

PATHWAYS TOWARD A GREEN HUMANITARIAN RESPONSE



Acknowledgements

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Front and back cover photo: Aerial view of a beach with palm trees at Kri island, Raja Ampat, West Papua. Ernests Vaga / Unsplash

Internal photos:

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Suggested citation: HAG, GLOW & Pujiono Centre (2024), *Pathways toward a green humanitarian response*. Humanitarian Horizons. Melbourne: HAG

This publication has been funded by the Australian Government through the Department of Foreign Affairs and Trade. The views expressed in this publication are the authors' alone and are not necessarily the views of the Australian Government.

About Humanitarian Horizons 2021–24

Humanitarian Horizons 2021–24 is the second iteration of Humanitarian Advisory Group's (HAG) partnership-based, sector-wide research program. Focusing on the Asia and the Pacific regions, Humanitarian Horizons aims to progress thinking on the role of the humanitarian sector and produce evidence about ways to achieve better outcomes for crisis-affected people. The program is funded by the Australian Department of Foreign Affairs and Trade.

The research program for 2021–24 builds on achievements of the Humanitarian Horizons pilot phase (2017–18), the previous iteration of the program (2018–21) and HAG's experience in supporting the sector for almost 10 years. The research is structured into three interlocking streams: 1) Power, People and Local Leadership, 2) Greening the System, and 3) Real-Time Analysis and Influence. It is underpinned by a fourth stream comprised of governance, accountability and monitoring, evaluation and learning processes.

About the partners

GLOW Consultants (Private) Limited, based in Pakistan, is a leading national entity providing practice solutions and field implementation support to donors, their implementing partners and research institutions. GLOW has successfully completed more than 100 third-party monitoring and evaluation assignments.

The Pujiono Centre is a not-for-profit company established by disaster management practitioners in Indonesia as a new modality, institutional arrangement, and platform for obtaining, sharing and disseminating knowledge about disaster management by supporting evidence-based assessments for policymakers.

The Pacific Islands Association of Non-Governmental Organisations (PIANGO) functions as a regional secretariat to a network of umbrella organisations or platforms registered in 24 countries, territories and states across the Pacific region.

BehaviourWorks Australia (BWA) is a leading behaviour change research enterprise within the Monash Sustainable Development Institute. BWA brings together behaviour change researchers and practitioners to find behavioural solutions to some of the world's most pressing social, environmental and organisational problems.

Humanitarian Advisory Group was founded in 2012 to elevate the profile of humanitarian action in Asia and the Pacific. Set up as a social enterprise, HAG provides a unique space for thinking, research, technical advice and training that contributes to excellence in humanitarian practice. Humanitarian Advisory Group was founded in 2012 to elevate the profile of humanitarian action in Asia and the Pacific. Set up as a social enterprise, HAG provides a unique space for thinking, research, technical advice and training that contributes to excellence in humanitarian practice.



Humanitarian Advisory Group is BCorp certified. This little logo means we work hard to ensure that our business is a force for good. We have chosen to hold ourselves accountable to the highest social, environmental and ethical standards, setting ourselves apart from business as usual.



Abbreviations

BWA	BehaviourWorks Australia
DG ECHO	Directorate-General for European Civil Protection and Humanitarian Aid Operations
FCDO	Foreign, Commonwealth & Development Office [UK]
GHG	Greenhouse Gas
GTS	Greening the System
HAG	Humanitarian Advisory Group
NGO	Non-Governmental Organisation
PIANGO	Pacific Islands Association of Non-Governmental Organisations
UN	United Nations
UNEP	United Nations Environment Programme
UNTCD	United Nations Trade Conference on Development

Contents

Introduction	6
Methodology	9
Understanding the barriers	11
Why motivation is falling short	12
Gaps in greening capability	15
Limited opportunities for change	18
Actions for a greener humanitarian system	22
Champions for change	22
Humanitarian leaders and managers	24
Humanitarian donors	27
Conclusion	30
Endnotes	32



Introduction

The humanitarian sector is grappling with the task of reducing its negative impacts upon the climate and environment. Despite growing awareness of the need to shift towards greener action, tangible change and outcomes have remained frustratingly limited, while the impacts of climate and environmental change are increasingly exacerbating humanitarian needs and crises at an alarming pace. Many in the sector are overwhelmed by the scale of change needed, but the consequences of inaction are extreme, and the sector continues to seek concrete pathways to shift towards greener practices.

“ We are intervening in the areas most affected by environmental crisis and climate change in the world. If we work in such areas, then we need to look at our own contribution to the climate crisis.”
(International actor)

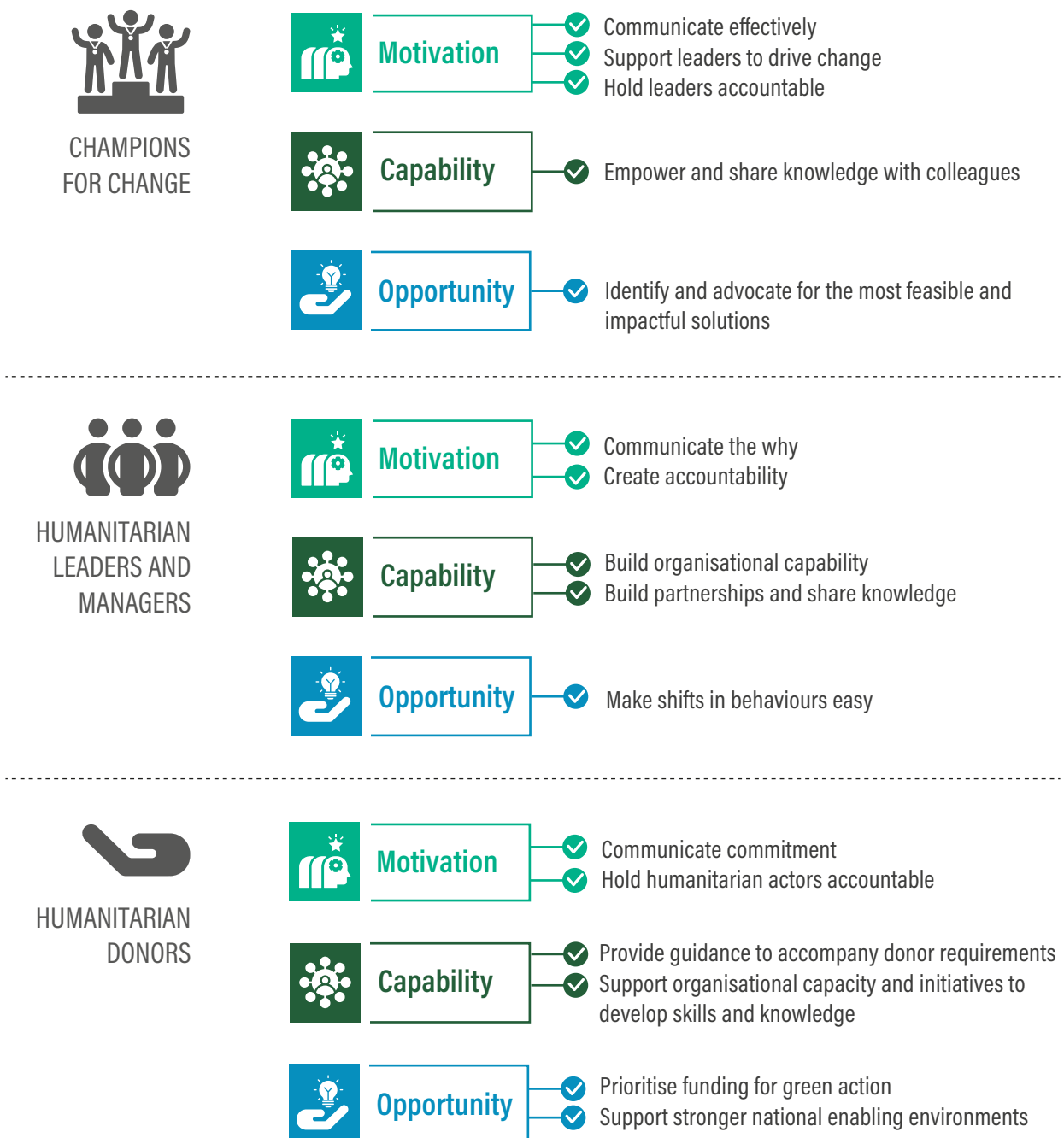
This research paper is intended to support the humanitarian community to understand how key barriers can be overcome and how ingrained practices can shift. The responsibility cannot lie with individual actors; coordinated action is required across all levels of personnel and all sector staff to achieve a green humanitarian system. This paper acknowledges the complexities of the humanitarian system, and diversity of stakeholders within it, in focusing on the role of three actor groups that have emerged from the research as critical to supporting change. The focus on these three groups is not intended to suggest that they alone can change the system, but that they can be important drivers of action supported by government, the wider community, environmental groups and advocates in society.

CRITICAL ACTOR GROUPS

- **Champions for change:** As advocates for greener humanitarian action, these employees and volunteers have the enthusiasm to drive motivation and action across their organisations. They include greening experts/leads and everyday advocates seeking to influence co-workers, peers, managers and leaders to advance towards a greener system. They may not be leaders or managers within their organisations or have the responsibility and authority to directly implement policies or shift structural processes for greener action, but are critical to keeping the sector accountable and driving change. This group includes everyday people driving change from the ground up.
- **Humanitarian leaders and managers:** As key decision-makers, they are pivotal in increasing the capability and resources needed to transform the sector and reduce its negative impacts on the climate and environment. They can develop and implement policies and processes, influence the broader humanitarian sector, and act as role models internally and externally to their organisations.
- **Humanitarian donors:** As policy setters, funders of programs and leaders in international forums, donors wield considerable influence. They include government departments, United Nations (UN) bodies, bilateral and multilateral agencies and other philanthropic bodies.

This paper unpacks the barriers that prevent action for these groups and proposes concrete actions for overcoming them. The intention is to provide feasible pathways and options for actors that are motivated to achieve change. A summary of these actions is provided below in Figure 1.

Figure 1: Summary of actions



 **Box 1. About this research****Greening the System**

This paper is part of the **Greening the System** (GTS) stream of **Humanitarian Horizons 2021–2024**, a research program supported by the Australian Government through the Department of Foreign Affairs and Trade. The GTS stream seeks to measurably support the sector to reduce its negative impacts on the climate and environment. The stream's foundation is *Greening the System: A Vision for a Green Humanitarian System*, produced by Humanitarian Advisory Group (HAG), GLOW and the Pacific Islands Association of Non-Governmental Organisations (PIANGO), and validated through a stakeholder workshop.

Pathways Towards a Greener Humanitarian Response: research initiative

This paper builds on the stream's foundation (see above) and draws on original research and behavioural science methods to identify barriers, enablers and tangible steps forward for achieving greener outcomes. It provides evidence-based insights and tangible actions, specific to the roles of actors using HAG's **Framework for Greening Humanitarian Action in the Pacific**, that can help them meet existing challenges across their organisations and operations.

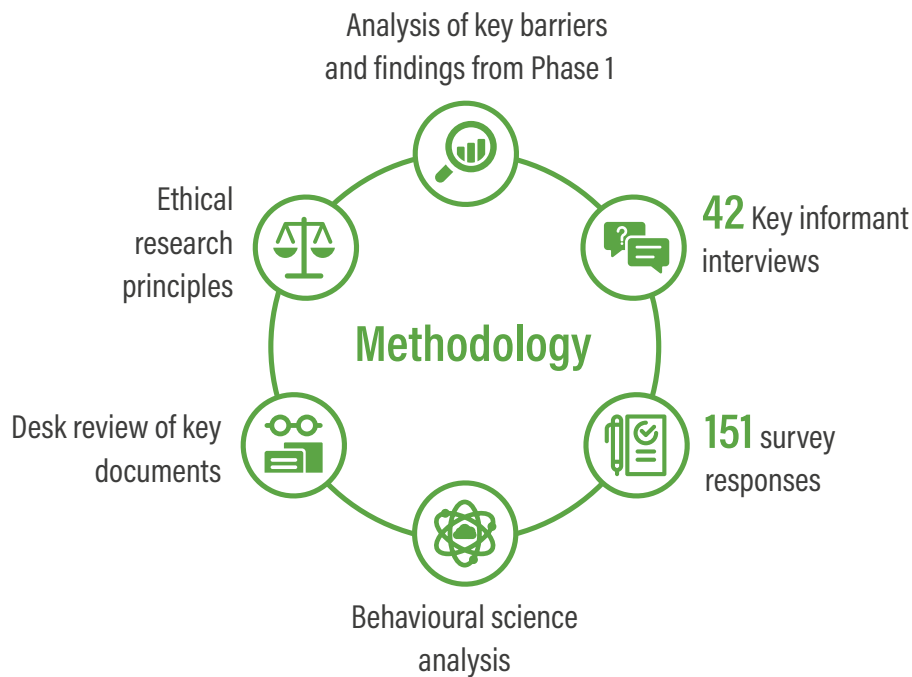
Greening

For the purposes of this research, 'greening' refers to reducing negative impacts upon both the climate and environment associated with humanitarian action. This includes reducing carbon emissions produced through operations, increasing the use of environmentally sustainable humanitarian supplies, and the protection of ecosystems and biodiversity during response.

Methodology

Humanitarian Advisory Group led this research in partnership with GLOW Consultants, the Pujiono Centre, PIANGO and BehaviourWorks Australia (BWA). It sought to investigate perceptions of barriers and enablers to greener humanitarian response. Figure 2 presents a snapshot of the methodology.

Figure 2: Methodology



Key informant interviews explored barriers in humanitarian settings and identified potential solutions that could be implemented. Interviewees represented a broad range of organisations: local and national non-governmental organisations (NGOs), international NGOs, civil society, the Red Cross and Red Crescent Movement, UN agencies, donors and environmental NGOs. In total, 42 interviews were conducted with local, national and international key stakeholders, primarily from Pakistan (led by GLOW), Indonesia (led by Pujiono Centre), Australia and across Europe. A survey of humanitarian and environmental stakeholders worldwide, available in English, Urdu and Bahasa, produced data used to test findings from the GTS Vision Paper and Validation Workshop.² BWA led the analysis of interviews and survey results and applied a behavioural science framework (see Box 2) to map barriers and identify solutions for various humanitarian actors.

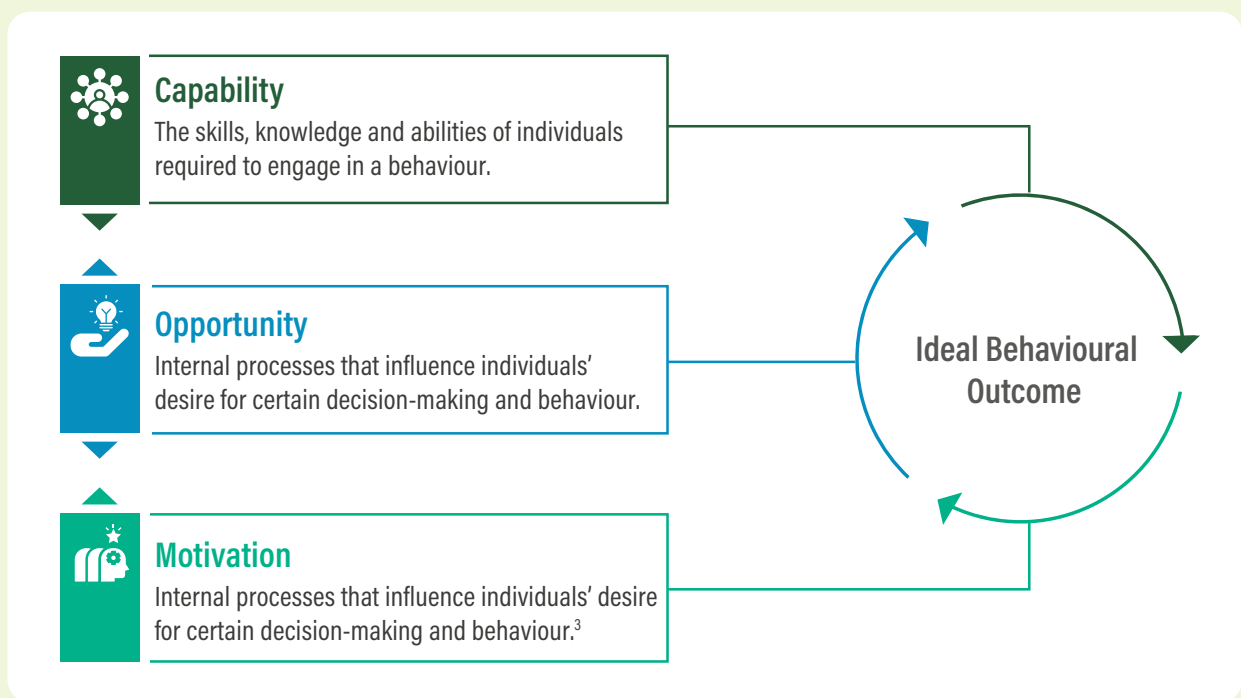


Box 2. Drawing on behavioural science: The COM-B model

Behavioural science is the science of understanding and changing human behaviour. It is a cross-disciplinary field that incorporates behavioural economics, neuroscience, and social and cognitive psychology. Behavioural science helps to understand why behaviour does not always reflect stated beliefs or commitments, and why context is so important in shaping behaviour.

Analysis for this paper used the COM-B model, a transdisciplinary framework for understanding behaviour that incorporates insights from over 1,200 peer-reviewed articles and 19 other behaviour change frameworks. The COM-B model identifies three domains – capability, opportunity and motivation – as essential for the behaviour to occur (Figure 3).³ By applying this model, we can analyse how different interventions may interact to contribute to the evolution of norms and practices over time.

Figure 3: The COM-B model



LIMITATIONS

While **sample sizes** were sufficient for descriptive statistics and analyses, there was some attrition throughout the survey and the ability to disaggregate findings was limited due to small numbers (151 survey respondents, 120 complete surveys, 42 interviews).

There may have been **self-selection bias** for survey and interview participants, with participation potentially reflecting those who have stronger opinions, more favourable attitudes, and greater knowledge.

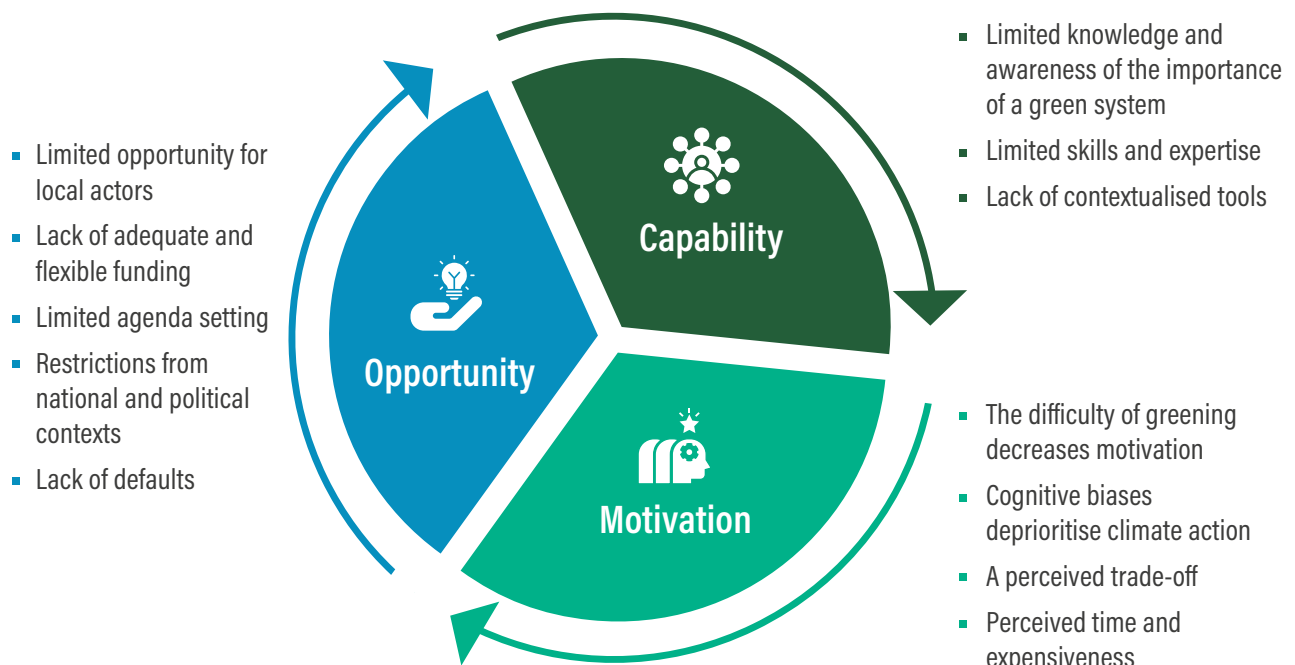
Research focused on **high-impact solutions** but less on their ease of implementation. Ease is important for understanding the likelihood of adoption of behaviours,⁵ and should be considered in future work.



Understanding the barriers

Humanitarian actors face wide-ranging and multifaceted barriers to achieving greener outcomes through their operations. As the *Pathways Towards a Green Humanitarian Response* research (see Box 1) uncovered, these barriers intersect with and affect the humanitarian system and actors differently. Figure 4 captures the ways barriers contribute to an unwillingness or inability to prioritise environmental issues when making decisions about humanitarian action.

Figure 4: Barriers to greening humanitarian aid



To change behaviours, we must understand and address all components of the COM-B model for all actors. All three critical actor groups need to be motivated, have the capability and the opportunity for action. This section will unpack the barriers as the basis for identifying the actions required to overcome them.

WHY MOTIVATION IS FALLING SHORT

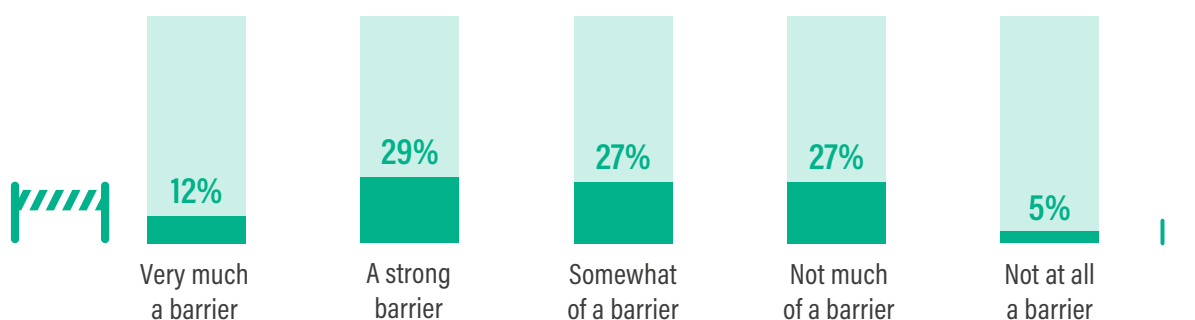


Motivation refers to the internal processes that influence our decision making and behaviours.⁶

The research identified that while many people working in the humanitarian sector are highly supportive of moving towards a greener system, motivational barriers persist, preventing people from actively and overtly advocating for change. Sixty-one per cent of survey respondents believe sector staff lack motivation to some extent, with 41% identifying low motivation as a strong, or very strong barrier to greening humanitarian aid.



Survey finding: to what extent is a lack of motivation a barrier to greening the humanitarian system?⁷



Motivational barriers were found to be primarily driven by external factors such as:

- 1. It's too difficult!** Being overwhelmed by the challenges of greening humanitarian aid.
- 2. Perceived trade-off between greening and lifesaving.** The view that greening comes at the expense of lifesaving humanitarian action – that integrating environmental action into humanitarian response will compromise its effectiveness.
- 3. Perceived time and expense.** Perceptions of excessive costs and insufficient time and resources while the sector already has competing priorities and inadequate funding.

It's too difficult!

The perception that greening the humanitarian sector is too difficult is a major barrier to progress. This blanket statement is used to lump a range of barriers together, including insufficient funding, power inequality, restrictions from national and political contexts, lack of guidance and accountability, poor greening skills and knowledge, and a lack of preparedness and systemic planning. These barriers result in narratives that greening is too difficult, overwhelming and depends on factors outside the control of everyday humanitarian staff. As a result, staff may have low motivation to pursue or even explore environmental priorities they perceive as requiring resources and skills they do not possess. Additionally, small-scale actions or initiatives to advance greening, particularly at the organisational level, are likely to be perceived by many as 'large-effort-small-benefit commitments' or as a 'drop in the ocean', which can disincentivise buy-in and further hinder motivation.⁸

“ People think it's too hard. It's not that people don't want to do it, but there are just so many different priorities.”⁹ (Humanitarian greening lead)

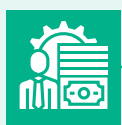
Additionally, unconscious human biases are likely to contribute to this barrier. Box 3 provides an overview of cognitive biases that may help explain why some people consider greening humanitarian aid too hard.



Box 3. Cognitive biases de-prioritise climate action

Figure 5 lists cognitive biases that help explain humanitarian actors' tendency to neglect environmental considerations. Although climate impacts are recognised as present rather than solely future threats, many of the urgent needs in a humanitarian response (water, shelter, health needs) are considered to be more consequential than environmental needs, so are prioritised. A bias towards 'sensing' helps explain the prioritisation of issues that humanitarian actors face: the immediate human impacts of crisis such as injury, loss of life, and damage to infrastructure, all of which are likely to cause heightened emotions such as sadness, empathy, trauma and fear. Such basic emotions and their intensity are likely to overwhelm and override rational calculations about climate and environmental threats, the impacts of which humanitarian actors may not experience directly or deeply.¹⁰

Figure 5: Cognitive biases affecting responses to climate change¹¹



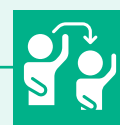
People value personal over collective rewards or outcomes (self-interest)



People prefer immediate over delayed rewards (short-sightedness)



People value relative over absolute status (status)



People copy the behaviours of others (social imitation)



People ignore problems they cannot directly feel or see (sensing)

Perceived trade-off between greening and lifesaving priorities

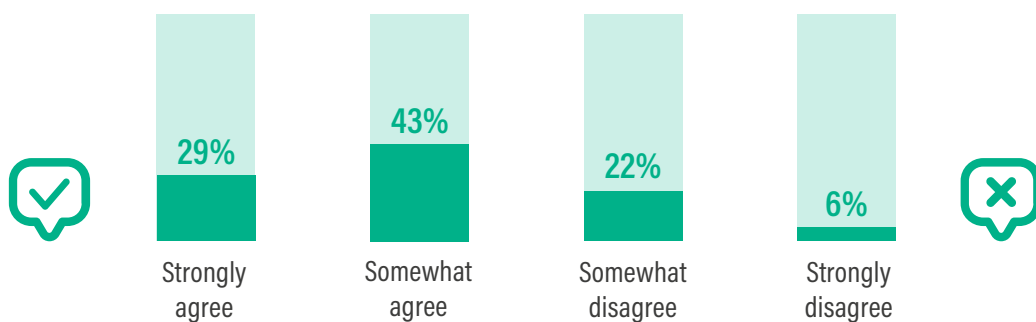
A common belief is that it is impossible to green humanitarian aid without compromising the effectiveness of immediate lifesaving objectives. Several interviewees argued that, as one person put it, 'there is a huge conflict of interest between life-saving immediate actions and investing in longer-term sustainability measures',¹² including greening priorities.¹³ Interviewees also raised concerns over the feasibility of achieving the two priorities together, using language about the impossibility of prioritising environment 'over' response.¹⁴ Many who claimed they *did* believe both can be achieved together stressed that many around them did not.

“ There is a common belief as well as a matter of ethics that humanitarian lifesaving support should be prioritised over greening practices, as the primary aim of humanitarian aid is to provide quick and effective relief to those in distress as a result of crises.¹⁵ (Local actor)

Both survey findings and interviewees' reflections, however, showed that some people in the sector are willing to challenge this narrative. When asked whether it is possible to green humanitarian aid without compromising on life-saving objectives, 29% of people strongly agreed. However, a much larger group (65%) indicated the need to take a middle-ground approach, suggesting they believe *some* steps could be taken without affecting lifesaving measures or the quality of humanitarian aid, but not all steps required to eliminate negative environmental impact.¹⁶



Survey finding: greening humanitarian aid is achievable without compromising the effectiveness of lifesaving objectives:

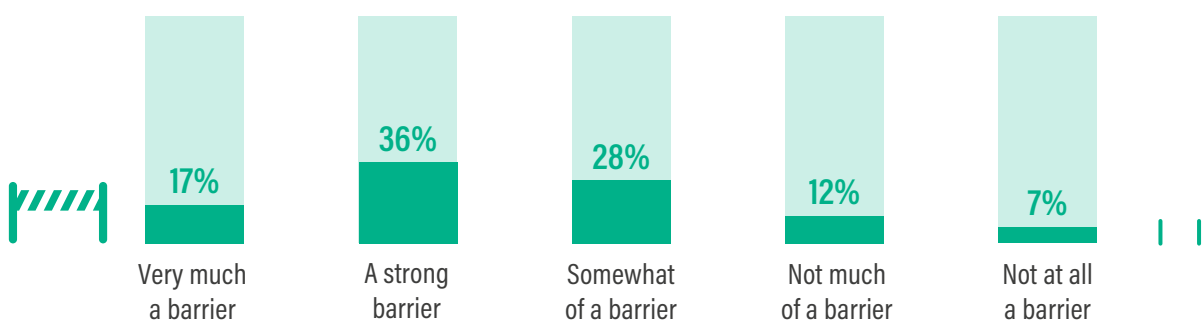


Perceived time and expense

The research found strong perceptions of low feasibility of greening humanitarian aid due to financial and time constraints. In the survey, 53% of respondents believe greening to be expensive and consequently a barrier to action. This belief decreases motivation to find cheap solutions.



Survey finding: The perception across the sector that greening is expensive¹⁷



The perceived lack of time to pursue greening initiatives may result from the fast-paced nature of humanitarian work, with 61% of survey respondents expressing some form of agreement that this is a barrier. Greening is seen as an additional priority on top of an already long list of things to do, without additional time to do it.

“ If the intent is to make relief aid plastic free, it will certainly be a time-taking process and switching over to a recyclable material will likely result in an initial increase in cost.¹⁸ (Local actor)

GAPS IN GREENING CAPABILITY



Capability refers to whether we have the knowledge, skills and abilities to engage in a particular behaviour.¹⁹

The humanitarian system in its current form is not structured to encourage green humanitarian action, with existing psychological and physical capabilities across the breadth of the system failing to evolve in the face of a rapidly changing climate. Survey results revealed that a lack of expertise and capability is perceived to be the most significant barrier to a greener humanitarian system.²⁰

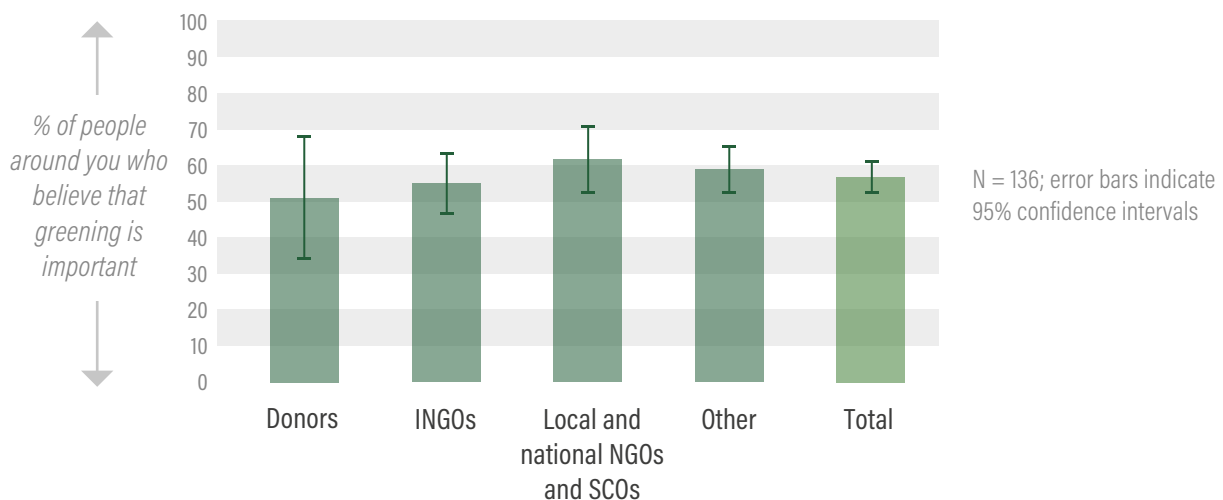
The research identified three key barriers relating to capability that are prevalent across the humanitarian system:

1. **Limited knowledge and awareness of the importance of a green system** – sector-wide awareness of the urgency and how to advance green humanitarian action is lacking
2. **Humanitarian skills and expertise** – the skills associated with climate and environmental action are not part of humanitarian practice, and are not being developed across the system in a concerted way
3. **Lack of contextualised tools** – guidance and tools to support applied knowledge and capability are not contextualised for local contexts and exclude local and traditional knowledge, practices and values.

Limited knowledge and awareness of the importance of a green system

Awareness of the need to green humanitarian aid is slowly increasing across the sector. Eighty-two per cent of survey respondents expressed agreement that the issue had gained greater attention over the past five years,²¹ and this has clearly been demonstrated in the development of tools, resources and initiatives designed to support the sector in achieving a greener response. Despite this growing awareness, the research also found that lack of knowledge and awareness among key stakeholders continues to present a barrier to greening humanitarian aid.²² When survey respondents were asked to estimate what proportion of their colleagues and associates believe greening humanitarian aid is important, responses were in the 50–60% bracket for most groups (Figure 6).

Figure 6: Humanitarians' perceptions of those around them who believe greening humanitarian aid is important²³




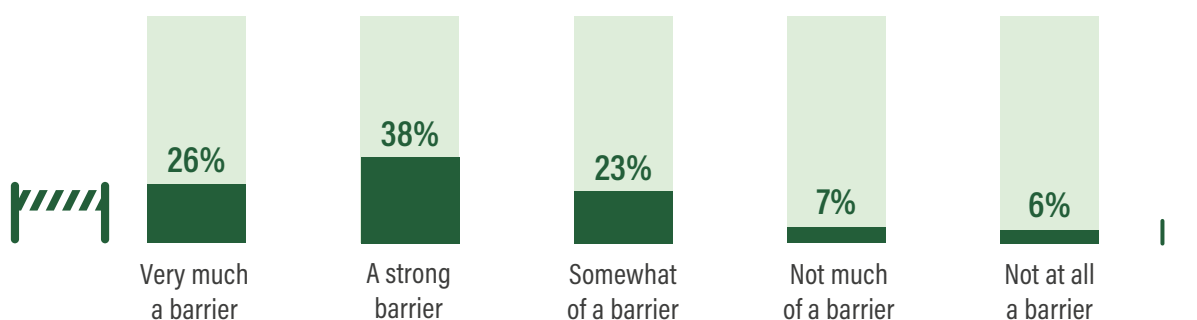
“ The main barrier to greening humanitarian practices is the lack of awareness, expertise and capability. There still exists a lack of awareness and knowledge among humanitarian organisations about the importance of greening and how to do so effectively.²⁴ (Local actor)

A lack of awareness across the sector means there is little pressure at various levels to initiate or scale greening interventions. Additionally, there is limited awareness of the opportunities and benefits available, as well as the consequences associated with not moving towards a greener response, both of which slow progress.

Humanitarian skills and expertise

Reducing the harmful impacts of climate and environmental change by developing and implementing greener practices requires tools, skillsets and knowledge that are uncommon in humanitarian practice,²⁵ as the research identified.²⁶ Eighty-seven per cent of survey respondents reported a lack of expertise and capability as a barrier within their organisation, with 64% stating it was a strong or very strong barrier. They highlighted gaps in skills and knowledge in fields such as conservation, clean energy, carbon accounting, and waste management.

 **Survey finding: to what extent is a lack of greening expertise and capability in many organisations a barrier to greening humanitarian aid?²⁷**



“ Humanitarian actors lack the expertise required for greening their actions. While talk of environmental degradation and climate change has been around for a while, the concept of specifically greening humanitarian action is relatively new.²⁸ (Local actor)


Donors and organisations have not yet prioritised the upskilling of staff across the sector. While many organisations have recruited greening leads and expertise, research data suggested that many of them are primarily well-resourced Global North organisations.²⁹ This creates a concentration of resources and capability rather than sector-wide progress on the issue. Additionally, interviewees highlighted the important role of leadership, both donor and organisational, to ensure greening processes are better embedded in the system.³⁰ One stated that some organisations recruit greening leads or expertise in specific disciplines such as carbon accounting, conservation, waste management or energy, who then face challenges in systematically driving accountability and buy-in from the top down.³¹ This leads to greening being positioned as a standalone component within operations and strategy, rather than being meaningfully incorporated across the humanitarian system.

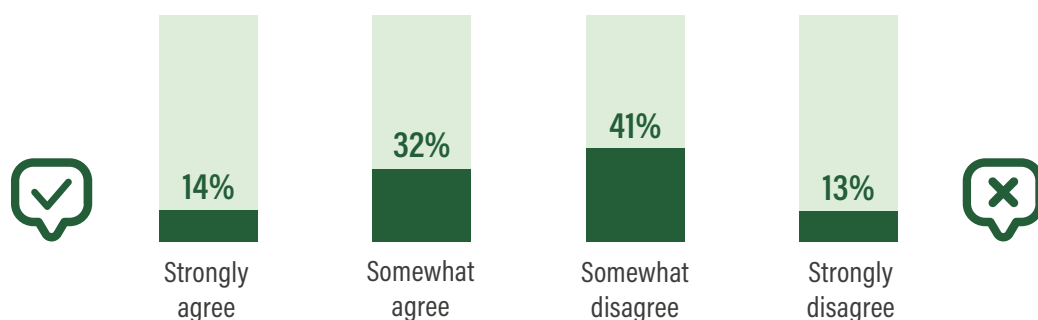


“ There’s something missing in how leadership is really embracing the issue. They don’t need to be experts, but they need to ask the questions. They do this for other issues when on the ground: what’s the security risk, who’s most at risk, etc. Just dropping the question will raise the topic and get the whole system rolling when people know it’s a priority for management.³² (Humanitarian greening lead)

Lack of contextualised tools

Survey findings suggest that tools contextualised to local practices and contexts are lacking.³³ Such tools, including guides, manuals and templates, are critical to supporting the application of knowledge and capability.

 **Survey finding: Existing greening tools are contextualised to local practices and contexts³⁴**



Existing literature has identified the effective and important role indigenous knowledge can play in both humanitarian contexts and environmental management.³⁵ Yet too often, the voices of those most affected by environmental destruction are sidelined from decision-making relating to their land and waters.³⁶ Incorporating indigenous and local knowledge into humanitarian decision-making is essential for managing and protecting local environments in crisis-affected areas.³⁷

“ The lack of contextual perspective or contextual analysis is a key barrier in greening humanitarian action. Whichever area we are working in, we must keep in consideration its local context. Most of the time, the demographics for the concerned area are not considered and instead the set general international standards are followed which don’t always prove to be effective.³⁸ (Local actor)

LIMITED OPPORTUNITIES FOR CHANGE



*Opportunity refers to the external factors that make the execution of a particular behaviour possible.*³⁹

Existing external factors do not consistently support changes in behaviour, therefore limiting opportunities for greener practices across the humanitarian system. These external factors include insufficient funding and problematic default processes, as well as a lack of strategic agenda setting to build norms. These issues at the sectoral level are also seen at the organisational level: ingrained structural processes and norms across humanitarian organisations do not create environments that facilitate greening behaviours.

The research identified five main systemic barriers relating to **opportunity** that are prevalent across the humanitarian system.

- 1. Limited opportunity for local actors.** Entrenched power inequalities often prevent local and national actors – who often have greater understanding of local environmental risks and needs than their international counterparts – from occupying leadership roles and leading decision-making.
- 2. Lack of adequate and flexible funding.** Shortfalls in humanitarian funding – particularly for local and national organisations – limit the sector’s ability to adequately resource the human, material and organisational capacities required for achieving green humanitarian action.
- 3. Limited agenda setting.** Greening priorities are not factored into strategic agendas, funding decisions, regulatory accountability, guidance or minimum standards. While some examples of donor-led guidance exist, these are not mandatory, so humanitarian agencies are not supported or incentivised to green their operations.
- 4. Restrictions from national and political contexts.** External factors upon which green humanitarian action hinges, such as local infrastructure, availability of greening material and supplies in national markets, as well as national policy and legal frameworks, further limit opportunities to advance green humanitarian action.
- 5. Lack of defaults.** Existing systems, process and procedures do not facilitate greening by default. To take action on greening, stakeholders need to circumvent existing processes that hold back greening behaviours.

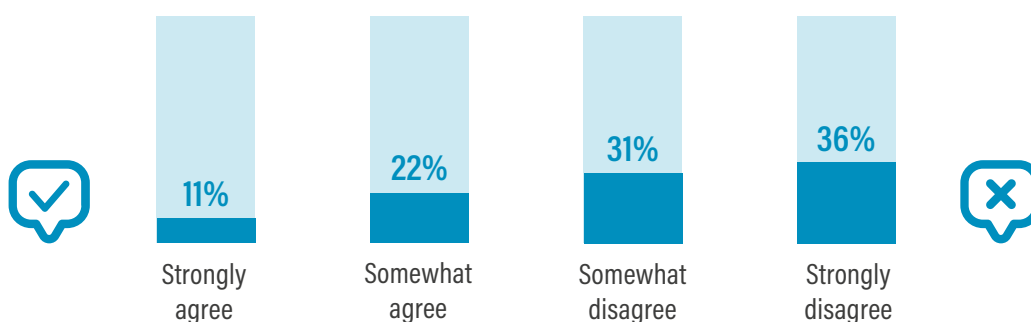
Limited opportunity for local actors

The research demonstrated that disparity between local and international actors is a major barrier constraining progress towards a greener humanitarian system. Local and national actors are significantly under-represented in senior positions of power, with 60% of the most senior humanitarian leadership positions occupied by international staff, suggesting that local actors are unable to direct humanitarian response, including within their national contexts.⁴⁰ This has important implications for green action, because local and national actors, who are likely to have superior knowledge of local environmental factors, have few opportunities to influence decision-making and support more effective practices.⁴¹

Lack of adequate and flexible funding

At present, little humanitarian financing is dedicated specifically to enabling greener action, a significant barrier to moving towards a greener response.⁴² Survey data showed 'the lack of adequate and flexible donor funding' was the second greatest barrier to greening humanitarian aid ('competing priorities' was first). Sixty-seven per cent of respondents indicated that funding was too scant and inflexible to support greening.⁴³ While some donors have committed to financing greening activities, these examples are so few that they are not captured in global reporting data,⁴⁴ meaning that organisations are given little incentive to undertake greening practices.

Survey finding: Donor funding is adequate and flexible enough to enable agencies to green their operations⁴⁵



Even when donor funding for greening exists, interviewees asserted that short-term funding cycles hinder organisations' ability to meet long-term green humanitarian outcomes, which require greater flexibility and time.



Example: One interviewee explained that the cost of operating diesel-powered generators is usually less than that of solar-powered generators over one year, yet over three years, solar is cheaper. As such, annual funding cycles prevent organisations from procuring the sustainable option.⁴⁶ Increased and more flexible financing is critical to enable humanitarian actors to green supplies, improve human resourcing and expertise related to environmental issues, increase capacity, and integrate initiatives into systematic processes.

These challenges will only become greater as climate change increases the number of disasters and intensifies their effects. Humanitarian actors globally are struggling financially: on average, only 60% of humanitarian appeals are met.⁴⁷ This gap is increasing as appeal targets continue to rise in response to increasing needs, reaching a record USD55.2 billion in August 2023.⁴⁸ Insufficient funding and growing financing needs are reducing humanitarian actors' ability to scale greening initiatives. The challenge is even more significant for local and national actors; despite Grand Bargain commitments, direct funding to local and national actors declined from 3% of total funding in 2020 to only 1.2% in 2021.⁴⁹

“ One of the major barriers to greening practices in the humanitarian sector is the lack of funding. Most organisations often operate on limited budgets, while implementing greening practices can require significant investment.”⁵⁰ (Local actor)

Insufficient agenda setting

To date, few humanitarian organisations and donors have engaged systematically with greening issues. As a result, actors across the system are not being incentivised to change their practices or being held accountable to commitments to change. Research published in 2021 found that only 1.8% of 5,558 humanitarian proposals included some form of climate component.⁵¹ Greening indicators, obligations and guidance (in addition to funding) remain largely absent from organisation and donor requirements.⁵² While some donors have taken steps to support and incentivise greening (see pages 27–28), they are rare, and positive examples are mostly focused on guidance and recommendations.

“ We are a donor-driven sector. The quicker donors get on board, the quicker things will change.”⁵³
(International actor)

Limitations in national enabling environments

Greener humanitarian action relies on a range of supporting factors that may be weak in or absent from contexts of humanitarian response. For example, the infrastructure of the host country, such as transportation networks, water provision, energy systems, waste management systems and camp amenities may not enable environmentally sustainable practices. In addition, greening supplies and materials are often unavailable.⁵⁴ While greener infrastructure – such as renewable energy systems – is becoming more readily available as a result of the global imperative to decarbonise economies, data shows it is often less available in countries experiencing the most profound humanitarian needs and crises.⁵⁵

“ Many humanitarian operations take place in areas with limited infrastructure which can make it challenging to implement greening practices. There may be a lack of access to clean water or adequate waste management systems, making it difficult to implement sustainable practices, while the lack of infrastructure can make it more challenging to transport and install equipment for renewable energy solutions.”⁵⁶ (Local actor)



Example: The United Nations Trade Conference on Development’s (UNTCD) World Investment Report found that since the 2015 Paris Agreement, most global renewable energy investment has gone to more developed countries, with only USD544 billion of the required \$1.7 trillion invested in developing countries in 2022.⁵⁷

Weak policy frameworks and governance systems can also reduce the likelihood of greening humanitarian action. Although most countries have established environmental legal frameworks, with many of these enshrining environmental protection or the right to a healthy environment in their constitutions, poor implementation and enforcement from government bodies remains a prominent issue.



Example: The United Nations Environment Programme (UNEP) found that the environmental legal frameworks in many countries – both more developed and less developed – lack clear standards and mandates and are rarely tailored to national and local contexts, hindering implementation and enforcement.⁵⁸ Effective legal frameworks implemented and enforced by political will are fundamental for enabling sustainable practices.

“ Government policies are generally lacking in incorporating issues of environmental degradation and climate change, and where there is some incorporation there is no restriction, monitoring or implementation of those policies.”⁵⁹ (Local actor)

Defaults do not facilitate greening

Defaults in the humanitarian system rarely support green humanitarian action. Defaults refer to pre-set courses of actions that take effect if nothing is specified by the decision-maker.⁶⁰ Humanitarian defaults are intended to prioritise rapid funding, mobilise support, deliver relief supplies, and implement urgent response mechanisms associated with the prevention of immediate harm and suffering. For example, supply chain and procurement practices – which are leading drivers of emissions and waste – contain many defaults that do not facilitate greener processes. Changing these default procurement systems is hard due to a lack of preparedness and long-term systematic planning and competing priorities.⁶¹

Box 4 explores some of the existing harmful defaults in procurement and supply chains.



Box 4. Greenhouse gas emissions and negative environmental impacts from humanitarian supply chains and procurement defaults

Emerging evidence suggests supply chains are the largest source of greenhouse gas (GHG) emissions within the humanitarian sector. Some organisations report the full scope of their GHG emissions, with results demonstrating their supply chain and procurement emissions constituted 30–65% of total emissions in 2019. More recently, one organisation found this source accounted for 80% of its total GHG emissions.⁶²

Humanitarian supply chains contain many entrenched defaults that result in high GHG emissions and negative environmental impact. For example:

- **Single-use plastic** – many agencies procure single-use, disposable packaging when preparing aid kits; it is cheaper than more sustainable alternatives, less prone to contamination and has a longer shelf life.⁶³
- **Transport** – organisations often deliver aid to overseas and remote locations with few options for sustainable transportation. Transport of supplies, specifically air freight, contributes significantly to supply chain GHG emissions. Poor coordination between agencies often leads to overlapping delivery routes, meaning duplication of aid, more vessels and vehicles, more congestion and delays, and increased waste and emissions.⁶⁴
- **E-waste** – low-carbon supplies and materials (e.g. solar panels) expire eventually, but facilities for their recycling or safe disposal are rare, particularly in crisis-affected low-income countries.⁶⁵ This e-waste contributes to environmental degradation, air pollution, GHG emissions and health problems.

“ We don’t take responsibility for the wastage of our supplies. We deliver solar lanterns to communities thinking this is green, but these aren’t produced to be sustainable, so they eventually all go to waste. So much of greening [the humanitarian system] is down to procurement.”⁶⁶ (Humanitarian procurement practitioner)

Actions for a greener humanitarian system

This section provides pathways for critical actor groups to achieve behaviour change and drive greener practices across the humanitarian system. The enabling actions in this section address the areas of motivation, capability and opportunity to shift behaviours.

The research identified three actor groups (see Box 5 below) that are critical in shifting the system towards greener practices. These critical actors' greening actions are likely to create a ripple effect, influencing decisions and actions beyond their immediate sphere of influence.



Box 5. Critical actor groups

Champions for change: As advocates for greener humanitarian action, these staff members and volunteers have the enthusiasm to drive motivation and action across their organisations. They include greening experts/leads and everyday advocates seeking to influence co-workers, peers, managers and leaders to advance towards a greener system. They may not be leaders or managers within their organisations or have the responsibility and authority to directly implement policies or shift structural processes for greener action, but they are critical to keeping the sector accountable and driving change.

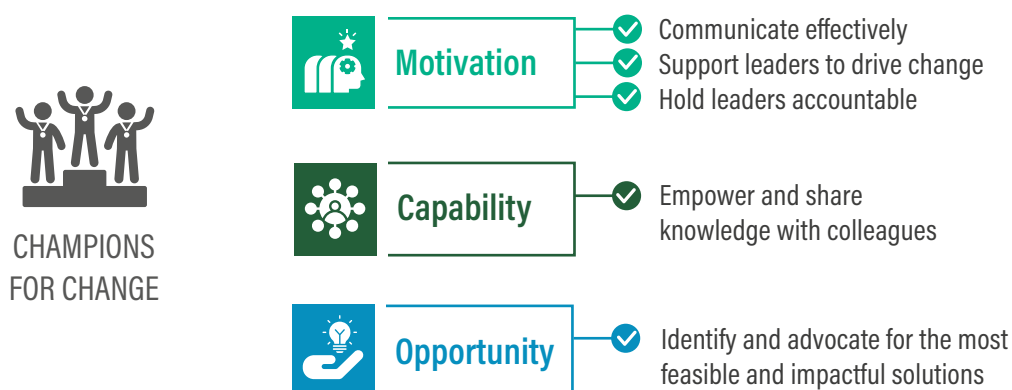
Humanitarian leaders and managers: As key decision-makers, they are pivotal in increasing the capability and resources needed to transform the sector and reduce its negative impacts on the climate and environment. They can develop and implement policies and processes, influence the broader humanitarian sector, and act as role models internally and externally to their organisations.

Humanitarian donors: As policy setters, funders of programs and leaders in international forums, donors wield considerable influence. They include government departments, UN bodies, bilateral and multilateral agencies and other philanthropic bodies.

CHAMPIONS FOR CHANGE

The range of work areas in which behaviours can be influenced to create a greener humanitarian system includes everyday project implementation, interactions with colleagues, program and project design, advocacy to management. Figure 7 shows how champions can promote change in these areas.

Figure 7: Champions for change model





Motivation

✔ Communicate effectively

Communicating to colleagues in the right way is critical for champions in driving motivation across their organisations and networks. Existing research demonstrates that increasing motivation is best achieved through sharing stories that are local, relatable and personal to target audiences.⁶⁷ Stories relating to a particular community, area or experience are more likely to have a powerful impact and drive action. Communicating data and statistics alone is less effective in driving motivation.⁶⁸ In communicating effectively, champions should:

- **Share local, relatable, personal stories:** Ensure examples and stories relate to others' experiences and increase motivation for greener action
- **Keep it simple:** Avoid complex information and data, which can overwhelm and serve to decrease motivation
- **Communicate positive momentum:** Frame messaging to communicate that change will happen (whilst not instantly) and can be achieved through ambitious but measured steps.

“ Repeated and consistent exposure to various success stories can gradually shift attitudinal and behaviour patterns.⁶⁹ (Local actor)

✔ Support leaders to drive change

Champions for change can play an important role in supporting their leaders and managers to implement the right changes and organisational settings for guiding greener humanitarian action. Many leaders and managers may be supportive of greener humanitarian outcomes, but are held back by numerous and competing priorities; champions can provide support and guidance, for example by offering tangible solutions, policy ideas, and effective approaches for greener outcomes. This support may also serve as a powerful catalyst for leaders, motivating them to drive change.

✔ Hold leaders accountable

Champions can constructively support their leaders and managers to maintain accountability alongside their competing priorities and ensure that intentions translate into meaningful action. This can be achieved through promoting discussion of existing commitments in workplace meetings and dialogue, proposing or initiating progress reviews against existing commitments, one-on-one communication with managers and leaders, and promoting ideas and innovative strategies for achieving commitments and organisational intentions.

“ Commitments from senior levels are often made such as signing a carbon emissions reduction pledge, yet the actions following are often lacking. There is a need for more accountability to commitments made at the senior level. People are less motivated if you only see the leader who says they wants things done, but there is no action.⁷⁰ (United Nations actor)



Capability

✔ Empower and share knowledge with colleagues

Champions can empower their colleagues with knowledge and concrete ideas for change. Champions can drive awareness that the small-scale actions and advocacy of individuals can influence those with power and authority to make changes. Empowering increasing awareness and knowledge of colleagues can have a spillover effect across the sector, whereby engagements in a specific area catalyse other behaviours. This can then influence norm building at a larger scale across the humanitarian system.⁷¹

“ Everything starts and falls with how well you are with mobilising your colleagues into buying into this.”⁷²
(Humanitarian greening lead)



Opportunity

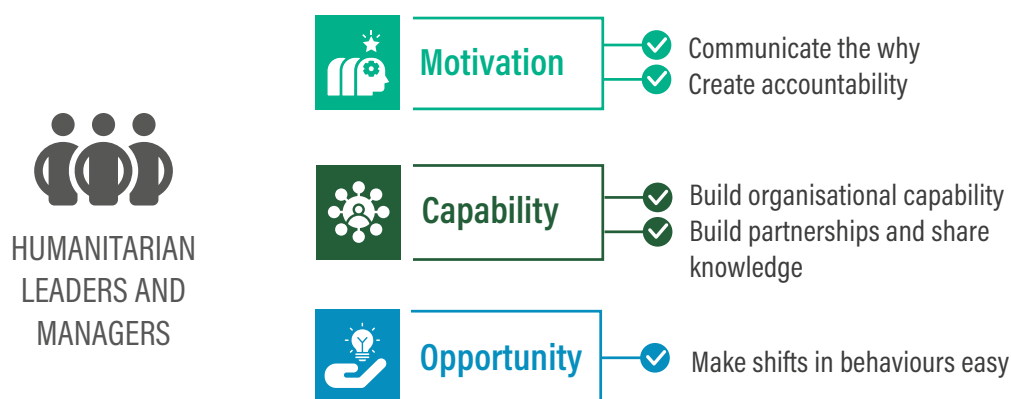
✔ Identify and advocate for the most feasible and impactful solutions

Shifting behaviours towards greener practices can be a daunting task, with multiple, complex priorities. Champions can support prioritisation of impactful solutions, recognising that small actions can be tested, scaled and communicated to build momentum. Whilst some of the actions themselves might be implemented by leaders or managers, champions can identify priorities and advocate to leaders make the desired changes.

HUMANITARIAN LEADERS AND MANAGERS

The range of work areas in which behaviours can be influenced include organisational policies and processes, organisational culture, recruitment and staffing decisions, strategic alliances. Figure 8 shows how humanitarian leaders and managers can promote change in these areas.

Figure 8: Humanitarian leaders and managers' model





Motivation

✔ Communicate the Why

Humanitarian leaders and managers can articulate and communicate the reasons why there is an urgent need to green humanitarian action and how it can be done; communicating and presenting data and statistics alone is less effective in driving people's motivation.⁷³ Humanitarian leaders and managers can explain why action is important to them personally and to the organisation, and model the expected behaviours.

“ Seeing management's commitment to this can be a make it or break it thing. You may have people wanting to make it but if there's no commitment at senior level, all those things – resources, human resources, advocacy – will be working against you.”⁷⁴ (International actor)

✔ Create accountability

Organisational strategy and policies can create and regulate standards and expectations that can then drive norms and pro-environmental behaviour.⁷⁵ For example, monitoring and publishing carbon footprints, establishing GHG emissions reduction targets and strategies, and incorporating climate and environmental strategies, commitments and intentions into staff onboarding and recruitment processes and communicating them in agendas can collectively build motivation for pro-environmental action. Creating norms and standards that facilitate desired behaviour is associated with increasing motivation for carrying it out. For example, humanitarian actors are likely to have stronger motivation for greening if enabling processes are implemented and therefore eased across the system.⁷⁶ This is particularly relevant with the research identifying motivation barriers relating to 'perceived difficulty' (see page 12). Through embedding environmental approaches in key documents, leaders and managers can create accountability loops to hold organisations to their commitments and driving motivation for greener action.



Capability

✔ Build organisational capability

Humanitarian leaders and managers can build capability in their organisations and networks, including with their local partners and collaborators. This can be achieved through training, policy and practice development, and recruitment of expertise that both enhances and normalises the skills, ensuring organisations and networks are better placed to take greener actions. Interviewees highlighted how training can strengthen the capability of humanitarian actors to meet greening challenges.

✔ Build partnerships and share knowledge

There is a need to build partnerships across and beyond the humanitarian sector that can deliver mutual benefits through combined knowledge, values and expertise. The impacts of the climate and environmental crises affect both humans and nature, demonstrating the need for new humanitarian approaches that address these challenges together. This was highlighted across survey and interview findings, with 70% of

respondents stating cross-sectoral partnerships with environmental and climate action groups are important for greening response and 63% believing that strengthening local ownership will be highly impactful for greening humanitarian action.⁷⁷ It is particularly important that humanitarian leaders and managers pursue partnerships with:

- **Local and national actors:** Local leaders can provide knowledge to their humanitarian counterparts around areas and resources of ecological significance, local environmental management and considerations, as well as cultural and societal values and traditional knowledge that must be respected and elevated during response
- **Environmental organisations:** working with organisations outside of the traditional humanitarian system to leverage complementary skills and expertise to support more environmentally friendly approaches during humanitarian action.

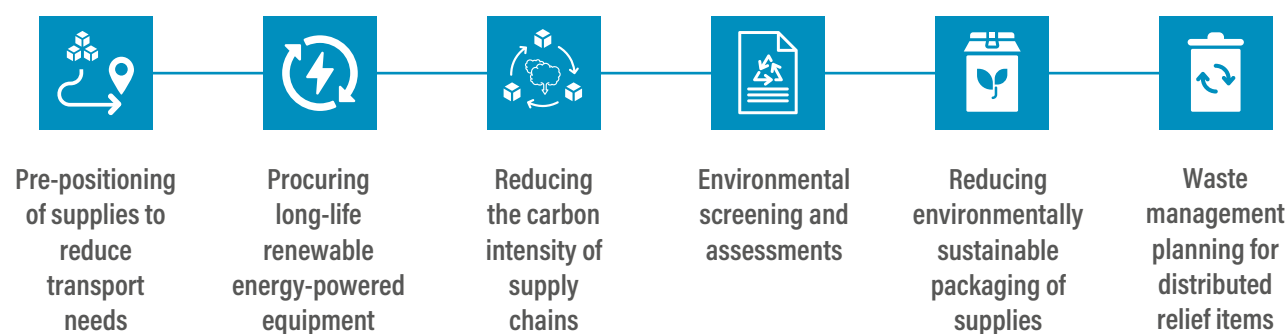


✔ Make shifts in behaviour easy

Research has identified that people preferentially take default pathways or perform actions and behaviours that offer the least resistance.⁷⁸ Leaders and managers can widen opportunities for pro-environmental behaviours by creating a supportive environment that facilitates and incentivises them. This can be done by identifying organisational processes that need to shift, removing obstacles to desired behaviours and providing effective alternatives to existing defaults, and helping people plan. It is important for leaders and managers to consider these changes in preparedness phases, because behaviours are more difficult to shift during emergency response.⁷⁹

Leaders and managers must identify problematic defaults and make meaningful suggestions as to how these can shift towards greener practices. Figure 9 provides a high-level overview of some key operational greening defaults that leaders and managers can consider.

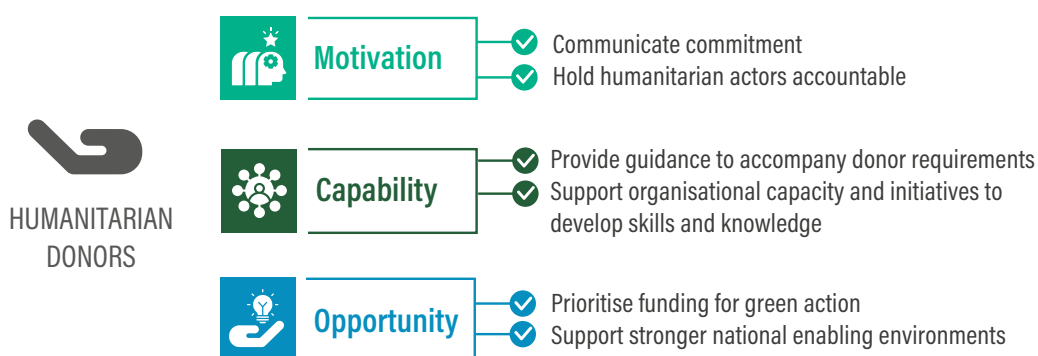
Figure 9: Operational greening defaults



HUMANITARIAN DONORS

The range of work areas in which behaviours can be influenced includes government policies and practices, funding allocations, international and multilateral priorities. Figure 10 shows how humanitarian donors can promote change in these areas.

Figure 10: Humanitarian donors' model



✔ Communicate commitment

Donor leadership via public commitments to supporting green humanitarian action is critical for increasing motivation across the sector. Evidence has consistently shown that when donors initiate important changes, other actors follow. Publicly communicating commitments serves to make donors accountable to meet their commitments, therefore incentivising change.

Example: The Directorate-General for European Civil Protection and Humanitarian Aid Operations (DG ECHO) has established Minimum Environmental Requirements and Recommendations that support agencies to 'address negative environmental impacts related to humanitarian response at a project level' in ways that ensure environmental impacts are 'mitigated across sectors, projects and programmes and not implemented as stand-alone or parallel actions to the response activities'.⁸⁰

✔ Hold humanitarian actors accountable

Interviewees highlighted the need for accountability mechanisms that guide and support green humanitarian action. Strengthening sector-wide processes that can more effectively normalise greening was perceived as potentially more impactful than focusing on separate organisational processes. These can include minimum standards, regulatory processes, due diligence and compliance procedures that donors can implement in proposals.⁸¹



Example: The United Kingdom's Foreign, Commonwealth & Development Office (FCDO) requires supply partners to have an environmental safeguarding policy, and report on environmental risks and processes to mitigate them.⁸²

Donors can require humanitarian organisations to measure greening outcomes in project proposals, and ensure that lessons are captured to inform future planning and proposals. Importantly, accountability mechanisms must be able to accommodate unforeseen challenges and take into consideration the needs, priorities, cultural values and different levels of capacity across the sector.⁸³



Capability

✔ Provide guidance to accompany donor requirements

To drive changes in behaviour, donors can complement requirements with helpful guidance and tools to support their implementation. Interviewees emphasised the need for meaningful donor action that empowers agencies to undertake effective greening actions.⁸⁴ Without nuanced support, there is risk of greening becoming (or being perceived as) another 'box-ticking' exercise.

This research did not find any evidence or examples of donors requiring greening activities and projects to be incorporated in proposals, but determined that requirements without meaningful guidance are unlikely to produce effective outcomes. This highlights the importance of alignment of funding, requirements and accompanying guidance as part of increasing capability for greening across the broader humanitarian sector through top-down norms and standards.

✔ Support organisational capacity and initiatives to develop knowledge and skills

Donors play a critical role in supporting actors across the system to develop skills, knowledge and capacity in key areas. Organisations need to be supported to develop their skills in various areas of greening. Donors can fund partners to develop this capability, or seek other avenues to ensure transfer of knowledge skills, particularly with local and national organisations.



Opportunity

✔ **Prioritise funding for green action**

Inadequate funding is a major barrier to greening humanitarian aid. There is a need to integrate greening priorities into existing humanitarian financing mechanisms – 74% of survey respondents identified increased funding as very impactful or impactful for progressing towards a greener system.

Funding should enable humanitarian organisations to resource greening capacity-building – in the form of training, recruitment and building of expertise – as well as greener materials, supplies and equipment. Funding should also be flexible enough to support shifting priorities in complex environments to enable context-informed decision-making. Importantly, this funding should be additional to existing humanitarian financing, given that humanitarian organisations currently face multiple competing priorities, and existing expenditure falls well short of meeting global humanitarian needs.

“ **Financial resources can help arrange and implement various capacity building and training programs that enhance the knowledge and skills of humanitarian actors, so they are fully aware and prepared regarding greening practices prior to the occurrence of a crisis situation.**⁸⁵ (Local actor)



Example: DG ECHO plans to trial a 10% dedicated funding loading for projects that detail comprehensive environmental planning, while also considering multi-year funding arrangements.⁸⁶

✔ **Support national partner governments to facilitate enabling environments for green action**

Donors – particularly government agencies – are pivotal in supporting national partner governments to create a stronger enabling environment for green humanitarian action. Donors can support governments through influencing and providing and funding support to update or create policies and invest in systems and infrastructure that is more environmentally sustainable, such as renewable energy and transportation solutions. In doing so, humanitarian financing mechanisms should more explicitly link with development and climate change adaptation programmes.



CONCLUSION

Sobering forecasts for our rapidly changing climate and environment create an unquestionable humanitarian imperative to promote greener practices and thereby reduce environmental harms. To achieve this, behaviour change is required at all levels of the humanitarian system.

This research identified the most significant barriers to behaviour change and the preconditions for it to occur. Whilst the identified barriers paint a complex picture, actions can be taken to overcome them and promote greener practices. Three critical actor groups can take these actions to promote the capability, opportunity and motivation of others to shift behaviours. Figure 11 provides an overview of how the three critical actor groups can influence behaviours to achieve shared climate and environmental objectives.

Figure 11: The three critical actor groups and the actions needed to promote humanitarian greening



Motivation

- ✓ Communicate effectively
- ✓ Support leaders to drive change
- ✓ Hold leaders accountable



Capability

- ✓ Empower and share knowledge with colleagues



Opportunity

- ✓ Identify and advocate for the most feasible and impactful solutions



Motivation

- ✓ Communicate the why
- ✓ Create accountability



Capability

- ✓ Build organisational capability
- ✓ Build partnerships and share knowledge



Opportunity

- ✓ Make shifts in behaviours easy



Motivation

- ✓ Communicate commitment
- ✓ Hold humanitarian actors accountable



Capability

- ✓ Provide guidance to accompany donor requirements
- ✓ Support organisational capacity and initiatives to develop skills and knowledge



Opportunity

- ✓ Prioritise funding for green action
- ✓ Support stronger national enabling environments

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Endnotes

- 1 Interview 3
- 2 HAG, GLOW & PIANGO (2022), [Greening the system: a vision for a green humanitarian future](#). Humanitarian Horizons. Melbourne: HAG; HAG, GLOW & PIANGO (2022), [Greening the System: from vision to action](#). Humanitarian Horizons. Melbourne: HAG
- 3 Michie, S. van Stralen, M. & West, R (2011) The Behaviour Change Wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science*, 6(1): 42
- 4 The Decision Lab (nd), [The COM-B model for behaviour change](#)
- 5 Kneebone S, Smith L & Fielding K (2017) The impact-likelihood matrix: A policy tool for behaviour prioritisation. *Environmental Science & Policy*, 70, 9-20.
- 6 Social Change UK (2019), [A guide on the COM-B model of behaviour](#)
- 7 Survey
- 8 Brick C et al. (2021), Motivation and climate change: a review. *Current Opinion in Psychology*, 42, 82–88
- 9 Interview 1
- 10 Massazza A et al. (2021) Feelings, thoughts, and behaviours during disaster. *Qualitative Health Research*, 31(2), 232–337.
- 11 Van Vugt M et al. (2014) Naturally green: harnessing stone age psychological biases to foster environmental behaviour. *Social Issues and Policy Review*, 8(1), 1–32.
- 12 Interview 27
- 13 Interviews 1, 3, 8, 17, 27, 30, 37 & 41
- 14 Interview 17
- 15 Interview 17
- 16 Interviews 8
- 17 Survey
- 18 Interview 20
- 19 Social Change UK (2019), [A guide on the COM-B model of behaviour](#)
- 20 Survey
- 21 Survey (37% strongly agreed; 45% somewhat agreed)
- 22 Survey; interviews 1, 2, 3, 5–7 & 11
- 23 Survey
- 24 Interview 17
- 25 Interviews 1, 2, 3, 5–7, 10–27, 30–32, 34, 36–39 & 41
- 26 Survey; interviews 1, 2, 5, 6, 13–19, 21–27, 32, 37, 38 & 41
- 27 Survey
- 28 Interview 18
- 29 Interviews 6, 10, 22, 33 & 39
- 30 Interviews 1, 2, 4, 6 & 8
- 31 Interview 2
- 32 Interview 2
- 33 Survey
- 34 Survey
- 35 Korosy Z et al (2022) [Without Indigenous leadership, attempts to stop the tide of destruction against nature will fail](#), *The Conversation*, December 14; Hoffman W (2021) [The humanitarian leader: Indigenous data in effective humanitarian responses](#)
- 36 Lakhani N (2022) [“Shameful” UN silencing Indigenous voices, says banned COP27 activists](#), *The Guardian*, November 19
- 37 Rashidi P et al. (2021) [Indigenous knowledge systems are vital to the design of solutions to climate change – so why are Indigenous voices so rarely included in deliberations?](#), ABC, November 15
- 38 Interview 23
- 39 Social Change UK (2019), [A guide on the COM-B model of behaviour](#)
- 40 HAG, CoLAB, GLOW, inSights, PIANGO & Pujiono Centre (2022) [Achieving a more equitable and impactful humanitarian sector: platform paper](#)
- 41 Interviews 2, 16, 17, 31, 33, 36 & 41
- 42 Interviews 3, 6, 7, 9–11, 14–16, 18, 19, 22, 24, 34, 38 & 39
- 43 Survey
- 44 OCHA Financial Tracking Service (2022) [Total reported funding 2022](#)
- 45 Survey
- 46 Interview 3
- 47 Oxfam (2023) [Still too important to fail: addressing the humanitarian financing gap in an era of escalating climate impacts](#)
- 48 OCHA (2023) [Humanitarian action: analysing needs and response](#)
- 49 Metcalfe V et al. (2022) [Grand Bargain annual independent report 2022](#), ODI

- 50 Interview 22
- 51 McCann BT et al. (2021) Quantifying climate change-resilient humanitarian programming and spending across five countries with high vulnerability to disaster. *Disasters*, 45(4), 819–843.
- 52 Interviews 2, 6, 7, 14, 17–19, 21–23, 25, 31, 33–35, 37, 39 & 41
- 53 Interview 10
- 54 Interviews 22–26, 30, 33, 34, 38, 41 & 42
- 55 Wolf MJ, Emerson JW, Esty DC, de Sherbinin A, Wendling ZA et al. (2022) 2022 environmental performance index. New Haven, CT: Yale Center for Environmental Law & Policy; OCHA (2023) Global humanitarian overview 2023
- 56 Interview 22
- 57 UNCTAD (2023) World investment report 2023
- 58 UNEP (2019) Environmental rule of law: first global report
- 59 Interview 23
- 60 The Decision Lab (nd) Defaults
- 61 Interviews 1, 2, 3, 7, 8, 11, 14, 17, 22, 27, 32, 36, 37 & 40
- 62 Loy I (2023) Why this NGO is publishing its carbon emissions. *The New Humanitarian*, February 20; Salzenstein L & Pedersen K (2021) What is the aid sector's carbon footprint? *The New Humanitarian*, October 27; UNFPA (2022), Measuring and reducing the environmental impact of UNFPA's humanitarian supply chain
- 63 USAID (2020) Sustainability in humanitarian supply chains: a preliminary scoping of improvements in packaging waste
- 64 Rodriguez-Espindola O et al. (2023) Sustainability and intermodality in humanitarian logistics: a two-stage multi-objective programming formulation. *Annals of Operations Research*
- 65 Interview 12
- 66 Interview 12
- 67 Gustafson A et al. (2020) Personal stories can shift climate change beliefs and risk perceptions: the mediating role of emotion. *Communication Reports*, 33(3), 121–135; Brosch T & Steg L (2021) Leveraging emotion for sustainable action. *One Earth*, 4(12), 1693–1703; Griskevicius V et al. (2012) The evolutionary bases for sustainable behaviour: implications for marketing, policy, and social entrepreneurship. *Journal of Public Policy and Marketing*, 31(1), 115–128; United Nations (nd) Communicating on climate change
- 68 Gustafson A et al. (2020) Personal stories can shift climate change beliefs and risk perceptions: the mediating role of emotion. *Communication Reports*, 33(3), 121–135
- 69 Interview 19
- 70 Interview 7
- 71 Everad M et al. (2016) The ripple effect: institutionalising pro-environmental values to shift societal norms and behaviours. *Ecosystems Service*, 1, part B, 230–240, <https://doi.org/10.1016/j.ecoser.2016.08.001>; Lauren N et al. (2017) Promoting spillover: how past behaviours increase environmental intentions by cueing self-perceptions. *Environment and Behaviour*, 51(3), 235–258.
- 72 Interview 3
- 73 Gustafson A et al. (2020) Personal stories can shift climate change beliefs and risk perceptions: the mediating role of emotion. *Communication Reports*, 33(3), 121–135
- 74 Interview 6
- 75 Mastandrea S et al. (2021) Organisational climate and pro-environmental behaviours at work: the mediating role of personal norms. *Frontiers in Psychology*, 12; Asfar B et al. (2018) Activating employee's pro-environmental behaviours: the role of CSR, organisational identification, and environmentally specific leadership. *Corporate Social Responsibility and Environmental Management*, 25(5), 904–911; Norton TA et al. (2014) Organisational sustainability policies and employee green behaviour: the mediating role of work climate perceptions. *Journal of Environmental Psychology*, 38, 49–54.
- 76 Social Change UK (2019), A guide on the COM-B model of behaviour
- 77 Survey
- 78 RARE & The Behavioural Insights Team (2019) Behaviour change for nature: a behavioural science toolkit for practitioners; The Behavioural Insights Team (2014) Four simple ways to apply EAST framework to behavioural insights
- 79 Survey; interviews 1, 4, 5, 7, 14, 16, 20; HAG, GLOW & PIANGO (2022), Greening the system: a vision for a green humanitarian future. Humanitarian Horizons. Melbourne: HAG
- 80 ECHO (2020), DG Echo's approach to reducing the environmental footprint of humanitarian aid
- 81 Interviews
- 82 FCDO (2022) Supply partner handbook
- 83 Survey
- 84 Interviews 1, 2, 3, 6, 14, 17–19, 23, 25, 31, 33–35, 37
- 85 Interview 18

