



planning, monitoring & evaluation

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Guidelines for applying the climate and ecosystems health criterion in the commissioning, design and implementation of evaluations

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Addressed to	Government departments who are undertaking evaluations (programme managers and M&E staff) Evaluators of government programmes and policies
Purpose	The purpose of this guideline is to provide technical guidance on applying a climate and ecosystems health (CEH) criterion/lens when undertaking evaluative work
Policy reference	National Evaluation Policy Framework All Department of Planning, Monitoring and Evaluation (DPME) evaluation guidelines Environmental, climate, ecosystems and biodiversity policies listed in this guideline
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PART A: BACKGROUND TO THE GUIDELINE AND CRITERION FOR CLIMATE AND ECOSYSTEMS HEALTH

1 Introduction

1.1 Background

There is increasing recognition internationally of the threats faced by humanity from global warming and the breakdown of climate stability and natural ecosystems, and that it is the poorest and most vulnerable who are most seriously impacted. There is also greater understanding that people and natural ecosystems form a single inter-dependent system, and that human activities – particularly unsustainable consumption and production practices – are causing an environmental crisis. The United Nations (UN) make it clear that urgent action needs to be taken at local, national and global levels to make the changes necessary to slow down or halt these unsustainable consumption and production practices and repair the damage already done. There is also a growing recognition that we have to move towards social and economic practices that are regenerative – that is, which align or harmonise with and support the natural ecosystems with which they are engaged – and that bring about social justice and equity for all.

What role can evaluations play in contributing to these efforts? All government interventions – whether they are infrastructure development projects, small-scale farmer support initiatives, literacy programmes, school nutrition feeding schemes or the restoration of wetland areas – are both impacted by and impact on climate and ecosystems health (CEH).¹ Seeking the CEH implications of the intervention requires taking a systemic view of the intervention in its interactions with wider natural systems. Evaluations of interventions have the potential to offer invaluable insights into these impacts and make recommendations about what changes could be made to address them. As such, evaluations can ask the following questions of interventions:

- In what ways does the intervention interact with the natural environment? What natural resources does the intervention depend upon and what impacts do the intervention's activities have on CEH?
- Does the intervention design include ways in which the intervention can adapt to or mitigate the effects of the climate and ecosystems crises? Are the practices and activities of the intervention degrading or helping to restore and regenerate CEH?
- In what ways are the climate crisis and ecological breakdown impacting on the intervention? What are the implications of these impacts for the future sustainability of the intervention?
- What changes can be introduced into the intervention's design, theory of change and/or activities that will make a positive contribution to CEH, improve its sustainability going forward, as well as the ability of beneficiaries to adapt to changes in CEH?
- How can the intervention best balance CEH considerations with social justice and equity?

Bringing CEH considerations into the evaluation also serves to inform implementers, beneficiaries and other key stakeholders of the intervention about these critical issues. In these ways, evaluations can be important catalysts for change.

¹ See section 2 below for definitions of this and other key concepts used in this guideline.

1.2 Purpose, objectives and structure of the guideline

A new evaluation criterion, called the Climate and Ecosystems Health criterion, has been developed to enable CEH considerations to be included in evaluations of all government interventions². The criterion is to be applied alongside the existing Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) criteria of relevance, coherence, effectiveness, efficiency, impact and sustainability.³

The main **purpose** of this guideline is to *introduce the CEH criterion and provide guidance on how to apply the criterion* in the commissioning, implementation and management of evaluations. The guideline targets programme managers and monitoring and evaluation (M&E) staff within government departments at national, provincial and local levels that are tasked with undertaking evaluations.⁴ The guideline will also be of value to the evaluators (internal or external) commissioned to do the evaluations.

The guideline provides a roadmap, flagging at which points in the process of commissioning, implementing and managing evaluations CEH-related considerations could and should be taken into account. As such, it covers the steps involved in preparing for an evaluation; developing the terms of reference (TORs) for an evaluation; managing the evaluation; after the evaluation the development of an improvement plan and communication of the evaluation findings and recommendations.

Given the often technical and complex nature of CEH-related issues, the guideline also provides an overview of the key concepts and features of CEH that underlie the rationale and dimensions of the evaluation criterion. As such, the guideline also functions as a resource document with suggestions for additional readings, tools and so on provided throughout.

The guideline is structured as follows:

- Section 2 defines the key concepts related to CEH that are used in the guideline and provides an overview of the main features of the climate and ecosystems crises, globally and in the South African context. A systemic view of the interrelationship between the socio-economic and environmental spheres is also offered as a way of understanding how interventions fit into the wider systems within which they operate.
- Section 3 explains the new CEH criterion by unpacking its various dimensions.
- Section 4 outlines the principles that underpin a CEH focus which commissioners, implementers and managers of evaluations need to apply within their respective roles.
- Section 5 discusses how to incorporate CEH into the evaluation process in a way that encourages the likelihood of use of the evaluation.

² This was developed in collaboration between DPME and the South African M&E Association (SAMEA), starting in a hackathon organized in 2021. The contributors include Tracy Bailey, Odirilwe Selomane, Ian Goldman, Francini van Staden, Gift Mpyana, Kevin Kelly, Zakhele Mdladlose, Brenda Martin, Thando Lukuko, Katlego Mphatadi). In addition many peer reviewers contributed very valuable inputs including from FAO, GEF, Department of Forestry, Fisheries and Environment, Climate Investment Funds.

³ The OECD DAC refers to the Organisation for Economic Cooperation and Development's Development Assistance Committee (<https://www.oecd.org/dac/development-assistance-committee/>). A brief overview of the DAC criteria is available here: <https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>. These criteria were further refined and elaborated in 2019 (see <https://www.oecd.org/dac/evaluation/revision-evaluation-criteria-dec-2019.pdf>).

⁴ Chapter 3 of the [National Environmental Management Act](#) (NEMA) provides useful planning and implementation context for government departments whose mandates impact on the environment.

- Section 6 looks at what CEH considerations need to be addressed in preparing to commission an evaluation.
- Section 7 focuses on the various elements of the TORs, offering suggestions for how to incorporate CEH into the TORs.
- Section 8 considers the management of the evaluation, and how CEH can be brought in.
- Section 9 considers the post-evaluation process and how CEH should be brought in.
- Annex 4 includes examples of applying CEH to the TORs of some evaluations.

1.3 Other relevant guidelines

It is important to note that this is not a standalone guideline and must be applied in conjunction, as applicable, with the DPME guidelines listed in Annex 1 and available on the DPME website.⁵

The drivers and impacts of the climate crisis and ecological breakdown are closely linked to equity-related issues of poverty and inequality. In this regard, a new criterion, “Transformative Equity”, and its associated guideline have been developed which focus on the extent to which interventions’ objectives, design, implementation and impact contribute (or not) to addressing social inequities. As the drivers of climate change and ecosystems breakdown are also linked to inequality (e.g. the top 1% by income globally produce 15% of all greenhouse gas emissions), the equity guideline should also be taken into account in the application of this CEH criterion (also available on the DPME website).

2 Climate and ecosystems health: An overview

Talking about climate and ecosystems health (CEH) often refers to a wide range of scientific, economic, social and political issues. This section provides a basic overview of the main elements of CEH to lay the foundation for the CEH criterion. The overview includes definitions of key concepts, brief discussion of the drivers and impacts of the climate and ecological crises, and how CEH is inextricably linked to socio-economic justice and equity issues. The section also highlights the main strategies currently being explored and adopted that are aimed at limiting and reversing climate change and ecosystem breakdown. These can be drawn upon in the evaluation terms of reference (TORs) and designs.

2.1 The climate crisis

Climate change refers to long-term shifts in temperatures and weather patterns. Changes in climate can be the result of natural processes. However, since the 1800s, human economic and related activities have been the main drivers of climate change (IPCC, 2021). Key among these is the burning of fossil fuels (coal, oil, gas) that release greenhouse gases (GHGs) which trap heat in the Earth’s atmosphere, resulting in the rise in global temperatures. More than half of all CO₂ emissions since 1751 were emitted in the last 30 years. This temperature rise is referred to as global warming and is at the heart of the climate crisis, since unmitigated increases in global temperatures destabilise the climate equilibrium we have had for the last 10 000 years (the Holocene) and will cause climatic swings that will make the planet uninhabitable (see Box 1 and Figure 1).

A recent report of the UN’s Intergovernmental Panel on Climate Change (IPCC)⁶ highlights a multitude of climate impacts on land, freshwater and ocean ecosystems as well as on human

⁵ <https://evaluations.dpme.gov.za/pages/guidelines-other-resources>.

⁶ The Intergovernmental Panel on Climate Change (IPCC) is the UN body assessing the science related to climate change. The IPCC has recently produced a series of reports which constitute the

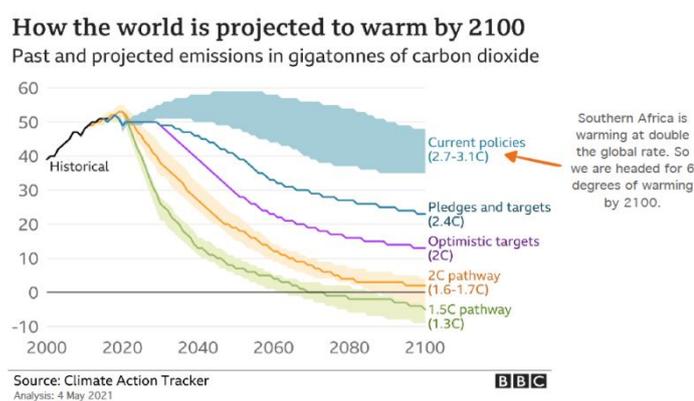
systems, settlements and infrastructure as a result of rising temperatures and the increasing frequency of extreme weather events (IPCC, 2022: 11–13). Melting glaciers and rising sea levels, tropical cyclones and floods, heatwaves, wildfires and drought are threatening food security; disrupting water, sanitation and energy systems; causing forced migration and even violent conflicts; and generally having deleterious health and economic consequences, and exacerbating poverty and inequality. As the IPCC report notes, the hardest hit by these kinds of climate impacts are regions in the Global South and vulnerable groups and communities such as small-scale food producers, low-income households, children, the elderly, and pregnant women (ibid: 11).

Box 1: CO₂ emissions and global warming projections

Carbon dioxide (CO₂) emissions are a commonly used measure of the effects of GHGs on global warming⁷. Recent projections show that current carbon emissions are likely to result in a 3°C or more rise in temperatures. This would be catastrophic, particularly as Southern Africa is warming at double the global rate (Figure 1). Conservative estimates are that by mid-century, the South African coast will warm by 1-2°C and the interior by 2-3°C, and double these figures by the end of the century.⁸

South Africa's 7th National GHG Inventory Report (2000–2017), released in 2021, shows that emissions increased by 10.4% over the 17-year period.⁹ In 2021, South Africa was the 12th largest carbon emitter in the world, but continues to depend on and invest in fossil fuel-based energy.¹⁰

Figure 1:



At the 2015 UN climate change conference in Paris, a legally binding international treaty on climate change – known as the Paris Agreement – was adopted by 196 countries.¹¹ The goal of the Paris Agreement is to limit global warming to well below 2°C, and preferably to 1.5°C,

most up-to-date and comprehensive scientific evidence about the causes and impacts of climate change. Working Group I examined the physical science underpinning past, present and future climate change: [Climate Change 2021: The Physical Science Basis](#); Working Group II assessed the impacts, adaptation and vulnerabilities related to climate change: [Climate Change 2022: Impacts, Adaptation and Vulnerability](#); Working Group III focused on climate change mitigation, assessing methods for reducing greenhouse gas emissions, and removing GHGs from the atmosphere: [Climate Change 2022: Mitigation of Climate Change](#).

⁷ Note CO₂ is not the only greenhouse gas and methane is another very dangerous gas, also rising rapidly

⁸ South African State of the Environment Report 2021:

<https://soer.environment.gov.za/soer/CMSWebSite/Content.aspx?menuId=9536,9536#>.

⁹ Press release: https://www.dffe.gov.za/mediarelease/creecy_greenhouse-gas-inventory_report. Full report: <https://www.dffe.gov.za/sites/default/files/docs/nir-2017-report.pdf>.

¹⁰ <https://www.dailymaverick.co.za/article/2021-09-29-south-africa-takes-bolder-steps-to-reduce-emissions-but-are-they-enough/>.

¹¹ For further information about the Paris Agreement, visit the UNFCCC website:

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

compared to pre-industrial levels. To achieve this long-term temperature goal, countries aim to reach global peaking of GHGs as soon as possible to achieve a climate neutral world by mid-century. Each country is required to submit their plans for climate action, known as nationally determined contributions (NDCs), to the UN Framework Convention on Climate Change (UNFCCC), in which they outline the actions they aim to take to reduce their GHG emissions.

South Africa is a signatory to the Paris Agreement and submitted its first NDC to the UNFCCC in 2015 and an [updated version with new targets in 2021](#). In addition to the NDCs, South Africa has taken other steps to address the climate crisis and these are listed in Annex 2.

Bringing the climate back to health requires a reduction in GHG emissions as well as adequate, regenerating carbon sinks, bringing CO₂ levels to a level of around 350 ppm.

2.2 Ecosystems breakdown and biodiversity loss

The surface of the Earth is made up of a series of connected ecosystems which are critical to the survival of humans. An ecosystem refers to a geographic area “where plants, animals and other organisms, in conjunction with the landscape around them, come together to form the web of life.”¹² Ecosystems include forests, lakes and rivers, grasslands and savannahs, mountains, oceans and coasts, farmlands, and urban areas. Ecosystems are delicately balanced; changes in one aspect (such as temperature) force changes in other aspects (such as what plants and animals can survive there). Biodiversity is one of the bedrocks of healthy ecosystems. Biodiversity refers to the “diversity of genes, species and ecosystems on Earth, and the ecological and evolutionary processes that maintain this diversity” (SANBI, 2019: 202).

Ecosystems and biodiversity are integral to many of the economic, development and well-being needs in society through: the provision of food, fresh water, animal feed, fuel, timber, fibres and medicines; non-material services such as tourism revenues, job creation,¹³ recreational opportunities, and a sense of place and connection to cultural identities; as well as critical natural processes such as nutrient cycling, the regulation of air quality and infectious diseases, the mitigation of natural hazards (such as fires and floods), and waste processing and detoxification (DFFE, 2021; Hassan et al., 2005; IPBES, 2019, Millennium Ecosystem Assessment, 2005; SANBI, 2019).

While human development has benefited tremendously from the use of ecosystem resources, it has also contributed significantly to ecological breakdown and biodiversity loss. A key driver of this is unsustainable production and consumption practices in what is referred to as the “take→make→use→dispose” model of extracting resources, using them in production processes and then disposing of waste by-products.¹⁴ Thus, for example, economic and development activities typically result in the loss of natural habitats through the clearing of land for agriculture, human settlements, plantation forestry, mining and

¹² United Nations Environment Programme website: <https://www.unep.org/news-and-stories/story/beginners-guide-ecosystem-restoration#:~:text=Ways%20to%20restore%20them%20include,without%20using%20even%20more%20land.>

¹³ According to the 2019 National Biodiversity Assessment, biodiversity-related activities support over 418 000 jobs in South Africa in areas such as biodiversity conservation, fisheries, wildlife ranching, biodiversity-based tourism, traditional medicine and indigenous tea production (SANBI, 2019: 3).

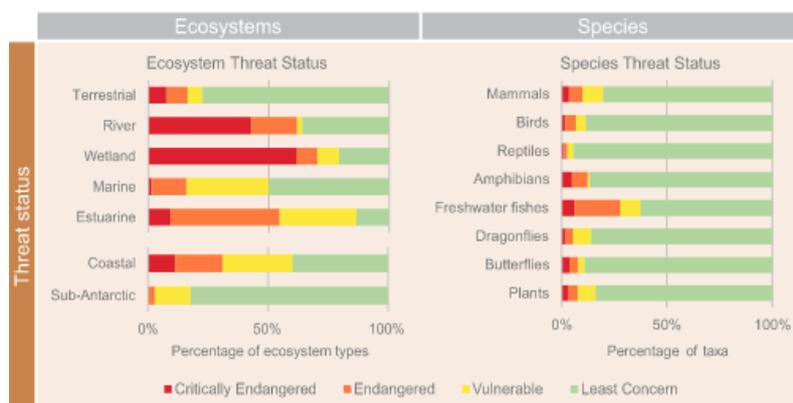
¹⁴ The South African State of the Environment Report 2021 provides a comprehensive overview of the drivers of environmental destruction, depletion and degradation in the country, available here: <https://soer.environment.gov.za/soer/CMSWebSite/Content.aspx?menuId=9536,9536#>.

infrastructure development. Ecosystems are further damaged by over-extraction, e.g. overfishing depletes fish stocks; air pollution through the burning of fossil fuels or use of chemicals in industrial production; by the pollution of rivers and oceans through the use of pesticides, micro- and single-use plastics; and the increasing numbers of toxic landfill sites. As a consequence, societies' resource consumption is causing ecosystems to fall into deficit (i.e. ecosystems cannot regenerate fast enough to match the speed of our extraction) and as such the resources consumed on an annual basis cannot be regenerated in a single year (Kresge Foundation, 2015; WEF, 2018). And, as with climate change, the impacts of ecosystem breakdown are more profound for the poor and vulnerable – not only do they often depend directly on particular ecosystems for their subsistence and/or livelihoods, but they have limited resources to protect themselves against, or to recover from, these impacts.

Internationally, there are various initiatives aimed at addressing ecosystem degradation, such as the UN Convention on Biological Diversity¹⁵ and its [draft Global Biodiversity Framework](#)¹⁶ which contains goals to be achieved by 2050.¹⁷ South Africa has taken various steps to address ecosystem breakdown and biodiversity loss through legislation, policies and strategies. These are also listed in Annex 2.

Despite these efforts, recent research shows that while South Africa is renowned for its exceptional and rich biodiversity, many of these resources are overexploited and many of our precious ecosystems and species are under threat (Figure 2).

Figure 2: Ecosystems and species under threat in South Africa



Source: SANBI (2019: 1)

Bringing ecosystems back to health refers to protecting or repairing ecosystems so that they can maintain their stability and integrity and be resilient against external influences, thereby supporting a diversity of life forms and being able to provide key benefits to society such as the provision of clean water and food.

¹⁵ The Convention came into being in 1993 and has three objectives: the conservation of biological diversity; the sustainable use of the components of biological diversity; and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources (

¹⁶ Due to be agreed on in latter half of 2022: <https://www.cbd.int/conferences/post2020>.

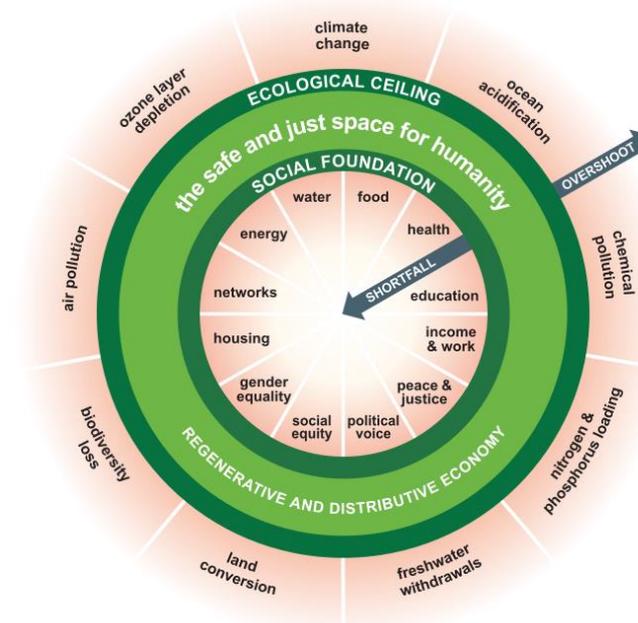
¹⁷ The draft Framework has four long-term goals for 2050 related to the 2050 Vision for Biodiversity: (1) Enhanced integrity of all ecosystems; (2) Valuing, maintaining, or enhancing nature's contributions to people through conservation and sustainable use; (3) Fair and equitable sharing of the benefits from the utilization of genetic resources; and (4) Closing the gap between available financial and other means of implementation, and those necessary to achieve the 2050 Vision.

2.3 The link between CEH and socio-economic justice and equity

As has been highlighted in previous sections, the impacts of the climate crisis and the breakdown of ecosystems affect different groups of people within society and in different parts of the world disproportionately. For instance, rural people, most of whom are usually relatively poor and whose livelihoods depend directly on croplands, rivers, forests or oceans, are particularly vulnerable to the effects of ecosystem mismanagement or climate change (Hassan et al., 2005: 2). Conversely, wealthier sectors of society are better equipped to buffer themselves, for example buying air conditioners to cope with heat waves, or mitigate the effects of ecosystem breakdown through the replacement of some resources with others (ibid.).

It is in this sense that the climate and ecosystem crises are exacerbating poverty and inequality. Baloyi et al. (2022) use the term “socio-ecological crisis” by way of describing the interwoven human- and nature-centred challenges faced in South Africa today. This interplay and interdependence between the social and ecological are well-represented in the doughnut-shaped framework (Figure 3) for depicting how “an environmentally safe and socially just space for humanity to thrive in” is created by staying within ecological limits, sometimes referred to as planetary boundaries, whilst meeting societies’ basic needs (Raworth, 2012: 4).

Figure 3: The ‘doughnut’ – the safe and just operating space within which human development stays within nature’s limits



Source: Raworth (2012)

The term “just transition” was developed to signify a transition away from a fossil fuel-based economy to a low-emissions economy that was not unjust to the workers and towns who depended economically on fossil fuel industries. Therefore it reflects the idea that people and nature are part of the same, interdependent system and the intersection of environmental and social justice imperatives. It stems from the recognition that addressing CEH considerations cannot be at the expense of social and economic equity and vice versa. In 2021, the Presidential Climate Commission produced a draft just transition framework – a planning tool which sets out the actions that the government and its social partners will need to take to achieve a just transition, and the outcomes to be realised in the short, medium, and long term (see PCC, 2022).

“The framework does not deal with climate mitigation and adaptation policies per se, but rather with managing the social consequences and economic upside of those policies, while putting human development concerns at the centre of decision-making. A just transition builds the resilience of the economy and people through affordable, decentralised, diversely-owned renewable energy systems; the conservation of natural resources; equitable access of water resources; and sustainable, equitable and inclusive land-use for all, especially for the most vulnerable.” (p5).

In order to change the current trajectories of climate and ecosystem crises, a fundamental re-thinking of the ways in which our economic and social systems interact with and depend on ecosystems, and value the common good, are necessary. Key strategies and thinking around this are considered in the next section.

2.4 Approaches to improving climate and ecosystems health

Many strategies for addressing the climate and ecosystem crises have been advanced and are being implemented – with varying degrees of success.¹⁸ There is also considerable scientific and political contestation about which strategies are appropriate, desirable and most likely to be effective. It is beyond the scope of this guideline to cover these comprehensively or in any detail. Instead, a selection of key strategies is presented which form the foundation for the CEH evaluation criterion and its application. These strategies and associated measures are often interrelated and address more than one aspect of CEH.

Mitigation of climate change and ecosystem breakdown

Mitigation is the reduction of something harmful or the reduction of its harmful effects. When mitigation is used in reference to climate change it refers to actions taken to reduce GHG emissions and to enhance what are referred to as "carbon sinks" – that is, a forest, ocean or other natural environment which absorbs carbon dioxide from the atmosphere. Examples of mitigation measures (most of which address both climate and ecosystems) include the following:

- Increased use of renewable energy;
- Changes in transport, e.g. electric cars; greater reliance on public transport or bicycles;
- Shift to plant-based diets in order to reduce emissions produced by the meat industry;
- Regenerative agriculture storing soil carbon, expanding forests and other carbon sinks;
- Improving the design of appliances to make them more energy efficient.
- Ensuring that sewage plants are working effectively and not discharging raw sewage;
- Controlling deforestation and encouraging forest regeneration;
- Creating protected areas to safeguard ecosystems.

Adaptation measures for addressing climate impacts and ecosystem breakdown

Adaptation points to the need for countries and communities to plan for and implement processes, practices and infrastructures that will aid them in responding to, and being more resilient in the face of, existing and future climate impacts. The South African State of the Environment Report (DFFE, 2021) defines adaptive capacity as: "the ability of a system to adapt to the impacts, cope with the consequences, minimise potential damages, or to take advantage of opportunities offered by climate change or climate variability."

While adaptation usually refers to addressing the impacts of climate change, adaptation strategies can also be developed and applied in the context of coping with wider environmental degradation.

Examples of adaptation measures include the following:¹⁹

- Extreme weather events: building flood defences such as sea walls; setting up early warning systems for cyclones; improving flood and storm water management;

¹⁸ It is worth noting here that climate change is both an outcome and driver of ecosystem breakdown.

¹⁹ See South Africa's [National Climate Change Adaptation Strategy](#).

- Reducing reliance on fossil fuels: move to renewable energy, infrastructure and incentives for switching to public transport, cycling and walking, car-pooling, etc.;
- Reducing disaster risk: prohibiting construction in flood plains; maintaining fire breaks; investing in fire services;
- Land conservation: switching to drought-resistant crops; protecting coastal wetlands;
- Drought and water scarcity: setting up water harvesting and grey water systems; managing water demand management (reuse, recycling); desalination.

Green and eco-friendly/environmentally sustainable products, processes and economy

“Green” or “eco-friendly” products and processes are designed in such a way as to minimise their environmental impacts during and after their life-cycle by reducing waste and maximising resource efficiency. Typically, green products and processes are characterised by reduced or zero toxic chemical use, carbon footprint and plastic footprint; based on the least use of resources such as water and energy and the use of renewable energy. Green products are usually designed to be reusable, recyclable, or biodegradable and come in eco-friendly packaging.

The move towards green products and processes has given rise to “green industrial sectors” and “green jobs”, and many countries have adopted the discourse of “green economies” as key components of sustainable development paths.

Circular and regenerative practices

More recently, there has been increasing recognition that in order to address the climate and ecosystems crises effectively, there is a need to transform production and consumption systems in fundamental ways by redesigning our economy away from the destructive and unsustainable “take→make→use→dispose” model towards a circular economy based on regenerative principles and practices.

A circular economy refers to “an economic system designed with the intention that maximum use is extracted from resources and minimum waste is generated for disposal” (Deutz, 2020: 193). It is underpinned by a move towards renewable energy and materials, and practices that regenerate natural systems.

The basic principles of a circular economy are eliminating waste and pollution, circulating products and materials, and regenerating nature.²⁰ These practices can be beneficial to addressing both climate change and biodiversity loss (EMF, 2021a; EMF, 2021b):²¹

Figure 4: Elements of a circular economy



Source: UNIDO (2020: 3)

²⁰ Ellen MacArthur Foundation website: <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>.

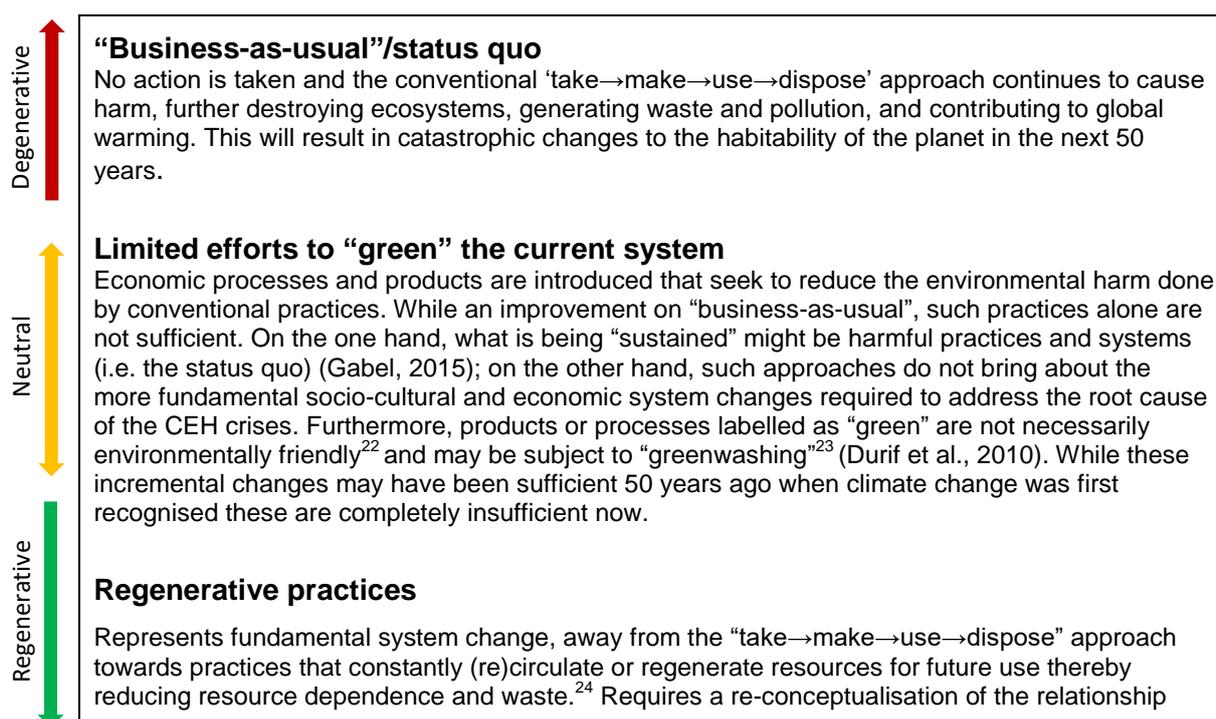
²¹ The Ellen MacArthur Foundation core focus is on developing circular economy practices. Two very useful, practical resources for the purposes of this guideline available on their website are [Completing the Picture: How the circular economy tackles climate change](#) and [The Nature Imperative: How the circular economy tackles biodiversity loss](#).

- By **eliminating waste and pollution**, GHG emissions are reduced across the value chain; biodiversity is preserved because the natural environment is less polluted and via redesign where, for example, plastics can be reused, recycled or composted;
- **Circulating products and materials** retains their embodied energy, thereby reducing the demand for energy overall; keeping products (such as clothing or electronics) in circulation for longer reduces demand for land clearing or mining, thereby preserving ecosystems;
- **Regenerating nature** (such as through planting trees or through regenerative agricultural practices) contributes to carbon sequestration (i.e. capturing and storing atmospheric carbon dioxide and thus reducing global warming).

Circular and regenerative approaches are often captured in various versions of the ‘Rs’, for example: **refuse** – items such as single-use plastic which will simply end up in landfills, or the use of energy derived from fossil fuels; **reduce** – consumption in general (buy only what you need, go virtual rather than fly), and the production of waste and pollution; **reuse** – switch to reusable or sustainable alternatives; **repair** – rather than throw out and buy a newer version; **recycle** – as a last resort; and **rot** – turn organic waste into compost which can be used as a regenerative resource in growing food.

Responses to the climate and ecosystems crises fall on a spectrum, as per Figure 5 below.

Figure 5: Spectrum of responses and strategies to address CEH



²² For instance, a cleaning product that does not contain toxic chemicals (making it environmentally preferable to those that do) might consume significantly larger amounts of water or energy to produce.

²³ ‘Greenwashing’ “is a form of marketing spin in which green PR and green marketing are deceptively used to persuade the public that an organization’s products, aims and policies are environmentally friendly. Companies that intentionally take up greenwashing communication strategies often do so in order to distance themselves from the environmental lapses of their suppliers.”

(<https://en.wikipedia.org/wiki/Greenwashing>). Thus, for example, new packaging might be introduced and marketed as ‘biodegradable’ when in fact it is not.

²⁴ The circular economy discourse is gaining traction in South Africa. The DFFE has recently developed a [circular economy guideline for the waste management sector](#).

between people/culture and nature as a single, co-evolving system rather than as nature in service to human activity.

3 The climate and ecosystems health evaluation criterion: Definitions and dimensions

3.1 Focus and definition of the criterion

The primary focus of this criterion is on assessing the impacts that result from the interaction between intervention activities/practices and climate and ecosystems, and making recommendations about how intervention practices can be improved in order to make more positive contributions to CEH, and to make the intervention and its beneficiaries more adaptive.

The focus and dimensions of the CEH criterion are captured in Figure 6 and Table 1 below. The dimensions are described in greater detail in the following section.

Figure 6: Focus and dimensions of the CEH criterion

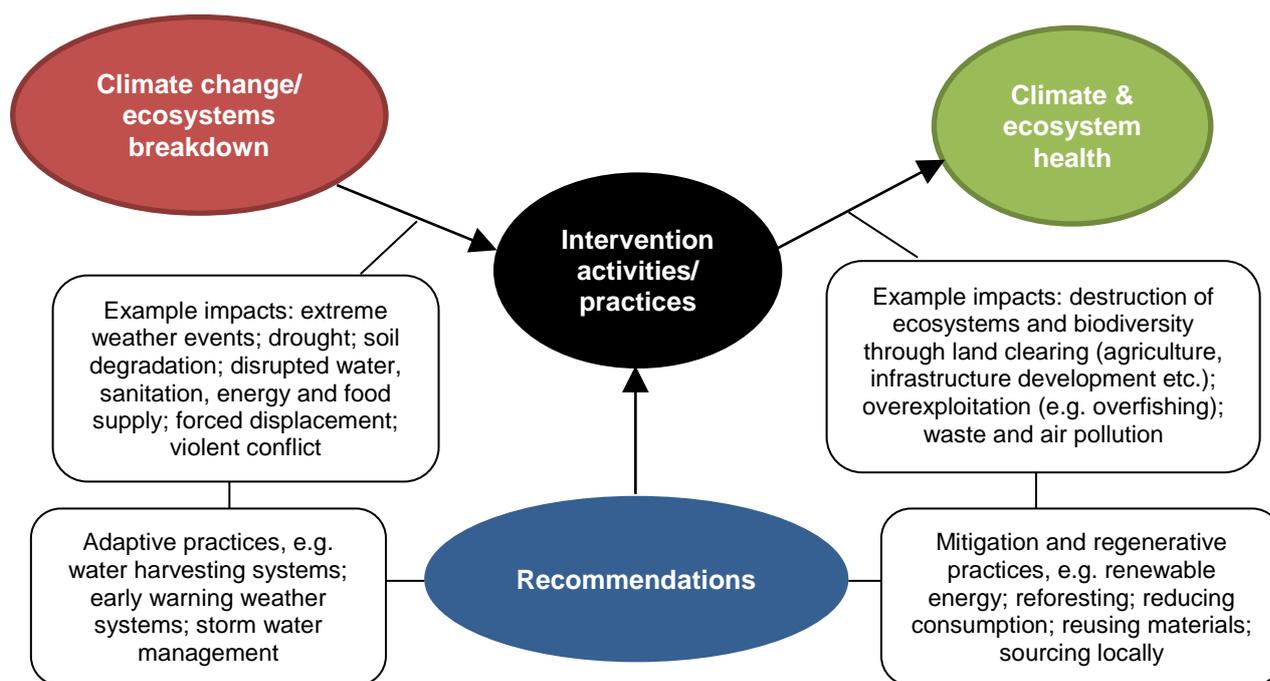


Table 1: Definition of the climate and ecosystems health criterion

Criterion	Climate and ecosystems health (CEH) – does the intervention degrade or regenerate CEH and how will it be affected by changes in CEH?
Brief description	<p>Assessing the intervention in terms of:</p> <ol style="list-style-type: none"> 1. The impacts (degenerative, neutral, regenerative) on CEH of the resources consumed and the waste/pollution generated in the implementation of the intervention; 2. The impacts of climate change and ecosystem degradation on the operation, outcomes and sustainability of the intervention; 3. The extent to which the intervention design facilitates or inhibits the capacity of the intervention and its beneficiaries to adapt to the effects of climate change and ecosystem degradation. <p>Making recommendations regarding:</p> <ol style="list-style-type: none"> 1. How detrimental practices can be reduced or eradicated and what new practices can be introduced that could make positive contributions to CEH (mitigation and regeneration); 2. How the adaptive capacity of the intervention and its beneficiaries can be strengthened via new practices and skills.
Notes	<ul style="list-style-type: none"> ● “Climate health” refers to global temperatures returning to a safe level; ● “Ecosystems health” refers to the capacity of ecosystems to remain stable, sustainable and resilient to external influences thereby supporting a diversity of life forms and being able to provide key benefits to society such as the provision of clean water and food.

3.2 Dimensions of the CEH criterion

There are three main dimensions of the CEH criterion: (1) the impacts of the intervention on CEH, (2) the impacts of the climate crisis and ecosystem breakdown on the intervention, and (3) the adaptive capacity of the intervention. These are described in greater detail below, using the South African government’s National School Nutrition Programme (NSNP) to illustrate how each dimension applies.²⁵

3.2.1 Dimension 1: Impacts of the intervention on CEH

The activities and practices associated with the implementation of an intervention impact on CEH in two key ways: *resource consumption* and the *generation of waste and pollution*.

The implementation of an intervention relies on the use of various resources, including material and human resources. For the purposes of the CEH criterion, the focus is on

²⁵ The NSNP aims to enhance the learning capacity of learners through the provision of a healthy meal at schools. Where it is implemented, the programme has shown to improve punctuality, regular school attendance, concentration and the general wellbeing of participating learners. One nutritious meal a day is provided to primary and secondary school learners from poor backgrounds. The menu is informed by the South African Food Based Dietary Guidelines. The meals are prepared by unemployed members of the community appointed by the School Governing Body. Some provinces implement a decentralised model where local communities produce and cook the food, while others use a centralised model with central procurement and delivery. The schools are encouraged to have food gardens so that the educators and learners can learn how to grow vegetables and fruit, and to supplement the school meals with fresh produce. Parents and community members are encouraged to donate to the programme; for example, cooking, eating and garden equipment, detergents and protective clothing. (Source: Department of Basic Education website: <https://www.education.gov.za/Programmes/NationalSchoolNutritionProgramme.aspx>, accessed 2 March 2022.)

resources drawn from natural ecosystems such as water, trees, energy and land – for instance, as would be utilised in the construction of a road or a housing project. Most human activities generate pollution of some form or another, whether it be from the exhaust fumes of vehicles or the contamination of wastewater through the use of chemical cleaning agents. Similarly, waste and by-products of resources are generated throughout the life-cycle of an intervention. The CEH criterion encourages evaluations to consider the environmental impacts of the outputs of interventions and to assess approaches to reducing negative impacts.

Box 2: Applying Dimension 1 to the National School Nutrition Programme

The NSNP relies on a range of nature-based material resources to supply food to schools. Aspects that could be considered include the following:

- Where the ingredients for the meals are *sourced* (locally or from large supermarkets) and how far these ingredients travel to the site of preparation – using produce from local farmers serves to stimulate and support the local economy; the shorter the distance the ingredients travel, the less petrol is used and the less carbon emissions from vehicles.
- The *type of energy* used in the preparation of the meals (e.g. electricity, gas, paraffin, solar) and *where it is generated* – the ideal would be the use of renewable energy generated locally (e.g. solar-produced energy based at the school or the caterers).
- The *water* used for irrigation of the school food gardens – is it municipal potable water or is it rainwater captured at the school site, or grey water generated from the school?

Positive contributions to CEH in terms of resource consumption could include:

- Generating clean energy through the installation of solar panels;
- Setting up water harvesting systems (e.g. grey water or rainwater tanks);
- Purchasing ingredients locally in order to reduce fuel consumption and carbon emissions.

The NSNP also generates waste and its activities may be contributing to pollution. Considerations in this regard would include the following:

- *Transport* – is the model minimising the use of fossil fuels (petrol/diesel) and carbon emissions by sourcing materials locally?
- *Pollution* – is the food grown using pesticides affecting human and ecosystems health?
- *Leftover food or ingredients* – are these thrown out, ending up in municipal landfills generating methane, or are they shared with poor and vulnerable in local communities, collected to feed pigs and/or used to make compost for the food gardens?
- *Packaging* – is food distributed to learners using single-use plastic or are biodegradable or reusable materials used?

Positive contributions to CEH could include regenerative practices such as:

- Using the food waste for compost which, in turn, is used to produce the food;
- Giving community members access to collect useful materials like empty tins in order to stimulate the waste economy;
- Providing nutrition education so that people understand how to reduce waste, grow food etc. and so are more resilient.

3.2.2 Dimension 2: Impacts of the climate crisis and ecosystem breakdown on the intervention

Climate and ecosystems breakdown could affect the intervention in a number of ways. This could be through direct effects of extreme weather events and disasters (e.g. floods or wildfires); drought; soil degradation; disrupted water, sanitation, energy and food supplies; forced displacement; or unrest and conflict. These may directly affect the intervention that is being evaluated – both its implementation and its sustainability.

Box 3: Applying Dimension 2 to the NSNP

The implementation of the NSNP could be affected by the effects of climate change and ecosystem breakdown, for example:

- Disasters and extreme weather events could affect the supply of food available locally; affect transport links for supplies; affect the ability of schoolchildren to receive the meals provided by the programme (as happened during COVID-19 when schools were shut); cause damage to school buildings, or to electricity and refrigeration capacity;
- Heatwaves – resulting in food spoiling quickly;
- Soil degradation, destruction of biodiversity, and drought – reducing capacity for growing food gardens.

3.2.3 Dimension 3: Adaptive capacity of the intervention

Given that mitigation of climate change worldwide is proceeding far more slowly than it should and given the GHGs emissions we have already committed to the atmosphere, the effects of the high levels of GHGs and the damage to ecosystems will be felt for many years to come. This means that adaptation to these circumstances will be required.

This dimension asks to what degree the intervention increases the adaptive capacity and resilience of the intervention itself, and of its beneficiaries or other stakeholders, to withstand the damage from disasters, heatwaves, droughts, etc. This could be *immediate* (e.g. dealing with a disaster); a *short-term* measure (e.g. planting crops that can withstand droughts or higher temperatures); *medium-term*, avoiding a potential disaster (e.g. building in a way that stores water, or that can withstand high winds and heavy storms that might have been 30-year events but are now likely to be every five years).

Box 4: Applying Dimension 3 to the NSNP

The NSNP could foster adaptive capacity and resilience by incorporating the following kinds of measures into its design:

- *Immediate* – keeping more food and energy stocks on hand in the event of a disaster. These could also be used to help the wider community in such a case.
- *Short-term* – food gardens helping the community be more resilient to potential food shocks from climate change; encouraging local producers supplying the school to use crop varieties that are drought- and heat-tolerant, and using several sources so that if one fails, another may have supplies.
- *Medium-term* – encouraging schools to store water that can be used for cooking; designing food stores that can withstand intense storms or heat; encouraging solar-powered energy in schools which can be used for cooking. These measures could also have wider impacts in the community and make schools better able to serve as emergency centres in the case of disasters.

4 CEH-related principles guiding the commissioning and undertaking of evaluations

Those responsible for the commissioning of evaluations have a vital role to play in imbuing the TORs and evaluation design from the start with principles appropriate to CEH. These principles should also inform how the evaluation itself is undertaken as well as the (re)design of the intervention in terms of eliminating existing and/or introducing new activities and practices within interventions.

Drawing on the definitions and descriptions provided earlier, this section of the guideline distils the key principles that should guide the *design and implementation of the intervention* so that it has a regenerative effect on CEH rather than degrading it. Then we consider how to apply these in the evaluation itself. The principles are as follows:

- Consider the *broader and interrelated systems* within which the intervention operates, so that CEH effects across linked systems can be seen and if appropriate evaluated (e.g. food production practices in the NSNP case).
- Be aware of the *evolution of climate and ecosystems breakdown* and so design/redesign to address these changes.
- Be prepared to address the systemic *transformations* needed, with the scale and speed of change required.²⁶
- Reflect on how the intervention can consciously and purposively shift to *regenerative and restorative practices*, ideally using international standards or good practice via creative application of the 'Rs' where possible; for example:
 - Using renewable energy
 - Refusing the use of single-use plastic
 - Reducing the consumption of water or the generation of waste
 - Reusing containers or repurposing them for another use
 - Repairing rather than replacing faulty equipment
 - Recycling paper, glass and tin, and other waste materials
 - Composting organic matter for use in farming or food gardens.
- Incorporate a *CEH educative component* into the intervention through which both the implementers/managers and beneficiaries/stakeholders of the intervention can learn more about the impact of their activities on CEH and strategies for mitigating these.
- *Identify and build skills for the transitions needed* to move from CEH-negative to CEH-positive practices (e.g. setting up recycling and water harvesting systems, learning about composting, carbon sequestration by planting trees).
- Consider how to help the management of any intervention to adapt to the accelerating change arising from climate and ecosystems breakdown.

These principles can be reflected in the evaluation questions (see Table 4).

The following principles would apply specifically to the *evaluation*, which is in itself an intervention:

- The evaluation should apply these principles in the *way it is undertaken* so helping to promote awareness and understanding of the urgent need for action on CEH, and how CEH issues could be addressed.
- The evaluation should seek to identify both *negative and positive consequences* of the intervention on CEH and identify opportunities for change and the skills that will be required to bring about such change.
- The evaluation needs to intentionally explore both the *intended and unintended CEH-*

²⁶ See the five dimensions of transformational change at <https://www.climateinvestmentfunds.org/tclp>

related impacts/consequences of interventions. CEH issues often lie within the unintended outcomes of the intervention (e.g. within activities involving basic operations such as transport, product sourcing, waste disposal, etc.).

- The evaluation should also seek to *identify who is affected* by these unintended CEH impacts/consequences, and who among these “win” and “lose” as a result, and these stakeholders need to be involved in the evaluation so their views emerge.²⁷
- Linked to this, the evaluation should investigate how *the power of different stakeholders* affects their ability to act on CEH issues or has consequences for different groups, including the specific target groups of the intervention as well as more widely. This has implications for who is consulted in the research, who participates in steering committees, etc. and may require bringing in subject matter experts, civil society organisations which represent ecosystem regeneration and climate change response groups or advocates.

²⁷ This is covered in detail in the Transformative Equity Guideline.

PART B: INTEGRATING CEH INTO EVALUATIONS: COMMISSIONING, DESIGNING AND UNDERTAKING EVALUATIONS

5 Ways to make sure that your evaluation findings will be used

It is very important that the findings of any evaluation are used and acted upon. Goldman and Pabari (2020) draw out lessons for maximising the likelihood of the use of evidence. They discuss how evidence-use interventions are undertaken to build awareness, agreement and trust amongst others, thereby building the motivation and capability of decision-makers and their opportunity to use evidence. This has to start before the evaluation is undertaken, and so must be actively planned for in the preparation stage. A key element is ensuring that key stakeholders, potentially including those affected by CEH concerns, are included in the steering committee (see section 8.1).

As well as *instrumental use* (were the recommendations of the evaluation acted upon?), Goldman and Pabari also point to the importance of *conceptual use* (building understanding of the intervention and why it is or isn't working) and *process use* (learning from the evaluation during the process, such as from a theory of change workshop). This points to planning the process of the evaluation carefully to keep stakeholders involved throughout.

Some of the evidence-use interventions that could be applied here to maximise the likelihood that attention is given to using the findings of the CEH aspects of the evaluation are captured in Table 2 below and should be reflected in the planning for the evaluation.

Climate and ecosystems concerns are closely interlinked with how power plays out in society. Evaluators and commissioners of evaluation should be attentive to the dynamics of power and voice that are at play in:

- how interventions are funded, designed and implemented;
- how evaluations are carried out and evaluators are perceived;
- how evaluation results are presented and used.

Key from the outset is creating a process where stakeholders are likely to own the evaluation and use the results. Above all it is critical that stakeholders are meaningfully engaged throughout the entire evaluation process, from conception through to presentation of findings and development of improvement plans. Table 3 (drawing on work by Goldman and Pabari, 2020) presents approaches that can be used to engage stakeholders that will increase the likelihood of evidence use.

Table 2: Possible interventions to maximise use of CEH findings

Change to bring about	Evidence use interventions
Building agreement/ understanding/ trust and commitment to using the results	<ul style="list-style-type: none"> • Steering committee to include key stakeholders, potentially including those affected by the intervention • Run capacity-building (e.g., learning-by-doing, workshops and formal training courses) around the CEH criterion • Involve insiders, e.g. from government and possibly the area if a specific geographical area is prioritised
Facilitating a process of understanding the importance of CEH issues among stakeholders (buy-in)	<ul style="list-style-type: none"> • Face-to-face feedback of findings involving CEH specialists who can assist stakeholders to understand the evidence • Encourage active engagement and dialogue around the implications and challenges of making suggested changes, including adjustments to theory of change or intervention design; trade-offs or contradictions

Change to bring about	Evidence use interventions
	<ul style="list-style-type: none"> with other elements of the intervention Organise meetings with stakeholders adversely affected by the intervention, e.g. excluded from social benefits plan
Strengthening ability and confidence of stakeholders to use the evidence	<ul style="list-style-type: none"> Involve CEH specialists to assist stakeholders to understand the implications of the evidence and possible ways to address them Facilitate workshop(s) with implementers and stakeholders about how to incorporate evaluation improvement plan recommendations
Institutionalising/ formalising use of the evidence	<ul style="list-style-type: none"> Use management responses and improvement plans to formalise action needed
Ensuring access to the evidence	<ul style="list-style-type: none"> Produce accessible 1/5/25 page reports and policy briefs Make report being available in a knowledge repository

The next section provides guidance regarding how CEH dimensions and CEH principles can be incorporated into the evaluation process, from commissioning to dissemination and use of findings.

6 Preparing for commissioning of the evaluation

6.1 Deciding how far to include CEH in the evaluation, and with what focus

As with all evaluations, decisions need to be made about the nature and scope of the evaluation. Applying the CEH criterion in the evaluation of interventions does not follow a one-size-fits-all approach. Different factors affect what it is possible to include. Examples are:

- The timeframe and resources available to undertake the evaluation;
- The type of evaluation that is being undertaken (diagnostic, implementation, outcome, impact, economic, etc.);
- Whether the intervention operates at local, provincial or national levels;
- Whether any CEH considerations have been explicitly incorporated into the objectives and design of the intervention, or its theory of change;²⁸
- The availability of relevant sources of data and expertise (e.g. regarding resource use);
- The extent to which those managing the intervention are already aware of, and have data on, the outcomes and impacts of the intervention.

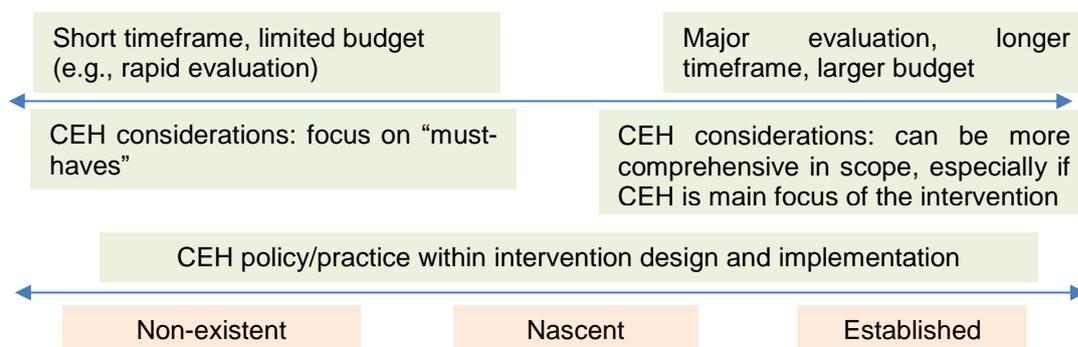
While this guideline indicates that it is critical that CEH considerations are incorporated into the design and implementation of evaluations, there is a risk that the CEH components might be treated as an afterthought, given time, budget and capacity constraints. It is thus important that the TORs for the evaluation are appropriately tailored to the specifics of the evaluation and can realistically be accomplished. This guideline is structured in such a way as to provide commissioners with the necessary guidance to make relevant and appropriate choices about how to apply a CEH lens in the commissioning and design of the evaluation.

Although some funders and government may place a strong emphasis on the need to incorporate CEH into evaluation objectives and designs, CEH considerations are likely not yet treated as an imperative. There might thus be a need to advocate for this among staff in

²⁸ It might be difficult to address CEH in cases where this was not explicit at evaluation design/development of the theory of change and it might make sense to recommend reconstructing a theory of change which takes CEH and equity into consideration.

government departments, possibly even with funders and external evaluators, and train them on the guideline.

Figure 7: Nature and extent of CEH considerations based on evaluation parameters²⁹



A section of the TORs describes what CEH aspects to focus on in the evaluation (and so what not to cover), as well as other *scope* issues like the timeframe and available resources for the evaluation; intervention components to be covered; the geographical and institutional coverage of the evaluation; sector and thematic areas. The scope should also indicate areas that will not be covered. The shorter the timeframe and the smaller the budget, the more focused the CEH considerations must be. Another consideration is the extent to which CEH considerations are already embedded in the intervention design and implementation.

6.2 Addressing capacity and expertise requirements

Initially, when incorporating the CEH criterion into the TORs of evaluations, those responsible for commissioning and undertaking evaluations will be faced with the challenge of limited capacity, expertise and experience in using this lens. Given that this is a new area of evaluation practice – both within government departments and among evaluation practitioners – it is critical that adequate and appropriate capacity and expertise is both sourced and developed. Some of the ways in which this could be supported include the following:

- **Developing a network for peer learning** so that commissioners and evaluators can learn from one another. The South African Monitoring and Evaluation Association (SAMEA) has established a Community of Practice on Just Transition M&E.³⁰
- **Training:** for staff of government departments (both M&E and programme staff) on CEH considerations and how these can be applied in evaluations, and potentially also for evaluators. This is being piloted in July 2022.³¹
- A roster of **experts** familiar with CEH issues, who can make inputs into and provide advice on preparing the TORs, guide and support the evaluation team, and assist with quality assurance of the evaluation. Such experts could be in the technical working group (TWG), in the evaluation team, in the evaluation steering committee or be peer reviewers. They might include someone with experience of the relevant policy arena – for example, an environmental expert who specialises in the agricultural sector.
- **Information packs** for commissioners and evaluators: selected readings, summaries of CEH issues to aid in developing TORs and evaluation design. These should assist in guiding thinking to answer questions such as: How will we know when an

²⁹ This would also be applicable if CEH was a main focus of the intervention.

³⁰ Contact info@samea.org.za for details.

³¹ Contact seirah@dpme.gov.za or coordinator@samea.org.za for details.

intervention is contributing positively or negatively to CEH?

The inclusion of CEH considerations will possibly require a wider net of stakeholders to be involved in the evaluation.

7 Developing the terms of reference (TORs)

7.1 Evaluation purpose

For many interventions the main focus of the evaluation is likely to be on how the intervention is performing and how it can be improved. Only for an environmental intervention is it likely to be the main focus. In the case where it is not the main focus, for the CEH component of the evaluation to be insightful and meaningful and not just an afterthought, it will be necessary to build the various elements of this criterion into the TORs. Suggestions for how this can be approached are presented in this section. This section of the guideline should be read along with the DPME's How to Develop Terms of Reference for Evaluation Projects³² and it follows the same structure.

CEH considerations could be included in the *evaluation purpose*, particularly if these issues are likely to be large or the intervention is an environmental one, or closely related such as around energy, or food systems. Table 3 shows how the evaluation purpose could be adapted to incorporate explicit CEH dimensions. In many cases the purpose would not change, and CEH will be brought in at the evaluative question level. Note that Table 3 and Table 4 can seem overwhelming but you only need to look at the evaluation type(s) that are relevant to your evaluation.

Table 3: CEH-related evaluation purpose for the different types of evaluation

Type of evaluation/questions	Timing	Typical core question in the purpose ³³	Possible adapted purpose, if a major focus on CEH is required
Diagnostic	At key stages prior to design or planning	What is the current situation/root cause of the problem and possible interventions to address it?	What is the current situation and root cause of the problem, <i>how does it relate to CEH issues, and what are possible interventions to address it?</i>
Design	Prior to implementation, or after intervention designed	Is the logic of the intervention design robust and likely to work?	Is the logic of the intervention design robust and likely to work <i>and what is the likely impact on CEH?</i>
Implementation	Once or several times during the intervention	Is the intervention being implemented as specified, are the outcomes likely to be achieved, and why?	Is the intervention being implemented as specified, are the outcomes likely to be achieved and why, <i>and are there likely to be positive or negative CEH outcomes?</i>
Outcome	Designed early on, Baseline	Have short-term outcomes ³⁴ or medium-term outcomes ³⁵ been	Have short-term outcomes ³⁶ or medium-term outcomes ³⁷ been achieved as a result of the

³² Available here:

[http://evaluations.dpme.gov.za/images/gallery/DPME%20Evaluation%20Guideline%202.2.1%20How%20to%20develop%20TORs%20for%20Evaluation%20Projects\(Full\).pdf](http://evaluations.dpme.gov.za/images/gallery/DPME%20Evaluation%20Guideline%202.2.1%20How%20to%20develop%20TORs%20for%20Evaluation%20Projects(Full).pdf).

³³ And in almost all cases this would also include: and how can the intervention be strengthened?

³⁴ Changes in capacity and systems

³⁵ Changes in behaviour or performance

³⁶ Changes in capacity and systems

Type of evaluation/questions	Timing	Typical core question in the purpose ³³	Possible adapted purpose, if a major focus on CEH is required
	implemented early	achieved as a result of the intervention?	intervention, <i>and what have been CEH outcomes, intended or unintended?</i>
Impact (if a service delivery intervention) (if a support intervention)	At any stage	How have beneficiaries' lives changed as a result of the intervention? What have been the intended or unintended impacts of the intervention on the intended beneficiary organisations?	How have beneficiaries' lives changed as a result of the intervention, <i>and have there been impacts on CEH?</i> What have been the intended or unintended impacts of the intervention on the intended beneficiary organisations, <i>and have there been impacts on their ability to manage CEH?</i>
Economic	After a number of evaluations are completed	What are the costs in relation to the benefits? Is the programme providing value for money?	What are the costs in relation to the benefits and have environmental costs been factored in, for whom ³⁸ ? Is the intervention providing value for money when externalities are accounted for?
Evaluation synthesis	Can be at any stage	What is the evidence from all evaluations related to the topic in question?	What is the evidence from all evaluations related to the topic in question <i>in relation to CEH?</i>

7.2 Evaluation questions

Having defined the purpose and scope, the next task is how CEH dimensions can be incorporated effectively into the evaluation questions that will guide the evaluation? Table 4 below provides examples of the kinds of CEH-related questions which can be linked to different types of evaluation. Once again you can just select the relevant evaluation type to focus on. Some of these questions are directly about CEH effects, while some relate to the OECD DAC criteria of:

- Policy *relevance* and stakeholder appropriateness;
- *Effectiveness* of policy/programme/project/service delivery;
- *Efficiency* of resource utilisation, as well as management and administration;
- *Coherence*: the compatibility of the intervention with other interventions in a country, sector or institution;
- *Impact*: evidence the theory of change is working;
- *Sustainability*: of funding, institutionalisation and expertise.

And DPME/SAMEA have added:

- *Climate and ecosystems health*: does the intervention degrade or regenerate CEH and how will it be affected by changes in CEH;
- *Transformative equity*: the extent to which an intervention's objectives, design, implementation and impact contribute to, or do not contribute to, addressing systemic inequities and promotion of a more inclusive society.

³⁷ Changes in behaviour or performance

³⁸ This should also consider costs over the lifespan of the intervention and intergenerational costs

Table 4: CEH-related evaluation questions for the different types of evaluation

Type of evaluation/questions	Possible adapted core question, if a major focus on CEH is required	Basic and in-depth evaluation questions related to CEH (and in brackets the DAC criteria these relate to, or equity)
Diagnostic	What is the current situation and root cause of the problem, <i>how does it relate to CEH issues</i> , and what are possible interventions to address it?	What problem areas related to CEH need to be considered in looking at the problem, its causes, and domain of intervention? What alternative modes of intervention should be considered in the design and implementation of the intervention that are more CEH-friendly? What alternative modes of intervention should be considered in the design and implementation of the intervention to promote adaptation to CEH impacts? (<i>effectiveness/impact/sustainability</i>)
Design	Is the logic of the intervention design robust and likely to work <i>and what is the likely impact of the intervention on CEH?</i>	Does the intervention explicitly relate to any climate or ecosystem policies, strategies, or agreements? (<i>coherence</i>) Are the objectives of the intervention likely to have a positive or negative effect on CEH and how vulnerable is the intervention to CEH effects, now and in the future? (<i>effectiveness/impact/sustainability</i>) How should the design of the intervention address current and future CEH concerns including adaptation to climate/ecosystem effects? (<i>relevance</i>) Which activities will need to be phased out over time or brought in? What skills are required? (<i>effectiveness/impact/sustainability</i>) Do social justice/equity objectives interact positively or negatively with CEH considerations in the intervention? How does this need to be considered in the design? (<i>equity/effectiveness/coherence</i>) Whose interests are likely to be affected by a focus on CEH considerations? (<i>equity/impact</i>) What alternatives need to be considered in the design and implementation of the intervention that are more CEH-friendly and resilient? (<i>effectiveness/impact/sustainability</i>)
Implementation	Is the intervention being implemented as specified, are the outcomes likely to be achieved and why, <i>and are there likely to be positive or negative CEH outcomes?</i>	What is the level of awareness of CEH considerations among implementers and beneficiaries? During implementation is there any explicit attempt to understand and mitigate or adapt to CEH effects? For whom? Are CEH considerations reflected in the implementation of the intervention? (e.g. consumption patterns and practices, waste management) (<i>effectiveness/coherence</i>) Whose interests are affected by a focus on CEH considerations? (<i>equity</i>) What CEH outcomes can be anticipated now and in the future? (<i>effectiveness/impact</i>)
Outcome	Have short-term outcomes ³⁹ or medium-term outcomes ⁴⁰ been achieved as a result of the intervention, <i>and what</i>	What have been the CEH outcomes, intended or unintended? (<i>effectiveness/impact</i>) What CEH outcomes can be foreseen as a result of the intervention? (<i>effectiveness/impact</i>) In what ways are beneficiaries and other stakeholders impacted with regard to environmental considerations? (<i>effectiveness/impact</i>)

³⁹ Changes in capacity and systems.⁴⁰ Changes in behaviour or performance.

Type of evaluation/ questions	Possible adapted core question, if a major focus on CEH is required	Basic and in-depth evaluation questions related to CEH (and in brackets the DAC criteria these relate to, or equity)
	<i>have been the CEH outcomes, intended or unintended?</i>	Is the intervention contributing to environmental health or environmental harm and is it potentially regenerative or degenerative? (<i>effectiveness/impact</i>) Is the intervention changing to minimise vulnerability to CEH effects? (<i>effectiveness, sustainability</i>)
Impact (if a service delivery intervention) (if a support intervention)	How have beneficiaries' lives changed as a result of the intervention, <i>and have there been impacts on CEH?</i> What have been the intended or unintended impacts of the intervention on the intended beneficiary organisation(s), <i>and have there been impacts on the implementer's ability to manage CEH effects?</i>	In what ways are beneficiaries and other stakeholders (including vulnerable individuals, groups or communities) impacted with regard to environmental considerations and how do power relations affect these? (<i>impact</i>) In what way has the ecosystem changed as a result of the intervention (e.g. a housing project could have been built in an ecologically sensitive site)? (<i>impact</i>) What further CEH impacts can be foreseen happening? (<i>impact</i>) What impact have CEH effects had on the intervention? (<i>impact</i>)
Economic	What are the costs in relation to the benefits and have environmental costs been factored in, for whom ⁴¹ ? Is the intervention providing value for money when externalities are accounted for?	What is the social/environmental cost-benefit or cost-effectiveness of different implementation options, now and in the future? (<i>effectiveness/efficiency/impact</i>) What is the social/environmental cost-benefit or cost-effectiveness of the intervention, now and in the future? (<i>effectiveness/efficiency/impact</i>) What social/environmental cost-benefit or cost-effectiveness of the intervention can we foresee going forward? (<i>effectiveness/efficiency/impact</i>)
Evaluation synthesis	What is the evidence from all evaluations related to the topic in question <i>in relation to CEH?</i>	What appear to be the best options to address CEH concerns in the sphere of the intervention? What appear to be the main CEH outcomes of this type of intervention? (<i>effectiveness/impacts</i>) What CEH outcomes and impacts can we foresee happening in the medium and longer term? (<i>effectiveness/impacts</i>)

⁴¹ This should also consider costs over the lifespan of the intervention and intergenerational costs

7.3 Identifying evaluation users/stakeholders

Identifying the core and potential users of, and stakeholders in, the evaluation is part of developing the TORs (as per the DPME's Guideline on TORs). Additional thought will need to be given to who else might be included insofar as CEH considerations are concerned. These stakeholders could be producers or suppliers of services at the input level, or they could be secondary end users or those affected by ecosystem consequences.

Box 5: Evaluation users/stakeholders for NSNP

One user group for an evaluation of the NSNP would be local producer groups producing food for the schools. They might use the findings to reflect on the regenerative nature of the production methods they are using. In addition, there could be users who are adversely affected by the upstream or downstream aspects in relation to the environment. For example, if waste products are affecting the local ecosystem, there might be users of that ecosystem who are affected. If this is significant these might need to be considered as users of the evaluation.

There might also be potential users/stakeholders in the public sector and NGO spheres who would not only benefit from the CEH-related findings but also play an important role in making changes to improve the intervention's impact on CEH (e.g. policy, resource allocation, capacity building). The IPCC reports provide examples of enabling conditions for adaptation and mitigation:

- *Adaptation*: political commitment and follow-through, institutional frameworks, policies and instruments (such as legal frameworks)
- *Mitigation*: finance, technological innovation, policy instruments, multi-level governance.

There may be private sector stakeholders that are also key in relation to the intervention, e.g. commercial agriculture. Suggestions for what to consider in identifying relevant stakeholder groups are contained in Appendix 2.

7.4 Scope of the CEH application in the evaluation

See section 6.1.

7.5 CEH implications for evaluation design

The evaluation design must enable the evaluator to accomplish the purpose of the evaluation. In the process it may need to assess the nature and extent of the intervention's impact on CEH or degree of impact on the intervention by CEH.

Key elements of design include whether the evaluation is mixed method/quantitative or qualitative; case study⁴²; ethnographic; empowerment⁴³; realist⁴⁴ or whether a theory-based approach⁴⁵ will be used (testing out the theory of change). The way the design is developed and implemented can have major implications for use (see section 5).

Broadly speaking, the evaluation design will be selected according to the main focus of the evaluation. However ideally it would be adapted to include exploration of the following:

⁴² Eg see Yin, (1994)

⁴³ https://www.betterevaluation.org/en/plan/approach/empowerment_evaluation

⁴⁴ <https://www.betterevaluation.org/en/search/site/realist>

⁴⁵ <https://www.betterevaluation.org/en/search/site/theory-based%2520evaluation>

- Is there any explicit reference to, or focus on, CEH in the intervention's aims, objectives, theory of change and implementation activities, or any implicit outcomes that are not explicitly recognised?
- Does the intervention design include ways in which the intervention can adapt to, or mitigate, the effects of the climate and ecosystems crises?
- In what ways does the intervention interact with the natural environment? What natural resources does the intervention depend on and what impacts, such as waste, do the intervention's activities have on CEH? Are the practices and activities of the intervention degrading or helping to restore and regenerate CEH?
- Is there a need to analyse the system and the boundaries (possibly explored in the theory of change process)?
- How are the stakeholders/beneficiaries of the intervention impacting on CEH considerations? Do any of them have vested interests in the status quo?
- In what ways are the climate crisis and ecological breakdown impacting on the intervention? What are the implications of these impacts for the future sustainability of the intervention?
- What CEH-related international, national and sectoral policy frameworks (e.g. NDCs), strategies or plans could be used to guide alignment of intervention objectives, design and implementation with CEH considerations and help to legitimise the CEH component?
- What changes can be introduced into the intervention's design, theory of change and/or activities that will make a positive contribution to CEH, improve its sustainability going forward, as well as the ability of beneficiaries to adapt to changes in CEH?
- How can the intervention best balance CEH considerations with social justice and equity?

Including CEH considerations into the evaluation might well require more interdisciplinary expertise and this is highlighted in section 7.7 on the composition of the evaluation team.

Table 5 suggests how the questions are covered in the purpose of different evaluation types, now adjusted to include CEH.

Commissioners/evaluators may wish to look at the DPME guidelines on these different types of evaluations.⁴⁶

Table 5: Implications of evaluation questions for evaluation design

Type of evaluation/questions	Basic and in-depth evaluation questions related to CEH (and in brackets the DAC criteria these relate to, or equity)	Implications for evaluation design
Diagnostic	What is the current situation and root cause of the problem, <i>how does it relate to CEH issues</i> , and what are possible interventions to address it?	Document review, root cause analysis Good to cover in workshop process
Design	Is the logic of the intervention design robust and likely to work <i>and what is the likely impact on CEH?</i>	Explore in theory of change Explore in document review Stakeholder analysis Explore in interviews and workshops
Implementation	Is the intervention being implemented as specified, are the outcomes likely to be achieved and <i>why</i> , <i>and are there likely to be</i>	Explore in interviews, surveys, focus groups Specific mapping of resources

⁴⁶ See guidelines 2.2.10-2.2.15 at <https://evaluations.dpme.gov.za/pages/guidelines-other-resources>

Type of evaluation/ questions	Basic and in-depth evaluation questions related to CEH (and in brackets the DAC criteria these relate to, or equity)	Implications for evaluation design
	<i>positive or negative CEH outcomes?</i>	used /waste Stakeholder analysis Explore in interviews, surveys, focus groups, analysis
Outcome	Have short-term outcomes ⁴⁷ or medium-term outcomes ⁴⁸ been achieved as a result of the intervention, <i>and what have been CEH outcomes, intended or unintended?</i>	Explore through interviews, surveys, focus groups, participatory research etc., with affected stakeholders.
Impact (if a service delivery intervention)	How have beneficiaries' lives changed as a result of the intervention, <i>and have there been impacts on CEH?</i>	Could be process or counterfactual, e.g. similar communities elsewhere
(if a support intervention)	What have been the intended or unintended impacts of the intervention on the intended beneficiary organisation(s), <i>and have there been impacts on their ability to manage CEH?</i>	From literature, interviews, surveys, focus groups, participatory research with affected stakeholders, analysis
Economic	What are the costs in relation to the benefits and have environmental costs been factored in, for whom? ⁴⁹ Is the intervention providing value for money when externalities are accounted for?	Analysis of costs and analysis of benefits Workshopping/ expert panels
Evaluation synthesis	What is the evidence from all evaluations related to the topic in question <i>in relation to CEH?</i>	Systematic review/synthesis methods of a range of studies

7.6 Methodology: Types of data and data collection methods

Some methodology issues to consider here could include:

- What quantitative measures and indicators would be appropriate and useful?
- Qualitative interviews and focus groups – with whom and about what?
- Process tracing – e.g. from resource use to waste outputs – which stakeholders would need to be involved in this?
- Any environmental sampling (e.g. of water quality, or visual ratings of waste);
- How to ensure use of the evaluation as a way of learning and expanding understanding of CEH issues and ways of promoting health.

At the centre of the CEH component of the evaluation design is identification of what (natural) resources the intervention consumes in carrying out its activities (inputs), what waste products it generates, and how these are dealt with. These, in turn, can be assessed as making either positive or negative contributions to CEH. Examples of positive and negative contributions:

- **Positive contribution** – biodiversity conservation and restoration (such as reforestation); use of/investment in renewable energies; generative practices such as circularity, designing buildings for passive heating, cooling and ventilation, composting food waste; focus on reuse and repair; recycling; finding ways to reduce consumption in general (such as limiting travel, conserving energy), etc.
- **Negative contribution** – destruction/degradation of natural habitats (such as

⁴⁷ Changes in capacity and systems.

⁴⁸ Changes in behaviour or performance.

⁴⁹ This should also consider costs over the lifespan of the intervention and intergenerational costs

deforestation); generating pollution (into land, water or air); wasteful practices (food, water, energy etc.); reliance on fossil fuels, etc.

The Climate, Environment and Disaster Risk Reduction Tool is a useful resource which can be found at <https://www.cedrig.org/>. The tool works with three categories of depth: light, strategic and operational. Where the primary focus of the evaluation is not the environment, the first two categories are relevant and could be adapted for the particular purpose.

The light category is used as an initial filter to assess whether strategies, programmes or projects are at a significant risk from climate change, disasters, and/or environmental degradation (risk perspective). The focus is on whether risks could potentially have a significant impact on CEH and create new risks or exacerbate existing risks (impact perspective). The results are used to decide whether a detailed assessment should be conducted (CEDRIG Strategic or CEDRIG Operational).⁵⁰

The strategic module is characterised as participatory in supporting systematic integration of CEH and disaster risk reduction into an existing or planned strategy or programme. It covers two perspectives: A risk perspective (adaptation to climate change, to degraded environments and integration of disaster risk reduction measures) and an impact perspective (avoiding negative impacts on the climate and on the environment and avoiding the creation of new risks or the exacerbation of existing risks linked to natural hazards).⁵¹

7.7 The evaluation team

The TORs suggest the type of team and competencies required to cover the domains of expertise needed, including CEH expertise. One of the main members of the evaluation team may be competent to identify the expertise needed, or it may be necessary to include or consult experts in CEH.

In terms of the competencies, referring to the generic competencies in DPME's Guideline on TORs, relevant competencies would include those shown in Table 6.

Table 6: Specific CEH competences to look for in the team

Competence	CEH considerations
Composition of the team	Does the team have the specific capacity to consider CEH issues?
Evaluation craft	Is there experience in the team in terms of understanding system dynamics and interactions? Does the team have appropriate experience in the area of CEH in addition to expected evaluation experience?
Evaluative discipline and practice	No specific CEH issues
Research practice	Does the team have experience of specific research methods in the domain of CEH?

⁵⁰ Available here https://www.cedrig.org/sites/default/themes/cedrig/img/CEDRIG_Light_EN.pdf

⁵¹ Available here https://www.cedrig.org/sites/default/themes/cedrig/img/CEDRIG_Strategic_EN.pdf

8 Managing the evaluation

8.1 The steering committee

The steering committee is the key decisional structure for evaluations. As per the discussion on and the importance of ownership in section 5, it is important that the steering committee includes representatives of those involved in, and affected by, the intervention. Normally the steering committee is chaired by the programme manager. If there are significant environmental effects, then these should be represented, either through the particular groups affected, or the particular regions affected, or, if not, by a group which is interested in those effects such as the national or provincial department of environment or a relevant NGO. It may be important to run a training session for the steering committee members so they are better equipped to consider CEH and equity issues in the evaluation.⁵²

8.2 Peer reviewers

The DPME typically suggests two peer reviewers per evaluation – one focusing on content and one on methodology.⁵³ Questions to ask with regard to CEH include the following: Do the peer reviewers have an understanding of climate and ecosystems health? Would be important to bring in to peer reviewers with CEH expertise for this evaluation, especially where there are likely to be significant impacts? It would be very helpful to have someone with an understanding of climate/ecosystems to review the evaluation questions. In addition, specialist peer reviewers on key topics of concern could be brought in.

8.3 The role of sponsors/funding partners

Funder support for the achievement of climate and ecosystems-related M&E should take account of the existence of local capability, existing developmental agendas, and existing climate policy ambition and progress toward its achievement. Funder support may provide much needed impetus toward achieving greater ambition.

Funding for the interventions envisaged in this guideline is likely to be from government, development banks, private or international funders (e.g. donors, the World Bank, newly-established global green funds). Some interventions will have non-government funders, particularly those implemented by NGOs. While these distinct entities will have their own systems for evaluation, as per the Paris Declaration on Aid Effectiveness, funders should align with the national evaluation system, otherwise their fragmented proprietary systems could end up weakening local capacity or undermining locally relevant developmental interests. Funders would often wish to be a member of the steering committee of the evaluation.

A useful resource to explore in this regard is the Independent Philanthropy Association South Africa's toolkit and resource pack on how to understand the climate crisis and how donors can respond.⁵⁴

⁵² DPME's model TOR for steering committees is here

<http://evaluations.dpme.gov.za/images/gallery/Terms%20of%20Reference%20for%20Evaluation%20Steering%20Committees.pdf>

⁵³ The DPME guideline on peer reviewing of evaluations is available here:

<https://evaluations.dpme.gov.za/images/gallery/GL%202.2.2%20Revised%20Peer%20Review%20Guideline.pdf>.

⁵⁴ The toolkit is available here: <https://ipa-sa.org.za/the-climate-crisis/>.

8.4 Minimising resource consumption and waste/pollution when undertaking the evaluation

In the spirit of incorporating CEH considerations into the evaluation of interventions, evaluators themselves should be encouraged and guided on how to minimise their own ecological footprint in the undertaking of evaluations. This would involve looking at the evaluation plan and activities in terms of what resources will be consumed and how choices could be made that are more CEH-friendly; similarly, what waste/pollution will be produced and how this could be handled optimally. Examples could include the following:

- Limiting *travel distance to reduce GHGs*:
 - Meetings with the commissioners of evaluations, intervention stakeholders and beneficiaries: could these be held virtually in order to reduce emissions (e.g. flights, telephone interviews)? Will this exclude any stakeholders?⁵⁵
 - If virtual meetings are not appropriate or possible (for instance, when participatory sessions with community members need to be facilitated in person) how can these be best organised to limit travelling long distances? Could local evaluators be used?
- Reducing *use of other resources*:
 - The use of computer-based surveys instead of paper-based surveys where applicable, as well as use of tape recorders instead of writing notes on paper during observations.
 - Pens and notepaper could be reused at a later stage in the evaluation or in another evaluation, or recycled where possible.
- Reducing the *carbon emissions* or *waste* associated with food: in terms of the food and beverages that might be provided during workshops, focus groups and other types of interactions:
 - Can these be sourced and prepared locally?
 - Can plant-based options be made available?
 - Can single-use plastic be eliminated by, for instance, using tap water rather than bottled water?
 - How can food and beverage waste be minimised?

8.5 Validation of findings

It is important that the evaluation findings and recommendations are validated by stakeholders. This can be in the form of a validation workshop, in which case the participants should be carefully selected to include groups differently affected by the intervention, including those affected by the CEH implications of the intervention, as well as stakeholders with a diversity of views. The process should encourage participation by all groups, create meaningful interaction with the findings and include the potential to make recommendations.

8.6 Quality assessment of the evaluation

The evaluation quality assessment system should be based on the evaluation standards set for government⁵⁶ as well as CEH-related considerations. The latter may need to be developed by DPME.

⁵⁵ Note DPME/SAMEA have a virtual evaluation guideline which could be helpful

⁵⁶ <https://www.dpme.gov.za/keyfocusareas/evaluationsSite/Pages/Quality-Assurance.aspx>

9 Bringing a CEH lens into the follow-up to the evaluation

9.1 Improvement plan and progress report

Following approval of the evaluation report, the National Evaluation System indicates that a management response should be prepared⁵⁷ by the custodian department and, based on this, an improvement plan developed with stakeholders.⁵⁸ The improvement plan sets out the improvements needed, and this is a key creative strategic moment to embed regenerative practices and skills into the intervention. The workshop to prepare the improvement plan should involve representatives of affected groups. The improvement plan should include how to incorporate CEH considerations into the intervention design and, if appropriate, the theory of change, considering current and future effects. It should also capture what records need to be kept/data generated going forward so that more CEH-related data is available for future evaluations.

For national evaluations these reports and improvement plans are submitted to Cabinet, again raising the importance of embedding regenerative practices in the operations of the intervention. There are meant to be six-monthly progress reports on the improvement plans, and these provide an opportunity to check that the improvement measures are progressing.

9.2 Communicating the results of the evaluation

Ideally, communications should happen throughout the evaluation: beginning during consideration of the evaluation; when meetings with stakeholders may be held; making TORs publicly available TORs; the consultation processes that will be followed in the course of the evaluation; feedback on draft findings; and final dissemination of results. Communication of evaluation results should be factored into the evaluation budget. The whole process is potentially important in raising awareness in stakeholders of the critical nature of CEH challenges, and this should be explicitly considered in designing the process of the evaluation.⁵⁹

Once CEH aspects are included in the evaluation, awareness-raising activities may be needed to explain the importance of CEH, discuss climate and ecosystems indicators, and for commissioners and evaluators to understand how CEH considerations may be involved in the intervention. Appropriate communication is needed with key politicians (e.g. ministers) and senior managers including formal and informal briefings prior to, and during, the evaluation. This is an important role that M&E units must play.

⁵⁷ The DPME guideline on how to develop a management response to an evaluation report is available here:

<https://evaluations.dpme.gov.za/images/gallery/GL%202.2.5%20Revised%20Management%20Response%20Guideline.pdf>.

⁵⁸ The DPME guideline on how to develop an improvement plan to address evaluation recommendations is available here:

<http://evaluations.dpme.gov.za/images/gallery/Guideline%202.2.6%20Improvement%20Plan%2014%2007%2018.pdf>.

⁵⁹ Consideration should be given to the option of making project team/steercom meetings etc open access – either open up the discussions for public viewing or making a recording / minutes available. This is particularly relevant if there is a lot of suspicion about the process,

Annexes

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DPME guidelines

- GL 2.2.1 How to Develop TORs for Evaluation Projects (Revised)
- GL 2.2.2 Peer Review of Evaluations
- GL 2.2.3 Implementation Programmes
- GL 2.2.4 Inception Phase
- GL 2.2.5 Management Response
- GL 2.2.6 Improvement Plan
- GL 2.2.8 Communication
- GL 2.2.10 Diagnostic Evaluation
- GL 2.2.11 Design Evaluation
- GL 2.2.12 Implementation Evaluation
- GL 2.2.13 Impact Evaluation
- GL 2.2.14 Economic Evaluation
- GL 2.2.15 Synthesis Evaluation
- GL 2.2.17 How to Develop Actionable Recommendations
- GL 2.2.24 Gender Responsive Evaluation Guideline

Annex 2: South African government CEH-related policies

A2.1: Key policies and initiatives to address the climate crisis in South Africa

- The [National Development Plan 2030](#) (NDP) dedicates a full chapter to ‘Environmental Sustainability: An equitable transition to a low-carbon economy’.
- The [National Climate Change Response Policy White Paper](#) (2011) represents government’s comprehensive policy framework for responding to climate change, including provisions for adaptation and mitigation.
- The [National Climate Change Adaptation Strategy](#) (2019) aims to give effect to the NDP’s vision of creating a low-carbon, climate resilient economy and a just society.
- The *Climate Change Bill* (forthcoming) will form the legislative foundation for the climate change adaptation and mitigation response.
- [South Africa’s Low-Emission Development Strategy 2050](#) (2020) centres on measures being implemented by government to address mitigation in the energy, industrial (including agriculture), forestry and land use, and waste sectors.
- The [Presidential Climate Commission](#) (PCC), established in September 2020, is a multi-stakeholder body tasked with advising on the country’s climate change response and pathways to a low-carbon climate-resilient economy and society.
- At the UNFCCC 26th Conference of the Parties (COP26) held in 2021, a commitment was made to South Africa of USD8.5 billion by the US and EU member states to assist the country to shift from a high carbon emission economy dependent on coal to a low-carbon economy.

A2.2: Key policies and initiatives to address the ecosystem and biodiversity crises in South Africa

- [South Africa’s National Biodiversity Strategy and Action Plan 2015–2025](#) identifies the priorities for biodiversity management in order to conserve, manage and sustainably use biodiversity to ensure equitable benefits to the people of South Africa.
- The [National Waste Management Strategy](#) (2011) covers, among others, the promotion of waste minimisation, reuse, recycling and recovery of waste; delivery of waste services; and growing the contribution of the waste sector to the green economy.
- [A Circular Economy Guideline for the Waste Sector: A driving force towards sustainable consumption and production](#) (2020)
- [Key legislation](#) relating to National Environmental Management: Biodiversity Act (No. 10 of 2004, as amended); Air Quality Act (No. 39 of 2004, as amended); Protected Areas Act (No. 57 of 2003); Integrated Coastal Management Act (No. 24 of 2008)
- [National policies](#): White paper on National Environmental Management of the Ocean (2014); White Paper on Integrated Pollution and Waste Management (2000); Environmental Management Policy White Paper (1998); White Paper on Conservation and Sustainable Use of Biodiversity (1997); White Paper on Marine Fisheries Policy (1997)
- [Sector-specific strategies](#) such as those relating to the protection of conservation areas; desertification and land degradation; biological invasions; and the breeding, hunting and trade of elephant, lion, leopard and rhinoceros

A2.3 The green economy and sustainable development in South Africa

South Africa currently adopts the green economy and sustainable development discourse. According to the Department of Forestry, Fisheries and Environment website, the country's sustainable development vision is outlined in the National Framework for Sustainable Development (2008) as "South Africa aspires to be a sustainable, economically prosperous and self-reliant nation state that safeguards its democracy by meeting the fundamental human needs of its people, by managing its limited ecological resources responsibly for current and future generations, and by advancing efficient and effective integrated planning and governance through national, regional and global collaboration." A green economy is viewed as a sustainable development path based on addressing the interdependence between economic growth, social protection and natural ecosystems. More specifically, it is defined as a system of economic activities related to the production, distribution and consumption of goods and services that result in improved human well-being over the long term, while not exposing future generations to significant environmental risks or ecological scarcities. The green economy is based on growing economic activity (which leads to investment, jobs and competitiveness) in the green industry sector, and a shift in the economy as a whole towards cleaner industries and sectors.

Annex 3: Considerations in identifying relevant stakeholder groups

Considerations	Context
Who are the relevant stakeholder groups or individuals affected by the intervention and who are the most vulnerable?	Demographics Economic conditions Dependence on natural resources/Access to natural resources Environmental values Gender roles
Are there any identifiable groups or subgroups?	Representation of subgroups according to: Geographical location Profession/Income Interests Values Race Age Ethnicity Class Gender Disability
What are the past and present relationships between them?	Have there been any past programmes like this? If so, were the programmes successful in achieving their goals? What were the important factors that contributed to their success?
Who trusts whom?	What is the relationship between stakeholders? Do they have conflicting interests?
Who and what groups have power and what is their source of power?	Differentiation between different stakeholders: ⁶⁰ <ul style="list-style-type: none"> • Primary stakeholders: Who will be affected by the intervention directly (intended) and indirectly? Whose approval is required before the intervention can take place? • Secondary stakeholders: Who will be affected by the intervention positively and negatively? • Tertiary stakeholders: Who is not directly or indirectly affected but can have significant impact (either positive or negative) on the program by influencing others?
Who are the formal and informal leaders in the field?	Political leaders Religious/faith based Traditional leaders Business forums Powerful/influential people
How do people exchange information?/Communication methods/Feedback and reporting systems	The focus should be on effective communication methods Identify potential barriers to communication Re-establish broken relationships and re-create a connection with stakeholders The use of an external facilitator for communication might be useful Determine which sorts of communication tools or medium stakeholders may require further training in to use them effectively
Could the influence of stakeholders change?	What factors can shift the sphere of influence?
What else is important in this particular field?	Are there any other important factors that could influence the outcome of the intervention? (e.g. community basic needs such as water, energy, health, housing and sanitation)

⁶⁰ https://pdf.usaid.gov/pdf_docs/PA00T9XH.pdf.

Annex 4: Case studies: Applying the CEH criterion to evaluation TORs

These case studies are intended to show how the TORs for an evaluation could be adjusted to take on CEH considerations, taking evaluations which have been completed and seeing how the TORs could be adjusted. Note that this is not endorsing the basic TOR (for example there were too many questions in the Smallholder evaluation TOR). We use evaluations of three types of interventions

- An intervention which could be regenerative - Smallholder farming;
- A social intervention – National School Nutrition Programme;
- An example of an environmental intervention - Berg River Improvement Programme.

The purpose is to draw on what is being proposed above and link back to existing evaluations to demonstrate retrospectively how the CEH criterion could have been applied. Note it is not suggested that all these additional questions would be taken on, but they give an idea of the possible questions that could be included in these specific examples.

A4.1 Potentially regenerative intervention: Smallholder farming⁶¹

Table A4.1: Applying the CEH Guideline to the Diagnostic Evaluation of the Government Supported Small Holder Farmer Sector

Original TORs	Possible changes to take on CEH (in italics)
1.2 Purpose of the evaluation	
This evaluation will synthesise the lessons from relevant existing evaluations to develop the basis (diagnostic) for a coherent overall policy framework to support smallholder farmers	This evaluation will synthesise the lessons from relevant existing evaluations to develop the basis (diagnostic) for a coherent overall policy framework to support smallholder farmers <i>that strengthens both their productivity, resilience and their contribution to climate and ecosystems health.</i>
2 Focus of the Evaluation	
2.1 Evaluation Questions	
2.1.1 Focus - How are smallholder farmers defined within these programmes? How has this affected the design, development, implementation, and coordination of these programmes (positively or negatively)? What definitions of smallholder farmers should we use going forward (ranging from household gardening to small-scale commercial)?	
2.1.2 Objectives and measures of effectiveness and sustainability - What are the objectives of the different programmes. How should we view success/impact – sustainable farmers, income, food security, environmental issues? Which smallholder farmers have been addressed, which have been successful, which not and why? What evidence is there of impact on these target groups? How much did this cost per success unit?	2.1.2 Objectives and measures of effectiveness and sustainability - What are the objectives of the different programmes. How should we view success/impact – sustainable farmers, income, food security, <i>their contribution to climate and ecosystems health?</i> Which smallholder farmers have been addressed, which have been successful, which not and why? What evidence is there of impact on these target groups <i>and on climate and ecosystems health?</i> How much did this cost per success unit?

⁶¹ The TORs, reports and quality assessment are available here <https://evaluations.dpme.gov.za/evaluations/520>

Original TORs	Possible changes to take on CEH (in italics)
2.1.3 What evidence was used - To what extent and in what manner has research and development informed the development of these programmes or what alternative approaches is current research suggesting? (Including looking at studies in other African and other middle-income countries with which RSA can compare).	Add: Including relevant research/reports like IPCC and others that point to need to consider effects on ecosystem health.
2.1.4 Services - What services/interventions are provided and to whom and what is the underlying theory of change? What processes do smallholder farmers follow to access programmes (between and within the departments)? How are services for different commodities addressed (cash crop; livestock, horticulture, forestry & fisheries) by smallholder farmers? What are the lessons learnt? Should support programmes be customised according to commodities?	2.1.4 Services - What services/interventions are provided and to whom and what is the underlying theory of change? What processes do smallholder farmers follow to access programmes (between and within the departments)? How are services for different commodities addressed (cash crop; livestock, horticulture, forestry & fisheries) by smallholder farmers <i>and what is their resource impact? Has support been provided to maximise the regenerative potential of the farms? Is there discussion on CEH and adaptation? If not why not?</i> What are the lessons learnt? Should support programmes be customised according to commodities?
2.1.5 Success factors - What are the key success factors and shortcomings of current programmes e.g. market access, insurance. How far did they manage for risks such as foot and mouth, climate change etc.?	2.1.5 Success factors - What are the key success factors and shortcomings of current programmes e.g. market access, insurance? How far did they manage for risks such as foot and mouth, <i>climate and ecosystems health, both now and in the future</i> etc.? <i>What examples exist of viable approaches to minimise resource overload/pollution/to improve ecosystem regeneration and circular economies?</i>
2.1.6 What support is needed for different target groups? To what extent does everyone who accesses land want/know how to farm? What change is needed in target groups, selection criteria, and services for these target groups? Are different theories of change needed for different groups and what should they be so as to ensure the likelihood of sustained and cost-effective improvements in productivity, income, environmental sustainability and cost-effectiveness of support programmes (consider the different settlement programmes – progression from small holder to commercial)?	2.1.6 What support is needed for different target groups? To what extent does everyone who accesses land want/know how to farm? What change is needed in target groups, selection criteria, and services for these target groups? Are different theories of change needed for different groups and what should they be so as to ensure the likelihood of sustained and cost-effective improvements in productivity, income, <i>promotion of climate and ecosystems health</i> and cost-effectiveness of support programmes (consider the different settlement programmes – progression from small holder to commercial)?
2.1.7 Institutional arrangements - What coordination structures exist to ensure	2.1.7 Institutional arrangements - What coordination structures exist to ensure

Original TORs	Possible changes to take on CEH (in italics)
integrated support across departments and stakeholders including the private sector? What lessons emerge around the strengths and weaknesses of the institutional arrangements, administrative processes and procedures?	integrated support across departments and stakeholders including the private sector? What lessons emerge around the strengths and weaknesses of the institutional arrangements, administrative processes and procedures? <i>What would be needed if regenerative practices were to be mainstreamed into support for smallholders?</i>
2.1.8 Efficiency - What lessons emerge around the effectiveness and efficiency of resources used by these programmes, including the skills of staff and infrastructure, and how this should be revised going forward?	2.1.8 Efficiency - What lessons emerge around the effectiveness and efficiency of resources used by these programmes, including the skills of staff and infrastructure, and how this should be revised going forward <i>to be more effective, more circular and regenerative?</i>
2.1.9 Managing risks - What do we need to do to address risks and improve the resilience of smallholder farmers?	2.1.9 Managing risks - What do we need to do to address risks and improve the resilience of smallholder farmers <i>and their contribution to a more resilient and regenerating ecosystem?</i>
2.1.10 Proposed approach going forward - Based on the above what should be the key target groups going forward, and the approach and types of services provided for each? Who should provide these services? What institutional mechanisms will be needed and what resourcing? How should the current suite of interventions be changed to address these? What does this imply for the roles to be played by key actors including DAFF, DRDLR, provincial departments of agriculture, private sector, NGOs?	2.1.10 Proposed approach going forward - Based on the above what should be the key target groups going forward, and the approach and types of services provided for each <i>to secure their livelihoods and strengthen the ecosystems on which they depend?</i> Who should provide these services? What institutional mechanisms will be needed and what resourcing? How should the current suite of interventions be changed to address these? What does this imply for the roles to be played by key actors including DAFF, DRDLR, <i>DFFE</i> , provincial departments of agriculture/environment, private sector, NGOs?

A4.2 Social intervention (National School Nutrition Programme⁶²)

Table A4.2: Applying the CEH criterion to the Implementation Evaluation of the National School Nutrition Programme (NSNP)

Original TORs	Possible changes to take on CEH
2 Purpose of the evaluation	
The main purpose of the evaluation is to assess whether the NSNP is being implemented in a way that is likely to result in significant health and educational benefits to primary school	The main purpose of the evaluation is to assess whether the NSNP is being implemented in a way that is likely to result in significant health and educational benefits to primary school learners <i>and whether it could be implemented in a way that maximises benefits to and reduces impact on CEH.</i>

⁶² The TORs, reports and quality assessment are available here <https://evaluations.dpme.gov.za/evaluations/528>

Original TORs	Possible changes to take on CEH
learners.	
3 Focus of the Evaluation	
3.1 Evaluation Questions	
1. Is the programme implemented as planned?	
2. Are operational procedures effective to ensure the timely delivery of food?	2. Are operational procedures effective to ensure the timely delivery of food, <i>to minimise resource use and waste (both emissions, food waste, plastic, water, energy etc)?</i>
3. Are learners receiving quality meals and services?	3. Are learners receiving quality meals from products/ingredients that are locally sourced, include tasty meat alternatives and minimal processed foods, served on reusable tableware, and prepared in a way that minimises resource use and waste.
4. What are the variations of implementation at different sites or by different provinces?	4. What are the variations of implementation at different sites or by different provinces? <i>Do these variations have implications for resource use, waste, and the quality of the food consumed?</i>
5. Is the programme reaching the intended beneficiaries?	5. <i>As well as learners who are eating the meals provided and are they also being educated on healthy and tasty non-meat alternatives.</i>
6. Is there evidence that NSNP enhances learning behaviour? (Likely Impact of the Programme) <i>Are there any other intended or unintended impacts?</i>	
7. Are there other spinoffs of the NSNP	7. Are there other spinoffs of the NSNP <i>including school and community awareness of CEH, whether learners are being educated on healthy food, the climate risks from meat, and regenerative food production? Are there spin-offs such as composting/school gardens and recycling programmes?</i>
8. Should NSNP be up-scaled? How can it be strengthened and up-scaled for better impact?	8. Should NSNP be up-scaled? How can it be strengthened and up-scaled for better impact <i>on learners and also on promoting climate and ecosystems health?</i>

A4.3 Design and Implementation of the Berg River Improvement Plan (BRIP)

Original TOR	Possible changes to take on CEH
2 Purpose of the evaluation	
The type of evaluation must analyse the approach and processes of design and implementation of the BRIP to achieve its objectives.	The type of evaluation must analyse the approach and processes of design and implementation of the BRIP to achieve its objects <i>and how revisions to the design and implementation could strengthen the contribution to climate and ecosystems health?</i>
3 Focus of the Evaluation	
3.1 Evaluation Questions	
1. Is the BRIP programme addressing the issues and concerns of the catchment?	1. Is the BRIP programme addressing the issues and concerns of the catchment <i>and the contributions to climate and ecosystem health? How are the catchment issues and concerns contributing to climate and ecosystem health (both positive and negative)? Is the BRIP programme</i>

Original TOR	Possible changes to take on CEH
	<i>contributing to catchment/ ecosystem regeneration /resilience?</i>
2. To what extent does the BRIP programme structures, governance and partnerships support the implementation activities and outputs of the BRIP programme?	2. To what extent does the BRIP programme structures, governance and partnerships support the implementation activities and outputs of the BRIP programme <i>and how do the structures, governance and partnerships support climate and ecosystem health? Are additional structures, governance or partnerships necessary to support climate and ecosystem health?</i>
3. How can transversality and governance within the BRIP including the BRIP programme structures and governance be revised and strengthened?	How can transversality and governance within the BRIP including the BRIP programme structures and governance be revised and strengthened, <i>for positive contributions to climate and ecosystem health? What specific transversal and governance support are necessary to address improved climate and ecosystem health?</i>
4. What can be done to advance the overall implementation of the BRIP programme going forward?	What can be done to strengthen the overall design and implementation of the BRIP programme going forward <i>and its impacts on climate and ecosystem health?</i>