



Responsible Investing and Corporate Social Responsibility for Engaged Sustainability

Managing Pitfalls of Economics without Equity

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This chapter is primarily based on Ramanan, "Introduction to Sustainability Analytics," ISBN-10: 1498777058 under publication, CRC Press 2018.

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Abstract

Corporate social contract has morphed from Milton Friedman's "only social responsibility of business (is) to use its resource to increase its profits . . . within the rules of the game" on to the 'New Social Contract' defined as "business is one thread in the complex web of interwoven society. . . responsible for not just its inanimate inputs and outputs, but for all related human and environmental interactions." Today, corporate social responsibility encompasses investments that create positive social and environmental impacts beyond financial returns.

In this chapter, the author focuses on socially responsible investing by organizations, both corporate and government, within the context of sustainability, and expands on the value of impact investing and public-private partnership to preempt the disastrous pitfalls of economics without equity. The chapter highlights the emerging global regulations and the crucial roles of corporate social responsibility and public policy stewardship. It also presents the foundations of sustainability analytics and frameworks for ethical resource management and for managing pitfalls of climate change economics without ethics.

Keywords

New social contract · Socially responsible investing · Responsible investment principles · Sustainability governance regulations · Impact investing · Sustainability analytics

Introduction

Corporate social contract has morphed from Milton Friedman's (Friedman, Milton, "The Social Responsibility of Business is to increase its profits," New York Times Magazine, Sep. 13, 1970 available and accessed May 25, 2016 at http://deloitte.wsj.com/riskandcompliance/files/2013/04/scc_Drivers-of-Long_Term-Value.pdf) "only social responsibility of business (is) to use its resource to increase its profits . . . within the rules of the game" on to the 'New Social Contract' defined as "business is one thread in the complex web of interwoven society. . . responsible for not just its inanimate inputs and outputs, but for all related human and environmental interactions" (Taback and Ramanan, The New Social Contract' in "Environmental Ethics and Sustainability"). Today, corporate social responsibility encompasses investments that create positive social and environmental impacts beyond financial returns. Sustainability issues affect the various sectors of private and public finance and financial approaches, and integrating sustainability principles and practices into finance can be used to help business and governments become more efficient and effective, reduce risks, create opportunities, and develop

competitive advantage. Sustainable development and ecosystem management commonly involve tough sociopolitical choices. Corporations and leaders have to manage corporate social responsibility and a public policy leader is often faced with balancing human needs and environmental considerations; the end goal in both cases is sustainability, to protect and preserve our only planet for future generations and to create positive social and environmental impacts beyond financial returns.

The next section introduces the evolution of socially responsible investing by organizations. The reader is taken thru a journey that started with the faith-based approach of the Quakers in the 1500s and carried on thru the current mission-driven impact investing by the Bill and Melinda Gates Foundation and the Clinton Global Initiative. The following two sections present a summary of the emerging global voluntary principles for responsible investments and governance regulations in select major countries, to ensure sustainable development, to protect investors, and to collect a fair share of taxes. The fifth section presents a discussion of the impact investing organization structures.

The sixth section introduces the concept and value of public-private partnerships for addressing select mega issues and highlights the crucial investment or resource allocation roles of corporate social responsibility (CSR) and public policy stewardship in sustainability. The final two sections present the foundations of sustainability analytics and frameworks for ethical resource management and for managing pitfalls of climate change economics without ethics.

Evolution of Socially Responsible Investing

Quakers in the 1500s and Churches in the 1920s used a negative screening and deliberately opted out of investing in gambling, tobacco, and alcohol. These pioneering socially responsible investors were faith or values based. In the 1970s, Global Sullivan Principles for social justice motivated others to selectively divest from South Africa to dissent apartheid, and the Vietnam War drove some investors to opt out of nuclear and military weapons production.

In the 1990s, driven by the Brundtland Commission's sustainability, corporate social responsibility (CSR) took into account social and environmental behavior; socially responsible investing continued on the path of social alignment by negative screening of unacceptable social and environmental conduct, building portfolios of assets that exclude companies deemed irresponsible or ones that are contrary to the mission or values of the investors. A further shift occurred toward incorporating environmental and social factors in investment decisions. However, explicitly seeking financial returns as well, nontraditional criteria, e.g., policies, were included in evaluating risk and return. The mantra was to do good for society but not do harm to financial returns. The key shift was the growth in active ownership or shareholder activism and inclusion of positive screening for best-in-class sustainability performance. These corporate social responsibility (CSR)-guided triple bottom-line investors and investments, using positive screening for best-in-class, were now able to

aggregate the “triple bottom-line” economic, environmental, and social performance of organizations.

In addition to economic, environmental, and social factors, increasing emphasis on governance emerged with the passage of Sarbanes-Oxley in 2002. Institutional investors generally have investments that are diversified across asset classes, sectors, and geographies with long time horizons and closer ties to the markets and economies as a whole. These investors, also known as “universal owners” of private enterprise, alongside other mission-driven foundations and high-net-worth individuals, sought greater insight into the opportunities and risks in the nonfinancial performance of organizations. They engaged actively as shareholders with the organizations they invest in, rather than just mandate negative screening, and incorporated environmental, social and governance (ESG) factors into their investment process. Faith-based and CSR-guided investments that use ESG factors in a best-in-class approach evolved into ESG-integrated investments, and while early faith-based investors were driven by inherent value of the investor, today’s responsible investors incorporate external realities.

Concomitant with making a positive societal impact, responsible investment strategy considers ESG criteria to achieve competitive and long-term financial return. Capturing the upside needs appropriate, often industry disruptive innovation strategy that in turn requires better understanding of the ESG advantage and leveraging the information arbitrage; the focus is on what ESG factors are “material.”

In 2007, the Rockefeller Foundation coined “impact investing,” “an umbrella term to describe investments that create positive social impact beyond financial returns” (Griffin 2013). Unlike the CSR-guided negative screening investors with exclusionary strategy, impact investors focus on inclusion, that is, positive screening for best-in-class social impact and the entity could be structured to serve different program or mission (e.g., agriculture, health) areas and use different legal entities (e.g., benefit corporations and community interest companies).

Investing in sustainability includes all the socially responsible investments that enhance one or more of the sustainability components or objectives, without significantly harming the other. For instance, a mission- or program-related investment may focus on eliminating toxics from chemicals that harm unborn children, which is clearly aligned with sustainability goals. Socially responsible investing covers a broad range of investments, faith or values based, CSR-guided negative screening, CSR-guided best-in-class triple bottom line, ESG-integrated, and program- or mission-related impact investing. The financial sector focused on socially responsible investment that has grown from \$2.7 trillion in 2007 to \$21.4 trillion in 2014 (Global Sustainable Investment Alliance, http://www.gsi-alliance.org/wp-content/uploads/2015/02/GSIA_Review_download.pdf accessed Mar 2017). Investors in this sector actively prefer to invest in corporations that have been vetted by and are high on the dominant sustainability indexes (Meg Voorhes et al., “Executive Summary – Fig. B: Growth of SRI \$2.7 trillion in 2007 to \$3.0 trillion in 2010,” in 2010 Report on Socially Responsible Investing Trends in the United States, Social Investment Forum Foundation, accessed December 2012, available at <http://ussif.org/resources/research/documents/2010TrendsES.pdf>).

Voluntary Responsible Investment Principles

Voluntary adoption of a set of principles to guide investment decisions helps direct companies and governments conduct their activities responsibly. Some of the established ones that cover large investments and investors, ranging from governmental development projects and multinational enterprise expansions to private equities and mission-driven charities, are highlighted below. These voluntary investment principles include Organisation for Economic Co-operation and Development Guidelines for Multinational Enterprises, Equator, UN Global Compact, and the Principles for Responsible Investing. Narrower range of investments and/or objectives are focused on by others, such as INSEAD's Global Private Equity Initiative for assimilating ESG in private equity and Impact Reporting and Investment Standards (IRIS), an initiative of the Global Impact Investing Network (Global Impact Investing Network (GIIN) <https://iris.thegiin.org/about-iris> accessed on Mar 22, 2017) with a goal to increase the scale and effectiveness of impact investing, Global Sustainable Investment Alliance (Global Sustainable Investment Alliance <http://www.gsi-alliance.org/> accessed Mar 22, 2017) with a vision to integrate sustainable investment into financial systems, and CDC (CDC Investment Works, UK's Development Finance Institution (DFI) and wholly owned by the UK Government <http://www.cdcgroup.com/Who-we-are/Key-Facts/> accessed Mar 21, 2017), the development fund arm of the UK with a focus on Africa and South Asia.

Guidelines for Multinational Enterprises (OECD Principles)

Adopted in 1976, the Organisation for Economic Co-operation and Development (OECD) (Organisation for Economic Co-Operation and Development <http://www.oecd.org/corporate/mne/1922428.pdf> accessed March 21, 2017; Organization for Economic Co-operation and Development (OECD) is an intergovernmental economic organization with 35-member countries.) Guidelines for Multinational Enterprises (MNE) (Organization for Economic Co-operation and Development, accessed March 20, 2017, available at <http://www.oecd.org/investment/mne/38783873.pdf>) establishes legally nonbinding principles and standards for responsible business conduct for multinational corporations. They cover such areas as human rights, disclosure of information, anti-corruption, taxation, labor relations, environment, competition, and consumer protection. Select components are highlighted below:

- (a) Develop policies that consider country programs and other stakeholder views, respect human rights, and contribute to economic, social, and environmental progress for sustainable development. The policies should also promote human capital formation, capacity building, and good governance.
- (b) Ensure disclosures regarding activities, structure, financial situation, and performance are timely, regular, reliable, and relevant. The disclosures should also be of high quality and cover financial and required nonfinancial information, including social and environmental performance.

- (c) Employee relations practices should respect, within the framework of applicable law, the employee's right to form trade unions; abolish child labor and any forced labor; avoid discrimination in employment based on race, color, sex, religion, political opinion, national extraction, or social origin; and take adequate steps to ensure occupational health and safety.
- (d) Environmental policies and practices should protect the environment, public health, and safety, and operations should be conducted in a manner that contributes to the wider goal of sustainable development. This component is amplified further, calling for actions as follows: collect and evaluate adequate and timely information on the environmental, health, and safety (EHS) impacts of enterprise activities and verify progress toward measurable goals; engage in timely communication and consultation with the public and employees directly affected by the EHS policies and activities of the enterprise; incorporate, in decision-making, the foreseeable EHS-related impacts associated with the processes, goods, and services and when needed, prepare an appropriate environmental impact assessment; maintain contingency plans for preventing, mitigating, and controlling serious events; not use scientific uncertainty to postpone cost-effective measures to mitigate damage; improve environmental performance by adoption of technologies and development of products or services with better EHS performance; provide adequate education and training to employees in safe handling of hazardous materials and the prevention of accidents; and help develop environmentally meaningful and economically efficient public policy.
- (e) Issues such as combating bribery, protecting consumer interest, and building local science and technology capacity, fair competition, and timely payment of appropriate amount of taxes are addressed by other guidelines.

Equator Principles

At the dawn of this millennium, growing social expectations associated with the move from shareholder to stakeholder primacy put pressure on the financial investment sector to commit to sustainability, which called for measuring environmental and social impacts, continuous improvement of portfolios, proactively fostering sustainability, building capacity, and linking performance. The Collevocchio Declaration on Financial Institutions in 2002 was a move by over 100 NGOs to advocate environmentally responsible behavior in the financial sector (Collevocchio Declaration, BankTrack (Amsterdam: BankTrack, January 2003), accessed December 2012, http://www.banktrack.org/download/collevocchio_declaration/030401_collevocchio_declaration_with_signatories.pdf), and it served as a precursor to the Equator Principles. The first principle, sustainability, calls for measurements of environmental and social impacts, continuous improvement of portfolios, and proactive fostering of sustainability, building capacity, and performance. The second principle is to “do no harm,” which requires the creation of sustainability procedures and the adoption

of international standards. The next three principles involve taking full responsibility for impacts, accountability for public consultation and stakeholder rights, and transparency through corporate sustainability reporting and information disclosure. The final principle is sustainable markets/governance, which covers public policies and regulations that recognize government's role and discourage unethical use of tax havens and currency speculation.

Around the same time, the World Bank and its project financing arm, International Finance Corporation (IFC), were sued by impacted parties and NGOs for not ensuring that their borrowers operate their project responsibly. This lawsuit led to the development of Equator Principles (Equator Principles, accessed October 2017, available at <http://www.equator-principles.com/index.php/about>) in 2003. It was an industry group voluntary initiative designed to manage environmental and social risk in project financing. Although it was led by IFC, later signatories include Goldman Sachs and Citigroup.

Equator Principles (2003) comprise of conducting environmental and social impact assessments (ESIA), compliance with all applicable social and environmental standards, covenants in financial documentation, public consultation and disclosure, grievance mechanisms, independent review, monitoring, and reporting. Furthermore, the public consultation and disclosure process requires conferring with all stakeholders for the development of the ESIA, disclosure of ESIA results to public and ongoing discussions during construction and operation. These communications and engagements must be conducted in local languages, showing respect for local traditions and ensuring that the groups involved are representative.

Principles for Responsible Investing (PRI)

Principles of Responsible Investing (PRI) was launched by the United Nations (UN) in 2006, following a finding that environmental, social, and governance (ESG) issues affect long-term shareholder value, which in some case could be profound (UN Principles of Responsible Investment, <https://www.unpri.org/about> accessed March 21, 2017). PRI is not associated with any government, and while supported by, it is not part of the United Nations. PRI is specifically designed for institutional investors and the financial sector and reflects the core values of large investors whose investment horizon is long, and portfolios are diversified. PRI has grown to over 1,700 signatories and US \$62 trillion associated assets under management.

There are six principles for responsible investment for incorporating ESG factors into investment practice. Principles 1 and 2 seek incorporation of ESG issues into investment analysis and decision-making process and into ownership policies and practices. Principle 3 requires appropriate disclosure on ESG issues by the entities invested(ing) in. Principles 4–6 call on signatories to promote acceptance, enhance effectiveness, and report implementation progress on the principles.

The UN Global Compact

The UN Global Compact's principles are derived from the Universal Declaration of Human Rights, the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention against Corruption (UN Global Compact <https://www.unglobalcompact.org/what-is-gc/mission/principles> accessed Mar 22, 2017). There are ten principles in the areas of human rights, labor, environment, and anti-corruption, and signatories are required to provide annual communication on progress. Failure to do so can result in expulsion.

Principle 1 requires support and respects the protection of internationally proclaimed human rights; Principle 2 seeks to ensure that they are not, unwittingly or otherwise, complicit in human rights abuses; Principle 3 calls for upholding the freedom of association and the effective recognition of the right to collective bargaining; Principles 4, 5, and 6 support the effective abolition of child labor and the elimination of all forms of forced and compulsory labor and discrimination in respect of employment and occupation; Principles 7 and 8 support a precautionary approach to environmental challenges and promote initiatives for greater environmental responsibility; Principle 9 encourages the development and diffusion of environmentally friendly technologies; and Principle 10 urges work against corruption, including extortion and bribery.

Emerging Global Sustainability Governance Regulations

Today, corporate social responsibility encompasses investments that create positive social and environmental impacts beyond financial returns. Traditional financial reports do not adequately account for how corporate sustainability performance can enhance or impede both shareholder and stakeholder value. "Integrated corporate reports" that combine financial and sustainability reporting could close the gap by incorporating externalities and other intangible assets by capturing intrinsic values and enable investors to make better informed decisions. Nonfinancial information coming directly from company reports is more likely to be valued by investors (EY "Tomorrow's investment rules: global survey of institutional investors on nonfinancial performance," 2014).

Sustainability Regulations: Evolving Globally

Stakeholders relevant to sustainability are participants, influencers, and vulnerable groups. Participants are directly involved in the commercial exchange process of business and industry and include consumers, corporations, employees, financial institutions, shareholders, state-owned enterprises, and supply chains. Influencers

are instrumental in the development of public opinion and policy and include local authorities and nongovernmental organizations (NGOs) such as regulatory agencies, industry trade groups, scientific communities, public interest activists, and the media. The third group comprises of the vulnerable sections of the society that require special protection from exploitation and include children, women, employees, and select socioeconomic groups.

While every group may benefit long term from sustainability regulations, near term the requirements and impact of regulations vary by group. Influencers formulate regulations and monitor compliance, participants comply, and the vulnerable are protected, and it is likely that the society at large benefits long term. Equity and institutional investors as well as corporate and public policy stewards clearly have a significant role in shaping sustainable development decisions and accomplishing the quadruple bottom line. Pension funds and institutional investors often file corporate shareholder resolutions seeking data on companies' risks and initiatives related to climate change, such as policy, emission levels, and mitigation plans. Equity investors are equally concerned about environmental and other sustainability risks to operations and the longevity of corporations.

Emerging sustainability regulations seek disclosures and emanate from government departments of environment, trade and commerce, and finance and treasury to ensure sustainable development, to protect investors, and to collect their fair share of taxes. Increasingly, lenders and institutional investors are required to disclose through integrated reporting how their investments are channeled into responsible operations from the perspectives of longevity, risk, and reward. Stock exchanges are recognizing the need for transparency on corporate sustainability strategy. The US Securities and Exchange Commission (SEC) and several stock exchanges across the developed world call for reporting material risks in their operations as part of their annual financial reports.

Governments have a dual role of leadership in sustainability reporting. State-owned enterprises have a natural stewardship role in progressing sustainability reporting. First, the state-owned agencies mandate and monitor sustainability reporting thru their public governance arm. Second, they serve as pilots and role models. Their development of metrics and measurement of sustainability helps advance government mandates for sustainability reporting across all sectors. Some European nations such as France, Spain, and Sweden as well as all the BRICS nations, Brazil, Russia, China, India, and South Africa, specifically target and mandate sustainability reporting from state-owned enterprises (Columbia University, http://spm.ei.columbia.edu/files/2015/06/SPM_Metrics_WhitePaper_2.pdf accessed Mar 2017).

Many governments and stock exchanges seek third-party verifications for assurance. Likewise, because of the growing linkage of sustainability impacts to financial performance, multinational companies and global investors want qualified and vetted third-party verification assurance. Global assurance standards available today include ISAE 3000 (International Federation of Accountants, Accessed Apr 2017 and available at <https://www.ifac.org/publications-resources/international-standard-assurance-engagements-isae-3000-revised-assurance-enga>) of International

Auditing and Assurance Standards Board of the International Federation of Accountants and ISO 14064–3 for GHG assertions (ISO Available at and accessed Apr 2017 <https://www.iso.org/standard/66455.html>).

Sustainability Governance Regulations: Select Country Examples

- (a) Since 2001, companies listed on the stock exchange in France have been required to include social and environmental impacts in their annual reports. The 2010 Grenelle II Act of France expanded the mandate beyond environmental and social performance reporting and requires third-party verification (Institut RSE Management, “The Grenelle II Act in France: a milestone towards integrated reporting,” 2012.). The assurance of verification related to the company’s transparency obligations on social and environmental matters is mainly designed to comply with ISAE 3000 (International Federation of Accountants, Accessed Apr 2017 and available at <https://www.ifac.org/publications-resources/international-standard-assurance-engagements-isaee-3000-revised-assurance-enga>) of International Auditing and Assurance Standards Board of the International Federation of Accountants and French professional standards.
- (b) Starting 2004, the Australian Stock Exchange, ASX, requires listed companies to disclose material sustainability – economic, environmental, or social risk and mitigation plans. DR03422 General Guidelines on the Verification, Validation and Assurance of Environmental and Sustainability Reports 2003 was issued by Standards Australia.
- (c) The 2007 Environmental Information Disclosure Act of China mandates public disclosure of compliance and serious releases. Incentives such as grant priority are offered for voluntary disclosure of environmental information on resource use, emission level, reduction targets, etc. The 2008 Green Securities Policy adopted in China requires several highly polluting industry sector companies listed on the Shenzhen and Shanghai stock exchanges to disclose environmental information to the public. The China Ministry of Finance issued China Certified Public Accountant Practicing Standard, CAS3101 which follows ISAE 3000, but requires sign-off by a certified practitioner.
- (d) For over a decade, China Stock Exchanges Shanghai (Sustainable Stock Exchanges Initiative, “Notice on Strengthening Listed Companies’ Assumption of Social Responsibility” <http://www.sseinitiative.org/fact-sheet/sse/> accessed Mar 23, 2017) and Shenzhen (“Shenzhen Stock Exchange Social Responsibility Instructions to Listed Companies” <http://www.szse.cn/main/en/rulseandregulations/sserules/2007060410636.shtml> accessed Mar 2017) have required all companies listed on the stock exchange and all companies listed in the SSE Corporate Governance Index 240 to provide ESG reports (BSD Consulting, <http://www.bsdconsulting.com/insights/article/sustainability-reporting-standards-in-china> accessed, Mar 23, 2017). Hong Kong Stock Exchange’s new HKEx ESG Reporting Guide (Hong Kong Exchange, “ESG Reporting Guide,”

accessed Mar 23, 2017 and available at http://www.hkex.com.hk/eng/rulesreg/listrules/listsptop/esg/guide_faq.htm) came into effect on 1 January 2016.

- (e) The 2012 requirement of India's Securities and Exchange Board calls for business responsibility reports from the top 100 companies. A unique feature of the Companies Act 2013 of India is that it requires companies, beyond a certain size of operation, to set up a corporate social responsibility board committee to develop corporate social responsibility policies and to ensure allocation and application of "at least 2% of the average net profits of the company made during the three immediately preceding financial years" on "CSR" activities (Business for Social Responsibility (BSR) <https://www.bsr.org/en/our-insights/blog-view/india-companies-act-2013-five-key-points-about-indias-csr-mandate> accessed Mar 23, 2017) to implement those policies. If the company fails to spend this amount on CSR, the board must explain why, in its annual report. The act defines CSR as activities that promote poverty reduction, education, health, environmental sustainability, gender equality, and vocational skills development.
- (f) Since 2012, the UK Department of Environment requires all companies listed on the London Stock Exchange to report their greenhouse emissions in their annual reports. One very interesting feature is the requirement to include at least one ratio that relates reported GHG emissions to company activity, such as carbon intensity. AA1000 Assurance Standard issued in 2008 by UK-based AccountAbility helps ensure that sustainability reporting and assurance meets stakeholder needs and expectations.
- (g) The European Union adopted Directive 2014/95/EU (European Commission initiative for Mandatory Environmental, Social and Governance Disclosure in the European Union.) on disclosure of nonfinancial and diversity information by organizations with over 500 employees. They must include in their management report policies and main risks and outcomes on environmental, social, and employee aspects, human rights, anti-corruption and bribery, and diversity. The directive is under transposition to national law by EU member states.
- (h) In the USA, the need for mandated corporate transparency is becoming acknowledged at a steady pace, with regulations on the rise. US investment banks are required to conduct due diligence for material risks, including environmental liabilities prior to preparing prospectus for any new initial public offering (IPO). The US financial reform holds banks responsible for their actions long past the date of transaction. US Dodd Frank (U.S. Securities and Exchange Commission, "Fact Sheet: Disclosing the Use of Conflict Minerals," 2014.) requires reporting of conflict minerals. US SEC, to protect equity investors investing in publicly listed stocks, has guided listed companies to manage climate risk like any other business risk. In 2010, US SEC created guidelines for companies to report on climate risks in their proxy statements, which accelerated the integration of ESG factors in mainstream financial risk disclosures for US companies. They suggest that "the climate risk mitigation may require internal capacity-building and stakeholder and community engagement and warn that uncertainty is not a reason for inaction" (Taback and Ramanan 2013).

Impact Investing and Organization Structures

Impact Investing Primary Drivers

In 2007, the Rockefeller Foundation coined “impact investing,” “an umbrella term to describe investments that create positive social impact beyond financial returns” (Griffin 2013). Impact investment is emerging as a separate asset class, and the industry is estimated to grow to US \$500 billion by 2020 (Monitor Institute 2009).

Impact investors invest with an intent to generate measurable social and/or environmental impact, while making financial returns. The idea is to align profit making with generating positive social impact. Also, known as social investing, they could be broadly categorized, based on primary motive as:

- (i) Impact first to primarily maximize impact
- (ii) Investment first to primarily get financial returns
- (iii) Catalyst first to seed funds to collaborators to initiate or strengthen impacts

Impact investing includes program-related investments (PRI) which have been around since the 1970s and mission-related investments (MRI), (Rockefeller Philanthropy Advisors, “Mission Related Investing – a Policy and Implementation Guide for Foundation Trustees” available at and accessed Mar 2016 <http://rockpa.org/document.doc?id=16>) a term coined in the last decade. PRI is below market rate investment by foundations, deeply focused on impact and counting toward endowment payout requirements for foundations. MRI is a market rate investment by private foundation endowments that uses the tools of social investing, sometimes including shareholder advocacy and positive and negative screening (Monitor Institute, “The Future of Impact Investing,” available at and accessed Mar 2016, http://monitorinstitute.com/downloads/what-we-think/impact-investing/Impact_Inv esting.pdf).

Impact Investment Organization Structures

Social enterprise is an impact investing business that reinvests profits directly to serve social needs. Unlike nonprofit entities, social enterprise does not seek support from government or philanthropists. Also, it is distinct from a socially responsible business that engages in CSR. The entity could be structured to serve different program or mission (e.g., agriculture, health) areas. One example is an energy savings mission supported by energy conservation consulting services.

Impact investing could use different forms of hybrid organizations (community interest companies in the UK). Examples of such legal entities include low-profit limited liability company, benefit corporation, and B corporation to meet the

investor's specific legal, tax, and mission needs and achieve financial returns while prioritizing social benefit objectives.

Low-Profit Limited Liability Company

Low-profit limited liability company is a hybrid of for-profit and nonprofit. It limits liabilities and protects officers from shareholder lawsuits that question business choices that prioritize social or environmental returns over profits. It can also attract charitable donations or funds that accept below market return.

Benefit Corporation

Benefit corporation is a for-profit company that creates a material positive impact or public benefit. They cannot seek charitable contributions and must produce benefits and report to rigorous standards with third-party independent assessment that adhere to high transparency and accountability. Officers are not liable for damages if the public benefit is not achieved. However, they are required to consider broad array of stakeholders.

B Corporation

B corporations are organizations that are certified by B Lab, a nonprofit third-party entity, much like the Underwriters Lab, to ensure that the B corporation meets social and environmental transparency, accountability, and performance standards. Unlike benefit corporation, B corporation must be certified. Some examples of public benefits that B corporations provide are: buy from low-income communities and make donations to other nonprofit organizations.

Philanthropic Capitalism and Venture Philanthropy

Historically, commercial and social capitals have been clearly separated. Traditionally, the approach was to get rich using the commercial capital and then indulge in philanthropy. Starting with Rockefeller, Carnegie and, today, Bill and Melinda Gates and Warren Buffett are icons of business philanthropy. Over the years, corporate philanthropy became more professionalized but philanthropic capitalism – the business effort to do well by doing good – could not yield a superior model of capitalism. President Bill Clinton calls the Clinton Global Initiative a laboratory to test philanthropic capitalism ideas. He says “...the twenty-first century has given people with wealth, unprecedented opportunities. . .to advance public good. . . .our interdependent world is too unequal, unstable and because of climate change, unsustainable. It failed to turn around our global environmental, social and ethical trends, and it may in fact be distracting us from true systemic sustainability and responsibility” (Bill Clinton in his Foreword in Mathew Bishop and Michael Green, *Philanthrocapitalism – How Giving Can Save the World*, (New York: Bloomsbury Press, 2008).).

A more recent phenomenon is venture philanthropy – the idea that corporate foundations can improve effectiveness through monitoring where they invest, providing management support and staying long enough until those ventures become self-supporting. Other emerging models include traditional foundations practicing high-engagement grant-making, organizations funded by high-net-worth individuals but with all engagements done through professionals, and a partnership model where both the partner and individuals donate the financial capital and engage with the grantees.

Impact Investment Standards and Reporting Frameworks

The World Economic Forum defines impact investing, in the context of measurement, as “an investment approach that intentionally seeks to create both financial return and positive social or environmental impact that is actively measured.” (World Economic Forum, Accessed Apr 2017 available at <http://reports.weforum.org/impact-investment/> and http://www3.weforum.org/docs/WEF_Social_Investment_Manual_Final.pdf) Another study (Ebrahim, Alnoor et al., HBS, Accessed Apr 2017 and available at <http://www.hbs.edu/socialenterprise/Documents/MeasuringImpact.pdf>) suggests that impact measurement efforts could be classified by measurement objectives as:

- (i) Estimating impact – for due diligence prior to investment,
- (ii) Planning impact – selecting metrics and data collection methods to monitor impact
- (iii) Monitoring impact – to improve program
- (iv) Evaluating impact – to prove social value

The same study (Ebrahim, Alnoor et al., HBS, Accessed Apr 2017 and available at <http://www.hbs.edu/socialenterprise/Documents/MeasuringImpact.pdf>) identifies four impact measurement methods:

- (i) Expected return, one that takes into account the anticipated social benefits of an investment against its costs, discounted to the value of today’s value
- (ii) Logic model, a tool used to map a theory of change by outlining the linkage from input to activities, to output, to outcomes, and ultimately to impact,
- (iii) Mission alignment method, which measures the social value criteria and scorecards to monitor and manage key performance metrics
- (iv) Experimental and quasi-experimental

Impact Reporting and Investment Standards (IRIS)

Acumen Fund, B Lab, and the Rockefeller Foundation founded the Impact Reporting and Investment Standards (IRIS) to create a common framework for defining and reporting impact capital performance. The IRIS (Global Impact Investing Network (GIIN), Accessed Apr 2017 available at <https://iris.thegiin.org/>

[guide/getting-started-guide](#)) is a catalog of metrics for impact investors that measure the performance of an organization.

The key metrics of IRIS include:

- (i) Financial performance, including standard financial reporting metrics
- (ii) Operational performance, including metrics to assess investees' governance policies, employment practices, and the social and environmental impact of their business activities
- (iii) Product performance, including metrics that describe and quantify the social and environmental benefits of the products, services, and processes offered by investees
- (iv) Sector performance, including metrics that describe and quantify impact in particular social and environmental sectors, including agriculture, financial services, and healthcare
- (v) Social and environmental objective performance, including metrics that quantify progress toward specific objectives such as employment generation or sustainable land use

B Impact Assessment (BIA)

B Impact Assessment (BIA) (Global Impact Investing Network (GIIN), Accessed Apr 2017 and available at <https://iris.thegiin.org/b-impact-assessment-metrics>) is another tool to assess a company's overall social and environmental performance. The impact of a business on all stakeholders is assessed through an online, easy-to-use platform. The BIA is a free, confidential service administered by the nonprofit organization B Lab. The BIA uses IRIS metrics in conjunction with additional criteria to come up with an overall company or fund-level rating, as well as targeted sub-ratings in the categories of governance, workers, community, environment, and socially and environmentally focused business models.

Responsible Investing and Private Public Partnership (PPP)

Public-private partnerships are typically between a government agency and a private sector entity to finance, build, and operate projects, such as public transportation networks, sustainable development of an underserved region of the world, or elimination of avoidable infant mortality (Investopedia, "Public Private Partnerships," <http://www.investopedia.com/terms/p/public-private-partnerships.asp> accessed Mar 2017). The government agency could be a federal, state, or municipal authority of a country or could even be funding agencies such as the United States Agency for International Aid (USAID) or International Finance Corporation (IFC), the financial arm of the World Bank, or United Nations Sustainable Development Program (UNDP). The private sector entity could be an entrepreneurial venture, a for-profit company, or one of several emerging responsible investment business models for sustainable development, such as philanthropic capitalism, venture philanthropy, mission-driven charitable foundations, and impact driven high-net-worth individuals

with patient capital. Risks and returns are shared between the partners according to the ability and missions of each.

While financing could come from either or both partners, it requires repayments from the public sector and/or users over the project's lifetime. For instance, for a wastewater treatment plant, payment comes from fees collected from users. Toll-based bridges, tunnels, and highways have been following the public-private partnership models for over a century. However, because of the nature of sustainable development projects that calls for large investments, long-term patient capital and often a passion for social responsibility make the public-private partnership (PPP) model rather attractive and sustainable! One partner's authority to enforce long-term repayment by large captive set of users, coupled with the other partner's desire and drive to make an impact, is a powerful recipe. Private sector innovation could provide operational efficiency. However, they bear the burden of project delay, budget exceedance, and insufficient demand. In case of sustainable development projects for underserved regions, geopolitical risk may be overwhelming. The private and public entities could collude and siphon off major parts of the resources, as was seen during the Haiti earthquake; with over ten thousand NGOs misallocating global aid, Haiti has become the infamous "Republic of NGOs" (WorldPost, "Haiti's Multi-Billion Dollar Humanitarian Aid Problem," accessed Dec 2018 available at https://www.huffingtonpost.com/young-professionals-in-foreign-policy/haitis-multi-billion-doll_b_8207494.html).

Ethical Dimension of Resource Management

Ecosystem and Resource Management: Sociopolitical Choice

Ecosystem and resource management, especially optimal allocation, commonly involve tough sociopolitical choices. As a society progresses, it often faces a conflict between economic benefits and environmental degradation (This section is based largely on book chapter, Ram Ramanan and Hal Taback "Environmental Ethics and Corporate Social Responsibility" for the book titled "Spirituality and Sustainability: New Horizons and Exemplary Approaches," Springer 2016.). How much environmental protection is appropriate? What is the right balance between environmental protection and exploitation of natural resources for sustainable development? Both public (government) and private (corporate) stewards bear significant responsibility.

When the market exchange process between the seller and the buyer impact an external entity that has no say in setting the exchange price, a market externality is created. Economists continue to battle externality, which often challenges the traditional market efficiency principles and makes ecosystem development issues tough sociopolitical choices. This leads to highly charged debates of public opinion, and regulatory intervention becomes inevitable. In the environmental context, one could think of these as stakeholder demand for "right to no pollution" or the "right to compensation." Stakeholder engagement in cost-benefit analysis and ethical choice of effective regulatory mechanisms are the key drivers in resolving this sociopolitical

conflict. In particular, when some of the negatively impacted entities are either not invited or not involved, there is significant opportunity for greed and corruption to creep in the policy development process.

Stakeholder preferences for comparing ecosystem development alternatives can be biocentric, anthropocentric, or centered on sustainability. With biological world as the center, biocentrism focuses on the intrinsic value of life and does not consider usefulness to human beings to be one of its core values. “The environment is there to provide material gratification to humans” is at the core of anthropocentrism. Sustainability strives to preserve the integrity of ecosystems.

Resource and ecosystem management alternatives for sustainable development are commonly evaluated and compared using cost-benefit analysis. The benefits and costs are quantified where possible but presented with a description of uncertainties. Stakeholders are engaged and their inputs considered. In most environmental policy decisions, this requires core assumptions regarding the social discount rate and the value of reducing risks of premature death and of health improvements.

However, decision-makers are not bound or limited by strict cost-benefit tests. In particular, because equity is a noneconomic factor, it is crucial to identify important distributional consequences to ensure that ethical choices are made. This is especially true in such areas as climate change and environmental justice – not unduly impacting people of lower socioeconomic strata because they tend to live closer to regions that are more vulnerable with no adequate plans for adaptation or to neighborhoods that face the brunt of highest emissions and discharges from manufacturing facilities that pollute the environment.

Governments commonly deploy one or more of the regulatory intervention mechanisms to manage ecosystem development; these are command and control, toxic torts (liability through law suits), and economic incentives such as emissions fees or tax savings and market-driven approaches such as emissions credit trading. Command and control is the most dominant form of regulation, in which regulation mandates specific pollution control equipment, technology, or emission limit for type of plant or specific pollutant(s). Noncompliance with the regulations carries significant financial and personal criminal liability/penalties. They are enforced through the legal framework and courts. The toxic tort or “liability” approach, where polluters are responsible for the consequences and pay for all damages, creates incentives for the polluter to take precaution, as some jury awards may be very significant, often, enough to eliminate an entire industry, for example, “asbestos.”

The other two regulatory mechanisms offer more direct monetary incentives. “Emissions fees” calls for a charge per unit of pollution – it is in the polluter’s interest to reduce pollution to lower the fees they must pay. “Tax savings” encourage investment in low-emission technologies. These approaches could achieve pre-defined environmental standards at a lower possible cost. But the control authorities often do not know the exact fee to charge or tax savings to offer in order to reach the optimum pollution for market efficiency. “Marketable permits/emissions credits trading” allows polluters and speculators to buy and sell rights to pollute; it separates who pays and who installs controls (Koutstaal 1996). A polluter may install excess

controls at units that are more cost-effective at reducing emissions, and that yield emission reduction credits (ERC), and use the revenue from the sale of ERCs to pay for the controls elsewhere. Efficiency is achieved through the use of purchased or internally generated ERCs to avoid more expensive controls for operating facilities and equipment while achieving the same level of overall emission reduction. This preserves society's resources to achieve highest *bang for the buck*.

The New Social Contract and a Clarion Call for Ethical Leadership

The role of the public corporation and the nature of the "social contract" have been changing over the past two centuries but have changed at a faster pace in the recent decades. Capitalism in general and the American dream in particular interpret greed to be a healthy trait. Greed has become pervasive in business from executives, corporations, banks, and financial markets. This mantra, along with an obsession with the primacy of shareholder interests, has driven most early ventures to privatize gains and socialize costs. The role of business is transforming from one merely fulfilling a social contract to taking on social responsibility with the growing recognition that shareholders are only one of many stakeholders. A principal driver of this societal transformation is the recognition that business is no longer the sole property or interest of a very few. Notably, synchronous interactive connectivity among stakeholders has had a significant role in this change.

"The corporate (and corruption) scandals and implosions of the past decade, climaxing in the recent global financial crisis and environmental disasters have highlighted how critical ethically, environmentally, and socially responsible decision making and leadership are to the long-term survival and success of both individual businesses and society" (Ramanan and Ashton 2012a). It is not feasible to ignore the changing business ambience and social contract under which corporations and public service organizations have to operate. In today's global environment, societal needs are defining markets, and both private and public leaders have to address a range of issues from poverty and hunger to sustainability and ethics. Ethical issues include bribery, fraud, greenwashing, inequity, and a culture of corruption. Corporations and leaders have to manage corporate social responsibility and integrate it into their global strategy, and a public policy leader is often faced with balancing human needs and environmental considerations; the end goal in both cases is sustainability – to protect and preserve our planet for future generations.

"With increasing focus on sustainability factors from the marketplace (regulators, investors, financiers and consumers), corporate sustainability reporting is shifting from voluntary to vital; and more recently becoming an integral part of annual financial reporting. Many stock exchanges are requiring corporations to provide citizenship or social responsibility reports prior to listing them. Advances in enterprise systems are making it feasible for corporations to track and transform sustainability performance. The materiality of these seemingly noneconomic impacts is the critical link between sustainability and business strategy. Leaders need insight into

how to determine which sustainability metrics are material to them and relevant to their business” (Ramanan and Ashton 2012b). Long overdue, only now are ethics metrics being incorporated within sustainability reporting (G-4 56–58 Ethics and Integrity within Governance metrics of Global Reporting Initiative, <https://g4.globalreporting.org/general-standard-disclosures/governance-and-ethics/ethics-and-integrity/Pages/default.aspx>).

Decision-Making and the Ethical Dimension

Formation of Human Value System

Most humans are not naturally (information asymmetry apart) data centric, evidence driven, cold calculative, consciously thoroughly choosing rational robots (individuals). They are rather emotional spontaneous beings with sociocultural upbringing bias who decide and then rationalize their choices. Character, which is formed at an early age, defines the extent to which people will go to achieve an objective.

Ethical Decision-Making: Characteristics

Three qualities affect ethical decision-making: competence in identifying issues and evaluating consequences, self-confidence in seeking different opinions and deciding what is right, and willingness to make decisions when the issue has no clear solution. The development of these qualities in individuals depends on their intrinsic personality and their stage of moral development at the point of decision. Gandhi always held that a prerequisite to making ethical choices is to build a strong character and that requires one to always be cognizant that the means is as important as the end goal.

Other factors that contribute to individuals’ ethical decision-making process are the moral intensity of the consequence of the action; the individual’s empathy, knowledge, and intellectual and emotional ability to recognize the potential impacts on stakeholders; and the influence of the decision environment. For instance, sending a personal email from an office computer may not be seen as unethical at all.

Some individuals are more capable of understanding the broader impacts of an issue than others. For example, the natural attenuation remediation of a contaminated site may be better understood by someone with expertise in the area. They may also realize that in some situations, natural attenuation remediation is a good use of the community’s resources and that by not moving contaminated materials, it reduces public health risks. However, this does not imply that such an individual is more ethical and will make more ethical decisions. For instance, one could be an environmental activist with a set agenda to make the company responsible for soil contamination pay more for the remediation, or one may be an environmental consultant who offers remediation contract service, and choosing this natural attenuation option may eliminate contract work. Under this circumstance, a greed-consumed consultant may choose the less ethical option of “dig, move, and treat the dirt” that provides him additional contract work and compensation.

Ethics Training for Leaders and Professionals

Building a culture of ethics is critical; and effective ethics training is crucial to overcome our inherent selfishness. When faced with a real-world ethical dilemma, a person cannot formulate an appropriate response from the hypothetical “two-on-a-raft” situation. Ethics training is valuable for everyone. It sensitizes one to ethical issues and prepares one to respond appropriately to ethically questionable situations, which are often unexpected. Frequent in-house ethics training and organizational ethical culture building supplemented with appropriate incentive/deterrent system helps develop ethical values and minimizes the temptations to cheat.

Training is not a one-time activity but an ongoing process. Leaders and professionals should participate in a planned series of participatory workshops that discuss real-world relevant dilemmas and help people learn how to do the right thing in a guided setting rather than leave it to their instinct. Workshops with significant number of participants debating opposing opinions promote deeper understanding, while those that include top management are especially effective because executives can share their values.

Managing Pitfalls of Economics without Equity

Climate Change

In 2004 when author Ramanan had lunch with Nobel Laureate Mario Molina, one who discovered the root cause of stratospheric ozone depletion, at one point, discussions turned to who parallels his discovery in the climate change arena. What surfaced quickly was the name of Nobel Laureate Svante Arrhenius; indeed, his paper of year 1896 describes how carbon dioxide could affect the temperature of the Earth. Recent NOAA (NOAA, “A Paleo Perspective on Global Warming,” accessed December 2012 available <http://www.ncdc.noaa.gov/paleo/globalwarming/paleolast.html>) data shows a strong linkage between the surface temperature of the Earth and the carbon dioxide level of the atmosphere.

In 2010, at a professional luncheon event, Honorable Former Vice President of the USA, and a Nobel Laureate, Al Gore, in response to author’s question on equity in global policy, highlighted the potential devastation climate change could unleash on the most vulnerable segment of our society. In 2013, Nobel Laureate Rajendra Pachauri, Chair of IPCC, at a dinner with the author Ramanan, said that scientific consensus among the thousand plus scientists was a tough task, not as much because of differences in scientific views, but more due to the political pressure of the interest groups they served.

In 2015, Pope Francis, leader of the Catholic faith with a following of over one billion people has drawn the world’s attention to one of the mega issues of sustainability and said, “Climate change is a dire threat that humans have a moral responsibility to address” (Pope Francis encyclical on climate change, “On Care for Our Common Home” accessed 6/24/2015, available at <http://w2.vatican.va/>

content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html). However, despite pleas from the Pope, President Trump has elected to withdraw the USA from the Paris Agreement; today the USA is the only country outside the Paris agreement.

This issue gets further exacerbated when a recent tweet from the President of the USA says, “In the East, it could be the COLDEST New Year’s Eve on record. Perhaps we could use a little bit of that good old Global Warming that our Country, but not other countries, was going to pay TRILLIONS OF DOLLARS to protect against. Bundle up!” (CNBC “Climate scientists blast Trump’s global warming tweet,” accessed Dec 2017, available at <https://www.cnbc.com/2017/12/29/climate-scientists-around-the-world-respond-to-trumps-global-warming-tweet.html>). Unless humor was intended, the tweet demonstrates either callousness or a complete lack of understanding of the real concern. Climate change, “the two-degree classic,” its complexity, truly tests how intergenerational equity and distributive justice is incorporated in making ethical choices.

Global Warming and Climate Change: The Issue and the Impact

Global warming and the resultant climate change is the issue and the way the change in environment affects lives is the consequential impact. One of the most complex applications of analytics in the sustainability arena is the NOAA (NOAA, “A Paleo Perspective on Global Warming,” accessed December 2012 available <http://www.ncdc.noaa.gov/paleo/globalwarming/paleolast.html>) simulation demonstration of linkage between the surface temperature of the Earth and the carbon dioxide level of the atmosphere. Human activity is at least partially responsible for this increase in carbon dioxide level and the resultant warming of the planet. This has been shown by integrated assessment, modeling, and analysis and has the consensus of most scientists in the world. Although many gases contribute to global warming, the gases of most concern, based on their abundance and potential to impact global warming (over 99%), are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases. Anthropogenic carbon dioxide is by far the most dominant greenhouse gas (GHG) known to cause global warming. GHG emissions are expressed in terms of carbon dioxide equivalents, and the term “carbon” has been used to represent that here.

Conservation, or reduced usage, is often the norm to protect depletion of most resources. Carbon is a natural resource, but unlike other dwindling substances, its use has to be constrained to contain the generation of carbon dioxide. However, reducing the use of carbon is very challenging because of the near omnipresence of carbon in human life.

Complexity and inconsistency in the methodology of monetizing benefits, emergence of new materials and discovery of new adverse health effects, uncertainties in science, and political sensitivity are additional confounding factors. Furthermore, “with different countries likely to undertake different levels of climate-change mitigation, the concern arises that carbon intensive goods or production processes

could shift to countries that do not regulate greenhouse gas emissions.” (Jeffrey Frankel, “Global Environmental Policy and Global Trade Policy – Harvard Project on International Climate Agreements,” accessed December 2012, available <http://belfercenter.ksg.harvard.edu/publication/18647>) When coupled with currency exchange rates and other geopolitical uncertainties, the problems compound and confound exponentially. Additional complexity in allocating resources to mitigate carbon use comes from who should bear the burden, reduce consumption, tolerate increase in cost of production, or pay more for the same exact functionality.

As stated earlier, climate change, “the two-degree classic,” also truly tests how intergenerational equity and distributive justice is incorporated in making ethical choices. The impact of global warming and climate change and the benefits of averting this catastrophe are mirror images covered below. Traditional cost-benefit analysis uses discount rates to bring benefits over different, especially later years to a common base year. For instance, some of the benefits in climate change mitigation result in benefits that may be a generation or even two centuries away. Almost any rate of discount brings the present value to near zero. Distributive justice, an ethical mandate, requires that all human beings get equal share of public goods – the Earth’s atmosphere. Absent purpose as a moderator, powerful stakeholders could skew the objective through the inherent bias of self-interest.

Climate Change Paris Agreement, 2015

The First World Climate Change Conference was held in Geneva, in 1979; and the First Assessment Report was produced by the Intergovernmental Panel on Climate Change (IPCC) in 1990. IPCC findings in their Fourth Assessment Report in 2007 received general scientific consensus, and the same year, they received the Nobel Peace Prize. The Paris Agreement 2015 on climate change leads to binding targets (European Capacity Building Initiative, “A Pocket Guide to the Paris Agreement,” Accessed Apr 2017, available at <http://www.europacapacity.org/downloads/PocketGuide-Digital.pdf>). The Paris Climate Change Agreement has to be ratified by individual countries. This year (2017), the USA has decided to withdraw from the Paris Agreement, the only country to do so.

Highlights of the agreement are presented below:

- (a) **Global Temperature Goal:** The goal is to keep global temperature rise well below 2 °C above preindustrial temperatures while pursuing efforts to limit it to 1.5 °C, increase the ability to adapt, and make finance flows aligned toward low emissions and climate-resilient development.
- (b) **Mitigation Goal and Nationally Determined Contributions (NDC):** The goal is to achieve a balance between anthropogenic greenhouse gas emissions by sources and removals by sinks of greenhouse gases in the second half of this century. All countries are encouraged to formulate and communicate low-emission development strategies and NDCs in 2020, and plans to strengthen them,

based on their national abilities. Parties communicate their NDCs when they join the Agreement.

- (c) **Adaptation Goal:** The Agreement establishes a notional and aspirational “global goal on adaptation” to enhance adaptive capacity, strengthen resilience, and reduce vulnerability to climate change. Adaptation is recognized as a key component of the long-term global response to climate change and as an urgent need of developing country parties.
- (d) **Loss and Damage Basis:** It incorporates the Warsaw International Mechanism for Loss and Damage and calls for its strengthening. Notably, the loss and damage text contain the cryptic words “does not involve or provide a basis for any liability or compensation,” reflecting the concern by some that it could be construed as an admission of liability for climate change-related damage and could potentially result in claims for compensation.
- (e) **Compliance Mechanism:** A compliance mechanism is established to facilitate implementation and promote compliance in a transparent and nonpunitive manner. Developing countries will receive support to implement transparency measures.
- (f) **Capacity-Building Support:** It stipulates that developed countries will provide financial support to developing countries to assist them with capacity-building, which includes ability to implement adaptation efforts and take mitigation actions; develop, transfer, disseminate, and deploy mitigation technology; access climate finance; educate, train, and raise public awareness; and enable transparent, timely, and accurate communication of information.
- (g) **Broader Scope:** The path to the common goal must reflect equity and differentiated capability-based national responsibility. It is not solely an environmental problem – it cuts across and affects all areas of society. Must respect and promote human rights: the right to health; the rights of indigenous peoples, local communities, migrants, children, persons with disabilities, and people in vulnerable situations; and the right to development, gender equality, the empowerment of women, and intergenerational equity.
- (h) **Exchange Mechanisms:** Market-based as well as nonmarket-based mechanisms are established to allow parties to voluntarily cooperate in mitigation and adaptation to implement their NDCs. Nonmarket-based approaches promote mitigation and adaptation ambition and enhance public and private sector participation in implementing NDCs.
- (i) **Finance:** The issue of differentiation in the finance was sorted by stating that developed countries “shall” provide climate finance for developing countries, while developing countries are “encouraged” to provide support voluntarily.

Ethical Considerations in Climate Change

The following will be significant in shaping the outcome in the ethical allocation of carbon share to balance ecological effectiveness against economic efficiency and equity:

- (a) **Avoiding Perceived Vulnerability:** Many stakeholders call for action to protect climate to protect humans. However, the primary objective is clearly the protection of man from perceived vulnerability and not vice versa, protection of nature from man. Climate change may endanger human health, wealth, and ultimately survival, in particular, of the weaker sections of the world population.
- (b) **Optimizing Resource Use:** Nature is considered a free and potentially infinite good. However, recognition of the value of resource use optimization results in egocentric ethics giving way to utilitarian ethics. The narrow pursuit of self-interest calls for collective rules instead and advocates the regulation of individual action in the name of the greater good of a greater number of people for a longer period of time. As a consequence, target selection is guided by aggregate benefits and costs rather than the individual actor's self-interest.
- (c) **Holding in Trust for the Future:** "Justice across generations demands restraint today. The concept extends the principle of equity among the human community along the axis of time." It is indeed a question of ensuring intergenerational equity. The approach shifts from posterity, seen only as future beneficiaries of progress, to a possible victim of it. Being a beneficiary of the global commons today, therefore, also implies being their trustee. Protecting the climate system for the benefit of present and future generations suggests considering the well-being of future generations as one of the factors to be considered for decision-making in the present.
- (d) **Beyond Anthropocentric:** People in general are anthropocentric and give humans a strong preference over other species. However, ethicists like Peter Singer (Cavaliere and Singer 1993) value wildlife and wild animals with equal status, and opine that nonhuman beings have rights as well. Humans are not entitled to inflict climate change upon the communities of plants and animals, which – along with humans and inanimate matter – are not just instrumental but also have intrinsic value in the biosphere, for instance, biodiversity. An associated driver could be the motivation of humans to rejoice in creation.

Chapter Summary and Management/Leadership Lessons

Ecosystem and resource management, especially optimal allocation, commonly involve tough sociopolitical choices and often face a conflict between economic benefits and environmental degradation. This chapter traces the evolution of responsible investing to its current forms and demonstrates how corporate social responsibility (CSR); environmental, social, and governance (ESG); and mission or principle issues have become financially material and have a direct impact on risk exposure and goal accomplishment of public, private, and government investments. It also highlights some of the voluntary principles and provides an overview of globally emerging sustainability regulations.

Most humans are not naturally (information asymmetry apart) data centric, evidence driven, cold calculative, consciously thoroughly choosing rational robots (individuals).

“Aristotle is often cited to describe unethical behavior as when man’s rationality is overcome by his desire. Most humans naturally draw their sense of values from multiple sources – reason (philosophical or secular), realization (spiritual) or religion (faith) – and often these have synergistic effect. Plato’s rational charioteer could reign in the irrational passionate horses using the head (philosophical or secular), the heart (spiritual) or the heavenly (faith). These diverse inputs cement convictions about identifying the right thing and a commitment to doing the right thing. This inspires one to act more like a Centaur, where the horse and the rider are one – which, if steered correctly could effectively detoxify rampant materialism and preserve our only planet” (Ramanan and Taback 2016).

Chapter End Reflection Questions

1. As a leader would you rather be a rational charioteer or centaur?
2. What is the right balance between environmental protection and exploitation of natural resources for sustainable development?

Cross-References

- ▶ [Collaboration for Regional Sustainable Circular Economy Innovation](#)
- ▶ [Ecopreneurship for Sustainable Development](#)
- ▶ [Environmental Intrapreneurship for Engaged Sustainability](#)
- ▶ [Ethical Decision-Making Under Social Uncertainty](#)
- ▶ [Expanding Sustainable Business Education Beyond Business Schools](#)
- ▶ [Low-Carbon Economies \(LCEs\)](#)
- ▶ [Moving Forward with Social Responsibility](#)
- ▶ [Responsible Investing and Environmental Economics](#)
- ▶ [Smart Cities](#)
- ▶ [Social Entrepreneurship](#)
- ▶ [Sustainable Decision-Making](#)
- ▶ [The Sustainability Summit](#)

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