact-bond-dataset-v2/>.

¹⁴⁷ https://ec.europa.eu/clima/policies/ets_en.

¹⁴⁸ Carbon pricing whether through cap-and-trade or carbon taxes in place in various countries and regions, including the EU; Australia; the Republic of Korea; South Africa; parts of the People's Republic of China; and California, US. <https://www.lse.ac.uk/granthaminstitute/explainers/what-is-a-carbon-price-and-why-do-we-need-one/>.

¹⁴⁹ https://static1.squarespace.com/static/54ff9c5ce4b0a53decccfb4c/t/59b7f2409f8dce5316811916/1505227332748/CarbonPricing_FullReport.pdf.

¹⁵⁰ <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

¹⁵¹ https://19january2017snapshot.epa.gov/sites/production/files/2014-12/documents/estimating_the_social_cost_of_non-co2_ghg_emissions_0.pdf.

water pollution can be calculated by its negative externality social costs.¹⁵² Finally, the monetization of biodiversity has been characterized in terms of “ecosystems services”.¹⁵³ It has been calculated that these services (such as the pollination of plants, habitat for migratory species, storage and retention of water, soil formation processes, storm protection, and flood control) could be valued in a range between \$16 trillion and \$54 trillion per year, at an average of about \$33 trillion per year.¹⁵⁴

VI. Asian Context

In terms of Asia, all of the sustainable finance standards noted in Table 1 might apply. However, it is less clear that there has been widespread adoption of any of them yet. For example, of the 106 signatories to the IFC Operating Principles, only two are in Asia: the Osiris Group in Hong Kong, China and UOB Venture Management in Singapore.¹⁵⁵ Indeed, it appears that there is a demand for investor training and education on these issues in the region.¹⁵⁶

One important exception has been in the People’s Republic of China. In 2012, the China Banking Regulatory Commission published the Green Credit Guidelines that required banks to manage the environmental and social risk of their clients.¹⁵⁷ The guidelines apply to sovereign banks, commercial banks, rural cooperative banks, and rural credit cooperatives. In addition, village banks, loan companies, rural funding cooperatives, and nonbanking financial institutions were also mandated to adopt the guidelines as far as possible. The guidelines introduced specific requirements in relation in the following aspects:¹⁵⁸

- Organization and management. The guidelines require the board of directors to establish a green credit development strategy and supervising and assessing the relevant performance.

¹⁵² <https://www.circleofblue.org/2019/world/costs-of-water-pollution-a-global-scourge-underestimated-and-underappreciated/>.

¹⁵³ <https://www.nature.com/articles/387253a0>.

¹⁵⁴ <https://sustainablefoodtrust.org/articles/valuing-nature-and-the-hidden-costs-of-biodiversity-loss/>.

¹⁵⁵ <https://www.impactprinciples.org/signatories-reporting>.

¹⁵⁶ <https://institute.iixfoundation.org>.

¹⁵⁷ <https://www.ifc.org/wps/wcm/connect/9e027b2b-cd9f-4a4a-9924-4178fd90bd8e/SBN+Country+Progress+Report+-+China.pdf?MOD=AJPERES&CVID=m745LiT>.

¹⁵⁸ <https://www.chinalawinsight.com/2012/03/articles/finance/the-green-credit-guideline/>.

- Internal policy. Banks are required to adapt credit guidelines for industries with substantial environmental and social risk to encourage such clients to adopt carbon mitigating strategies.
- Lending procedures. Banks are required to carry out due diligence on the environmental and social risk of their clients and will not provide credit to clients that are too risky in terms of the environmental and social performance.
- Internal management and information disclosure. An internal audit on the guidelines is required every year.
- Supervision. Banks must conduct a full evaluation of their green credit issuance once every 2 years.

However, since the issuance of these guidelines, there is limited evidence of their impact in expanding the market for green finance and some analyses that suggest there has been no impact at all.¹⁵⁹

VII. Conclusion

The effective measurement and management of the impact of sustainable finance is of central importance to the efficient allocation of capital to optimize outcomes. Looking forward, there are several important opportunities and challenges emerging.

A. Opportunities Going Forward

1. Regulation

Despite the many sustainability standards that are currently available for use by investors and organizations, any agreement on common principles, methodologies, or units of analysis is largely absent. In this context, the opportunity for regulated disclosure of ESG data is significant. In 2021 at the COP26 meeting the IFRS announced the launch of an International Sustainability (ISSB) Standards Board to work alongside the International Financial Standards Board (IFSB).¹⁶⁰ Whilst the IISB will not mandate disclosure, the history of the IFSB suggests that it

¹⁵⁹ <https://www.mdpi.com/2071-1050/11/3/733/pdf>.

¹⁶⁰ <https://www.ifrs.org/news-and-events/news/2021/11/global-sustainability-disclosure-standards-for-the-financial-markets/>

may set a context for subsequent regulation. As such, at the national or regional level, policy makers could advance the development of the sustainable finance market by regulating disclosure in alignment with the IFRS ISSB standards. Even in the absence of common standards, policy makers can still move ESG disclosure regulation forward, as examples in the EU,¹⁶¹ the UK¹⁶² and the People's Republic of China¹⁶³ demonstrate. Even at the city level, deliberative ESG disclosure can have a material effect, for example with the adoption of the Donut Economy¹⁶⁴ model by the city of Amsterdam.¹⁶⁵

2. Technology in Impact Measurement

New technology also offers an important set of opportunities to improve the efficiency and effectiveness of ESG impact measurement. Central to this are a set of innovations that has emerged under the heading of “Lean Data”. In 2014, the Acumen Fund¹⁶⁶ created the Lean Data initiative to apply the principles of lean design to the collection of impact data. The core philosophy behind Lean Data is to build, from the ground up, a data collection mindset and methodology that prioritizes the voice of the beneficiary/client.¹⁶⁷ The Lean Data model aims better to understand how investments impact the lives of low-income people.¹⁶⁸ Rather than collecting data on “impact”, the Lean Data approach coined the term “social performance measurement” better to represent its beneficiary/client-centric measurement approach to capturing social change at the individual or group level.¹⁶⁹ The model focuses on five data collection themes:¹⁷⁰

- Bottom up: Listen to beneficiaries/client to provide actionable insights into their needs and interests.
- Useful: Yield data that is of sufficient quality to support decision-making.
- Iterative: Allows for learning adaptation and replication.
- Light touch: Use low-cost tools and technologies that require a minimal investment of time and money.

¹⁶¹ https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en

¹⁶² <https://www.gov.uk/government/news/uk-to-enshrine-mandatory-climate-disclosures-for-largest-companies-in-law>

¹⁶³ http://docs.wbcsd.org/2018/02/CDSB_Case_Study_China.pdf

¹⁶⁴ <https://www.kateraworth.com/doughnut/>

¹⁶⁵ <https://www.kateraworth.com/2020/04/08/amsterdam-city-doughnut/>

¹⁶⁶ <https://acumen.org/wp-content/uploads/2015/11/Innovations-in-Impact-Measurement-Report.pdf>

¹⁶⁷ <https://www.youngfoundation.org/publications/nothing-about-us-without-us-lived-experience-insight-social-investment/>

¹⁶⁸ <https://acumen.org/lean-data/>

¹⁶⁹ <https://acumen.org/wp-content/uploads/2015/11/Innovations-in-Impact-Measurement-Report.pdf>

¹⁷⁰ https://ssir.org/articles/entry/the_power_of_lean_data#

- Dynamic: Enables rapid data collection within a fast-changing environment.

Lean Data was designed to prioritize beneficiary voice in the impact measurement system by leveraging mobile technology to generate fast and robust data from the frontline of service provision. Such technology can be used in various types of data collection, including short message service (SMS) that is useful for quantitative questionnaire data; Interactive Voice Response (IVR) that is useful for straightforward qualitative data collection, direct phone calls that is useful for complex qualitative data collection; and sensors to collect data on, for example, the usage of cookstoves (heat sensors), solar panels (light sensors), and toilets (sanitary sensors).¹⁷¹ In addition, the use of inexpensive mobile technology reduced the cost of collecting high-quality and timely data (footnote 167).

The Lean Data model differs from conventional approaches to impact measurement that often focus on outputs (for example, the number of people reached by a project) to a focus on the outcomes (how a project creates social benefits as stated by the target beneficiaries) (footnote 167). Lean Data methodologies speak directly to beneficiaries to understand what matters to them in terms of meaningful impact and to measure progress in achieving such change.¹⁷² By 2019, the Acumen Fund had employed Lean Data methodologies to survey more than 85,000 beneficiaries of 150 funded projects in 33 countries.¹⁷³

In 2019, the Acumen Fund spun out a separate consultancy organization specifically to focus on Lean Data—60 Decibels.¹⁷⁴ 60 Decibels provides dashboard data on a range of impact sectors and issues, as well as providing Lean Data design consultancy to companies utilizing a network of more than 150 researchers in 34 countries.¹⁷⁵ By 2020, 60 Decibels had worked on 641 projects with 305 companies to collect data from 136,693 people in 32 countries. Clients included the UK Foreign Commonwealth and Development Office, Centers for Disease Control and Prevention,

¹⁷¹ <https://acumen.org/wp-content/uploads/2015/11/Lean-Data-Field-Guide.pdf>.

¹⁷² However, in the interest of minimizing costs, Lean Data methodologies do not, typically, have formal control groups and have typical survey sample sizes of about 250 respondents.

¹⁷³ <https://acumen.org/lean-data/>.

¹⁷⁴ <https://www.60decibels.com>; and

https://60decibels.com/user/pages/03.Work/_measure_better/60_Decibels_A_Simpler_Way_To_Measure_Impact.pdf.

¹⁷⁵ <https://app.60decibels.com/covid-19>.

Omidyar Network, and Unilever.¹⁷⁶ Other impact measurement technologies are also emerging around the use of Big Data,¹⁷⁷ Artificial Intelligence,¹⁷⁸ and Blockchain.¹⁷⁹

B. Challenges Going Forward

1. Data Robustness in Impact Measurement

Determining the robustness of impact data requires several critical issues to be considered. The IMP principles included risk defined as the likelihood that impact will be different than expected, and that the difference will be material from the perspective of people or the planet who experience impact.¹⁸⁰ The IMP sets out nine categories of impact risk probability (Figure 6) that are focused on issues around data integrity, organizational impact performance, stakeholder perceptions, and external issues.

Figure 5: Impact Risk Probabilities

Impact Risk	Definition
1 Evidence risk	→ The probability that insufficient high-quality data exists to know what impact is occurring
2 External risk	→ The probability that external factors disrupt our ability to deliver the impact
3 Stakeholder participation risk	→ The probability that the expectations and/or experience of stakeholders are misunderstood or not taken into account
4 Drop-off risk	→ The probability that positive impact does not endure and/or that negative impact is no longer mitigated
5 Efficiency risk	→ The probability that the impact could have been achieved with fewer resources or at a lower cost
6 Execution risk	→ The probability that the activities are not delivered as planned and do not result in the desired outcomes
7 Alignment risk	→ The probability that impact is not locked into the enterprise model
8 Endurance risk	→ The probability that the required activities are not delivered for a long enough period
9 Unexpected impact risk	→ The probability that significant unexpected positive and/ or negative impact is experienced by people and the planet

Source: Impact Management Project (<https://impactmanagementproject.com/impact-management/impact-management-norms/risk/>).

¹⁷⁶ <https://www.60decibels.com/work>.

¹⁷⁷ <https://www.rockefellerfoundation.org/wp-content/uploads/Measuring-results-and-impact-in-the-age-of-big-data-by-York-and-Bamberger-March-2020.pdf>.

¹⁷⁸ <https://www.edic.net/blog/Measuring-impact-on-the-SDGs-through-AI/6098648>.

¹⁷⁹ <https://www.weforum.org/agenda/2018/09/5-ways-blockchain-can-transform-the-world-of-impact-investing/>; and <https://alice.si> and <https://ixo.foundation>.

¹⁸⁰ <https://impactmanagementproject.com/impact-management/impact-management-norms/risk/#anchor2>.

In addition to these dimensions, a number of other critical issues are also of material importance for good decision-making with impact data:

- Level of analysis - is the materiality of impact best measured at the individual, family, group, city, region, national level, or systems level?¹⁸¹
- Temporality - at what point in time is impact best measured for robustness, for example with climate effects?¹⁸²
- Attribution - to what extent can the impact outcome be claimed by the investment or service alone.¹⁸³
- Additionality - how much of an impact outcome would have happened without the investment or service?¹⁸⁴
- Causality - how robust is the correlation between the investment or service and its intended impact outcomes?¹⁸⁵
- Deadweight and drop off - after the investment or service has concluded, for how long can impact outcomes still be claimed legitimately?¹⁸⁶
- Liquidity - how can an investor exit from an investment easily in the absence of public exchanges?¹⁸⁷

Each of these issues may be material for effective impact measurement, but equally may incur transaction costs that make them difficult to enact.¹⁸⁸

2. Green-Washing

A further set of challenges in terms of data integrity relate to claims of green- or impact-washing.¹⁸⁹ Absent clear regulation on impact reporting and disclosure, and absent any common standards or metrics, the opportunity for investors to overclaim their impact will always be a material issue.¹⁹⁰

¹⁸¹ https://www.betterevaluation.org/en/themes/impact_evaluation.

¹⁸² https://ocean-climate.org/?page_id=3899&lang=en.

¹⁸³ <https://medium.com/profofimpact/the-impact-attribution-problem-fc5882033c29>.

¹⁸⁴ https://ssir.org/articles/entry/unpacking_the_impact_in_impact_investing.

¹⁸⁵ <https://innovestadvisory.com/how-we-measure-impact/>.

¹⁸⁶ http://www.socialvalueuk.org/app/uploads/2016/03/SROI_Guide-Stage4.pdf.

¹⁸⁷ https://www.impactassets.org/files/downloads/ImpactAssets_IssueBriefs_2.pdf.edght.

¹⁸⁸ <https://www.ipe.com/esg-investing-does-not-cost-more-research-shows/10029567.article>.

¹⁸⁹ <https://2degrees-investing.org/resource/impact-washing-gets-a-free-ride/>.

¹⁹⁰ <https://www.privateequityinvestor.com/investor-interest-grows-will-dangers-impact-washing/>.

Despite the substantial growth of green finance over recent years, material concerns remain around transparency, disclosure, and the potential for “greenwashing”.¹⁹¹ For example, the World Economic Forum reported that, while 63% of the companies in its ESG index had a policy in place to reduce their emissions, only 35% had specific reduction targets.¹⁹² Further, according to the Bank for International Settlements, in a survey of >200 firms in 2015–2018, ESG investing was biased towards firms that tended to be cleaner in the first place.¹⁹³ Over 70% of issuers had a carbon intensity equivalent to, or lower than, a multinational consumer products firm, such as Procter and Gamble. In contrast, carbon intensive or highly polluting companies rarely issued green bonds for fear of being accused of greenwashing. Moreover, many green bonds are simply used to refinance already green projects without an additional reduction in carbon dioxide emissions. Such critiques have been raised also against the wider sustainable finance sector,¹⁹⁴ as a number of mainstream investment banks have developed impact investing funds, advisory services, and consultancy expertise; for example, JP Morgan,¹⁹⁵ Credit Suisse,¹⁹⁶ Barclays,¹⁹⁷ and UBS.¹⁹⁸ Inevitably, the entry of the mainstream investment banks into the impact investing market will grow it substantially over time, though there remain some concerns over the potential for green- or, more recently, “impact-washing”.¹⁹⁹

VIII. Summary

This paper has set out various dimensions of sustainable finance impact measurement. Here impact is defined as:

*Impact is a change in an important positive or negative outcome for people or the planet.*²⁰⁰

¹⁹¹ <https://www.economist.com/finance-and-economics/2019/12/07/climate-change-has-made-esg-a-force-in-investing>.

¹⁹² <https://www.weforum.org/agenda/2020/01/sustainable-finance-starts-with-data/>.

¹⁹³ <https://www.bis.org/publ/othp31.pdf>.

¹⁹⁴ For example, critiques of ESG ratings systems at <https://www.economist.com/finance-and-economics/2019/12/07/climate-change-has-made-esg-a-force-in-investing>; as well as warnings over “greenwashing” funds at <https://www.ftadviser.com/investments/2020/07/16/be-critical-of-esg-credentials-to-avoid-greenwashing-funds/>.

¹⁹⁵ <https://privatebank.jpmorgan.com/gl/en/services/investing/sustainable-investing/impact-investing>.

¹⁹⁶ <https://www.credit-suisse.com/uk/en/private-banking/secure-your-legacy/sustainable-investing.html>.

¹⁹⁷ <https://www.barclays.co.uk/smart-investor/investments/funds-etfs-and-investment-trusts/impact-investing/>.

¹⁹⁸ <https://www.ubs.com/uk/en/asset-management/institutional-investors/investment-themes/sustainable-impact-investing.html>.

¹⁹⁹ <https://www.bloomberg.com/news/articles/2020-04-09/-social-washing-is-becoming-growing-headache-for-esg-investors> and <https://www.theimpactivate.com/new-impact-management-principles-aim-to-safeguard-against-impact-washing/>.

²⁰⁰ <https://impactmanagementproject.com>.

Throughout the paper, a distinction has been made between social and green impacts because this is reflected in the patterns of impact measurement practice as well as in the units of analysis and methods. Further, practice suggests that sustainable finance impact is usually categorized in terms of ESG factors.

Also, this paper has proposed that effective impact measurement needs to be linked strategically to impact management, and that this is essential for the efficient allocation of sustainable finance. Taking into account the strategic implications of impact measurement requires a broader planning framework to be used as a management tool. The Logic Model and Theories of Change can be used to help organizations conceptualize the process of impact creation as a linear set of impact categories, each linked to the next as inputs, processes, outputs, and outcomes. In addition, the materiality of impact needs to be considered strategically. Essentially, this involves a process of establishing which types of impact data matter most in terms of informing efficient capital allocation. With respect to social impact measurement, the input of stakeholders plays an important role in materiality analysis. By paying attention to the lived experience of beneficiaries in terms of impact, social impact finance can avoid misallocation. Such processes also create ancillary impact as they serve to empower often disempowered populations by giving them voice. New technologies, such as Lean Data render the collection of beneficiary data increasingly robust and cost-effective.

The core of this paper is a review of the sustainable finance impact disclosure landscape globally. This review categorized the approaches to ESG impact as either principles or standards based. The majority of the disclosure systems fall into the latter category and, within the standards-based models, green finance disclosure was the most fully elaborated. In addition to the organizational models, this paper set out transnational standards as well as legal forms that incorporate impact factors. Finally, voluntary impact certification schemes were set out. Linked to this section, the paper went on to explore approaches to monetizing impact pointing out the opportunities, but also recognizing some caveats.

Despite this wide range of sustainable finance impact measurement principles, models, and methods, as well as infrastructure building projects such as the IMP, there are as yet no consolidated data sets with which to assess the impact of sustainable finance performance. This lack of a “Bloomberg for Impact” remains a hinderance to the development of the sustainable finance market overall and increases the risk of green-washing or impact-washing.²⁰¹

Currently, in Asia, the landscape of impact measurement is underdeveloped in comparison with other regions. However, as the market for sustainable finance continues to grow here, there is an important opportunity for the region to play a key role in the next stage of development of sustainable finance impact measurement in terms of both regulatory innovation and standard setting.

A further set of challenges in terms of data integrity relate to claims of green- or impact-washing.²⁰² Absent clear regulation on impact reporting and disclosure—and absent any common standards or metrics - the opportunity for investors to overclaim their impact will always be a material issue.²⁰³

²⁰¹ <https://www.themix.org>.

²⁰² <https://2degrees-investing.org/resource/impact-washing-gets-a-free-ride/>.

²⁰³ <https://www.privateinvestor.com/investor-interest-grows-will-dangers-impact-washing/>.

KEY TAKEAWAYS

1. Effective impact measurement and management is essential to the efficient allocation of sustainable finance.
2. Impact is not hard to measure, but it is more difficult to design methodologies and interpret evidence that are material.
3. Currently, there are no agreed standards and many competing models, particularly in green finance, but progress is being made.
4. New regulatory policy on social and environmental disclosure beyond environmental, social, and governance will be critical for the future development of the sustainable finance market.
5. New impact data capture technologies and lean data models offer the opportunity for low-cost, real-time, big data sets that could transform the quality and usability of impact data.

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