LEADERSHIP IN THE POLYCRISIS
HOW UK DEFENSE TRAINING CAN HELP US NAVIGATE A FUTURE OF UNPRECEDENTED ENVIRONMENTAL DISRUPTION

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The defense context referenced throughout this report primarily refers to a UK Defense setting, as this was the context within which the authors’ research was mostly undertaken.

INTRODUCTION

The global scale, systemic interconnection, and severity of today’s climate and ecological crises has led researchers to conclude that the world has entered a new era—or overall state—of complex, cascading, and compounding risk.1 Some have labelled this the ‘polycrisis.’2 Approaches to leadership development in a defense context—which commonly focus on the ability to operate effectively under intense conditions—might have increasing relevance for civilian leaders wanting to enhance their capacity to respond to this emergent polycrisis era. We undertook research exploring these approaches, utilizing structured workshops and interviews with around thirty senior officers and personnel across the United Kingdom (UK) Defense enterprise. We found that the strong emphasis placed on physical and mental resilience, situational rehearsal, and an initiative mindset grounded in


2 Homer-Dixon, T., Renn, O., Rockstrom, J., Danges, J. F. and Janzwood, S., A Call for An International Research Program on the Risk of a Global Polycrisis (Cascades Institute, 2021), http://dx.doi.org/10.2139/ssrn.4058592
organizational structure and team ethos will increasingly have a broader leadership applicability as the destabilizing consequences of the climate and ecological crisis grow. This briefer explores our findings.

THE WORLD WILL BECOME EVEN LESS STABLE

The physical impacts of climate change, as well as the transition risks resulting from efforts to adapt to and mitigate these impacts, are being increasingly documented, acknowledged and addressed. These risks now feature prominently within analyses and strategies of a broad range of public and private sector and civil society organisations. Physical and transition risks are growing and, in many cases, are more severe than was anticipated at current levels of climate change. For example, the UN’s Intergovernmental Panel on Climate Change (IPCC) concluded earlier this year that the “extent and magnitude of climate change impacts are larger than estimated in previous assessments” for the current global temperature rise.

Yet environmental risks are even more complex and severe than is generally understood and is being acted on. Physical and transition risks have impacts that cascade through and between economic, social, and political systems and therefore reach places and sectors far removed from the original trigger. These cascading, systemic risks are propagated through a highly dynamic process of amplification, acceleration, and synchronization of risks. For example, environmental shocks can have impacts on food systems, with food price spikes and distribution problems having knock-on implications for international security and stability. Environmental change occurring alongside climate change—such as biodiversity loss, soil degradation and changes to biogeochemical flows—similarly carries risks, which interact with climate risks to create an overall state of worsening environmental crisis. The risk of ‘tipping points’—abrupt, irreversible, and dangerous changes in the natural world—is also growing and is higher than previously understood as global temperature rises head to and beyond 1.5°C.

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THE CHALLENGE FOR FUTURE LEADERS

A pressing implication of this “polycrisis” is that it challenges the ability of societies to realize sufficient mitigation and adaptation action. A more chaotic world could create relentless crises to which societies must respond, diverting focus and resources away from reducing emissions and regenerating nature; a state of constantly managing symptoms at the potential expense of action to tackle root causes.\(^\text{10}\) It is therefore necessary to identify a further category of risk associated with the deepening climate and ecological crisis: a ‘strategic risk’ to the transition. This category of risk constitutes a threat to the ability of societies to collectively realize a more sustainable and resilient world.\(^\text{11}\)

For younger professionals, these risks will be career defining. For example, the career of a 31-year-old—the world’s average age\(^\text{12}\)—extends beyond 2050, when net-zero emissions and other environmental goals are supposed to be met. Emerging generations should therefore be mindful of how their career trajectory can best develop their capabilities to face cascading and systemic risks and to navigate sustainability transformations through these conditions.

This is not just a matter of acquiring the skills to realize decarbonization and nature regeneration goals. Many in these (and all) generations see this as a priority and are increasingly acting accordingly. It is imperative to ensure these capabilities are robust and resilient to the unprecedented challenges thrown up by a more chaotic world.

LESSONS FROM A DEFENSE CONTEXT

Across sectors, emerging generations are offered few opportunities to better understand and develop capacities for leading in a world beset by the deepening crisis and to manage cascading, systemic, and strategic risks. One pathway toward filling this gap is exploring the unique skills and mindset developed within a defense context.

The defense outlook combined with the lived experience of the armed forces—gained through the reality of operational deployments and significant time spent rehearsing for different mission scenarios—often leaves military professionals well-placed to navigate certain chaotic situations. Emerging leaders from any setting wanting to enhance their capacity to manage the consequences of a more chaotic world are likely to benefit from adapting some of the approaches to leadership development used across the defense community. We have categorized these and other strengths into three broad areas.

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\(^{11}\) Laybourn L, Throp H and Sherman S (2023) “1.5°C—dead or alive?: The risks to transformational change from reaching and breaching the Paris Agreement goal”, IPPR and Chatham House. http://www.ippr.org/research/publications/1.5c-dead-or-alive

These categories were identified through structured workshops and interviews with around thirty senior officers and personnel across the United Kingdom (UK) Defense enterprise. Many of these areas exist outside of a defense context. But when considering the consequences of the deepening climate and ecological crisis, there is much to learn from how they are approached and how they are prioritized within defense.

I. BASELINE CAPABILITIES

A range of foundational capabilities are developed directly through training and indirectly through working and living within the context of the armed forces. A foundation of physical and mental fitness and resilience is essential to ensuring acuity in response to complex, chaotic situations and to maintaining these capabilities over long periods. Outside of defense, there is a growing recognition of the need to engage with practices that cultivate psychological resilience in the face of the climate and ecological crisis and its worsening impacts.13 A consistent message through interviews and the workshops was that robust physical and mental training—and the personal and organizational discipline this can enable—provides defense personnel with a strong baseline in this area, though within a specifically military context.

Over the last decade, all branches of the British Armed Forces have made explicit their definitions of leadership and approaches to leadership development, publishing a range of leadership doctrine and codes.14 At their heart is a focus on values-based leadership: the ability to inspire, develop, and maintain values and standards in oneself and others. A considerable body of evidence shows that a strong values basis is highly motivating and focusing, engendering a shared sense of belief and purpose that provides a necessary foundation for ensuring effectiveness under testing conditions. The British Army’s Leadership Doctrine goes so far as to conclude that, “ultimately, values-based leadership underpins the Army’s operational effectiveness.”15 Values of duty and honor have always been core to the appeal of serving in armed forces and recruiters are working to ensure these are joined by values such as diversity and inclusion that are now seen as essential, particularly by younger generations of recruits.

Another foundational capability is the ability to characterize and tell stories. Accessible, informative, and compelling framing and narratives are crucial to ensuring shared understanding. Effective storytelling is developed through a constant process of storytelling or—to use the British military colloquialism for this process—‘spinning dits.’ This serves to exchange information through tiers of rank, leadership, social groups, and branches.

creating a collective knowledge basis that can assimilate new understanding and insights while reinforcing those with utility over the long term.\textsuperscript{16}

Effective storytelling in moments of intensity is crucial. Critical action moments are common in combat situations and occur up to the strategic level, presenting personnel with significant risks to mission execution that must be navigated effectively. The stories that are told in these moments—and the way they are told—can be a key determinant of what happens next. Narratives also stem from history. One interviewee explained how historical signifiers (including stories, pictures, songs, and uniforms) consistently carry the message that chaotic conditions will be met by personnel and that certain responses worked, while others should be avoided, and that this was learned through hundreds of years of practice. Elements of this multi-generational story are repeated to support effective behaviours that maintain initiative during chaotic conditions.

Stories will play a role in deciding how people—from the individual to population scale—understand and respond to increasingly chaotic conditions brought by the climate and ecological crisis. One interviewee described how scenario planning to explore potential future critical action moments under conditions of instability can be used to develop and test effective narratives that might spur desirable action trajectories in response. These narratives—whether anticipatory, framing events in advance to prepare and pre-empt, or reactive, in response to events—can be rehearsed and their effectiveness improved by training for communicating under pressure, including to scared, angry, and confused groups. The military’s ability to develop stories about the future and plan for various scenarios is therefore a key baseline capability for leadership in response to the worsening climate and ecological crisis. If replicated in other sectors, it can help improve the response to worsening destabilization: by allowing decisionmakers to plan with greater levels of precision for a variety of potential futures and contingencies, to help populations better understand and contextualize the complex reality, and in motivating more effective and cohesive responses under challenging circumstances.

\section*{II. REHEARSAL}

The ability to respond effectively in chaotic situations is partly a function of practice. This is another strength within the defense context: armed forces are engaged in a constant process of rehearsal through ongoing mission and situational training. These include a huge array of advanced training and simulation methods, including major field exercises through war gaming, computer simulations, and analytical models.\textsuperscript{17} These have the effect of preparing personnel and organizational units for many potential contexts and permutations of how operations could play out.

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Particular lessons for rehearsal processes in civilian settings include: exercising to the point of failure and for the unexpected, not just for conditions slightly beyond the normal; exercises being undertaken regularly, involving senior personnel; and exercise processes being embedded in the core learning functions of organizations. A growing number of militaries are increasingly exploring how to incorporate climate change-related considerations into mission rehearsal activities. For example, the U.S. Department of Defense is increasingly embedding climate change into its wargaming, which can give both civilian and defense organizations a way to close the ‘imagination gap’ between present realities and preparations for a more chaotic future.

This rehearsal is partly enabled by horizon scanning capabilities that identify a plausible range of conditions, mission contexts, and priorities for which armed forces should be prepared. These range from nearer term assessments undertaken by the defense intelligence community, through scenario planning and strategic planning exercises for the medium term, to the exploration of longer-term trends by communities of ‘Futures’ practitioners. The Global Strategic Trends Programme undertaken by the UK Development, Concepts and Doctrine Centre (DCDC) is seen as a world leader in identifying key trends facing the strategic context and has long recognized the climate and ecological crisis and the resultant risks. In the United States, the National Intelligence Council’s Global Trends report is released early in a new administration’s tenure and assesses the key trends and uncertainties that will shape the strategic environment for the U.S. during the following two decades, providing a foundation to policy planning. In both cases, the process of producing these reports can be as valuable as the final products for building capabilities to manage future risks, with the research and engagement for producing the report educating and connecting personnel.

Responses to an array of rehearsed situations are coded through standard operating procedures (SOPs), which provide clear direction and procedural instruction developed over many years (and even generations) and can ensure consistency of response in accordance with force development policy. However, in certain dynamic settings, these procedures might have limited utility. This highlights another dimension to constant rehearsal: it enables personnel to develop a deeper range of capabilities and softer skills—stamina, team leadership, bravery, and creativity—to handle uncertainty, complexity, and intensity. One interviewee talked about how in the most unexpected and intense combat situations, when operational procedures and other guides seemingly had little utility, they fell back on the reflexes developed through constant exercises and situational rehearsal.

These reflexes are developed both individually and in collectives, from the smallest operational unit upwards. This is enabled by an overall leadership climate that expects and provides leadership at all levels of the armed forces.

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For example, the British Army’s Leadership Code explains how its core leadership behaviors are “expected of all Army leaders, from Private to General” and that the way leaders of any rank “behave and interact with their teams should be the same, as the fundamentals of effective team leadership are applicable from the very highest strategic level down to the smallest operational unit.”22 Rehearsal of dynamic contexts is used to reinforce this leadership climate, developing a strong team ethos at all levels. Building communities and a sense of togetherness and cooperation will be increasingly important in all contexts to help bridge divides and enable joint responses to complex and difficult shared problems. A supportive and shared leadership climate can enable this.

III. MISSION

Baseline capabilities and a constant process of rehearsal prepare professional armed forces for a range of chaotic situations, whether on the battlefield, in humanitarian situations, or a complex hybrid of the two. Performance in these situations is also a function of how militaries operate in the field. This is founded on the operational leadership concept of Mission Command, which combines centralized intent and decentralized execution.23 This is important for empowering all personnel to exercise initiative. A clear idea of the mission and a general sense of purpose must be shared, understood, and bought into at all levels. Chaotic conditions are too complex for overly rigid command and control approaches. Instead, empowerment through ranks enables personnel to draw on local contexts and capabilities in mission execution. In turn, this necessitates a range of enabling attributes to be developed across ranks, particularly trust and mutual understanding, which is itself dependent on a clear, integrated, and disciplined military command structure.

Mission Command supports strengths in problem solving and coalition building in responding effectively and emphatically to crisis moments. Armed forces are globally predominant crisis managers because they operate frameworks that enable combined responses across forces, domains, countries and other entities. Defense and security communities have a long history of working with and between military and civilian bodies, including actors that are crucial to the effectiveness of operations in a local context, such as civil society. This requires standardization and interoperability and relies on the significant resources and unique logistical capabilities at the disposal of militaries.

Fundamentally, Mission Command is reliant on an initiative mindset through which extremely challenging conditions can be faced with resolve and creativity, ensuring agency and action is maintained even in situations where morale is critically challenged. The ability to maintain or re-establish initiative is a particularly powerful capability when considering the confusion and anger that a more chaotic world will bring. Already, persistent shocks and the promise of worse to come are having impacts on mental health around the world, while

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governments in frontline nations are struggling to protect populations against increasingly severe impacts. In this context, initiative mindset is about ensuring purpose and pathways of action—from the individual to the population scale—are maintained and deepened, overcoming conditions that could critically undermine mental and physical response.

AREAS FOR DEVELOPMENT

Defense has been highlighted here as an example from which emerging leaders working in civilian settings may wish to draw inspiration. But the nature and scale of the climate and ecological crisis and the complex risks it is bringing will almost certainly require armed forces personnel and wider defense and security communities to master new skills and subject areas that are not commonplace today. Through our research, including workshops and interviews, we have identified four priority areas, which are equally needed in both defense and non-defense settings:

- Better integrating climate and ecological sustainability and responsible leadership principles as a baseline within leadership doctrine and education. Defense and security communities are already integrating leadership and capacity development approaches that enable personnel to understand and contribute to mitigation and adaptation priorities. However, these approaches are not yet widespread and institutionalized across the entire enterprise and are not core to capacity building. There is a general lack of training and development across society for the capabilities needed to realize a rapid and effective sustainability transition. This is a necessary precondition for developing the ability to navigate that transition through increasingly challenging conditions.

- Reducing the environmental impact of training while maintaining high levels of operational readiness. Training, ongoing capabilities development, and mission rehearsal all have an environmental impact. Increased use of synthetic training environments and simulations, for example, could provide an alternative to fossil-fuel and ecologically intensive forms of mission rehearsal. But this will have to be done while still providing adequate development of baseline capabilities, lived experience, and the ability to operate effectively in high stakes situations.

- Accounting for the security implications of environmental change within strategic assessments as a new baseline for informed leadership. The accelerating destabilization brought by the climate and ecological crisis is becoming a key determinant of the strategic context for defense as well as other policy areas, a trend that will only deepen. Yet assessments of cascading and systemic risks do not consistently or directly underpin the routine analysis and threat assessments informing policymaking. As a result, the consequences of the climate and ecological crisis can be miscategorized as more speculative or purely future threats, rather than forming the backdrop against which national and international security and

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other policy issues are considered. Developing the ability to navigate through these conditions necessarily requires assessment processes that account for the full impacts of the climate and ecological crisis and its cascading and systemic risks. In turn, this will require improvements in analytical capability, including in tipping points and Earth System risks, cascading and systemic societal risks, their chaotic interaction, and the production of policy-relevant, ‘decision grade’ information from these analyses.\(^{25}\)

- Linking foresight to capacity and leadership development. Strategic assessments that fully integrate complex risks should be connected to the development of training, capacity, and leadership. The recruits and emerging leaders of today will face more complex and severe conditions. They might also face structural changes, such as an altered role and mandate for militaries in contributing to ecological regeneration domestically and internationally. These changes are set to play out within a career span of most armed forces personnel and should therefore be a focus for personnel development.

**CONCLUSION**

Explicit investments in the development of emerging as well as current leaders must be considered a core element of building resilience within the context of the deepening climate and ecological crisis. Better leadership—at all levels—will support decision advantage under more challenging conditions. A failure to make these investments in leaders is likely to significantly undermine the effectiveness of societies to handle growing systemic risks and, in turn, to ensure that collective sustainability efforts meet the critical threshold needed to avoid catastrophic runaway environmental change.

Some emerging leaders outside of defense might not view potential lessons from this context as palatable, partly because of concerns over the ‘securitization’ of the climate and ecological crisis, whereby worsening effects are seen simplistically as requiring a predominantly militarized response. These concerns are valid. Increased militarization in reaction to the deepening crisis risks acting as a threat multiplier, increasing tensions as well as environmental damage in a self-defeating spiral. Yet worsening cascading and systemic risks will create conditions—food shocks, economic crises, conflicts—that become national security concerns. In that sense, some kind of ‘securitization’ is inevitable.

This securitization must not be conflated with militarization, ensuring that this “polycrisis” does not result in self-defeating militarism. Instead, societies should respond to this disruptive era by deepening international cooperation to restore planetary stability and protect populations.\(^{26}\) Achieving this is one example of a range of huge challenges facing emerging leaders. Therefore, an active dialogue between generations will be essential in supporting younger cohorts to navigate an uncertain and dangerous future. Doing so now is of pressing importance.

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ABOUT THE AUTHORS

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The views expressed in this report reflect the key themes identified through a research process using interviews and workshops. They do not represent the formal position of the UK Ministry of Defence.