Transformational Change for People and the Planet: Evaluating Environment and Development – Introduction

Juha I. Uitto

Abstract

The world is facing multiple crises as manifested in runaway climate change, a global pandemic, loss of ecosystems and biological species, and rapidly growing inequality. These are all closely interlinked as recognized in the 2030 Agenda for Sustainable Development. Addressing them will require broad transformational change that encompasses the economy, institutions, and how we interact with the natural environment. This chapter introduces the book that is intended to highlight how evaluation can contribute to such transformations. The chapter first reviews the state of development evaluation. It then briefly introduces the state of the global environment before discussing the implications of this context for evaluation, and how evaluation as a profession and practice must change in order to respond to the challenges of sustainability. The chapter ends by explaining the flow of the book in its four parts that focus on: transformational change, drivers of sustainability, climate change mitigation and adaptation, and evaluation approaches.

Background

The 2030 Agenda for Sustainable Development¹ is intended as a blueprint for people, the planet, and prosperity. It recognizes the interconnectedness of economic, social, and environmental development and how none of the three can succeed in the long run if any one of them fails. The 2030 Agenda is titled “Transforming Our World.” Yet, despite this almost universally accepted recognition, the world is facing crises on all three fronts. Economic and social crises as expressed in continued poverty, unemployment, exclusion, and constantly increasing inequality between and especially within countries are well recognized. Climate change has similarly gained visibility as the world has witnessed increasing weather anomalies, which are no longer affecting only the developing countries, as dramatically demonstrated by the unprecedented wildfires in Australia and the West Coast of the United States. The Intergovernmental Panel on Climate Change (IPCC) has warned that if we do not limit the rise of global temperatures to 2°C above preindustrial levels, the world will face dire consequences (2018).

¹<https://sdgs.un.org/2030agenda>

J. I. Uitto (✉)
Global Environment Facility Independent Evaluation
Office, Washington, DC, USA
e-mail: juitto@thegef.org

But a broader environmental crisis is unfolding that involves an unprecedented loss of ecosystems and biological species; places a heavy burden of chemical pollution into the oceans, land, water, and atmosphere; and poses a grave danger to human health. The COVID-19 pandemic that began in 2020 is an expression of this crisis and a direct reminder of how human health and ecosystem health are closely interlinked.

The Dasgupta Review, an authoritative report on the economics of biodiversity led by Prof. Sir Partha Dasgupta and released in February 2021, confirms that the wellbeing of every person—our livelihoods and economies—depend on the natural environment (Dasgupta 2021). It also reminds us that humans are very much part of nature—a fact that we in our technological hubris often ignore—and our economies are embedded in nature, rather than external to it. However, our current development trajectory is entirely unsustainable, which is endangering the prosperity of both current and future generations.

We therefore need to transform how we interact with nature. We need transformations of economic and financial systems, of institutions, of how we measure development, of education and how we see ourselves in relation to the rest of the planet. Such transformational change is necessary and it should be possible, but it requires knowledge and it requires alternative visions of what can be done and how. Evaluation should and can play its part in making transformational change possible.

In recent years, evaluation has emerged as an increasingly important function in determining the value of development interventions in terms of their relevance, impact, performance, effectiveness, efficiency, and sustainability. Evaluation is everywhere in public and private organizations. Many governments and government departments, notably in education, health, and social services, use evaluation to inform the approaches they take to address the issues within their mandate. Private organizations constantly evaluate their performance, whether they use the term evaluation or not. Most foundations, from the Gates Foundation to environmental actors

such as the Moore Foundation, have incorporated regular evaluation, not only of their grantees but of the overall direction their funding streams take. Evaluation has been formalized as a function in most development agencies, both at the multilateral and bilateral side.

Although much progress has been made, there are still areas where evaluation has not kept up with the times. Some evaluation practice remains mechanistic and inward looking, tinkering with details rather than engaging with the big picture in the rapidly changing world. Evaluation must change to respond to challenges of sustainable development and to become an active contributor to transformational change.

That is what this book is about. It provides an authoritative, interdisciplinary perspective of innovative and emerging evaluation knowledge and practice related to environment, natural resources management, climate change, and development. It is intended to make a contribution to how evaluation can further transformation toward a more sustainable and just world.

State of Development Evaluation

What do we mean by evaluation? In their now-classic textbook on the topic, Morra Imas and Rist (2009, p. 8) define evaluation simply as the determination of the value of a project, program, or policy. They note that most of the numerous definitions include the notion of “valuing,” which distinguishes evaluation from research and monitoring. The Development Assistance Committee (DAC) of the club of industrialized countries, the Organisation for Economic Co-operation and Development (OECD), has a formal definition of evaluation:

The systematic and objective assessment of an ongoing or completed project, program or policy, its design, implementation and results. The aim is to determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors.

Evaluation also refers to the process of determining the worth or significance of an activity, policy or program. An assessment, as systematic and objective as possible, of a planned, on-going, or completed development intervention. (OECD DAC, 2010, pp. 21–22)

Evaluation is conducted for various purposes, including accountability for results achieved and for learning lessons from past experiences. According to the evaluation policy of the Global Environment Facility (GEF, 2019), the most established public funding mechanism for the global environment, the purposes of evaluation include understanding why, how, and the extent to which intended and unintended results are accrued, and their impact on stakeholders. The GEF policy (2019) emphasizes the use of evaluation, stating:

Evaluation feeds into management and decision-making processes regarding the development of policies and strategies; and the programming, implementation, and reporting of activities, projects, and programs. Thus, evaluation contributes to institutional learning and evidence-based policy making, accountability, development effectiveness, and organizational effectiveness. It informs the planning, programming, budgeting, implementation, and reporting cycle. It aims to improve the institutional relevance and achievement of results, optimize the use of resources, and maximize the impact of the contribution provided. (p. 12)

What distinguishes evaluation from related disciplines, such as monitoring and performance audit, is that these latter take the status quo as a given. They are compliance oriented with a mandate to check whether projects and programs are doing what they set out to do and moving toward the objectives set for them. Although audit and evaluation both play oversight roles in organizations, their paradigms and approaches have significant differences (Naidoo, 2020). Evaluation perspective is broader: Evaluators have the mandate to look beyond the internal intervention logic, to see how the intervention is situated in the broader context and whether it is actually making a difference to the problem it was designed to address. Evaluation may thus question the original logic and design of the intervention in light of evidence of its perfor-

mance and impact. Or so it should. But this is not always the case: Evaluators and those who commission evaluations often are not interested in challenging the fundamental assumptions on which their programs are based.

Also important to bear in mind is that plenty of evaluation takes place outside of the profession, although it may not be recognized as such. For example, many ecologists are very much concerned with the effectiveness of conservation strategies and conduct thorough studies of how to best protect ecosystems and animal and plant species in situ (e.g., Geldmann et al., 2019). This is evaluative research, although contact is often minimal between those who conduct such studies and professional evaluators, who tend to mostly be social scientists by training. Enhancing this interaction is important because both sides would benefit greatly from cross-fertilization in terms of approaches and methodologies. While evaluators ignore the natural sciences at their peril, conservationists often lack knowledge in the social sciences (Bennett et al., 2016).

Evaluation has also seen a strong trend toward professionalization of the field. The DAC has developed a set of evaluation criteria to standardize the practice among donor organizations. These influential and widely used criteria were updated in 2019 to incorporate coherence as a new criterion (OECD DAC, 2019). Professional associations, such as the International Organization on Cooperation in Evaluation (IOCE),² the American Evaluation Association,³ Canadian Evaluation Society (CES),⁴ and European Evaluation Society⁵ have moved this agenda, sometimes establishing credentialization programs as in the case of the CES. In the field of international development, the International Development Evaluation Association (IDEAS)⁶ and the EvalPartners⁷ have worked to bring eval-

²<https://www.ioce.net/>

³<https://www.eval.org/>

⁴<https://evaluationcanada.ca/>

⁵<https://europeanevaluation.org/>

⁶<https://ideas-global.org/>

⁷EvalPartners (<https://www.evalpartners.org/>), a partnership between IOCE, UN organizations, civil society orga-

uation into the mainstream of development agendas. The United Nations Evaluation Group (UNEG)⁸ and the Evaluation Cooperation Group (ECG)⁹ of the international financial institutions work actively to professionalize and harmonize evaluation practice among their member organizations.

Among development organizations, evaluation capacity development is seen as a priority and is carried out through structures such as the Centers for Learning on Evaluation and Results (CLEAR) and the International Program for Development Evaluation Training (IPDET)—both under the umbrella of the new Global Evaluation Initiative (GEI)¹⁰ established by the Independent Evaluation Group (IEG) of the World Bank Group and the United Nations Development Programme (UNDP). Focusing on national evaluation capacity in the developing countries has been a high priority for the UNDP for well over a decade. Led by the organization's Independent Evaluation Office (IEO), biannual conferences on the topic have grown significantly in scope and influence since their beginning in 2009.¹¹

This is all very welcome but comes with certain risks, not least of creating an exclusive guild of evaluators closing out new or heretic ideas. Favored methods also have inevitably led to paradigm contests between the different schools of thought. Most notably, claims to a scientific method by those advocating for randomized controlled trials and other experimental techniques as a “gold standard” have drawn the derision of

others who see the “randomistas” as taking a mechanistic view of complex development problems that is culturally and socially insensitive and lacking of external validity (e.g., Bickman & Reich, 2009).

Somewhat belatedly, the randomistas—Abhijit Banerjee, Esther Duflo, and Michael Kremer—were awarded the Nobel Prize for Economics in 2019 (e.g., Banerjee & Duflo, 2011). It seems, however, that the tide is turning toward a more inclusive and comprehensive set of approaches. Experimental and quasi-experimental methods should remain in the bricolage of a wide range of tools used by evaluators (Patton, 2020a).

A desire to assign accountability through quantitative attribution of results to a specific intervention is natural. Although such attribution is appealing to many, especially intervention proponents and donors, it is particularly elusive in a complex environment. Especially when we move away from narrowly focused, targeted interventions toward more transformational efforts, credibly demonstrating the contribution of the intervention to the larger goal should suffice. Here, a well thought-through theory of change is helpful (Mayne, 2019). As Andrew Natsios, the former administrator of the American international cooperation agency, USAID, stated, already more than a decade ago: “Those development programs that are most precisely and easily measured are the least transformational, and those programs that are most transformational are the least measurable” (Natsios, 2010).

Another important attribute that distinguishes evaluation from monitoring and performance audit is the focus on learning and the ability to draw wider lessons from factors that have enabled or hampered interventions in making desired contributions.

As mentioned above, evaluation as a profession and practice is firmly anchored in social science traditions. The practice also tends to remain focused on the achievement of predetermined intervention objectives, rather than expanding its focus on the broader context in which interventions take place and their interactions. In particular, environmental aspects of interventions—including

nizations, and voluntary organizations of professional evaluation (VOPEs), strengthens the capacity of the VOPEs and influences policy making through promoting evaluation.

⁸UNEG (<http://unevaluation.org/>) brings together all units in the UN system that have evaluation as their main function, currently numbering almost 50.

⁹ECG (<https://www.ecgnet.org/>) has as its members 10 multilateral development banks and aims to harmonize their evaluation approaches.

¹⁰<https://www.globalevaluationinitiative.org/>

¹¹The NEC Information Center (<https://nec.undp.org/>) functions as an online platform for knowledge on the NEC conferences, publications, and other documents and tools.

their unintended consequences—are mostly missing from evaluations. This has been confirmed in no uncertain terms by recent stocktakings of evaluation policies and practice by UNEG and CES among their respective memberships. The UNEG stocktaking found that while most member agencies consider the environment to be of medium- to high-level interest to them—and almost 60% of the agencies have environmental and social safeguards that they need to adhere to in preparing their projects and programs—environmental concerns are seldom reflected in evaluations (UNEG Working Group on Integrating Environmental and Social Impact into Evaluations, 2020). In fact, according to survey results, 84% of respondents from the UN agency evaluation units think that environmental considerations have not been adequately addressed in their evaluation guidance (the corresponding figure for social considerations was high, too, at 68%; UNEG Working Group, 2020).

The above discussion points to some persistent challenges that evaluation faces. As I outline below, the global landscape is rapidly changing and the demands for development that is environmentally sound and socially just are getting more urgent by the day. To maintain its relevance, evaluation can no longer be satisfied with ex-post assessments of whether interventions achieved what was written in their program documents. Now evaluations must include a more future-oriented, prospective dimension that provides guidance based on lessons for transformational change. Evaluation must move beyond individual interventions to systems thinking. It must embrace both social and natural sciences using the full range of appropriate approaches, methods, and data sources available.

The word *evaluation* contains the notion of value and, as evaluators, we should be clear about our values, which include respect for nature and people in an inclusive and just manner. This doesn't mean that we should abandon objectivity in our analyses, but rather that we should provide evidence-based, objective analysis of how to most effectively contribute toward development that encompasses the values that we share. In the words of Andy Rowe (2019), we must move toward sustainability-ready evaluation.

The Sustainability Context

The international development context has changed rapidly in the 2000s. Most countries of the world have signed on to the 2030 Agenda for Sustainable Development and the attendant Sustainable Development Goals (SDGs),¹² and to the Paris Agreement on Climate Change. These frameworks provide a common understanding of the universal priorities and the sense of urgency of transforming the way our societies operate. They call for a new value system that is not based only on measuring economic growth, but emphasizes sustainability and equality. They also recognize the existential threats that humankind faces due to anthropogenic climate change and environmental degradation. We have entered the Anthropocene, a new geological era in which humanity's impact on the planet overwhelms everything else.

At the same time, the dichotomy between industrialized and developing countries is blurring, in particular with the entry of large, middle-income countries like China and India on the world scene. China is poised to overtake the United States as the world's largest economy within a couple of decades. China has also been most successful in eradicating extreme poverty and lifting the living standards of millions of people. Still, according to the World Bank (Lakner et al., 2020), 689 million people—or 9.2% of the world's population—lived in extreme poverty in 2017 (using the international poverty line of less than \$1.90 per day). The World Bank estimates that this number has increased by a further 88 million people (possibly going up to 115 million people) in 2020 as a result of the COVID-19 pandemic (Lakner et al., 2020). While the economic differences between countries have narrowed, inequalities within countries have grown and in significant portions of the world, fragility and conflict are increasing. At the same time, the role of non-state actors, including the private sector and civil society, in international development has also increased.

¹²<https://sdgs.un.org/2030agenda>

The 2030 Agenda recognizes that sustainable development depends equally on three interlinked pillars: social, economic, and environmental. All 17 SDGs incorporate each of these dimensions to a varying degree. If one of the dimensions fails, the goal is not achievable. However, traditional measurements of development rely almost exclusively on economic metrics and, to a lesser degree, on social indicators, while the environmental dimension is at best an afterthought. This must change and evaluation must play a role in the new thinking. Fortunately, we see some promising indications that change is on its way. The latest Human Development Report by UNDP (2020), a leading development organization, focuses on human development and the Anthropocene. The report recognizes the interlinkages between human development and the environmental challenges we face, calling for exploring new, bold paths of expanding human freedoms and easing planetary pressures. It goes on to state:

In the face of complexity, progress must take on an adaptive learning-by-doing quality, fueled by broad innovations, anchored in deliberative shared decision making and buttressed by appropriate mixes of carrots and sticks. (UNDP, 2020, p. 5)

Climate change is now widely recognized as a defining issue of our time. The Intergovernmental Panel on Climate Change (IPCC, 2018) warns that we have about a decade to limit global warming to 1.5°C above preindustrial levels or face severe, irreversible consequences for both the people and the planet. These consequences will include increasing occurrence of extreme weather events and rising sea levels that will inundate large swaths of coastal area where the majority of major cities are located. Climate change is not something that will happen sometime in the future; its impacts are already felt around the world. According to the National Oceanographic and Atmospheric Administration of the United States (NOAA, 2021), 10 of the hottest years on record have been since 2005; the top three being 2016, 2020, and 2019. The unprecedented wildfires experienced by Australia in 2019 and the U.S. West Coast in 2020 are linked to this warming trend.

Unfortunately, as problematic as climate change is, it is not the only environmental threat we face. In essence, there are three simultaneous and interlinked crises: the climate crisis, the nature crisis, and the pollution and waste crisis.

Research by the Stockholm Resilience Center found that, specifically in areas of biosphere integrity (loss of genetic diversity) and biochemical flows (nitrogen and phosphorus pollution), we have already breached the planetary boundaries with high risk for humans (Steffen et al., 2015). The nitrogen and phosphorus that have entered the biosphere come mostly from fertilizers used for food production to feed the still increasing human population and its growing appetite.

One of the greatest challenges is the loss of habitat, ecosystem integrity, and biological diversity. We are currently facing the most rapid loss of biological species in history, earning the moniker “the sixth extinction.” Research of 177 species of mammals has documented that all have lost 30% or more of their geographical range and 40% or more have experienced severe population declines (Caballeros et al., 2017).

These crises are closely interlinked in that their drivers all reside in human activity. Food production is one of the main causes of environmental destruction today, as land is cleared for agriculture and cattle raising. We lose some 12 million hectares¹³ of tropical forest each year primarily due to land conversion for agriculture and other economic activities. Not only does this destroy ecosystems and animal and plant species therein, it also reduces the ability of the forests to sequester carbon, thus exacerbating climate change. Other major drivers of land conversion, habitat destruction, biodiversity extinction, and climate change include urbanization and the spread of human habitat.

These are the same factors that lie behind the coronavirus pandemic that in its first year, 2020, killed almost 2 million people and devastated

¹³According to Global Forest Watch/University of Maryland data, the tropics lost 11.9 million hectares of forest cover in 2019 (<https://www.globalforestwatch.org/>).

economies around the world. The virus causing COVID-19 is zoonotic, meaning it originated in nonhuman animals before spilling over to humans. This is not the first such pandemic. Earlier examples from recent history include SARS, MERS, H1N1, Zika, Ebola, and HIV. In fact, the risk of zoonotic pandemics has constantly increased as humankind encroaches deeper into the natural world for habitation, food production, mining, transportation and other activities, thus bringing us closer to animals that act as reservoirs of viruses (UNEP, 2016; Vidal, 2020). The destruction of predators occurring as a consequence of habitat loss results in the increase of animals, such as rats and bats, that effectively transmit their viruses to humans.

The data make clear how closely related these crises are and how directly they affect humanity already today. That human health and ecosystem health are closely intertwined is obvious. Climate change continues unabated. Even if all countries lived up to their nationally determined commitments under the Paris Climate Agreement—which they mostly don’t—these would be not adequate to stop global warming within the limits defined in the Agreement. With the continued warming come multiple hazards ranging from sea-level rise and weather anomalies to the spread of disease-causing mosquitoes and other vectors.

Adaptation to climate change is necessary while we continue to work on mitigation measures (Global Commission on Adaptation, 2019). The impacts of the changing climate are far from uniform across the world. They are affecting the poorest countries and regions and the most vulnerable populations in the most severe fashion. All densely populated, low-lying coastal areas from Miami to Lagos and from the Netherlands to Bangladesh will have to deal with rising sea levels and increased coastal storms, but the poorer countries and cities will have far fewer resources to do so. Small island nations face existential threats due to climate change. Although the relationship is complex, climate change combined with other factors contributing to vulnerability appears to increase the likelihood of conflict (von Uexkull & Buhaug, 2021).

As has been demonstrably the case with the COVID-19 pandemic, the people most vulnerable to environmental and health hazards are the poorest and are often minorities, indigenous peoples, people of color, and women. The environmental crises thus have a very clear social justice dimension that cannot be overlooked as we devise strategies for sustainable development.

What It Means for Evaluation

With the increasing attention given to the universally applicable SDGs in both national and international development plans, and the proliferation of international agreements and financial mechanisms focusing on the environment, the need is growing to constantly assess the effectiveness and impacts of policies, strategies, programs, and projects that are aimed to produce transformational change for the environment and human wellbeing. We must identify lessons from the past—what has produced desirable results, under what conditions, and for whom—so that we can incorporate these lessons to design better and more effective interventions for the future. Evaluation has a key role to play in this critical function, but an imperative step is furthering the approaches and methodologies for evaluating at the nexus of environment and development. Evaluation must expand its vision to encompass the coupled human and natural systems and how they interact.

All this complexity has important implications for evaluation (Bamberger et al., 2015). Evaluation must be able to provide evidence of how actions in the development sphere affect the environment and vice versa. It must be able to demonstrate the close interlinkages between ecosystem health and human health in light of evidence from the real world. Evaluation must also be able to look increasingly to the future, toward new and emerging threats and challenges, and seek solutions to them. It must broaden its accountability focus to embrace learning more broadly.

Patton (2020a, pp. 189–190) identifies 20 ways in which evaluation must transform itself to

evaluate transformation. It must rise above its project mentality and start looking beyond the internal logic of the interventions that are evaluated (Feinstein, 2019; Patton, 2020a). It must embrace a systems approach toward transformational change (Magro & van den Berg, 2019). With a systems perspective, the interventions evaluated—whether they be policies, strategies, programs, or projects—must be seen as part of a landscape in which they operate and interact with other interventions.

The DAC evaluation criteria—relevance, coherence, effectiveness, efficiency, impact, and sustainability—are widely accepted, understood, and used, which provides a strong incentive to maintain them (OECD DAC, 2019). However, they have some conceptual issues. First of all, the sustainability criterion refers to the continuation of benefits from an intervention and is silent on the environmental dimension of sustainability. Making this distinction in the era of sustainable development goals is essential. Patton (2020b) has suggested the term *adaptive sustainability* to encompass ecosystem resilience and adaptability in the nexus between humans and the environment. The Scientific and Technical Advisory Panel of the GEF suggests using the term *durability* to denote the continuation of benefits, while reserving sustainability for its environmental connotation (Bierbaum & Cowie, 2018). Similarly, what seems to be missing from the DAC criteria is a sense of urgency toward transformational change. In this respect, an additional criterion would need to be introduced, whether called *transformational fidelity* (Patton, 2020b) or *transformative significance* (Feinstein, 2019).

Furthermore, evaluation must systematically search for unintended consequences that may lie outside of the immediate scope of the evaluand. We must assume that everything we do in the sphere of economic development will have unanticipated effects. These are often to the natural environment because those designing programs or projects in sectors such as energy, industry, agriculture, or infrastructure seldom take fully into account the environmental consequences. Environmental impact assessments are rarely rigorous enough to capture all the possible effects

and may be ignored if they raise inconvenient issues against a planned project. Often, too, such unanticipated results occur in the social sphere and may negatively affect vulnerable groups. Many development projects, including some related to agriculture, forestry, and mining, take place on indigenous peoples' lands where tenure rights may be less well defined and whatever environmental and social impact assessment does occur almost routinely ignores the spiritual and cultural values of a place or a resource. Even a well-meaning project for climate adaptation can have highly differentiated impacts on different groups. For instance, what may be a good solution for a commercial farmer may not be available to a small subsistence farmer whose situation may be worsened by the intervention. Evaluation must be able to capture such nuances.

Many interventions take a long time to mature and the environmental impacts are slow to materialize. An evaluation of the GEF land degradation portfolio found that measurable environmental improvements on the ground only appeared 4.5–5.5 years after the projects closed (GEF IEO, 2018a). Given the time that project preparation and implementation require, this is a decade or more after the problem was identified and the project designed. During that decade, many things will have changed and the environmental and social problems may have been exacerbated. Confining evaluation only to its summative role at the end of an intervention is not possible. Rather, we must build evaluation into the process to provide timely feedback to adaptive management. Knowledge must be extracted from the interventions as they are implemented and fed back to action to improve the practice in real time (West et al., 2019).

One of the key requirements is for multiple mixed methods that can address the issues of sustainable development and contribute to transformational change. These may involve both quantitative and qualitative approaches. Use of remote sensing and other big data show particular advantages in evaluating the environment and natural resources management (Lech et al., 2018). They must be complemented by more traditional methods, including participatory

approaches that clarify the particular situations and concerns of local people and disadvantaged groups.

About This Book

The overall theme of the book is transformational change and how evaluation can contribute to it. Transformational change has been defined in numerous ways. For instance, UNDP (2011, p. 9) has defined it as “the process whereby positive development results are achieved and sustained over time by institutionalizing policies, programmes and projects within national strategies.” We go beyond this definition, which focuses simply on positive development results from interventions. To be truly transformational, change must be of such scale and magnitude that it takes the object of transformation to a different place or level. Such change also must be lasting. The situation in which the world finds itself today—in terms of climate change, environmental unsustainability, and inequality—is such that mere gradual improvements will not be sufficient.

It is often said that in crises lie opportunities. Consequently, optimism still prevails that the pandemic and associated upheaval will lead to lasting societal changes. However, history teaches us that for a crisis to lead to transformation, a viable alternative to the status quo must exist that a large segment of people can align behind (Berman, 2020). We also assume implicitly that a transformation would be toward something positive, although this might not necessarily be so.¹⁴

Here, we use the term *transformational change* to denote change toward a more sustainable, inclusive, resilient, and environmentally sound state. Transformation is defined as a shift from the current system to a substantively new and different one (O’Connell et al., 2016, p. 19). Such a system shift is needed for humans and our non-human relatives to continue enjoying life on

the planet. Evaluation can and must play a role contributing to such transformational change if we are to achieve the SDGs (Feinstein, 2019). Evaluation can help us identify factors and conditions that guide us in designing initiatives that lead to deep, sustained, large-scale impact (GEF IEO, 2018b).

The book then moves on to consider the drivers of sustainability. For decades, environmental projects and programs have had less than optimal success and their durability has been limited because they have focused on treating symptoms without addressing the root causes.

Virtually all environmental problems have their causes in economic, political, and societal factors. Terrestrial biodiversity and habitat loss are driven by deforestation and land conversion for agricultural, urban, industrial, and transportation uses. Food production and habitat for the expanding human population are fundamental drivers. Oceans are stressed by overfishing and by pollution from land and ship-based sources. Climate change is driven by fossil fuels for transportation, heating, and industry, and by intensive agriculture and deforestation.

Common threads among the factors that in turn influence all of the above. These can usually be found in the spheres of policies and economic incentives that encourage unsustainable practices of production and consumption. Therefore, we need not only to address the direct drivers but also the indirect drivers of unsustainability. And we need high-level policy engagement to transform these systems. Evaluations, too, must raise their sights toward the drivers and what influences them. Another evaluation of GEF projects found that they were able to affect enduring change when they engaged with legal, policy, and regulatory change (GEF IEO, 2018c).

The third section of the book deals with evaluating climate change action from different angles. It is obvious that efforts to slow down climate change must accelerate if we aim to get anywhere near the goals set in the Paris Agreement. The current nationally determined emissions reduction goals are nowhere near sufficient to stop warming within the 2°C, let alone 1.5°C, by the end of the century, according to the latest synthe-

¹⁴For instance, the crisis of the Weimar Republic led to the rise of Nazism, which can be described as transformational as well as disastrous.

sis report released by the UN in February 2021, calling for an urgent increase in ambition (UN Framework Convention on Climate Change, 2021). To move into this direction, we need a variety of strategies to decarbonize the economy, including financial and technological tools. Determining the efficacy of both is also important. This book provides lessons from evaluations on how to proceed on these fronts.

Climate change impacts, however, are not something for the future. They are being felt now in terms of changing climatic patterns and increased weather anomalies, storms, droughts, and wildfires. Irrespective of the success of mitigation actions, they will continue to worsen for some time. Successful adaptation to climate change—reducing people’s vulnerability and building the resilience of the socioecological systems—is an important priority where we must learn rapidly from experiences. The book reviews the state of the art in the still underdeveloped field of evaluating adaptation, thus contributing to this important emerging endeavor.

The final part of the book focuses on evaluation approaches that will contribute to the quest for transformational change for the people and the planet. Our goal is not to promote one particular approach or methodology as a gold standard. On the contrary, experience shows that we do need a wide range of approaches and methods to tackle the problems of sustainable development. It is important to select the tools carefully to suit the task at hand, to answer the questions that need to be answered. Whether we choose primarily quantitative or qualitative methods should depend on the questions we wish to answer, and on the availability of data and its quality. Too often, evaluators pursue perfection in their methods and end up either adjusting their questions to suit their methods or using an extraordinary effort to hone their data. Of course, we aim for as much rigor as possible, but it is important to bear in mind the utility of the evaluation. The purpose of evaluation is to contribute to finding solutions to pending problems and to improve the performance of ongoing and future interventions. Therefore, timeliness is essential and it is most often “better to be vaguely right than exactly

wrong” (Read, 1914, p. 351¹⁵). We can modify the saying to also apply to questions: It is better to ask the right questions even if we cannot give exact answers.

Most of the authors in this book participated in the Third International Conference on Evaluating Environment and Development in Prague, Czechia, in October 2019, where the foundations for this book were laid. The previous conferences, held in Alexandria, Egypt, in 2008, and Washington, D.C., in 2014, also led to the publication of books that presented the state of the art at that particular time in this rapidly evolving field (van den Berg & Feinstein, 2010; Uitto et al., 2017). Although the two first conferences centered around the emerging field of evaluating climate change actions, both in terms of mitigation and adaptation, this third conference broadened the scope to cover environmental and natural resource management programs more widely, with emphasis on transformational change toward global sustainability.

The authors cover a wide range of evaluation approaches and methodologies, ranging from quantitative, including geospatial, to more qualitative and mixed methods that can be usefully applied to evaluating environment and sustainable development policies, programs, and projects at the nexus of human and natural systems.

Opening up evaluators’ perspectives to these approaches is a key goal. This also requires opening up the perspectives of those who commission and use evaluations. These include donor governments and agencies, international organizations, and NGOs. They have to understand the importance of looking beyond the confines of their narrowly defined intervention. This is not necessarily easy in the face of pressures to show the effectiveness and impacts of the work that each organization is doing or funding and resistance to accept responsibility for anything outside that scope. This is why a pure focus on accountability in evaluation is dangerous. In international development, we often seem to see more interest in

¹⁵This quote or some variation of it is often attributed to John Maynard Keynes but it first appeared in the 1898 book by Carveth Read.

demonstrating to donor country citizens what their tax money achieved than in assuring that the programs and projects actually led to durable benefits to the countries and people they were intended for. Placing evaluation more in the hands of developing country partners is important so that they can ensure that the development programs contribute positively to their priorities. Even more important is empowering local people to evaluate interventions to provide downward accountability toward the claimholders and to ensure that no one is left behind.

This novel thinking—including incorporating the environmental dimension and the coupled human-natural systems, moving beyond individual projects to systems thinking, and identifying unintended consequences—does not come naturally to many evaluators trained in specific intellectual traditions and social science techniques. Yet it is necessary. This book focuses on identifying new and successful approaches and methodologies to this end. The authors share lessons gleaned from evaluations conducted by major multilateral and bilateral development agencies and financial institutions, national organizations, research and academic institutions, and the private sector. New and promising approaches are demonstrated and discussed.

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