

THE RESPONSIBILITY TO PREPARE AND PREVENT

A CLIMATE SECURITY GOVERNANCE FRAMEWORK FOR THE 21ST CENTURY

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R2P2

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EXECUTIVE SUMMARY

The destructive Thirty Years' War compelled European monarchs to establish a nation-state system at Westphalia in 1648. The globally devastating first and second world wars precipitated the creation of an international order designed to protect the sovereignty of nation-states against external aggression and decrease the likelihood of conflict. This is the world order we are still living in today. However, given the rapid rate of climate change and its likely implications for global security (hereafter referred to as “climate security”), the current world order will have to adapt – and adapt quickly. The difference between today and major global disruptions of the past is that though the risks are unprecedented, our foresight is unprecedented as well. Technological developments have given us climate models and predictive tools that enhance our ability to anticipate and mitigate complex risks.

This combination of unprecedented risks and unprecedented foresight lays the foundation for a Responsibility to Prepare and Prevent (R2P2) - a framework for managing the climate security risks. The framework is concerned with what we know about climate security risks, what gaps exist in governing these risks, and how to close this global governance gap. The main climate security governance gaps identified in this paper are:

- **Gap 1: The Right Information.** There is currently no standardized global hub for climate security information to inform coherent international policy actions to address climate security risks, and a lack of accepted future projections in a field dominated by forensic analysis.
- **Gap 2: The Right People.** Addressing climate security risks is hampered by a gap between climate change messengers and the security audiences needed to take actions to address climate security risks, as well as a lack of institutionalized leadership on the issue within the global security community.
- **Gap 3: The Right Time.** There are currently no global governance mechanisms for aligning international climate policy actions with international actions to address climate security risks.

To fill the global governance gaps, this paper proposes the establishment of an international **R2P2 Climate Security Governance Framework** made up of three institutional principles:

- **Principle 1: Assessment & Anticipation.** Standardized, aggregated and credible global climate security assessments, including climate security futures, aimed at aiding coherent international action.
- **Principle 2: Elevation & Translation.** Leadership by senior, globally-respected security practitioners who translate climate security information for global security decision-makers, and issue regular recommendations for international action.
- **Principle 3: Coordination & Alignment.** International climate security coordination mechanisms for aligning the policy windows of international climate change policy with international security policy as they related to climate security risks.

R2P2 builds from the Responsibility to Prepare Framework published in August 2017,¹ a speech to the United Nations Security Council presenting that framework,² and a forthcoming book on the subject. As a core part of its mission of anticipating, analyzing and addressing core systemic risks to security in the 21st century, the Council on Strategic Risks and its Center for Climate and Security is working to better understand what we know and what steps should be taken to absorb or lessen the security risks of climate change. This report, made possible by the generous support of the Global Challenges Foundation, contributes to that task.

I. INTRODUCING THE RESPONSIBILITY TO PREPARE AND PREVENT (R2P2)

The global security landscape features a diverse set of intersecting risks. Some of these risks, such as tensions among power centers, disputes over geographical boundaries, and political instability, have been with human civilization for millennia – vexing the councils of regional and world orders from ancient Rome to Westphalia to New York. Other risks, such as nuclear weapons and cyber threats, are relatively recent. In some cases, as with rapid climate change, the risks are unprecedented in human history - a history of rises, falls and reorganizations that occurred during a period of relative climate stability. This presents a challenge to human civilization and global governance that is unique to our time. However, what unifies the challenge of governance across time and space is the inability (or unwillingness) of societies to recognize and adequately prepare for change. In the annals of history, the fog of war, the “unknown unknowns,” and the “black swan events” have sometimes upended seemingly stable systems of government. However, even more predictable events have been a common cause of political instability and, sometimes, collapse.

Today, the international order, consisting of sovereign nation-states participating in a web of international and regional security institutions, is experiencing great uncertainty in the face of rapid climatic, technological and social change. This order also possesses a growing capacity to reduce uncertainty – including an ability to foresee unprecedented changes with increased accuracy. That is a primary feature that differentiates the 21st century from past periods of disruption – the ability to harness scientific and technological tools to better predict, monitor, and prepare for a range of plausible future scenarios. However, that heightened predictive capacity does not, by itself, lead to preparedness.

In the face of a rapidly changing climate system, as well as a range of other rapid demographic, social and technological changes, nation-states and intergovernmental security institutions have a responsibility to use their enhanced predictive capacities to manage and minimize these risks. This combination of “unprecedented risk” and “unprecedented foresight” underlines the case for a “Responsibility to Prepare and Prevent (R2P2)” – a responsibility to build a resilient world order against a more dangerous yet more reliably foreseeable future. A failure to meet this responsibility could lead to significant strains on state stability and the international system built upon it.

UNPRECEDENTED RISKS

The relatively stable climatic period geologists call the Holocene (beginning at approximately 11,701 BP), a climatic period which includes the advent of agriculture; the rise and fall of empires and monarchies; the birth of the nation-state; and the invention of rocket ships and computers, is making way for a new epoch: The Anthropocene.³ The Anthropocene is characterized by human-induced changes in the climate that are happening at an extremely rapid rate in terms of geologic and civilizational time, and are unprecedented in history.⁴ These changes - including the melting of the glaciers and polar icecaps, extreme rainfall variability, and sea level rise – are all changes that disrupt the foundations of the socio-political and economic institutions that undergird civilization as we know it.

Simply put, these changes affect the basic resources that support human livelihoods, nations and the global order those nations participate in.⁵

As the impacts of climate change and our understanding of them have increased, a growing body of research demonstrates that climate change is both a direct threat to international security and a “threat multiplier”⁶ in the global security landscape. Most directly, climate change impacts security by decreasing the readiness of security institutions. Military installations built at sea level, for example, must now contend with the rising ocean along with their mission. While militaries have always had to contend with the weather, climate change is altering their operational environment in significant ways.⁷ Equipment, training, interoperability, and infrastructure all need to be recalibrated and adjusted. These nuts-and-bolts matters present challenges, but they are not insurmountable.

The indirect implications of climate on security are, on the other hand, far more challenging due to their complex manifestation as a “threat multiplier.” The impacts of climate change are not hermetically sealed within neat equations and charts. They are diffuse, exacerbating stresses to the critical resources that underpin national and global security, including water, food, and energy systems. Climate change, therefore, adds additional stress to already stressed geopolitical landscape.⁸

Over time, climate-driven stresses on natural resources can degrade a nation’s capacity to govern, including its ability to meet its citizens’ demands for basic resources or prosperity (e.g., food, water, energy, employment) – also known as its “output legitimacy.”⁹ This threat to output legitimacy can contribute to state fragility, internal conflict, and potentially state collapse.¹⁰ Seen through this lens, climate change may present a serious challenge to state sovereignty in a number of places around the world.

Threats to food security from a changing climate, for example, present a serious challenge to the global agricultural system built during the 20th century on the foundation of a millennia worth of development. As natural resources within the territory of food producing nations are strained, modern states have often turned to the global market to make up for their inability to meet domestic demand

Kutupalong refugee camp in Cox’s Bazar, Bangladesh. The camp is one of three, which house up to 300,000 Rohingya people fleeing inter-communal violence in Myanmar. FOREIGN AND COMMONWEALTH OFFICE / FLICKR



for food. Increasingly, however, that global food market is vulnerable to price fluctuations driven in part by an increase in the frequency and intensity of extreme weather events sometimes thousands of miles away – a phenomena referred to as the “globalization of hazards.”¹¹ This presents a catch-22 for some nations – grow your own food and risk straining your water resources in the face of accelerating rainfall variability (increasing the vulnerability of populations with agricultural livelihoods), or rely on a volatile global market. Poor or increasingly limited choices along this continuum can contribute to political turmoil, as we’ve seen with bread riots in rural parts of Egypt and agricultural devastation in Syria, and how climate-exacerbated droughts strained the UN Assistance Mission in Somalia (UNSOM).¹² In both of these instances, stresses to food security, in combination with other political, economic and environmental factors, contributed to state and regional conflicts that have escalated into crises of great international concern.

Other climate-related threats to state stability are more direct. Consider island nations and sea level rise. Rising seas may inundate entire low-lying states and coastal populations. This includes island states such as the Maldives and large swathes of countries, such as the low-lying coastal zones of Bangladesh. For small island nations, climate change and sea level rise present an existential threat (and thus the possibility of a total loss of sovereignty). The international community has no experience in managing the disappearance of nations as a result of environmental processes.¹³ In fact, there are no international legal norms designed to account for such an eventuality, including no formal recognition of “climate refugees” or “environmental refugees.”¹⁴ The loss of entire states or large zones within states might contribute to a mass increase in stateless peoples in the international system, which could present both a humanitarian and international political and security crisis of the highest order.

The implications of a rapidly-changing climate, coupled with other demographic, economic and technological shifts, contribute to an era of unprecedented risk. However, some of those same dynamics – particularly rapid technological change – have also contributed to unprecedented foresight. This is a foresight that must be properly employed in order to adequately manage risk in this complex and dynamic era.

UNPRECEDENTED FORESIGHT

Despite the unprecedented risk of climate change, there is a small silver lining that provides the foundation for the R2P2 framework. Namely, climate change, especially when compared to other drivers of international security risks, can be modeled with a relatively high degree of certainty.

Consider, for instance, that the first accurate climate change model is from 1967, half a century ago, and for the most part, the climate is changing as the model predicted.¹⁵ A political scientist in 1967 would have had a much more difficult time predicting the current international security landscape. Other climate models have also shown prescient prediction capabilities.¹⁶ Strikingly, where inaccuracies have occurred, they have often been characterized by an *underestimation* of the rate and severity of change, showing a milder picture than what eventually emerged.¹⁷ Subsequent technological and scientific refinements have led to more complex models, and ultimately a strong record of accurate predictions of the rate and scale of global climatic changes under emissions scenarios that ultimately materialized.



U.S. Navy Minemen 2nd Class Matthew Rishovd and Kody Egelhoff repair a National Oceanic and Atmospheric Administration buoy. U.S. DEPARTMENT OF DEFENSE

In 2017, according to the United Nations Office for Outer Space Affairs (UNOOSA), there were approximately 4,300 Earth orbiting satellites and of these approximately 380 were being used for Earth observation. Satellites can be used in combination with drones or Unmanned Aerial Vehicles (UAVs) to monitor and collect data about changes in food and water supplies on land. Increases in data also contribute to the ability to input this information and increase predictive capabilities, future crop yields and potential food shortages, for example.¹⁸

A significant advantage to Earth observing technologies is that they are able to monitor conflict areas like South Sudan and Syria. Combining this access with the predictive capabilities around crop yield and food availability is important information for anticipating future stability probabilities and opportunities. The US National Aeronautics and Space Administration (NASA) GRACE satellites have been used by researchers to measure groundwater levels and recharge, or lack of recharge, occurring around the world in places such as Kashmir. This is incredibly important information on a generally invisible resource that will continue to be an important factor for peace and stability in the region.¹⁹

While significant uncertainties in predicting local-scale climatic changes and ecological interactions remain, existing projections from climate models and Earth observations paint a fairly clear picture of what the future holds for the global climate, which provides a basis for governments and societies to plan accordingly.

These models also have allowed us to better plan for low probability, high impact events, such as massive releases of methane from thawing permafrost or changes in the Gulf Stream.²⁰ After all, low probability events happen all the time. Today, our climate models can help project the implications of these low probability events, which means that we can prepare for them.

Importantly, our foresight tools projecting social, economic and political change also are getting better, though much room for improvement remains.²¹ The political scientist from 1967 would be astounded by the computing power available to analysts for measuring the complex links between the physical

and social sciences. In the field of predicting state instability, for example, three different tools utilized by the U.S. government - Fuzzy Analysis of Statistical Evidence (FASE—US Army), Integrated Crisis Early Warning System (ICEWS—US Army) and the Political Instability Task Force (PITF—CIA) have by one measure been assigned a success rate of 80%.²²

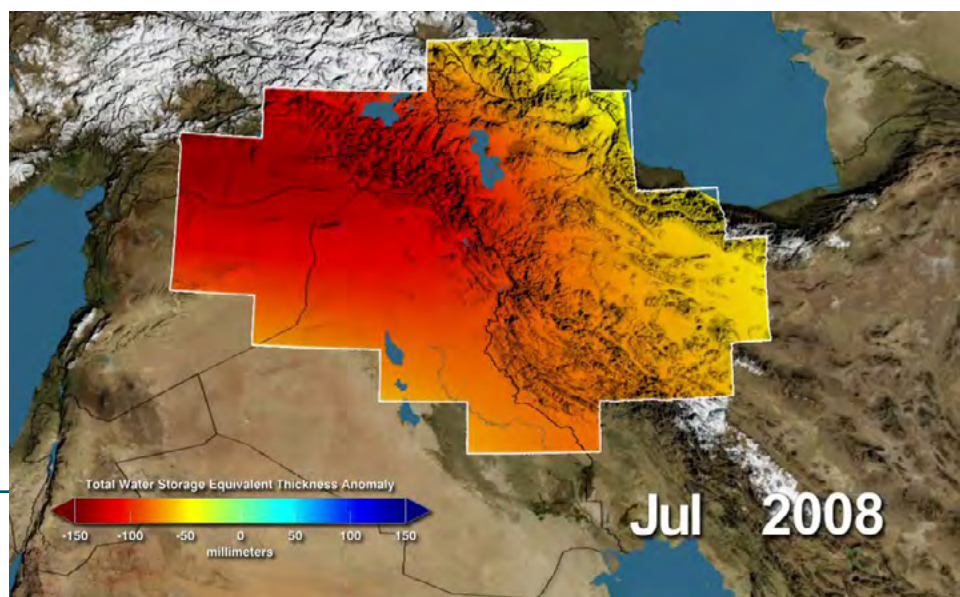
However, though our climate models are robust and our predictive tools for social, political and economic change are improving, these tools do not by themselves enhance preparedness. Without committed, well-resourced institutions regularly delivering and translating climate information to decision-makers; without climate information being better integrated into the tools for predicting state fragility or conflict; and without entities dedicated to interpreting climate-related risks and issuing warnings to decision-makers in a systematic and compelling way, governments and intergovernmental institutions will continue to be underprepared for these risks.²³

The case of Syria is illustrative. Up until the conflict began in the small farming town of Dara'a, Syria was considered by most political analysts to be immune to the Arab Spring and the broader unrest occurring in the region. In "The Obamians,"²⁴ J. Mann describes the Obama Administration's process for predicting which Middle Eastern countries were at risk of political instability during the Arab Spring:

"Administration officials hurriedly made a list of which countries in the Middle East were most at risk of large-scale political turmoil, and which were least at risk. That list turned out to be wrong in many cases...At the bottom were the nations where any widespread demonstrations for democracy were judged to be improbable: Saudi Arabia and Syria. "No one was focused on Syria, because it seemed far less likely than other states in the region," - Deputy Secretary of State James Steinberg

This was not, however, due to a lack of information about the fragility of the Syrian state. A UN report,²⁵ a *New York Times* article,²⁶ a story from the IRIN news service,²⁷ and a prescient warning from IISD²⁸ all documented an extreme drought in the country from 2007-2010 (the most extreme in the nation's history of record), which contributed to the displacement of almost 2 million Syrians. The problem was that these reports were not being integrated into predictive analyses of the region and, most importantly, not being communicated to key decision-makers at the highest levels of international governance. Thus, the international community was largely caught by surprise when political turmoil erupted in the country.²⁹ That must change if we are to adequately prepared for, or prevent, plausible climate security futures.

Using the NASA GRACE satellite, researchers discovered the Tigris and Euphrates rivers have lost 117 million acre feet of groundwater in seven years.
NASA





South Carolina's State Emergency Operations Center during a visit by Army Gen. Frank Grass, to assess the National Guard response in support of civil authorities to severe flooding, Oct. 2015. SGT. 1ST CLASS JIM GREENHILL / U.S. ARMY NATIONAL GUARD

PLAUSIBLE CLIMATE SECURITY FUTURES

An understanding of plausible climate security futures is an important prerequisite for developing governance systems that can anticipate, prepare for and, where necessary, prevent those futures. What are climate models predicting for the future, and what are the likely security implications? To begin answering this question, we examined a recent special report from the Intergovernmental Panel on Climate Change (IPCC) to project a plausible climate security future at two different global temperature scenarios.³⁰

The IPCC special report explores the impacts of a 1.5° Celsius above pre-industrial levels world and a 2° Celsius world. The backdrop for the report is a world that has already warmed by 1°C in the last 115 years, is already being impacted by this warming, and at the current rate will reach 1.5°C by as early as 2030, with warming that will persist for centuries to millennia and impacts that could be irreversible. The world is already contending with significant climate-driven security challenges today with only the 1°C increase the globe has already endured. Our security analysis of the report suggests that serious risks we already face will only become more serious as the global temperature increases, at both 1.5°C and 2°C average temperature increases. This includes

- Significant risks to food, water, health and biosecurity via increases in the severity of droughts, floods, wildfires, sea level rise, ocean acidification and storms, contributing to state fragility, instability and conflict in critical regions, and impacting the readiness of military forces.
- Sea level rise presenting a major threat to populations and militaries, – including risks to critical infrastructure and military assets located at or near coastlines, existential risks to low-lying island states that will likely lead to regional security disruptions, and threats to the world's growing coastal megacities – critical urban spaces whose fragility could drive mass displacement and conflict.

- Rapid Arctic melt creating a new space for competition among great powers, facilitating global geopolitical uncertainty that could be globally destabilizing if not appropriately managed.
- The possible widespread deployment of “negative emissions technologies” (i.e. geoengineering) for which there is currently no international governance, which could pose significant security risks if not adequately managed.

There remains some uncertainty about which emissions scenarios will materialize and how that will shape the international security landscape. However, compared to other international security risks that occur primarily in the domain of rational (or irrational) human choice, such as the likelihood of a nuclear weapon being detonated, our predictive capabilities regarding climate change are quite good. Reliable projections across a broad range of plausible emissions scenarios show us that global sea levels will continue to rise (though variably across geographies), glaciers and the Arctic ice caps will continue to melt, diseases will spread more widely, rainfall variability will increase, and water supplies will be significantly strained. (24) All of these impacts, occurring simultaneously and rapidly, will alter the geostrategic landscape. At the same time, the models and monitors that project and measure both climatic changes and their implications for security will continue to become more reliable with advancements in data-collection and data analysis. This ability to see into the climate security future underscores the responsibility to prepare for and prevent that future. That responsibility starts with the need to identify gaps in the global governance of climate security risks, and to fill them.

Debris litters Tyndall Air Force Base following Hurricane Michael in October 2018. SCOTT OLSON/GETTY



II. THE CLIMATE SECURITY GOVERNANCE GAP

Global governance of climate change exists, and is primarily the domain of the UN Framework Convention on Climate Change (UNFCCC). The framework has led to a voluntary global governance regime for facilitating the reduction of greenhouse gas emissions, clean energy technology-sharing, and investments in climate change adaptation. However, outside a nascent informal grouping of countries concerned about climate security at the United Nations, initiated by Germany and Nauru (titled the Group of Friends on Climate and Security), there is no global governance regime specifically concerned with the security implications of a changing climate, and certainly no global governance designed to prevent or prepare for future climate security risks.³¹ This is not because we can't see the security implications. We can. However, awareness of current and future security risks of climate change has not been sufficient to catalyze better global governance to prepare for and prevent those risks.

ON LEADERSHIP:

Outside institutional gaps, a lack of leadership and political will are central to the inadequacy of the management of climate security risks. This is true for all global challenges. However, when faced with a challenge of the magnitude that climate security risks present and will continue to present for the foreseeable future, national, regional and global leaders will not have the luxury of ignoring the problem. Resources will also not be an option – nations are already sustaining damage in the billions, annually. Neither ignoring the risks nor avoiding the costs is an option. All nations will sustain some degree of risk and costs associated with climate change and these will continue to spill over into other sectors and scale-up into higher order security matters. This paper therefore assumes an increase in political will by nations to manage and reduce climate security risks and allocate the resources to do such. The issue is not *if* nations should act (they have no choice) but *how* they should act. And the even bigger issue is *how* nations should ensure, in a time of difficult choices, the most humane and democratic choices are made.

PAST IS PROLOGUE

“All elements of global governance reflect the political and security conditions under which they were created, even when they are updated.” - Christine Parthemore³²

Climate change emerged as a scientific and environmental problem stemming from the production of greenhouse gas emissions, and as such, has been primarily addressed by governmental and intergovernmental entities with environmental mandates. For much of its history, climate change has been largely treated by public officials as a manageable, future-tense, environmental matter. The



The United Nations Security Council Chamber in New York.
BERND UNTIEDT / WIKIMEDIA

governance structures that do exist for managing climate change risks are largely built around this premise. The treatment of climate change as a “low politics” environmental issue has likely contributed to a lack of urgency or prioritization compared to other more traditional threats to security, such as nuclear proliferation and international terrorism. However, delayed and inadequate actions to curb global greenhouse gas emissions since the late 1980s have led to accelerated warming that is already having security implications, and this has begun to change perceptions of the nature of the threat – broadening international concern into security, development and financial spheres. A realization that global governance models for managing climate change have to date been too narrow, and not comprehensive enough given the “all of society” implications, is beginning to grow, but that realization remains nascent and slow to scale-up.³³

Despite this, some progress has been made in the security community in regard to appreciating and acting on climate security. For example, in the United States, despite significant political opposition and outright denial of the existence of climate change from some political quarters, for 12 straight years the Director of National Intelligence has sat before Congress and reported on how climate change is stressing the security landscape. In the 2019 U.S. Worldwide Threat Assessment, the then-Director of National Intelligence Dan Coats testified that “[c]hanges in the frequency and variability of heat waves, droughts, and floods — combined with poor governance practices — are increasing water and food insecurity around the world, increasing the risk of social unrest, migration, and interstate tension.” Similar clear-eyed assessments have been produced by the U.S. Department of Defense since 2003. The U.S. 2018 National Defense Authorization Act stated, that “climate change is a direct threat to the national security of the United States” and directed the secretary of defense to report on the top 10 most threatened military installations for each service and to outline how climate change will affect the military’s combatant commands over the next 20 years.³⁴

Likewise, progress has been made at the regional and international scale. Climate and security activities have increased significantly over the last several years. This includes the aforementioned launch of a Group of Friends of Climate and Security by Germany and Nauru in August 2018, a January 2019 “open debate” hosted by the Dominican Republic, a June 2018 resolution on Mali, an open debate hosted by Sweden in July 2018, a resolution on the conflict in Somalia adopted in March 2018, an Arria Formula dialogue chaired by Italy (and co-hosted by Sweden, Morocco, the UK, the Netherlands, Peru, Japan, France, the Maldives and Germany) in December 2017, and a resolution on the Lake Chad Basin adopted in March 2017.³⁵

EU High Representative
Ashton Speaks at the UN in
Geneva, Switzerland
U.S. STATE DEPARTMENT



In August 2019, EU defense ministers met to discuss “the effect of climate change on defence and security,” as part of a two-day meeting covering a range of critical security issues.³⁶ That same month, in a press statement after the 864th meeting of the Peace and Security Council (PSC) of the African Union (which is the organization’s decision-making entity on conflict “prevention, management and resolution”), the PSC highlighted climate change and its effects on security as a significant issue for its member states.³⁷ In May of 2019, The South Pacific Defense Ministers’ Meeting (SPDMM) issued two important products demonstrating heightened concern about the defense implications of climate change among regional militaries, including important U.S. allies and partners. This includes: A Joint Communiqué³⁸ from the SPDMM, as represented by Australia, Chile, Fiji, France, New Zealand, Papua New Guinea and Tonga and a report commissioned by the 2017 SPDMM, titled “Implications of Climate Change on Defence and Security in the South Pacific by 2030,”³⁹ coordinated by the Observatory on Defence and Climate at the French Institute for International and Strategic Affairs (IRIS) – a consortium partner of the Center for Climate and Security’s in the International Military Council on Climate and Security.⁴⁰

Collectively, these actions show increased interest and concern from the national to the international. While there has certainly been some progress, it significantly lags behind the mounting risks. The persistent inability to liberate climate change from its environmental box, coupled with the nature of the risk, means that many of the current global governance gaps for addressing climate security risks are rooted in the challenges of getting the **right information** to the **right people**, at the **right time**.

GAP 1: THE RIGHT INFORMATION

There is a vast amount of data on physical climatic changes. There are observations from every corner of the earth and the far corners of outer space. There are thousands of models showing a wide array of future climate scenarios, as well as real-time monitoring of current climatic changes. Further, there is a seemingly endless amount of data measuring climate change implications for food, water and energy systems. However, those in government responsible for managing the security implications of these changes (which are social and political in nature) need tailored and actionable information for how those climate impacts affect the security landscape – information that is not readily available at the necessary scale and granularity. Getting the right information to those responsible for addressing climate security risks is challenged by two main problems: the lack of a standardized global hub for climate-security information, and the lack of future projections in a field dominated by forensic analysis.

LACK OF A STANDARDIZED GLOBAL HUB FOR CLIMATE SECURITY INFORMATION

The fact that the climate is changing rapidly, and is largely unprecedented for human civilization, puts public officials trying to make sense of the policy implications of those changes at a disadvantage. While information is available, there is so much of it, and it is evolving so quickly, that it can cause policy paralysis. This is particularly the case for security policy practitioners, for whom sufficient tools and guidance for managing, interpreting and judging this information do not exist.⁴¹ The United Nations Environment Program (UNEP), for example, recently put out a call for a “digital ecosystem for the planet”⁴² that will draw upon a range of frontier and digital technologies to monitor and increase the sustainability of Earth systems. What this means is that a globally standardized digital ecosystem does not yet exist. This contributes to disagreement and confusion about levels of sustainability worldwide – never mind about how those levels of sustainability interact with global security. All of this is further complicated when combining quantitative data measuring, such as water availability, drought and precipitation, with more qualitative data sets measuring access to water, or motivations for emigration and political unrest. A popular axiom is “what is measured, matters.” Unfortunately, there is a lot, particularly in the peace and security space, that cannot be easily measured.

This issue is particularly acute in the climate security field. Due to the fact that the field of climate security is relatively young compared to other related fields of peace and security, there is, as of yet, no standardized global hub for climate security information to help make the information easily accessible and actionable by governments and intergovernmental institutions. Climate change governance writ large benefits from the established Intergovernmental Panel on Climate Change (IPCC), which produces periodic and authoritative assessment reports capturing the scientific consensus on climate change – reports that help drive global actions for reducing greenhouse gas emissions and investing in climate adaptation. However, there is no equivalent global hub of standardized, authoritative climate security information that reflects the security and/or social science consensus on the issue, that ranks the confidence of certain relationships in the climate security nexus (such as the relationship between climate and conflict, or climate and state fragility), or that presents credible climate security futures. This is not because such information does not exist. Indeed, there is a growing body of academic literature on climate security, climate security assessments from governmental and intergovernmental agencies (including defense and intelligence agencies), and assessments from non-governmental institutions (such as the Center for Climate and Security and compiled in the Climate Security Resource Hub).⁴³ However, without a standardized, authoritative and aggregated assessment of climate security risks by a global security body – the climate security equivalent of the IPCC – it is difficult to drive actions that are commensurate to the threat. There needs to be some baseline of agreement about the threat in order to do so, and a credible means of communicating that information.

Caitlin Werrell, Co-Founder and President of the Center for Climate and Security, briefs the UN Security Council on a Responsibility to Prepare agenda, December 15, 2017.



LACK OF FUTURE PROJECTIONS IN A FIELD DOMINATED BY FORENSIC ANALYSIS

With climate security in general, and the climate-conflict field more specifically, there are no governance mechanisms for managing the divide between academic information and information public officials need for decision-making. Academics, who have done the majority of the research on climate and conflict links, are very careful to avoid “false-positives,” or to show a link between two variables that is not actually there. The reputation of the researcher and credibility of the research institute rests on the ability to stand by the certitude of their findings. Academic research on climate security also favors forensic analysis - case studies or information on past events, rather than future scenarios that social science methods cannot reliably test.⁴⁴

Policy-makers, on the other hand, are responsible for the general well-being of the public and are therefore incentivized to avoid “false-negatives.” If a government fails to anticipate a risk, and a problem arises, they will be held responsible. If there is even a small but plausible chance that climate change could increase the likelihood of conflict or unrest, governments are incentivized to take such possibilities seriously. This means that public officials would benefit most from future projections of climate security risks, not forensic analysis. Yet that kind of information is mostly absent from the available literature on the subject.

Indeed, there exists a serious disconnect between the kind of information governments and intergovernmental institutions need in order to address future climate security risks, and the prevailing climate security literature to date.⁴⁵ Namely, government actors require credible future projections in order to enact policies to address those future risks, but mostly only have access to forensic climate security analysis – i.e. studies of past instances of statistically-significant climate security correlations (most of which is narrowly focused on exploring causal climate-conflict linkages). General “climate change” governance does not face this problem, as it benefits from the vast array of credible and authoritative physical climate models, which are scientifically-accepted projections of future changes. Conversely, climate security is a field of social science, where most of the academic and gray literature relates to past risks, and future climate security scenarios are generally not considered as acceptable science. Some national intelligence and defense communities have filled this gap by conducting climate security scenario threat assessments, and communicating those assessments to their respective governments.⁴⁶ However, the details of these assessments are often classified, and the assessments are tied to the specific equities and missions of the individual governments who produce them. There does not yet exist a “global assessment of future climate security projections” that governments and intergovernmental institutions can use to guide their actions. Skepticism from social scientists of the validity of such future climate security projections must be overcome in order to create a global standard to guide climate security action.

In summary, while there is an unprecedented amount of climate change and climate security data available, and an unprecedented ability to anticipate climate change risks, transferring this information into a means that is globally usable across scales and time remains a significant challenge.

GAP 2: THE RIGHT PEOPLE

Treating climate change as a primarily environmental matter means that climate information is generally not translated for global security decision-makers, and decision-making on climate change issues remains primarily in the purview of environmental and energy agencies and ministries. Importantly, this means that public officials who are responsible for formulating and implementing security policy are bureaucratically shielded from decisions relating to climate change. This problem manifests itself in two main challenges: the “messenger-audience gap” and the “institutional leadership gap.”

THE MESSENGER-AUDIENCE GAP

Climate change may rest on scientific realities, but how this information is communicated, who communicates the information, and who receives it all matter.⁴⁷ In this context, careful consideration of the messenger and the audience is critical. Climate security information faces a challenge, in this respect. There is a significant need for a security audience to absorb climate security information, and take commensurate actions, but those security audiences generally consider climate scientists to be the lead messengers of this information. This may exacerbate perceptions that climate change is not a serious security matter – but rather, an issue to be dealt with primarily by science and environmental agencies.

An unsuccessful attempt in the United States to suppress climate science and climate security analysis offers a positive example of bridging this messenger-audience gap. In February 2019, the Washington Post reported on a National Security Council proposal for an “adversarial panel” designed to suppress climate science and climate security analysis from the U.S. government, including from defense and intelligence agencies (such as the Director of National Intelligence’s Worldwide Threat Assessment, an authoritative assessment drawing from 17 U.S. intelligence agencies). The plan was cancelled, however, after vocal opposition from U.S. military and intelligence communities (58 of whom signed a letter condemning the move). In this case, the right people (from the security community) were able to communicate about climate risks in a security context, and thereby shape security policy on the issue.⁴⁸

This example illustrates that while information matters, who delivers the information is also a significant factor.⁴⁹ A recent study in the U.S. looked at how the source of the information on climate risks affected the group’s trust in the accuracy of the information being presented. The study found that when military leaders were the source of a pro-climate appeal it significantly strengthened its persuasive impact, especially if the appeal emphasized the effects of climate change on U.S. national security. In contrast, “when climate scientists were linked with the national security message, it significantly reduced respondents’ perceptions about the threat of climate change to national security.”⁵⁰

Of course, this example is unique to the U.S., and other countries where the military is highly respected. However, as there is a global need to ensure that climate change is being taken seriously by national and international security institutions, the dearth of security messengers delivering climate change and climate security information is a significant gap. Without the “translation” that security experts can provide to security policy-makers regarding climate change risks, the message will mostly remain largely ignored.



Senior-ranking military members discuss current humanitarian assistance operations at a senior leaders seminar at Sattahip Naval Base in Chonburi Province, Thailand Feb. 14, 2017. STAFF SGT. JASON FUDGE / U.S. MARINE CORPS

THE INSTITUTIONAL LEADERSHIP GAP

Traditional security institutions often underestimate non-traditional threats – or learn the hard way not to. Climate change, in particular, often lacks an internal champion to give it appropriate weight in its bearing on security priorities. Consequently, while warnings related to climate security risks are sometimes delivered to governments by analysts, it is often not at a high enough level. This can be based on a particular issue not being prioritized within a government or intergovernmental institution, or the issue not being presented in a fashion that appropriately contextualizes the risks as they pertain to other geostrategic priorities. Foreseeable outcomes can, therefore, be overlooked, costing lives and resources.

Furthermore, when decisions are being made about how to manage urgent security matters, environmental ministers with climate change mandates and expertise are typically not at the table. Therefore, if government officials responsible for decision-making on peace and security matters do not themselves appreciate (or understand) climate change risks, those risks will likely go unaddressed.

Institutional leadership on climate security *within* security agencies across governments and intergovernmental institutions would help alleviate this problem, but are currently missing. In this context, the success of climate security integration into security planning and decision-making relies too heavily on individuals with a personal interest, thus leading to a volatile waxing and waning of interest.

In some cases, for example, personal interest is unable to overcome institutional barriers. Consider the late Ambassador Richard Holbrooke, a respected foreign policy hand who asserted, during a meeting on Pakistan chaired by President Obama, that there was a climate change angle to the situation in Kashmir, where Indian and Pakistani troops were concentrated on and around the fast-melting Siachen glacier. His concerns were apparently met with incredulity by other national security officials in the room, with some unnamed participants in the meeting later asking “Was Holbrooke kidding?” As it turns out, Ambassador Holbrooke’s concerns were highly prescient. In the few years following his warning, Pakistan has experienced some of the worst climate-related disasters in its history.⁵¹

In other cases, personal interest from senior leaders can drive government action for a time, but that outcome remains dependent on the person. During his confirmation process as U.S. Secretary of Defense, General James Mattis stated that climate change required a “whole of government” response, and actively raised concerns about climate risks to the military mission.⁵² This personal concern about the issue from the soon-to-be Secretary of Defense signaled to the over 2 million active duty and civilian personnel affiliated with the department that climate change was to be taken seriously, leading at least 35 senior military officials to publicly raise concerns about climate change at the time of writing. However, after Secretary Mattis’ departure, concern about climate change risks seems to have slowed down considerably, continuing primarily due to legally-mandated promptings from the U.S. Congress.

Indeed, many advancements in climate security governance have come from individuals within governments and institutions who lead by example and provide cover for those more junior than them to follow that lead. The clear downside is that as a person moves to another position, the leadership and individual interest in the topic often leaves with them. There is no institutional “stickiness” unless institutions are established. In this context, creating institutions and permanent institutional leadership positions in security agencies that are mandated to address climate security risks is essential.

GAP 3: THE RIGHT TIME

Aligning the timelines of mitigating and adapting to physical climatic changes with the timelines of global peace and security events and priorities that may be affected by those changes, is an enormous challenge, and there is currently no governance framework for helping to facilitate that alignment. First of all, the timeline of physical climatic changes is being set by the rate of greenhouse emissions being released into the atmosphere. Societal responses, including preventive and preparatory actions, exist in that context. There is an entire field of practice dedicated to analyzing and anticipating global temperature thresholds and tipping points – all of which shift as emissions increase and decrease year-to-year due to variable actions by governments, non-governmental entities, and the broader global market. That analysis informs, or should inform, how governments and institutions make decisions about both climate change mitigation and adaptation. However, it’s an incredibly complex dance. When you add volatile political dynamics associated with changes in the security landscape – those affecting conflict for example - it becomes an even more complicated picture. Currently, there are no known governance mechanisms at either national or international levels designed to align climate change policy and security policy decisions. There are also no such mechanisms for anticipating or addressing the unintended security consequences of climate or climate security actions.

THE CLIMATE-SECURITY POLICY ALIGNMENT GAP

What is missing, in this context, is an entity or entities dedicated to facilitating alignment of the “climate change policy windows,” and “global security policy windows.” John Kingdon identifies “three stream” policy windows: 1) as a condition considered as a problem; 2) the policy stream as alternatives to the problem that can be implemented; and 3) the political stream which is politicians’ willingness and ability to change policy.⁵³ These three streams must align for policy change to occur. For climate security,

these streams must align across both climate policy and security policy timelines – perhaps doubling the complexity of addressing climate change alone. This points to the need for a governing body devoted to facilitating that alignment. This would need to include coordinating actions on mitigating and adapting to climate change through existing international mechanisms, such as the UN Framework Convention on Climate Change (UNFCCC), with international security actions on climate-relevant security problems, such as major conflict prevention and resolution efforts being addressed by the UN Security Council and other key security forums. Relatedly, there are also no systematic processes for facilitating the coordination and alignment of non-governmental climate policy networks with global security policy networks. This lack of cross-sectoral engagement threatens to result in the adoption of climate policies that are “security-insensitive” and security policies that are “climate-insensitive.”

THE UNINTENDED CONSEQUENCES GAP

Despite best efforts, unintended consequences of climate change and climate security policy actions may inevitably arise.⁵⁴ For example, emissions reduction commitments could increase incentives for the development of nuclear power in regions of the world with limited regulatory infrastructure, which could, in turn, increase the risk of nuclear proliferation, thus exacerbating risk in the global security environment.⁵⁵ Certain unilaterally-deployed geoengineering solutions, particularly in the absence of international norms to regulate their use, also could result in new and unpredictable disruptions to climate, water, food and energy systems, placing even greater strain on the security environment than expected. These are foreseeable possibilities that could flow from specific international policy actions taken on climate change and security, yet there are no global mechanisms for anticipating, reacting to or coordinating with other institutions on addressing these eventualities.



Rachel Kyte, Vice President and Special Envoy for Climate Change for The World Bank talks to the UN Security Council.
RACHEL KYTE / WORLD BANK BLOG

III. CLOSING THE GAP: THE R2P2 CLIMATE SECURITY GOVERNANCE FRAMEWORK

All elements of global governance are imperfect. They are inherently acts of compromise, often among many parties with diverse needs. While many of them remain invaluable today, honest accounting for gaps in the system is important to identifying new means of progress.” - Christine Parthemore⁵⁶

Just as the environmental framework of the 1980s set the course for climate change governance today,⁵⁷ bridging the global governance gaps for climate security will be set by the current political climate. That political climate is trending towards increased stress on international security institutions, increased ethno-nationalism and isolationism. However, just as the devastation of World War II enabled the creation of these now fragile institutions to emerge, there is now an opportunity to incorporate transnational, non-traditional threats like climate change into the strengthening and possible rebuilding of this security architecture.

DON'T HAVE TO START FROM SCRATCH

Strengthening the global governance architecture to climate security risks will require a combined effort of figuring out what pieces of the current architecture will continue to hold and which should be rebuilt. This can and should build on and strengthen the hard-won lessons of other international governance models that collectively comprise the current world order.

One of the most prominent governance models that should inform preparing for climate security is the Responsibility to Protect (R2P) agenda, which has made great strides in driving action by intergovernmental institutions to prepare for, prevent and respond to mass atrocities, beginning with a global political commitment to the agenda in 2005.⁵⁸ The underlying philosophical thrust of the R2P agenda is the concept that the maintenance of state sovereignty requires the protection of populations against mass atrocities. It follows that the international community has a responsibility to protect populations against foreseeable threats to their lives by governments who violate this principle. The practical and widespread realization of that ideal necessitates an emphasis on the tools and institutional triggers for better anticipating and responding to the threat, and reality, of mass atrocities. This is also at the heart of the Responsibility to Prepare and Prevent (R2P2) agenda, articulated herein: If governments and intergovernmental institutions have (or can develop) the tools to anticipate climate risks to security, it follows that they have a responsibility to mitigate those risks.

Another model to draw from is Leon Fuerth's "Anticipatory Governance" concept, which challenges states to reorganize their governments to think beyond elections and budget cycles, and to more systematically utilize foresight tools to make better decisions.⁵⁹



Heads of delegations at the 2015 United Nations Climate Change Conference (COP21), which led to the signing of the Paris Agreement. PRESIDENCIA DE LA REPÚBLICA MEXICANA / FLICKR

Individual case studies of governance successes should also inform the R2P2 framework. For example, the principles, processes and leadership that led to the successful elevation of the AIDS crisis to the UN Security Council agenda, or the critical role of effective data presentation on the Ebola crisis to make an urgent case for action to the highest levels of government, are all compelling cases. The successful adoption of the Sustainable Development Goals (SDGs), and before that, the Millennium Development Goals (MDGs) can inform the design of intergovernmental processes for adopting the R2P2 framework, as did the successful Global Health Security Agenda, which saw 60+ countries and International Operations Groups agree to commit resources - and coordinate action on a systemic global challenge - almost entirely by tilting existing frameworks, institutions, and funding toward a common threat reduction vision built on data-driven analysis.⁶⁰

Not all examples that inform preparing for climate security risks need to be positive. The development of a Presidential Memorandum on Climate Change and National Security by one U.S. presidential administration (a policy centered on organizing the U.S. government to better anticipate and prepare for climate change risks to security), followed by the swift rescission of that policy by the subsequent administration, is a “negative case” that informs the necessity of establishing institutions within the global security architecture for managing this risk – institutions that would hopefully prove resilient to changing political winds and help inform the policies of national and regional security institutions.⁶¹

There are also numerous lessons to be learned about climate-risk governance from other non-traditional security issues. Cyber-security breaches - now a significant factor affecting democratic elections - were not on the international security agenda before the advent of the internet and the development of sophisticated means of using the internet to harm others. All of the existing cyber-security governance architecture had to be built over the last few decades. Risks such as climate change also present unprecedented challenges, which necessitate the augmenting of existing governance models with new systems that are better-equipped to handle them.

In short, the goals and principles informing climate security global governance should be drawn from sectors well beyond the environmental or natural resource sectors, and both positive and negative lessons of security risks management.

NEW INSTITUTIONAL ELEMENTS OF THE FRAMEWORK.

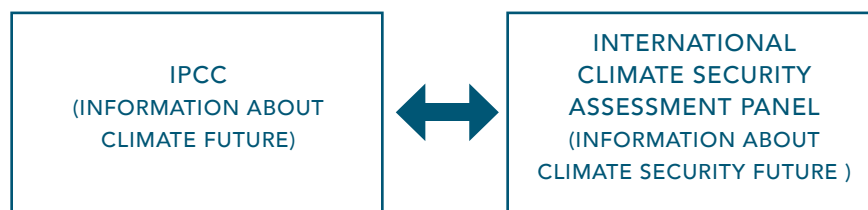
Fulfilling a Responsibility to Prepare and Prevent (R2P2) begins with defining the goal: to systematically and humanely address climate and security risks at a whole-of-international security landscape level (national, regional and international) in a way that decreases the probability of instability, conflict and mass death. The complex, transnational and cross-sectoral nature of climate risks demands such a comprehensive approach. Fulfilling this goal requires addressing the global governance gap on climate security. This involves the creation a coherent global governance regime for analyzing, anticipating and addressing climate security risks. We propose an “R2P2 Climate Security Governance Framework” to elevate, routinize, and integrate attention to climate and security issues at the global security level, as well as develop rapid response mechanisms and contingencies for unintended consequences. Such a framework should be made up of three core governance principles designed to fill the “right information, right people at the right time” gaps identified in the previous section of this paper: assessment & anticipation; elevation & translation; coordination & alignment.

PRINCIPLE 1: ASSESSMENT & ANTICIPATION

First, in order to address the “Right Information” gap, global governance of climate security risks research should rest on a common analytical foundation affirmed by credible institutions – the climate security equivalent of the assessment reports of the Intergovernmental Panel on Climate Change (IPCC) - which include both future projections and a description of climatic changes and impacts to date. An International Climate Security Assessment Panel (ICSAP), for example, could be established to produce an accessible, aggregated global climate security assessment report with the aim of aiding coherent international action. Depending on the resolution of questions related to legitimacy vs. independence, such a panel could either be an intergovernmental security institution established at the UN level, or an independent non-governmental consortium with global credibility staffed by climate security experts. The panel should develop a standardized, authoritative and aggregated assessment of both existing and future climate security risks. It will be important for such an assessment to include a comprehensive review of both forensic analysis of climate security risks (past case studies and global assessments), as well as future climate security scenarios (foresight exercises, sophisticated games, future trends analysis, intelligence forecasts, etc.), in order to avoid aforementioned gaps in knowledge about plausible climate security futures. As much as possible, the future security scenarios should build from the IPCC assessment reports. A climate security assessment report could then be used to inform global security decision-making, such as at the UN Security Council, as well as at regional and national levels.

If establishing a new institution proves unworkable, the IPCC could augment its future assessment reports with a robust “Climate Security Futures Assessment” conducted by climate security experts.

To address the “messenger-audience gap” identified earlier, and ensure that such an assessment is taken seriously by the global security community, it should be developed in such a way to facilitate endorsement and promotion by globally respected senior security, military, defense, and intelligence leaders.⁶²



PRINCIPLE 2: ELEVATION & TRANSLATION

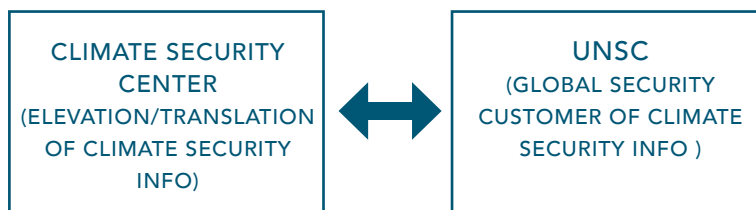
Secondly, in order to address the “Right People” gap, it will be critical to establish institutions led by credible security practitioners to convey climate security information to global security decision-makers, and translate that information for them. This will help both “elevate” attention to the risk and drive institutional stickiness. Officials often have difficulty determining “who to call” when trying to coordinate climate security matters both within and between nations. Unlike with other significant security risks such as nuclear weapons proliferation and international terrorism, there are almost no “climate security” desks or “climate security champion” institutions within governments or intergovernmental security institutions. This means that it is easy for the issue to slip through the cracks, or be buffeted by changing political winds. The 2007-2010 drought in Syria, for example, demonstrated that the international community is often unprepared for predictable risks, including what will increasingly become climate-exacerbated risks.⁶³ This is not necessarily because of a lack of information, but rather, because the relevant information is not being delivered to decision-makers in a timely, systematic, integrated analysis that highlights its relevance to their remits.⁶⁴ Had, for example, the scattered reports of drought and mass displacement of people in Syria during that time period been fed into an institution committed to warning of these trends, the country’s political instability might have been foreseen and, possibly, mitigated. Creating institutional centers to collect and interpret information, using the best analytical tools available, and then regularly delivering recommendations for action to decision-makers would go a long way in increasing preparedness for such eventualities and strengthen efforts for conflict prevention. Such institutions could also be utilized to facilitate optimal information-to-policy action streams to ensure both timely and adequate responses to climate security projections.

In this context, a “Climate Security Center (CSC)” could be established at the UN level (or independently by an international non-governmental consortium), led by a senior, globally-respected security practitioner(s), and staffed by climate security experts, continually watching for climate security risks and hotspots, and issuing regular and updatable recommendations for action to the UN, including the UN Security Council. This Center could also be replicated at the regional level (at institutions such as NATO and the African Union, for example) and at the national level, within or across defense, intelligence and foreign affairs agencies. At each level, these centers could either be new structures or integrated into existing early-warning systems for security.



'Victims' are rescued in an emergency simulation involving the Philippine Coast Guard, Philippine Navy, the National Disaster Coordinating Council and the Japanese Coast Guard as part of an ASEAN disaster response exercise.

A significant part of the responsibility of the Center should be to interpret the findings of the institutions responsible to accessing climate security risks and translate those findings into actionable recommendations by the UNSC and other appropriate international, regional and national security institutions.



Second, the Center(s) could help drive “integration” of climate security risks into the analysis of other critical security priorities at the UN, regional and national levels. This is the “just add climate” to security issues approach, justified by the multi-dimensional nature of the threat, and the simple fact that changes in the climate, acting as a threat multiplier, will affect the entire geopolitical landscape. For example, health security, conflict, international terrorism, nuclear proliferation, and maritime security are all critically important issues that are often on the UNSC agenda. Given that there exists a current consensus on addressing climate change at the UNSC level if it is relevant to an existing agenda item,⁶⁵ driving the integration of climate change assessments and solutions into these other security priorities could prove optimal for addressing multiple risk vectors at once.

Finally, such Center(s) could also contain “rapid response” capabilities and mechanisms. Though the facilitation of preventive solutions should be a primary focus, there may be cases of climate-exacerbated dynamics that demand immediate attention from the security community, such as extreme weather events that increase the likelihood of civil unrest. Developing scaled warning systems that identify long, medium and short-term risks, and that include clear “triggers” for emergency action on climate and security,

would help ensure that foreseeable events are addressed with commensurate levels of urgency. This is particularly important for anticipating low-probability/high-impact risks, and creating a governance capacity to prepare for “black swans,” such as rapid permafrost melting releasing tons of methane (33). After all, low probability events happen all the time. Simultaneous or cascading disasters in politically fragile regions, for example, may be more difficult to predict than individual events. In this context, preparatory mechanisms designed to handle multiple extreme weather events at the same time should be a priority in developing a rapid response capability. Specifically, the designated institution or institutions could employ such a rapid response system when communicating with the UNSC. Regional security institutions and national governments could also consider adopting such rapid response mechanisms.

Who leads these institutions is critically important for addressing the messenger-audience gap. At the international level, climate security risks should be led by the equivalent of a new Permanent Representative for Climate and Security, reporting directly to the UN Secretary General (SG) and communicating regularly to the UN Security Council (UNSC). This would help to ensure that climate security issues were heard at the highest levels of international security governance. In order to ensure broad credibility across the international security community, the Permanent Representative should be a senior, globally-respected security practitioner, responsible not just for leading the work of the institution, but also for delivering recommendations to the UNSC. Equivalent positions at regional and national levels would also be important.

PRINCIPLE 3: COORDINATION & ALIGNMENT

Lastly, to address the “Right Time” gap, it will be critical to align the “policy windows” of the international mitigation and adaptation actions on climate change with the “policy windows” of international actions on climate-relevant global security priorities. In this context, an intergovernmental “Climate Security Coordination Mechanism (CSCM)” could be established at the UN level, or as an independent entity governed by an international non-governmental consortium, for coordinating the timelines of climate-sensitive security actions, such as major peace and conflict efforts affected by climate change, and climate policy dynamics. Essentially, the coordination mechanism would serve as a bridge between international climate change governance and international security governance.





This map is an approximate presentation of PRC and other regional claims. China has remained ambiguous on the extent and legal justification for these regional claims. Three of China's major ongoing territorial disputes are based on claims along its shared border with India and Bhutan, the South China Sea, and with Japan in the East China Sea.

OFFICE OF THE SECRETARY OF DEFENSE / WIKIMEDIA

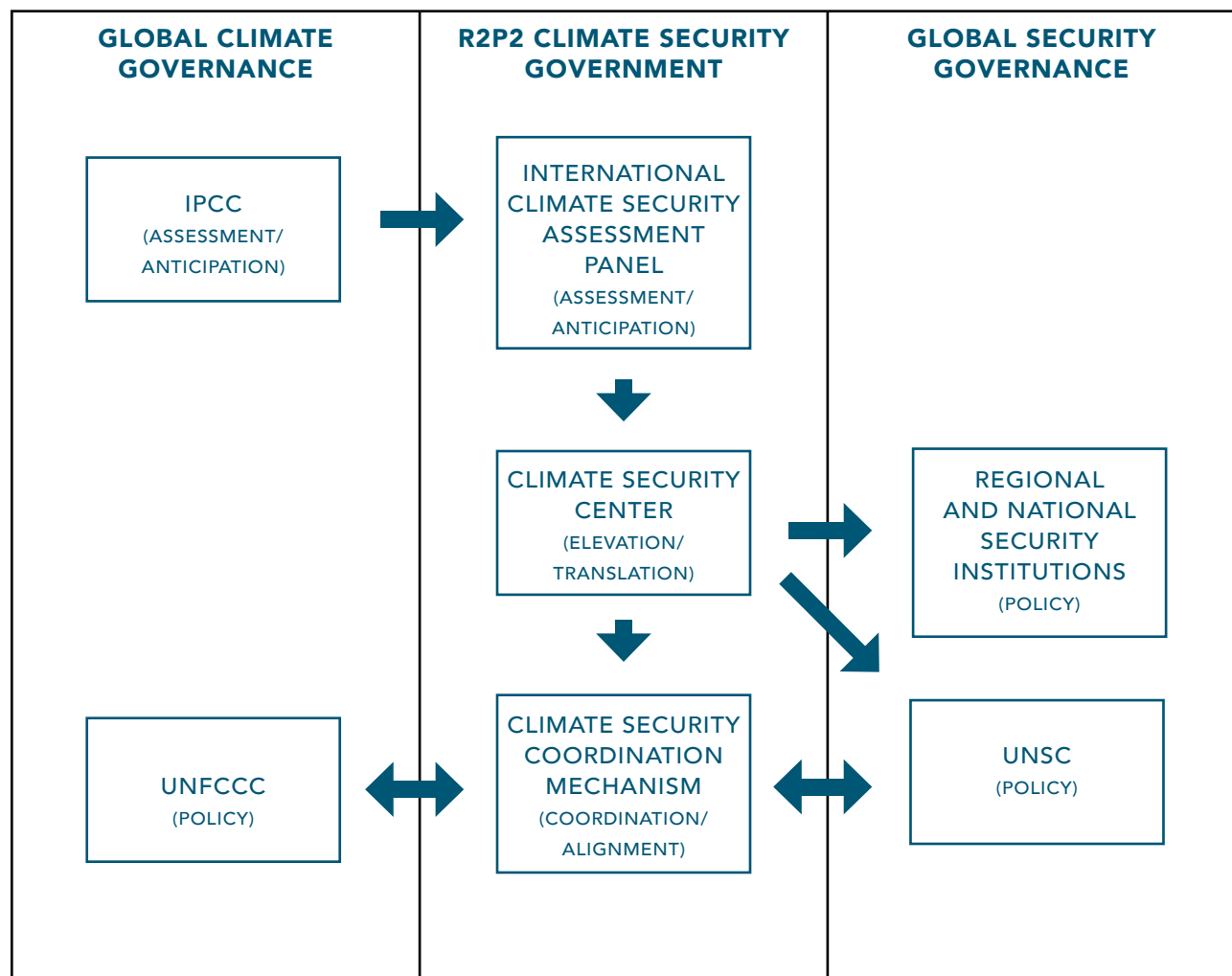
This mechanism could help facilitate alignment between actions taken at the UN Security Council level (or other important security, humanitarian and conflict resolution forums), climate change policy actions taken via the UN Framework Convention on Climate Change (UNFCCC), and climate assessments by the IPCC. This will ensure that climate change actions and security actions with climate dimensions are better aligned, theoretically leading to improved prevention and management of climate security risks.

For example, this coordinating mechanism could play a role in “routinizing” climate security at the UN Security Council (UNSC) through facilitating alignments between the scheduling of UNSC dialogues and actions that include climate change dimensions, and international climate assessment and policy actions at the IPCC and UNFCCC levels. This routinization – tied as it is to international climate policy processes that will undoubtedly continue - could help prevent the possibility of climate security risks being dropped from the UNSC agenda as country leadership and interest changes. Such an alignment of international climate and international security policy processes could help facilitate a range of beneficial results, such as conflict-sensitive climate adaptation investments in vulnerable countries, the integration of security risks into climate agreements and climate risks into security agreements, and regular dialogues on climate security hosted jointly by the UNFCCC and the UNSC, covering under-explored dimensions of the issue, such as civil-military cooperation on addressing climate change.

Such coordination could help strengthen and add dimension to both climate change and climate security governance. For example, aligning UNSC resolutions that include attention to climate-conflict linkages (such as the 2017 UNCS Resolution 2349 on the Lake Chad Basin) with important meetings of the UNFCCC’s Conference of Parties, or facilitating the alignment of the release of IPCC reports with global climate security assessments (such as the proposed International Climate Security Assessment Panel report, or other reports, such as the IMCCS’s World Climate and Security Report), could help raise the attention of climate security risks at the right time, thus bolstering international momentum for addressing these challenges, and better aligning climate and security policy windows.

This mechanism could also play a role in coordinating with other intergovernmental institutions on developing and implementing “contingencies for unintended security consequences” of both climate change and climate security policies. The coordinating mechanism could help identify, prevent and prepare for such unintended consequences through coordinating with other UN bodies with mandates that span both climate change and security policy governance, such as the UNFCCC and the UNSC.

This coordination and alignment should not be limited, however, to the corridors of security institutions and the UNFCCC. It should also engage other areas of international governance, the broader public and civil society to promote fluency on climate security risks and solutions, and to help facilitate more robust whole-of-society efforts on climate security. This could include acting as a facilitator of cross-sectoral NGO network coordination, such as between international climate policy and global security policy networks, in order to drive win-win outcomes for both climate change and security. Such coordination could, for example, facilitate climate policies that are “security-insensitive” and security policies that are “climate-insensitive.”



IV. REALIZING THE RESPONSIBILITY TO PREPARE AND PREVENT



The Marshall Plan was the primary plan of the United States for rebuilding and creating a stronger foundation for the allied countries of Europe, and repelling communism after World War II. E. SPRECKMEESTER / WIKIMEDIA

foreign ministries and development agencies, the integration of climate change into the strategic documents of certain national security and defense establishments, and the elevation of climate change in forums normally devoted to traditional security issues (such as the UN Security Council) are all small steps in the fulfilment of the R2P2 Climate Security Governance Framework that are already underway. Cumulatively, these individuals across governments, who currently interact with each other in bilateral and multilateral forums, form the foundation for a much broader, focused and systematic international process for adopting the R2P2 goals and principles.

Given the global nature of climate change risks, the development and adoption of an R2P2 Climate Security Governance Framework should ideally involve all nation-states in a coherent intergovernmental process. The goals, principles and institutions envisioned by the framework should enjoy buy-in from as many nations as possible, and be adjusted as necessary in the process of developing that buy-in, without compromising its core tenets. The development and adoption of the framework can either be facilitated through a new intergovernmental process or attached to related processes. Furthermore, the international framework should also be adaptable to unique local or regional circumstances as is practical and appropriate, including to appropriate governance institutions at the national level (e.g. national security and defense agencies), and the regional level (e.g. regional security institutions such as NATO, the African Union, the ASEAN and EU Defense Ministers Meetings⁶⁶), as well as other institutions at each of these levels of governance that contribute to security, such as development and humanitarian agencies.

Of course, even prior to the official adoption of this framework by nations, its principles can begin to be implemented. In fact, some already are being implemented by forward-thinking individuals across government agencies and civil society. The incorporation of climate variables into conflict prediction tools utilized by some

CONCLUSION

The window of opportunity to strengthen global governance in a significantly altered geostrategic environment is narrowing. Stalled or delayed actions may result in diminishing returns, and, in the worst-case scenarios, difficult and perhaps inhumane choices in the face of continued strains on natural resources and political will. This scenario is preventable.

Whether or not the response to climate security risks from the international security community will be commensurate to the threat remains to be seen. However, in the 21st century we do not have the excuse that we did not see the threat coming. We do see it coming. That foresight gives the Responsibility to Prepare and Prevent (R2P2) both moral and practical weight. The international community should therefore begin in earnest the process of establishing an R2P2 Climate Security Governance Framework - a framework to ensure true resilience in the face of the global security risks of a changing climate.

ISS captures storms building up over the South China Sea, on July 29, 2016. NASA / FLICKR



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