EVALUATION GUIDANCE SERIES

INCLUSIVE SYSTEMIC EVALUATION FOR GENDER EQUALITY, ENVIRONMENTS AND MARGINALIZED VOICES

ISE4GEMs: A new approach for the SDG era

UN WOMEN

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ISE4GEMs

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A new approach for the SDG era

by Anne Stephens, Ellen Lewis and Shravanti Reddy

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FOREWORD

Systems thinking is an innovative approach that can expand our awareness of global challenges to better respond to the circular nature of the world we live in. Global development is now recognised by the 2030 Agenda as being characterised by multiple interconnected and indivisible realities as expressed in the 17 Sustainable Development Goals (SDGs). With this understanding there is a need to think and act beyond one area of expertise or mandate to understand how the actions of our work contribute to the SDG goals and objectives. Systems thinking can help us in this endeavour.

With SDGs in mind, the UN Women Independent Evaluation Service initiated the development of a new evaluation approach entitled, Inclusive Systemic Evaluation for Gender equality, Environments and Marginalized voices (ISE4GEMs). The Guide is underpinned by inclusive systemic thinking and organises evaluative practice to capture the intersectional linkages that shape the lives of human and environmental systems.

This publication was developed with support from the Australian Government's Endeavour Fellowship programme; James Cook University, Australia, and the Centre for Systems Studies at the University of Hull in the United Kingdom.

This Guide is meant to facilitate evaluation practitioners in applying the ISE4GEMs approach by providing both concept and practical tools. I encourage practitioners and learners alike to use this Guide to further strengthen their knowledge on systemic thinking and to use it to conduct inclusive evaluations.

Finally, I would like to thank the co-authors of the approach and this guide for this timely contribution to evaluation.

Sincerely,

Verasak Liengsririwat

Director a.i, Independent Evaluation and Audit Services

AUTHOR'S PROLOGUE

At present, there are significant changes underway in terms of our external world. Climate change has contributed to creating very real environmental, humanitarian and security crises, with more of the same expected in years to come. Economic and social policies are contributing to increasing inequalities, including gender inequalities, leaving some of the most vulnerable groups behind. The rapid advance of information and communications technologies are also creating both new opportunities as well as risks and challenges. These are just a few of many concurrent and overlapping changes happening at the global level, with other changes happening specific to regions, countries, communities and individuals.

The change and the complexity of the contexts within which we work is not new. These changes are part of a continuum that has likely existed since the beginning of time. What is new is our improved understanding of how this complexity may complicate those things that we have long considered to be more straightforward than they actually are—including international development interventions.

The practice of evaluation is also ever evolving to improve quality and relevance in response to the changes in our external world to meet the demand for new learning, thinking and understanding. Inclusive Systemic Evaluation for Gender Equality, Environments and Marginalized Voices (hereon referred to as ISE4GEMs) is being introduced in this document as a new evaluation approach that hopes to contribute to this ongoing evolution. It puts forward an innovative systemic evaluation practice that addresses complexity and prioritizes issues within these three pressing domains for sustainable development: gender equality, environments and marginalized voices (GEMs).

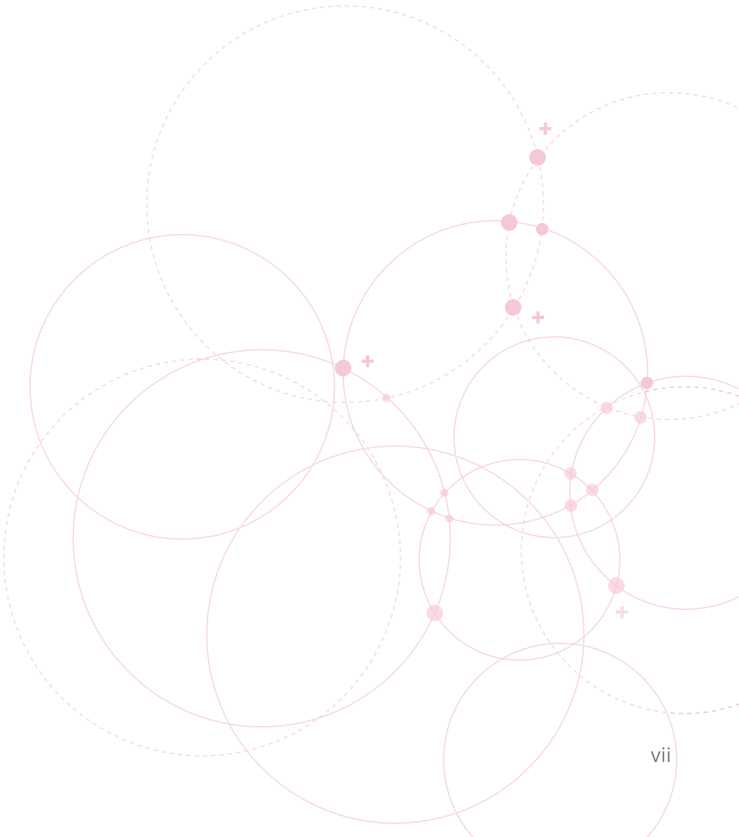
Part A of this document introduces the theoretical concepts that underpin the ISE4GEMs. Practitioners will be best able to understand and apply the approach if they have a basic understanding of these key concepts. Chapter 1 presents ISE4GEMs and some ideas of when and how it might be used. Chapter 2 introduces the core concepts of systems thinking: interrelationships, perspectives and boundaries. Chapter 3 provides an explanation of the three intersectional dimensions prioritized through the GEMs framework. Chapter 4 brings systemic evaluation practice and intersectional analysis with the other elements (systemic theory of change [SToC], ethics, validity and rigour, participatory and transdisciplinary methods, and capacity development) that together define the ISE4GEMs approach.

Part B provides hands-on guidance and tools for practitioners to adapt and implement the ISE4GEMs approach. Chapter 5 covers planning, design and the development of the Boundary Story. Chapter 6 focuses on how to conduct an evaluation deploying transdisciplinary methods for data collection and ethical safeguards. Chapter 7 advises

on how to conduct systemic triangulation to arrive at evaluation results and develop an SToC. Chapter 8 includes an overview of the capacity development opportunities throughout the evaluation process for social change, as well as suggests some relevant communication and dissemination methods.

The publication concludes with an Authors' Afterword, followed by Annexes that include a glossary of key terms, the full set of tools referred to in Part B, and a complete reference list.

Last, but not least, the process to develop this approach and guide has been a profound and enjoyable professional and personal experience. We wish to thank our Advisory Group, peer reviewers, family and friends who have enthusiastically supported our efforts and provided sage advice and guidance throughout the process, adding to the richness of our combined learning experience. This guidance is not able to be comprehensive given the complexity of achieving sustainable development. We see this ISE4GEMs guide as a beginning and plan to continue to use and learn from this approach to further deepen our understanding of how to be part of, and contribute to, building a world that works for everyone.



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ACRONYMS AND ABBREVIATIONS

GEMs	Gender equality, Environments and Marginalized voices
GIA	Gender Impact Assessment
ISE4GEMs	Inclusive Systemic Evaluation for Gender equality, Environments and Marginalized voices
LGBTQI	Lesbian, Gay, Bisexual, Transgender, Queer or Questioning, and Intersex
NGO	Non-governmental Organization
SDG	Sustainable Development Goal
SToC	Systemic Theory of Change
ToC	Theory of Change
ToR	Terms of Reference
UN	United Nations
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women

PART A
ISE4GEMS PRACTITIONER THEORY

The interconnectedness and indivisibility of the 2030 Agenda and the realities of the world in which we work require us to deal with complexity at an unprecedented scale. As such, we need to identify, understand and develop appropriate ways of applying systems thinking to collectively define and address the challenges that we confront. We need to think across and beyond one area of expertise or mandate and to understand how our actions contribute to the overall United Nations objectives. We need to analyse the environment as a set of complex, live ecosystems and to understand underlying organizing principles as well as the linkages, interactions, dependencies and power distribution among components and constituencies. And we must strategically identify leverage points in these systems to achieve maximum impact. United Nations leaders must therefore shift from linear thinking to non-linear, systems thinking.

Endorsement of Systems Thinking Approach by
UN Chief Executives Board for Coordination (CEB/2017/1)

CHAPTER 1

INTRODUCTION

- ISE4GEMs
- When and how to use the ISE4GEMs

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CHAPTER 1

INTRODUCTION

Acknowledging the complexity inherent in international development and shaping global agendas to address key changes was at the forefront of the discussions leading up to the adoption of a new set of global development goals. This new context was discussed towards the end of the global Millennium Development Goals[1] and is pointedly reflected in the new agreement, UN Resolution (A/RES/70/1)) Transforming Our World: The 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) endorsed by 193 countries since 2015 (see Figure 1.1). It provides a collective framework to guide sustainable development for the next 15 years globally, with specific defined targets and indicators for tracking progress against goals that are understood to be "integrated and indivisible" from one another and the socioeconomic and environmental contexts in which they are at work.[2] They place a special emphasis on gender equality and "leaving no one behind".

An ideal scenario is one in which we collectively achieve the overarching goal of a world that is simultaneously prosperous, equitably shared and ecologically sustainable.[3] The SDG framework is meant to "strengthen the means of implementation and revitalize the global partnership for sustainable development"[4] as we adapt policies, practices and priorities within the new development framework across all sectors and the globe. This requires developing better understanding of the centrality and interrelatedness of SDG principles for achieving sustainable development.[5] To do so, developing capacities in systems thinking across all sectors and partners and prioritizing and understanding the connections between gender equality, environments and marginalized voices (GEMs) is needed. Gender equality, human rights and the environment are three cross-cutting issues within the SDGs that are already the subject of numerous international conventions, agreements and protocols that together provide a global agreement and responsibility to promote them.[6] While each of these cross-cutting issues is important in its own right, there is a growing recognition of the necessity of integrating environmental systems and socioecological landscapes (from hereon in referred to as "environments") into social interventions to promote sustainable development. For example, climate change is manifesting in natural hazards such as landslides, floods and hurricanes, which degrade the environment and have adverse and differential effects on both women and men. Women and children represent the majority of the world's population living in poverty. They are also more vulnerable to these effects of climate change and are more reliant on securing natural resources for their livelihood (e.g., gathering wood and collecting water).[7]

1 For more details, see: http://www.un.org/millenniumgoals.
2 UN General Assembly 2015.
3 Costanza et al. 2016.
4 United Nations 2016.
5 Costanza et al. 2016.
6 These include, but are not limited to, the core human rights treaties and the Paris Agreement.

Organizations like the United Nations (UN) are instituting wide ranging changes to respond within this new context, including the endorsement of systems thinking approaches and supporting integrated policy advice across the dimensions of sustainable development (which include social and environmental dimensions).[8] Strengthened and relevant review mechanisms and evaluation frameworks also have a critical role to play in strengthening our capacity to understand interconnections and make decisions that will support us to make progress against all 17 goals.

Figure 1.1 The interconnectedness of the Sustainable Development Goals

7 UN General Assembly 2018, for more details see: http://undocs.org/A/72/684.; UN System CEB 2017; for more details see: https://www.unsceb.org/CEBPublicFiles/CEB-2017-1-Summary_2oof_20Deliberations-E-FINAL.pdf.

ISE4GEMs

The Inclusive Systemic Evaluation for Gender equality, Environments and Marginalized voices (ISE4GEMs) is an approach for the SDG era. It is part of a larger response to shift the way development actors (from donors, multilateral organizations, bilateral agencies, non-governmental organizations [NGOs] and the participants themselves) view the process of economic or social development, as well as humanitarian action. A new paradigm is emerging that starts with the premise that each intervention is an opportunity for learning how to influence desired social change towards gender equality, sustainability, human rights and peace. It moves away from the idea of conducting evaluations primarily for accountability against specific planned results, towards acceptance of the reality that "we do not know what we do not know" during any programme planning or implementation process.

The way we conduct evaluations, the role we play and the methods we select are understood now as issues of power, politics and ethics. The advent of "big data" (the availability of vast amounts of online data and techniques to mine this for predictive analysis) is likely to fundamentally change the way conventional research is conducted. Yet, there are likely to be nuances that big data analytics cannot interpret. Ethical conduct, constant attention to the decisions we make, and their consequences for people's lives, as well as the outcomes of our investigations, are tantamount to the ISE4GEMs governing our methods of data collection and personal engagement with participants.

The application of systems thinking to evaluation began in the 1970s after it was adopted by management thinkers.[8] Systems thinking was employed to address the challenges faced by organizations, and it became clear that new insights could be generated by looking at the interaction between diverse economic and social influences, structures and people as interconnected systems.

But applying systems thinking to organizational analysis requires a profound shift in a basic tenant of evaluation: the unbiased observer (e.g., the evaluator). Traditionally, evaluator objectivity has been achieved by ensuring that one does not interact with the programme, organization or system to be evaluated—remaining "outside" of the system. Yet systems thinking reminds us that even from the outside of a system, evaluators cannot be entirely separate or objective. In defining what constitutes the system, and conducting analysis from their individual vantage point, evaluators engage with the system itself. Thus, systems theory teaches us that evaluation is never entirely objective or value free. This has implications for the way in which we define the intervention, as well as the perceived role of the evaluator.

8 Ackoff 1974; Checkland 1981.

Systemic evaluation is designed to assess the interconnectedness between elements operating within social structures. Systemic evaluation asks questions to capture the conditions and changes relevant to an intervention, the changes it produces and opportunities for learning and empowerment. In the course of an evaluation, one may uncover what else was going on—the external effects, spill over of other efforts or policies, uncontrolled events (such as political conflict or environmental disasters), or unexpected facilitators or inhibitors of change that may or may not have been part of the original plan.

The approach draws upon the knowledge created by methodologists from the systems thinking and complexity sciences and builds on best practice for systemic evaluation using critical systems thinking theory and tools to analyse interrelationships, understand multiple perspectives and conduct continuous boundary analysis.

The dictionary definition of inclusive is containing (a specified element) as part of a whole. Social inclusion may refer to a process encouraging social interaction between people with different attributes or the opening up of access to participation in all spheres of social life.[9] To promote social inclusion, this approach introduces the GEMs framework for intersectional systemic analysis.

Gender equality

Environments

Marginalized voices

While each dimension is important independently, the SDGs recognize the necessity of integrating environmental and social systems for the promotion of sustainable development. The ISE4GEMs combines these concepts in a considered way to deepen evaluation professionals' and stakeholders' understanding of complexity in theory and practice, prioritizing the interconnections between GEMs. There are several evaluation approaches that exist to support the prioritization and analysis of these dimensions in evaluations. Transformative evaluation,[10] feminist and gender and human rights responsive evaluation,[11] empowerment evaluation,[12] developmental evaluation,[14] culturally responsive evaluation,[15] and equity-focused[16] and environmental evaluation.[17] However, the majority focus mainly on only one of these three dimensions—with some addressing two dimensions. There is a gap in terms of approaches that bring together GEMs in a transdisciplinary manner.

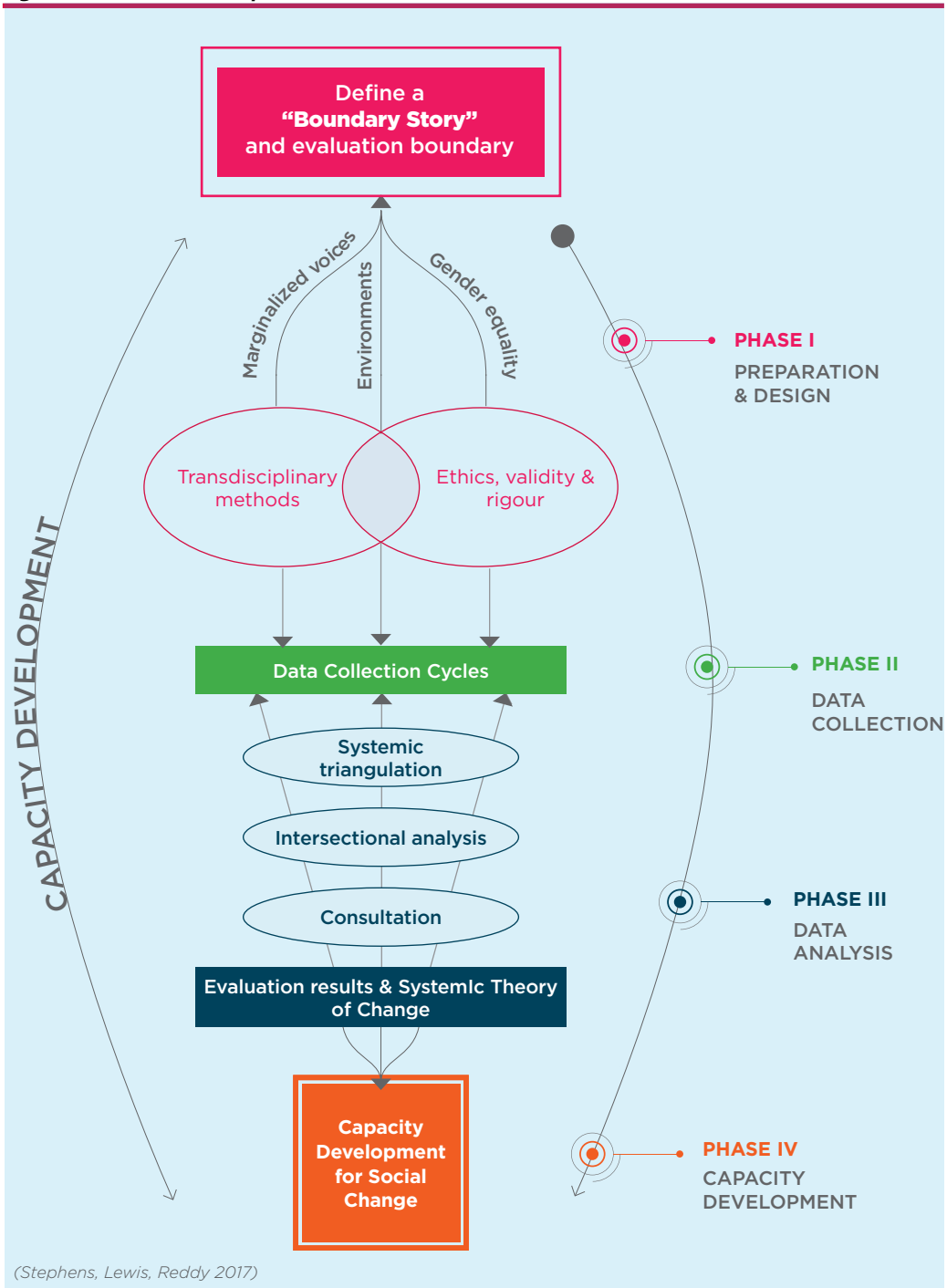
9 European Commission 2004; Sen 2000; World Bank 2013; WHO 2008

10 Mertens 2009.

11 Bamberger and Podems 2002; Brisolara 2014; Podems 2014; Podems 2010; Sielbeck-Bowen et al. 2002; Ward Hood and Cassaro 2002.

12 Fetterman and Wandersman 2005; UNEG 2014.

Figure 1.2 The ISE4GEMs process



(Stephens, Lewis, Reddy 2017)

13 Reynolds and Williams 2012.
14 Uitto 2014a; Uitto et al. 2017.

When and how to use the ISE4GEMs

The ISE4GEMs is a shift not only for evaluation practitioners but also for those who commission evaluations. The approach challenges them to rethink the way they are asking evaluations to be conducted, the budget allocated and the flexibility and scope given to evaluators to do their work.

This guide is mainly written for the experienced evaluator who may be new to using systemic evaluation or applying the GEMs dimensions in a transdisciplinary manner. It is divided into two main parts and assumes that the reader has at least basic to intermediate-level experience in evaluation. Anyone interested in having a better understanding of how social change happens, what strategies and interventions worked (and did not work) in particular contexts, and how to empower stakeholders by developing their capacity during the evaluation process, will be interested in this guide.

The ISE4GEMs approach is transdisciplinary. It potentially requires the combination of methods, tools and people representing different disciplines (as relevant) to answer evaluation questions: feminist, gender-responsive/transformative, human-rights based, participatory and environmental. Evaluators may not have experience or knowledge with any of these disciplines or may have some experience with a few of these, but it's unlikely that the majority of evaluators will be knowledgeable about all—and that is okay. Evaluators are encouraged to build teams and access the support needed.

The ISE4GEMs approach outlined within this guide is, for practical purposes, for end-stage or final evaluation, because this is the most common type of evaluation. However, the approach is not meant to be restricted to one type of evaluation. It can guide a variety of evaluations from programme, project, training and thematic at multiple scales. In fact, the argument for its use in evaluability assessment and mid-term evaluations is also quite strong due to the developmental nature of the approach.

The ISE4GEMs provides a clear process for defining objectives, activities, and analysis for developing findings and recommendations, and then disseminating what has been learned. A systemic mode of thinking is incorporated into each stage or step of the evaluation. It encourages a critical[15] and holistic analysis of

15 Critical theory positions itself as highly reflexive or "critical" by not aligning with any historical or current societal theories or practices. Instead, it seeks to remain open and to question the values, assumptions, beliefs, norms and constructs that have given the theories form. Source: Bronner 2011.

the opportunities, constraints and relationships between the interrelated pieces of the situation as a system of analysis.[16] The outcomes of an ISE4GEMs are legitimate, valid and can capture a wide scope of outcomes and impacts relative to the context of the intervention.

16 Kaufman 2012.

Introduction

Systems thinking

The GEMs framework

ISE4GEMs approach and the SToC

CHAPTER 2

SYSTEMS THINKING

- What is complexity?
- Traditional approaches to addressing intervention complexity
- What is systems thinking?
- ISE4GEMs practitioner and boundary analysis
- Key Takeaways

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CHAPTER 2

SYSTEMS THINKING

> *May I suggest we imagine systems in opposition to any concept of opposites?*
>
> *– Jimmie Durham*

The ISE4GEMs approach is grounded in both systems thinking and complexity. A systems approach regards situations of complexity in terms of bounded constructs to understand situations better (systems analysis) and to improve situations (systems design). Evaluators interested in applying the ISE4GEMs approach will benefit from becoming more familiar with the key terms related to complexity and systems thinking that are used throughout both parts of this guide and included in the glossary at the end of the guide. As your thought partners, we share some of our own understanding of these terms with you throughout this chapter. Some you may be familiar with, others will be new, and some may be new terms for familiar concepts.

WHAT IS COMPLEXITY?

Complexity refers to situations of change and uncertainty, in which many forces interact simultaneously, so that "not only is each place and situation completely different from the next one, the same place is completely different from how it was before."[17] For example, replicating a literacy programme in multiple countries would contend with communication and coordination complexity stemming from teams distributed across geographic locations and time zones, multiple languages and literacy levels, and potential gender norms on who has access to education.

There is acknowledgment from the evaluation community that "one of the main difficulties evaluators face when conducting evaluations in development countries is the presence of complexity and unpredictability and this can directly affect the reliability and feasibility of any evaluation."[18] It's no surprise then that the use of complexity science within global development interventions has grown in efforts to model, predict and understand working with "messy"[19] problems. It is frequently used in response to size and unpredictability or situations for which the tools used for linear cause-effect models are not sufficient.

17 Burns and Worsley 2015.
18 Donaldson et al. 2013.
19 Ackoff 1974.

One way of thinking of complexity is to consider it as different types of contexts: simple, complicated, complex or chaotic.[20]

- **Simple context:** This is characterized as stable with easy-to-identify cause and effect relationships, often with a shared understanding of what is known (e.g., a project to construct a water pump in one village to increase access to potable water).

- **Complicated context:** The relationship between cause and effect requires analysis and expertise (e.g., where the installation of the water pump may increase access to water in the short term but create a water shortage in the long term). There may be multiple right answers, yet not everyone is able to see them or how they are interrelated.

- **Complex context:** This involves multiple elements, variables or processes that are interdependent and multiple levels of organization (e.g., the installation of water pumps in all villages within a district). This context describes most development interventions.

- **Chaotic context:** Causal relationships or a significant pattern cannot be identified; only turbulence exists (e.g., humanitarian crises situations).

While these distinctions of context are helpful for illustration, it's also possible that you may consider a context to be a simple one, but in fact, it is actually complicated or complex.

Key concepts for navigating complexity

> *We try not to avoid messy situations... because we believe that, together with legitimate community stakeholders, we can do something to improve the situation.*
>
> *– Brydon-Miller et al. 2003.*

Acknowledging the change and uncertainty around us is an important starting point, but it should not demotivate development professionals from trying to facilitate positive social change or evaluators from trying to analyse and bring forward evidence of these changes. Grappling honestly with complexity can also help us to better understand interventions—even those that have adopted experimental designs—through deeper and more integrated analysis about potential impacts or outcomes that may have been achieved. The complexity sciences provide us with several key concepts that help us to navigate the complexity, while acknowledging that we cannot eliminate it. Below we define the **four** most important concepts for your understanding of the ISE4GEMs approach.

20 Snowden and Boone 2007.

Uncertainty

Intervention outcomes and impacts are constantly affected by events beyond the intervention's control, making them uncertain and unpredictable. This uncertainty can increase the difficulty of an evaluation aiming to capture these effects. The ISE4GEMs approach suggests *flexibility* as a guiding design principle to respond to unpredictability. Assume that uncertainty will occur and that your presence, as an evaluator, will add to the complexity of a situation.

Emergence

> ***Focusing on emergence is not about trying to predict what will happen; rather it is about being agile and acknowledging what is actually happening (planned or unplanned) and to be mindful of what might happen.***
>
> *—Burns and Worsley 2015.*

Emergence, put simply, is an unpredictable consequence or outcome of an intervention, like the idea of capturing unintended or unanticipated impacts and outcomes within a programme evaluation. It cannot be predicted because outcomes and impacts do not always resemble the simple aggregation of the outputs, but together they can add up to more or different outcomes. Focusing on emergence is not about trying to predict what will happen; rather it is about being agile and acknowledging what is actually happening (planned or unplanned) and to be mindful of what might happen.[21] In the ISE4GEMs approach, this translates to taking as a starting point that the intervention (regardless of its nature) is not a simple context but a complex one. Identifying and being responsive to emergence is essential to understanding the complexity by ensuring that actual consequences or outcomes are identified, and not just focusing on the intended outcomes and predetermined programme goals. We must also consider how these goals are altered, either implicitly or explicitly, by emergent outcomes.[22] It means looking beyond the logic model for an intervention, with an open mind to assess what are the real effects, whether positive or negative.

Feedback

Feedback describes information returning to a system—in, out and within the system. Feedback loops represent elements of a system that "feed" or provide information that can be either reinforcing (positive) or balancing (negative) feedback loops.[23] Feedback loops are also one way to understand the interrelatedness of

21 Burns and Worsley 2015.
22 Patton 2011a.
23 Sterman 2000.

systems and how one system influences another. Feedback is not, however, as simple as a cause-and-effect relationship. For example, teachers provide feedback to students on their assignments, which can in turn influence improvements in the next assignment (positive feedback loop). If the feedback was provided to students in an unconstructive manner, it may demotivate them to the extent they do not hand in the next assignment (negative feedback loop). To understand the changes between the first and second draft, the whole system of the teacher-student relationship needs to be considered. As feedback loops link back to the system that created them, they stimulate change within the original system. For the ISE4GEMs approach, feedback loops (the what) and feedback mechanisms (the how) are important areas for analysis. It is not uncommon to see feedback in the form of resistance, push-back, backlash or counter-change where an intervention has produced a social change.[24] This may be unexpected to the programme's managers or funders, but it is important to document. Try to understand backlash or resistance to change. These may be an emergent outcome of an intervention. Remember though, if a backlash is emergent, it may be hard to trace back to the intervention itself.

BOX 2.1

Tips from the field: Appreciate, learn and listen

In an example of an NGO's efforts to engage a community in Central India, an NGO experienced strong resistance from men in the village. Things came to a head one evening during a community meeting of the NGO and female participants, when several men arrived and were disruptive. The NGO invited the men to sit down and talk about their concerns. The men began to talk and were listened to respectfully. The programme staff learned about the reasons for their lack of support for the project and resentment towards the NGO. Things changed immediately following this event. The men became ardent supporters of the project—participating and pooling their own resources and contributing their time to the project in their village. The NGO learned that an appreciative approach with the community was key and participating not as "experts" but individuals willing to learn and listen could stimulate conversation and encourage a group of people to take action.

Source: ISE4GEMs Practitioner

24 Batliwala and Pittman 2010.

Intersectionality

Another way to view complexity is through the notion of intersectionality.[25] Coined by Crenshaw in 1989[26], intersectionality suggests that different social divisions (e.g., gender, race) interrelate to produce social relations and personal life experience. Originally a triad of gender, race and class, other social categories such as sexuality, faith and disability, amongst others, have been added to the framework.[27] The importance of understanding intersectionality has extended beyond race and gender to development contexts. This is reflected in the UN Beijing Platform for Action[28] and the UN Commission on Human Rights, which "recognized the importance of examining the intersection of multiple forms of discrimination."[29] Intersectionality is complex because different categories intersect and interact with others to both shape and form each other in non-linear and unpredictable ways.[30]

Figure 2.1 is a depiction of multiple social divisions, or categories, as rings that intersect. They are said to accumulate or build upon each other depending on one's social arena or context. For example, a man might be simultaneously suppressed by class or his religion yet enjoy patriarchal advantage in relation to his female partner.

For the ISE4GEMs approach, intersectionality requires vigilance about what potential social categories are oppressed and how they overlap within the context of the intervention (e.g., a group of women farmers in a patriarchal society who represent different tribes and cultural norms).[31] By applying intersectional analysis, one examines the interlocking oppressions of social categories to understand how systemic and systematic privilege, injustice and social inequality are interrelated and together create a "system of oppression".[32] The different forms of oppression will have different "weights" depending on the situation and culture, thus increasing the complexity when trying to understand the context of interventions.[33]

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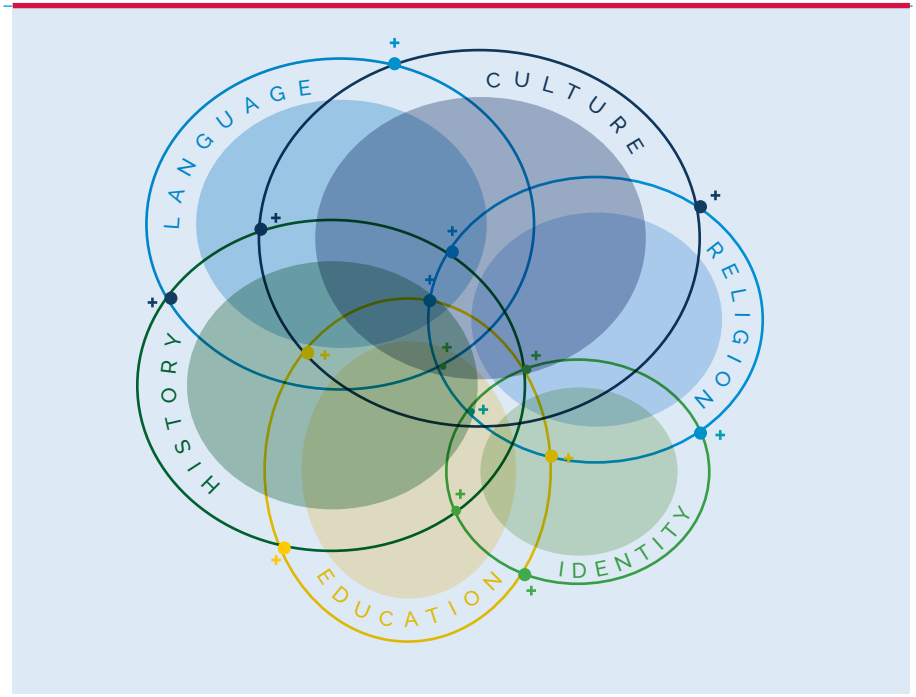
25 Crenshaw 1989.
26 Ibid.
27 Anthias 2013.
28 United Nations 1995.
29 OHCHR 2007.
30 McCall, 2005
31 Hankivsky and Cormier 2011.
32 Knudsen 2005.
33 At present, the 2030 Agenda has identified persistent gender inequality, the marginalization of vulnerable social groups, and rapid environmental changes as the key contextual factors that are affecting progress towards sustainable development. The ISE4GEMs approach prioritizes these categories as response to this gobal context. See Chapter 3.

Figure 2.1 A visual representation of an intersectionality



TRADITIONAL APPROACHES TO ADDRESSING INTERVENTION COMPLEXITY

Intervention planners have traditionally responded to uncertainty by incorporating additional detail into the logic model, log frame and providing greater specificity about expected outcomes.[34] However, this may provide a false sense of certainty about how expected results can be achieved. More recently, intervention planners have turned to developing an intervention theory of change (ToC)[35] to further address complexity. An intervention ToC is a tool that goes beyond the logic model or log frame approach to try and understand or map the expected change processes of an intervention by making explicit the underpinning value assumptions (i.e., "theory") and risks, providing narrative detail on how the expected change processes will occur and the different factors or variables involved. A theory-based evaluation approach aims to assess the soundness of the theory behind the intervention and to refine it based on learning from the evaluation process.

34 Patton 2011a.
35 Weiss 1995.

However, common concerns about the effective use of intervention logic models, log frames or ToCs are that they remain linear, rigid and narrow in focus and fail to draw on established social theory or sociocultural contexts. Therefore, they may not situate the intervention within larger processes of change and involve the interactions of more key stakeholders. The ISE4GEMs introduces the concept of a systemic theory of change (SToC), which aims to improve on these existing approaches using a systems thinking lens. (See **Chapter 5** for more details.)

WHAT IS SYSTEMS THINKING?

In the first half of the 20th century, "whole" systems were best understood when broken down into parts (such as cells in biology), analysing the behaviour of those parts individually and then reassembling these insights to represent "reality" and accurately describe the whole.[36] The advent of "systemic" thinking debunked this piecemeal tactic, proposing that complex systems are more than the sum of their parts and need to be studied holistically.

> *A systems approach begins when first you see the world through the eyes of another.*
>
> *—Churchman 1968.*

"A system is a collection of entities that are seen by someone as interacting together to do something."[37] It is important to also understand and be able to distinguish between a system as an entity (e.g., organizations) and a system as a way of thinking about something (e.g., considering all the stakeholders involved in an intervention). Yet, you can never know a whole system or see the entirety of any system[38] because of its complexity.

Systems thinking—which is a form of analysis—challenges traditional plan-predict-act-evaluate logic and is required when dealing with complex social situations and multifaceted interventions. Using a systems approach differs from other types of analysis in that it does not adhere to the traditional focus of separating individual parts of what is being studied (e.g., studying software stocks on the stock market) to gain understanding. Alternatively, the analysis focuses on the interaction between the individual parts (e.g., a broader array of technology, social media and wireless network stocks) giving a more expansive understanding and offering different conclusions.

---

36 von Bertalanffy 1956; von Bertalanffy 1968.
37 Morris 2009.
38 Midgley 2000.

For our purposes, systems thinking is the consideration of three building blocks:

- **Interrelationships** are connections between people, things or ideas.
- **Perspectives** are different ways a situation can be viewed or understood. They are formed in our minds and rooted in our values, beliefs and what we have come to know about the world.
- **Boundaries** are the limitations of understanding of a situation. They are defined by and demarcate our knowledge, resources, ideas, values, biases, priorities or perspectives.[39]

These blocks are not neutral. This means that some relationships or perspectives may dominate in certain situations.[40] Similarly, what lies "in" or "out" of a boundary may not be innocent but subject to power relations.

Interrelationships

Analysis of interrelationships is at the core of systems approaches.[41] It involves consideration of the power and dynamics between people, things or ideas in at least three main ways:

- The sensitivity of interrelationships to **context**, which may affect the capacity of the intervention to be replicated.
- **Direct linkages** between people, things or ideas that operate in non-linear ways .
- Broader **entanglements** between interrelated people, objects or ideas[42].

Perspectives

> *The power to define is the power to control, to include and exclude.*
>
> *—Patton 2002.*

Perspectives are personal views shaped by a person's life experience and values. Identifying people's perspectives is important, but it is understanding interactions—how they are expressed or withheld, made explicit or implicit, changeable or rigid—that is complex.

39 Williams and van't Hof 2016.
40 Williams 2017.
41 Ibid.
42 Ibid.

Inclusion of diverse perspectives and engaging with power structures to support this inclusion is not a straightforward task. It is a complex one that is potentially politically and ethically fraught. For an ISE4GEMs practitioner, inclusion of varied perspectives is paramount and requires that we explore differences and agreements on a variety of topics within an evaluation[43] while advocating and facilitating widespread participation that may challenge the status quo and shift power dynamics.[44] Effectively eliciting the voices of people from the margins and supporting their agency provides an opportunity to stimulate transformation at the personal, cultural and organizational level.[45] However, participation alone does not suggest that people have the agency or conditions to fully express their perspectives.

Systems boundaries, boundary analysis and reflection

Boundaries are at the heart of systems thinking. They are limits that define and enclose systems, like skin around the human body. A boundary can be material (i.e., a road) or non-material (i.e., laws, institutions and identities). In ISE4GEMs, we do not focus on mainly physical boundaries but rather conceptual boundaries that we use to frame, bound and understand stakeholders' realities and values about those realities. There may also be multiple boundaries—primary and secondary boundaries—that relate directly to first and second-order judgements of an intervention. Boundary analysis is discussed further in **Chapter 5**.

Figure 2.2 illustrates how systems can be nested or sit within other systems. They may also overlap or be entangled with other systems (e.g., classroom, English department, school or district). The size, scope and composition of where you place the boundary of your system has important implications. For example, consider the structure of the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), a global organization, as sets of nested systems. The regional and country level offices are much closer to their direct programmatic work, yet the learning and knowledge feeds back through the systems (see the black arrow in *Figure 2.2*). Information flows dynamically upwards and downwards between the nested systems. Thus, a smaller intervention and its impacts in a single village could potentially influence the global goals and objectives of the larger UN system.

43 Also important for an evaluator is the ongoing reflection on their own biases and values.
44 Chambers 2015.
45 Cahill 2007.

Figure 2.2 UN Women boundaries

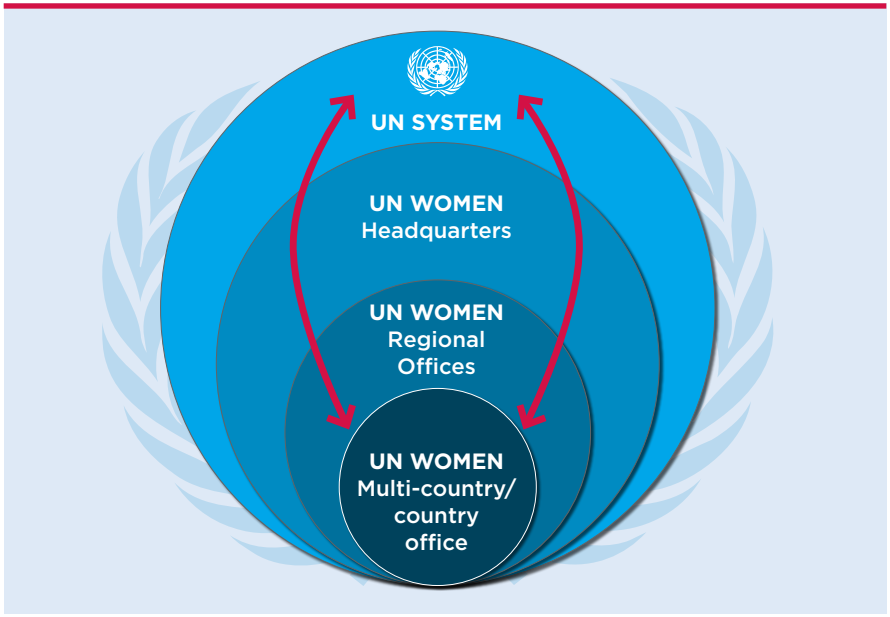


Figure 2.2 reminds us why systems thinking is often synonymous with complexity. As there are feedback loops (see the section on feedback loops earlier in this chapter, in **Chapter 4** and in the glossary) between the interrelated systems, it is unwise to focus on one view or definition of a system without examining its relationship with other systems.[46] How this is done leads us to the systems thinking concept of *boundary analysis*.

Boundary analysis

Boundary analysis is the process of defining the boundary of a system. The ISE4GEMs pays special attention to expressing the boundary analysis by building narratives or a "'Boundary Story" (see **Chapter 5**).

Recall that systemic thinking is to engage in a holistic analysis of the opportunities, constraints and relationships within a system, analysing the system as a whole. Boundary development is therefore done through dialogue and reflection. The boundaries will shift as the inquiry develops. Reflection helps ensure boundaries are appropriately inclusive and define what has been excluded.

46 Mowles 2014.

Fundamental systems questions to guide you in defining your boundary include the following:

- What are the existing systems to which the intervention under evaluation is linked?
- Where does one system begin and the other end? (i.e., What is the boundary of our intervention and the problem situation in which we are intervening?)
- Is there overlap between systems? (i.e., Are there, or has there been, other recent development activity in this space?)
- Who has been affected or will be affected by the intervention?
- What systems exist within systems, and where do they lead? (i.e., How do intersectional structures and relationships interact?)

BOX 2.2

Tips from the field: Emphasizing the narrative

In boundary analysis, it is important to pay special attention to "narratives". Narratives situating people and the collective, and narratives explaining programme logic and competing programme theories. Those narratives are the result of establishing boundaries. They encapsulate the Boundary Story in ways that are easy to relate to by anybody. It is a bit: What is your story? Who would you be/what would this be without this story?

Source: ISE4GEMs Practitioner

Boundary reflection

Ongoing reflection on the boundaries is core to ISE4GEMs. One of the key roles of an ISE4GEMs practitioner is facilitation (see **Chapter 4**) of the boundary reflections with stakeholders. The richness of boundary reflections lies in including perspectives of stakeholders with different levels of agency, priorities, views, needs, hopes and concerns about what should be included, excluded, prioritized or marginalized. It is essential to support the development of an atmosphere of critical awareness (in the minds of the practitioner and participants) so that different viewpoints can be surfaced and issues of power relations can be addressed.[47] As new information and perspectives are revealed, choices need to be made to expand or limit the size of the boundaries for comprehensiveness and feasibility.[48]

47 Ulrich 1983.

48 This concept can also prove helpful when designing a programme.

Systematic thinking and systemic thinking: *What is the difference?*

Systemic thinking involves both thinking "systemically" and thinking "systematically". These words are often used interchangeably, but they represent key differences:

- **Systematic thinking** implies a thorough, predictable and controlled process that is essentially reproducible but may not consider all the interactive parts of the system and stakeholders.

- **Systemic thinking,** on the other hand, encourages a critical[49] and holistic analysis of the opportunities, constraints and relationships of parts within a system, analysing the system as a whole.[50]

> *...sustainability is a property of a web of relationships means that in order to understand it properly we need to shift our focus to the whole and learn how to think in terms of relationships, in terms of interconnections, patterns and context.*
>
> —*Evitts et al. 2010.*

The understanding of and distinction between the two terms is crucial to unlocking the skills of boundary analysis, which is a key aspect of the systemic evaluation process performed iteratively and covered in **Chapters 5 through 7**. To help ground your understanding of these concepts so you can apply them in your practice, let's draw on the idea of "first-order" and "second-order" judgments[51] about a system.

- **First-order judgments about a system are similar to systematic analysis**. They break down a situation regarded as a system into components or dimensions to determine its purpose, functions, key actors and location. What is in this system? What does it do? Where is the system, and who is in it? The answers to these first-order questions are very often static. They don't assume the system is in movement, dynamic or shifting. These systems are just "there" or "given", and it might be assumed easily that they'll always be there, as if they are reliably fixed. Systematic thinking may not move beyond this level of analysis.

---

49 Critical theory positions itself as highly reflexive or "critical" by not aligning with any historical or current societal theories or practices. Instead, it seeks to remain open and to question the values, assumptions, beliefs, norms and constructs that have given the theories form. Source: Bronner 2011.

50 Ison 2010; Kaufman 2012.

51 Midgley 2000.

- **Second-order judgments about a system are more developed because systemic analysis is applied.** Stepping back from the first-order questions, consider the system as a whole. How did this system form? How does it come to have this identity, these parts and these people? How and why is its identity different from another system? How or why could, or would, the system change? Who is in and who is out? Who makes decisions? What is right and wrong, and why? The answers given to these big picture questions about how and why can only be identified after stepping away to consider the system as a whole. They provide a level of analysis that clarifies the systemic, interrelatedness and intersectionality of the parts.

Table 2.1 - Characteristics of systematic thinking and systemic thinking

FIRST ORDER—SYSTEMATIC THINKING	SECOND ORDER—SYSTEMIC THINKING
The whole can be understood by considering just the parts through linear cause-effect mechanisms.	Properties of the whole are said to emerge from their parts.
Systems exist as concrete entities. There is a one-to-one correspondence between the description and the described phenomenon.	Boundaries of systems are determined by the perspectives of those who participate in formulating them.
Perspective is not important.	Individuals hold partial perspectives of the whole situations; when combined, these provide multiple partial perspectives.
Systems are comprised of chains of cause-effect relationships.	Systems are characterized by feedback; this may be negative or positive.
A situation can be understood by step-by-step analysis followed by evaluation and repetitions of the original analysis.	Systems cannot be understood by analysis of the component parts. The properties of the parts are not intrinsic properties but can be understood only within the context of the larger whole through studying the interconnections
Concentration is on basic building blocks.	Concentration is on basic principles of organization.
Systems are hierarchically organized.	Systems are nested within other systems. They are multi-layered and both intersect and interconnect to form networks.
The approach is analytical.	The approach is contextual.

The main concern is with entities and properties.	The main concern is with process.
The system can be reconstructed after studying the components.	The properties of the whole systems are destroyed when the system is dissected, either physically or theoretically, into isolated elements.

Source: Adapted from: Ison, R. 2010. Systems Practice: How to Act in a Climate-change World. London: Springer. p. 192.

Second-order judgment making is a process that normally builds on the first order. It also helps you wade through the salient social categories at play within the system and helps you see the broader social and environmental contexts with which it interacts. This can include cultural, philosophical, political, ethical, emotional and ecological forces, which are very often in states of dynamic change.[52]

Making second-order judgments is a skill that enables you to ask probing questions about the assumptions and perspectives that underlie the system or systems you are focused on. They show us how communities and societies know what they know, communicate with others, and how power imbalances play out. In *Table 2.3*, we have reproduced the characteristics of first-order (systematic) and second-order (systemic) judgment statements as a quick reference to help you see the difference between the two.

Linked to systematic and systemic thinking is the concept of systematic and systemic action by a practitioner.[53] *Table 2.2* illustrates the different characteristics of a systematic action/expert and a systemic action/thought partner. The distinction is important, because as with systematic and systemic thinking, ideally ISE4GEMs practitioners can both seamlessly take systematic action in an expert role (e.g., explaining an evaluation process) while also being a thought partner (e.g., thinking through who should be included in the evaluation process). While we make the distinction between serving as an expert and a thought partner, this is not meant to imply that one role is more important than the other, or that they are mutually exclusive. However, it is helpful to distinguish at times, sometimes explicitly, with stakeholders which role you are playing at any given point within your evaluation process.

52 In Chapter 3, we identify and describe the social and environmental GEMs categories that are prioritized within this approach.

53 Ison 2010

Table 2.2 - Characteristics of systematic action for expert and thought partner[54]

Systematic action as a TRADITIONAL EXPERT	Systemic action as a THOUGHT PARTNER
The role of the decision maker is that of participant observer. In practice, however, the decision maker claims to be objective and thus remains "outside" the system being studied.	The role and the action of the decision maker is very much part of an interacting system. How the researcher perceives the situation is critical to the system being studied. The role is that of participant-facilitator.
Ethics and values are not addressed as a central theme. They are not integrated into the change process. The researcher takes an objective stance.	Ethics are perceived as being multi-faceted as are the perceptions of systems themselves. What might be good from one perspective might be bad at another. Ethical responsibility replaces objectivity.
The system being studied is seen as inherently distinct from its environment. It may be spoken of in open-system terms (able to give and receive information), but intervention is performed as though it were a closed system (interaction and knowledge is transmitted internally).	It is the specification of a system of interest and the interaction of the system with its context that is the main focus of exploration and change.
Perception and action are based on a belief in a "real world"—a world of discreet entities that have meaning in and of themselves.	Perception and action are based on experience in the world, especially on the experience of patterns that connect entities and the meaning generated by viewing events in their contexts from multiple perspectives.
Traditions of understanding may not be questioned, although the method of analysis may be evaluated.	An attempt is made to stand back and explore the traditions of understanding in which the practitioner is immersed.

54 Ison 2010.

ISE4GEMS PRACTITIONER AND BOUNDARY ANALYSIS

The ISE4GEMs approach requires that the political nature of evaluation be acknowledged: "evaluation cannot either avoid the issue of politics or avoid itself being an instrument of a political process, that seeks to enable interested parties and organizations wider scope in which to observe and influence."[55] Boundary analysis strives to make transparent the evaluation practices and participation of stakeholders and their unique perspectives.

Active inquiry and research can improve understanding, but we cannot assume that an entire or comprehensive understanding can be attained during a boundary analysis. Some practitioners may think that their boundary is all inclusive, or that their position is about conflict resolution only, which raises the need for them to be aware of the values they bring to the situation. Being an ISE4GEMs practitioner requires continual reflection on these questions (and others):

- What if you unconsciously identify more on one side or the other?
- How is your involvement, knowledge and expertise perceived by others?
- How is knowledge shared if knowledge is viewed as an imposition?
- Where do you stand on the notion of objectivity?
- Can you really take a neutral stance? From a systemic evaluation perspective, your involvement will influence others, so how can you be aware of this to limit any harm or bias that might result?
- Can a practitioner facilitate fairly if influence for one interest group against the other is inevitable?

In **Chapter 4** we develop the core competencies required of ISE4GEMs practitioners as attributes such as self-understanding, and in Part B we provide guidance on how to maintain a continuous review of boundaries.

55 Vestman and Conner 2008.

KEY TAKEAWAYS

The ISE4GEMs approach is grounded in both systems thinking and complexity and differs profoundly from many conventional approaches to intervention design and evaluation practice. Additionally:

- Complexity science involves analysis of four types of context—ranging from simple to chaotic—to identify if a situation is complex.
- Complexity has several concepts that are important background to the ISE4GEMs approach including: uncertainty, emergence, feedback and intersectionality.
- Systems thinking is built on three conceptual blocks: interrelationships, perspectives and boundary analysis.
- Boundary analysis in the first order is systematic and in the second order is systemic. Both are used within the ISE4GEMs approach.
- Boundary analysis makes transparent the evaluation practices and participation of stakeholders and their unique perspectives, which are not considered neutral.

Introduction

Systems thinking

The GEMs framework

ISE4GEMs approach and the SToC

CHAPTER 3

THE GEMS FRAMEWORK

- Intersectionality and the GEMs dimensions
- The GEMs framework
- Key Takeaways

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CHAPTER 2

THE GEMS FRAMEWORK

In **Chapter 2** we explored complexity and systems thinking, and we introduced some of the important concepts you need to know to be a systemic evaluation practitioner. ISE4GEMs is the practice of systemic evaluation using intersectional analysis that is inclusive of the complex dimensions of gender equality, environments and other marginalized voices.

> ***I believe we evaluators must name and confront specific, ugly realities: racism, sexism, homophobia, and bigotry based on language, national origin, religion, disability, sexual orientation and other intersections of power and prejudice.***
>
> *– Kirkhart 2015*

In **Chapter 3**, we describe how systemic thinking can be used to make decisions about the extent to which each dimension of the GEMs framework can be included within your boundaries. Evaluators who engage with this work often do so out of strong commitments to gender equality, diversity and human rights, combined with a desire to create a more equitable society that recognizes, validates, and values socially constructed and structural differences.[56] The social change agenda of ISE4GEMs is crucial if it is to lead to practices that facilitate the analysis of inequalities of power and privilege.[57] As with any evaluation, careful consideration of the context is one of your best sources of knowledge about whether or not to use this approach and how it may complement or enhance other evaluation approaches selected.

It is important to discuss each dimension in turn, but in doing so, we do not wish to infer that they are siloed concepts. The GEMs dimensions overlap, and we see a connection between them through "continuums of marginality"—an idea we will return to later in this chapter. Both the interconnectedness between the GEMs dimensions and their inclusion in evaluation analysis is what makes the ISE4GEMs unique to other systemic evaluation approaches.

We illustrate the development of the framework through a serious of diagrams that starts with a simple representation of an intersectional situation and ends in a representation of the ISE4GEMs. These diagrams show how each dimension has been derived and the interconnections between them.

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56 Mertens 2009; Mertens 2014; Mertens and Wilson 2012.
57 Marra 2015.

INTERSECTIONALITY AND THE GEMS DIMENSIONS

There is the assumption found in some accounts of intersectionality that all social categories are equally salient all of the time. This is not the case with the ISE4GEMs approach. The degrees of importance of one or the other and their types of intersection will vary within different contexts and at different times and spaces. Intersectionality is very important to the ISE4GEMs approach as it is the mechanism through which we can make GEMs dimensions a central concern.

But why these three dimensions (gender, environments and marginalized voices)? In developing this guide, the ISE4GEMs authors did a literature review from the evaluation discipline and a range of social theories. The authors also bring their relative experience and interest in social justice and evaluation. Commissioned as part of UN Women's mission to advance approaches and methodologies for the evaluation of gender equality and women's empowerment in the context of the SDGs, the ISE4GEMs sought to address the issue of gender-responsive and transformative evaluation. Authors Stephens and Lewis had also conducted theoretical and applied research into feminist systems thinking and gendered systemic analysis both of which identified the need for intersectional analysis of gender with environmental and other forms of human marginalization in evaluation research.[58] Each theoretical or evaluation influence in the ISE4GEMs contains some piece that is consistent and aligned with the foundation of gender-responsive evaluation, feminist systems thinking and gendered systemic analysis.[59] From this review, the GEMs dimensions provide evaluators a wide set of new, intersectional combinations in which to undertake their analysis.

Gender equality

"Gender equality is the concept that all human beings are free to develop their personal abilities and make choices without the limitations set by stereotypes, rigid gender roles, or prejudices. Gender equality means that the different behaviours, aspirations and needs of all people are considered, valued and favoured equally. It does not mean that everyone has to become the same, but that their rights, responsibilities and opportunities will not depend on their gender identity." [60]

58 Stephens 2013; Lewis 2016.

59 Detailed discussion papers concerning the theoretical influences of the ISE4GEMs will become available in 2018 - 2020.

60 OECD 2009.

"Gender equality is central to the 2030 Agenda for Sustainable Development, the global plan agreed by leaders of all countries to meet the challenges we face. Sustainable Development Goal 5 calls specifically for gender equality and the empowerment of all women and girls, and this is central to the achievement of all the 17 SDGs."—United Nations Secretary-General[61]

> ***The 'leave no one behind' principle is especially relevant for LGBTQI people, who have been repeatedly left behind by national and international development initiatives. Discriminatory laws, projects that don't acknowledge their specific needs and negative social attitudes have all combined to hold LGBT people back.***
>
> *– Stonewall 2017*

Many cultures view gender as a binary concept with two rigidly fixed options: male or female, both grounded in a person's physical anatomy. But this binary biological concept fails to capture the rich variation that exists along a continuum that includes intersex and transgender possibilities. Gendered attributes, opportunities and relationships are socially constructed, learned and changeable through socialization processes, and context specific. So, while there are multiple examples in recorded history of valued gender non-conformity, it is "gender" that makes a major contribution to the expected, allowed and valued behaviours in women, men, girls, boys, intersex and transgender people. Gender equality is defined broadly here to refer to women and men, transgendered and intersex identities, captured partly in terms such as lesbian, gay, bisexual, transgender, queer or questioning, and intersex (LGBTQI).[62]

Although recognized as a human right and further enshrined through the adoption of the Convention on the Elimination of All Forms of Discrimination against Women in 1979, gender equality remains an "unfulfilled promise that affects all humanity."[63] For example, the causes and experience of poverty cannot be described as gender neutral and neither are the impacts of climate change and environments.[64] Men, women, intersex and transgender people may be exposed to poverty in distinctive ways with respect to their gendered tasks and vulnerability to ecological change.[65,66]

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61 Planet 5050 by 2030, Available at: http://www.un.org/sustainabledevelopment/blog/2017/03/iwd2017unsg/
62 Amnesty International USA 2015.
63 UNDP Independent Evaluation Office 2015.
64 Uitto 2014a; Uitto 2014b.
65 Bastos et al. 2009.
66 Perkins et al. 2005.

Yet gender-responsive analysis or evaluation may be limited if it does not attempt to address the root causes of inequalities in people's lives.[67] We see it as the role of the evaluator to work towards unpacking the complexity of these root causes. Adopting evaluative practices that aim to be gender-transformative takes the impact of evaluation further by actively contributing to changes in norms, cultural values and power structures at the root of gender inequalities and discrimination. The process of engaging with participants to self-define and describe the attributes of behaviours and consequences of gendered roles and expectations - including those outside of the binary women and men - is afforded paramount importance. Experience shows that taking this approach can produce time-saving benefits to the project. The aim is to contribute to the redefinition of the systems and institutions where inequalities were created and maintained. It is intuitively systemic.

Environments

There is a call for greater efforts to review and assess the impact of social interventions on environments.[68] We use the term "environments" to capture both human-made and natural socioecological landscapes and systems. It includes human-made and built environments (e.g., towns, cities, refugee camps, recreational parks, gardens), natural ecological systems (e.g., forests, mangroves, marine ecosystems), and socioecological landscapes of great significance and importance (positive or negative) to our well-being (e.g., farms, mines, oil fields, dams). The effects of climate change and resource depletion are exacerbating a number of game-changing dynamics.[69] These include energy infrastructure challenges, water scarcities, land disputes, soil degradation, slum urbanism and food insecurity, all of which need appropriate consideration in terms of climate change.

One way of viewing the liveability, health, sustainability and ecological diversity of a place is through its "inhabitability".[70]

- Does an intervention leave the project area more inhabitable?
- How has degradation of an environment contributed to the quality of life?
- Are there different considerations for the human inhabitants as well as its flora and fauna?

67 UNDP Independent Evaluation Office 2015.
68 To note, the term environments is not equivalent to "decision-making environments".
69 Swilling 2016.
70 To live or dwell in a place, as people or animals.

> ***You cannot protect the environment unless you empower people, you inform them, and you help them understand that these resources are their own, that they must protect them***
>
> *–Wangari Maathai, Nobel Laureate.*

Clearly this concept is linked to sustainability and can play a role in implementing the 2030 Agenda for Sustainable Development[71] and international conventions on climate change that address the need to preserve and protect environments in balance with human resource needs.[72] Leaving a place inhabitable may well contribute to the overarching sustainability of a larger system (e.g., a watershed within a wider region) and its management for years to come. We also need to consider how environments contribute to social interventions by shaping the way people live. For example, evaluations that focus on human displacement caused by conflict or natural disaster may observe cities overwhelmed by an influx of people. Their well-being, quality of life, health and resilience are impacted by the quality of the environmental landscapes supporting them (e.g., food, clean water, sanitation). Human settlements and exposure to toxic environmental hazards are often linked to one's social position.[73] Alternatively or concurrently, it may be necessary to consider the human settlement's impact on the environment. Another aspect surrounding environmental dimensions is decision-making and governance over environmental resources: Who is included and who is excluded; do those who are most affected have a say, etc.? Environmental systems and entities are often overlooked in evaluation work and therefore not given a 'voice' as integral stakeholder.[74]

As a starting point, evaluators need to be asking the right questions. How can we include the needs of and safeguards for ecological systems in our assessment of interventions? An ISE4GEMs approach supports evaluators in recognizing and including such issues from the planning stage. The process of planning and designing evaluations introduced in Part B will guide evaluators towards thinking about the environmental dimensions even if they had not been identified by the programme initially (either defined by its objectives or seen as an issue by its staff or main stakeholders). This is true of the other GEMs dimensions as well.

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71 UN General Assembly 2015.

72 See the UN Framework Convention on Climate Change, The Paris Agreement, available at: http://unfccc.int/paris_agreement/items/9485.php

73 Lang et al. 2012.

74 See Planetary Health Movement at www.in-flame.org for one example.

BOX 3.1

Tips from the field: Identifying linkages

Applying the ISE4GEMs approach in an evaluation of women's political participation, we were able to identify interesting linkages and inter-relationships between environments and the other GEMs dimensions. For example, in one country, women participating in an agricultural initiative exercised their political participation when they engaged local authorities on climate change issues that were negatively affecting them. In another country, women were supported to increase their participation in disaster risk management groups, an area where women's participation in decision-making is limited but of increasing importance. In a third country, supporting women to engage and participate in climate change legislation at the local level was identified as an area that required attention. In a fourth country, the enhanced environmental issues that indigenous groups may face was highlighted. An overall finding of the evaluation was that more learning and capacity is needed to understand and address the intersectionality between gender and environments. The simple process of asking informants if they saw a connection between the GEMs dimensions in the context of women's political participation led to reflection and more explicit awareness of a connection, even if what that connection was or meant for their work was not yet clear.

Source: ISE4GEMs practitioner

Marginalized voices

It is unfortunately common to see processes whereby other groups of people and their attributes (e.g., elders, youth, LGBTQI, ethnic and religious groups, gender, disabled, indigenous, migrant, refugee, and people living with HIV/AIDS) are pushed to the margins of society and assigned lesser importance, discriminated against or excluded. Moreover, marginalization may also be represented in non-human 'voices' such as flora and fauna, culture, languages, ideas, etc. It is a form of acute and persistent disadvantage or being neglected rooted in structural social inequalities.

One way in which the international community has tried to address this dimension is through development of legal frameworks that protect such groups. For example, the UN international human rights conventions extend human rights to all.

> "Human rights are rights inherent to all human beings, whatever our nationality, place of residence, sex, national or ethnic origin, colour, religion, language, or any other status. We are all equally entitled to our human rights without discrimination. These rights are all interrelated, interdependent and indivisible."[75]

Despite this, deep socioeconomic inequality and discrimination persists. The SDGs are an attempt to address marginalization by being explicit about "leaving no one behind".

It is very important that the ISE4GEMs practitioner be acutely attentive to power dynamics. Power is a deeply systemic property as it is never about the relationship of two or more people or organizations. The idea that power is the exercise of exploitation or control of one person or peoples over another is a rigid and binary structural way of thinking about power. It may be more accurate to think about power as forces or fields of action. When we enter the concept of boundaries, social boundaries define fields of possibilities and constraints on social action. Think for example of laws, customs, even identities, and how these shape what we have the power to do and not do. Power exists in fields of relationships that constantly change as forces play out and find balance.[76] As practices of power can be directed against certain groups (e.g., racial or religious groups) in ways that play out in social and political processes, it may be that the force of one social division is much stronger and has the effect of masking others (e.g., gender).[77]

Within a mode of conduct driven very strongly by ethics (see **Chapter 4**), ISE4GEMs practitioners are obliged to take power relations very seriously—to question their own position in the system and the nature of difference between themselves and the stakeholders they are working with; to verify who the marginalized voices are; and to ask questions about differences that matter, issues and causes of oppression, with the aim of working directly with them where it is safe to do so.[78]

75 See OHCHR website at: www.ohchr.org.
76 Burns and Worsley 2015.
77 Anthias 2013.
78 The Constellation 2015.

BOX 3.12

Tips from the field: Beneficiaries as programme leaders

When evaluators were investigating the working conditions and experiences of women in domestic service in Asia, they found that the intervention was designed and led by the women who were the primary beneficiaries. However, this situation had to be fought for by the programme designer who was working with certain stakeholder groups who saw themselves as the most appropriate spokespersons for the women (e.g., employment agents). Working with care, the programme manager persuaded these stakeholders of the importance of hearing the voices of the beneficiaries and the possible gains to be made by positioning them as leaders. Once convinced, these gatekeepers became very supportive and became advocates of the process in other intervention sites.

Source: ISE4GEMs practitioner

Some sets of stakeholders are recruited for the task of being a proxy or "witness"[79] to speak for another human (e.g., a child with a disability) or non-human (e.g., a species, ecological system or place, culture or indigenous language) that cannot speak for themselves. A witness is a person who can speak for another because they are:

- Involved in the decision-making process;
- Effected by the decisions made;
- Not involved in the decision-making process but are otherwise important (e.g., indigenous custodians, experts or citizen scientists) with particular views, skills or knowledge for informed decision-making[80].

Practitioners who select to use the ISE4GEMs approach would seek to identify, hear and gain insight from the perspective of all people and environments relevant to the interventions. Several tools are provided in Chapter 5 to help you and your team work through this process.

Using the ISE4GEMs process means evaluators bring to it a disposition towards being open to hearing from people who want to open up the evaluation, to broaden the boundary and include the marginalized elements, and collect

79 Ulrich 1983; Ulrich 2005.
80 Grimble and Wellard 1997; Reed et al. 2009, quoted in Siew et al. 2016.

data from unconventional sources (we talk more about these considerations in **Chapter 4**). What may be thought of as "what ought" and "what is"[82], is one way we acknowledge that perfect knowledge is very often unobtainable, nevertheless, there are learnings that can be derived from holding the ideal and analysing the shortfall.[83]

THE GEMS FRAMEWORK

We conclude this Chapter by illustrating how the GEMs dimensions come together to build an interconnected framework. Four diagrams are presented that illustrate the concepts discussed above.

Figure 3.1 A visual representation of an intersectional situation

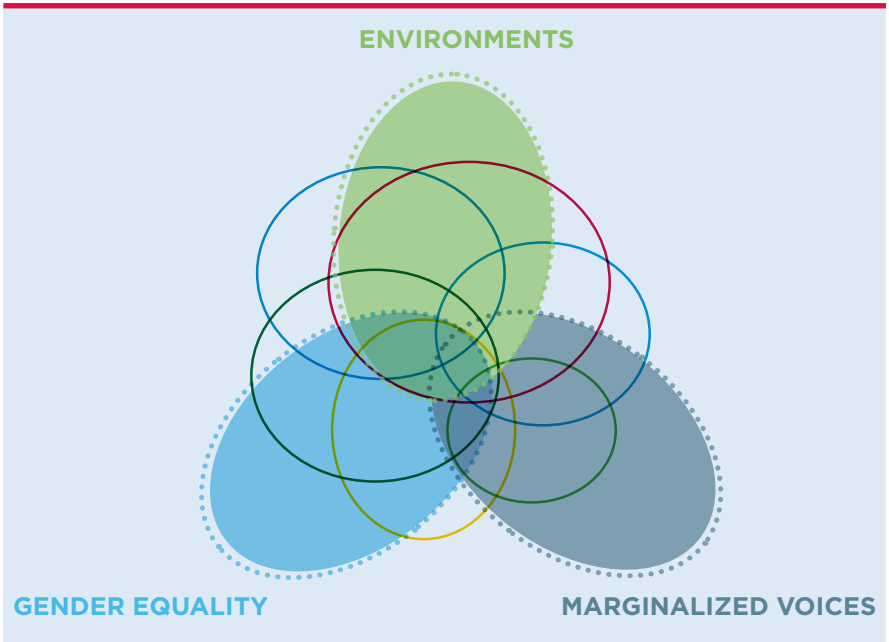


Figure 3.1 is a visual representation of an intersectional situation where a set of socioecological divisions intersect (originally introduced in **Chapter 2**, page 26). The salient GEMs dimensions are brought to the fore against the general intersectional situation given their relevance in the SDG context.

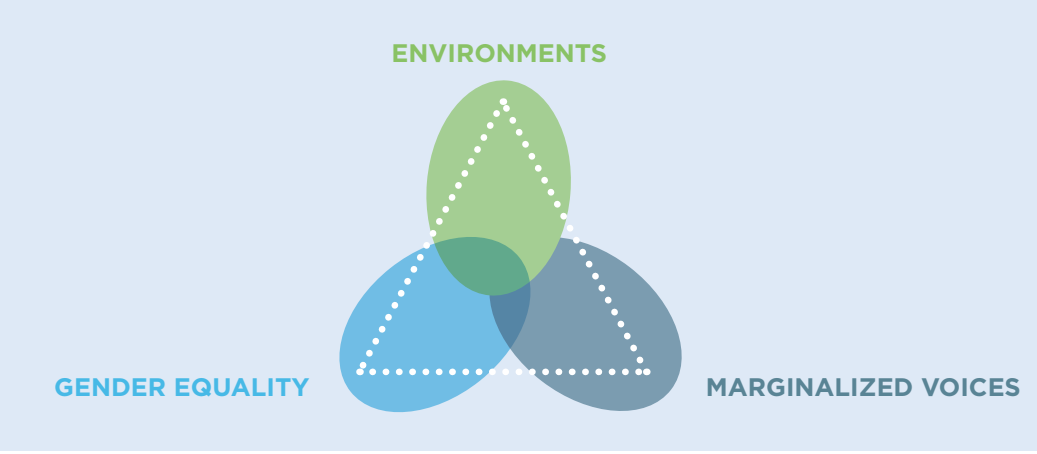
81 Ulrich 1983; Ulrich 2005.
82 See Chapter 5, ideal and actual boundary discussion.

It is important to note that the GEMs dimensions may not all have equal relevance at all times. Some social interventions, may require a deeper analysis of the environmental issues and some issues may be more or less accepted depending on the cultural context (e.g., the concept of recycling may not be common to all cultures). Some indigenous groups are offended by the suggestion of gender equality, which for them is a very Western notion and inherently disempowering. In their cultures, women always had respect, leadership and an equal but different place in the social fabric of their communities. Issues of race, religion or discrimination on the basis of age may be more relevant to them than sexual oppression. Thus, it is important to ask the following when using the GEMs dimensions: For whom is this dimension salient? Has focusing on one dimension led to the non-inclusion of other vital causes of structural and relational power imbalances and oppressions?

You will do this work in **Chapter 5** covering the ISE4GEMs planning and design phase, to determine which dimensions have salience in the context of the objectives of the evaluation to be conducted. Likewise, the ISE4GEMs conduct and analysis phases (**Chapter 7**) will make critical judgments in terms of the GEMs dimensions, actively looking for instances of hidden effects that can be observed through the GEMs framework.

The second figure presented, *Figure 3.2*, has removed the background diagram, stripping bare the three dimensions. A symbolic triangle is overlaid to connect each dimension. Each edge of the triangle connects two dimensions on a continuum of marginalization. For example, "gender equality" and "environments" are interconnected in that the health of one's habitat and environment and the safety, health and security of women are often aligned. Such an observation has led to the claim that climate change will adversely affect women and girls and is indeed a gendered issue.[83] *Tool 9*: GEMs data analysis in **Chapter 7** has been developed to help you analyse your data against this framework and to find the nature of the connections between the dimensions as a relative strength or weakness of the GEMs themes in your data.

Figure 3.2 The interconnected GEMs dimensions



83 United Nations 2017.

KEY TAKEAWAYS

- The GEMs framework is the interrelations between:
  - **G**ender equality
  - **E**nvironments
  - **M**arginalized voices
- The GEMs framework is grounded in intersectional theory, another way in which we can view complexity.
- ISE4GEMs uses the GEMs dimensions as a focal lens to refine analysis on issues of power and oppression that matter to the stakeholders and participants impacted by an intervention.
- It is important to always ask why and how each dimension is salient and for whom.
- The GEMs framework is illustrated to show the interconnections between the three dimensions through a continuum of interrelatedness and marginalization. This forms the basis for customized analytical tools presented in Part B.

CHAPTER 4 ISE4GEMS APPROACH AND THE STOC

- Feedback to systems and the SToC
- Key elements of ISE4GEMs
- Key Takeaways

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CHAPTER 4

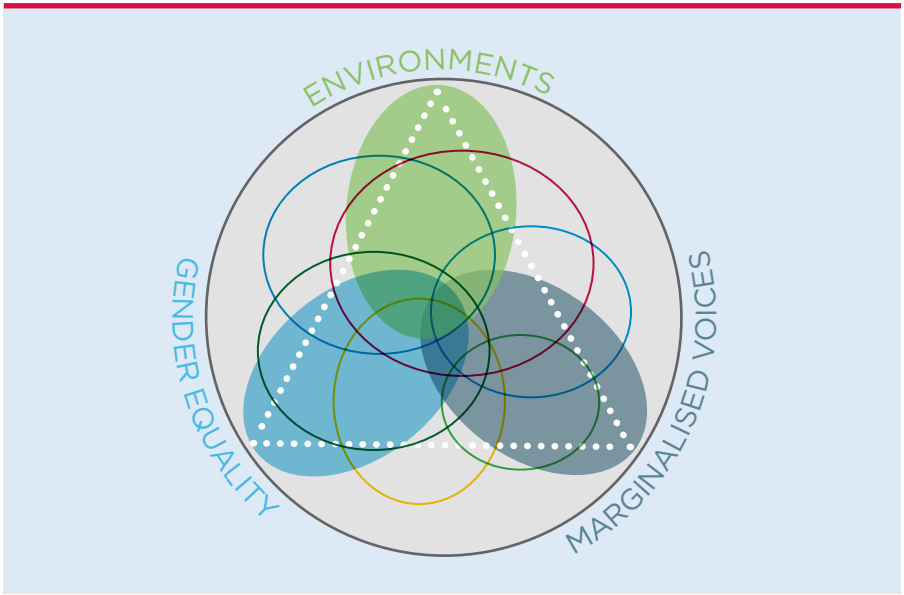
ISE4GEMS APPROACH & THE STOC

This Chapter brings together the concepts of systems thinking and boundary analysis covered in **Chapter 2** with the intersectional GEMs framework from **Chapter 3**. This provides us with the overarching framework for the ISE4GEMs approach and one of the potential outputs of an ISE4GEMs process- the SToC. We will also introduce some key elements that are important to conducting an ISE4GEMs. These include ethics, validity and rigour; transdisciplinary mixed methods; and some comments on the attributes needed to be an ISE4GEMs practitioner and thought partner.

This approach may be asking you to think differently about some common evaluation concepts such as ToC, ethics, validity, rigour and learning. Part B of this guide provides some practical steps on how to apply these concepts so you can adopt this approach and complete a credible and useful evaluation.

The ISE4GEMs approach can now be represented through *Figure 4.1*. The complexity of the situation is represented inside a primary boundary. The boundary demarcates what is "in"—what is considered to be relevant to this complex situation. This is inclusive of the GEMs dimensions, which are connected (see *Figure 3.2*), and underlying intersectional divisions. F*igure 4.1* is a representation of the ISE4GEMs as a dynamic knowledge generation system for evaluation.

Figure 4.1 The ISE4GEMs approach



FEEDBACK TO SYSTEMS AND THE STOC

The ISE4GEMs approach involves two systems. The system of the evaluation and the system of the intervention that is being evaluated, which contain feedback loops between them. These feedback loops are central to understanding the complexity of the intervention ToC through learnings from the evaluation and may continue to feed back into future related interventions that have similar variables (e.g., same topic or location), as well as to other wider knowledge systems on social change processes.

Feedback loops provide information about opinions or attitudes, change and resistance, and actions taken. These, in turn, increase the knowledge and capacity of participants. The evaluation consultation and reporting process is an example of a feedback mechanism. It enables the sharing of information and evidence with the stakeholders engaged in the evaluation who may have different understandings of the intervention and evidence collected.

This process (a systemic one) can lead to a revision of an existing ToC that is more linear, or a newly developed one that is an output of the systemic analysis of this evaluation. The development of a new SToC can provide an alternative to linear cause-effect models that is a more robust (and uncertain) theory regarding the changes expected.

The SToC encompasses several strands or predictions of how the intervention produces change, and these may be informed by multiple theoretical positions (e.g., it might draw on feminist, critical race or queer theories). The narratives may be concurrent to build a cohesive story or contrast, in which case the differences contain major learning implications about the intervention's effectiveness at multiple scales. Emergence identified, feedback loops and their effects also need to be integrated within the SToC.

> ***Multi-source views and predictions concerning how the intervention causes change that may draw on emancipatory social theory to understand what drives change, is a productive frame in which to derive evaluation outcome judgments.***
>
> *–Mowles 2014.*

The ToC may or may not be GEMs explicit depending on the objectives of the intervention, but the SToC would reconstruct strands of thought around the GEMs dimensions. The SToC may also outline explicitly the will of the participants and the relationships and power imbalances among them as a key driver of transformational change. While even the SToC has limitations in terms of addressing the complexity of contexts, the complexity must always be considered and stated explicitly up front.

Most important, the SToC is meant to have a life beyond any specific evaluation or intervention. That is what makes it a promising element of the ISE4GEMs approach. The SToC may broaden our understanding of desirable social change processes and the complexity around supporting them. It will be discussed in more detail in Part B.

KEY ELEMENTS OF ISE4GEMS

Ethics

Fundamental in any professional evaluation practice is ethical conduct and the moral responsibly of the evaluation team to uphold ethical codes of practice, guidelines and principles.[84] Yet, prescriptive guidelines and standards need to be applied flexibly and in accordance with the situation at hand.

Participatory and socioenvironmental evaluation studies may generate ethical dilemmas, with no easy, consensual resolution. Risks of harm to staff, volunteers or participants must be assessed with great care and rigour.[85] Appropriate supportive measures are needed to keep people safe, allow free expression of ideas, and facilitate participation and communication. The process used needs to be transparent and defensible (see *Box 4.1*).

ISE4GEMs is driven by an ethic to empower and enable individuals, communities and the people living within problematic contexts to be the arbiters of their own solutions.[86] Such an approach resonates closely with the characteristics that define the transformative and emancipatory paradigms.[87]

In regard to human agents, the ISE4GEMs practice is contingent upon the relationship between evaluators, stakeholders and participants. The ISE4GEMs has made explicit these practices in several customized tools such as a vulnerability assessment. This enables practitioners to conduct a critical boundary analysis of the stakeholders and participants. It will help the evaluation planning process and is a strategy towards identifying the societal power imbalances at play and to develop appropriate ethical safeguards.

With the GEMs framework, we urge practitioners to expand their thinking about social awareness as a "socioecological critical awareness". This means extending the principle of human autonomy and, in particular, providing for the protection of those with diminished or no autonomy to environmental systems

84 For an extensive list of resources on ethics in evaluation, refer to https://ethicsinevaluationandresearch.wordpress.com

85 See article on vulnerability assessments by Morchain et al. 2015.

86 The approach is grounded in critical systems thinking, which adopts the language of "emancipation". In a basic definition, being emancipated allows for people to reach their maximum potential from problem situations by finding new ones with their volition and creation. Critical systems thinking methods and theory can provide the tools for people who do not usually have a say and with such awareness, people's lives, or the material situation, may be measurably through tangible and intangible methods improved. This aligns with critical systems thinking's core principle to raise social awareness.

87 Mertens 2009.

and entities—non-human participants in our socioecological interventions and evaluations to whom we have an ethical responsibility. In **Chapter 3**, we suggest the use of witnesses to speak for another who cannot speak for themselves. Consider the ethical problem of interpretation. How do we make sense of a non-human agency's needs or perceptions? Do we unconsciously, through our hidden assumptions, reinforce our own human desires? In practice, being explicit about the boundaries chosen, the people and environmental entities included, and reasons for these judgements, are crucial.

BOX 4.1

Potential Harms

The kinds of potential harms in development interventions and evaluation studies may include (but are not limited to)

- **Social harms:** Damage to social networks or intimate relationships with others; discriminatory retaliation for being associated with the intervention/evaluation; barriers to social services, public transport or employment; job loss; social stigmatization; etc.
- **Physical harms:** Injury, abuse or assault in retaliation for being associated with the intervention/evaluation; illness or pain caused by travel to or from meetings; etc.
- **Psychological harms:** Feelings of worthlessness, distress, guilt, anger or fear related to the underlying sociocultural and economic causes for the intervention, which are raised in the course of the evaluation
- **Devaluation of personal worth:** Including being humiliated, manipulated, coerced or in any other way treated disrespectfully or unjustly
- **Economic harms:** Including the imposition of direct or indirect costs on participants
- **Legal harms:** Including the discovery and prosecution of criminal conduct, notwithstanding and including mechanisms to report misconduct caused by development workers or co-evaluators themselves

We propose that ISE4GEMs practitioners remain open to diverse and divergent ways of knowing, emergence and a comfort in both difference as well as consensus. Is it, for example, "just" a matter of bringing in ecological scientists

who have expertise, can study a particular ecological phenomenon and "speak for" the environment, or would other witnesses (e.g., indigenous experts, who hold non-traditional and non-scientific ways of knowing) be suitable? Perhaps the answer is both are needed.

This discussion leads us to the question of methods. Behind the process of method selection are issues of power. As discussed in **Chapter 3** and in the literature: "Power can silence challenges to the technical framing of the problem, foreclosing discussion of the structural causes and consequences of the social problems these interventions seek to tackle."[88] Thus who controls the methods used has power in an evaluation. As mentioned in **Chapter 2**, practitioners, as experts or facilitators in participatory evaluations, hold partial views of that situation, and this cannot be avoided. Throughout your ISE4GEMs practice, we encourage you to engage in ongoing reflective critical questioning of your own involvement and views of the situation you are evaluating. You may want to ask yourself the following:

- How is your involvement, knowledge and expertise perceived by others?
- How is knowledge shared if knowledge is viewed as an imposition?
- Where do you stand on the notion of "objectivity"?
- Can you really take a neutral stance?
- Can a practitioner facilitate fairly if influence for one interest group against the other is inevitable?
- What else is needed to help practitioners take responsibility for their interpretations and expand their consciousness of their own role in complex settings?[89]
- What are other ways of knowing (e.g. experiential, practical or symbolic ways)?[90]

88 Eyben 2015.
89 Midgley 2000.
90 Rajagopalan, Midgley 2015.

Validity and rigour

A traditional research approach judges the rigour of a project by the consistency in which its methodology is applied. This may have a limiting impact on the work if the subjects of the research are determined only by the reach that is possible within a certain methodology.[91]

In the ISE4GEMs approach, we draw on the rethinking of validity and rigour and ask the following: Is the research engaging with the right people? This may mean adapting the methodology to fit the context of the situation[92] which is important for boundary and intersectional analysis.[93,94]

> ***Validity is the heart of good evaluation [and] must produce accurate, trustworthy understandings and judgments from which sound and just actions may be taken.***
>
> *–Kirkhart 2010.*

A credible and trustworthy evaluation outcome is demonstrated by using multiple participants in the interpretation of the findings to validate (through substantiation or challenge) the perspectives of the evaluation team.[95] Boundary analysis in evaluation strengthens the credibility of any evaluation because it ensures that multiple views and interests are considered and that these are made transparent. Furthermore, it addresses if your evaluation has merit and is able to justify the improvement of social welfare and individual well-being. It uses appropriate methods to address the questions under investigation and if the evaluation personnel are trained, experienced or qualified and, above all, competent.

One useful framework that is congruent with ISE4GEMs to assess the validity of an evaluation is Kirkhart's cultural validity framework, which refers to "the accuracy or trustworthiness of understandings and judgments, actions, and consequences, across multiple, intersecting dimensions of cultural diversity."[96] Culture can be examined for both individual and group meanings through a boundary analysis process. Kirkharts' Culture Checklist is reproduced in **Chapter 7.**

91 Burns 2016.
92 Ibid.
93 Befani et al. 2014.
94 Chambers 2015, notes development projects are complex in that "treatments are not standardized, receiving environments are diverse, controls liable to contamination, measurements difficult, unreliable or impossible, causality multiple and intertwined and problems messy, wicked and not amenable to obvious or straightforward solutions...what is rigour for learning about complexity?"
95 Burns 2017.
96 Kirkhart 2010.

Similarly, rigour can go beyond the concept of methodological rigour to include the level of participation and inclusion.[97],[98] This becomes particularly important when thinking about the recruitment processes that will be used in the field, for example. At the highest level of rigour, an ISE4GEMs approach would be flexible to adapt to the needs of participants and the identification of emergence. Below are a set of principles inspired by recent thinking on this issue.

- Methods selected have to be appropriate to the users of the methods in context. Using a variety of methods allows for a more responsive methodology for all stakeholders and emergent issues.

- There should be flexibility and adaptability of methods for improvisation, innovation and iteration to create new combinations.

- The ISE4GEMs approach prompts evaluators to keep asking "what are we missing?", adopting an attitude to being open, alert and inquisitive. Look for the unexpected, accept uncertainty and plan for emergence.[99]

Transdisciplinary mixed methods

In the ISE4GEMs approach, the concept of "transdisciplinary" methods is very deliberate. Transdisciplinary reaches beyond one or multiple disciplinary fields. It is based on the criteria of relevance and invites social and ecological critique. It is the mixing of components of the methods and tools stemming from the different disciplines.

> "No single assessment framework can adequately capture all dimensions of gendered social change processes; consequently, we must seek to create [monitoring and evaluation] systems that combine different approaches and tools in the most appropriate manner for our specific needs."[100]

This includes the use of both qualitative and quantitative methods and collection of data from unconventional sources. For example, climate change research is increasingly incorporating gender and other social dimensions in studies of its impact.

At the outset, it is important to pose the question: "What methods provide

97 Chambers 2015.
98 Burns 2017.
99 Ibid.
100 Batliwala and Pittman 2010.

the highest quality and most actionable evidence for whom in which contexts?"[101] This is a move away from a "methods-first approach" to make nuanced selections that are "context-sensitive."[102]

> ***Participation all too often boil(s) down to situations in which only the voices and version of the vocal few are raised and heard. Unless efforts are made to enable marginal voices to be raised and heard, claims to inclusiveness made on behalf of participatory development will appear rather empty.***
>
> *–Cromwell 2003.*

To be done well, it considers the cultural sensitivity of methods (e.g., literacy levels and language), barriers to participation based on cultural practices and norms (e.g., head of households representing the family "voice"), or physical access to participate (e.g., transport safety).[103] This element involves considering the following:

- Focusing on societally relevant problems.
- Enabling mutual learning processes among stakeholder and participants, which includes the feeding back of findings and recommendations.
- Aiming at creating knowledge that is solution-oriented and transferable to both scientific and societal practice[104].

Capacity development

Capacity emerges from a combination of attributes, skills and relationships that enable a system (people, organizations or whole nation-states) to perform to its full potential. Underlying the ISE4GEMs is capacity development, from the planning through to utilization. The approach's emphasis on prioritizing and embedding learning into evaluation processes resonates strongly with the spirit of the SDGs, which call for strengthening national capacity development processes.[105]

Evaluation practice can contribute to the capability of a society, a community or individuals to identify and understand their needs and priorities, to be able to address these, learn from the experience and accumulate knowledge. Evaluation practice can support capacity development with participants in a range of roles:

101 LaFrance et al. 2012.
102 Rog 2009 in LaFrance et al. 2012.
103 Siew et al. 2016.
104 Lang et al. 2012.
105 Isaza et al. 2015.

> *Transdisciplinary research is conducted with, rather than for, society to co-produce socially robust solutions to complex societal problems that can no longer be solved using traditional research approaches.*
>
> *–Swilling 2016.*

bystanders (e.g., those affected but not involved), informants, co-evaluators and users of evaluative information.

Participatory practice opens up the evaluation practice to two-way learning. For example, integrating local and indigenous data collection methods and ways of knowing can provide the evaluators with different types of knowledge and learning.[106] Including these voices is not always easy, but the involvement of diverse stakeholders and participants can provide the best available knowledge, reconcile values and preferences, as well as create ownership for problems and solution options.[107]

It has been noted that: "Presenting findings largely through the voices of participants themselves is by far the most effective form of evidential reporting."[108] Evaluation entails compromise: What data to gather and how? What data to use and why? Which stakeholders to involve and when? When to push back against exclusion? Within an ISE4GEMs approach, the process of answering those questions is in collaboration with others.

The ISE4GEMs process outlined in Part B walks practitioners through a series of steps to promote planning and design that can foster a deep engagement with participants from the outset of the evaluation. This ideal of inclusivity suggests some key principles:

- Build a collaborative and diverse team.
- Use a mixed, transdisciplinary approach of co-evaluators, stakeholders and intervention participants.
- Apply the co-created knowledge integrated into the evaluation's learnings and then implement collective decisions[109].

106 Swilling 2016.
107 Lang et al. 2012.
108 Ibid.
109 Ibid.

Attributes and competencies of a thought partner

Authentic collaboration requires certain attributes and competencies. It demands self-critical appraisal of your assumptions, framings, categories and mindsets. We encourage ISE4GEMs practitioners to integrate systems thinking skills into their evaluation practices. A systems thinker:[110]

- Accepts that one is always embedded in multiple, interrelated sets of systems—and that these are socially constructed.
- Can change perspectives and engage with multiple perspectives to increase understanding.
- Is inquisitive, resourceful and innovative.
- Uses peripheral vision to make second-order judgments to understand the "big picture" while acknowledging a comprehensive holistic view is never humanly possible.
- Recognizes and acknowledges that systems are dynamic and constantly changing and that there will be time delays within a system when exploring cause and effect relationships.
- Looks for interdependencies and unintended consequences (complexity and emergence) as well as the influences of general uncertainty.
- Accepts that systems' structures also generate behaviour.
- Watches for "win/lose" mindsets knowing they usually make matters worse.
- Surfaces and tests assumptions.
- Checks their results with participants and stakeholders and adapts to changes needed.
- Is comfortable with openness, transparency and change.

110 Adapted from Sweeney and Meadows 2010.

In addition, ISE4GEMs evaluators will be called upon to be facilitators, co-facilitators or co-evaluators to effectively aide others in their reflection, to ask questions, and to support the collaborative resolution of issues. This is what it means to be a thought partner. Some of the attributes and competencies we believe will be important are listed here. However, we recognize that this list is incomplete and that no one person will ever meet every criterion. We encourage this list to be used as an indicative guide.

- Self-awareness, particularly to set and clarify personal boundaries.
- Strong interpersonal skills can develop mutual, trusting, cross-cultural relationships, motivate and mediate in a variety of situations.
- Appreciative and valuing of existing skill sets, practices and experiences of co-investigators.
- Able to tease out accommodations between different interests.
- Define possible actions that are systemically desirable and culturally feasible.
- Empathetic—culturally aware of contrasting viewpoints, sensitive and competent to communicate with a diverse range of people.
- Relationship builder—to co-identify formal and informal power relations for trust, respect and collaboration cultivating conversational space for enabling freedom of expression.
- Provide timely and professional feedback, utilizing the analytical skills to share knowledge with all concerned for empowered learning.
- Committed to authentic participatory practices for co-decision-making and collective capacity development.
- Looking for emergence and responding with flexible approaches to change.
- Understanding of the political nature of the intervention and evaluation activities.
- Remain vigilant for multiple forms of oppression and advocate for the rights of stakeholders, particularly those that are marginalized voices.
- Gender and culturally sensitive and responsive.

KEY TAKEAWAYS

The ISE4GEMs approach draws on the principles of complexity science, systems thinking and intersectional analysis to introduce a new systemic evaluation practice that focuses on the intersectionality of the GEMs.

- The SToC is a key output of the ISE4GEMs approach; it differs from standard ToCs because it more explicitly acknowledges and analyses feedback loops between systems, supports tolerance for ambiguity and willingness to manage but never eradicate uncertainty, and accepts a way of knowing that values plurality of perspectives (versus convergence on a single correct perspective) including the GEMs dimensions.
- Embraces an ethical orientation to evaluation.
- Applies the concept of cultural validity and definition of rigour that includes the level of inclusion and participation.
- Calls for the use of transdisciplinary methods, which is the mixing of components of the methods and tools stemming from the different disciplines related to the GEMs dimensions.
- Emphasizes prioritizing and embedding learning on systemic thinking and intersectional analysis into evaluation processes in response to the call for supporting national capacity development within the SDGs; this includes developing the capacities of evaluators.

PART B
ISE4GEMS PRACTITIONER GUIDANCE

The ISE4GEMs approach is a variation of, and highly influenced by, developmental evaluation.[111] Part B provides guidance on the 'how-to' of conducting an ISE4GEMs. We take the crucial ideas presented in Part A and walk you through the main phases of an evaluation process. We also present some concepts for enhancing capacity development and knowledge sharing around an ISE4GEMs, both which are taking on greater importance for evaluation in the SDG era.

Each chapter in Part B covers a phase of a standard evaluation. **Chapter 5** addresses design and planning. **Chapters 6** covers data collection. **Chapter 7** discusses the analysis and reporting phase. **Chapter 8** provides tips to enhance knowledge sharing and to build capacity. Like Part A, Part B also introduces some new ideas that we think are important to highlight at the beginning:

- Each chapter (or phase of evaluation) represents cycles of activity that can be repeated and revisited in an iterative and analytical way (see Figure B.1).
- This approach asks you to define two systems during the planning phase: the system of the intervention to be evaluated and the evaluation system. Both systems overlap and interact with each other throughout the evaluation process and identifying the boundary (Chapter 2) of both systems supports understanding of complexity. These boundaries are also subject to continuous reflection and analysis throughout the evaluation process with the introduction of new information and emergent issues.
- We introduce the development of a "Boundary Story" as a method to define

111 Patton 2011a; Patton et al. 2015.

the intervention boundary and come to terms with its complexity in retrospect and with integration of the GEMs framework.

- You will be asked to define two boundaries for your evaluation system—the ideal and the actual evaluation boundary. The gap between these two boundaries represents what is considered relevant or important to evaluate versus what can actually be evaluated or what we would like to know versus what it is possible to know. Understanding and defining this gap is a learning process and supports you in interpreting the findings of the evaluation through a systemic lens.
- You will also be introduced to the concept of systemic triangulation, which extends beyond common analytical methods and helps to ground the systemic lens into the interpretation of the analysis of the findings.
- Finally, we introduce the concept of a SToC, which is a potential output of an ISE4GEMs that can be used by stakeholders, commissioners and others.

Before starting Chapter 5, it is important to emphasize the need for practitioners to engage in systemic thinking, while recognizing that the evaluation process is also a systematic one. The ISE4GEMs learning and action cycles (Figure B.2 and B.2) are a handy overview of the whole ISE4GEMs process (phases, steps and tools). There is a suggested sequencing of steps, but the order is always adaptable to your specific process and judgement of what makes sense for your evaluation.

Figure B.1 The ISE4GEMs learning and action cycles - Phase I

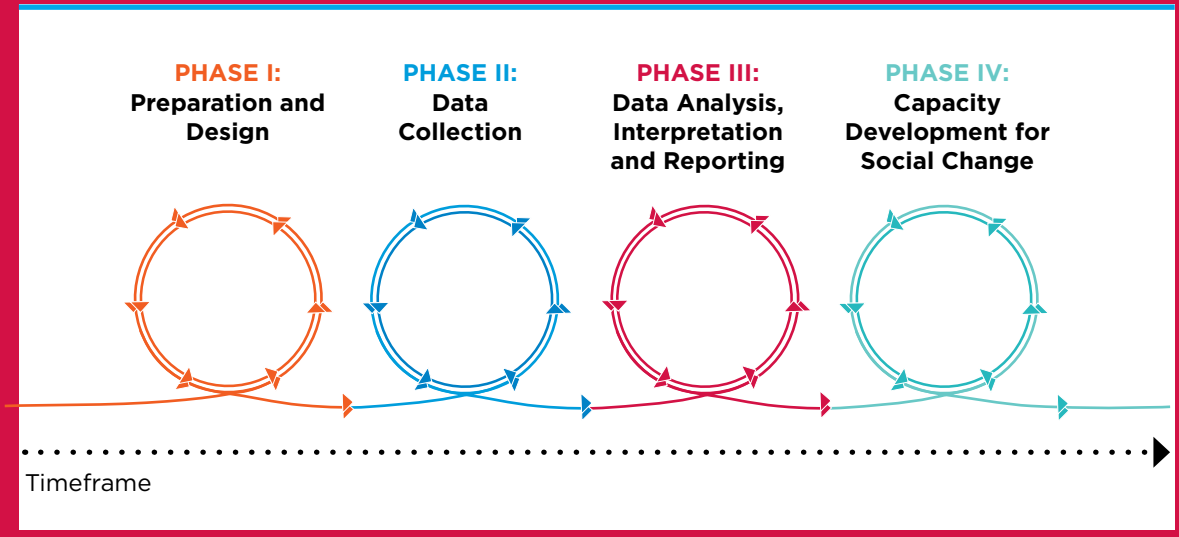


Figure B.2 Stages of the ISE4GEMs

CHAPTER 5

PHASE I - PREPARATION AND DESIGN

- Step 1 : The Boundary Story
- Step 2: The evaluation boundary
- Step 3: ISE4GEMs Planning and Design considerations

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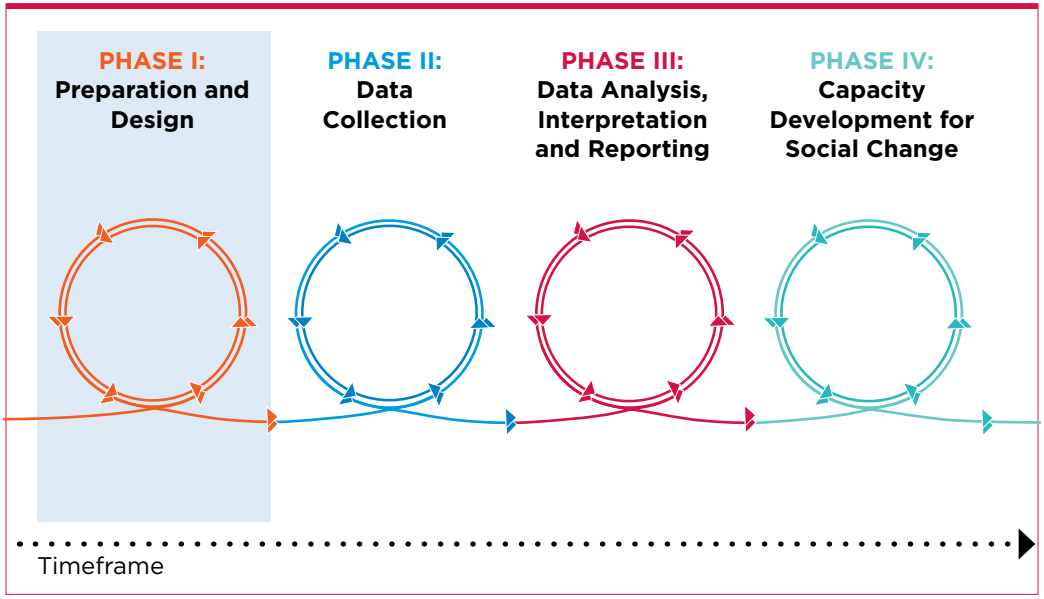
CHAPTER 4

PHASE I: PREPARATION AND DESIGN

This chapter is meant to support you to work through Phase I in designing your ISE4GEMs. Keep in mind that this is a cyclical and flexible approach that encourages you to work through the steps and tools in an order that is best suited to your evaluation context and the stakeholders involved (see *Figure 5.1*). The information collected and recorded within the tools from this phase are meant to be continuously reviewed, reflected on and modified during subsequent phases of your evaluation as more information and analysis becomes available to you.

Figure 5.1 The ISE4GEMs learning and action cycles—Phase I



STEP 1:

IDENTIFY THE INTERVENTION AS A SYSTEM: THE BOUNDARY STORY

TOOL 1: First-order boundary analysis

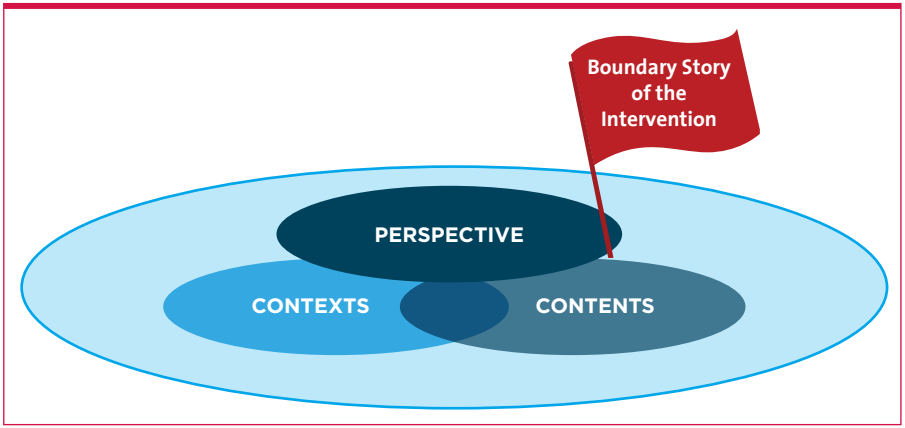
TOOL 2: Stakeholder Analysis

The first step in designing any evaluation is to have as clear a picture as possible of what it is you are evaluating. In a systems approach, your intervention (or evaluand) is now viewed as a specific system. We know from what we learned in Part A that a system needs to have a clearly defined (but flexible) boundary.

The 'Boundary Story' is a key narrative of the intervention that will be referred to throughout the evaluation process.

The boundary of the system you are now about to evaluate may not be clearly defined for you or for the evaluation's stakeholders. One way in which you can develop, communicate and validate the boundary of this system is by developing what we call the **"Boundary Story"** of the intervention. This is simply a **narrative description or story of the system** based on its contents, its context (including interrelationships) and the different perspectives included (or not). The Boundary Story is to be used in every stage of the evaluation process. This step provides two tools. When applied, they will enable the practitioner to draft a Boundary Story. You define the Boundary Story by doing a first-order boundary analysis and a stakeholder analysis of the intervention (or evaluand) that also incorporates the GEMs intersectional dimensions. The GEMs dimensions are not reflected in *Figure*

Figure5.2 The Boundary Story of the intervention



5.2 because they may or may not be present. Because the Boundary Story is done from a systematic or first-order perspective (of those within the system looking outward), we strongly recommend that its development is a participatory and inclusive process with stakeholders.

The way the Boundary Story is defined, and by whom, can have profound effects on what is or is not evaluated and ultimately the evaluation's outcomes. What learning occurs? Which actions are taken for making change happen? Simplification of the Boundary Story can contribute to a narrow or misleading understanding of results or evaluative judgements of the overall intervention.

First-order boundary analysis

Boundary analysis is determining a system's boundary in retrospect. By using a reflective, participatory and collaborative process, you can construct the intervention's boundary as a system of people (holding perspectives), actions (generating content) within contexts. Keep in mind that the intervention may have changed intentionally or unintentionally during implementation for a number of reasons (e.g., changes in context, staff turnover, follow-up to mid-term review or evaluation results). These should also be included as part of your analysis.

To build your Boundary Story, use **Tool 1:** First-order boundary analysis. It is a sample set of *first-order questions* to guide you through a systematic analysis of the intervention. Questions related to the how much GEMs dimensions are included/represented is important to complete. If the intervention did not include one or more of the GEMs, this needs to be recorded. However, you might remove or add other questions depending on what makes sense for your evaluation.

To try and answer these questions, scan documents about the intervention, the organization and the location—for example, strategic plans, programme and project documents, ToC, country situational analyses, etc. However, don't forget that important but less tangible information is not usually documented in writing (e.g., why some decisions were taken, whose perspective was prioritized and why, etc.). This information is normally held as knowledge in the minds of those involved in the design or implementation process, including the beneficiaries and communities engaged. If these people are available to be consulted or interviewed, it can allow you to develop a Boundary Story that more closely reflects the actual intervention realities (including its complexities) than only a desktop review allows.

For example, the boundary is likely to have been defined by those who had decision-making power over its design (e.g., programme managers, donors, etc.). But the boundary may have changed over the course of time by those involved in its implementation (e.g., programme staff, consultants, beneficiaries, civil society). Can you involve the intervention designers and programme staff in the development of the Boundary Story? Their perspective on what happened, how, why and with whom is crucial to developing a more robust and complex Boundary Story.

Table 5.1 Illustrative questions from Tool 1: First-order boundary analysis

Project name			
Questions to guide your first-order analysis	**Information**	**Record any changes (formal or informal), including when, how or why these changes were completed**	**Source (e.g., monitoring report, staff interview)**
What prompted the decision to intervene to address the problem? Who was involved?	Concerns regarding financial viability of an NGO and its capacity to continue funding humanitarian programmes		Meetings with Chair of the Board and Directors
How does the intervention expect to address the problem?	The NGO has been providing brokerage for artisans to the World Fair Trade market, as a means of empowering communities		
What are its goals, objectives and rationale? Who was involved in developing them? What was considered? Who made the final decision?	Record the mission and vision statements of the NGO Note the agents involved in key decision making - often a Board and staff - what other stakeholders might be involved?		

Stakeholder analysis

TOOL 2
Stakeholder analysis

Having completed a first-order boundary analysis, a picture of the intervention is now emerging for you—including who was involved. Understanding who was involved, who wasn't and why provides a more in-depth stakeholder analysis which is useful for developing a robust Boundary Story and a helpful starting point for identifying the stakeholders to be involved in the evaluation (Step 2).

You can use **Tool 2**: Stakeholder analysis, which includes a table that guides you to list each stakeholder and assess them against different categories and questions (some included below) to help you further identify stakeholders and deepen your understanding of the relationships between them, including power imbalances and differentials. For example, at the outset, the intervention designers and implementers are in a powerful position. But this can change over time. Often, new stakeholders will emerge during an intervention or may become more formally recognized. Others may become less central to the story.

Sources of information for this analysis include the same ones used to conduct the first-order analysis, plus others (e.g., reports, government documents) that can enlighten you on historical relationships and power dynamics. The analysis may also need to identify "gatekeepers". Gatekeepers are commonly used because they often play a valuable role in supporting implementers and evaluators to access people and places. Their perspective and interpretation of the context of both the intervention and the evaluation plan may be extremely valuable to your boundary analysis processes.

BOX 5.1

Potential Stakeholders

Stakeholders may include (but are not limited to):

Funders and commissioners, project staff, gatekeepers, administrators, project participants or clients, community and political leaders including parliamentarians, women's agencies, LGBTQI agencies, church leaders, business leaders, civil society activists, ecological spokespersons, people with criminal records, environmental scientists, government agencies, NGO advocates, traditional owners[113], collaborating agencies, youth agencies and youth, children, schools, teachers, and others including bystanders with a direct or even indirect interest in intervention effectiveness.[114]

Drafting the Boundary Story

You have reviewed the documents available and spoken with stakeholders and other people to gather the information you need. Now, you will write a robust, but concise, Boundary Story.

A good Boundary Story provides a holistic and contextualized explanation of the system to be evaluated: What was included within its boundary, what wasn't, why, and how this may have shifted over time? It is meant to be an engaging narrative summary of the systematic analysis and stakeholder analysis you have done. It's a description of the system as seen by those who are within it and interact with it. You were not a part of the system you are describing, so your role is to try and draft their story, without making judgements or critiques from your external viewpoint. It is the story of the system from the perspectives within the system. It should reflect their experiences and understanding of the intervention, as well as highlight key gaps or oversights they identify.

The Boundary Story does need to speak to all three of the GEMs dimensions by indicating if they are present and to what extent, if they are not present and why, as well as any information collected on how they are seen to intersect within the system. If existing, the intervention's ToC should be included.[114] If there is no ToC, it can be constructed based on the information collected if that is of interest to the commissioners of the evaluation..

Include information about the baseline, design and analysis processes; objectives and purpose; operational aspects; stakeholders; the intended and actual results (as seen from the perspectives of those involved); progress reported on results; and challenges and risks. There are many other aspects that can be included to tell the Boundary Story.

In reality, you are likely to be faced with limited documents or access to stakeholders and a short timeline for completing Phase I. People in less powerful positions to others may feel unable to contribute honestly, safely and in good faith. Construct the Boundary Story as best you can with the information, access and time you have available.

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112 Referring to the recognized indigenous and traditional owners of place—i.e., country, nation, often First Nations people who may or may not have land-rights enshrined in the dominant legal system of the state.

113 Cullen et al. 2011.

114 The existing ToC will be analyzed during Phase III from a systemic lens.

We recommend that a draft be circulated to stakeholders (e.g., evaluation reference group members, those interviewed, etc.) to gather their comments to fill gaps in information and correct possible inaccuracies. The story should resonate with their experience and should be finalized through a consultative process that works for your context. Opportunities to bring stakeholders together to discuss and clarify aspects of the story is ideal.

Your ISE4GEMs practitioner skills will be needed, switching from a facilitator role to one of an "expert" to mediate if strongly held differences of opinion arise or power imbalances might skew the narrative. A director, for example, might say one thing, but staff working at the technical level might have a different perspective. Whose narrative prevails? You have an opportunity to safely bring voices from within the organization into balance. You may, for example, need to allow an avenue for confidential feedback. Take great care in how all comments are integrated not to identify individuals or groups, and when real differences continue to exist, include this as part of the Boundary Story. You must also be aware of how your own perspective as an evaluator will shape how the boundary is defined and the story framed for evaluation purposes - despite efforts to minimize this.

The Boundary Story can also be a useful stand-alone document for the organization. It may have value beyond the evaluation as both an internal knowledge management piece and for external communications. The engagement of stakeholders in the development process may provide a useful learning opportunity that prompts reflection and builds capacity.

STEP 2:
DEFINE THE EVALUATION BOUNDARY

TOOL 3: Second-order boundary analysis

TOOL 4: Vulnerability assessment

TOOL 5: GEMs evaluability assessment

An evaluation is also a system. It is a "knowledge system" that needs to be defined by a boundary. While a decision was made to conduct an evaluation, the boundary of the evaluation has not yet been fully defined.[115] This evaluation boundary can be defined now that you have the Boundary Story.

First, you define an ideal boundary for your evaluation system by conducting a second-order boundary analysis of the Boundary Story. This is to tease out what would be useful to evaluate. Use the GEMs framework to do an intersectional analysis and remember that the ideal boundary is inclusive of all GEMs dimensions.

Yet, evaluations are not implemented under ideal conditions. It is rarely possible to evaluate everything that would be useful. You redefine the ideal boundary to reflect considerations of evaluability, stakeholder access and availability, and other real-world[116] constraints to determine the actual evaluation boundary—or what is possible to evaluate. The development of your evaluation objectives, scope, criteria and questions is an articulation of this actual boundary. This information is normally included in your evaluation terms of reference (ToR) or Inception Report.

By defining both the ideal and the actual boundary of the evaluation, you explicitly acknowledge and bring awareness to the gap between what is relevant to evaluate and what is going to be evaluated. These limitations are useful to keep in mind during the analysis and reporting phases to better qualify the findings, conclusions and recommendations. When the gap between the ideal and actual boundary is wide, you may have less confidence in the evaluation findings and vice versa.

115 The evaluation boundary may be partially or loosely defined in the ToR for the evaluation.

116 This guide does not provide specific strategies for dealing with real-world conditions that affect all evaluations, but we recommend that you consult the large body of work already devoted to these issues. See Bamberger et al. 2012; Bamberger and Segone 2011; Brisolara et al. 2014; Burns and Worsley 2015; Donaldson et al. 2013; Kirkhart 2015; Romm and Dichaba 2015.

Define the ideal boundary of the evaluation

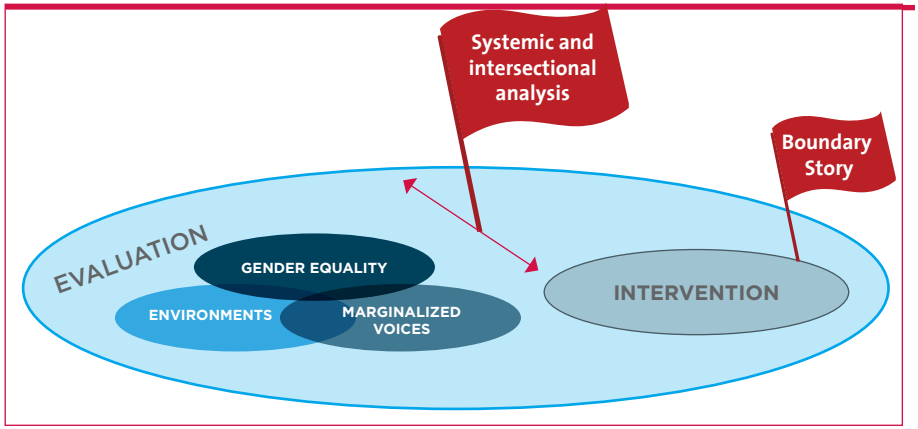
Defining the ideal boundary is about analysing the Boundary Story from the perspective of someone outside of the system looking in. It's a second-order systemic analysis where your own perspective is explicitly used to shape the ideal evaluation boundary. Keep in mind that your own perspectives can actively preclude or include points of view, so maintaining your reflective practice will be very important.

The overarching question you will ask yourself is: What should be contained within this evaluation boundary to enable a complex and robust understanding of the results of the intervention that includes information on the GEMs dimensions? **Tool 3**: Second-order boundary analysis provides a sample set of questions that can guide you through a second-order analysis of the Boundary Story—to shift from systematic to the systemic.

- What was missing from the Boundary Story that could be included in the evaluation boundary?
- Is the intervention nested or intersecting with other systems? Which ones? What types of networks have formed among these systems?
- How does the intervention interact with its context? How do they affect or change each other?
- Is there evidence of planned or unplanned results (positive or negative) related to gender equality?
- How can the evaluation increase the accountability of, and learning about, the impact on natural environments, species, ecological systems and integrated or coupled human and natural landscapes?
- How will it be used to improve intervention design to reduce marginalization in all its forms for social and environmental justice?

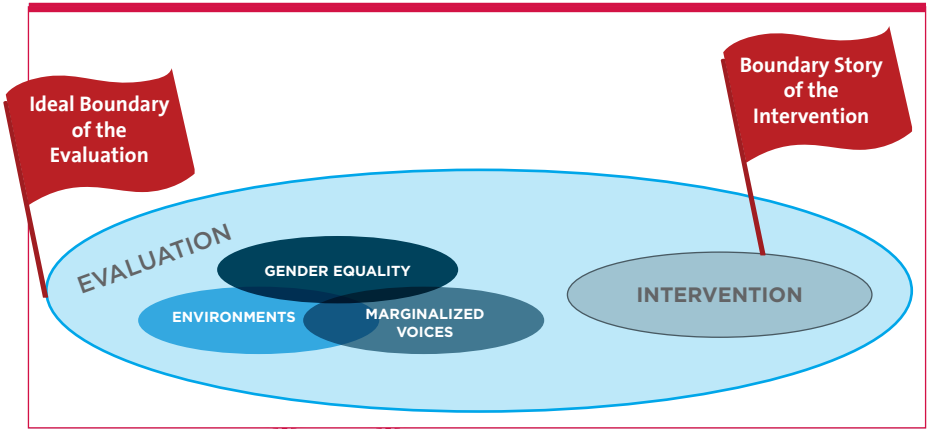
As you can see, central to this process is an analysis of the extent to which each GEMs dimension is relevant for inclusion in the evaluation. **Tool 3**: Second-order boundary analysis can help direct your thinking to answer "big picture" questions on the three dimensions.

Figure 5.3 Determining the ideal boundary of the evaluation



To do this step, reflect back on **Tool 2**: Stakeholder analysis to now complete the final column indicating who should be engaged in the evaluation and include any new stakeholders that were identified through your second-order and intersectional analysis. *Figure 5.4* depicts the final ideal boundary of your evaluation developed through your systemic and intersectional analysis.

Figure 5.4 The ideal boundary of the evaluation

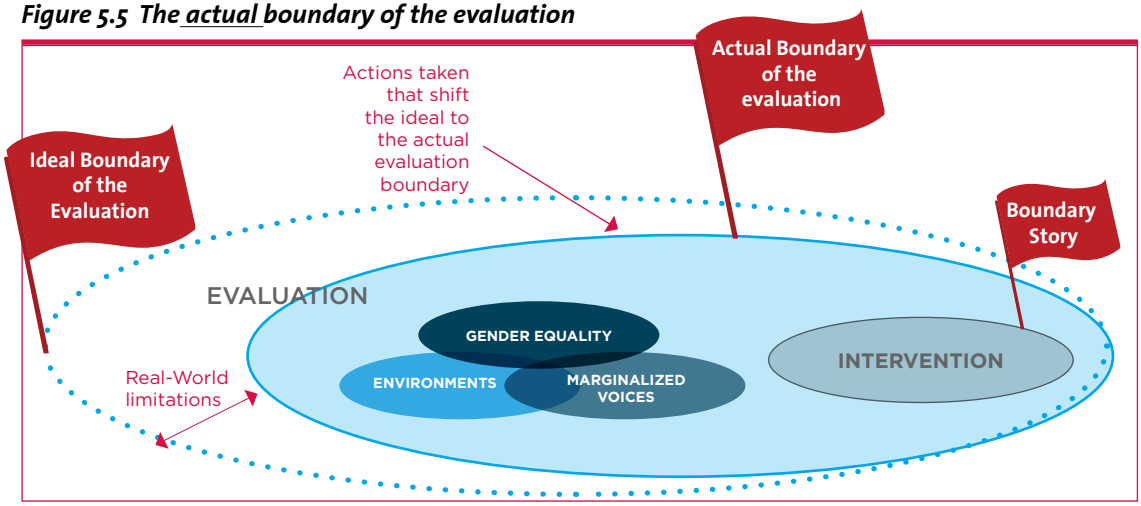


Define the actual boundary of the evaluation

At this point, you have noted elements that might be contained within an ideal evaluation boundary. To arrive at the actual boundary of the evaluation system, the real-world limitations (e.g., budget, time frame, ethical considerations, evaluability) need to be considered.[117]

To illustrate, *Figure 5.5* shows the intervention or the Boundary Story, the ideal boundary of the evaluation and the actual boundary. Your planning activities, resources, the capacity of people, location, choice of methods and many other decisions will determine the position of the actual boundary.

Figure 5.5 The actual boundary of the evaluation



117 Bamberger et al. 2012.

Here we focus on two actions important for ISE4GEMs that can help you shift from the ideal to the actual evaluation boundary: a **vulnerability assessment** of the identified stakeholders and an **evaluability assessment**.

Vulnerability assessment

Review the list of stakeholders selected through **Tool 2: Stakeholder Analysis** to participate in the evaluation. You now need to assess each stakeholder group or type to understand what vulnerabilities may exist among them and consider if it is possible to engage them ethically or not as discussed in **Chapter 4**.

You can use **Tool 4: Vulnerability Assessment** to help you determine if stakeholders can engage freely, if they need special accommodations to participate, if they have accessibility issues, or if participating has a high risk of creating harm. You may also want to identify more clearly the role of any gatekeepers in facilitating or creating barriers to gain access to other stakeholders. The assessment will be better if you can take into consideration the impact on participants before, during and after the period of the evaluation. *Table 5.2* demonstrates how to use **Tool 4**.

Table 5.2 Tool 4: Vulnerability assessment

GEMs dimensions	**Indicators of vulnerability at the intervention location(s)**	**Potential vulnerability within the evaluation process**	**Level at which vulnerability may be experienced** (e.g., community, household, intra-household)	**Proposed mitigation actions to reduce vulnerability within the evaluation process** (e.g., special efforts to encourage participation, ethical safeguards, empowerment)
Gender equality (Stakeholder: women and girls who are domestic workers)	Higher illiteracy rates for women and girls, as compared to men and boys	Illiterate women and girls' Inability to read evaluation ToR or other written materials may prevent more women and girls from participating in the evaluation or giving informed consent to be interviewed	Community and household— both in the homes of their employers and at home with husbands and families	Prepare video ToR or podcast in appropriate language to explain the evaluation process, for debriefing and for final dissemination, use graphics and visuals Visually depict the ToR and evaluation objectives
Environments (stakeholder: women and girls who are domestic works)	Environmentally hazardous materials in the workplace and within proximity of where women are living	Community members may not have time or health to engage with the evaluation process Women, children, the elderly and those already living below the poverty line may be more affected by exposure to toxic substances	Community, intra-household and household	
Marginalized voices (stakeholder: women and girls who are domestic workers)	Dominant perception that domestic work is not a profession, requires minimal skill or training, and is suitable for girls as well as women	Women and girls are discouraged from participating in evaluation through fear they may lose their employment	Community, household and domestic workplace	Special effort to engage with the Unions and recruitment agencies to engage with the women who were involved in the intervention, including their families

Evaluability assessment

Once you have determined which stakeholders can be ethically included, you can turn to the issue of evaluability[118] examining the extent to which an intervention can be evaluated in a reliable and credible fashion.

When these limitations are insurmountable (e.g., time allocated, data unavailable, inability to collect data without causing harm, fragile states), the evaluation boundary is adjusted to reflect this reality.

Here we focus on the evaluability of the GEMs dimensions, which may face special issues. For example, evaluations may have to consider different spans of time between what can be experienced or seen by human activity (e.g., days, months, years) versus the change that can be observed by environmental activity (e.g., decades, centuries). Other complexities may include geographical limitations (e.g., monitoring a creek but not the entire watershed).

Similarly, social interventions may not produce observable transformative changes in behaviour for several years after the intervention or be seemingly reversed by social backlash. Issues identified during the evaluability assessment can also support learning on how to improve future evaluability with the GEMs dimensions.

Tool 5: GEMs evaluability assessment can be used with your programme managers or key stakeholders. Sample questions of the GEMs evaluability assessment include the following:

- What should be assessed to provide robust analysis of the GEMs dimensions?
- What is the level of data available or can be feasibly and ethically collected against the GEMs dimensions (e.g., on environments landscapes)?
- Do the systems have discreet and knowable ecological landscapes (e.g., natural resources, places or assets)?
- Are there ongoing issues of contestation concerning ecological landscapes and sustainable development?
- What is the context within which the evaluation is being undertaken? What are the policy and sectoral boundaries (e.g., local, state, international)? What policy settings and sectors of the community did the intervention work with and within, or seek to affect? How was the social impact measured?

118 We also recommend Table 4 (pp. 57-59) of the UNEG Guidance on How to Integrate Gender Equality and Human Rights in Evaluation, which provides some possible approaches to addressing evaluability issues related to assessing gender equality and human rights issues, UNEG 2014.

- Cultural sensitivity and awareness: What languages are spoken? What is the ethnic composition of the population? What are the religious practices and observations? What are the beliefs and practices that must be understood and regarded with cultural sensitivity?

- What evidence is there of critical reflection on the initial boundaries of the problem and agreement sought from local participants and stakeholders that the intervention is warranted, ethical, and likely to produce an outcome that makes an improvement?

- Will the evaluation results support learning on transformational change and open up opportunities, or find limitations to build local capacities?

The gap between the ideal and the actual boundary of the evaluation should emerge after identifying the vulnerability and evaluability issues that the ideal boundary would face. This difference should be noted in the ToR or Inception Report for the evaluation.

Develop the evaluation design document

In Step 1 in this chapter, you developed a narrative to communicate the Boundary Story. In this step, you will develop a narrative to articulate the boundary of the evaluation within your evaluation design document (ToR, Inception Report, etc.) with the Boundary Story included as an important Annex.

The work undertaken during Step 2 should be reflected in the development of this narrative, including those issues and stakeholders that were relevant but removed from the scope due to ethics, feasibility or other reasons. The narrative should reflect and describe the rationale for selecting the ISE4GEMs approach, as well as the actual boundary of the evaluation decided upon and how it differs from the ideal boundary for the evaluation (i.e., what was excluded and why). This explanation will support final interpretation of the evaluation findings discussed in **Chapter 7.**

In ISE4GEMs, an analysis of the Boundary Story through a second-order analysis assists you in defining the objectives, use/users, criteria, questions and indicators, data collection methods, ethical safeguards, data analysis methods, capacity development opportunities and time frames. Step 3 below supports you in developing the design document and implementation plan for your evaluation using the analysis you conducted during this step.

STEP 3:
ISE4GEMS PLANNING AND DESIGN CONSIDERATIONS

TOOL 6: ISE4GEMs planning tool

Tool 6: ISE4GEMs planning tool is based on a commonly used evaluation tool but incorporates an ISE4GEMs approach. It enables you to work sequentially with others to develop and finalize the design and narrative of your evaluation, but also acts as an implementation plan once all elements are included and described as narrative. It can be included as an Annex along with the Boundary Story. The completed tool acts as a useful reference while implementing the evaluation (e.g., for coordination, communication, decision-making about necessary changes). The columns of the tool are listed below.

TOOL 7: Trans-disciplinary methods and tools

Column #	Field
1	Evaluation purpose, objectives and use
2	Evaluation criteria
3	Evaluation key questions
4	Evaluation indicators
5	Data collection methods and alternative methods (including data storage and management plan)
6	Data sources and stakeholders
7	Ethical risks and safeguards
8	Data analysis and interpretation for systemic triangulation
9	Capacity development and knowledge sharing plan
10	Timeline and resources

As there are many resources on general evaluation design (e.g., indicators, methods, ethics, etc.), we choose to focus mainly on what is useful specifically for the ISE4GEMs approach. Before moving into details of the specific columns, we share with you *Table 5.3*, which outlines some overarching design principles to consider at this stage.

Table 5.3 ISE4GEMs design principles

Design principle	Guiding questions for capacity building of the evaluation team
Phase I: Planning	
Build a collaborative co-evaluation team	Does the team include all relevant expertise, experience and other relevant "stakes" needed to tackle the evaluation in a way that provides solution options and contributes to knowledge sharing and capacity building of the individual, organizational and social/state level?
Create joint understandings	Does the team understand the systemic evaluation process, definition of the Boundary Story, the evaluation process, including the ethics of conducting the GEMs approach?
Enhance capabilities for and interest in participation	Is adequate attention being paid to the (material, intellectual, emotional) capabilities that are required by the participants? What plans or supports can be put in place to enhance their effective and sustained participation over time? What participation is there/has there been in defining the evaluation objective or questions? Is there common agreement on the range and scope of stakeholders and participants?
Design a methodological framework for collaborative knowledge production and integration	Does the team agree upon the methods selected? What training is needed to equip co-evaluators (i.e., data collectors) to confidently perform their roles and tasks during the conduct phase, including codes of practice and protocols?
Design and be prepared to deal with conflict	Do evaluations/co-evaluators anticipate and prepare for conflict at the outset, and are procedures and processes being adopted for its management and resolution if or when it arises?

Design principle	Guiding questions for capacity building of the evaluation team
Phase II: Conduct	
Assign and support appropriate roles for co-evaluators and evaluators	Are the tasks and roles involved in the evaluation clearly defined? Does the team employ or develop suitable settings for transdisciplinary cooperation?
Phase III: Data analysis	
Enhance capabilities through collective findings and analytical integration	Is data analysed in an iterative and participatory way that engages stakeholders and other participants? Are stakeholders engaged in the systemic triangulation framework to share their perspective, reflections and data?
Phase IV: Capacity development for social change	
Enhance capabilities through knowledge sharing	Can the evaluation's outcomes be integrated into the existing knowledge management systems or other bodies of knowledge? Does the team provide practice partners with products, publications, services, etc., in an appropriate form and language? How will evaluation outcomes be used to enhance stakeholder understanding of systemic and intersectional analysis?
Create social change	How can the evaluation outcomes be used to enhance systemic thinking and understanding of intersectionality among stakeholders?

Purpose, objectives, use/users *(Column 1, Tool 6)*

In considering how to frame the objectives and use/users of the evaluation, common questions asked include:

- Why is this evaluation being undertaken?
- What objectives and use will it serve?
- Who will be interested or able to use it and how?

Evaluation commissioners, evaluators and stakeholders all need clarity on these issues. Additional questions that respond to the ISE4GEMs approach that can be incorporated here include:

- Are there divergent views as to the objectives and use of the evaluation?
- Does the evaluation consider or attempt to reconcile different perspectives and needs of evaluative information?
- Whose voice was included or excluded in defining the evaluation boundary and within the boundary itself and why, especially in relation to the GEMs dimensions? Is there scope to advocate for more balanced power dynamics for decision-making related to this?
- Which GEMs dimensions (and their inter-relationships) are relevant to include in the objectives?
- Can identification of emergent issues be included as a specific objective of the evaluation?[119]
- Is there interest to develop an SToC and/or revised Boundary Story based on the evaluation findings? (see **Chapter 7**)
- Will the evaluation process and findings be used to develop capacity of stakeholders on systemic thinking and intersectionality of the GEMs dimensions?

Criteria and questions *(Columns 2 and 3, Tool 6)*

The selection of evaluation criteria can include traditional ones (e.g., Organisation for Economic Co-operation and Development—Development Assistance Committee criteria, humanitarian criteria) or those related to the GEMs dimensions.[120] The development of evaluation questions would seek to include systemic questions and those covering the GEMs dimensions based on an analysis of the Boundary Story. The selection of questions ideally also involves engaging stakeholders in an inclusive and participatory process.

119 Espinosa 2013.
120 UNEG 2014.

BOX 5.2

Tips from the field: Establishing criteria

A recent evaluation using ISE4GEMs was purposed with the task to provide an independent validation of the impact and sustainability of an NGO working in a region of Central America.

The evaluation was to be used by the organization to independently verify their perception of the accumulative benefits their organization was having, learn where programmatic gaps or failures were occurring, identify issues threatening their social and economic sustainability, and use the evaluation to support ongoing financial support for the organization's work.

In discussion with personnel, a Boundary Story was written. The creation of a Boundary Story gave the evaluators a sound understanding of the programmes managed by the organization, how they were selected and designed, the length of time these had been delivered, their cost and to whom they are directed. From here, the following core question was formulated: What has been the impact of [the NGO's programmes] on the people in this region in Central America?

Several other questions for the evaluation emerged:

- How has the NGO contributed to local transformational social change in the communities with which they work?
- Is the NGO sustainable into the future?
- Are the women they serve "empowered" by the NGOs activities in their lives?

A set of criteria and indicators were established to guide the evaluative decisions made and address the core questions.

The criteria cut across the interview questions and provided the scope for issues to emerge that fit within the GEMs framework, particularly in regard to the impact on women's equality, sustainability issues (which extend beyond mere financial capacity to include the environmental health of the region) and other voices that might be impacted by the activities but unknown to the NGO.

Criteria	Indicators
Diversity	Agreement that the majority of the cooperatives and most members within the cooperative have access to the programme
Effectiveness	Agreement that the programme effects the cooperative in a positive way for effective and genuine social transformational outcomes
Longevity	Longevity was achieved because there is agreement that the programme is warranted—with adjustments, amendments or adaptations if required
Sustainability	View by staff, artisans and board that the programme is viable and manageable in the foreseeable future taking into account documented ecological change to the region (e.g., deforestation, fresh water contamination, etc.); the programme brings substantive benefits that ongoing development and investment is desirable
Benefit	Agreement that the proceeds are distributed equitably between cooperatives and their members (and beyond to family and community)—financial, human capital accumulation, health, education and others; agreement that the accumulative impact of training and support has been to empower women

Source: ISE4GEMs practitioners

Evaluation indicators *(Column 4, Tool 6)*

Specific indicators are helpful to guide your data collection to answer each evaluation questions. Some guiding questions for indicator formulation in ISE4GEMs include:

- Will the indicators allow for capturing of emergence and evidence of inter-relationships and power dynamics?
- Are the indicators balanced in terms of incorporating each GEMs dimension to the extent each is considered relevant? Will any of the inter-relationships between GEMs dimensions be captured?
- Do the indicators track changes in behaviour and attitudes as well as the perceptions of people in their own process of change?
- Is it appropriate and helpful to develop the indicators in a participatory or consultative manner?

Gender-sensitive indicators have been the subject of development due to previous UN policy settings in international development, including the Millennium Development Goals. The challenge is to design a set of indicators that capture the difficult-to-measure aspects of power relations and change. The use of both qualitative and quantitative indicators are recommended.[121]

Now that a common set of global SDG indicators exist—and are being localized at the national level—these can be drawn on to support your indicator development. In addition, you can reflect on how your evaluation indicators may lead to the collection efforts of data that may be of value to broader data collection for monitoring, review or evaluation of the SDGs at the national or global level. **Chapter 8** will provide some suggestions on how evaluation data can be shared for this purpose.

121 Espinosa 2013.

Selection of data collection methods and alternative methods *(Columns 5 and 6, Tool 6)*

The selection of evaluation methods is one of the most important aspects of a systemic design. In the ISE4GEMs approach, the methods selected are meant to collect data and enable analysis for answering the evaluation questions that is guided by your selected indicators in a way that:

- Captures the GEMs dimensions and the interrelated complexity of relational and power structures that may be at the root cause of marginalization and gender inequality and trace change.
- Captures the interrelations between the component parts of multiple systems, particularly coupled human and natural systems.
- Supports the identification of emergence.
- Is flexible to allow for follow-up to emergent issues (if deemed relevant) and options when selected methods are not appropriate or successful in capturing the required data.
- Supports an ethical approach to stakeholder engagement and validity and rigour of the data as defined in **Chapter 4.**
- Allows for critically considering using parts of methodologies (rather than adopting whole ones)[122] .

Tool 7: Transdisciplinary methods and tools is a compilation of methods we found that may have compatibility with the ISE4GEMs approach for capturing data on the GEMs dimensions and systems thinking more generally. **Tool 7** is not an exhaustive list but a work in progress as we look forward to building our repertoire of skills and practices with ISE4GEMs practitioners.

The use of transdisciplinary mixed methods that enable integration of different data sets relevant to the GEMs dimensions allows for a more holistic and coherent story to emerge about the intervention that is inclusive of multiple perspectives and voices. Transdisciplinary methods include quantitative,

122 Mingers 2006.

qualitative, gender-responsive, environmental sustainability science, biodiversity conservation science, and methods developed specifically for marginalized groups (e.g., indigenous evaluation methods). The selection of methods can be guided by the following questions:

- Will the methods selected provide sufficient data from multiple stakeholders to assess the gender equality dimensions of the intervention? Will the harvested data allow for a nuanced analysis of gendered differences? How can the methods selected be designed to capture gendered identities? Are the analysis methods sufficient or appropriate for the data to be collected?

- Will the methods selected allow for data sets to be disaggregated and analysed by the diversity of relevant stakeholders' intersectional dimensions? Do they enable capturing voices of those who may be marginalized in the context of the intervention and their analysis?

- Will the methods selected allow for data to be collected and analysed on the environmental effects of the intervention accounting for socioecological outcomes that may not be evident, observable or even predictable, due to the time lags between human and nature interactions?

- Can these methods be designed and implemented in an ethical manner, especially in relation to the vulnerabilities identified during the stakeholder analysis (Step 2)? What safeguards or adaptations have been identified to ensure this?

- What methods are deployed that can capture and accommodate the contentiousness and variations of cultural valuation ascribed to species and landscapes, and the judgements humans make of the effect of an intervention?

- Have alternative methods been identified if the selected method is not possible to implement or proves to be ineffective in capturing and analysing the data as expected? (record these in Column 6)

BOX 5.3

Considering new technology-based methods

Data collection and analysis technologies are changing rapidly. The level of data that is publicly available through technology has increased. This has led to apps and tools being developed to monitor and harvest this data for analysis and use (e.g., "big data"). Data collection and analysis tools are now also making use of new technologies (e.g., crowd-sourcing, cell phones, social media and security cameras in public places). The evaluation community is exploring how to harness the potential data collection and analysis opportunities that big data provides.

Some potential benefits from an ISE4GEMs perspective include accuracy and efficiency in terms of time and budget. However, the use of such methods also contains risks (e.g., deepening the digital divide by further marginalizing those who do not have access to technologies, loss of privacy and confidentiality). As evaluation research usage of big data grows, we caution its use as a complementary mode of data analysis. The value of participatory research is unlikely to be replaced by such methods alone.

Data sources, stakeholders and data management plan and identified ethical risks and safeguards *(Columns 7 and 8, Tool 6)*

Once data collection methods (including alternative options) have been decided, you will identify the data sources and informants that will be able to provide you with the needed data to answer the evaluation questions. In addition to the use of common data sources, ISE4GEMs practitioners are encouraged to also look to unconventional sources.

The decision about which informants, witnesses or proxies will be involved in the implementation of each method is something that requires careful consideration. The focus should be not only on inclusion of diverse perspectives for each question, but also on appropriateness, cultural sensitivity and ethics. Together, these can be used to identify who will participate in the evaluation (and how) and support thinking through any modifications needed in terms of application of methods used or to forgo data collection with some identified participants.

BOX 5.4

Tips from the Field: Expand the application of ethics to also include local and indigenous knowledge

We were working with indigenous groups in Australia on the rehabilitation of indigenous people with brain injuries.

As a group of people who identify as white/caucasian, we were very conscious of the need for us to avoid exploitation, cultural appropriation or any reinforcement of negative, harmful or inaccurate stereotypes. We were also aware of the complaint that people's input was ignored and that communities were excluded from being involved in the final analysis.

We therefore took deliberate steps to engage indigenous elders and respected community health workers living in the rural and remote communities of Australia. We asked for permission to enter the community to do our field work. We recruited young indigenous students who taught us techniques to conduct our interviews with people living with brain injury, their families and caregivers. They learned, in return, about the discipline of evaluation research.

We learned about taking things slowly, listening carefully, and allowing those with the cultural knowledge to come to us when they were ready to trust us. When they gave us cultural knowledge, we asked for their permission to use this in our designs and reports. We returned again to share with them our findings and recommendations.

On some occasions, knowledge was not free. We needed to pay people for their time as they were not interviewees. They were consultants. They gave us so much feedback on how to make the rehabilitation services culturally responsive. They translated our questions, introduced us to families, drove us around.... went beyond the call of regular research consultees. This isn't stuff that comes out of books but was possible because of the time we had spent in showing them we were trustworthy and building genuine relationships. With their help, we used processes that did no harm and will benefit many people with a brain injury transition successfully from jail or hospital back into "Country" (their home communities in rural Australia) in the future.

Source: ISE4GEMs practitioner

Safeguards for protection of people, animals and places can be included in your evaluation design to maximize inclusion, while minimizing or eliminating potential harm. Below are some considerations for your planning:

- How will information be used and reported, and what mechanisms will there be to deal adequately with any harms that might occur?
- How will informed consent be obtained and confidentiality of participation safeguarded?
- How will you monitor any harm to participants after your interaction with them for data collection?
- Can you prepare a plan to manage inter-evaluation/team conflict that may arise?

The greater the risk to participants, the more evaluators must be certain that risks can be managed or that the participants clearly understand the risks they are assuming. In addition, having such a plan incorporated in the design of the evaluation supports reduction of potential conflict among diverse evaluation team members when implementing the methodology. Once all of these issues have been considered, record data sources and stakeholders in Column 7 and ethical issues and proposed safeguards in Column 8.

Finally, good data management includes developing effective processes for consistently collecting and recording data, storing data securely, backing up data, cleaning data, and modifying data so it can be transferred between different types of software for analysis. A data management plan outlines how data and associated materials will be managed, stored, documented and secured. All digital material needs to be backed up securely in file sharing or storage solutions (e.g., Dropbox, Google Drive, iCloud, OneDrive).

Ensuring data quality also extends to presenting the data appropriately in the evaluation report so that the findings are clear and conclusions can be substantiated. This can involve making the data accessible for verification by others while maintaining stakeholder confidentiality/anonymity, so it can be used for additional purposes, such as synthesizing results across different evaluations.[123]

123 UNEG 2014.

Data analysis and interpretation methods for systemic triangulation *(Column 9, Tool 6)*

This column should include the methods and processes that will allow for systemic triangulation of the data. These include data analysis and interpretation methods selected using **Tool 7: Transdisciplinary methods and tools**. For the full process of systemic triangulation, please see **Chapter 7**. The plan can try and ensure that

- Data analysis methods enable extraction of themes from the evaluation data, including those related to the GEMs dimensions and their interconnections .
- Interpretation methods are inclusive processes that enhance cultural validity.
- A decision is made on who will be involved in determining the final boundary for interpretation of results to develop conclusions and recommendations.

Capacity development and knowledge sharing *(Column 10, Tool 6)*

An ISE4GEMs approach asks you to develop an overall Capacity Development and Knowledge Sharing Plan (see **Chapter 8**) for the evaluation results. But what capacity development and knowledge sharing opportunities are available for the evaluation participants and members of the evaluation team?

During the evaluation process, you will engage with both individuals and organizations. As an ISE4GEMs evaluator, you understand that your interactions within the evaluation system affect it. Try and make this interaction a positive one. Consider that with each method selected, opportunities arise to share knowledge and build the capacity of your participants and co-evaluators, as well as yourself (e.g., facilitation skills).

At the individual level, the evaluator can facilitate the attainment of new knowledge, skill sets and awareness among the stakeholders and participants of the evaluation. At the organizational level, the objectives of the evaluation seek to aid collective learning through knowledge contribution and sharing. Some questions are included below to guide your thinking on how to plan for this.

- **Who should be informed about the evaluation process and the decisions taken during the evaluation design stage?** For example, should the evaluation be announced on public radio? Should there be a press conference or other media event for local/national media? Should fliers be posted or passed out within the relevant communities in the local language?

- **What competencies will evaluators need to brush up on to enable them to conduct the evaluation?** Should a training course be undertaken on gender and evaluation? What reading is required to brush up on the concept of environments? Can the evaluator access blogs or discussion groups that focus on cultural sensitivity within the evaluation context? For example, before engaging with participants on a question related to gender, take a moment to ensure that you understand their definition of gender.[124]

- **What capacities need to be built by local stakeholders and participants to increase their informed engagement during the evaluation?** This may mean some skills training in data collection, analysis, systems thinking, etc. For example, if participants are to act as co-evaluators, ensure that you budget enough time and resources to ensure their skills development so they can play the role envisioned. Another example can be simply taking time to explain to participants concepts that they are not familiar with during an interview.

Although evaluating capacity development may not be part of the ToR, you may want to consider including some way of gauging capacity readiness or the ability for any group to absorb, understand, use and ultimately replicate the knowledge that has been generated.[125] Some potential methodologies include: "most significant change"[126], development evaluation[127], outcome mapping[128] and complex adaptive systems.[129]

124 E.g., see specific training methodologies and frameworks, such as gender analysis, values clarification and equity versus equality exercises. Some examples in Tool 7: Transdisciplinary methods and tools.

125 Morgan 2013.

126 Davies and Dart 2005.

127 Gamble 2008; Patton 2011; Patton et al. 2015.

128 Earl et al. 2001.

129 Morell 2010; Patton 2011; Pawson 2013.

BOX 5.5

Tips from the Field: Facilitation Skills

In the work I have done in India and around the world, I have found that one skill that needs attention is facilitation. NGOs often struggle with facilitation. It is much easier to provide information or hold awareness sessions. They tend to want to go in and provide solutions. Facilitation skills are important both in implementation as well as evaluation. Often there are power dynamics within the community and between the stakeholders so evaluators can facilitate these conversations. Evaluators roles are changing, and they often have to bring together multiple stakeholders. Strong facilitation skills can help them hold the space for authentic and meaningful conversation and discussion.

Source: ISE4GEMs practitioner

Timeline and resources *(Column 11, Tool 6)*

Evaluation planning also considers the resources (financial and human) and time frame for implementing data collection, analysis and reporting. To some extent, this has already been considered during Step 2 when contemplating evaluability, but it is good practice to revisit this after evaluation questions have been finalized, methods selected and data sources and stakeholders identified. Some questions that can guide this process are included below:

- Will the resources and time available allow for implementing the data collection and analysis methods as planned?
- Are the resources and time available adequate to implement the identified ethical safeguards required?
- What additional expertise may be required to ensure implementation of the plan, particularly the integration of the GEMs dimension?
- Is there a contingency available in terms of resources and time that will allow for flexibility to respond to emergent issues, the use of alternative methods or the need for multiple cycles during data collection?

The completed **Tool 6: ISE4GEMs planning tool** can support reconsideration by evaluators and commissioners on the resources and time frame required to conduct a credible and useful evaluation. This can lead to a shift in the placement of the actual boundary of the evaluation determined during Step 2—either reducing it due to further evaluability constraints or increasing it if additional resources and time are negotiated. Evaluators will also need to be creative in finding solutions when resources and time frames are less flexible, finding ways to work within these boundaries to still produce credible evaluations.

SELECTION OF EVALUATORS

ISE4GEMs practitioners ideally have some of the skills and competencies discussed in **Chapter 4**. *Box 5.6* contains a reduced set of potential requirements that could be included in the recruitment process.

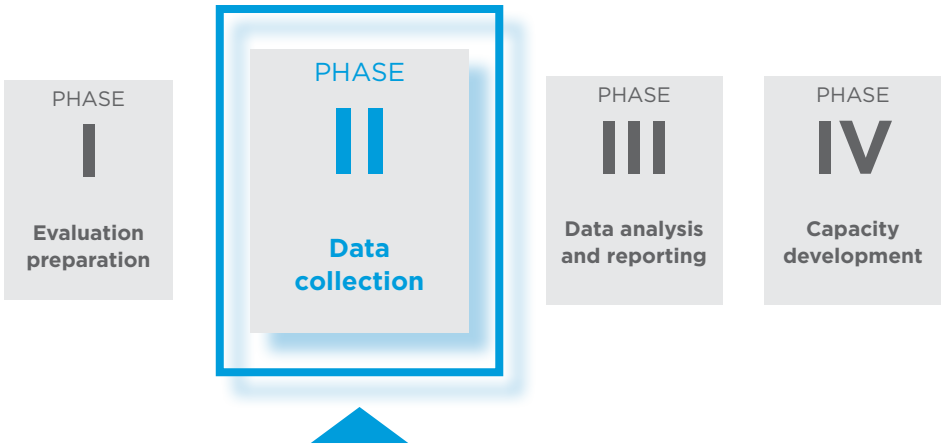
BOX 5.6

Skill sets required for an evaluation using the ISE4GEMs approach

- Knowledge of and experience in systems thinking, systems thinking evaluation, complexity evaluation, developmental evaluation and/or participatory approaches
- Knowledge in participatory practices and capacity development
- Knowledge and experience in feminist and/or gender-responsive evaluation and capacity to undertake gender analysis
- Knowledge and experience in human rights analysis and vulnerability analysis
- Knowledge and experience on environmental evaluation and human impacts on sustainable development, environmental issues and environmental landscapes
- Ability to act as a facilitator (as opposed to expert) within the evaluation process
- Strong negotiation skills and ability to liaise with diverse stakeholders
- Cultural sensitivity and experience with culturally responsive evaluation
- Knowledge of the local context
- Lived experience with local context

SDG RELEVANCE

Finally, you may also look to the global or national indicators to see how the data collected within the evaluation could support SDG monitoring and evaluation efforts at the country level to the extent relevant and applicable. You can add a column to the matrix to indicate if the information collected would contribute to better understanding of one of the SDGs.



CHAPTER 6

PHASE 2— DATA COLLECTION

- Step 1: First Data Collection Cycle
- Step 2: Second Data Collection Cycle
- Step 3: Debriefing meeting and practitioner reflection

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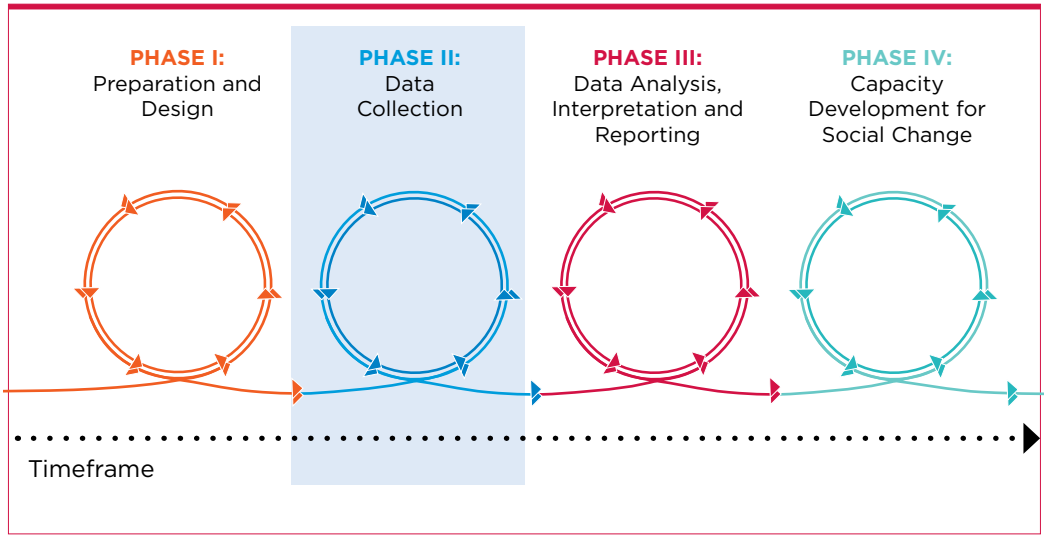
CHAPTER 6

PHASE II—DATA COLLECTION

Figure 6.1 Inclusive systemic evaluation action cycles—Phase II



You will now move to the second cycle of learning and action in your evaluation, which involves implementing your data collection plan detailed in **Tool 6: ISE4GEMs planning tool** for collecting data against the evaluation questions.

The hallmark of this phase is continuous reflection and adaptation on a number of levels that can be empowering for evaluators and participants alike and provides opportunities for sharing knowledge and contributing to capacity development. This is particularly true in terms of your application of transdisciplinary methods to address the GEMs framework.

> *The danger of collecting quantitative data without a foundational knowledge of the cultural complexity of the communities is that collection of such data usually implies a shared understanding of concepts.*
>
> *—Mertens 2014.*

During this phase, your evaluation boundary may shift often. It will be influenced by any

changes to the Boundary Story, stakeholder engagement plans and many other factors as new information is received and field realities are factored into your data collection plans.

Another thing to keep in mind is that the cycles of data collection against each method often run simultaneously. New cycles may be added where additional information is deemed to be highly relevant and a decision is made to widen the evaluation boundary. Each individual data collection cycle can be repeated until your data audit indicates that you have reached a point of data saturation—the point at which you identify no new relevant data will emerge despite continued application of data collection methods.[130]

The number of data collection cycles required to reach data saturation—and the number of cycles actually feasible to complete during this phase—will be determined by a range of factors, such as:

- Time, budget, political, physical or environmental constraints.
- The boundary defined for the evaluation.
- Number and types of methods selected and stakeholders involved (e.g., participatory approaches may require more time to implement, allowing for only one cycle).
- Gatekeepers—both selected by you or imposed upon you—who may be allies or create barriers to your data collection efforts.
- Relationships and the level of trust and rapport between the evaluator, evaluation team, commissioners and participants.
- Material availability of data and stakeholders (e.g., lack of programme monitoring data, reliable population-wide government data, cultural constraints, stakeholders having dispersed or on vacation).
- Ethical considerations that may prevent further collection of data.

130 In social sciences, the term "data saturation" is widely used in qualitative methods to describe the moment when no additional information is attained from further informants.

A few points to keep in mind as you move through your data collection cycles:

- Establish a sound consideration of the context in which the evaluation methods will be used. This includes the geography, target populations, demographic characteristics and the cultural issues that might impact your effectiveness in collecting the desired data.

- Be flexible with the need to adapt methods to respond to ethical issues, emergence, etc., during implementation. This has been anticipated during your planning phase through consideration of alternative methodological options. Keep in mind that if a method places people or environmental landscapes at risk or disrupts their current state, the choice must be defensible in comparison to another method.

- Acknowledge that each method will have strengths, limitations and nuances that need to be considered in light of their added value for gathering data against the GEMs framework.

- Remember that each method selected has equal methodological value to the different data sets and avoid prioritizing one over any other.

STEP 1:
FIRST DATA COLLECTION CYCLE: REMOTE-BASED DATA COLLECTION

TOOL 6: ISE4GEMs planning tool

TOOL 7: Trans-disciplinary methods and tools

TOOL 8: Facilitators' field guide meeting planner

Check your boundaries

The nature of complexity means that things change. If there is a gap in time from when you finalized Phase I and began Phase II, some changes may have taken place that will affect your plan for collecting data, such as:

- A shift in time frame for undertaking data collection or need to accommodate previously unknown seasonal and religious holidays.
- New documentation or organizational decisions or changes since the design phase (e.g., change in organizational priorities).
- Socioeconomic, political or environmental changes (e.g., a natural disaster, outcome of elections) in a country that may affect the status of stakeholders (e.g., creating new or different vulnerabilities) .
- Change in availability of stakeholders, identification of additional stakeholders or changes in stakeholders' roles .
- Any emergent issues or unforeseen phenomena that are now able to be identified.

Before you begin collecting any data, it is good practice to review the Boundary Story, the boundary of the evaluation system, and the stakeholder analysis to make adjustments in reaction to any new information. The key questions to ask yourself are:

- Is there any new information that has come to light that may not have been available during Phase I that affects my boundaries and overall evaluation plan included in **Tool 6: ISE4GEMs planning tool**?
- In what ways can my plan to collect data be adjusted to incorporate any shift in boundaries or limitations to data collection?
- Do I need to make use of any of the identified alternative data collection methods?

BOX 6.1

Tips from the Field: Practitioner and community reflection - A joint endeavour

Reflection is a very integral part of our work, but many of us working in development focus more on our actions and forget this aspect. I deliberately include refection in my processes.

Individual reflection by the ISE4GEMs practitioner is important, and if they can introduce reflective practices at the community level (the NGO reflects, then the community reflects, and then joint reflection, etc.) you can decide actions on the basis of that reflection. This is something people don't give importance to, but we have found this to be very important because things constantly change. When I go back to do field work after even a break of two months, things have changed. They may not be really big changes, but they can potentially have significant implications. For example, we may have worked very hard with one government officer and really got him on board, but then he is transferred. We use collective reflection to ask: "OK this has happened, what should we do?""

Source: Gender and Evaluation practitioner and ISE4GEMs reviewer

Remote data collection

Most evaluations make use of remote data collection—data that can be collected while not at the field site(s). Some remote data collection usually takes place before going to the field to learn more about the context of the intervention before traveling to conduct field data collection. Remote methods are also used when it is not possible to access all or some of the intervention sites or stakeholders. As a process, remote data collection can help you:

- Establish relationships with key stakeholders in advance of field visits.
- Reach a wider group of stakeholders, including possibly some marginalized groups.
- Increase awareness of the languages, cultures and contexts within the boundaries.

The **Tool 7: Transdisciplinary methods and tools** includes a number of remote data collection methods, such as electronic surveys, polling, desk review, phone or Skype interviews, e-mail interviews, etc.

Finally, remote data collection may be the first cycle of data collection, but it is common for remote methods to be used in parallel to field-based data collection, and in the final cycle of data collection before moving to the data analysis stage.

Data audit of first cycle

Once the first cycle of remote data collection is completed, conduct a data audit to check if you have collected sufficient data to answer the evaluation questions using the remote methods or if you have reached data saturation at this point. The representation of the GEMs dimensions is a primary concern when auditing your data for quality, reliability and comprehensiveness. Refer to **Tool 8: Facilitators field guide meeting planner** and check for the following:

- **GEMs gaps:** Are there any existing data gaps against the GEMs dimensions? If so, can further implementation of remote data collection methods at this stage elicit information to fill this gap?

- **Emergence:** Have any possible emergent results arisen from the data collected that are not reflected in the Boundary Story? Is this emergence relevant to the GEMs dimensions? Should it be incorporated into the boundary of the evaluation?

- **Safeguards:** Have the methods and ethical safeguards selected been effective in eliciting information from stakeholders, including those with vulnerabilities? Are there any new vulnerabilities or ethical issues that have been identified during the data collection that should be addressed before moving forward with additional remote or field-based methods?

- **Stakeholders:** Has engagement with stakeholders during data collection led to the establishment of some trust or relationships that will facilitate additional data collection or allow for co-evaluation or co-facilitation methods? Who is able to support co-facilitation of the evaluation? Are you now more aware of power imbalances? If so, how can you counteract them? Do any of the stakeholders speak on behalf of specific marginalized groups within a larger community or group? Are there others with whom you could speak to better understand marginalized communities? Have participatory practices been used to support stakeholders' capacity development?

Conducting this data audit leads you to making a determination on if data saturation has been achieved on one or all aspects. Your answer to this will help you decide if there will be value in implementing another cycle of data collection using these remote methods or if it is time to move forward to your second data collection cycle. In either case, it is important to reflect on what you have learned so that you can apply it to improve your data collection efforts in the next cycle. This step may be continued until you conclude that this first cycle of data collection is complete.

STEP 2:
SECOND DATA COLLECTION CYCLE: FIELD-BASED COLLECTION

The second data collection cycle is commonly field based and involves your visit to one or more of the intervention sites. This can allow for a more robust application of the ISE4GEMs approach given the more direct and personal interaction with stakeholders. You can directly observe stakeholders, interactions among stakeholders and the physical environments. You also have more potential to reach a different set of stakeholders, including those who may be marginalized or hard to reach. This is also the cycle with arguably the most opportunities for capacity development of both stakeholders and evaluators.

TOOL 6: ISE4GEMs planning tool

Check your boundaries, *again*

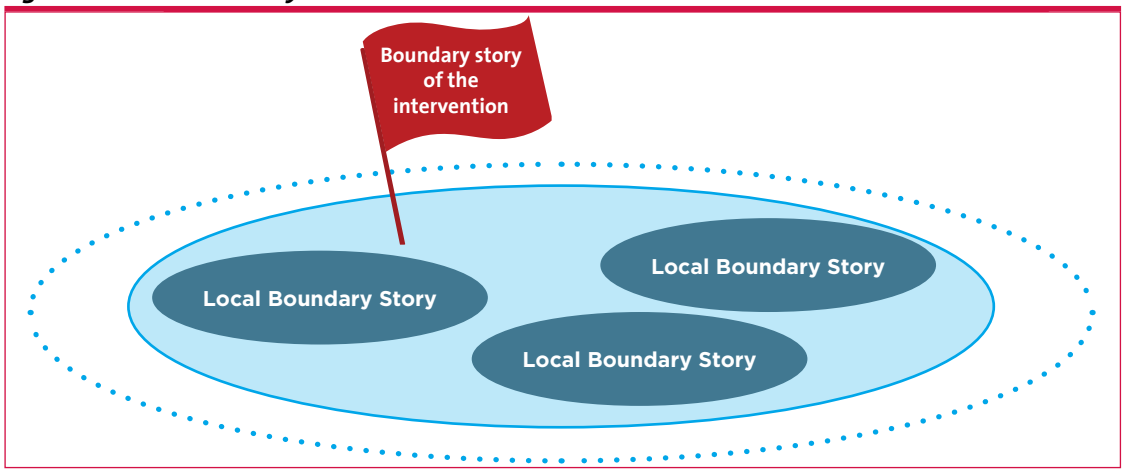
As with the first cycle, it is a good idea to start this cycle with another reflection on your evaluation boundary and your stakeholder analysis. Incorporate the new knowledge you have gained from the first cycle to make adjustments and take into account any additional information received on the conditions around the field visit. You may also need to adjust **Tool 6: ISE4GEMs planning tool** if it is helpful for your implementation of the remainder of this stage.

Local Boundary Stories for multi-site interventions

It is not unusual for organizations to implement development interventions across multiple geographic regions (globally), in several countries within a geographic region or in multiple sites within a country. These multi-site interventions are essentially interventions within an intervention, with each site operating as its own system—with its own local Boundary Story nested within the larger system of the broader intervention. Evaluating the broader intervention may then require comparison of the site-specific systems.

Each site will have its own Boundary Story and can be developed using the same process as you used to define the Boundary Story in **Chapter 5**, Step 1. Each Boundary Story is likely to have its own character, limitations, enablers, stakeholders and emergent outcomes, as well as commonalities across the sites. *Figure 6.2* depicts local Boundary Stories nested within an intervention and the overall Boundary Story.

Figure 6.2 Local Boundary Stories in one intervention



The advantage of considering multiple Boundary Stories is that a more nuanced systemic picture of the intervention system can be built. It may be possible to triangulate the outcomes of each in your analysis phase (see **Chapter 7**) within one overarching Boundary Story. The intersectionality of the GEMs dimensions may be unique to each location and time horizon, and each location may have its own particular set of emergent outcomes. As ISE4GEMs practitioners, we are mindful that an "inquiry path" is constructed from the point of view of a single stakeholder or community. Therefore, it is limited because it can only go to the places that it sees.[131] Allowing for multiple paths of inquiry or Boundary Stories to evolve reflects a more realistic representation of the complexities within any given evaluation.

131 Burns 2007.

In the field: First briefing meeting

TOOL 6: ISE4GEMs planning tool

TOOL 7: Trans-disciplinary methods and tools

TOOL 8: Facilitators' field guide meeting planner

You have arrived at your field site (or one of multiple field sites) to collect data for your evaluation. Before arriving, you have communicated with local staff to make arrangements for your site visit, including collecting whatever documentation you could beforehand, reviewing lists of stakeholders and conducting some simple research on the local context to ground your data collection. You will likely have already received an agenda for your field visit with a list of sites and persons to engage with to collect data relevant to the evaluation.

While you have prepared for the visit and communicated with the staff to plan the site visit to the best of your ability, the first item on your agenda is a briefing meeting—your first opportunity to meet staff in person. People at that meeting may include programme staff, on-site evaluators, commissioners and local office staff, or other relevant stakeholders of the intervention and the evaluation.

The ISE4GEMs approach recognizes that there are many advantages of recruiting and building a co-evaluation team that includes local and indigenous evaluators. Ideally, an external evaluation team will have met the local office and programme staff during Phase I in a scoping visit to ascertain the evaluability of the intervention. In reality, evaluations are rarely that well-resourced. When an external evaluation team arrives in the country, this may be the first time they have met local evaluators and colleagues on a face-to-face basis.

This is your first opportunity to more extensively brief the team about the ISE4GEMs approach and the GEMs framework. It is also an opportunity to introduce the concept of a systemic evaluation and why mixed transdisciplinary methods are useful. **Tool 8: Facilitators field guide meeting planner** includes key concepts to cover in this meeting. It would also be useful to have copies of F*igure 4.1* The ISE4GEMs approach, *Figure B.1* The ISE4GEMs learning and action cycles and F*igure B.2* Stages of the ISE4GEMs process for people to review during the

meeting. The introduction of these tools is part of your capacity development activities and can be documented in **Tool 6**: **ISE4GEMs planning tool.**

The field site briefings can have a number of goals.

First, **build relationships** with the people who live, work and know the country and community in order to give the evaluation team a chance to become familiar with the culture in which they are working. The broad stakeholder groups are key actors in the success or failure of the evaluation and can be great thought partners for you and your team.

Second, **engage your thought partners** in the review of the evaluation plan. This will assist you in identifying gaps in your team's analysis to date and making changes.

Third, **develop the capacity of all the stakeholder participants**, especially in the area of data collection strategies. Note the skills, strengths and gaps of the co-evaluation team. What training and professional development are you planning to deliver, and can you deliver it? What skills, knowledge and local norms can they impart to your team?

Fourth, **review and re-assess the method(s)** selected to determine if they will be appropriate or if alternative options should be implemented. Ask yourself if the methods are:

- Feasible to implement?
- Inclusive of a wide set of actors and perspectives affected by the intervention?
- Able to harvest an appropriate sample size to allow for a robust gender, socioecological and human rights analysis?
- Able to be adjusted to suit the context and conditions of the location and the sociopolitical, cultural and environmental landscapes? How might tools be adapted or changed even if the method remains the same to integrate new and emergent information? Can questionnaires, surveys or electronic tools be adjusted for local context? Can the core question to guide data-set analysis be redefined to allow for meaningful disaggregation reflecting the intersections that matter in the intervention's context?
- Adjustable to make the methods and accompanying tools understandable to the local participants (e.g., local language, literacy, cultural norms)?

- Capable of gathering any evidence of social backlash of the intervention in a safe way for participants and members of the evaluation team (where concerns of harmful emergent outcomes can be foreseen)?

Other considerations you may review:

- Are you able to speak with the anticipated communities? Have circumstances changed that might cause them to be unwilling to participate?
- Do you need to consider new locations or different communities of people to visit?
- What are the ethical considerations and consequences the team needs to be aware of when implementing the methods?
- Is the evaluation effort going to place any individuals or groups of people in harm's way?

BOX 6.2

Tips from the field: Breaking visits into phases

It can be helpful to break field visits into phases:

- Start with training, capacity development and tool development with local evaluators.
- Ask local evaluators to field test instruments in between field visits and provide them with field-test questions to document this.
- Use virtual communication (e.g. Skype) as much as possible to touch base and discuss feedback in between visits.
- Develop plans to seek approval from local government and inform communities about the evaluation purpose well in advance of data collection. Use this as an opportunity to find out what matters most to them and include their questions of interest in the evaluation. If translators are needed, make sure they understand the concepts of ISE4GEMs so that they can explain them to stakeholders on your behalf..

Source: Evaluation practitioner and ISE4GEMs peer reviewer

As mentioned in **Chapter 5**, gatekeepers are common and very often have a role in supporting or deterring evaluators' access to people and places. Their perspective and interpretation of the context, capacity to introduce you and your team, ability to interpret the language and cultural norms, and increase the perception of your trustworthiness is important. But this is not always the case. If a gatekeeper inhibits or limits your access to people or restricts your movements, a considerable layer of interpersonal and structural complexity has been added to your task. What contingency planning have you done with your team to mitigate for obstructions and barriers? Could there be other gatekeepers that can support your efforts? How can gatekeepers be turned into constructive co-evaluators?

BOX 6.3

What if you can't conduct a field visit?

On some occasions, data collection is done entirely remotely. This may be due to travel restrictions to countries, timing, funding, etc. Your ability to observe is removed, and direct contact with participants of the intervention is limited to technologies such as phone, web-conferencing tools, discussion boards, email and even post mail.

- Engagement, relationship building, trust and capacity development may be more difficult. But while the data collection methods may be selected with these known limitations, transdisciplinary methods—in particular the use of qualitative methods—should not be dismissed because a site visit is not possible.
- Identifying local gender, environmental and human rights experts that can help train and prepare data collectors can save time and money. Input from people on the ground also helps ensure local contexts, cultural considerations and appropriate translations are used.
- Efforts to engage participants via phone or web conferencing, focus groups and one-on-one interviews, and the distribution of carefully designed surveys with self-selected options to participate online or by phone, could be used (although likely challenging).
- Ask yourself the following questions: Can locally situated informants be recruited to design and collect information about the intervention themselves? How can you assist people in developing these skills and capacity? What if you are not able to be there in person? What can be done using technology or trusted proxies on the ground?

Deploying data collection methods

TOOL 7: Trans-disciplinary methods and tools

Field-based work involves implementing the plans made and recorded in Columns 3-9 of **Tool 6: ISE4GEMs planning tool.**

If the methods that were selected in the Planning Phase I turn out not to be feasible or appropriate to implement, you may need to revert to the alternatives you have listed in **Tool 7: Transdisciplinary methods and tools.**

You may have to identify a new method or set of methods in the field, including improvising, or rapidly adapting to the context. There will be times where some data collection will not be obtainable. You may consider revisiting methods of remote data collection once field-based work is complete in a potential third data collection cycle.

Emergent sources of information

If emergent information is coming through the data collections, you may need to assess the potential importance of this and revise the methods you are using. Perhaps more time than you expected should be spent interviewing people in a certain place? Perhaps a new group of people have emerged that you had not anticipated talking to? Allow sufficient time and resources to collect new or additional information and update **Tool 6: ISE4GEMs planning tool.**

There may be questions about the feasibility of this, but this needs to be weighed against the missed opportunity of pursuing a new source of information that may lead to significant learnings about the intervention and its outcomes.

Data audit of second cycle

Review the suitability of the data you are collecting as it is being gathered by assessing it against the core questions of your evaluation. You may be able to start making preliminary judgments about the intervention. Questions for you and your team to review include:

- Do we have enough information? There are no right or wrong answers here. It depends on the strategies used to collect information, the depth and richness revealed within your sample of respondents, and how you intend to analyse the data. Does the information reveal the power dynamics, circumstances of social change, evidence of transformational changes and sustainable development outcomes related to the GEMs framework?

- Can we start to paint a complex picture of the intervention from what we have? Has a picture of the intervention and its outcomes begun to emerge? What is being revealed about the impact and effects of the intervention? Is the Boundary Story (given or constructed) being challenged or reinforced? Are there gaps in information? Are there communities, groups or individuals underrepresented in the samples? Do collection strategies need to change to ensure their inclusion?

- Do we reflect different viewpoints? For complex socioeconomic and ecological interventions, strongly held opinions and points of view are common. People may not agree with aspects of an intervention—its purpose, objective or necessity—and may be angered by the influence or change it has brought into a community. The data collection needs to reflect as much difference in viewpoint as possible. Contrasting, contradicting and incommensurate differences may reveal a great deal about the management of the intervention, its accountability and learnings for future decision-making.

- Are there any feedback loops? What is emerging about the presence of social backlash to change? How prevalent are such views and what potential may they have to undermine perceived benefits to members of the community?

If data saturation is considered to be achieved, it is time to move to the next cycle. If not, then this cycle can be repeated until saturation is achieved or time, resources or availability of stakeholders cannot be overcome.

BOX 6.4

Tips from the field: Gathering data

"Data gatherings", "data parties", "data celebrations", "data jams", "data XYZ (naming something culturally relevant)"—basically, collective data analysis sessions can be helpful here. Presenting initial findings and asking diverse stakeholders "What does this mean to you—tell us in your own words?" can help collective analysis as well as problem solving. This can be done in a large group or first breaking into like groups and coming back together to present what was discussed.

Source: Evaluation practitioner and ISE4GEMs peer reviewer

STEP 3:
THE DEBRIEFING MEETING

At the end of your field visit, it is good practice to hold a debriefing meeting. This is an opportunity to share with the stakeholders and participants some of the preliminary analysis that has been revealed from the data collection and auditing process. It can be an opportunity to explore if your conclusions about data saturation were accurate, monitor stakeholder safeguards, and provide some information about next steps. In some cases, preliminary findings can be workshopped as well and learning about the relevance of GEMs dimensions can be explored. Consider that separate workshops for groups according to their position in the local community may need to be facilitated (e.g., women only). Given issues of confidentiality, power imbalances and other local dynamics, you may need to debrief with stakeholders separately or remotely after leaving the site.

The debriefing meeting can also provide you with more information about what you need to consider for sharing evaluation results in an appropriate and culturally sensitive manner. Will you need to translate them into the local dialect? Will drawings be helpful to reinforce learning? Is some of the data sensitive to certain stakeholder groups? Will it need to be "sanitized" appropriately to ensure the information does not cause harm to human and environmental stakeholders? Are potential disruptions to cultural norms explained?

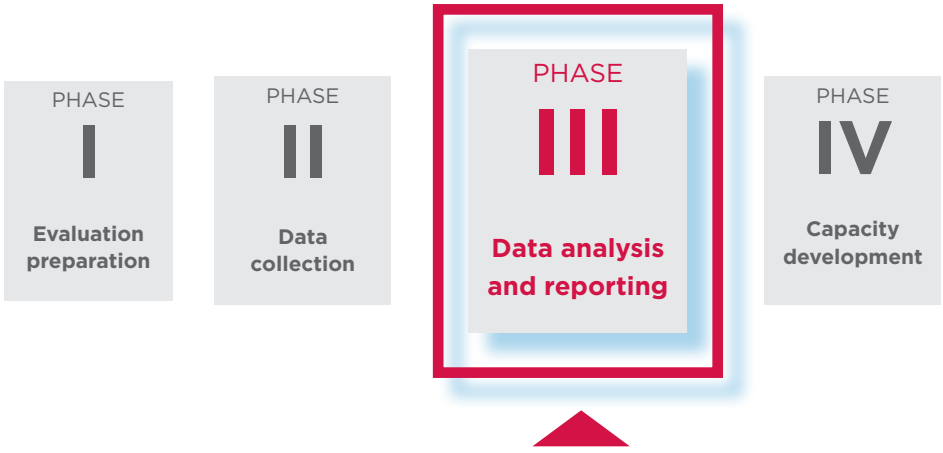
RECORD PRACTITIONER REFLECTIONS, LEARNINGS AND OUTCOMES

In Phase I (the first cycle of learning), we encouraged you to keep an observational journal. It is now time to add to your practitioner journal and record the reflections, learnings and outcomes of Phase II from your perspective and the perspective of those practitioners who participated in the data collection phase. Responding to what you encounter in the field requires continuous awareness and the need to review processes, adjustments and changes for each cycle of learning. This heightened reflection is a good practice.

The evaluators involved in this phase are called on to make important decisions about the implementation of the evaluation methodology in real-time—as it is being implemented.

Some questions to prompt your reflections could include:

- How did the GEMs framework deepen your data collection?
- Were any groups added that had not been considered in Phase I?
- Did you make any special vulnerability adjustments? If so, for which groups?
- Did the Boundary Story(ies) and boundary of the evaluation defined in Phase I require much adjustment? What did you learn about how to conduct boundary analysis?
- Are you satisfied that you tried to make participation in the evaluation more inclusive? Was there anything you would have done differently?
- Were ethical safeguards effective? Where or how could they have been strengthened?
- Was the method selection effective? If not, what other methods could you have tried?
- Did the experience lead you to confront or become aware of any assumptions and perspectives that you hold? How might this have affected the way in which you implemented the data collection?
- Have you identified any areas of practice where you need to strengthen your skills or experience for the next phase of the evaluation or future evaluations, including on systemic thinking and intersectional analysis? Do you have a plan for building your own capacity?
- Were there any entry points that you identified to build the capacity of stakeholders during this stage? Were you able to act on the opportunity? If not, how could you do so in the future?
- What were the key limitations to implementing the data collection?
- Which of these reflections, observations and learnings merit inclusion in the final report or in a practice note to be shared?
- Did you provide a safe and supportive space where the team could disclose their own value judgments of the participatory collection methods used?



CHAPTER 7

PHASE 3—DATA ANALYSIS, INTERPRETATION AND REPORTING

- Step 1: The Systemic Triangulation framework for data analysis
- Step 2: Develop the STOC and final boundary story (Optional)
- Step 3: Draft report conclusions and recommendations

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CHAPTER 6

PHASE III—DATA ANALYSIS, INTERPRETATION AND REPORTING

Throughout the data collection phase in **Chapter 6**, you have been undertaking preliminary data analysis. You were also attentive to the complexity of the intervention and you actively questioned the value of the data collected. This is likely to have helped mitigate against any major surprises, but it is not a panacea. A full and comprehensive analysis of the data must be conducted after the data collection cycles have been completed.

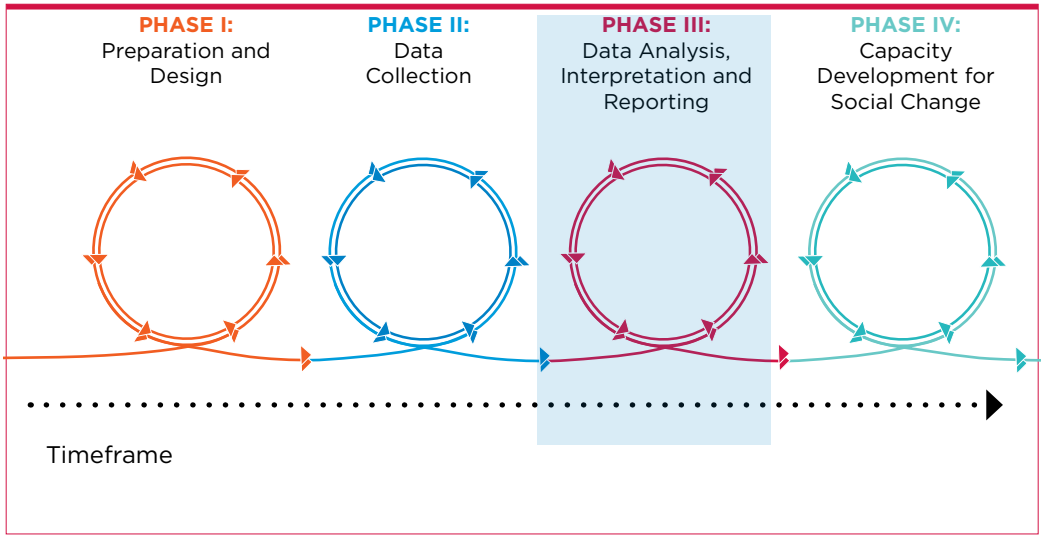
The focus of **Chapter 7** is on data analysis, interpretation and reporting. The objective of this phase is to extract evidence from the data collected and analyse and interpret these to be presented as findings, conclusions and recommendations. The evaluation results should be robust, valid and reliable in the eyes of the participants and stakeholders, as well as speak to the relevant GEMs dimensions within your evaluation.

This rigourous analytical phase involves:

- Developing findings, conclusions and recommendations through systemic triangulation.
- Building a comprehensive picture of the Boundary Story.
- Making meaning of the data and their intersections within the GEMs framework for reporting and knowledge sharing.
- Developing a SToC as a specific additional output of your evaluation.
- Reflecting on the validity of the ISE4GEMs approach.

In this phase, the GEMs framework is operationalized with customized tools to help you code for the GEMs themes, weigh the significance of these and interpret them (ideally) with participation from stakeholders.

Figure 7.1 Inclusive systemic evaluation action cycles□Phase III



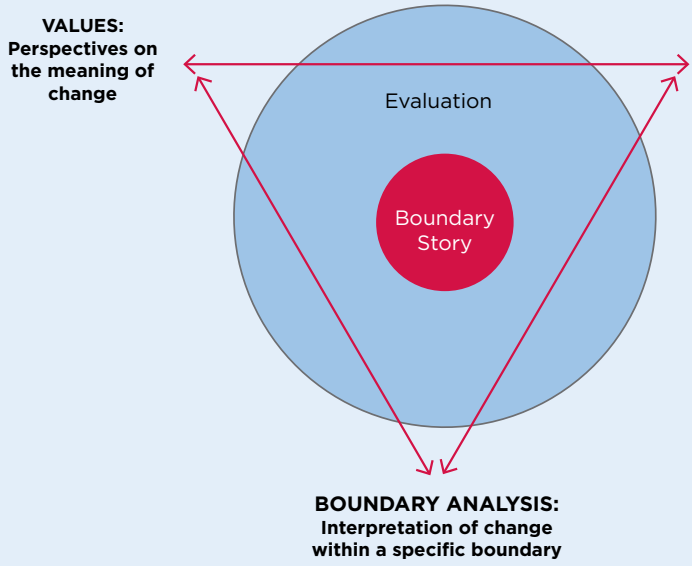
SYSTEMIC TRIANGULATION FOR ISE4GEMS

Data triangulation is commonly used in evaluation practice.[132] **Systemic triangulation** is not the same as data triangulation, but data triangulation can be included within its processes.[133] It involves inclusion of three important concepts related to systems thinking depicted in the corners of *Figure 7.2*.

132 By using three or more theories, sources or types of information, or types of analyses to verify and substantiate an assessment—by combining multiple data sources, methods, analyses or theories—evaluators seek to overcome the bias that comes from single informants, single methods, single observer or single theory studies. UNEG 2014.

133 The operationalization of systemic triangulation is adapted from the work of Reynolds 2015 and Ulrich 2003.

Figure 7.2 Systemic triangulation



Adapted from: Reynolds, M. 2015. (Breaking) the Iron Triangle of Evaluation. IDS Bulletin 46(1):71-86.

These are:

- **Concept 1:** Facts as findings and evidence of changes
- **Concept 2:** Values as perspectives on the meaning of changes
- **Concept 3:** Boundary Analysis as the interpretation of the meaning of changes within a specific boundary

The structure of this section is organized to support you to work through each corner of the systemic triangle to prepare the conclusions and recommendations of your evaluation report.

Concept 1: Facts as findings and evidence of changes

TOOL 6: ISE4GEMs planning tool

TOOL 9: GEMs data analysis

Reviewing the data analysis methods

Using data of unknown or low quality can lead to misinformed or harmful decisions. Quantitative and qualitative methods require data to be collated in different ways according to the purposes and objectives of their use. Your data management plan has hopefully ensured that your data is systematized, securely stored and has undertaken the process of "data cleaning"—finding and dealing with any errors that occur during writing, reading, storage, transmission or processing of computerized data. [134]

Once your data is cleaned, you can go back to **Tool 6: ISE4GEMs planning tool** developed during Phase I (preparation and design) to review the data analysis methods you selected (Columns 9).

It may be the case that method decisions were based on what type of data you expected to collect, rather than what type of data you actually collected. It's useful to take a step back and assess if these methods are still appropriate, adequate or feasible given the data now at hand. Consider the following:

- Is any of the data collected in danger of being under-utilized, especially related to the GEMs dimension and their interconnections?
- Do new or emergent data captured call for using different analysis methods?

This may require ultimately adapting your data analysis plan and the methods selected.

134 UNEG 2014.

GEMs data extraction

Extracting findings from data is a process of looking for patterns and summarizing themes. The analytical framework you use will be contingent upon your choice of method (e.g., quantitative or qualitative, inductive or deductive) and relative to the predominance of each GEMs dimension within your evaluation (e.g., socio-environmental, gender or a particular marginalized segment of a society).

While you will be extracting themes related to the specific context and subject of the evaluation, the ISE4GEMs approach suggests that you extract the GEMs themes and look for interconnections and linkages beyond the disciplinary dimension of your evaluation. To do this, you may:

- Assemble, de-assemble and re-assemble your data through literal and descriptive coding for theme-building.
- Integrate your codes against the GEMs dimensions.
- Analyse the re-assembled data using **Tool 9: GEMs data analysis** to evaluate the strength or weakness of the emerging themes.

Gender equality themes

Gender analysis methods and tools assist practitioners in extracting the gender themes from the data to support identification of:

- Major areas of gender-based discrimination and disadvantage.
- Inequalities and/or structural inequality that may prevent women, men, girls, boys, transgender or intersex people from participating in or benefiting from the intervention or other initiatives.
- Specific initiatives or steps needed to empower women, men, girls, boys, transgender or intersex people and remove barriers to equality.
- Disaggregation of results by gender and differentiated gender outcomes.

> *Gender impact assessment is the process of comparing and assessing, according to gender relevant criteria, the current situation and trend with the expected development resulting from the introduction of the proposed policy.*
>
> *—The European Institute for Gender Equality 2017.*

- Results that go beyond addressing practical needs and also support or contribute to transformation of structures or cultures for gender equality.

- The aspirations of women, men, girls, boys, transgender or intersex people .

Taking the goal of gender-responsive evaluation to be one of empowerment and transformational change, the ISE4GEMs approach advocates for participatory engagement with quantitative, qualitative and mixed-method analyses.[135,136]

Gender impact assessment (GIA) is a tool to help evaluators estimate the uncertain or emergent likelihood of the different effects (positive, negative or neutral) of a policy or activity in terms of gender equality. The central question of the GIA is: Does a law, policy or programme reduce, maintain or increase the gender inequalities between women, men, girls, boys, transgender and intersex people?

The aim of GIA is to improve ongoing intervention design and planning to prevent a negative impact on gender equality and to strengthen gender equality. GIA can also be used in a more transformative way as a tool for defining gender equality objectives and formulating policy to proactively promote gender equality.

The following are five steps used in the GIA process:

- Define purpose.

- Determine gender relevance.

- Undertake a gender-sensitive analysis to understand the present situation for all stakeholders and how the planned intervention is expected to change the existing situation.

- Weight the gender impact.

- Present findings, results and recommendations on how to eliminate negative impacts and how to enhance the positive ones[137,138].

135 Espinosa 2013.

136 See Rao et al. 2015; Moser 2012; Charmes and Wieringa 2010. Evaluators can also develop their own tool according to the subject matter.

137 The European Institute for Gender Equality 2017.

138 Other examples of guidelines on GIA: National Commission for the Promotion of Equality 2012; European Commission 1998.

Environmental themes

Socioecological analysis methods and tools can support identification of themes such as:

- The identification and attribution of value given to environmental systems, biodiversity, species or resources designated as significant to stakeholders.
- Unequal power dynamics, inequalities or oppressions that may prevent witnesses from speaking up to protect environmental systems or species.
- Participation and interest in environmental decision-making related to sustainable development and well-being.
- Understanding to what extent decisions are based on human or environmental time scales, with the former more often used as a reference point .
- Awareness of different geographic contexts that may result in some effects being visible in some areas while other effects may emerge much later in other areas
- Specific initiatives needed to cost trade-offs between forms of land and resource use .
- Stakeholder interpretations of the requirements for conservation and preservation of ecological systems, as interpreted by people speaking for the systems' sustainable biological well-being.
- Factors or results that promote environmental sustainability.

There are many methods and tools for conducting socioecological analysis. Techniques vary from subjective assessments of landscape quality by individuals or groups, to techniques using physical attributes of landscapes as surrogates for personal perception that draw on ecological sciences, geo-informatics, descriptive inventories, public preference models and participatory involvement that provide ongoing learning about sustainable habitat management, etc.

Environmental impact assessments are common in many countries. Consider how this environmental impact assessment checklist[139] could be modified to suit your purposes.

139 Modified from: Church of Sweden 2013.

- Is there a baseline to work from (i.e., the prior environmental situation)?
- Is it likely that that the project will provide positive contributions to environmentally sustainable development? Is there a risk that the project may have negative effects on the ecosystem and the environment? If so, can they be avoided or minimized?[140]
- How has the environmental impact been monitored during the implementation of the project?
- Have any changes in the climate been observed in the project area over time?
- Does the project contribute to climate adaptation or mitigation (e.g., support for renewable energy or strengthening of ecosystems)? What other negative and/or positive environmental changes did the project contribute to?

Marginalized voices themes

Marginalization analysis methods and tools will assist practitioners in extracting the themes related to marginalization from the data to find: [141]

- The degree of marginalization.
- Structural barriers to social participation, root causes and an analysis of the dynamics of power.
- Specific initiatives needed to empower marginalized groups, communities or individuals and remove barriers to equity and equality.
- The aspirations of marginalized groups, communities or individuals.
- Disaggregation of results/findings for identified marginalized groups.
- Identification of those changes that support or contribute to transformation of structures or cultures to reduce discrimination and increase inclusion and equality for marginalized groups.

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140 When addressing the first two points, take into consideration possible direct or indirect effects on people, flora, fauna, land, water, air, climate and landscape, material assets and cultural heritage and the interactions between them.

141 Social network analysis may also be used to support your understanding of relationships between stakeholders to extract themes. See https://www.rwjf.org/content/dam/farm/reports/reports/2013/rwjf409808

In the course of your analysis, ask yourself:

- Is there evidence that groups are affected differently by the intervention, considering age, ethnicity, religion, culture, sexual identity, gender identity, education, place of residence, ability, socioeconomic status, etc.? If so, can you code reasons why this happened?
- Can the data track where or why inequalities increase?
- Does the data capture evidence of any group(s) made worse off?
- How has the data captured any groups that did not participate in the evaluation?

BOX 7.1

Tips from the field: Coding data for GEMs themes

When we returned from two weeks in the field, we'd travelled 1,283 kilometres and met dozens of men and women to talk about training and employment. We had piles of notes and questionnaires and hours of recordings. Our first step was to get the recordings transcribed and the handwritten notes typed up. We then used a computer programme to code for themes, the three of us all having a go at an agreed set of transcripts. We then came together to compare what we had coded. We found that we were using different terminology to describe the same things. We therefore wrote a glossary of terms as we went along.

We coded generally about the local Indigenous people's participation in training in these remote villages. We then started coding references to women or girls as opposed to the men and boys. We then overlaid our maps and references to the physical environments in which people lived. We knew that isolation and remoteness from the city and town centres were likely to be an issue from our memos and discussions with people, but when we coded references from the transcripts and we coded references to changing weather patterns, we started to see a far more nuanced impact on people's capacity to travel. With an agreed set of codes, we then completed our coding of the raw data. We were then able to assess the relative strength or weakness of the emerging findings against the GEMs framework.

Source: ISE4GEMs practitioner

GEMs data analysis

Once you have extracted your GEMs themes, you can assess the relative strength or weakness of each theme identified in terms of evidence. Data triangulation is a useful technique at this stage for comparing, contrasting, verifying and substantiating various views and perspectives by combining multiple data sources, methods, analyses or theories. It also helps evaluators overcome the bias that comes from single informants, single methods, single observers or single-theory studies.

Tool 9: GEMs data analysis supports you in making judgements about each theme to determine what should be included, what should not be included, and how this may (or may not) be justified given the evaluation objectives, criteria and questions and commitment towards the ISE4GEMs approach.

BOX 7.2

Tips from the field: Using Tool 9 for GEMs data analysis

We came together again as a group after all our coding was done and used Tool 9: GEMs data analysis to workshop our findings. We read each question on the left column and then debated with each other the relative strength or weakness of what we had found. We found it useful to record the meeting, because it provoked thoughtful discussions about what we had seen, heard and collected in the data. We identified some gaps and devised plans to ameliorate those within the time frame of the project remaining. It helped us as a team really come to terms with what we had. We were beginning to interpret our findings. You could do this as a single researcher, but I'd suggest if you are on your own it might be useful to use this tool in a participant workshop. It was very helpful to be able to discuss the findings in this way with others.

Source: ISE4GEMs practitioner

Integrating the GEMs themes

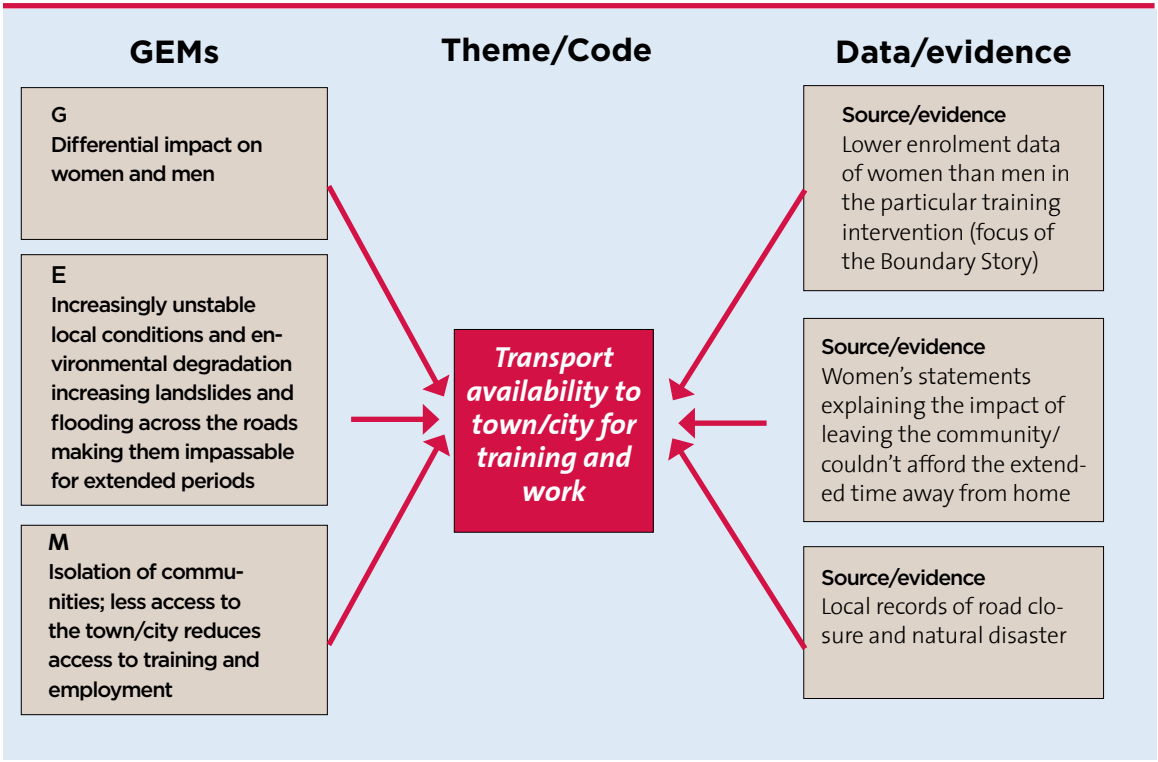
TOOL 10:
GEMs
integration

You have evaluated the strength or weakness of each of the GEMs themes and made a decision on which themes will be included in the evaluation results. You can now further analyse the interconnections between themes from each dimension and how they may be interlinked.

Intuitively, you may see the patterns that link the themes across the GEMs dimensions, however you need to make these explicit and support them with evidence. **Tool 10: GEMs integration** can support you in doing this.

The tool can be used by a single researcher or in a workshop environment (see *Box 7.3*). Central to the tool are the core themes. Like a mapping exercise, the relationships between the GEMs dimensions to the core themes, backed up by the evidence in the data, is recorded. The tool is shown in *Figure 7.3* and includes a brief example from an indigenous training and employment project evaluation.

Figure 7.3 Demonstration of the GEMs integration tool for analysis, taken froman indigenous training and employment program evaluation



Converting themes to findings statements

The themes identified to be relevant and supported by adequate evidence are those you would convert to findings statements. Those themes that provide evidence of interlinkages of the GEMs dimensions are of particular interest to include because of their possible contribution to learning about integrated change processes. While many conventional evaluations may proceed to develop the conclusions and recommendations at this point, in the ISE4GEMs approach, there are still two more corners (concepts) of the systemic triangulation framework to complete before finalizing your findings conclusions and recommendations.

Concept 2: Values as perspectives on the meaning of changes

TOOL 10: GEMs integration

The second corner (concept) of the systemic triangulation framework is "values" defined as perspectives on the meaning of changes. The relationship between the "facts" corner and the "values" corner is one of mutual shaping and reinforcement—facts shape opinions, opinions shape facts.

The facts and findings you have extracted so far can now be held up to interpretive analysis again with a cross-section of stakeholders. This implies a legitimization and validation process, as is common practice for many evaluations. In the ISE4GEMs approach, this process is essential for ensuring the validity and rigour of your evaluation. You will facilitate the interpretation of the facts and findings developed by a range of stakeholders, taking care to be as inclusive as possible. There are many ways in which this could be done, but we highlight two useful methods below by way of example.

Participatory data interpretation workshop

Participatory data interpretation is one way you can subject your initial facts and findings, developed from the first corner, multiple stakeholder interpretation with a range of perspectives. This can allow you to identify if different interpretations of the same findings and facts arise depending on the perspective.

> ***'Collective memoing' is a chance for participants to correct inaccuracies, to ask questions and clarify points of view. For the evaluators, it is an opportunity to explain how they have dealt with conflicting perspectives encountered during the process and how they have made sure to integrate the different sides of the story.***
>
> *—Yin 2016.*

The workshop is not about reaching agreement or making compromises. Data and preliminary findings are likely to have several possible interpretations, given the position, history and value-system of the interpreter. Differences of view need to be acknowledged and recorded (where it is safe to do so), and differences in views is an important finding itself about the intervention's results. In addition, participants are given the opportunity to understand how their input has been used and if and how it is being valued, which supports accountability and

transparency.[142] If the interpretation process for facts and findings is not extended beyond the limited perspectives of the evaluator (and the limited stakeholders with whom a draft report is shared), different possible interpretations may never be understood and the validity of the findings could be limited.

One possible method that could be helpful to use within such a workshop is "collective memoing". This is a participatory process of exposing the evaluation's early findings to scrutiny. It brings participants together to compare findings for similarities and dissimilarities, negative instances (where seemingly similar items are not) and rival thinking (the search for plausible rival explanations for initial observations).[143] Tools can be created for this purpose if there are general categories. For example, consider reproducing each theme identified in Tool 10: GEMs integration tool and add to it a section for collective interpretation of the meaning and significance of that theme, as well as space for any gaps that may have been overlooked.

In collective memoing, the perspectives of others are considered legitimate for making meaning of the findings, and this moves analysis from the particular to the abstract.

Consider the following:

- Present the facts and findings in the appropriate format, place and language.
- Be aware that when circulating a document of initial findings for comment, this could be seen as the final analysis and may be distributed beyond the initial recipient list.
- Explain the analytical processes you used to arrive at the facts and findings and make available raw data (de-identified or made anonymous per the ethical protocols established) for scrutiny and challenge.
- Ensure the workshop space is inclusive, safe and facilitated in a way that promotes active, free and meaningful participation. Have staff or volunteers on hand to assist you in facilitating individual discussions or smaller interpretative groups.
- Revisit **Tool 4: Vulnerability assessment** and **Tool 2: Stakeholder analysis** completed during Phase I to guide planning.
- Conduct the workshop at the location(s) of the intervention if you are able. Alternatively, plan to train local facilitators and facilitate sessions with them via web conference, phone, radio, Twitter conversations, Facebook groups, etc.

142 UNEG 2014.
143 Yin 2016.

Overall, this process of interpreting the findings provides you with a more robust story of what actually happened as a result of the intervention by:

- Providing additional information about what change has taken place, why it has taken place and how it has taken place.
- Identifying systemic enablers or barriers of change.
- Uncovering perspectives about how success is defined and the desirability or usability in terms of the intervention's results, sustainability, replicability and value to all .
- Increasing the validity, veracity and reliability of the findings.

As a result, the findings and facts that you developed earlier will likely undergo revision and nuancing. There may even be multiple divergent findings reported about some aspects of the intervention. Your findings now have more validity and rigour to enable you to develop draft conclusions and recommendations, although you are not yet ready to move to the report writing stage. In the ISE4GEMs approach, there is still one last corner (concept) of the systemic triangle to analyse before final findings, conclusions and recommendations can be determined.

BOX 7.3

Tips from the field: Rechecking your data

In a recent ISE4GEMs process conducted in Central America, we returned to all six villages where interviews had been conducted earlier that year. We made our raw data available for our participants to review and put in place safeguards to protect anonymity and confidentiality. We also went through it systematically with the women from each village as a group who helped us to further interpret the data from their perspective.

These were welcome reunions in which we were able to discuss their data, check their translation and meaning, ask for gaps in the data and respond to questions about its potential use. Many of the groups of women noted that it was rare to meet evaluators or researchers a second time and were delighted that we had made the effort. From our perspective, we felt that together the analysis and interpretation of the data was not only more detailed and nuanced than what we understood after our first visit, but also provided more validity and credibility to the evaluation findings. The two sessions served both as capacity building on the importance of their role in evaluating their own data as well as acknowledgment of the self-empowerment skills they had achieved.

Source: ISE4GEMs practitioner

Concept 3: Interpretation of the meaning of change within a specific boundary

You have worked your way through the "findings" and "values" corners of the systemic triangle to develop a more refined set of findings, draft conclusions and recommendations that hopefully improve understanding of the different change processes set about by the intervention—both positive and negative. The third corner of the systemic triangle involves another layer of interpreting the meaning of these changes within different boundaries—a final boundary analysis to decide on the most relevant evaluation boundary within which to anchor the final results of your evaluation.

This calls on you to analyse your evaluation findings, conclusions and recommendations through a systemic lens, which may require adjusting and refining your conclusions and recommendations. Recall from **Chapter 3** the distinction between systematic and systemic analysis and its relation to the concept of first and second-order judgments.

The process can be undertaken by the evaluator alone or ideally in a participatory manner with stakeholders. It's a good idea to make the final boundary for interpretation explicit within the final report as it is at the core of the systemic approach you have chosen. The process can also be expanded to develop an SToC and/or a revised Boundary Story.

- **First-order judgments are systematic.** They break-down a system into components or particular dimensions to determine its purpose, functions, key actors and location. The answers to these first-order questions are very often static, assuming systems are given and reliably fixed. Systematic thinking may not move beyond this level of analysis.

- **Second-order judgements are systemic.** They consider the systems as a whole, recognizing the component parts but asking questions and observing the relations between them. Second-order questions are "how" and "why" in terms of the whole system. They provide a level of analysis that clarifies the systemic, interrelatedness and intersectionality of a system and the broader social and environmental context—including cultural, philosophical, political, ethical, emotional and ecological forces, as well as power dynamics that are very often in dynamic change.

So, how can you determine if you are interpreting your findings within the most relevant boundary? This last step requires identifying the overlapping and nested systems in which your findings interact. The key aspect to hold in mind when conducting this analysis is: How might the findings change when the placement of the boundary of interpretation widens or narrows?

For example, if you have been evaluating a community-level intervention, are these findings only relevant at the community level, or would their meaning and interpretation change if you viewed it from the provincial or country level or within a human versus environmental time scale? The findings might appear positive if you only consider the community where the intervention was conducted, but it could be interpreted negatively if there were environmental effects in neighbouring communities (or vice versa). Similarly, positive findings in terms of human impact could be found, but taking a moment to interpret the findings within an environmental time scale may produce a less positive interpretation (or vice versa). We often see that short-term gain within a human time scale may have several negative consequences in the more long-term environmental time scale.

The placement of the boundary requires some subjective reflection by the ISE4GEMs practitioner (and any stakeholders engaged in this step) on what is relevant and important for the stakeholders of the intervention—keeping in mind the power dynamics, the prioritization of the GEMs framework, and what will be most useful within the context. Again, this process should be done in a participatory manner wherever possible.

Within the ISE4GEMs approach, this step back to reconsider the boundary within which you are interpreting your findings is crucial. It can allow you to produce more nuanced and complex conclusions and recommendations that may be neither fully positive nor fully negative but will be responsive to and acknowledge the complexity of the change processes emerging and enable more informed decision-making about the trade-offs being made. This can lead to a different way of reporting findings and can influence the way in which interventions are designed.

Developing a SToC

Before discussing how to develop an SToC, we share the following four considerations you may want to reflect on during the process.[144]

- **The process of theory development is important**. Theories are developed and revised periodically over time (e.g., feminist situational analysis, critical race theory, environmental rights analysis). They reflect the expertise of their authors: "some are best understood as individual efforts"—positions honed through years of careful study and reflective practice.[145] Theory can be recycled from past efforts deemed to work and others developed iteratively through dialogue among practitioners, theorists and stakeholders. Notice the power dynamics implicit or explicit in the parameters of the theory.

- **Examine the language used to express the theory.** Examine any use language, symbolism and metaphor in which power is communicated. Look beyond the rhetoric of intent. Theories using language of empowerment or emancipation should not be exempt from scrutiny.

- **Historical background is a dimension of cultural reflection.** The historical background of a theory adds a dimension of cultural reflection, as does the purpose and history of a particular theory.

> *Until fairly recently, theory was positioned almost exclusively in a white, male, heterosexual, academically educated, Eurocentric majority context.*
>
> —*Kirkhart 2010.*

- **Cultural location is a way to think about multiple intersecting identifications.** Cultural location is another way to think about the multiple intersecting identifications that position both an individual theorist and a piece of theory. The cultural identifications of the theorists themselves shape the theories they produce. Such information is vital to appreciating the cultural context of theory.

The findings of an evaluation are normally compared against the original intervention plan, log frame or (in a theory-based evaluation) the ToC for the intervention. In reflecting on the ToC, there may be conclusions and recommendations on how to refine it based on the learnings from the evaluation by comparing the espoused ToC to the reality-based ToC (e.g., "here is what we thought it was" and then "here is how it actually unfolded"). You may also examine

144 These are drawn from the work of Karen Kirkhart.
145 Kirkhart 2010.

to what extent the intervention used the ToC as part of an iterative process throughout implementation and if/how it evolved throughout the programme cycle. Ideally, interventions will have several iterations of the ToC that change with new learning. Where a ToC was not used, there may be interest to construct one using the evaluation results to support future design processes.

ToCs for interventions are very often developed and seen from a position located within the intervention, looking out, and remain to most extents a linear model. It makes use of a first-order set of judgments and often hypothesizes about what is expected to happen within a finite period of time. By limiting the evaluation to this interpretation boundary (time), you may preclude other important information coming to light or identifying a more relevant boundary for interpretation.[146]

STOCs are developed using a second-order judgment from a position outside of the intervention looking in.

A **systemic ToC or SToC** is established by asking a wider set of questions that more fully describe the change processes through different perspectives. SToCs are developed using a second-order judgment from a position outside of the intervention looking in. By viewing the change processes of the intervention from this position, you open up different possible boundaries for understanding change processes to determine the most relevant ones for consideration.

The SToC acknowledges the complexity of the change processes in a way that the ToC may not. As a result, your SToC is not singular but may contain multiple possible theories—the strands or predictions—of what types of changes have occurred, or might occur, viewed from a specific boundary and the perspectives it includes.

The SToC does not predetermine the change processes, which allows for openness to identify and incorporate emergence. It is a reflection on what changes happened, how they occurred, and how these changes were valued within a specific location. Changes may be seen and interpreted differently because of how they affect people differently, depending on their perspective and location (e.g., local, meso and macro levels, gender, ethnicity etc.). These may be seemingly contradictory and reveal the emergent outcomes as well as confirming or refuting particular theories that were (re)constructed.

146 See Garcia and Zazueta 2015 for a very good discussion of evaluations with "less apparent" impacts noted through the use of an expanded set of questions than the programme's ToCs may have allowed.

While it may be possible to synthesize the SToC narrative to a singular observable phenomenon, such an approach would not acknowledge the complexity of the Boundary Story. The following steps can help guide you to develop your SToC.

- **Draw from the documented ToC and/or evaluation results to develop the SToC. T**he language used to express a theory shapes the broader SToC—the issues to be considered and the answers to be sought. What process was used to develop the ToC? Does the theory speak of categories as if they are fixed constructions, or are they fluid concepts?

- **Identify the key stakeholders with an interest in, (re)constructing the theory of why and how change occurs in the context of this intervention.** What change processes would other stakeholders see as relevant and important to record?

- **Examine if the theories are locally situated or imposed from elsewhere.** If yes, in what time period did the theory get developed or come to prominence? What process was used to formulate this theory (e.g., academic theory, literature, evidence and experience from previous work, end-users or anecdotal experience)? In other words, does the SToC need to be understood in the context of its time? Has the theory been inclusive or exclusive of particular cultural identities? Do the learnings dispel stereotypes, call for further actions, or even, advance new theories to explain behaviour?

- **Make explicit if those developing the SToC assume an implicit model in regard to human systems?** In developing the SToC, note that there may be important subtleties in the orientation of change theories toward an intervention that matter, for example, the taking of a strengths or deficit-based perspective.

- **Consider how the theories can couple human and natural systems, while also recognizing that these time frames and spatial locations may not concur with the human systems under investigation.**

- **Compare and contrast the multiple theories and rival explanations—**what evidence was found that favours or dispels privileged theories? Might the theory look different depending on the values and perspectives of the interpreter? Do they overlap and say the same thing, providing a singular view of change (i.e., a conventional ToC)? Or with multiple perspectives and inputs, do they build a more nuanced view of change (i.e., a SToC)?

The SToC can be freed from the more traditional connection of a ToC to a specific intervention but have as its main focus a specific type of social change. We can then view the SToC as a learning tool to be constantly adapted and revised by multiple sources.

Developing the final Boundary Story

After completing the final analysis to determine the findings of the evaluation, you can reflect on and potentially refine the Boundary Story of the intervention with the evidence and learning from the evaluation process. This updated Boundary Story would reflect the final boundary decision made through the systemic triangulation process and include the SToC if one was developed. This is the new Boundary Story of the intervention, and it may have relevance for stakeholders for documentation and reflection purposes. Where the intervention will continue or similar interventions are planned, it has the potential to be useful as a programmatic tool.

REPORT WRITING, CONCLUSIONS AND RECOMMENDATIONS

The write up of the final report will reflect an explanatory mode of interpretation.[147] It is descriptive, yet it goes further than descriptive reporting. Evaluation is an effort to devote an entire study to unravelling and explaining how or why things happened.

At this point, the explanatory interpretation needs to be merged with the quantitative findings, desk-top studies, and literature reviews of the field to present an evaluation that is:

- Complete (all phases are written into the report)
- Fair
- Has empirical accuracy
- Adds value (what new contribution to knowledge does this evaluation make?)
- Is credible (how would the work be judged by others under peer-review?)[148]

An ISE4GEMs process will go on to make conclusions (key learnings and the significance of the evaluation) that raise the analysis to a higher conceptual level and make recommendations from what has been learned.

147 Yin 2016.
148 Ibid.

Lessons can be recorded about the application of the ISE4GEMs approach itself, so that a body of practice can support its further refinement. This can include lessons related to the application of the GEMs framework, boundary analysis for evaluation, the SToC, etc. You may also want to consider capturing the emergence from the evaluation process itself— such as any evidence of capacities changing as a result of interacting with the evaluation process (see **Chapter 8**).

Finally, when developing the report, you may need to take into consideration ethical questions. Recall *Box 4.1* of potential harms in Chapter 4: Social, physical and psychological harms, devaluation of personal worth, economic and legal harms. Has your evaluation practice threatened to produce harms? What actions prevented or ameliorated these or document the consequences of harms if perpetrated. Also consider:

- Is it appropriate to share authorship of the report based on the contributions of stakeholders?[149] Is there a risk to them if they are named?

- How did you draw into the analysis the "voice" of non-human stakeholders? Were the ecological systems considered in ways other than anthropocentric to the human social systems?

- In practice, were the boundaries chosen wide or narrow, including or excluding certain people and/or environmental entities, and were the reasons for these judgements appropriately justified?

Reflections on the validity of ISE4GEMs

Validity addresses the foremost question: Was the evaluation successful in measuring or finding the answers to that which it set out to do?[150] Further to this, you will reflect upon the evaluation approach itself. Determining if the evaluation was appropriate within its context is considered a systemic learning about validity.[151]

One criteria that can be used to reflect on validity is a review of its processes (e.g., data triangulation, participant workshops and presentations). Within the ISE4GEMs approach, reflecting on internal validity involves questioning the concepts used for evaluation, for example: Was the GEMs framework a meaningful way of interpreting the data in the eyes of participants and the evaluators? Was the evaluation useful and to whom?

149 Mertens 2009.
150 Kirkhart 2010.
151 Reynolds 2015.

Kirkhart's Culture Checklist was first introduced in **Chapter 4** and is reproduced here as Table 7.1. Her refocusing of culture for validity assessment of an evaluation is coherent with systemic evaluation and the GEMs framework. You and your team can reflect upon this checklist to report on the validity and rigour of your evaluation.

Table 7.1 A culture checklist

Nine considerations to improve the multicultural validity of evaluation	
History	History of place, people, programme (or other evaluand) and evaluation's role; knowledge of cultural heritages and traditions, including their evolution over time
Location	Recognizes multiple cultural intersections at individual, organizational and systems levels; cultural contexts and affiliations of evaluators and evaluand; geographic anchors of culture in place
Power	Understanding how privilege is attached to some cultural signifiers, prejudice to others; attention to equity and social justice; avoid perpetuating discrimination, disparity or condescension
Voice	Addresses whose perspectives are amplified and whose are silenced; maps inclusion and exclusion or marginalization; includes use of language, jargon and communicative strategies
Relationship	Connections among the evaluation, evaluand and community; relating evaluation to place, time and universe; maintaining accountability to community with respect and responsibility
Time	Calling attention to rhythm, pace and scheduling, to time both preceding and following evaluation; directing attention to longer impacts and implications—positive or negative
Return	Attention to how the evaluation or the persons who conduct it return benefit to the evaluand and the surrounding community, both during and after the evaluation process
Plasticity	The ability to be moulded, to receive new information, reorganize and change in response to new experiences, and evolve new ideas; applies both to evaluators and to their designs, process and products
Reflexivity	Applies the principles of evaluation to one's own person and work; self-scrutiny and reflective practice; underscores the importance of meta-evaluation

Source: Kirkhart, K. E. 2015.'Unpacking the Evaluator's Toolbox: Observations on Evaluation, Privilege, Equity and Justice□. New Zealand Council for Educational Research. Evaluation Matters'He Take T'Te Aromatawai 1: p. 21. Available at: doi:http://dx.doi.org/10.18296/em.0002

CHAPTER 8

PHASE 4-CAPACITY DEVELOPMENT FOR SOCIAL CHANGE

- Opportunities for Capacity Development
- Dissemination and Communications Methods
- Final practitioners' reflections

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PHASE IV - CAPACITY DEVELOPMENT FOR SOCIAL CHANGE

Capacity development is often at the heart of international development. The concept of capacity development has evolved over the years, and it is now seen as a more inclusive and reflective process than the prior term of "capacity building", which tended to imply a clear and detailed plan versus promoting adaptation, evolution, and growth through facilitation and participation.[152]

Despite its close connection to development policies, capacity issues are often at the core of policy failure in some sectors, especially in developing countries.[153] It is no surprise then that capacity development underscores the 2030 Agenda and that the SDGs have specific targets related to capacities included under Goal 17 on partnerships.[154] The emphasis and priority for capacity development under the SDG framework is to work in partnership to build mutual capacity. Lasting transformative change is understood to represent the efforts of many in a mutual and participatory learning environment sustained by capacity development.[155]

> ***Capacity development is a process of change whereby individuals and institutions can support the achievement and long-term sustainability of a development objective. UNDP defines capacity development as the process through which individuals, organizations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time.***
>
> *—UNDP Partnership with Global Fund 2017.*

There is also growing evidence indicating that the underutilization of evaluation findings in development contexts can be partially attributed to the "the lack of consideration of 'unpredictable development trajectories' or emergence, that results in too narrow of a focus".[156] Developing the capacities of evaluation stakeholders for systemic thinking and intersectional analysis can therefore strengthen the use of evaluation results, because these stakeholders have enhanced skills, strategies and knowledge to make discerning choices.

152 Chambers 2005; Horton 2002.

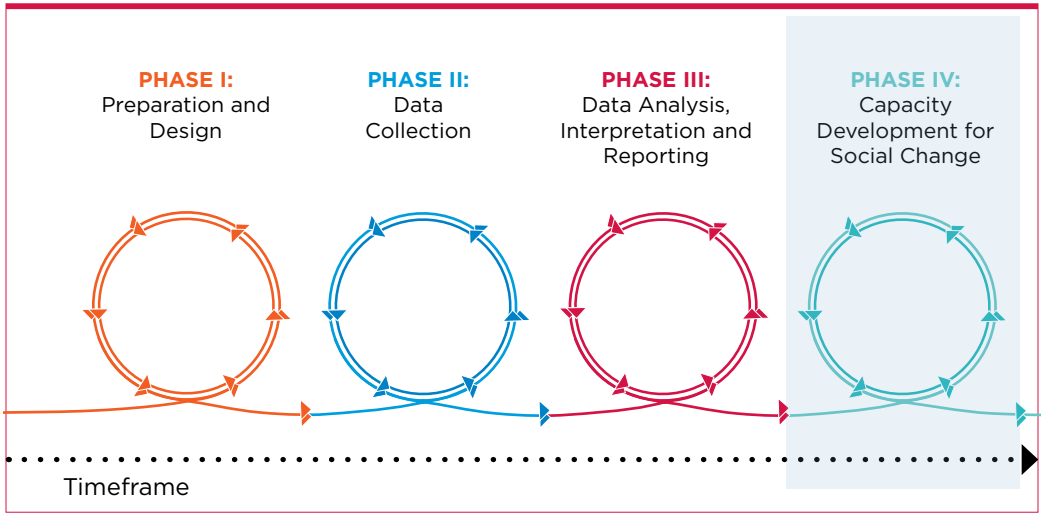
153 Isaza et al. 2015; UN General Assembly 2016.

154 I.e., Target 17.9 enhancing support for effective and targeted capacity-building in developing countries, 17.18 enhancing capacity-building support to developing countries to increase the availability of high-quality, timely and reliable disaggregated data and 17.19 support statistical capacity-building in developing countries; source: United Nations 2016.

155 Burns and Worsley 2015; Fetterman and Wandersman 2005; Mertens 2009; Patton et al. 2015.

156 Ofir and Kumar 2013.

Figure 8.1 Inclusive systemic evaluation action cycles□Phase IV



One of the key objectives of the ISE4GEMs approach is to support the global effort to achieve the 2030 Agenda and the SDGs. This is why capacity development[157] for social change underlies the entire ISE4GEMs approach. Other evaluation approaches encourage inclusive dissemination and communication of findings to empower stakeholders with knowledge. The ISE4GEMs approach goes one step further by viewing this phase of the evaluation as part of broader processes for capacity development.

While commissioners of evaluations have an immediate need to learn whether and how the intervention has worked and if the intended objective has been achieved, ISE4GEMs practitioners may also be interested to know if the capacities of stakeholders have been increased through participation in the process and include changes observed or identified within their report.

OPPORTUNITIES FOR CAPACITY DEVELOPMENT

Throughout this guide, there has been an emphasis on bringing participants into a dialogue about the changing landscape of the evaluation to collectively understand the interactions, dynamics and patterns played out during the intervention and in its aftermath. **Chapters 5** through 7 have included discussions on sharing knowledge, critical reflection on boundaries and reflective practice during each phase of the evaluation. You have been encouraged to make the most of opportunities to develop your capacity and the capacity of the stakeholders you engage with on systemic thinking, intersectional analysis, boundary analysis, evaluation, etc., during the process.

157 "The process of change that, both intentionally and indirectly, contribute to the emergence of capacity over time"; source: Morgan 2013.

Questions for your co-evaluators, participants and stakeholders might include:

- Do you understand the difference between systematic and systemic thinking and the value of each?
- Would you look at new interventions in your community differently now? What questions would you ask now before agreeing to participate that you might not have before our discussions?
- Do you have new understandings of the way systems interact with each other? How might they affect each other?
- Are you more aware of perspectives different than your own? Do you value including them?
- Do you have a better understanding of how gender equality, environments and marginalized voices can interconnect?

Table 8.1 Quick guide to key capacity development opportunities in Chapters 5 through 7[160]

Chapter 5	• Development of the Boundary Story to engage stakeholders in the generation and integration of local knowledge, boundary analysis and intersectional analysis • Continuous reflection on boundaries by evaluators and stakeholders in defining the ideal and actual boundaries of the evaluation to build systemic thinking, intersectional analysis and evaluation skills • Development of capacity development plan • Practitioner reflections
Chapter 6	• Opportunities to share knowledge through direct engagement of evaluators and stakeholders (e.g., introduction to new concepts and terms related to systemic thinking, prompting reflections on intersections in the GEMs framework, etc.) • Participatory data collection methods and auditing to produce representative data sets • Practitioner reflections
Chapter 7	• Participatory data analysis methods • Collaborative and consultative interpretation of findings (Concept 2 of the systemic triangulation framework in Chapter 7) • Interpretation and understanding of findings through a systemic lens and final boundary analysis (Concept 3 of the systemic triangulation framework in Chapter 7) • Developing an SToC (and revised Boundary Story) • Practitioner reflections

158 This table represents some, but not all, of the capacity development opportunities during Phase 1-3.

With the final report completed and available in whatever format(s) decided upon, your focus shifts to the broader consideration of how to share the knowledge gained and use it to develop capacities for planning, implementation, monitoring and evaluating interventions for sustainable development.

Review how best to share the results with your colleagues, stakeholders and possibly your participants. Ask how the different stakeholders are likely to receive the findings. How does your team want to share the information? Co-develop different engagement strategies based on the stakeholders' relationships with the work and what the changes might mean to them.[159]

Chances are the intervention's findings will recommend changes in the way the work has been done. For an ISE4GEMs practitioner, that means being aware of potential reactions (maybe even backlash) to the information that will be included in the report. Ask yourself: *How can staff be equipped to conduct, design and plan for feedback processes?*

Other ways to support the learning from the findings is to suggest the stakeholder groups form communities of practice—"groups of people who share a concern or a passion for something they do and learn how to do it better."[160] These could be self-organized meetings held by interested stakeholders along with programme officers to continue to review the findings and create action plans on how to institute recommendations changes.

In summary:

- How can stakeholders help you reflect on the wider systems they are part of to help identify key recipients that would benefit from or use the findings?
- Can the results of the evaluation be used as an input to country-led evaluation or national review processes for the SDGs?[161]
- What do the stakeholders recommend as strategies to communicate evaluation results to their broader system (e.g., translation, community meetings)?
- What are the bottlenecks to communicating results?
- What training might be needed to support stakeholders in the creation and practice of presenting the results to their spheres of influences and knowledge systems?

159 Cheung-Judge and Holbeche 2011; Patton 2011.
160 Wenger et al. 2002.
161 Please see UN Sustainable Development Knowledge Platform for guidance on conducting voluntary national reviews for the SDGs: https://sustainabledevelopment.un.org/vnrs. Also evaluation of SDGs: http://www2.unwomen.org/-/media/field%20office%20americas/imagenes/publicaciones/2017/06/eval-sdgs-web.pdf?la=en&vs=4007.

- What are the bottlenecks for strengthening capacities to use evaluation results to contribute to social change?
- When considering the potential interconnections between the GEMs and the resulting learning garnered from the evaluation, what opportunities are there to take actions towards social change?
- What are the potential systemic interconnects that may be unlocked with further capacity development initiatives?[162]

DISSEMINATION AND COMMUNICATIONS METHODS

Once you have reflected on these questions, you will select the dissemination and communication methods that will be most appropriate to support your efforts. There are many ways to communicate the results of an evaluation[163] covered in depth in other documents, so we will not repeat them all here.[164]

Table 8.2 contains a selection of useful strategies to support the uptake of evaluation results and the adoption and implementation of recommendations. Being creative, working with your stakeholders and understanding that dissemination of findings is a cultural practice itself, will help you develop appropriate dissemination strategies and communication methods for evaluation results that may also lead to more innovative ways to share knowledge for developing capacities.

> ***A few years ago, we worked with a team in Bangladesh on a project aimed at helping low-income dairy farmers improve their productivity. But problems arose when we realized many of the women we were working with were illiterate and could not understand the graphs we showed them.***
>
> *—Krause 2017.*

162 Isaza et al. 2015.

163 These can include commonly used dissemination events, such as public meetings, forums, posters, high-level meetings with policy makers, politicians, NGOs and civil society organizations, community groups, etc.

164 Alkin et al. 2006; Cairns 2016; Chevalier and Buckles 2013; Newcomer and Brass 2016.

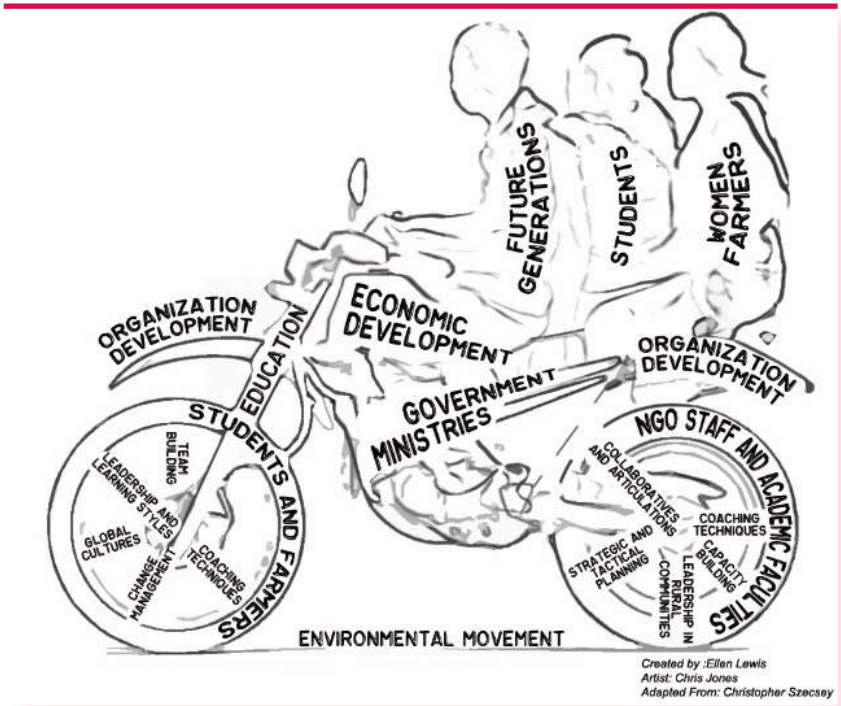
Table 8.2 Strategies for knowledge sharing

Feminist data visualization	Doesn't data speak for itself? On occasions, no. Feminist data visualization is premised on a concern that data analysis and data visualization are never neutral as culture is embedded into data at every stage. Data may need to be presented in multiple ways and the information regarding who, why and how it was collected made transparent.[167]
Local cultural artefacts	Make use of **local cultural artefacts** to depict complex findings from the evaluation. In Figure 8.1, a motorcycle (an essential mode of transportation in the country) was used to depict the complexity of stakeholders, goals and change strategies involved in an intervention.
Rich picture	A **rich picture** is a systemic tool used to explore, acknowledge and define a situation and create a mental model of what is going on.[168] It can help stakeholders visualize and depict the intervention system, results of the evaluation and the actions to be taken on the recommendations. It also makes use of artistic representations of the intervention system (and its parts), the potential changes to those parts in response to the evaluation, and can help stakeholders think through how the overall system will be affected by the proposed changes. There are no right or wrong answers—ideas can be grouped thematically, or you can look at causation and potential action steps towards improvement.[169]
Visual narratives	Present key elements of the report in a graphic or object with many different parts (e.g., a drawing of a house, tree, etc.). It is to tease out findings, conclusions and recommendations from the evaluation. The use of colour and varying design elements can be used to communicate information and provide an easy tool for stakeholders to share their learning with others.
Dramatic presentations	Findings, conclusions and recommendations can be presented in a script and performed as a play.[170]
World Café	A **World Café** involves hosting structured conversations on the evaluation results intended to "explore questions that matter, encourage everyone's contribution, connect diverse perspectives, and listen together for patterns and insights and share collective discoveries."[171] This method can generate a deeper understanding of the evaluation results by stakeholders and help them identify and prioritize how they will implement recommendations and the overall use of the evaluative learning.[172]

165 Krause 2017.
166 Stevens 2016.
167 Checkland 2000.
168 Lawrence 2014; Mienczakowski 2000; Mienczakowski and Morgan 2005.
169 The World Cafe 2017.
170 Brown 2005.

Photographic essays and exhibitions	This is a powerful communicative medium—showing images of places, people, flora and fauna. Photos may be taken by participants with a brief caption explaining their meaning. Other exhibits might have participants select from a collection the most significant images given a particular theme or question.
Podcasts	A podcast can be a one-off or series of digital audio or video files, which a user can download and listen to on a variety of devices. It is distinct from other mediums that may involve streaming or broadcasting, rather than downloading. They can be recorded by individuals or multiple communities and made available free or by subscription.
Community radio/talk show	Used throughout the world to further community development aims, community radio broadcasts content that is relevant to a community of social or geographical interest. Community radio is general not-for-profit and is an excellent mechanism in many places to enabling individuals, groups and communities to tell their own stories and share experiences. It is also a mechanism for evaluators to share the findings of their work, invite comment or recruit participants.

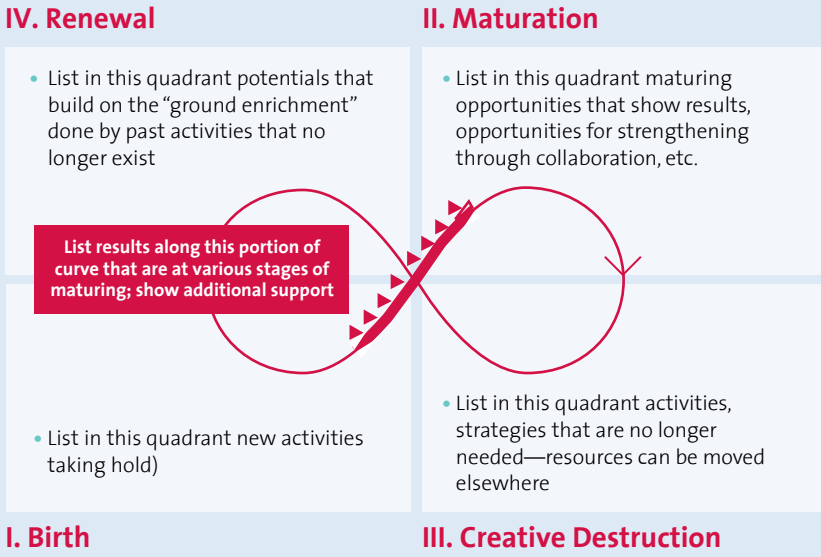
Figure 8.2 Contextualized graphic presentation of data



BOX 8.1

Communicating evaluation results by conceptualizing systems change using the forest ecocycle analogy

The biological ecocycle metaphor can be depicted as an infinity loop. The infinity loop shows that there is no beginning or end in living systems. The ecocycle can be thought of as having four stages: birth, maturity, creative destruction and renewal, as shown in the following figure:



The movement from the lower left Quadrant I to the upper right Quadrant II follows an 'S' curve. It is where we focus on strategic planning and systems for refining outputs and improving efficiency of interventions with the goal being to produce more mature or better outcomes. When working in this space, we all too often assume the rest of the infinity curve does not exist. We don't attend to the full life cycle.

Using this analogy, is useful to see that Quadrant III is part of a healthy living system. When we are in the midst of building, maintaining and sustaining something we value, it is hard to acknowledge that some structures and forms may have lost their vitality or become inappropriate for changing conditions and people. Yet, creative destruction is evident around us with destruction of both natural and social system structures.

171 The analogy is drawn from the following book: Zimmerman, B., C. Lindberg, and P. Plsek. 2001. Edgeware: Insights from Complexity Sciences for Health Care Leaders. Irving TX: VHA, Inc. With thanks to Beverly Parsons, PhD, for adaption and modification for use with an ISE4GEMs.

When a situation is in this space, the evaluation needs to focus on the healthy release of the aspects of organizations and structure, so they can contribute to rebirth—moving us through this difficult, but necessary, phase as we adjust to the new conditions of nature and societies. The evaluation attends to the potential creativity of this phase for innovation and renewal in Quadrant IV. Quadrant IV is about creating new connections and mobilizing resources and skills to create the next generation of effective living.

A healthy forest exhibits "patch dynamics"; it has all parts of the ecocycle in evidence concurrently. These patches, although untidy and disorganized, are needed for the health and long-term viability of the forest. They are also needed for organizations and societies.

Evaluators and leaders of initiatives can use the figure to place different pieces of information in the various quadrants to help them determine dominant features of their situation, to present findings and results, and to make future decisions about where to focus their evaluation questions and activities.

By grounding our work as evaluators in an analogy such as this, we can contribute to supporting the appropriate actions for a given quadrant. It helps avoid the unsustainable drive for living only in Quadrant II and helps us see that evaluation can be used to guide the dismantling as well as building of systems and structures.

FINAL PRACTITIONERS' REFLECTIONS

TOOL 11
Final reflections

The final practice of an ISE4GEMs evaluator is to reflect on the entire process—as a solo practitioner or with members of the evaluation team. Tool 11 provides some questions to trigger your thinking including the following:

- What worked well for you and why?
- What would you do differently?
- What was new to you as you worked through the GEMs framework and systemic evaluation processes?
- What personal biases arose that you need to be aware of moving forward?

AFTERWORD FROM THE AUTHORS

Thank you for welcoming us as your thought partners and allowing us to collaborate with you in your evaluation journey of learning, reflection and conversation for the benefit of gender equality, environments and marginalized voices.

We welcome continuing to be your partners in sharing ideas and experiences on the ISE4GEMs approach. We look forward to hearing from you about how this guide has supported your work and developed capacities within your orbit of influence. We also hope that you will contact us with questions, ideas or suggested improvements to ISE4GEMs.

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GLOSSARY

GLOSSARY

Assumption: An underlying belief that shapes a person's perceptions; a premise that is taken for granted to be true and not necessarily critically considered; the facts or conditions that are assumed to be true, enabling change to happen.

Boundary Story: A narrative (of an intervention) built on a comprehensive analysis that seeks to provide a holistic picture of what is within the "boundary" of an intervention to come to terms with its complexity.

Capacity and capacity building: Capacity is an emergent combination of attributes, capabilities and relationships that give rise to or enable a system to fulfill its potential to exist, adapt and perform. Core capabilities allowing this to happen would be: the capability to commit and engage; the capability to carry out technical, service delivery and logistical tasks; the capability to relate and attract support; the capability to adapt and self-renew; and the capability to balance diversity and coherence.[172]

Capacity development: The process of change that, both intentionally and indirectly, contributes to the emergence of capacity over time.[173]

Complexity science: The study of complex systems to investigate the relationships between parts that give rise to the collective behaviours of a system and how the system interacts and forms relationships with its environment.

Disruption: Impacts (planned or unplanned, anticipated or not anticipated) that could have ramifications for stakeholders, including the environment. For example, climate change could make major changes in the character of weather patterns and therefor in the abundance and variety of life they support in an agricultural project designed to create more food security.

Evaluation: An evaluation is an assessment, conducted as systematically and impartially as possible, of an activity, project, programme, strategy, policy, topic, theme, sector, operational areaor institutional performance.[174]

Environments: We use the term "environments" to capture both human-made and natural socioecological landscapes and systems. It includes human-made and built environments (e.g., towns, cities, recreational parks, gardens), natural ecological

172 Isaza et al. 2015.
173 Morgan 2013.
174 UNEG 2016, p.10.

systems (e.g., forests, mangroves, marine), and socioecological landscapes of great significance and importance to our well-being (e.g., farms).

Feedback loops: Feedback describes information returning to the original system as a flow of information, in and out of the system. Feedback loops represent elements of a system that "feeds" or provides information that can create either reinforcing (or positive) or balancing (or negative) feedback loops.[175] For example, teachers provide feedback to students on their assignments, which can in turn influence the production of the next assignment (positive feedback loop). As feedback loops link back to the system that created them, they stimulate change within the original system.

Gatekeepers: A person who controls access to something. Gatekeepers can have an informal or formal role but do not necessarily have a title that indicates that he or she fills that role.

ISE4GEMs approach: A systemic evaluation approach designed to support human-centered monitoring and evaluation in global development interventions. The approach provides practical recommendations to consider salient concepts including: gender-responsive evaluation, marginalization, environmental landscapes, power dynamics, emergence, participatory practice, plurality of method, and capacity building for lasting social change.

Gender: Gender refers to the attitudes, feelings and behaviours that a given culture associates with a person's biological sex and occurs across a continuum of possibilities. Behaviours that are compatible with cultural expectations are gender-normative; behaviours that are viewed as incompatible with these expectations constitute gender non-conformity. In most societies, there are differences and inequalities between women and men in responsibilities assigned, activities undertaken, access to and control over resources, as well as decision-making opportunities. Gender is part of the broader sociocultural context.[176] Other important criteria for sociocultural analysis include class, race, poverty level, ethnic group and age.[177]

Gender analysis: A systematic approach to examining factors related to gender by identifying and understanding the different roles, relationships, situations, resources, benefits, constrains, needs and interests of diverse gender identities.[178]

175 Sterman 2000, p. 108.
176 APA, 18-20 February 2011.
177 UNEG 2014, p. 56.
178 Brisolara et al. 2014.

Gender-responsive evaluation: Evaluation practices that prioritize gender dynamics and awareness of the social and cultural prescriptions that differentiate male and female roles and the collection of sex-disaggregated data and gender-sensitive information about the target population. A gender-responsive evaluation also investigates the impact of an intervention in light of gender stereotypes to ensure that discrimination against women and girls is not reinforced by the intervention.

Gender equality: The concept that all human beings are free to develop their personal abilities and make choices without the limitations set by stereotypes, rigid gender roles or prejudices. Gender equality means that the different behaviours, aspirations and needs of all people are considered, valued and favoured equally. It does not mean that everyone has to become the same but that their rights, responsibilities and opportunities will not depend on their gender identity.

Gender Equality Indicators: Quantitative gender equality indicators are numerical measurements of change. Qualitative gender equality indicators assess perceptions, beliefs or attitudes and how these change. Qualitative indicators may also focus on description and analysis of certain types of changes: for example, gender analysis of the content of training programmes, legislative changes or assessments of organizational capacity.[179]

Habitability: The degree to which a particular habitat or environment, whether natural or human-made, rural or urban, is hospitable to living things. For an ISE4GEMs approach, habitability also considers the hospitability of locations or situations based on gender. Women's and girls' traditional responsibilities include activities that make them more likely to be impacted by environmental hardships because the traditional roles as food growers, water and fuel gatherers, and caregivers connect them closely to available natural resources and the climate.[180]

Holistic approach: An attempt to look at the entire intervention's life cycles that consider the different components of an intervention and their interactions. Broad consideration of many perspectives, contexts and realities are included and design factors adjusted accordingly. For a GEMs approach, a holistic view identifies and incorporates feedback from local contexts and emergent information to help determine impact, as opposed to relying on a particular outcome or singular dimension to guide the process.

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179 OECD 2009.
180 UNEP 2016.

Inception report: Contains the final agreed design of the evaluation. It is a means of ensuring mutual understanding of the evaluator's plan of action and timeline for conducting the evaluation. It also provides additional guarantee of adherence to, and interpretation of, the ToR. Using a GEMs approach, an inception report will include broad stakeholder and bystander input.

Interrelatedness: To be connected in such a way that each thing has an effect on or depends on the other. In ISE4GEMs, evaluators actively look closely at the relationships between people, ideas, cultures, actions and consequences to those actions.

Intersectional/ality: The study of overlapping or intersecting social identities and related systems of oppression, domination or discrimination.

Intervention: Broadly defined as a project, strategy, programme, plan, policy, sector, theme, operational or institutional area, etc. designed to address a particular issue or set of issues within a community.

Lesbian, Gay, Bisexual, Transgender, Queer or Questioning, and Intersex (LGBTQI)[181]: Many terms exist and are used by individuals to understand and describe their sex, gender, gender identity and sexual orientation.

Marginalized voices: The process whereby people (e.g., the aged, youth, transgendered, ethnic, religious groups, disability, indigenous) or things (e.g., ecological systems) are pushed to the margins of a society and assigned a lesser importance. This is predominantly a social phenomenon by which a minority or sub-group is excluded or discriminated against; it is a form of acute and persistent disadvantage rooted in structural social inequalities.

Mixed transdisciplinary research: A research mode that represents multidisciplinary to interdisciplinary research methods with additional collaboration of multiple stakeholders from outside of academia.[182]

Monitoring: A management tool concerned with tracking the ongoing progress of an intervention using a consistent methodology.

Power imbalances/dynamics (social, structural and political): Determine whether an individual's actions and work translate into the realization of their rights

181 Amnesty International USA, 2015.
182 Siew et al. 2016.

and capabilities and can be implicit or explicit in societal systems or structural inequalities and exclusions. The participation of women in policy interventions does not automatically result in greater gender equality, especially if the structural foundations or inequality remain the same.[183]

Rationale(s): A brief statement that summarizes the set of beliefs, based on a body of knowledge, that underpin the process by which an intervention's intended outcomes will be achieved in the field.

Reflexivity: An ability to recognize the personal influence and the influence of our social and cultural contexts, the type of knowledge we create and the way we create it. It is about factoring ourselves as players, not mere observers, into the situations in which we practice.[184]

Resilience: The aptitude to recover quickly from adversity. In development and humanitarian work, the focus is to build capacity and support people to not only survive and recover from crises (e.g., natural disasters, financial and food insecurity) but to strengthen their abilities to respond to future events.[185]

Stakeholders: Those who are either involved in the decision-making process, affected by the decisions made, or not involved in the decision-making process but important for a successful implementation of decisions made.

Situatedness: The dependence of meaning (and/or identity) on the specifics of particular sociohistorical, geographical, and cultural contexts; social and power relations; and philosophical and ideological frameworks, within which the multiple perspectives of social actors are dynamically constructed, negotiated and contested.[186]

Social change: Variation in, or modification of, intrapersonal processes, patterns, interactions or structures as the result of widespread trends.

Socioecological landscape: A geographical space defined by coupling the study of the relationships between ecological systems and processes in the environment and particular ecosystems and human social and economic systems. It emphasizes the relationships between patterns, processes and scale, and focuses on broad-scale ecological and environmental issues. For a an ISE4GEMs

183 UN Women 2014.
184 White et al. 2006.
185 Smyth and Sweetman 2015.
186 Oxford Reference 2011.

approach, consideration is given to not only the protection and preservation of landscapes but also to the management and use of resources for better balance between people, animals, land and forests. A good intervention would enhance the management of resources by local communities in a sustainable manner.

Systemic: To be systemic is to engage in a critical and holistic analysis of the opportunities, constraints and relationships within a system—analysing the system as a whole.

Systematic: Something that is done systematically is done methodically in accordance with a plan. As a controlled process, it is reproducible. Systematic analysis also implies a thorough, predictable and controlled process that is essentially reproducible but may not consider all the interactive parts of the system and stakeholders.

Systemic Theory of Change (SToC): A Theory of Change developed through systemic analysis as part of an evaluation. It is an alternative to linear cause-effect models by providing a more robust (and uncertain) theory or theories regarding the changes expected by encompassing several strands or predictions of how the intervention is expected to produce transformational change. It is inclusive of the GEMs dimensions, inter-relationships and power imbalances, and potential emergence.

Stakeholders: Agencies, organizations, groups or individuals who have a direct or indirect interest in the development intervention and its evaluation.

Sustainable development: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and

- the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs."[187]

Sustainable Development Goals (SDGs). In 2015, 193 countries adopted the 2030 Agenda for Sustainable Development and its 17 SDGs. Over the next 15 years, with

187 World Commission on Environment and Development 1987.

these new goals that universally apply to all, countries will mobilize efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind.

Systems thinking: The fundamental idea of systems thinking is that reductionist cause and effect linearity is insufficient to describe complex, changing phenomena, which is recognizable and characterized by both the interrelatedness of its parts, and the emergence of properties that cannot be fully comprehended by the system's constituent parts.[188]

Thought partner: A thought partner is someone who facilitates learning with individuals and organizations. Being a thought partner relies on the skillful use of inquiry and reflection to build capacity of individuals and organizations by stimulating their thinking, assumptions, paradigms, and actions as a means to encourage innovation and transformation.

Transdisciplinary/transdisciplinarity: An approach to research that involves deep collaboration with others from academic and non-academic fields. It has commonality with participative approaches. Lang et al. provide the following definition: *Transdisciplinarity is a reflexive, integrative, method driven scientific principle aiming at the solution or transition of societal problems and concurrently of related scientific problems by differentiating and integrating knowledge from various scientific and societal bodies of knowledge*.[189]

Vulnerability assessment: A participatory process through which the risks, shortcomings or weaknesses in the capacities of people and institutions at a given location (or landscape) are analysed.

188 Flood 2010; Maani and Cavana 2000.
189 Lang et al. 2012.

ISE4GEMS TOOLS

ISE4GEMS TOOLS

Tool 1: First-order boundary analysis

Suggested document sources: organizational mission statements, strategic plans, programme/project documents, proposals and grants, ToC, baseline studies, monitoring data/reports, progress and donor reports, reviews or evaluations, etc.

ISE4GEMs Tool 1: First-order boundary analysis			
Project name:			
Questions to guide your first-order analysis	**Information**	**Record any changes (formal or informal), including when, how or why these changes were completed**	**Source (e.g., monitoring report, staff interview)**
What is the problem the intervention is trying to address?			
How was the problem identified and described? By whom?			
What prompted the decision to intervene to address the problem? Who was involved?			
How does the intervention expect to address the problem?			
What are its goals, objectives and rationale? Who was involved in developing them? What was considered? Who made the final decision?			
Was a stakeholder analysis conducted to inform the design of the intervention? How was it conducted and by whom?			
Was a ToC developed? If yes, please describe it? If not, can it be constructed?			

ISE4GEMs Tool 1: First-order boundary analysis			
Was there a monitoring system in place? How was data collected and at what intervals? Is there baseline data that is suitable for later comparative analysis?			
What are the expected results (outputs, outcomes or impacts)? How were these decided? Who was involved in the decision-making? What factors were considered?			
What are the strategies or activities selected to deliver results? Why were these selected? By whom? What factors were considered?			
What was the time frame allotted for achieving results?			

ISE4GEMs Tool 1: First-order boundary analysis			
Questions to guide your first-order analysis	**Information**	**Record any changes (formal or informal), including when, how or why these changes were completed.**	**Source (e.g., monitoring report, staff interview)**
What was the overall financial budget allocated for the intervention?			
Who was targeted by the intervention for inclusion? Any specific populations? Any vulnerable groups included? (Note: A more detailed stakeholder analysis will be conducted through Tool 2)			
Who is involved in the implementation of the intervention? What are the roles and responsibilities? How were these decided?			
How was implementation monitored? What indicators or methods were selected and by whom? Why were these selected? Who was responsible?			
Did the intervention pay attention to or address gender equality issues? How were these identified? What actions were taken?			
Did the intervention pay attention to marginalized or vulnerable groups? Was a vulnerability assessment conducted? If not, how were these groups identified? What actions were taken?			

ISE4GEMs Tool 1: First-order boundary analysis			
Did the intervention identify and address any relevant socioenvironmental issues (e.g., natural resources, places or assets important in terms of habitability of biodiversity)? How were these identified? By whom? What actions were taken?			
Did the intervention identify any interconnections in terms of two or more of the GEMs dimensions (gender equality, environments and marginalized voices)? How were these identified? By whom? What actions were taken?			
Were any uneven power dynamics identified? How were these considered and addressed by the intervention? If stakeholders had conflicting ideas, were these differences addressed and how? For example, what is the relationship between donors and other end-user stakeholders in the evaluation?			

Tool 2: Stakeholder analysis

ISE4GEMs Tool 2: Stakeholder analysis			
Questions to guide your analysis	**Information/description (e.g., what was each individual or group's role?)**	**Source (e.g., monitoring report, staff interview)**	**Include or exclude in the evaluation and why**
List the groups of stakeholders that were explicitly identified at the start of the intervention—especially those that represent GEMs stakeholders (e.g., donors, programme staff, gatekeepers, government agencies, community organizations, households, individuals, schools/academia, NGOs, multilateral organizations, private sector agencies). What was each individual or group's role?			
Which stakeholders had decision-making power regarding the design of the programme? Which were consulted for feedback?			
Name any additional stakeholders who were identified during the implementation process of the intervention. What prompted their identification?			
Have the stakeholders been disaggregated by gender identity? Were categories beyond male and female included?			
Identify any stakeholders also classified as marginalized or vulnerable.			
Name stakeholders who could be classified as rights holders and/or duty bearers.			
Who are the intended data sources for this information?			

ISE4GEMs Tool 2: Stakeholder analysis			
What were/are the relationships, and how do they vary by level of power? To what extent did the relationships change over the course of the intervention and what influenced those changes (e.g., social and economic empowerment, legal and social protection laws)?			
How has gender been defined? Are relevant gender identities or perspectives represented? Is a more inclusive definition of gender required?			
How will gender play a primary consideration in the planning, staffing, field locations, methods and participation throughout the evaluation's conduct?			
Describe the particular marginalized sectors or groups. Can they be included in the evaluation? Who is making those decisions?			
What special adaptations need to be put into place for people to safely participate (e.g., home visits, focus groups, use of technologies for anonymity and inclusion)?			
How can all affected people, communities and organizations be involved in the planning and design of the evaluation?			
If they were not a central focus, how will other marginalized groups be included as stakeholders?			

ISE4GEMs Tool 2: Stakeholder analysis			
Which people with local and/or scientific expertise or organizations can provide knowledge and representation of the socioecological landscapes of importance? Can agencies be included that are tasked with monitoring and supporting social change for human and environmental well-being (e.g., Medicines Sans Frontiers, the International Union Conservation of Nature)?			
How will structural and relational power dynamics that acted as barriers or enablers of participation for gendered and marginalized groups be identified and mitigated?			
What possible opportunities could inclusion provide to empower, build capacity, reduce marginalization or positively influence power dynamics?			
How will different perspectives and potential conflicts between stakeholders/groups be managed? What does this level of complexity mean for the evaluation?			
What are the barriers to inclusion related to feasibility, accessibility, harm and power dynamics? Can these barriers be mitigated ethically and efficiently with safeguards (e.g., home visits, focus groups, use of technologies for anonymity and inclusion)?			
How will structural and relational power dynamics that acted as barriers or enablers of participation for gendered and marginalized groups be identified and mitigated?			
What consideration about vulnerability assessment do they suggest? Do the stakeholders suggest questions to ask of the evaluation?			

Tool 3: Second-order boundary analysis

ISE4GEMs Tool 3: Second-order boundary analysis			
Questions to guide your analysis	**Information**	**Ideal actions to be taken**	**Source (e.g., monitoring report, staff interview)**
What was missing from the Boundary Story that could be included in the evaluation boundary (e.g., vulnerability assessments, gender analysis, human rights analysis, socioenvironmental analysis)?			
Who are the agents of interpersonal power dynamics and structures within the Boundary Story? How were these agents identified? Who or what agencies should be included in the evaluation?			
How does the intervention interact with its context? Is the intervention nested or intersecting with other systems? What types of networks have formed among these systems? How do they affect or change each other?			
Gender equality			
Can the evaluation increase the accountability and learning of how the intervention has affected or could better support gender equality (e.g., for women, men and/or transgendered people as defined and identified by the people involved/affected by the intervention)?			
Is there evidence of planned or unplanned results (positive or negative) related to gender equality?			

ISE4GEMs Tool 3: Second-order boundary analysis			
How will the evaluation be used to improve intervention design to promote gender equality?			
Environments			
How can the evaluation increase the accountability of, and learning about, the habitability of environments and socioecological landscapes for humans and flora and fauna (as defined and identified by the people involved/affected by the intervention)?			
Is there evidence of planned or unplanned results (positive or negative) related to the habitability, sustainability or managed resource use of ecological systems?			
How will the evaluation be used to improve intervention design to promote environmental sustainability?			
Marginalized voices			
How can the evaluation increase the accountability and learning of changes in the status, needs and quality of life of people, and reduce marginalization (as defined and identified by the people involved/affected by the intervention)?			
Is there evidence of planned or unplanned results (positive or negative) related to reductions in marginalization?			
How will the evaluation be used to improve intervention design to reduce marginalization in all its forms for social and environmental justice?			

Tool 4: Vulnerability assessment

ISE4GEMs Tool 4: Vulnerability assessment				
GEMs dimensions	**Indicators of vulnerability at the intervention location(s)**	**Potential vulnerability within the evaluation process**	**Level at which vulnerability may be experienced (e.g., community, household, intra-household)**	**Proposed mitigation actions to reduce vulnerability within the evaluation process (e.g., special efforts to encourage participation, ethical safeguards, empowerment)**
Gender equality *(example)*	*Dominant cultural norms or religious beliefs are not accepting of homosexual relations and gender fluidity*	*LGBTQI individuals— discrimination or targeting based on sexual identity or orientation*	*Community, intra-household, household*	*Take special measures to allow individuals to confidentially express their interest in participating in the evaluation; protect confidentiality throughout the process*
Environments *(example)*	*Drought conditions*	*Community members may not have time to engage with the evaluation process given the lack of availability/accessibility of natural resources and impact on livelihoods (e.g., water, food)* *Women, children, the elderly and those already living below the poverty line may be more affected*	*Community, intra-household and household*	*Data collection efforts may not be ethical if engagement affects participants' ability to access life-sustaining resources; special efforts can be made to offset or reduce harm*
Marginalized voices *(example)*	*Dominant perception that persons with disabilities do not have the capacity to actively participate in community initiatives*	*People living with disabilities— discrimination, not included due to disability*	*Community and household*	*Special effort to engage with people living with disabilities in the evaluation process and highlight their contributions and perspectives*

Sources:

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Moret, W. 2014. *Vulnerability Assessment Methodologies: A Review of the Literature*. Washington, DC: USAID. Available at: https://www.fhi360.org/sites/default/files/media/documents/Vulnerability 20Assessment 20Literature 20Review.pdf

Oxfam Australia and Australian Government (AusAID). 2012. *Integrated Disaster Risk Reduction and Climate Change Participatory Capacity Vulnerability Analysis (PVCA) Toolkit*. Available at: https://unfccc.int/files/adaptation/cancun_adaptation_framework/adaptation_committee/application/pdf/pcva_toolkit_oxfam_australia.pdf

Regional Hunger and Vulnerability Programme (RHVP), Save the Children UK (SC UK) and the Food Economy Group (FEG). 2015. The Practitioner's Guide to the Household Economy Approach. Available at: http://foodeconomy.com/wp-content/uploads/2015/09/The-Practitioners-Guide-to-HEA.pdf

Regmi, B. et al. 2010. *Participatory Tools and Techniques for Assessing Climate Change Impacts and Exploring Adaptation Options*. London: UKAID. Available at: http://www.betterevaluation.org/en/resources/climate_change_adaptation/participatory_tools

Tool 5: GEMs evaluability assessment

ISE4GEMs Tool 5: GEMs evaluability assessment				
Questions to guide your analysis	**Information**	**What action should be taken?**	**Record of changes in thinking or emergence of new material**	**Source (e.g., monitoring report, staff interview)**
What should be assessed to provide robust analysis of the GEMs dimensions?				
What level of data is available or can feasibly and ethically be collected against the GEMs dimensions (e.g., on environmental landscapes)?				
Do the systems have discreet and knowable ecological landscapes (e.g., natural resources, places or asset)? How were these described in the intervention (quantified, measured or described in narratives)?				
Are there ongoing issues of contestation concerning ecological landscapes and sustainable development?				
What is the context within which the evaluation is being undertaken? What are the policy and sectoral boundaries (e.g., local, state, international)? What policy settings and sectors of the community did the intervention work with and within or seek to affect? How was the social impact measured?				
Is there an explicit ToC? Were monitoring indicators established to review change				

ISE4GEMs Tool 5: GEMs evaluability assessment				
How is cultural sensitivity and awareness addressed? What language(s) are spoken? What is the ethnic composition of the population? What are the religious practices and observations? What are the beliefs and practices that must be understood and regarded with cultural sensitivity? How were the intervention's staff, volunteers, partners, etc., cognizant of cultural sensitivities and did they act with cultural competence?				
Were the intervention's staff, volunteers, partners, etc. cognizant of intersectional divisions that may have compounded individuals' or groups' experience of marginalization?				
What evidence is there of critical reflection on the initial boundaries of the problem and agreement sought from local participants/stakeholders that the intervention is warranted, ethical, and likely to produce an outcome that makes an improvement?				
What level of authentic stakeholder participation is possible and what are the parameters around co-evaluation/co-facilitation (e.g., availability or interest/capacity of stakeholders, independence safeguards)?				
Will the evaluation results support learning on transformational change and open up opportunities, or find limitations to build local capacities?				
What resources exist to evaluate the intervention?				

Tool 6: ISE4GEMs planning tool

ISE4GEMs Tool 6: ISE4GEMs planning tool							
Date:							
Evaluation title:							
Evaluator/Co-evaluators:							
1	**2**	**3**	**4**	**5**	**6**	**7**	
Evaluation purpose, objectives and use	**Evaluation criteria**	**Evaluation key questions**	**Evaluation indicators**	**Data collection methods**	**Alternative options**	**Data source(s), stakeholders and data management plan**	
These are indicative questions to support the development of your plan. Please see Chapter 5, Step 3 for a							
Why is this evaluation being undertaken? What need will it serve? Who will be interested or able to use it and how? Are there divergent views as to the objectives and use of the evaluation? Which GEMs dimensions (and their inter-relationships) are relevant to include in the objectives? Will the evaluation process and findings be used to develop capacity of stakeholders?	Are GEMs deemed relevant incorporated into the evaluation criteria?	Are GEMs deemed relevant incorporated into the evaluation questions based on their relevant? Was the selection of questions an inclusive process? Are second order questions included?	Select indicators to be able to collect evidence of intervention effectiveness, the relevant GEMs dimensions and to track changes in behaviour and attitudes.	Do interdisciplinary mixed methods integrate different data sets to: Gather sufficient and appropriate data Examine the causes of marginalization, gender inequality and damage to environments Produce locally defined, beneficial improvements and social change Address how data and associated materials will be managed, stored, documented and secured.			

	8	9	10	11
	Identified ethical risks and safeguards	**Data analysis and interpretation methods for systemic triangulation**	**Capacity development and knowledge sharing**	**Timeline and resources**
	more comprehensive discussion and set of suggestive questions for each column.			
	Have ethical protocols been reviewed and safeguard strategies been developed? How will decisions be made on when to exclude a stakeholder due to ethical concerns?	Do analysis methods allow you to establish findings according to the GEMs themes and emergent outcomes? What methods can be deployed for an inclusive interpretation processes? Who will be engaged in the final boundary analysis within which to interpret the findings?	What are the knowledge sharing and capacity development opportunities during the evaluation process? At the end of the process? What methods will be used?	What are the resources and time frames available? Do these take into account possible need for additional cycles of data collection?

Tool 7: Transdisciplinary methods and tools

Key for ISE4GEMs relevance:
Gender=Developed to respond to gender equity and empowerment
Environments=Developed to promote environmental analysis
Marginalized voices=Developed to highlight the voices of marginalized groups
Systemic=Developed to promote systemic thinking

ISE4GEMs **Tool 7: Transdisciplinary methods and tools**			
Framework, approach or methodology	**Basic description**	**Sources for implementation of method**	**ISE4GEMs relevance**
Participatory statistics	Local people can generate their own numbers, and the statistics that result are powerful for themselves and can influence policy. Statistics are being generated in the design, monitoring, evaluation and impact assessment of development interventions. *Who Counts?* provides impetus for a step change in the adoption and mainstreaming of participatory statistics within international development practice.	Holland, J. 2013. *Who Counts? The Power of Participatory Statistics.* Rugby, UK: Practical Action Publishing. Available at: http://www.ids.ac.uk/publication/who-counts-the-power-of-participatory-statistics	Systemic Marginalized voices
Individual semi-structured interviews	Semi-structured interviews are particularly useful for collecting information on people's ideas, opinions or experiences. They are often used during needs assessment, programme design or evaluation. Semi-structured interviews should not be used to collect numerical information and require informed consent.	Tools4dev. 2014. "How to do Semi-structured Interviews". Available online at: http://www.tools4dev.org/wp-content/uploads/how-to-do-semi-structured-interviews.pdf Harrell, M.C. and M.A. Bradley. 2009. *Data Collection Methods: Semi-Structured Interviews and* *Focus Groups.* Santa Monica, CA: RAND Corp. Available at: http://www.rand.org/content/dam/rand/pubs/technical_reports/2009/RAND_TR718.pdf Evaluation Toolbox. 2010. "Semi-structured Interview". Available at: http://evaluation-toolbox.net.au/index.php?option=com_content&view=article&id=31&Itemid=137	Marginalized voices

ISE4GEMs Tool 7: Transdisciplinary methods and tools			
Framework, approach or methodology	**Basic description**	**Sources for implementation of method**	**ISE4GEMs relevance**
Outcome harvesting	It does not measure progress towards predetermined outcomes, but rather collects (harvests) evidence of what has changed (outcomes), and works backwards to determine whether and how the project or intervention contributed to the outcome, with particular attention to behavioural change.	Wilson-Grau, R. and H. Britt. 2012. *Outcome Harvesting*. Cairo, Egypt: Ford Foundation. Available at: http://www.outcomemapping.ca/resource/outcome-harvesting	Systemic
Developmental evaluation	An evaluation approach that can assist social innovators in developing social change initiatives in complex or uncertain environments by facilitating real-time, or close to real-time, feedback to programme staff, thus facilitating a continuous development loop. The approach is highly responsive to context and suited for radical uncertainty and complexity, and not intended as the solution to every situation.	Spark Policy Institute. 2014. "Development Evaluation Toolkit". Available at: http://sparkpolicy.com/tools/developmental-evaluation/ Gamble, J.A. 2008. *A Developmental Evaluation Primer*. Canada: The JW McConnell Family Foundation. Available at: http://www.betterevaluation.org/sites/default/files/A 20Developmental 20Evaluation 20Primer 20- 20EN.pdf NECTAC (National Early Childhood Technical Assistance Center). 2008. *Developmental Screening and Assessment Instruments*. Chapel Hill, NC: NECTAC. Available at: http://www.nectac.org/~pdfs/pubs/screening.pdf	Systemic

ISE4GEMs Tool 7: Transdisciplinary methods and tools			
Framework, approach or methodology	**Basic description**	**Sources for implementation of method**	**ISE4GEMs relevance**
Cognitive mapping	A participatory research methodology that uses local knowledge to document, in visual form, a construct of the local environment in which people live and work.	Sadler, J. et al. 2013. "Cognitive Mapping: Using Local Knowledge for Planning Health Research". *BMC Medical Research Methodology* 13:96. Available at: http://bmcmedresmethodol.biomedcentral.com/articles/10.1186/1471-2288-13-96 MGray, S.A. et al. 2012. *Mental Modeler: A Fuzzy-Logic Cognitive Mapping Modeling Tool for Adaptive Environmental Management*. Washington, DC: IEEE Computer Society. Available at: http://www.mentalmodeler.org/articles/Gray 20et 20al 20Mental 20Modeler 202013.pdf Brightman, J. 2003. "Mapping methods for qualitative data structuring (QDS)". Presented at IOE Conference, London UK, 8-9 May 2003. Available at: http://www.banxia.com/pdf/de/Map_for_qual_data_struct.pdf	Environments Systemic
Harvard Analytical (Gender Roles) Framework	A simple method for mapping the work and resources of men and women in a community and highlighting the main differences. Collects and analyses data at the community and household level.	UNRWA (United Nations Relief and Works Agency for Palestine Refugees in the Near East). 2011. UNRWA Gender Analysis Manual. Jordan: UNRWA. Available at: http://www.unrwa.es/EBDHsevilla2015/wp-content/uploads/2015/11/Gender-Analysis_UNRWA.pdf	Gender

ISE4GEMs Tool 7: Transdisciplinary methods and tools			
Framework, approach or methodology	**Basic description**	**Sources for implementation of method**	**ISE4GEMs relevance**
Gender Planning Framework	Takes the view that gender planning, unlike other mainstream planning, is "both technical and political in nature." It involves transformative processes and characterizes planning as a "debate." There are six tools in the framework that can be used for planning at all levels from project to regional planning.	Moser, C. 2012. *Gender Planning and Development: Theory, Practice and Training*. London: Routledge. Available at: http://www.polsci.chula.ac.th/pitch/urbansea12/moser1993.pdf	Gender

Gender analysis frameworks	Gender analysis frameworks help to determine the different impacts of development interventions on women and men. They can be used for planning, making changes during a project, and monitoring and evaluation. Gender analysis frameworks are often implemented through a participatory process.	"Gender Analysis Matrix". In: Parker, R. *Another Point of View: A Manual on Gender Analysis Training for Grassroots Workers.* UNIFEM. Available at: http://www.gdrc.org/gender/framework/matrix.html "The WHO Gender Analysis Matrix". In: WHO (World Health Organization). 2010. *Gender Mainstreaming for Health Managers: A Practical Approach.* Geneva: WHO. Available at: http://www.who.int/gender/mainstreaming/GMH_Participant_GenderAnalysisMatrix.pdf Rao, A., J. Sandler, D. Kelleher, and C. Miller. 2015. *Gender at Work: Theory and Practice for 21st Century Organizations*. London: Routledge. Charmes, J. and S. Wieringa. 2010. "Measuring Women's Empowerment: An Assessment of the Gender-related Development Index and the Gender Empowerment Measure". *Journal of Human Development, 4*(3), 419-435. doi:10.1080/14649880320000125773 The European Institute for Gender Equality. 2017. *Gender Impact Assessment: A Tool for Public Institutions.* Available at: http://eige.europa.eu/gender-mainstreaming/toolkits/gender-impact-assessment	Gender

ISE4GEMs Tool 7: Transdisciplinary methods and tools			
Framework, approach or methodology	**Basic description**	**Sources for implementation of method**	**ISE4GEMs relevance**
Women's empowerment framework	Assists planners to question what women's equality and empowerment means in practice and to what extent a development intervention supports empowerment.	Longwe, S. 1991. "Gender Awareness: The Missing Element in the Third World Development Project". Available at: https://www.popline.org/node/335992 Longwe, S. 1995. "Women's Empowerment Framework." Available at: http://awidme.pbworks.com/w/page/36322701/Women 27s 20Empowerment 20 Framework ILO (International Labour Organization). 1998. "ILO/SEAPAT's OnLine Gender Learning & Information Module". Available at: http://www.ilo.org/public/english/region/asro/mdtmanila/training/unit1/empowfw.htm	Gender
The Institute of Development Studies Social Relations Framework	A socialist feminist approach that focuses on the social relations of gender and the role of institutions in shaping gender relations by analysing the social relations of gender in terms of rules, people, resources, activities and power in macro and micro levels of analysis.	Reeves, H. and S. Baden. 2000. *Gender and Development: Concepts and Definitions.* Brighton, UK: University of Sussex Institute of Development Studies. Available at: http://www.bridge.ids.ac.uk/sites/bridge.ids.ac.uk/files/reports/re55.pdf Kabeer, N. and R. Subrahmanian.1996. *Institutions, Relations and Outcomes: Framework and Tools for Gender-Aware Planning*. Brighton, UK: University of Sussex Institute of Development Studies. Available at: https://www.ids.ac.uk/files/Dp357.pdf	Gender Systemic

ISE4GEMs Tool 7: Transdisciplinary methods and tools			
Framework, approach or methodology	**Basic description**	**Sources for implementation of method**	**ISE4GEMs relevance**
Vulnerability assessment	A participatory, perception based approach that identifies and assesses the shifting vulnerabilities of different communities in relation to disaster management, environmental hazards, as well as sociopolitical and socioeconomic issues.	Oxfam. 2018. "Women's Economic Empowerment in Agriculture: Vulnerability and Risk Assessment (VRA"). Available at: http://growsellthrive.org/page/vulnerability-and-risk-assessment-vra UNDP (United Nations Development Programme). 2009. "Community-based Adaptation Project: A Guide to the Vulnerability Reduction Assessment". Available at: http://slideplayer.com/slide/8428002/ UNICEF (United Nations Children's Fund). 2010. *Guidance Note: Vulnerability and Capacity Assessments*. Kenya: UNICEF. Available at: http://www.unicefinemergencies.com/downloads/eresource/docs/1.8 20Gender 20 equality 20in 20humanitarian 20 action/2010-02-01 20- 20UNICEF 20 Kenya 20- 20Guide 20to 20using 20 existing 20VCA 20tools 20& 2-omethodology.pdf	Marginalized voices Systemic
Gender-sensitive Climate Vulnerability and Capacity Analysis	A framework for analysing vulnerability and capacity to adapt to climate change and build resilience to disasters at the community level, with a particular focus on social and, in particular, gender dynamics	CARE International. 2014. *Gender-sensitive Climate Vulnerability and Capacity Analysis (GCVCA)*. Mozambique: CARE International. Available at: http://careclimatechange.org/wp-content/uploads/2016/02/GCVCA_Practitioners-Guide-FINAL-July-2014.pdf	Gender Environments Marginalized voices
Environmental risk assessment	Provides a systematic procedure for predicting the potential risk to human health or the environment cause by particular env*ironmental* stressors (e.g., chemicals, land change, disease, invasive species and climate change).	Manuilova, A. 2003. *Methods and Tools for Assessment of Environmental Risk*. Available at: https://www.scribd.com/document/307290125/An-Overview-of-ERA-Methods-and-Tools EPA (Environmental Protection Agency). 2016. "Ecological Risk Assessment". Available at: https://www.epa.gov/risk/ecological-risk-assessment UNEP (United Nations Environment Programme). No date. "Training Module on Environmental Risk Assessment (EnRA)". Available at: http://www.unep.or.jp/ietc/publications/techpublications/techpub-14/2-EnRA1.asp	Environments

Sustainability science, coupled human and natural systems; ecology; environmental geography	Interdisciplinary fields of research that focus on the integrated nature of human and environmental systems.	BetterEvaluation. "Search Results for 'Environment'". Available at: http://www.betterevaluation.org/en/search/site/environmental PNAS (Proceedings of the National Academy of Sciences). 2018. "Sustainability Science". Available at: http://sustainability.pnas.org/	Environments
Social ecological model	A theory-based framework for understanding the multifaceted and interactive effects of personal and environmental factors that determine behaviours, and for identifying behavioural and organizational leverage points and intermediaries for health promotion within organizations.	CDC (Centers for Disease Control and Prevention). No date. "The Social-Ecological Model: A Framework for Violence Prevention". Available at: https://www.cdc.gov/violenceprevention/pdf/sem_framewrk-a.pdf Surtevant, B. R. et al. 2007. "A Toolkit Modeling Approach for Sustainable Forest Management Planning: Achieving Balance between Science and Local Needs". Ecology and Science 12(2):7. Available at: http://www.ecologyandsociety.org/vol12/iss2/art7/	Gender Environments Marginalized voices

ISE4GEMs Tool 7: Transdisciplinary methods and tools			
Framework, approach or methodology	**Basic description**	**Sources for implementation of method**	**ISE4GEMs relevance**
City-level climate change assessment for mainstreaming gender	Developed to address the gender-climate change relationship. It focuses on the relational differences between women and men, structured by socially constructed roles and rights, and how the differences shape women's relative to men's, concerns, needs, involvement, contributions, and attitudes towards the risks and hazards associated with changes in climatic conditions.	M'Rabu, R. 2011. Draft. City-Level Climate Change Assessments: A Checklist for Mainstreaming Gender. Available at: http://mirror.unhabitat.org/downloads/docs/12989_1_595607.pdf	Gender Environments Marginalized voices
Active-adaptive planning, participative design workshops, and search conferences	These methodologies aim to establish a common understanding between participants. Many adaptations of these ideas have evolved over the years.	Babüroglu, O. N., and I. Ravn. 1992. "Normative Action Research". *Organization Studies, 13*(1), 019-034. Emery, M. 1989. *Participative Design for Participative Democracy*: Canberra, Australia: ERIC. Emery, M., and R.E. Purser. 1996. *The Search Conference: A Powerful Method for Planning Organizational Change and Community Action*. Hoboken, NJ: Jossey-Bass Inc Pub.	Gender Environments Marginalized voices Systemic
Gender at Work Framework	The Gender at Work Framework highlights the interrelationship between gender equality, organizational change and institutions or 'rules of the game' held in place by power dynamics within communities. The Framework can be used to uncover opportunities and barriers to gender equality and to guide evaluative efforts to mark progress.	Gender at Work. 2018. "Gender at Work Framework". Available at: http://genderatwork.org/analytical-framework/	Gender

ISE4GEMs Tool 7: Transdisciplinary methods and tools			
Framework, approach or methodology	**Basic description**	**Sources for implementation of method**	**ISE4GEMs relevance**
The Tool Kit on Gender Equality Results and Indicators	For development practitioners, the kit provides a menu of gender equality outcomes, results, and indicators that may be selected or adapted by practitioners when planning, monitoring and evaluating interventions. Gender equality results and indicators are organized according to the four dimensions; human capital, economic empowerment, voice and rights and gender capacity building.[11]	ADB (Asian Development Bank). 2013. *Tool Kit on Gender Equality Results and Indicators*. Philippines: ADB. Available at: https://www.adb.org/documents/tool-kit-gender-equality-results-and-indicators	Gender

Tool 8: Facilitators' field guide meeting planner

ISE4GEMs Tool 8: Facilitators' field guide meeting planner		
Facilitator:	**Location:**	**Date:**
Stakeholders present:		
Introductions	Introduce members of the team	
Overview of the project	Facilitate a discussion about the evaluation—objectives, ToRs, etc. Discussion of the intervention's Boundary Story	
Introduce the ISE4GEMs approach	Describe figures 4.1, B.1 and B.2 Value of drawing boundaries to think about the project and efforts to capture emergent outcomes of the intervention Value of thinking about gender, socioecological landscapes and marginalized communities Value of using transdisciplinary methods Value of capturing emergence	
Review the planning matrix	Review the locations, communities, targeted individuals, environmental and geographical obstacles, gatekeepers and support staff, resources, vulnerability, risk and ethics	
Review the methods	Review the methods selected and make adjustments, adaptations and other changes to the planning matrix	
Emergent issues	Leave time to discuss other issues	
Document changes	Document all changes to the matrix plan and record why changes have been made	
Capacity building	What skills, knowledge and relationships have been formed from this meeting? Have all staff written/discussed their expectations of the project? What do they seek to gain, achieve and learn? How this can be achieved?	

Tool 9: GEMs data analysis

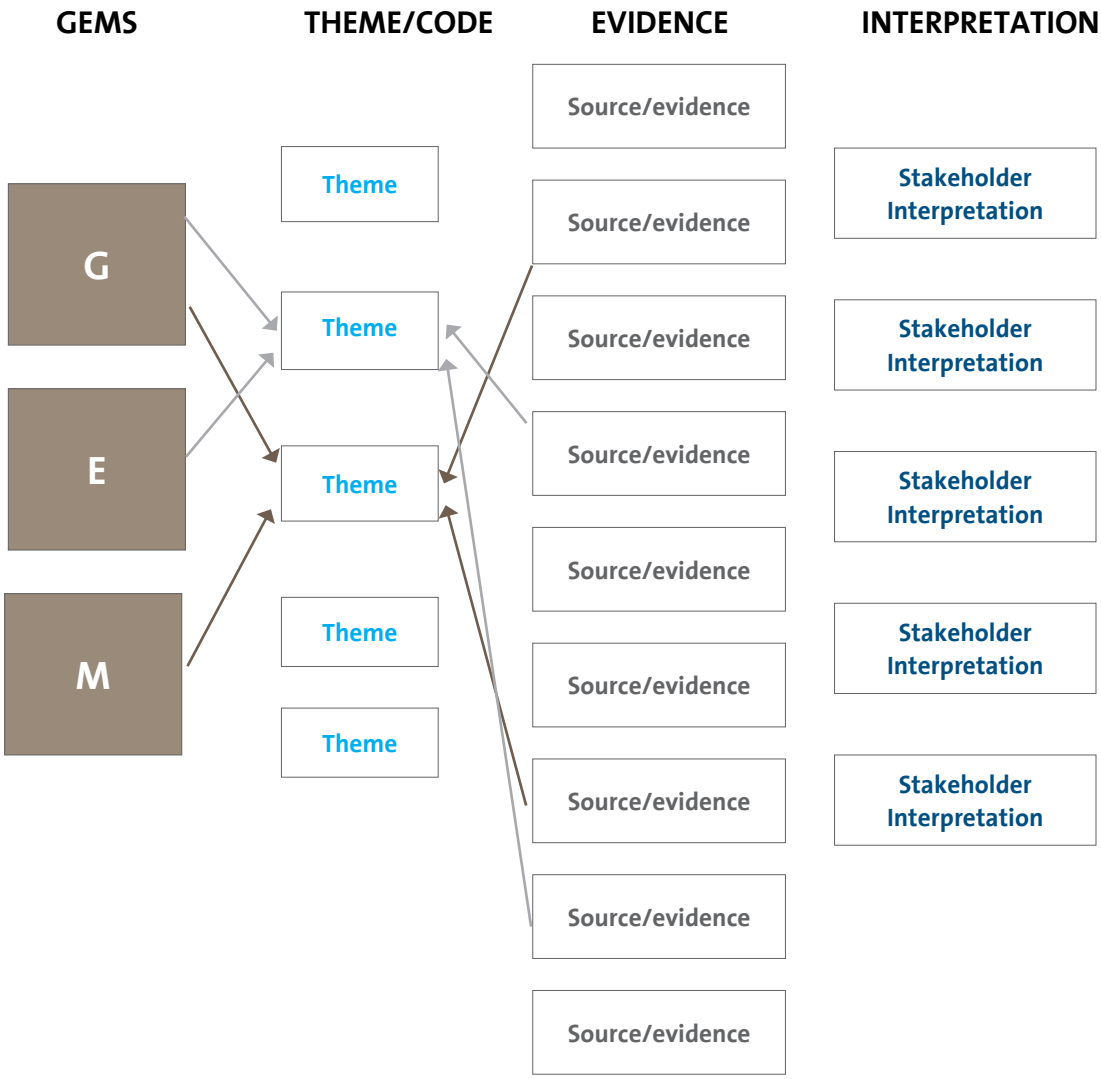
ISE4GEMs Tool 9: GEMs data analysis		
Gender responsive	**Data reveals:** Weak	Strong
Was there an effort by implementers to identify and analyze evidence of a potential gendered impact and possible repercussions?	Risk assessment does not probe for differentiated harmful impact Planning consultations was not gender representative	Detailed planning is recorded by the implementers to account for risk and harm Planning reveals efforts to foresee outcomes reflected in the ToC
What evidence is there of a gender responsive monitoring system used throughout the intervention?	Little or no evidence of monitoring processes Indicators selected were not adequate to capture gender differences Data collection has followed a systematic routinized collection methodology No evidence of complexity considerations in method selectio	Regular monitoring from multiple source methods (e.g., staff reports, surveys, interviews, etc.) Intervention altered and changed to respond to emergence and recognition of bias Mitigation efforts of negative outcomes enacted in response to early feedback
Does the data substantiate that the outcomes of the intervention benefited women and men in culturally appropriate and acceptable ways?	Indecision concerning benefits for women Denial that benefits to women matter or harms to women occurred (negative) Female benefits automatically accrued through the position of a male figure (e.g., father, brother, son)	Wide recognition and examples provided of benefits accruing to women/girls Evidence that these benefits were acceptable to women as expressed by women OR Evidence that women are worse off due to unforeseen emergent circumstances that are explained and reinforced in the data from multiple sources

ISE4GEMs Tool 9: GEMs data analysis		
Gender responsive	**Data reveals:** Weak	Strong
Was there an analysis of power dynamics both institutional and interpersonal?	Limited or no analysis: Lack of awareness, Indecision, or indifference about why differences occurred Denial of harms therefore no cause given	Detailed explanations can be found in the data with multiple source corroboration
What other gender responsive elements are important to capture for evaluating the intervention?		
Environments		
How have ecological systems or services interacting with or potentially affected by the intervention been identified?	Data reveals lack of awareness, indecision or indifference Denial of harms therefore no cause given	Evidence of localized meanings of "sustainable development" to improve human settlements and ecological systems OR Evidence that local environments are worse off due to emergent circumstances revealed in the data from multiple sources.

ISE4GEMs Tool 9: GEMs data analysis		
Were ecological systems or services central or peripheral to the intervention?	Data reveals lack of awareness, indecision or indifference	Wide recognition and examples of ecological systems' inclusion in the intervention
Who was consulted or represented the interest of the places, assets or ecological systems of significance?	No evidence of consultation with ecological knowledge bearers (e.g. experts, academia, local land holders)	Diverse data collections informed by multiple stakeholders.
Marginalized Voices	**Data reveals:** Weak	Strong
Were intersectional differences (e.g., according to sex, sexuality, age, income, ethnicity, ability, status or religion) accounted for?	Evidence is weak or lacking.	Evidence of inclusive planning and engagement with people to account for intersectionality
What evidence is there of engagement with marginalized voices (e.g., according to sex, sexuality, age, income, ethnicity, ability, status or religion)?	Evidence lacking or poor Poorly described groups Desk-top studies poor	Detailed explanations can be found in data Detailed explanations can be found in data from multiple perspectives multiple perspectives
What structural barriers or enablers (social, political) limited or promoted the intervention's capacity to support marginalized voices?	Data reveals lack of awareness, indecision or indifference	Detailed explanations can be found in data from multiple perspectives
What interpersonal relationships effected the intervention's capacity to support marginalized voices?	Data reveals lack of awareness, indecision or indifference	Detailed explanations can be found in data from multiple perspectives including evidence of reflexive analysis by implementers

Tool 10: GEMs integration tool

The → arrows represent a strong interconnection between the G, E and M running through a theme(s) and that there is strong evidence to support this from the data. The → arrows represent a softer interconnection between a theme but with some evidence. (The arrows on the tool below are indicative only)



Tool 11: Final reflections

ISE4GEMs
Tool 11: Final reflections

What lessons have been learned as you reflect on your experiences in undertaking the evaluation?

What did you try that was different?

What worked well for you and why? Would you do it again?

What didn't work and why? What would you do differently?

Would you do it again? What would you do differently?

What power dynamics did you notice that were new for you? Did anything worry you about this?

Were you able to prioritize gender equality, environments and marginalized voices? What would have supported you to do so?

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UN WOMEN IS THE UN ORGANIZATION DEDICATED TO GENDER EQUALITY AND THE EMPOWERMENT OF WOMEN. A GLOBAL CHAMPION FOR WOMEN AND GIRLS, UN WOMEN WAS ESTABLISHED TO ACCELERATE PROGRESS ON MEETING THEIR NEEDS WORLDWIDE.

UN Women supports UN Member States as they set global standards for achieving gender equality, and works with governments and civil society to design laws, policies, programmes and services needed to implement these standards. It stands behind women's equal participation in all aspects of life, focusing on five priority areas: increasing women's leadership and participation; ending violence against women; engaging women in all aspects of peace and security processes; enhancing women's economic empowerment; and making gender equality central to national development planning and budgeting. UN Women also coordinates and promotes the UN system's work in advancing gender equality.

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