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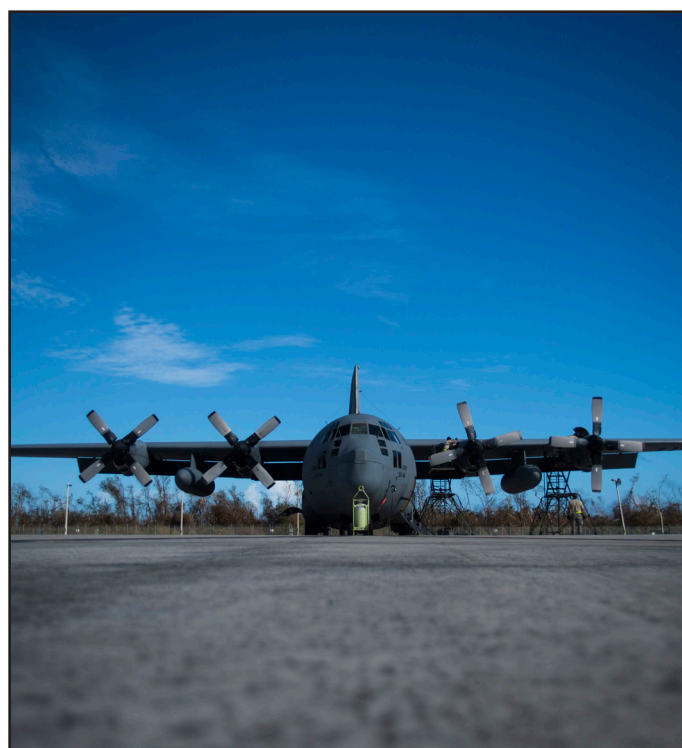# Building Long-term Stability and Resiliency

Implications of the Global Fragility Act

Incorporating Civilian Harm Mitigation into Doctrine

Addressing Root Causes of Health Emergencies

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ON THE COVER Photo illustration by Rufino E. Ballesteros

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Heavy monsoon rains led to massive flooding in eastern India, Nepal, and Bangladesh. The Terra spacecraft shows the extent of this flooding.

Image by NASA/Jacques Descloitres

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LETTER FROM THE DIRECTOR

JOSEPH MARTIN, SES

Long-term stability and resiliency are concepts that have recently gained exponential traction. This is in part due to the worsening effects of climate impacts leading to more frequent natural disasters as well as the impacts of warfare on civilian populations that continue to cause harm and displacement. Vulnerable populations are more at risk than ever. Natural disasters often bring with them flooding, drought and outbreaks of communicable disease. Addressing root causes during a health emergency, rather than addressing individual cases has proved to be a more efficient course of action as seen in "Building Resiliency in Communities and Health System Strengthening" on page 50. Warfare is becoming increasingly urban putting civilian populations at risk and increasing the number of internationally displaced peoples as discussed in the "moral imperative" section of "New Solutions for a New Age" on page 62.

There are many reasons why those involved in humanitarian response and mitigation are looking to find ways to implement more preventative measures prior to the onset of a complex emergency or natural disaster. Regional partners benefit from integrating their efforts across sectors and with partners to build enduring stability instead of following long-established policies of isolation and response. Allies and partners must work together and with international agencies to build nations' capacities for self-sufficiency and their populaces' resilience to threats in the Indo-Pacific.

This issue of the Liaison Journal assesses the role of humanitarian assistance and disaster response in long-term stability and resiliency by examining how governments, militaries, and non-governmental organizations not only respond to, but prepare vulnerable nations for disaster responses and complex emergencies.

We can no longer afford to simply respond to crises. There must be systems in place to prevent or mitigate negative outcomes from the increasingly dire humanitarian landscape. In "Fighting a Formidable Enemy Amidst a Crisis" on page 56 we see that a robust health system in Sri Lanka set the groundwork for several sectors of government to come together to mitigate a dengue outbreak amidst a worsening financial crisis. In "Higher Ground" we learn how USAID/BHA worked with flood-prone communities in Bangladesh to build plinths to raise homes. This, paired with teaching communities how to use early warning systems, put these communities in a better place to face floods that are sure to continue.

Sharing sustainable solutions and lessons learned and from experts in the field through the publication of the Liaison is one of the many ways the Center for Excellence in Disaster Management and Humanitarian Assistance hopes to provide expertise and insight into these complex and evolving issues we are faced with today.

Aloha,

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Major Tia Ahlf joined the Daniel K. Inouye Asia-Pacific Center for Security studies (DKI APCSS) in 2022 as a military fellow. A native of Washington State, Major Ahlf entered the Air Force as a cadet in the Reserve Officer Training Corps at Washington State University. Major Ahlf has served most of her Air Force career as a logistics officer, integrating logistics disciplines for air and ground transportation, supply management, fuels, vehicle management and logistics plans. She has extensive experience directing integrated logistics processes, accomplishing logistics planning for warfighting sustainment and directing logistics related acquisition activities. Her experience in the Asia-Pacific region includes serving as the Installation Deployment Officer at Yokota Air Base, Japan and serving as the Detachment Commander at Paya Lebar Air Base, Singapore. Major Ahlf received a Bachelor of Arts in Sociology from Washington State University. She earned a Master of Business Administration in Healthcare Administration from Columbia Southern University. Most recently, she completed U.S Air Force Air Command and Staff College. **See article, page 30.**

Corinne Graff

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Taryn Ino is an employee with Valiant Integrated Services and works as the Climate Policy and Diplomacy Analyst in the Climate Change Impacts (CCI) Program at the Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM). Prior to joining the CCI, Taryn worked in local government and non-profit sectors on a diverse set of issues, including such topics as disaster risk reduction and resilience, climate change, foreign policy, women, peace and security, and equal employment opportunity. Taryn earned a master's degree in political science and a bachelor's degree in history and political science from the University of Hawaii at Manoa. **See article, page 10.**

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Aiyana Paschal

USAID's Bureau for Humanitarian Assistance (BHA) provides life-saving humanitarian assistance—including food, water, shelter, emergency healthcare, sanitation and hygiene, and critical nutrition services— to the world's most vulnerable and hardest-to-reach people. BHA is the lead federal coordinator for international disaster assistance, harnessing the expertise and unique capacities of other U.S. government entities to effectively respond to natural disasters and complex crises around the world. BHA takes a holistic look at humanitarian aid, providing assistance before, during and after a crisis—from readiness and response, to relief and recovery. This includes non-emergency programming that is foundational to linking humanitarian assistance to long-term development and the journey to self-reliance. **See article, page 38.**

USAID/BHA Staff

LIAISON welcomes article submissions

LIAISON provides an open forum for stimulating discussion, exchange of ideas and lessons learned – both academic and pragmatic– and invites active participation from its readers.

If you would like to address issues relevant to the disaster management and humanitarian assistance community, or share comments or thoughts on articles from past issues, please submit them to: cfe.dmha.fct@pacom.mil

LIAISON reserves the right to edit submissions for clarity, language, and accuracy.

Format - Email submissions in an unformatted Microsoft Word file. Footnotes are the preferred method of citation, if applicable. Email images separate from the word document as JPG files.

Provide original research - We prefer original submissions, but if your article or paper is being considered for publication elsewhere, please note that with the submission. Previously published articles will be considered if they are relevant to the issue topic.

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Supporting imagery - Original imagery supporting any and all articles is welcome. Ensure the images are high-resolution and can be credited to the photographer without license infringement. Images should be attached to the submission separately, not embedded within the Microsoft Word document.

Biography and photo - When submitting an article, include a short biography and high-resolution photo of yourself for the contributor's section.

Clarity and scope - Avoid technical acronyms and language. The majority of LIAISON readers are from the Asia-Pacific nations and articles should be addressed to an international audience. Articles should also be applicable to partners in organizations or nations beyond that of the author. The aim is for successful cases to aid other partners of the disaster management and humanitarian community.

Email articles to: cfe.dmha.fct@pacom.mil

Photo by Maria Orlova

Climate Change Impacts in the Indo-Pacific:

Climate change impacts increase the frequesncy and intensity of natural disasters.

Considering Impacts on Women to Enhance Resilience

BY TARYN INO, CLIMATE POLICY AND DIPLOMACY ANALYST AT CFE-DM.

The adverse impacts of climate change and the effects of climate variability and weather-related natural hazards are already being felt in the Indo-Pacific region. Indo-Pacific leaders recognize and emphasize the importance of collectively addressing the crisis. It is a unique area of shared regional concern and an opportunity to enhance relationships and the resilience of Indo-Pacific nations and communities. Philippine President Ferdinand Marcos Jr. told the UN, "Climate change is the greatest threat affecting our nations and peoples," adding, "this threat knows no borders, no social class, nor any geopolitical considerations."[1] That sentiment was echoed in the 2022 National Security Strategy of the United States, which states, "Of all the shared problems we face, climate change is the greatest and potentially existential for all nations."[2]

The impacts of climate change are projected to have compounding adverse effects as global warming increases. Climate change will impact everyone worldwide, but the impacts will be felt differently among locations, ages, income groups, and gender. Because of gender-based inequalities and discrimination in many parts of the world, women are often more vulnerable than men to the impacts of climate change. According to UN Women, the climate crisis will have greater impacts on women than men and can amplify existing gender inequalities.[3] Understanding the gendered impacts of climate change and the importance of developing more nuanced and gender-sensitive approaches to build resilience by including women in decision-making at all levels in plans and processes is essential for long-term resilience.

"Of all the shared problems we face, climate change is the greatest and potentially existential for all nations."

-2022 National Security Strategy of the United States

Climate Change Impacts in the Indo-Pacific

The Indo-Pacific region is home to over half of the world's people and nearly two-thirds of the economy. The region is recognized as vital to global security and prosperity.[4] U.S. President Joe Biden emphasized the region's importance, saying, "Because the future of each of our nations — and indeed the world — depends on a free and open Indo-Pacific enduring and flourishing in the decades ahead."[5] However, the Indo-Pacific region is highly exposed and vulnerable to climate change. Cascading impacts from climate-related events are a significant threat. Thus, to ensure a free and open Indo-Pacific that is enduring and flourishing in the decades ahead, it will be critical to enhance the region's resilience to the current and projected impacts of climate change.

The inherently complex nature of climate change leaves multiple uncertainties. Climate change and impact projections are complicated by uncertainty, including the uncertainty of future climate policies, greenhouse gas emissions, complex climate and socioeconomic feedback loops, and unknown tipping points.[6]

The Earth's climate has changed throughout its history, and in the last 800,000 years, there have been eight cycles of ice ages and warming periods.[7] This current warming period has been accelerating concerningly quickly. Climate change-induced warming has resulted in global temperatures rising, oceans warming, shrinking ice sheets, glaciers retreating, rising sea levels, increasing ocean acidification, and increasing frequency and intensity of extreme weather events.[8] Future impacts of climate change could become more (or less) severe than anticipated depending on our ability to reduce greenhouse gas emissions.

While the nature of climate risks and impacts leave some uncertainty, the scientific community has medium to high confidence that climate impact drivers will have major effects in the Indo-Pacific region. The Indo-Pacific's exposure to climate change will affect elements of societies and ecosystems. The physical climate systems impacting the region include extreme

People wade through the water as they look for shelter during a flood, amidst heavy rains that caused widespread flooding in the northeastern part of the country, in Sylhet, Bangladesh, June 18, 2022. REUTERS/Abdul Goni
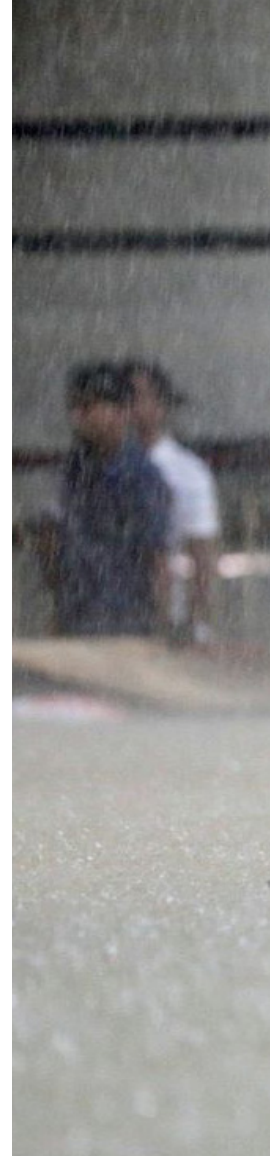
heat, mean precipitation, river flood, heavy precipitation, tropical cyclone, relative sea level, coastal flood, coastal erosion, marine heatwave, and ocean acidity.[9]

In mid-to-late 2022, the Indo-Pacific region experienced several climate-related events: high temperatures, droughts, torrential rain, and other extreme weather.[10] In June, widespread flooding in Bangladesh and India stranded millions and killed at least 19 in Bangladesh.[11] From mid-June through August, China experienced its driest and hottest summer since consistent recordkeeping began in 1961, causing droughts and forest fires.[12] In August, heavy rains and landslides in South Korea flooded homes, roads, and subway stations, killing at least eight.[13]

In September, the powerful Typhoon Noru struck

the Philippines after an "explosive intensification." Typhoon Noru's rapid intensification to super typhoon worries some meteorologists, who think it will become harder to forecast which storms will intensify, creating challenges for communities, authorities, and disaster management workers.[14] These climate-related disasters underscore the need to build resilience so communities can resist, absorb, accommodate, and recover from the impacts of climate change.

The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body that assesses the science related to climate change and reports on climate change, its impacts and future risks, and options for reducing the rate of climate change.[15] IPCC projections (with high confidence) for the Indo-Pacific region include:

• Rising temperatures, increasing the likelihood of heat waves and extreme heat across Asia;

• Droughts in West, Central, and South Asia;

• Floods in South and Southeast Asia; and

• Glacier ice melting in the Hindu Kush Himalaya region, which may cause glacial outburst flooding.[16]

Additionally, small islands could be increasingly impacted by a larger proportion of the most intense tropical cyclones, storm surges, droughts, changing precipitation patterns, sea-level rise, and coral

bleaching. [17]

Climate impact drivers interacting with human systems and ecosystems in the Indo-Pacific could result in:

• Increased frequency and intensity of climate hazards, posing a threat to life, livelihoods, food production, freshwater resources, property, and critical infrastructure and services.

• Impacts on and disruption to food production, yields, and systems which could lead to food scarcity and decrease food security.

• Strain on freshwater resources from decreases in water supply and quality.

• Migration and displacement from shifting populations seeking labor opportunities, shelter, food, water, and safety.

• Damage and disruptions to infrastructure, facilities, services, transportation, communications, and human settlements.

• Impacts on human health, include increased risk of disease outbreaks, malnutrition, and direct mortality from climate-related hazards.

The substantial coastal populations in the Indo-Pacific are at risk from sea-level rise and extreme weather events. Sea-level rise and coastal flooding could inundate large areas of the region's coast and displace millions of people. Tens of millions of people reside less than a meter above sea level in coastal megacities, such as Bangkok, Ho Chi Minh City, Jakarta, and Mumbai, where they are vulnerable to storm surges and coastal inundation. Additionally, many coastal communities depend on fishing for a substantial part of their diet and income. However, they are likely to see collapsing fisheries and changing fish migratory routes from the impacts of ocean warming and acidification.

In the Indo-Pacific region, there are multiple dynamics that will cause and shape the climate crisis. Climate change impacts will be felt on top of existing challenges and will complicate vulnerabilities. For example, climate change impacts could exacerbate the existing challenges of rapid urbanization, industrialization, and economic growth; growing geostrategic competition and maritime boundary disputes; ongoing conflicts from separatist movements and transnational violent extremist organizations; and piracy and organized crime in the region.[18] How much climate change will aggravate human, state, and geopolitical issues will depend on several factors, including how fast the world can reduce greenhouse gas emissions and how effectively the region adapts to climate change.
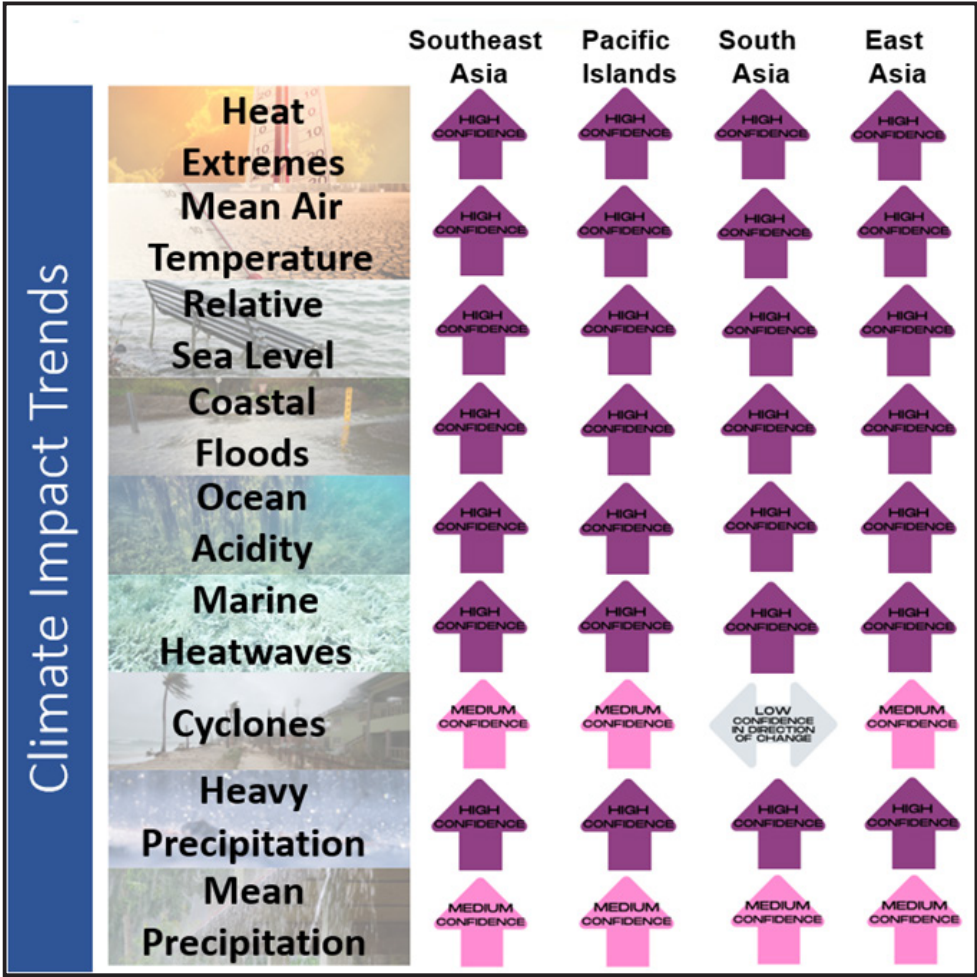

Figure 1. The future changes of climate impact drivers in the Indo-Pacific region. Created with information from the IPCC WGI Interactive Atlas: Regional Synthesis

Climate Change Impacts on Women

The negative impacts of climate change will have widespread impacts in the Indo-Pacific region but will fall disproportionately on the most vulnerable, including women, children, and the elderly. Furthermore, climate change impacts and can magnify pre-existing inequalities.[19] The impacts of climate change can expose men and women to new risks and exacerbate existing challenges. Pre-existing patterns of discrimination and structural inequalities can put women at a major disadvantage when faced with climate change impacts.

When women are poorer, receive less education, and are excluded from decision-making processes, they become more vulnerable to the impacts of climate change. During disasters, cultural norms on gender roles can decrease women's coping capacity and restrict their ability to evacuate to escape.[20] The IPCC reports that women and girls:[21]

- Are at greater risk of food insecurity;
- Are more likely to die in extreme weather events; and
- Face a greater mental health burden

Multiple factors can lead to disparate climate change impacts on women. The experiences of men and women are shaped by the society they live in. In addition to gender, other social factors that affect vulnerability and experiences of climate change impacts are income, educational background, ethnicity, and disability.[22]

In some places, men and women do different work; in many cases, women are unpaid or paid much less than men. In many places, the gendered division of labor concentrates women in the informal sector, and women work disproportionately in agriculture or fisheries, both vulnerable to the impacts of climate change. In addition, the duties of caring for children and elderly relatives, cooking, and ensuring the household has fuel and water often fall upon women.

Men and women may have differentiated access to resources and information, including access to the internet and disaster preparedness and warning information. In addition, in many developing and patriarchal societies, women may have less formal education and decision-making power, reducing their presence in policy discussions, which can decrease their resilience to climate change impacts. Another factor that can lead to disparate impacts is the digital gender gap and issues of access to information.[23]

Another disproportionate impact of climate change on women may occur during and after extreme weather events. Gender inequalities result in women bearing the disproportional brunt of disaster impacts. During and after disasters, women and girls are subjected to intimidation, gender-based violence, sexual harassment, and rape. The onslaught of climate-induced disasters could also increase women and girls' risk of organized trafficking.[24]

Climate change is already having disparate impacts on women in the Indo-Pacific region. For example, Bangladesh already experiences frequent extreme flooding. Floods can cause loss of life, an increase in disease, loss or destruction of infrastructure, and damage to agricultural production, and can increase the vulnerability of the entire community with additional challenges of food scarcity, unemployment, and displacement. In the recent flooding in June 2022, footage showed submerged roads and railway lines and people wading through brown waters, carrying their belongings and livestock.[25] Flooding occurrences are projected to increase with a global temperature rise of two degrees Celsius, which could more frequently expose women to flooding events.[26] Following flooding events in Bangladesh, one study found that 89 percent of women surveyed reported becoming ill from wearing wet clothing because they did not have spare clothing. The study also found that 35 percent of the women surveyed were harassed by a male in the aftermath of flooding because of increased stress and social disruption.[27]

Sea-level rise and frequent storms have salinized the water in the Sundarbans region. The sea-level rise inundation and salinization of cropland have transformed agricultural areas. As a result, they can no longer adequately support and feed those living off them, which has forced many women to turn away from the agricultural fields to fishing.[28] However, when women are forced to turn to fishing, it increases their exposure to saline water, as they must stand in waist-deep water every day for 4-6 hours. The ex-

posure to saline water is reportedly causing vaginal problems like irregular menstrual cycles, urinary tract and other infections and skin diseases such as eczema and infected sores.[29]   Additionally, many men migrate to find work elsewhere because of the loss of jobs from decreased agricultural production. As a result of migrating men, women are separated from their husbands and left with the additional responsibilities of battling climate challenges, meeting day-to-day expenses, and caring for children.

Structural barriers can restrict women's access to land, training in new agricultural cultivation techniques, and access to credit, making it difficult for women working in agriculture to adapt to climate change.[30] In Vietnam, projections of 1 meter of sea level rise without coping solutions adopted, would lead to nearly 40 percent of the Mekong Delta at risk of flooding, including about 570,000 hectares of rice crop.[31] This would have major impacts on women, who make up 60 percent of the agricultural labor force, but due to limited access to resources and discriminatory land use practices, less than 10 percent of them are farm owners.[32]

Climate Adaptation and Resilience Building

The accelerated pace of climate change impacts underscores the need to continually ensure that communities and countries respond to the cascading threats and challenges and prepare for future impacts. Women and girls are often on the frontlines of climate adaptation but still face barriers. Communities' and countries' ability to anticipate, absorb, accommodate, or recover from the effects of potentially hazardous events, including climate change, will be vital to ensure peace and prosperity in the Indo-Pacific. Therefore, building resilience and adapting to climate change is essential in the region.

Resilience and adaptation are concepts frequently conflated. Resilience to climate change is considered the ability to anticipate, absorb, accommodate, or recover from potentially hazardous events with minimal damage to social well-being, the economy, and the environment.[33] Measures to enhance resilience to climate change can include improved and sustain-

Residents wait on the roof of their homes for the flooding to subside after Super Typhoon Noru, in San Miguel, Bulacan province, Philippines, September 26, 2022. Eloisa Lopez /Reuters

able city planning, early warning systems, and efficient urban governance.[34] Climate adaptation activities can include building roads and bridges to withstand higher temperatures or powerful storms, building sea walls to protect against sea level rise, and installing new irrigation systems to combat water scarcity.

Adaptation and resilience should be complementary. Adopting resil-

> **"*Adaptation and resilience should be complementary.*"**

ience thinking in adaptation projects can help shift thinking and approaches towards long-term, transformative, holistic, and forward-looking resilience building.[35] However, a silo approach focused on urban and infrastructure adaptation can miss opportunities to tackle the root causes of inequality and exclusion.

Climate Resilience and the Military

Increasingly, militaries worldwide recognize the importance of climate change's threat. For example, during the Shangri La Dialogue, Maldivian Defense Minister Mariya Ahmed Didi called climate security a key issue for the Maldives, as more than 70 percent of their infrastructure and 50 percent of urban areas are within 100 meters of the sea.[36] Fijian Defense Minister Inia Seruiratu similarly

called climate change "the single greatest threat to our very existence," commenting that "waves are crashing at our doorstep, winds are battering our homes, we are being assaulted by this enemy from many angles."[37]

In the United States, both climate change and women, peace and security are increasingly recognized in policy. The January 2021 Executive Order 14008: Tackling the Climate Crisis at Home and Abroad elevated the climate crisis to an essential element of U.S. foreign policy and national security. The Women, Peace, and Security Agenda has been making strides to encourage the inclusion of women and the Women, Peace, and Security Act of 2017 directs the military to train personnel in initiatives that address the importance of participation by women. The U.S. military is well positioned to incorporate both climate and gender considerations to build resilience. The prominence of both climate and women's issues to the DOD can enhance efforts to build long-term resilience if both are incorporated side-by-side and not implemented in silos.

Securitizing climate and inviting the military to address the threat can have gendered impacts when the climate security community is comprised of mainly men who of-

ten lack gender expertise or gender policy awareness.[38] It will be critical for the military to include women in climate security processes, so it does not produce or reproduce uneven power relations.[39]

It is worth noting that building "resilience" can mean different things in science, development, and defense circles. The U.S. Department of Defense (DOD) uses a more general definition of resilience when addressing climate change. Resilience is defined in DOD Directive 4715.21 as the "ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions." The Air Force's approach to installation resilience includes assessing for any event that could disrupt operations, manmade accidents and attacks, in addition to natural disasters.[40] However, since the military includes climate considerations as a potential disruption, it is possible to enhance long-term resilience to multiple potential disruptions.

Civil-Military Collaboration to Build Resilience

Developing a comprehensive approach that harnesses resources from across the economic, social, and industrial sectors while incorporating military, academic, diplomatic, health, social, cyber, and cultural inputs can enhance results. It is also an opportunity for civil-military cooperation to include women's voices and experience in planning to enhance

Figure 2. U.S. Department of State publication, Prologue to the United States Strategy to Prevent Conflict and Promote Stability.

is considered an essential component of the "social contract" between government and citizens since inadequate disaster response can drive discontent and strengthen the legitimacy of non-state actors.[43]

The military's role in disaster preparedness and response will be increasingly important and necessary as climate impacts become more frequent and severe. The military has unique capabilities to support first responders and other stakeholders in complex disaster operations with engineering and logistic capabilities. As climate change impacts drive more frequent and severe extreme weather events, the military may be called upon to respond more frequently.

Ensuring coordinated responses to Humanitarian Assistance and Disaster Relief (HADR) efforts and the rule of the law through international legal frameworks like the UN Convention of the Law of the Sea (UNCLOS) will significantly impact stability. Additionally, when militaries respond, political neutrality and maintaining the boundaries between military and civil humanitarian organizations is important to ensure legitimacy and humane responses.[44] Especially in disaster areas experiencing ethnic or social conflict, the military must be perceived as a neutral party. Some have urged against providing unfair justifications for military interventionism by not including climate within the Responsibility to Protect norm.[45]

In addition to HADR, militaries will have a role in ensuring security and prosperity, which will increasingly rely on integrating climate change adaptation strategies in all sectors and implementing them at all levels, including militaries and the defense sector.[46] For the military, avoiding the pitfalls of securitizing the climate issue is vital to ensure equitable resilience solutions. In some cases, "securitization" of issues can

long-term resilience. It will be challenging to achieve long-term resilience goals if planning and implementation do not integrate critical gender components.[41]

Enhancing disaster preparedness and response is an opportunity for the military to play a significant role in supporting efforts to build resilience. Coordinated civil-military efforts will be essential in managing the climate change challenges. The International Military Council on Climate and Security (IMCCS) identifies disaster response as an important part of strengthening resilience to climate impacts and climate security risk management.[42] Adequate disaster response

have a different effect, depending on gender, race, socioeconomic status, religion, or other factors.

U.S. Policies Offer Opportunities to Enhance Resilience of Partners & Allies

U.S. policies, like the Global Fragility Act (GFA), offer new opportunities for tackling both gender equality and climate challenges. The Biden administration has emphasized and prioritized tackling the climate crisis. The 2022 National Security Strategy calls climate change "the greatest and potentially existential" shared problem for all nations.[47] The Indo-Pacific Strategy of the United States recognizes the region as the "epicenter of the climate crisis."[48] Furthermore, the National Strategy on Gender Equity and Equality calls for the promotion of gender equity in mitigating and responding to climate change because "tackling the climate crisis requires ambition, innovation, and broad mobilization and will depend on the commitment and participation of all people."[49]

The Global Fragility Act

In 2019, the Global Fragility Act was signed into U.S. law to strengthen the security and prosperity of people by helping to fortify the footing of parts of the world that continue to grapple with challenges that can lead to destabilizing conflict and violence. The GFA emphasizes civilian, rather than military, tools and aims to prevent conflict by building sustainable peace and addressing drivers of instability. While acknowledging the need to improve global, regional, and local coordination of international and multi-

A woman brings freshwater from a water source several kilometers away as she walks over a bridge built by the local development authority. Nicholas Muller/The Diplomat

lateral development and donors and emphasizing the importance of local stakeholder consultation, the GFA itself focuses on violence and violent conflict, making no mention or reference to climate change considerations and largely omits broad considerations for gender.

In 2020, the U.S. Strategy to Prevent Conflict and Promote Stability," also known as the Global Fragility Strategy (GFS), a 10-year strategy to address conflict prevention and stabilization was released. Additionally, in 2022, the Biden administration identified Papua New Guinea as a partner country in the 2022 Prologue to the U.S. Strategy to Prevent Conflict and Promote Stability (Prologue) as part of the GFA. The GFA and accompanying GFS and Prologue offer an opportunity to integrate climate change impacts to opportunities for preventative action through the inclusion of women.

The omissions of climate and gender were largely addressed in the 2022 Prologue. It identified the changing global climate as a collective challenge of our time. The Prologue states that it will "integrate policy approaches in multiple priority areas—from democratic support and climate change to diversity and gender equity—within the GFA framework," and "consider and address the risks posed by the impacts of climate change and other environmental security risks and test new ways of building climate resilience." In addressing gender considerations, one implementation priority of the Prologue is to "pursue equity and equality based on gender and other factors."[50]

The GFA and Building Resilience in Papua New Guinea

The GFA is a new opportunity to enhance the climate resilience of women in Papua New Guinea. Heightened vulnerability in Papua New Guinea stem from widespread poverty, poor infrastructure, corruption, and safety and security concerns.[51] Four phenomena that are the cause and result of shortcomings in Papua New Guinea's development and the dynamics of fragility were identified by CSIS:

1) weak governance;
2) economic inequality;
3) vulnerability to climate change; and

4) intercommunal and gender-based violence.[52]

Addressing interconnected issues by tackling climate security and gender equality challenges in Papua New Guinea can help build institutional, cultural, and technical expertise for a range of social development, fragility, and security issues.

Climate Challenges in Papua New Guinea

Climate change could exacerbate existing security and stability issues in Papua New Guinea. Papua New Guinea is vulnerable to natural hazards, and currently faces moderate exposure to flood, drought, and cyclones. Climate change is likely to increase hazards and disproportionately affect the poorest in Papua New Guinea. In Papua New Guinea, climate impacts could include:[53]

• Cyclones are expected to decrease in frequency but increase in intensity.
• Sea-level rise has already inundated coastal communities, with the Carteret Islands being among the first documented climate refugees.
• Heavy precipitation is projected to intensify, prompting river and coastal flooding and landslides.
• Ocean acidification and warming threaten fisheries and coral reefs.

A World Bank report notes that a complete understanding of climate risks in Papua New Guinea is hindered by limited data on many aspects of social vulnerability and the lack of localized historical and future climate changes.[54]

Gender Challenges in Papua New Guinea

In Papua New Guinea, patriarchal gender norms limit women's political participation and threats of divorce, shame, harassment, and violence prevent women from exercising political agency.[55] Additionally, women's exclusion is perpetuated in health, education, and employment disparities, leading to unequal opportunities for men and women in Papua New Guinea. A 2019 Gender Inequality Index ranked
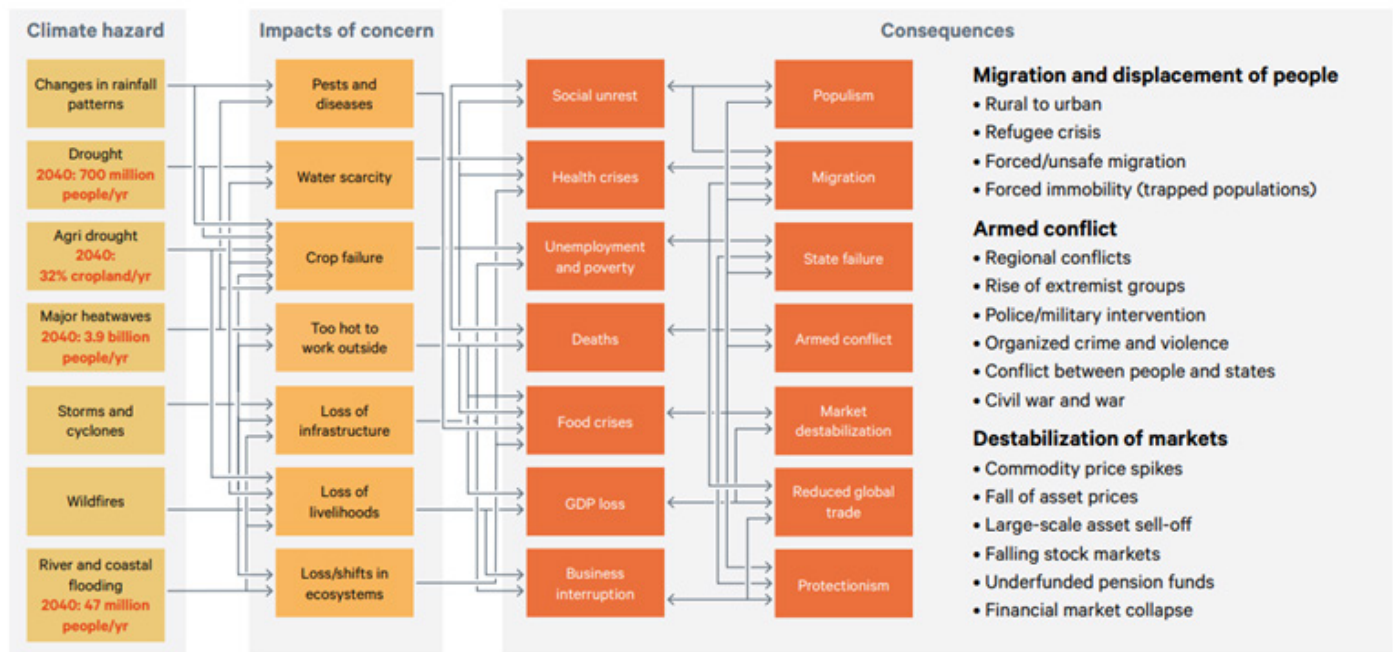
Figure 3. Estimates of major climate hazards, impacts of concern, and consequences. Source: Daniel Quiggin et al., "Climate Change Risk Assessment 2021," Chatham House, 2021, 36, https://www.chathamhouse.org/sites/default/

Papua New Guinea 161 out of 162 countries.[56]

An ABC International Development survey of citizens in Papua New Guinea found that "the dominant patriarchal mindset and systemic gender inequality was perceived as a key barrier to equal opportunity for women," including participation and representation in decision making or leadership positions. Additionally, the survey found that women reported having less freedom to express their opinions, less knowledge on social issues, and less access to media. Another barrier women face is access to information. Although mobile phone and internet access increased; women were among the groups who remained disadvantaged in digital access.[57]

GFA Opportunities to Enhance Resilience

The global fragility strategy assigns embassies and missions to establish coordination mechanisms for engagement and additionally directs them to implement plans and programs based on partner engagement. Additionally, one of the GFS guiding principles is to focus on mutually determined strategic goals and interests. Ensuring lasting impacts will rely on solutions driven by local needs and perspectives.

While the GFA, GFS, and Prologue are an opportunity to advance the climate change agenda, outcomes will depend on how well the United States can draw on local contexts and challenges. Promoting the role of women in addressing climate security challenges will require connection of local and global efforts and translation of political commitments into actions. While in the planning process, ensuring that evaluation metrics measure impacts on women can help assess gender work. Monitoring and evaluation frameworks should be developed to track the integration of gender mainstreaming.

Opportunities to address risk and build resilience in Papua New Guinea could come from:

•	Building capacity of local NGOs to tackle climate challenges and women's rights

•	Introducing training and tools related to gender empowerment, gender sensitivity, and climate data and decision support tools

•	Training for the PNG military on disaster response and gender considerations

Keys to Building Long-term Resilience

In the Indo-Pacific, rapidly increasing urbanization has resulted in urban poverty, inequality, and social exclusion, with much of the population suffering from poor infrastructure and facilities, including inadequate housing and basic services.[58] Due to massive equity gaps in the region, many countries in the Indo-Pacific are more vulnerable to climate change impacts due to critical deficiencies in coping and adaptive capacities.[59] Therefore, it is essential for climate strategies in the Indo-Pacific to be grounded in understanding how intersecting forms of discrimination and inequality create disparate vulnerabilities and not only hinder people's ability to benefit from climate action but, in some cases, disadvantage people. Additionally, adapting to a particular range of shocks without considering new or unknown shocks can undermine resilience. Thus, it is essential to consider a range of solutions to enhance social, human, natural, physical, and financial capacities through forward-looking and anticipatory planning.

Climate adaptation and resilience-building strategies should include gender-sensitive planning to promote greater equality. The Paris Agreement highlights the need for adaptation to be "gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems."[60]

Climate challenges are both global and local. Successfully addressing climate challenges requires science-driven data, knowledge sharing, partnerships, and getting out of separate silos and working collaboratively. There is a need to move beyond identifying vulnerabilities and expanding existing coping mechanisms to building inclusive, long-term resilience that creates stability for human systems to better handle and managing future impacts of the climate crisis.[61] Planning and implementing processes should consider the positive and negative links of actions with gender equality goals.

Avoiding exclusion and entrenchment in adaptation projects can help to ensure that vulnerable populations aren't trapped in a system of insecurity and inequality and can enhance resilience results.[62]

In designing strategies, including women and other marginalized groups is also essential to ensure meaningful participation in planning and implementation processes that will address the whole of society. Including women does not mean the including a few token women to get a "women's perspective," but it should involve thinking deeply about gender dimensions of real-world developments.[63] When processes to include women also include empowering women, it needs to be done safely with the involvement of both men and women working together. One way to do this is to facilitate consultation of women and men in participatory risk analyses and generating input from both on resilience-building priorities. Furthermore, leadership training for women may be needed and can help build up women's voices.

Science and data-driven analysis is an integral part of the adaptation and resilience process. In addition to analyzing the hazards and climate context, it is essential to conduct a gender analysis of the social, economic, political, and natural resource management roles of women and men before starting activities. There is still a need for studies on the gendered impacts of climate change by sector and region to identify pathways better to integrate gender into climate-related policies and adaptation plans.

PEACE RESPONSIVE APPROACHES

TOWARDS MORE 'PEACE RESPONSIVE' HUMANITARIAN ACTION: LEARNING FROM CURRENT PRACTICE

By Albert Souza Mülli, Peace Responsiveness Advisor at Interpeace

Photo by Spc. Lorenzo Ware/Combat Camera Detachment USEUCOM

In 2022, 274 million people are in need of humanitarian assistance, up from 235 million only a year ago - a figure unprecedented in recent decades. Violent conflict remains the main driver of humanitarian crises, only worsened by the impact of climate change. According to the World Bank, conflict-induced crises, which now account for 80 percent of all humanitarian responses, are growing, demanding more funding, and lasting longer.[1] The bulk of humanitarian action today (an estimated 86 percent of country-allocable humanitarian assistance) is concentrated in contexts of protracted armed conflict such as Colombia, the Democratic Republic of Congo, Palestine, Somalia, South Sudan, and Sudan. At the same time, the gap between humanitarian need and humanitarian funding is higher than ever - an estimated $40.18 billion in April 2022.[2]

This new reality demands a change in approach. Humanitarian action needs to become more 'peace responsive', moving beyond dealing solely with the consequences of conflict to address its root causes. 'Peace responsiveness' refers to the ability of actors operating in contexts and areas affected by conflict to be conflict-sensitive and deliberately contribute to peace within the scope of their mandates. Peace responsiveness is about enhancing collective impact, supporting inclusive, gender-responsible and locally-led change, and strengthening societal resilience to conflict and violence.

This article sets out the rationale for humanitarian action to be peace-responsive, identifies the global policies that support this shift, and demonstrates that despite the challenges, many humanitarian agencies and programmes are already putting peace responsiveness into practice whilst effectively managing perceived tensions and risks.

At the World Humanitarian Summit in 2016, Member States and UN agencies committed to the UN Secretary General's Agenda for Humanity, which urged a shift from delivering aid in response to crises to ending need by anticipating and mitigating them. The Agenda for Humanity recognized that for humanitarian action to sustainably improve the prospects of people in protracted crisis settings, it needs to move beyond 'short-term, supply-driven response efforts' to addressing humanitarian needs in ways that reinforce local systems and support more resilient societies.
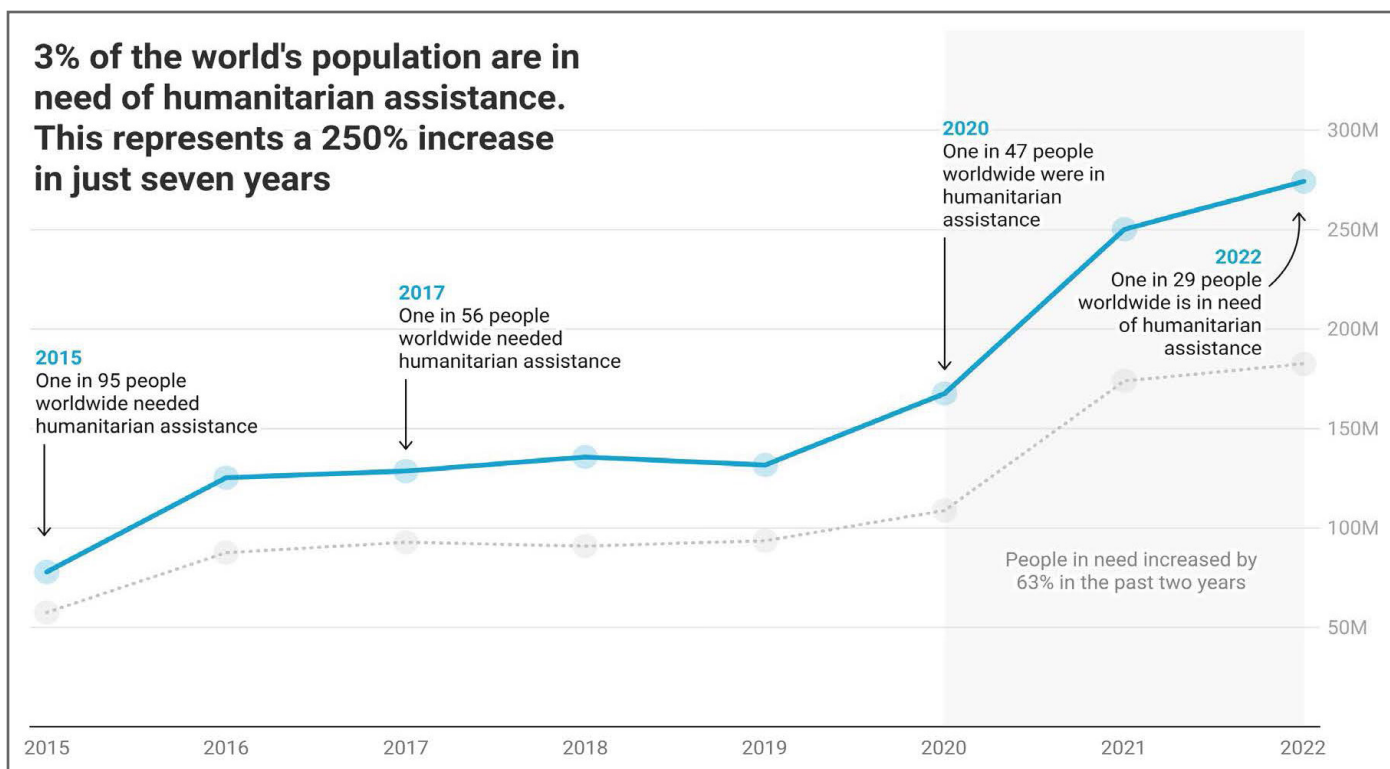
Complementing the Agenda for Humanity, the landmark twin 2016 UN Sustaining Peace Resolutions adopted by the UN Security Council and the UN General Assembly recognised that due to the complex and multi-dimensional nature of conflict, peacebuilding cannot remain the responsibility of peacebuilders alone—it is a collective imperative which development and humanitarian actors must also contribute to. This was reaffirmed by the Organisation for Economic Co-operation and Development's Development Assistance Committee's (OECD-DAC) 2019 Recommendation on the Humanitarian-Development-Peace Nexus (HDPN), which underlined that development, peace, and humanitarian interventions need to contribute to collective outcomes that reduce overall vulnerability and the number of unmet needs, strengthen risk management and address root causes of conflict.

But despite a growing global policy consensus, the humanitarian sector has been slow and inconsistent in translating these policy frameworks into practice. To aid this process, in October 2020, the Inter-Agency Standing Committee (IASC)—the UN system's highest-level humanitarian coordination platform—produced an issue paper exploring what peace means for humanitarians, outlining possible engagement pathways along a 'peace spectrum' within humanitarian action. And in 2022, the IASC produced an inventory of guidance and tools available to humanitarian actors, on peace-building and conflict-sensitive approaches. But there is only so much that guidance and tools can achieve alone - there are many other barriers in place.

Conceptually, it may not be clear to humanitarian actors how they can contribute to peace, and what this would actually look like in practice. There are also long-standing concerns that deliberately linking humanitarian action to peace outcomes can undermine the perception that humanitarians are neutral and independent. But whilst there are risks in this regard, they have often been overstated or poorly assessed. They can also be effectively mitigated, as decades of humanitarian practice in complex environments demonstrate.[3]

In fact, there is a greater risk in not being peace responsive. By not paying due regard to the conflict dynamics and how aid can exacerbate existing inequalities and undermine peace outcomes, humani-

3% of the world's population are in need of humanitarian assistance. This represents a 250% increase in just seven years

2020
One in 47 people worldwide were in humanitarian assistance

2017
One in 56 people worldwide needed humanitarian assistance

2022
One in 29 people worldwide is in need of humanitarian assistance

2015
One in 95 people worldwide needed humanitarian assistance

People in need increased by 63% in the past two years

Figure 1. Showing people in need and people targeted for countries with Inter-Agency Coordinated Appeals.
Chart: Global Humanitarian Overview 2022, Humanitarian Insight

tarian actors may inadvertently undermine community structures, fuel existing ethnic, social or religious divisions, and thereby exacerbate the factors creating the very conflicts that drive humanitarian needs in the first place. Peace responsiveness, on the other hand, is fully aligned with the localization agenda, putting local communities at the center of humanitarian responses, empowering the people affected by crises to shape the international response to their needs.

These conceptual barriers have been exacerbated by structural and operational barriers, including the siloed mandates, funding streams, timelines and operating modalities of the various donors, agencies, and programmes operating in conflict-affected contexts; weak systems and incentives for coordination and coherence at country level; and limited accountability for not contributing to peace. Nevertheless, despite these challenges, there is already a wealth of positive practice in this area demonstrating that humanitarian actors not only can, but often already do, incorporate a peace-responsive approach in different contexts and programming areas, with positive outcomes.

Below are four examples that are illustrative of how humanitarian action can contribute to peace. They demonstrate peace building is and should not be the primary objective of humanitarian action, but that where there are opportunities to contribute to peace, the benefits of humanitarian action can reach far beyond meeting immediate needs.

Reducing local tensions and strengthening social cohesion

Reducing local tensions and strengthening social cohesion. Bringing divided communities together to jointly identify and agree upon humanitarian needs to be prioritised and how they should be addressed is an increasingly common approach among humanitarian actors, particularly in situations of protracted forced displacement where the risks of conflict being exacerbated by social tensions are often acute. For example, in response to rising tensions between conflict-displaced people and host communities in Niger that were unintentionally fuelled by a refugee-focused government aid response, UNHCR has

focused its efforts on supporting joint host-refugee community initiatives to promote mutual assistance and understanding and creating credible and reliable communication channels to reduce misinformation about how and where aid is being targeted.[4]

At a more strategic level, since its establishment in 2015, refugee hosting governments, UN and civil society partners in the Syria Regional Refugee, Resilience Response Plan (3RP) have evolved a range of humanitarian response programmes across multiple sectors that are designed to help build social cohesion while also meeting immediate and longer-term needs of both refugees and host communities.[5] In Jordan for example, specific social cohesion initiatives include efforts to increase intercommunity contact through shared spaces, cultural events and community initiatives, and by establishing community committees which lead dialogue sessions between Syrian refugees, host communities, and local authorities.[6]

And in Lebanon, programming under the plan has set up a tension monitoring system that monitors and analyzes tensions between communities and provides recommendations on actions to improve community relations.[7]

Empowering communities to assert their rights and hold duty bearers accountable for addressing their needs

Several humanitarian organisations have, through adaptations to humanitarian programmes, aimed to support appropriate engagement between conflict-affected communities and local-authority service providers to help mitigate conflict risks emanating from weak local service delivery. In Somalia, as part of the Joint Programme on Local Governance and Decentralised Service Delivery, UNICEF has worked to im-

Figure 2. The Regional Refugee and Resilience Plan (3RP) created in response to the Syria Crisis. UNHCR, the UN Refugee Agency and the United Nations Development Programme – UNDP.
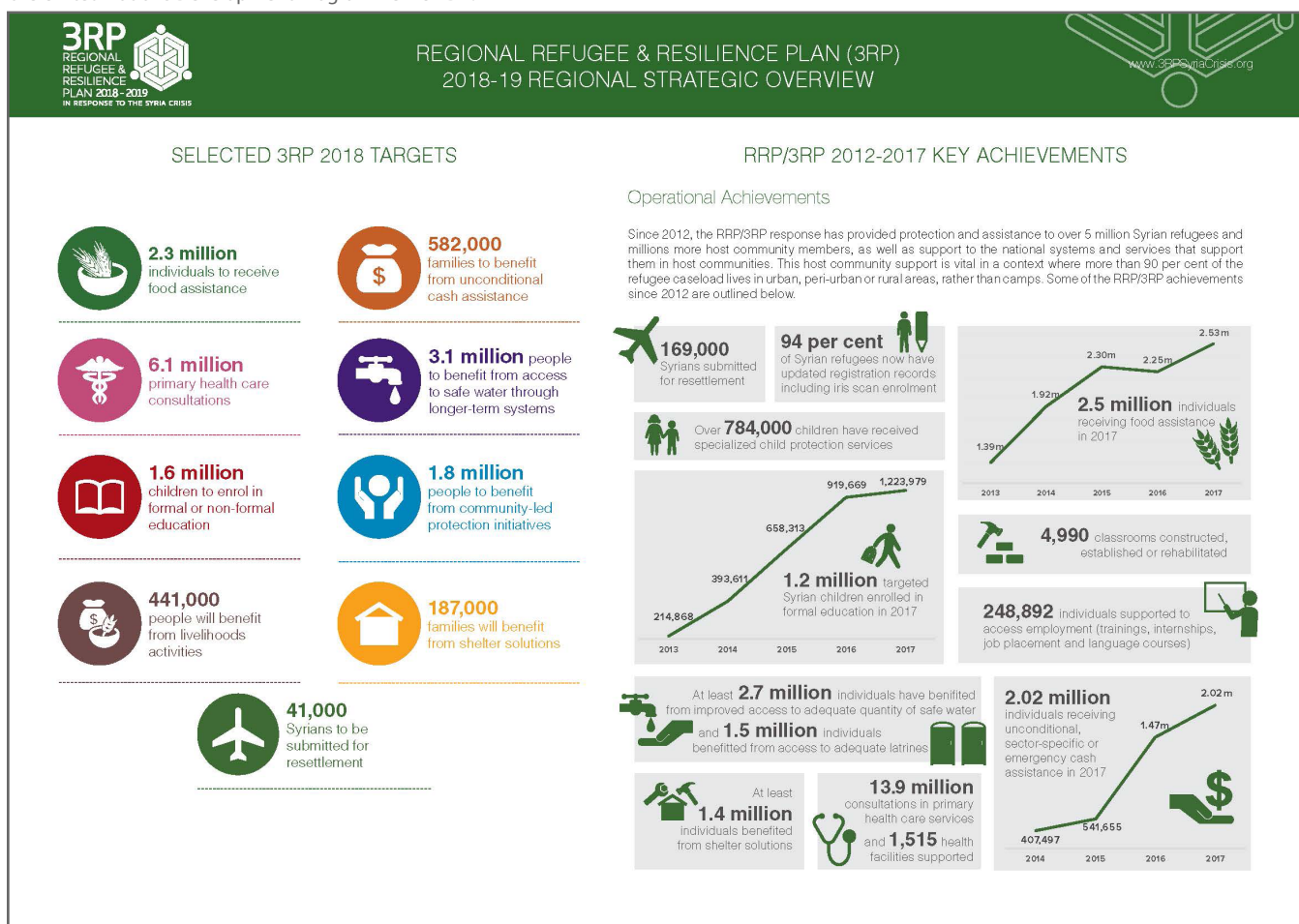
Wajir County Focus Group Discussion at Bogi Garas, Tarbaj Constituency on October 7, 2019. Interpeace

prove local government capacity for equitable service delivery in health and nutrition through participatory planning systems, reforming and restructuring village committees to include marginalised populations.

An evaluation found that the intervention made a substantial contribution to entrenching local peace by supporting the emergence of more accountable and legitimate local governance institutions that can peacefully mediate between competing and, at times, opposing demands.[8]

And in Colombia and the Democratic Republic of the Congo (DRC), Oxfam has for many years been supporting conflict-affected communities to strengthen their capacities to prevent and respond to violence and abuse and to hold local authorities to account for their protection.[9] In these examples, the contribution to peace was not direct, but rather achieved by working with and building the capacity of local governance institutions. This demonstrates that understanding local political economies is crucial to working with and supporting legitimate and functional local governance systems, which can in turn contribute to more peaceful outcomes.

Building local systems to address both acute and longer-term needs, building capacities for peace

Building local systems to address both acute and longer-term needs, building capacities for peace. Combining short and long-term aid responses can extend their effectiveness and reduce vulnerabilities, thereby helping to lay the foundations for smoother post-conflict recovery. In Yemen, the Emergency Health and Nutrition Project (EHNP), a collaboration between UNICEF, the World Health Organization, and the World Bank is supporting the national health system by financing health and nutrition services and assisting in maintaining the existing health system capacity through support and engagement of public health facilities and communities. The EHNP is also supporting national implementation capacity in a multifaceted effort to maintain the foundations for quicker recovery whenever the country is able to move towards a post-conflict phase.[10] In this way, the EHNP is contributing to not only saving lives but also focusing on system building with a long-term view

for development and reconstruction. This example demonstrates that understanding and working with local governance and service delivery mechanisms in the short term can help build systems which contribute to peace in the medium and longer term.

Building trust through humanitarian dialogue

Building trust through humanitarian dialogue. Humanitarian dialogue, such as that undertaken by the International Committee of the Red Cross (ICRC) and other specialist organisations on freedom of movement for affected people to aid and services, on safe access for humanitarian staff, to facilitate family reunification, or to exchange prisoners or the dead, is a critical tool to address acute humanitarian needs. But it can also help 'build cross-conflict contact, trust and confidence' between communities and conflict parties and among conflict parties, thereby providing an important foundation for peace dialogue at different levels.[11]

These examples demonstrate that humanitarian actors have organically adopted peace-responsive approaches because the principles underpinning peace responsiveness – people-centred, locally-led, with a long-term perspective – are highly relevant to humanitarian action, and can improve its effectiveness and sustainability. They also demonstrate that for humanitarian action, peace responsiveness is not about changing what the interventions are, but rather about making minor adjustments to how those interventions are devised, planned, and implemented, and who is involved.

Recognising the positive lessons from these examples, the challenge now is to drive progress toward strengthening the peace responsiveness of the humanitarian system as a whole. This requires a change in culture across the system, backed up with new or improved tools and greater incentives for individuals and organisations to build on progress achieved to date. It is critical for donors, policymakers, and heads of humanitarian agencies to commit to adopting this new way of working, clearly stating that peace is important and drawing on evidence and lessons learnt to articulate what being peace responsive means in different areas of humanitarian action, from food security and water, sanitation, and hygiene, to shelter and protection. To be fully put into action, this commitment must then be followed by a real shift in organizational culture and incentives, where peace responsiveness is integrated into internal funding decisions, reporting, monitoring and evaluation, and into how staff performance is assessed.
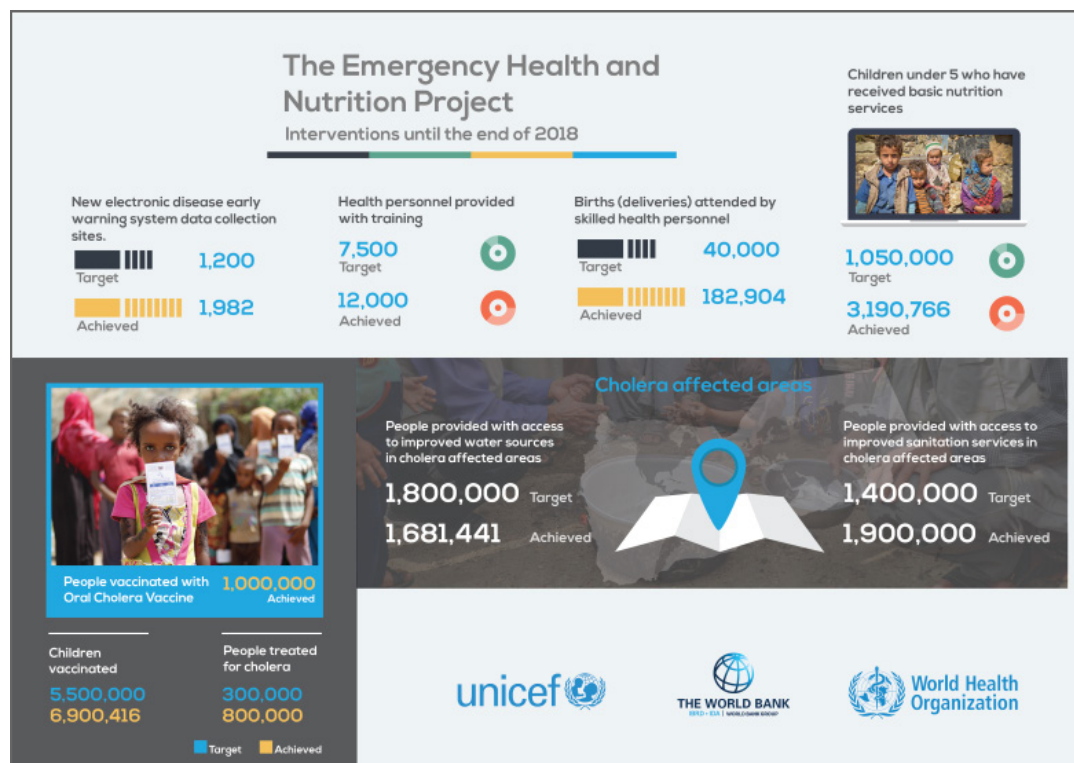

Figure 3. The Yemen Emergency Health and Nutrition Project (EHNP) Interventions until the end of 2018. UNICEF, The World Bank, WHO

This is an ambitious agenda, but an urgent one. With the growing humanitarian gap, we need more effective and collective impact which can save lives, but also decrease humanitarian need. Peace responsiveness is not a silver bullet, but can help make the international aid system more fit for purpose to deliver impact for those affected by conflict, meeting immediate needs whilst also helping to reduce need in the longer term.

A Somali refugee stands inside a tent with her baby in Dollo Ado, Ethiopia. Fleeing drought and famine in their home country, thousands of Somalis have taken up residence across the border in Dollo Ado where a complex of camps is assisted by the UN Refugee Agency (UNHCR). **Eskinder Debebe/UN**

Flexible Logistics

How flexible logistics can enhance regional resilience

**By Tia M. Ahlf, Major,
United States Air Force**

An impressive amount of collaboration toward building resilience in the Indo-Pacific is underway through organizations such as the South Asian Association for Regional Cooperation and Association of Southeast Asian Nations (ASEAN) Agreement on Disaster Management and Emergency Response, ASEAN Coordinating Center for Humanitarian Assistance (AHA) on disaster management, and national disaster management organizations across the Indo-Pacific.[1] These organizations frequently meet for workshops to analyze and identify opportunities to improve cooperation across the Indo-Pacific region. In September 2022, they met for the Asia-Pacific Ministerial Conference on Disaster Risk Reduction (APMCDRR). APMCDRR focused on building resilience across the region to better prepare for flexible response to disasters; reports mentioned the importance of investing in resilience, preparedness, adaptable infrastructures and systems, resilient communities, and inclusion of partners.[2] Resilient nations in the Indo-Pacific region require reliable and safe access to medical care, supply, transportation, security, and infrastructure. Lack of access to these critical elements during a crisis can result in the devastating loss of life. Current collaborative efforts are commendable, but

more significant regional resilience improvements are possible through flexible logistics.

Building resilience across the Indo-Pacific is more critical than ever as nations across the region continue to grow in population size, face increasing crises due to increase in occurrence of natural disasters, and feel the impact of supply chain constraints, especially petroleum supply.

The Associated Press recently reported that skyrocketing gasoline and diesel prices, fueled by Russia's war in Ukraine and the global rebound from the COVID-19 pandemic, are driving inflation across the globe.[3] People in developing countries across the Indo-Pacific are significantly impacted, lacking fuel to support local supply chain operations and access to critical, sometimes lifesaving, transportation.[4] Collaborating among government and commercial vendors to develop dispersed access to sufficient energy resources will ensure sustained operations to meet emerging demands across the Indo-Pacific.

The United States' interest in the Indo-Pacific has existed for decades and has been growing over the last five years.[5] In 2018, U.S.Vice President Mike Pence attended the Asia-Pacific Economic Cooperation forum in Papua New Guinea.[6] In 2019, Secretary Mike Pompeo was the first U.S. Secretary of State to visit the Federated States of Micronesia.[7] In 2019, U.S. President Donald Trump hosted the presidents of the Republic of Palau, the Republic of the Marshall Islands, and the Federated States of Micronesia in Washington.[8] High-level meetings between the United States and regional partner nations from the Indo-Pacific are

quickly increasing. Most recently, U.S. Vice President Kamala Harris addressed the Pacific Islands Forum, announcing plans for greater U.S. engagement with the region and acknowledging Indo-Pacific nations have not received the attention they deserve in the past.[9] The priority of strengthening U.S. partnerships across the region was echoed during the first-ever U.S.-Pacific Island leader summit hosted by U.S. President Joe Biden in September 2022.[10] Recent engagements have revealed that Indo-Pacific leaders want a commitment and continued partnership from the United States beyond competing with China.[11] A renewed interest exists across leaders in the Indo-Pacific for the United States to engage on issues such as climate change and crisis response. The United States will gain a competitive advantage by working with regional leaders to develop flexible logistics.

With its longstanding efforts toward engagement across the Indo-Pacific and the recently re-established Quadrilateral Security Dialogue (QUAD) agreement between the United States, Japan, India, and Australia, providing

Major, United tates Air Force

ient, and survivable energy logistics, from bulk strategic supplies to deliveries at the tactical edge.[12] Without access to energy, fundamental elements of regional resilience in the Indo-Pacific are not achievable. Refueling is one immediate area in which the United States can apply flexible logistics to build regional resilience. Current models of isolated bulk storage facilities present a risk, are unreliable due to distance, and are not beneficial during crisis response.

The United States needs allies willing to support the U.S. military with operational capability, and nations across the Indo-Pacific benefit significantly from the partnership with the United States. In his book, "The Kill Chain", Chris-

Importance Of Building A Logistics Network

tian Brose writes, "Washington leaders pay lip service to the importance of allies. What we [the U.S.] often convey through our actions is that allies are nice to have, but if push comes to shove, we prefer to do the hard things on our own."[13]   Partnerships establishing

Partnerships establishing an integrated logistics network across the Indo-Pacific are mutually beneficial. The United States is poised to lead and sustain collaboration across the region.

unprecedented access to partner nations, particularly India, the United States is positioned to enhance resilience in the Indo-Pacific region through flexible logistics. Logistics flexibility requires diverse access to resources and includes activities such as in and outbound shipments, manufacturing support, and resupply coordination. With logistics flexibility, governments can quickly embrace change and fine-tune individual sustainment operations to meet specific demands. Across the Indo-Pacific, dispersed access to petroleum products will ensure continued supply chain operation regardless of unexpected constraints. In 2021, The Chief of Staff of the U.S Air Force prioritized establishing flexible logistics, highlighting the importance of focusing on more agile, resil-

an integrated logistics network across the Indo-Pacific are mutually beneficial. The United States is poised to lead and sustain collaboration across the region.

Researchers have identified methods of optimizing Indo-Pacific regional resilience through logistics; all plans conclusively state that regional relationships are essential to flexible logistics and disaster response operations. In the book "Disaster Response Regional Architectures, Assessing Future Possibilities," Dr. Deon Canyon provides insights on optimizing sub-regional disaster response.[14] Dr. Canyon's research aligns with conclusions from APMCDRR and insights published by the United States Institute of Peace, revealing that relationships help to facilitate disaster response cooperation, and a network of supplies throughout the sub-region is critical to the timing of disaster response. Dr. Canyon's research participants understood the importance of international agreements and highlighted the vital importance of commitment from partner nations.[15] The tyranny of distance across the region coupled with limited supply availability heightens the importance of access to multiple options for sustaining critical logistics operations.[16] To improve issues of regional resilience, research makes clear the necessity of collaboration amongst Indo-Pacific nations.

There is a preference across partner nations in the Indo-Pacific region for the flexibility to create ad hoc, bilateral re-supply processes.[17] Bilateral agreements provide a good starting point for developing integrated logistics networks. If the United States calls upon partner nations, including India, to provide resources and supports efforts for more robust capabilities, it will not only strengthen the collective ability to deliver logistics; it will demonstrate deterrence and enhance the capacity for crisis response in the region.[18] An example of enhanced crisis response through a bilateral agreement between QUAD partners was evident in the months following the March 2011 tragedy in eastern Japan when an earthquake followed by a tsunami resulted in a nuclear power disaster in Fukushima. Response efforts demonstrated the continuing relevance of developed relations between the United States and Japan. U.S. facilities in Japan made it easier for the allies to cooperate in rescue and reconstruction, while bilateral economic and security agreements allowed for continued logistics operations.[19] Partnerships such as the one between Japan and the United States that provide resilience during unplanned response operations are strengthened by

mutual trust.

Logistics integration through collaboration founded on mutual trust requires a shift in military planning and mindset. In her book, "This Brave New World; India, China, and the United States," Anja Manuel states:

> "Military relations are the most difficult to get right, and the most likely to lead to catastrophic consequences if the United States, China, or India mismanage them. All militaries are paid to think about worst-case scenarios and then build the capabilities to protect the country if these situations materialize. Right now, this mindset dominates, and unintentional tit-for-tat actions further erode trust."[20]

Through a shift in mindset from worst-case scenario planning to focus on collaborative, dispersed sustainment options, the United States can lead the development of agreements with partner nations across the Indo-Pacific, enhancing trust and ultimately improving regional resilience.

At the country level, greater trust is associated with sustained international partnerships.[21] The book "Transfer of Technology for Successful Integration into the Global Economy," published by the United Nations, examines three cases of developing countries demonstrating their ability to establish a new industry and compete in the world market. The book includes cases of aircraft manufacturing in Brazil, pharmaceuticals in India, and the automobile industry in South Africa.[22] The success of Brazil's aircraft manufacturing sector, a highly technical venture, was due to knowledge transfers from foreign suppliers, including the United States, India, and Japan. It would not have been possible without reliance between countries.[23] The thriving automobile industry in South Africa is now owned by parent companies in the United States, Europe, and Japan.[24] The successful entry of Indian pharmaceuticals into the global market is primarily due to its significant export of generic medications to the United States and European countries.[25] Each case study outlined by the United Nations book proves the importance of agreement and international partnership for access to resources, shared success, and operational resilience. The case studies highlight instances where the specific country modified its policy to build capability, and new guidelines included a host of complementary measures to sustain, support, and protect operations.[26] The three cases illustrate the importance of inter-government policy and trust.

International collaboration across the Indo-Pacific can enhance trust and improve regional resilience. The recently developed QUAD agreement allows the United States, Japan, Australia, and India to explore new industries and develop mutually beneficial policies. The U.S. has bilateral agreements with Japan, and Australia. The QUAD will strengthen pre-existing agreements between the U.S., Australia, and Japan and can be a launch point for bilateral agreements with India and other Indo-Pacific nations. Effective change requires constant, deliberate, real-world experimentation. Regional resilience is at risk without a focus on partnerships across the region.

Current Model

A flexible logistics network with dispersed access to resources in the Indo-Pacific requires international partnership. It is likely to be disruptive for countries more comfortable with familiar logistics networks of bulk resources, including the United States. America's current bulk fuel logistics rely on centralized storage across key regional areas. The need to store massive amounts of bulk fuel has been a U.S. priority for over five decades.[27] Advocacy for stockpiling fuel began in 1944 and gained support in 1973 when Arab members of the Organization of Petroleum Exporting Countries (OPEC) imposed an embargo against the United States in response to the U.S. decision to re-supply the Israeli military during the Arab-Israeli War. In 1975, U.S. President Ford signed the Energy Policy and Conservation Act (EPCA), establishing a national strategic fuel reserve.[28]

The U.S. strategic petroleum reserve has over 720 million barrels of storage capacity.[29] The facilities are massive and complex, with multiple layers of heavy equipment requiring frequent maintenance. These facilities, constructed with a 25-year life expectancy, have faced structural challenges for years.[30] The drawdown planned before facility construction never happened. U.S. policymakers decided the oil supply

was at risk, and the reserve would remain at a high capacity with more frequent usage indefinitely.[31] The increased facility usage surpassed the design capability, and by 2010, engineers reported several risks.[32] Engineers and operators continue to document significant structural and functional consequences because of the change in operating procedures. Distortion and bulges are evident throughout the storage caverns, resulting in shrinkage and significant structural damage to cement casings and steel tubes.[33] As former Deputy Assistant Secretary for Petroleum Reserves at the Department of Energy, John Shages, states, "Like much of U.S. energy policy developed in much a different era, now is an appropriate time for a full-scale evaluation of the value and role of our strategic oil stocks."[34]

U.S. Defense Secretary Lloyd Austin echoed the importance of restructuring fuel storage and access to fuel supply in a 2022 interview with Hawaii Public Radio regarding the permanent closure of the U.S. Navy's massive (250 million gallons) Red Hill fuel storage facility that leaked petroleum into the local tap water.[35] During World War II, Red Hill served as a strategic fuel storage location for the sustainment of wartime operations in the Indo-Pacific Region.[36] During his interview, Secretary Austin mentioned efforts to move toward dispersed fuel storage, spreading fuel supply broadly across the Indo-Pacific region.[37] Defense Secretary Austin highlighted the importance of moving away from old operating methods stating, "Centrally-located bulk fuel storage of this magnitude likely made sense in 1943 when Red Hill was built, and Red Hill has served our armed forces well for many decades, it makes a lot less sense now."[38]

With current attention given to bulk fuel storage and the Red Hill fuel storage facility closing, it is an opportune time for the United States to focus on developing flexible logistics across the Indo-Pacific. Access to fuel is essential to regional resilience. Recent world events, including the COVID-19 pandemic and Russia's invasion of Ukraine, have underscored the importance of access to fuel and the devastation to daily human life, economic stability, and the ability to carry out essential operations when sources of resupply are not readily available. Policymakers must consider the impact on fuel availability during recent world events as a catalyst to prioritize dispersed access to petroleum products. There is strategic value in maintaining fuel reserves dispersed across the Indo-Pacific, continuing to expand integrated logistics, and developing alternative energy sources. With collaboration, access to a dispersed supply of petroleum products can become a viable re-supply option for the United States and its Indo-Pacific partner nations.

Win-Win for the Region

Enhancing resilience across the Indo-Pacific requires access to resources, and thus future policy must consider partner nations' resources. With the recent QUAD agreement, closure of bulk fuel storage facilities, and lessons learned from resource constraints from 2018 to 2022, the United States is positioned to enhance resilience in the Indo-Pacific region through flexible logistics by collaborating with partner nations to develop options for refueling operations.

Historically, the United States has planned for crisis response and wartime mobilization with a "go-it-alone" mindset for every worst-case scenario, assuming partners and allies are unreliable.[39] The Indo-Pacific region is expansive, and sustainment is challenging in a time of need due to the vast oceanic distance between partner nations.[40] Not only is the distance a logistical challenge, but so is the source of supply.[41] Recent history has proven that partner nations across the region are willing to support the United States and each other in a time of crisis. In August 2021, Singapore provided critical logistics support by assisting the United States in evacuating refugees from Afghanistan with their Republic of Singapore A330 aircraft.[42] Another recent example of international logistics support occurred in June 2022 when Australia shipped over 95 thousand containers of baby formula to the United States amid the supply shortage that was threatening the health of infants across the U.S.[43] These are two simple examples of the flexible logistics support possible through close international partnerships. The U.S.-Indo-Pacific strategy requires partner-nation collaboration for more flexible logistics. America's increasing incorporation of allies and partners during logistics planning will enhance flexible logistics.

Recommendations

Current partnerships across the Indo-Pacific are fundamental to the United States' ability to operate and the region's ability to respond to disasters. The United States has access to sustainment across the Indo-Pacific in locations like Guam, Japan, Korea, and Diego Garcia. The United States should prioritize partnership building with nations throughout the Indo-Pacific and make focused efforts to continue to strengthen existing relationships. The recently reestablished QUAD agreement provides unprecedented access to partner nations. As engagements with international partners in the Indo-Pacific continue, the United States should focus on developing new agreements with India and other less-explored partner nations to establish increased options for dispersed access to fuel. India's strategic location is advantageous for providing diverse refueling options for operating in the Indo-Pacific region.

In her book, This Brave New World; India, China, and the United States, Anja Manuel calls attention to India's advantage:

> "The lion's share of public attention is focused on China. We are obsessed with the Asian goliath and fear that it will replace America's preeminent power. This insecurity misses the larger picture. Due to their size and economic might, both India and China will have veto power over most international decisions, from climate change to the openness of global trade, to nuclear policy, to hu-

man rights and business norms. India will be the most important country outside the West to shape the rise of China. We must stop our hand-wringing about China and seek instead to forge harmonious relationships with both giants, and thus bravely create the new world."[44]

Harmonious relationships with both countries aside, the United States may give attention to Manuel's assertion of the might of India. To doubt the relevance of India is foolish not only due to its invaluable location in the Indo-Pacific but also considering its increasing demand for energy as its population is predicted to rise beyond that of China. India is a highly desirable hub for environmental and humanitarian crisis response coordination. The United States should focus on establishing agreements with the Indian military and civilian organizations specifically focused on cooperation through access to fuel. Refueling is achievable, measurable, and repeatable, with minimal risk of signaling a threat to China or other competitive countries. Partner nations across the Indo-Pacific do not often view collaborative sustainment efforts as a friction point, and the issue is under-explored across the region.

Ties with partners and allies cannot happen only in the military. Collaboration across industries is critical to building resilient partnerships and avoiding political misunderstandings. The United States should identify innovative methods of refueling across the Indo-Pacific by strengthening relations both commercially and militarily with partner nations through multiple sustained engagements. Sustained engagements will lead to trust and improve confidence, reliability, and, ultimately, resilience across the region.

Identifying alternative fuel sources in the Indo-Pacific will enhance the ability of the United States and partner nations to extend their reach when faced with unexpected resource constraints. Allowing the procurement of fuel at the lowest echelon of need, bypassing the bureaucratic process, will enable the United States to identify options for future resupply. As a starting point, U.S. military members collaborating with partner nations in the Indo-Pacific to identify methods of procuring fuel at the point of need will be advantageous for disrupting and improving current processes. Through engagements, agreements

U.S. Air Force Senior Airman Brandon Nelson carries a hose after refueling a C-17 Globemaster III June 30, 2014 at an undisclosed location in Southwest Asia.

Staff Sgt. Jeremy Bowcock/ USAF

can begin to take shape. Newly developed agreements must be consistently nurtured with consideration of reciprocal access and cost-sharing to build trust and develop reliable sources of supply.

Concurrently, the United States should consider action toward constructing additional dispersed fuel reserves with partner nations across the Indo-Pacific, similar to the ongoing construction in partnership with Australia.[45] A resilient network of resupply points is a win-win for the region. The U.S. establishing dispersed fuel reserves with partner nations, beginning with India, which retains less than 0.3% of the world's oil compared to the United States, which retains 2.1%, will enhance its resilience as a nation, increase response options during crises, and provide possibilities for sustainment and partnership should wartime support become necessary.[46]

Conclusion

All fundamental elements of regional resilience require access to energy. The development of alternative energy sources is imperative as our global dependence on fossil fuels is quickly depleting nonrenewable resources. However, the most traditional and common source of power generation is produced from fuel. Access to petroleum-based fuel is essential to sustain vital operations across the Indo-Pacific to-

day and for the foreseeable future. The United States can enhance regional resilience by establishing partnerships to develop flexible fuel resupply logistics. Current processes of isolated bulk storage facilities present a risk, are unreliable due to distance, and are not beneficial during crisis response. As efforts to develop renewable energy sources continue, the United States and its Indo-Pacific partners should work to establish flexible logistics networks across the region for improved resilience.

From a U.S. perspective, this is not only wise; foundational military doctrine directs it. According to Joint Bulk Petroleum and Water Doctrine, Joint Publication 4-03, "The Theater normally has some host nation assets available (i.e., fuel sources, terminal facilities, pipelines, railways, and trucks) that should be used to the maximum extent possible."[47] Identifying fuel resources and establishing flexible logistics through international partnerships is critical to increasing resilience across the Indo-Pacific region.

Higher Ground

Communities Raise up Homes—and Each Other—in Flood-Prone Bangladesh
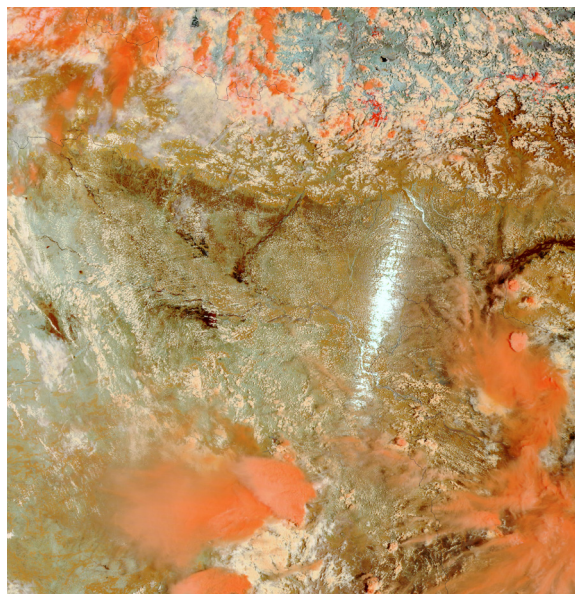
By USAID's Bureau for Humanitarian Assistance Staff

Bangladeshi students stand under an onning as it rains in Lalmonirhat, Bangladesh, June 22, 2019. Staff Sgt. Ramon A. Adelan/USAF

Left photo: **Rasheda Begum uses the "grow bag" method to plant vegetables in bags of soil so flooding will not wash them away.** CARE

Right image: **Floods in Bangladesh and India.** NASA

Most of us will experience a devastating torrent once in our lifetime, or at worst only once a decade. But the odds are much greater in Bangladesh, where almost every year floods, cyclones, and landslides put vulnerable people at risk and force tens of thousands of people to flee to safety. This year was no exception as historic floods covered over 40 percent of the country.

How do people cope when houses, livestock, and livelihoods are relentlessly and tragically swept away?

The key to Bangladesh's resilience can be found in its communities, and it goes beyond neighbors lending a quick helping hand. The United States Agency for International Development's (USAID) Bureau for Humanitarian Assistance (BHA) provided emergency assistance in response to this year's floods, but the real success story started earlier.

Many communities benefited from disaster preparation carried out by USAID and its partner CARE. Not only did they teach people how to use an early warning system piloted by USAID in Bangladesh, they also worked with vulnerable families to build something called plinths — raised mounds of earth that elevate homesteads above flood waters.

Many Feet Power Engineering Feat

The plinth-building effort began after severe floods hit Bangladesh in 2019. Guided by USAID and partners, the process featured community consultation and engagement in which village development committees lobbied for the availability of soil and decided where it should be sourced, being careful to protect the environment. Members of vulnerable households were hired as laborers in line with a Government of Bangladesh short-term labor plan. This USAID-funded cash-for-work project had two benefits: In the short term, it provided an income to families who had lost everything; in the longer term, the plinth-building process helped prepare them to be more resilient to future floods.

Abdul Halim Akhond, a mason from the Gaibandha District helped build many plinths and is grateful for the opportunity. "I am so thankful to be given the chance to use my skills to help not just raise the plinth for my house but to work for other people in the village to raise their houses, too," he said. "I have been through this disaster myself and the only way to give back is to help others."

Once the community and the local government gave their approval, surveyors laid out the plinth sites. Then the community dug in, using only materials and equipment available locally: shovels, wheelbarrows, baskets, bamboo sticks, and concrete hammers to compact the soil. Village workers harvested soil from dried canals, ditches, ponds, and unused land and carried it in bamboo baskets. It took about

Top photo: **Aerial photo shows the extensive damage left in the wake of Tropical Cyclone Sidr in Bangladesh.** Sgt. Ezekiel Kitandwe/USN

Bottom photo: **Community members in Habiganj District wade through floodwaters in July 2020 in search of food and other necessities. Inundated roads have hindered access to facilities and essential services.** CARE

Neighbors Helping Neighbors

Those with homesteads on plinths opened their homes to neighbors whose homes had flooded — a welcomed lifeline for families worried about staying in crowded evacuation centers during the COVID-19 pandemic.

"People's lives are in danger with the ongoing flood. They come to take shelter when they have nowhere else to go," said Rehana Begum, a program participant from Bakshiganj in Jamalpur District. "I have taken in my neighbor's family with their cattle and a small child."

The newly raised plinth came as a great fortune for Shukhi Begum from Islampur in Jamalpur, as well as for the neighboring families she invited to stay with her.

"During the flood, young children may go into the waters and fall sick," said Shukhi. "I told my neighbors that my door is open for them to take shelter during the floods."

Building Plinths Builds Resilience

In addition to constructing plinths, USAID and CARE worked with communities to change farming practices to make them more resilient to flooding. For example, they taught families how to grow vegetables in portable "grow bags" that can be moved out of the way of rising floodwaters and help ensure that families continue to have enough to eat.

Rasheda Begum knows what it feels like to face hard times. She was forced to sell her family cow, a source of income, to pay for an unforeseen medical emergency. Then, flooding brought a deluge of mud into her home in Nama Para village in Kurigram. With her neighbor's help, she cleaned the place up and did minor repairs to make it habitable. With USAID and CARE assistance, neighbors placed her house on a raised plinth where she now lives with her family. She also received support to plant vegetables to eat and to sell, enabling her to get a fresh start.

"What is important is that with our house being raised, we worry no more for our survival whenever a disaster like this would come," said Begum. "Little

Two women with their young children take shelter at a neighbor's house as their own homes were damaged due to flood water. CARE

nine days to complete a plinth taller than the highest flood level recorded in the past 30 years.

Just how big are these elevated plots? An average plinth measures about 1,200 square feet — large enough for a house for a family of six with enough space for a small vegetable garden and a livestock pen. This also helps ensure that a family's ability to earn an income is not washed away with the flood waters.

As part of the 2019 flood response, USAID and CARE raised plinths for 1,744 households, or about 10,500 people. The earthen foundations were put to the test when flooding again engulfed northern Bangladesh in July 2020, affecting at least 30,000 families in low-lying areas. In the immediate flood zone, these plinths helped protect about 5,500 families as well as their livestock and belongings from being lost. Even more critical: Families were able to keep emergency supplies — such as food, matches, and soap — dry during the floods.

by little, I know we can get back on our feet again. I am grateful that we are intact, and my children serve as my inspiration to move forward."

The plinths have been so successful that the government is now working to replicate the plinth-building program so even more Bangladeshis can benefit.

"These raised plinths will help the char dwellers for years to come," said Gaibandha District Relief and Rehabilitation Officer AKM Idris Ali.

> **What is important is that with our house being raised, we worry no more for our survival whenever a disaster like this would come. Little by little, I know we can get back on our feet again.**

CARE

CARE

IMPLEMENTING THE GLOBAL FRAGILITY ACT: WHAT COMES NEXT?

BY SUSANA CAMPBELL AND CORINNE GRAFF, PH.D.

U.S. Embassy plans and programs are likely to yield results if the focus is on innovation — not just expenditure.

A destroyed building in Borodyanka, Ukraine.
Mikael Colville-Andersen

A U.S. Air Force aircrew assists evacuees boarding a U.S. Air Force C-17 Globemaster III in support of the Afghanistan evacuation. Senior Airman Taylor Crul/USAF

Amid the ongoing crisis in Ukraine, the Biden-Harris administration has quietly released a new policy that commits the United States to do more to "interrupt potential pathways to conflict" and reduce threats before they arrive on our shores. This new initiative comes at a difficult time for the United States and the world, given the full-blown crises that require the international community's urgent attention, from COVID-19 to the climate crisis. Still, it represents an unprecedented and promising commitment at the highest levels of our government to apply the important lessons learned from decades of U.S. involvement in conflicts in Afghanistan, Iraq and elsewhere.

Realizing the policy's ambitious vision for a more peaceful and stable world, however, will require not only the new investments in peace and stability provided by Congress for this initiative, but also innovative diplomatic and programmatic efforts on the

"[The GFA] represents an unprecedented and promising commitment at the highest levels of our government to apply the important lessons learned from decades of U.S. involvement in conflicts in Afghanistan, Iraq and elsewhere."

ground in the affected countries.

The new policy advances the Global Fragility Act (GFA), an ambitious U.S. law that makes preventing conflicts and promoting stability in countries prone to widespread violence or conflict a U.S. foreign policy priority. The legislation outlines peacebuilding lessons learned that federal agencies should adhere to, including better aligning U.S. diplomatic, development and security efforts, deepening cooperation with our international allies and partners in fragile states and designing more nimble approaches that engage civil society. The law provides new funding for U.S. peace and reconciliation programs overseas, which have been woefully under-resourced. It also removes burdensome congressional requirements — like sector-specific earmarks — that have hamstrung U.S. diplomats and aid workers in the past, preventing

Evacuees load on to buses to be processed during an evacuation at Hamid Karzai International Airport, Kabul, Afghanistan. Sgt. Isaiah Campbell/USMC

them from effectively targeting the causes of conflict or operating in a conflict-sensitive way.

President Biden's endorsement of the GFA approach last week and the administration's announcement that the United States will partner with countries to advance peace and security under this new framework is an important milestone. Doing more to prevent the worst impacts of civil wars around the world is not only the right thing to do — it is imperative to fostering international peace and security. Armed conflict has devastating consequences, driving 80 percent of humanitarian needs, historic levels of forced displacement and an estimated $14 trillion per year in economic losses globally. Civil wars, even in distant places, risk embroiling the major powers in a hot war, and conflict zones provide safe haven to terrorist networks.

What Comes Next?

Turning the GFA and new administration policy into concrete results on the ground will be challenging. What comes next will hinge, to a large extent, on the actions of U.S. ambassadors, USAID mission directors and their teams on the ground, who are required under the GFA to lay out a 10-year vision for supporting partner efforts to promote stability. This may sound straightforward now that a policy framework has been endorsed by the president and funded by Congress, but executing this mandate will require embassy officials to adjust the standard operating procedures that have often gotten in the way of achieving results on the ground.

What do we know about how field missions can effectively promote peace and security in vulnerable countries? Our own research and experience suggest that specific approaches and programs can increase the likelihood of success. One of us has conducted over 20 years of research across four conflict-affected countries on how the country teams of international aid organizations manage successful peacebuilding efforts, and the other has years of experience overseeing such efforts in Washington. Our findings and experience suggest that the following sets of actions can increase the odds of success.

Think and Work Politically

First, how field missions design, implement and monitor aid programs is critical, not just what type of aid they allocate. Thinking and working politically requires that country plans, diplomatic efforts and programs be informed by an up-to-date political settlement analysis. When conducting this analysis, it is important to focus not only on the broad political settlement or political economy, but the manifestation of these political factors in the specific institutions and systems that it aims to work with. For example, if an effort involves working with the security sector, the analysis needs to focus on the political dynamics that are manifest in security institutions.

One-off conflict or political economy analyses are insufficient. Effective country teams go one step beyond conducting rigorous analysis — they use their analysis to inform program design across the entire field office's development and security assistance portfolio. This analysis needs to be regularly updated and revisited in decision-making meetings that bring together key diplomatic and programmatic staff, arming them with updated data about the evolving context and the effectiveness of programs in this context. In other words, the best analysis and monitoring data are relatively ineffectual if they are not regularly assessed by key mission-level decision-makers, who can learn from them and decide how to take action.

Furthermore, external analysis is never sufficient. Effective organizations regularly consult different stakeholders in the recipient country and work with these stakeholders to update their analysis and understanding of the evolving context. These types of consultative partnerships are necessary for field missions to understand what they should do to prevent violent conflict, and how they should do it.

Create Local Accountability to Improve Impact on the Ground

Once the baseline analysis, evidence-based decision-making structure and consultative partnerships have been put in place, successful

missions often also establish local accountability mechanisms that give a representative group of stakeholders the responsibility to monitor the effectiveness of their programs and make recommendations as to how to improve them. Aggregate indicators that monitor an aid organization's performance across countries, no matter how smart these indicators are, will not enable local accountability or, consequently, support improved conflict prevention or peacebuilding performance. Instead, local accountability helps to correct for the inherently top-down nature of all international aid, and provides staff with regular analysis about the success or failure of programs, as well as the country's evolving institutional context. It can also boost the buy-in and trust of domestic actors and partners in the recipient country whose support is essential for achieving and sustaining the success of the program.
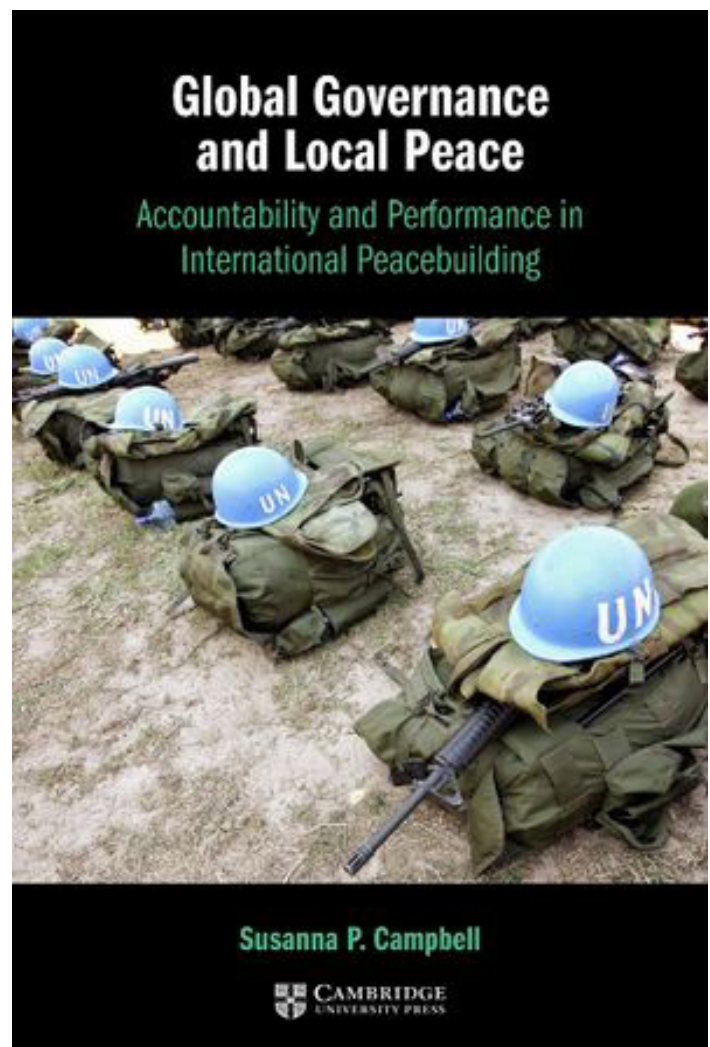
For example, a U.N.-supported dialogue program in Burundi created local accountability when it gave a diverse group of dialogue participants the authority to monitor the dialogue process and report on its success and failure. In another example, a risky security-sector reform program conditioned the disbursement of funding tranches on a positive evaluation by a highly respected local human rights organization. These examples demonstrate that field offices can be more effective when they work with government, civil society and community leaders to ensure that they receive regular feedback about what works via local accountability that gives these domestic actors the authority to hold field offices accountable for achieving their conflict prevention and peacebuilding aims.

Integrate Diplomacy and Assistance

Establishing conflict-sensitive decision-making processes and local accountability requires that aid agencies supersede internal bureaucratic silos and integrate any diplomacy and assistance capacities at the country level. The disaggregation of diplomacy and development teams in overseas missions is a relic of a time when development was thought to take place in relatively apolitical contexts. These contexts rarely exist, in general, and they certainly do not exist in the GFA focus countries.

The goal of closer integration is to enable the rest of the development and diplomatic capacity in the mission to operate in a more flexible and conflict-sensitive manner. While co-locating diplomacy and development units and creating cross-embassy working groups is helpful, it is unlikely to be enough. Susanna Campbell's findings consistently show that the key to creating a "one post, one mission" mindset that prioritizes conflict-sensitivity is senior leadership. Under mission leadership that prioritizes and incentivizes an integrated approach, units can establish the type of evidence-based decision-making and local accountability structures that enable conflict-sensitive design, implementation and accountability.

Global Governance and Local Peace
Accountability and Performance in International Peacebuilding

Susanna P. Campbell

CAMBRIDGE UNIVERSITY PRESS

A U.S. Agency for International Development worker serves in a Disaster Assistance Response Team (DART). USAID's Office of U.S. Foreign Disaster Assistance helps people affected by natural disasters and complex emergencies around the world. Scott Fontaine/USAID

Establish Flexible Contracts Based on Inclusive Partnerships

The nature of aid contracts is one of the greatest barriers to the conflict-sensitive approach outlined above. Many aid organizations operate on the basis of contracts, delegating the implementation to sub-contractors. Not only is this an obstacle to ensuring all programs across a mission's portfolio are conflict-sensitive, but it undermines the prospect of partnerships with national and local stakeholders that the GFA calls for. When establishing contracts, it is difficult to outline exactly how the program will need to adapt to the changing dynamics in the recipient country, in part because those dynamics are not known. Instead, rigid contracts often prevent the program from adapting to changing dynamics or new information it receives from stakeholders participating in or observing the program. Sub-contracting organizations are wary of providing information about failures, inhibiting the funding organization from learning what works or adapting its programs in real time. In other words, it undermines the type of evidence-based, conflict-sensitive decision-making systems described above.

Reliance on sub-contractors also puts the knowledge, expertise and relationships in the hands of the sub-contractors. This prevents the funding agency from benefitting from the type of trust and buy-in created by local accountability systems, undermining the funder's understanding of the evolving context and its ability to create the type of longer-term inclusive partnerships envisioned in the GFA.

For example, CARE Austria developed a more flexible approach in conflict-affected Burundi, where the organization worked directly with its partner, CARE Burundi, to establish the terms of the contract and hold regular debriefing sessions with the CARE Burundi team about what was working, what wasn't working and what needed to be changed. CARE Burundi, in turn, established local accountability mechanisms with the communities that it worked with by ensuring its staff people regularly consulted with a range of beneficiaries, civil society actors and government officials with whom they worked and discussing these findings with key decision-makers in the organization and with CARE Austria. CARE Austria views itself as accompanying CARE Burundi

in its work, rather than only ensuring that it complies with CARE Austria's demands and pre-existing program plan.

Likewise, the Swiss Peace and Human Rights Division often carefully selects the local civil society organizations who they invest in and consult with over multiple years, at times several decades. They invest in the core funding of these organizations, enabling them to survive in an increasingly difficult funding environment, and engage with these civil society actors and a broad range of other stakeholders in regular political analyses of the evolving context and of the Swiss government's effectiveness in these contexts. This is only possible via flexible contracting arrangements and accompaniment-focused, rather than compliance-focused, accountability.

The GFA is an opportunity for innovation — not just new program funding. In many places, U.S. embassies and USAID

"AN OPPORTUNITY TO INNOVATE, CONTINGENT ON ADEQUATE STAFFING."

missions face a shortage of staff. The GFA's biennial reporting requirement is an opportunity for U.S. federal agencies and their staff overseas to demonstrate why staffing shortages stand in the way of more effective U.S. policy in fragile states, putting the world — and American citizens — at increased risk from threats that spill over borders. Understanding local power and security dynamics, and developing appropriate approaches for engaging with them, is staff intensive. Ultimately, while the new policy is an important step, without the necessary staff needed to carry out the innovative work that the GFA calls for, we are unlikely to see a peace dividend from this effort.

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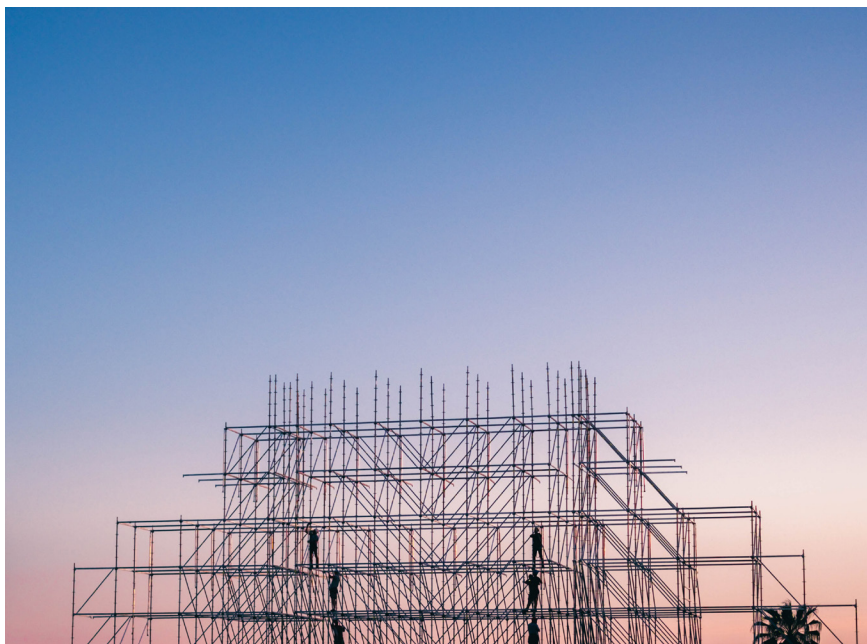

Photo by Igor Starkov

Building Resiliency in Communities and Health System Strengthening

BY STEPHANIE LIU,
PUBLIC HEALTH
PROGRAM SPECIALIST
AT CFE-DM

Greater emphasis in health system resilience has evolved following major crises such as the ongoing COVID-19 pandemic, extreme weather events, and natural and manmade disasters in the Asia-Pacific. These events continue to impact the health of populations at risk. When a disaster strikes, health care systems can immediately be overwhelmed with initial surge responses and sudden increases in demand for emergency medical services. With the focus of emergency response, health care services often neglect or delay the treatment of non-life-threatening health conditions that impact populations at risk. Complicating matters, rural communities are an at-risk population that are heavily impacted by natural disasters and often have different health care needs compared to their urban counterparts.[1] This article addresses the root causes of health emergencies following natural disasters, building resiliency in vulnerable populations, and the role of the Health Emergencies in Large Populations (HELP) Workshop in responding to population-based needs during a public health emergency.

Root Causes of Health Emergencies and Why It Is Important to Address Them

Global disaster epidemiological patterns indicate that Asia has the highest frequency of natural disaster occurrences, chief among them earthquakes, cyclones, and flooding.[2] Climate change induced disasters are increasing in frequency and severity which may lead to a zoonotic spillover event of emerging or re-emerging illnesses. Disasters can disrupt health care services such as dialysis treatments, cause food shortages, pollute the environment, and affect survivors' physical health and emotional well-being. Several root causes of health emergencies are categorized depending on the disaster typology such as geophysical, meteorological, and hydrological. For instance, populations impacted by an earthquake may experience infectious diseases, respiratory infections, diarrhea, communicable diseases, and waterborne infections when living in cramped conditions such as temporary shelters. Flooding can cause mold to thrive in a damp environment and it could cause respiratory illnesses if not removed quickly. Lastly,

cyclones or typhoons may lead to water security issues, communicable diseases such as upper-tract respiratory infections, and vector-borne diseases such as dengue and malaria from pools of stagnant water. Populations may also not experience the immediate health impacts following a disaster; however, health emergencies may emerge if underlying root causes are not addressed.

Rather than only focusing on treating individual patients for disaster-related illnesses, it is imperative to address the root causes of the illness as it impacts a larger population. To address these root causes and mitigate health emergencies from becoming widespread, relevant actors should collaborate to build readiness, identify and reduce potential health risks and consequences, and build core public health and health system capacities. Public health and disaster management agencies should collaborate with relevant communities, organizations, and government actors during preparedness planning in order to respond immediately and effectively to potential health threats. The readiness of these actors can lead to long-term stability of preparedness efforts and bolster the immediate response to future health emergencies. Critically, public health data contributes to the robustness of disease monitoring and surveillance system, which enables potential health risks to be detected and prevented prior to becoming a health emergency. To build core public health and health system capacities, countries may utilize the World Health Organization's (WHO) 2005 International Health Regulations (IHR)[3] as a reference tool or collaborate with WHO to evaluate, develop, and strengthen the health system capacities.

Resiliency Through Preparedness in Communities

Continuity of heath care is often disrupted during and after a disaster, which may then cause unmet health needs in vulnerable populations. This often applies especially to rural populations not residing close to urban areas or more accessible regions. This can lead to an inequitable burden of health care disparities and present a unique set of disease patterns compared to their urban counterparts. Rural

communities are often characterized by populations of extreme ages, living in remote areas with endemic poverty and low levels of education. The U.S. Department of Health and Human Services Health Resources and Services Administration characterizes medically underserved areas based on inherent disparities in health care provider to population ratio, infant mortality rate, the percentage of population living at less than 100% of the federal poverty line, and the percentage of the population aged 65 or older.[4] Other at-risk populations include women, children, and persons with disabilities. For example, women and children have been 14 times more likely to die during a disaster compared to men and are more likely to be victims of domestic and sexual violence following a disaster.[5]

What can communities do to ensure they are prepared? Public health and disaster risk reduction interventions should strive to ensure a resilient and prepared community. These measures aim to prevent and minimize the risks that might contribute to the onset of a health emergency. Resiliency can be built at the individual, community, and health system level. The individual or household level focuses on individual health and disaster risk literacy (an individual's ability to understand one's medical symptoms and treatment plan and to understand disaster warnings and evacuation plan) and to ensure all vaccinations are up to date. Additionally, individuals should ensure they have access to clinics and awareness of vaccine preventable diseases. At the community level, organizations may disseminate health and disaster-related preparedness information through education and community outreach. Medical services such as clinics and hospitals should ensure stocks of essential drugs and vaccines are available. At the health system level, health should be considered and included in disaster contingency plans and policies and implemented through training and exercises with a focus on health emergencies and disaster management response. Other preventive measures include to activate timely early warning systems and establish routine vaccination programs. Mass vaccination campaigns may be implemented to build the resiliency of the community, which will require a multisectoral coordination approach to ensure ac-

A volunteer hands over a relief pack to a woman whose life and home was severely devastated by floods. Bangladesh Red Crescent Society

countability and validity of actions. There are also other preparedness interventions healthcare practitioners may choose from. For example, a 2020 article in the British Medical Journal on Global Health discusses the development of a resilience checklist for infectious disease outbreaks and natural hazards based on experiences from Bangladesh's health system. The checklist is an important first step in improving health system resilience; however, additional research and resources will be necessary to pilot the checklist with frontline health care workers and facilities which would be tasked with using it.[6]

To further build resilience in communities, developing a more resilient health system is necessary. Past and recent outbreak experiences have demonstrated countries with strong health systems were able to adapt and respond to population health needs. WHO's Monitoring the Building Blocks of Health Systems Framework[7] identified six core building blocks consisting of leadership and governance, health information, health financing, health workforce, medical products, and service delivery. These building blocks are interrelated and interdependent. To enable long-term stability and achieve sustainable outcomes, efforts must enhance the interactions between each building block. This includes a regular review of the system's performance, continuous process of improvement, apply changes to policy to improve access to health care services, and to ensure quality and efficiency of the health system. Health system strengthening tools enable countries to prevent, detect, and respond to potential health threats. A few of these tools include but are not limited to the WHO's 2005 International Health Regulations (IHR), the State Party Self-Assessment Annual

Thai Red Cross personnel prepare to distribute relief to households that are stuck in stagnant flood waters in October 2022. Calum Stokes/IFRC

Reporting (SPAR)[8], and the Joint External Evaluation (JEE)[9]. The IHR (2005) serves as a monitoring and evaluation framework to assess a country's health system, the SPAR measures a country's capacity for health services, and the JEE is a voluntary process to evaluate a country's capability and capacity to meet the IHR criteria.

Role of the HELP Workshop

In a September 2022 health systems resilience study, improved preparedness as well as strengthening organizational capacity and learning were identified as key strategies for building resilience. Preparedness by health actors is critical for resilience, in order to be aware of and to better prepare for crises.[10] Health Emergencies in Large Populations (HELP) Workshop is one example of a capacity building initiative aimed at better preparing health actors for public health emergencies. HELP workshop provides a platform to develop the knowledge, skills, best practices, and professional ethics that multidisciplinary stakeholders will need in effective decision-making in response to population-based needs during emergencies. The Public Health Program at the Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM) annually hosts a HELP workshop in partnership with the International Committee of the Red Cross (ICRC) and the University of Hawaii. The aim of this workshop is to aid in the preparedness of public health actors, medical and disaster management professionals from Ministries of Defense, civilian agencies (e.g. Ministries of Health and National Disaster Management Agencies), humanitarian organizations, and academic institutions. Employing a multidisciplinary public health approach, participants collaborate with one another, faculty, and facilitators to assess and analyze humanitarian and health interventions for at-risk populations. HELP enables stakeholders to be prepared to both respond and build resilience in populations in the midst of disasters.

The HELP workshop was originally conceptualized in Geneva, Switzerland in 1986 by the ICRC. Begin-

Twenty-nine participants from 15 nations gathered at the East-West Center located at the University of Hawaii at Manoa to participate in a two-week workshop, Health Emergencies in Large Populations, hosted by the Center for Excellence in Disaster Management and Humanitarian Assistance in partnership with the International Committee of the Red Cross and the University of Hawaii.
Aiyana Paschal/DoD

ning in 1997, CFE-DM became an official ICRC HELP partner and began to teach the workshop to a unique combination of civilian and military first responders from the Asia-Pacific.[11] To celebrate the significant accomplishment of preparing professionals for these unique challenges for over 25 years, CFE-DM conducted an interview with Dr. Rudi Coninx. Dr. Coninx is a former member of the ICRC who not only attended the inaugural HELP course as a participant, but later went on to join the WHO and help develop training material for the workshop.

"The HELP course is looking at how humanitarian emergencies evolve, and the program adjusts to that," said Dr. Coninx. "I think that today if you want to know what are the overall issues that you will be faced with in humanitarian missions as a humanitarian worker in less than two weeks, the HELP course is the place to go."

Moreover, CFE-DM is the only military-affiliated organization to host the workshop. Participants of the workshop include military members as well as professionals from civilian backgrounds. Dr. Coninx says that because of the increased involvement of militaries in humanitarian assistance, this type of civilian-military collaboration is vital.

"You see more and more military involved in humanitarian actions and NGOs involved as well, and quite often they have different views and visions so it's important to get to know each other and get along so in that sense its actually quite good to make sure the [civilian-military cooperation] concepts are in this course and are available to both military and non-military," said Dr. Coninx.

In addition to giving participants the opportunity to build lasting relationships with relevant collaborators, the HELP curriculum also provided a basic understanding of public health issues when responding to health emergencies, protection of civilian topics, and professional development skills. Topics covered in the curriculum include but are not limited to water and sanitation, nutrition, health systems, epidemiology, communicable disease, non-communicable diseases, and international humanitarian law.

"The aim [of HELP] is to prevent outbreaks and save resources," says Dr. Coninx. "It looks at how can we address the root causes and how can we provide the most benefits for the most people as opposed to treating individual patients. Which is of course very important but if you deal with large groups you have to have a different approach." Furthermore, HELP provides participants the resources, tools, and skills to respond to health threats and manage public health impacts of disasters.

> *The aim [of HELP] is to prevent outbreaks and save resources. It looks at how can we address the root causes and how can we provide the most benefits for the most people as opposed to treating individual patients.*

Conclusion

The COVID-19 pandemic highlighted that many countries do not have a resilient enough health system to be able to respond to public health emergencies effectively. Member states, as signatories to the IHR (2005), are obligated to strengthen core capacities in response to public health emergencies. However, the COVID-19 pandemic found the efforts of many countries, both rich and poor, to be woefully inadequate.[12] For a community to be resilient in a public health emergency, further training and research is necessary to understand the health disparities and needs of populations at risk. Furthermore, underlying root causes of health emergencies should be addressed in order to prevent potential health threats. The HELP workshop is one example in which practitioners have an opportunity to practice, engage, and exchange knowledge to prepare for and respond to populations-based needs in a public health emergency.

FIGHTING A FORMIDABLE ENEMY AMIDST A CRISIS

Sri Lanka, an Indian Ocean island nation, is no stranger to disasters. Its complex socio-economic and political ecosystem has been plagued by numerous disasters of varying magnitude and frequency. From the 2004 Asian Tsunami to the 2019 Easter Sunday terror attacks, Sri Lankans have been victimized by a complex fusion of natural and man-made disasters.[1]

However, the trends are changing, and we are witnessing a surge of biological hazards compounded by concurrent natural and man-made crises. The best example could be the COVID-19 pandemic which tested the resilience of every known response system in Sri Lanka. The recent foreign reserve crisis and subsequent economic meltdown has further complicated this complex humanitarian crisis. Moreover, the cascading impacts of these multi-hazard scenarios on the vulnerable population of Sri Lanka are difficult to comprehend.[2] This situation could be regarded as a perfect breeding ground for another invisible yet deadly enemy: dengue!

Dengue, the silent assassin

Dengue, a mosquito-borne viral disease, is endemic to Sri Lanka. The first case of dengue in Sri Lanka was recorded in the early 1960s and cases have been steadily rising since. The magnitude and frequency of dengue outbreaks have risen exponentially in the late 2000s. Sri Lanka recorded its worst dengue epidemic in 2017, with over 180,000 cases which corresponds to an incidence rate of 865.9 per 100,000 population and nearly 440 fatalities at a Case Fatality Rate (CFR) of 0.24 percent.[3] As of early October 2022, nearly 60,000 suspected dengue patients have been reported across the country with over 50 fatalities.

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CIVIL MILITARY COOPERATION FOR DENGUE OUTBREAK MANAGEMENT IN SRI LANKA

By Dr. Lahiru Kodituwakku, Disaster Management Focal Point Medical Officer National Dengue Control Unit, Ministry of Health, Sri Lanka

Apart from the human cost, the impact of dengue on the ailing economy and health system is substantial. The total cost of dengue control and reported hospitalizations was estimated at US$ 3.45 million in the Colombo district in 2012.[4] Hence, dengue is increasingly posing a significant threat to the fragile socio-economic and public health structure of Sri Lanka. Furthermore, such a threat emerging amidst the pandemic would be disastrous to the exhausted and resource-constrained Sri Lankan health sector.

Therefore, a robust dengue prevention and control programme, strengthened by the provision of evidence-based patient care at hospitals across the country, is the need of the hour. Since there is no definitive treatment or an efficacious and safe vaccine for dengue yet, prevention, timely referral, early diagnosis, and prompt treatment are the only viable options left to counter this menace. To achieve this task, the National Dengue Control Unit (NDCU), the focal point for dengue prevention and control in Sri Lanka, has envisioned two outcome objectives: The first is to achieve a case incidence below 100 per 100,000 population by 2023 and the second is to reduce and maintain CFR below 0.1 percent by 2023.[5] This is no easy task.

Although Sri Lanka is fortunate to have an extensive public health system spanning all communities and geographical regions from the national to the grassroots level, prevention and control of dengue nonetheless represents a substantial challenge. The disease has a seasonal variation, usually peaking during the two monsoon seasons in Sri Lanka, along with sporadic outbreaks around the island. Further, tropical weather and climatic conditions in the country favour the breeding of Aedes mosquitoes, the vector which carries the disease. Aedes mosquitoes are container breeders, requiring water to complete three out of four stages of their life cycle. Moreover, disease is intricately connected with human behaviour, as well. Haphazard disposal of waste, lack of environmental cleanliness at the household level and water collection and storage exposed to the elements will facilitate dengue mosquito breeding.[6,7] Vulnerable localities such as schools, construction sites, places of worship, and public spaces where large congregations of people are present at any given time have become sources of dengue transmission.[8]

Therefore, dengue prevention and control are not tasks that could be effectively achieved by health authorities alone. Having realised the importance of cohesive action among different stakeholders in dengue prevention, a multi-disciplinary platform for programme implementation was formed as early as 2010. Headed by the President of the Republic, the 'Presidential Task Force for Prevention and Control of Dengue (PTF)' was established to liaise with different stakeholders, including armed forces and police, ministries, provincial councils, and local government. This common platform created at the
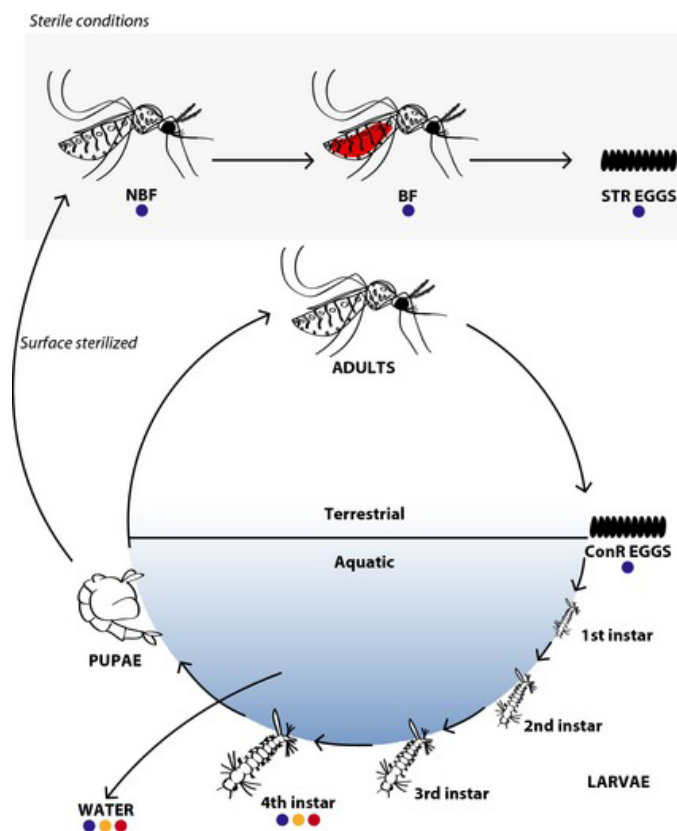

Figure 1. Life cycle of Aedes aegypti, Anopheles gambiae and Georgecraigius atropalpus. Each species oviposits eggs that hatch in aquatic habitats where the larval-stage feeds and acquires bacteria that colonize the digestive tract (Graphic by Kerri L. Coon, Kevin J. Vogel, Mark R. Brown And Michael R. Strand as part of their article "Mosquitoes rely on their gut microbiota for development"

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"A ROBUST DENGUE PREVENTION AND CONTROL PROGRAMME, STRENGTHENED BY THE PROVISION OF EVIDENCE-BASED PATIENT CARE AT HOSPITALS ACROSS THE COUNTRY, IS THE NEED OF THE HOUR."

central level flows through the provincial, regional and community levels, as well.[9]

Hand in hand with those in uniform

The Sri Lankan Armed Forces, together with the Police, play a major role in the prevention and control of dengue through their proactive involvement in the PTF. In addition to their role as a competent disaster response and humanitarian relief provider in emergencies and crises across the board, the armed forces are called upon to assist and supplement the emergency dengue outbreak management and routine source reduction campaigns at the grassroots level. This involvement goes beyond their conventional mandate in crisis situations, incorporating other important aspects of dengue prevention, including community engagement, public awareness, and intersectoral collaboration.

Every year the NDCU organises two national-level special mosquito control programmes, before the onset of monsoons, spanning the period of a week. The objective is to clean and remove the sources of mosquito breeding before the onslaught of monsoonal rains, which facilitate breeding. This includes the following key activities:

1) House to house inspections conducted in

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high-risk localities to identify and remove probable and positive mosquito breeding sites (source reduction)

2) Inspection and cleaning of high-risk premises such as schools, construction sites, public spaces, and places of worship

3) Community engagement through mass scale cleaning campaigns ('Shramadana') and public awareness

This nationwide programme is organised by the NDCU in collaboration with the Office of Chief of Defence Staff (OCDS) and Environment Protection Division of Sri Lanka Police. The entire programme is conceptualised under the mandate provided by the PTF for intersectoral collaboration and coordination. It follows a methodical and evidence-based work plan as follows:

1) Identification of dengue high risk Medical Officer of Health (MOH) divisions (grassroots level public health units responsible for prevention and control of infectious diseases) following a risk stratification criterion

2) Planning meeting between technical staff at NDCU and focal points from Sri Lanka Army, Navy, Air Force, Police and Civil Defence Force to discuss the cadre allocation, resource mobilisation and supervision of the programme

3) Dissemination of details of focal points of the health sector and armed forces between two parties to facilitate coordination. Pocket meetings between sector commanders and regional epidemiologists in respective areas are facilitated

4) An Operations Centre (Ops Room) is established at the NDCU with participation of both parties to coordinate programme implementation and gap identification at the field level.

5) A hotline is established for communication with grassroots level public health workers and regional and sector commanders of armed forces

6) A daily post programme briefing is conducted, followed by dissemination of a daily summary to supervising officers

7) Results of the programme are disseminated among all the relevant stakeholders identified under the PTF for early action

8) A review meeting is conducted with the participation of focal points from the health sector and armed forces for future programme improvement

This methodical approach for Civil-Military Cooperation (CIMIC) in dengue outbreak preparedness and mitigation was put to the test in September 2022 as the surveillance systems indicated a gradual rise in dengue cases across the country. Accordingly, NDCU together with OCDS organized a special dengue prevention and control campaign in four vulnerable provinces. This included the Western province, which is responsible for nearly 50 percent of the country's dengue burden. During the programme, over 60 high-risk MOH areas were covered, including the Colombo Municipal Council area which is the main commercial hub of Sri Lanka.

Putting words into action

Each MOH was strengthened with a field mobilization team of 20 officers/cadre from tri forces/police/Civil Defence Force and 10 members of the public health team. An entomological survey was conducted in the area prior to the inspection. Every household was visited by three members of the field mobilization team, with each team expected to cover a predesignated number of premises depending on the risk and geographical extent. A specific day was designated to inspect high-risk premises such as schools and construction sites.

During the inspection, the team inspects the premises along with the premise occupants and assists the house or institution occupants to remove detected dengue breeding sites. A standard reporting format was used to enter information on breeding sites, their productivity, and actions taken during the inspection. They also impart valuable knowledge on how to keep the premises clean in a sustainable manner and educate occupants on dengue disease, as well. The team also refers occupants to the MOH/PHI of the area for future activities when required. A post-entomological survey would be carried out in the inspected area, following the inspection, to quantify the effectiveness of the programme.

This massive and well-coordinated CIMIC effort covered more than 79,000 households across all four provinces. Further, 85 schools, 395 construction

sites, 162 places of worship, and 144 public spaces were inspected during the programme. Additionally, 256 government institutions, 145 factories, and 2520 private institutions were visited by the field mobilization teams. Close to 2700 armed forces personnel and police participated in this programme, together with 1476 public health workers and 885 volunteers. The results generated through this collective effort were highly productive.

Nearly 17 percent of the public places and 14 percent of factories examined, were found to be positive for the presence of dengue larvae. Out of all the places of worship examined, nearly 10 percent were positive for dengue larvae. Moreover, nearly 10 percent of construction sites and 6 percent of schools were found to have dengue larvae breeding sites.

Collaborations of mutual benefit

Such precise identification of dengue breeding sites was only possible due to extra reach gained through the participation of armed forces and police in field mobilization teams. Public trust gained through similar humanitarian interventions by the armed forces became an advantage during the implementation.[10]

9 Ops rooms, operated jointly by the armed forces and health officials, also enabled smooth coordination and troubleshooting whenever and wherever necessary. In some instances, armed forces have extended logistical support to reach difficult terrain as well.

The benefit is mutual, too. By participating in a national-level disease prevention and outbreak response programme, members of the armed forces and police have gained experience in community engagement at the grassroots level. Moreover, by establishing contacts with local public health officials, they might, in future, be able to better coordinate with them during a possible dengue outbreak in a camp setting, which is not a rarity. Additionally, public health teams in the armed forces and police would have gained a chance to build their capacity in outbreak preparedness and response through continuous engagement with the technical staff at MOH.

The benefits to the country are substantial. By mobilising a well-trained and disciplined force, together

Sri Lankan Police work with Sri Lankan Armed Forces and community health workers to mitigate the spread of dengue. Sri Lankan Army

with skilled and experienced health staff, the government was able to maximize the cost-benefit, especially during a resource-constrained period. This evidence-based and productive approach to infectious disease prevention and outbreak management could be easily replicated elsewhere for effective outcomes. In a crisis-stricken country where every resource is vital and essential, such Civil Military Cooperation might be the only lifeline available. Fighting a deadly and formidable enemy is no easy task, yet Civil Military Cooperation and collaboration could be the most effective tool during difficult times.

NEW SOLUTIONS
FOR A NEW AGE

Left: Archive photo from USAID, the first organization singularly charged with foreign assisstance. USAID Right: Military and civilian students attend the CFE-DM Humanitarian Assistance Response Training in Conflict Course Oct. 19, 2022. Aiyana Paschal/DoD

Indo-Pacific civil-military humanitarian assistance and disaster response center adapts to evolving humanitarian environment

BY AIYANA S. PASCHAL, CFE-DM PUBLIC AFFAIRS OFFICER

Since its inception in 1994, the Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM) has built crisis response capacity, enhanced coordination and collaboration, and strengthened relationships to improve the performance of United States and partner militaries during disasters. In addition to these core areas, CFE-DM has undertaken initiatives to meet emerging guidance from the U.S. Department of Defense (DOD) and U.S. Indo-Pacific Command (USINDOPACOM). Examples include facilitating a major peacekeeping operations seminar program for international senior leaders; initiating an HIV/AIDs education program for international forces and pandemic-influenza capacity-building training for Indo-Pacific security forces; assisting a U.S. Agency for International Development program focused on

USINDOPACOM and U.S. Africa Command; and supporting counterterrorism fellowship programs.

CFE-DM continues to hone its focus in a dynamic geopolitical and environmental context, and a major part of its mission is training and engaging with civilian and military partners. This has typically been conducted with a natural disaster focus through support to regional organizations and USINDOPACOM exercises, and the center's Humanitarian Assistance Response Training (HART) course. However, conflict is increasingly occurring in heavily populated urban areas. In cases such as Russia's unprovoked invasion of Ukraine in February 2022, authoritarian regimes are targeting civilians to attain political or nationalist objectives by any means. Consequently, CFE-DM is focusing more on conflict scenarios in its training, research and planning.

For the past 25 years, CFE-DM has collaborated with the International Committee of the Red Cross (ICRC) and the University of Hawaii at Manoa to facilitate an annual Health Emergencies in Large Populations (HELP) course. The ICRC developed the HELP framework for humanitarian responders during conflicts and supports its facilitation by part-

ner organizations worldwide. The CFE-DM course, held over two weeks in Hawaii, includes civilian and military participants, a balance of backgrounds that ensures a quality educational experience and a valuable networking opportunity among professionals whose paths may cross again during a humanitarian emergency. The center's HELP course now has more than 600 graduates.

The center also has a new HART in Conflict (HART-C) course that introduces U.S. joint forces and partners to the complexities of conducting humanitarian assistance in a conflict zone. Topics include the humanitarian notification system, civil-military coordination mechanisms, preparation for large-scale civilian displacement, humanitarian conflict analysis, access and security, and the consequences of armed conflict and war.

The center's other responsibilities include integrating disaster management planning into USINDOPACOM functions and contributing to Office of the Secretary of Defense policies and guidelines. CFE-DM also conducts research and creates informational products such as disaster management reference handbooks, fact sheets and best practices pamphlets, all of which are publicly available online at Publications (cfe-dmha.org) Also, CFE-DM promotes initiatives to ease the flow of critical information among civil-military partners during relief efforts. The center's researchers collaborate with academic institutions and partner organizations on projects and proposals to ensure their findings are available to practitioners and experts in the field and to provide comprehensive analysis on civil-military coordination in disaster environments.

'A moral imperitive'

CFE-DM continues adapting to the changing landscape of natural and man-

made disasters, including conflict. Recent initiatives include the Protection of Civilians (POC) and Climate Change Impacts (CCI) programs. The POC program seeks to mitigate and respond to harm suffered by civilians during military operations. There are three main avenues for the effort: supporting USINDOPACOM in adopting and implementing new DOD policies and practices for protecting civilians; identifying and promoting best practices; and fostering dialogue on key challenges and effective practices among regional partners. To define best practices, CFE-DM works with humanitarian agencies and maintains a close dialogue with the ICRC, which, like CFE-DM, recently released a handbook on best practices for civilian harm mitigation.
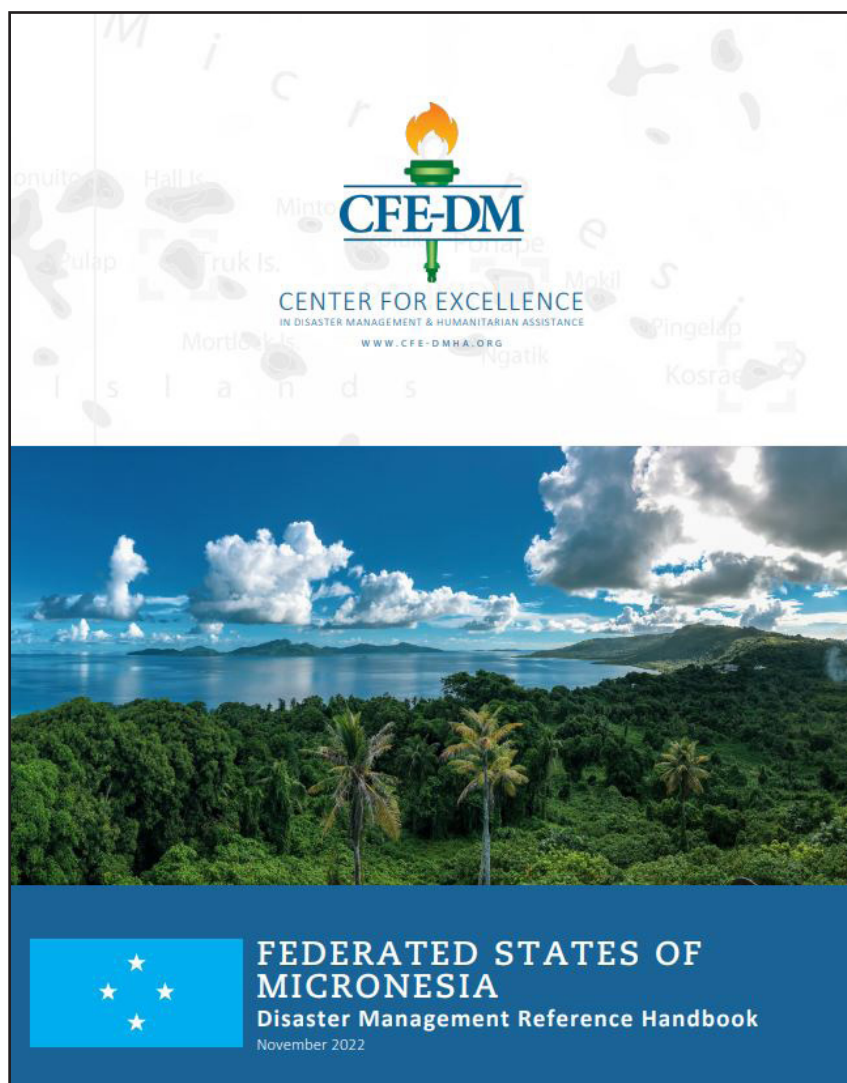
A recently released Disaster Management Reference Handbook created by CFE-DM. CFE-DM

These efforts coincide with DOD's new Civilian Harm Mitigation and Response Action Plan, released in late August 2022 at the direction of U.S. Defense Secretary Lloyd Austin. Among the plan's measures:

- Establish a civilian protection center of excellence to facilitate departmentwide analysis, learning and training.
- Develop standardized civilian harm operational reporting and data management processes.
- Provide more information to help commanders and operators better understand the civilian environment, including incorporating guidance for addressing civilian harm into military doctrine and operational plans.

"Protecting civilians from harm in connection with military operations is not only a moral imperative, it is also critical to achieving long-term success on the battlefield. Hard-earned tactical and operational successes may ultimately end in strategic failure if care is not taken to protect the civilian environment as much as the situation allows," a DOD news release noted.

"What had been missing is an overarching DOD approach," said Jenny McAvoy, advisor and team lead for the POC program. McAvoy, who has worked on civilian protection issues for decades, noted the need for "an investment in the types of capabilities that would enable commanders to adapt to the challenges of their specific operation."
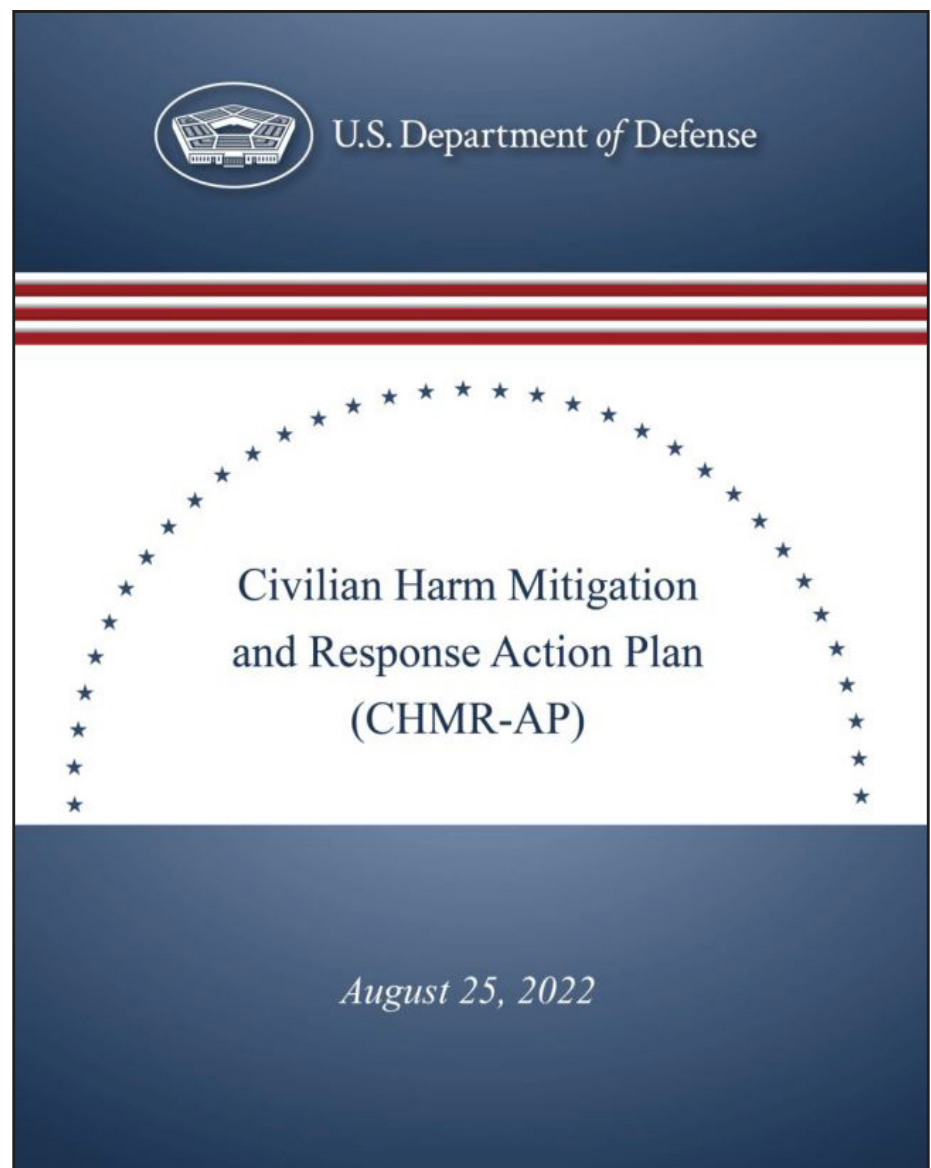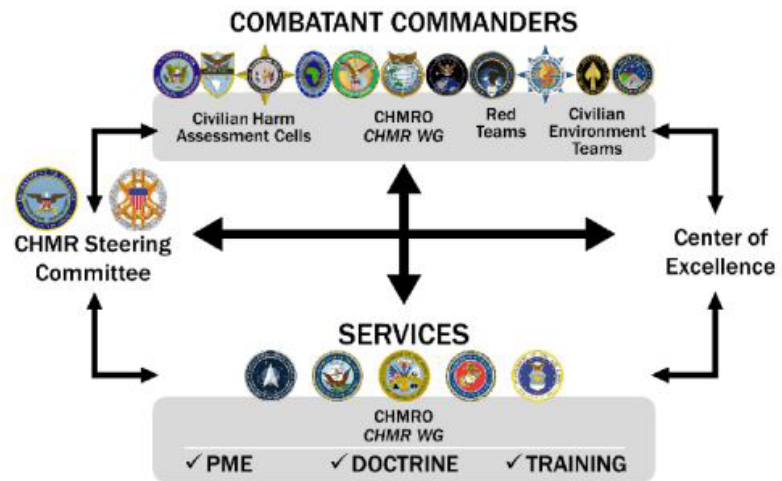
The DOD's new Civilian Harm Mitigation and Response Action Plan, released in late August 2022. https://media.defense.gov/2022/Aug/25/2003064740/-1/-1/1/CIVILIAN-HARM-MITIGATION-AND-RESPONSE-ACTION-PLAN.PDF

A U.S. Marine officer with the Port of Entry Transition Team posts security for humanitarian actors at a refugee camp in Al Waleed, Iraq April 17, 2008. Cpl. Jessica Aranda/USMC

In part, the urgency is driven by the growing number of conflicts in urban environments and their devastating impact on civilians. Humanitarian organizations and U.S. government agencies are seeking to address this harm. Beyond the casualties and destruction, the increase in conflicts in densely populated areas has caused a spike in the number of displaced people. At the end of 2021, 89.3 million individuals worldwide were forcibly displaced because of persecution, conflict, violence, human rights violations or major disturbances, according to the United Nations High Commissioner for Refugees. In Myanmar, alone, about 1 million people have been forced to flee their homes and communities amid the ongoing violence sparked by the February 2021 military coup.

As refugees cross borders to flee conflict zones, there is debate over sovereignty — a nation's ability to control what happens within its borders. Some nations have rejected refugees or require them to meet certain entrance criteria. Such policies raise important ethical and practical questions on how to safely accommodate refugee populations given the international principle of non-refoulement, which prohibits forcibly returning refugees to their country of origin if they have a well-founded fear of persecution.

McAvoy highlighted the importance of CFE-DM's engagement with regional partners in addressing these issues, given the centrality of security partnerships in the U.S.'s overall military strategy. The center also works with the U.N. Office for the Coordination of Humanitarian Affairs (UNOCHA), which focuses on synchronizing global humanitarian response and relief efforts,

advocacy, policy development, provision of information management services and mobilization of financial resources.

"Protection of civilians is the core of everything we do as humanitarian actors to alleviate suffering, reduce risks and prevent violence against crisis-affected populations, which can take many different forms in disasters and conflicts and requires a multisectoral and comprehensive response," said Helene Skaardal, a humanitarian affairs officer with UNOCHA's Regional Office for Asia and the Pacific.

Mandated Military Role

Coordination among humanitarian and military actors can vary significantly based on whether the response relates to a natural disaster, armed conflict or another complex emergency. In the

A Rohingya family wades through water crossing the border from Myanmar into Bangladesh. Roger Arnold/ UNHCR

Indo-Pacific, many militaries play a mandated role in responding to natural disasters, providing capabilities that often exceed resources available to civilian agencies and nongovernmental organizations (NGOs). Therefore, in a natural disaster response, "it is important that we have clearly established civil-military coordination mechanisms so that we can divide tasks, share information and jointly plan operations," Skaardal said.

"In complex emergencies and armed conflicts, however, militaries are often a party to the conflict," she noted. "So, as a starting point, humanitarian engagement with military actors is not based on a cooperation model but rather on coexistence and humanitarian diplomacy."

That's because humanitarian efforts must always remain independent from political or military objectives, making it crucial for humanitarian actors to remain neutral and impartial while, at the same time, promoting and advocating for protection outcomes.

"What we try to do is essentially negotiate humanitarian access to reach conflict-affected people with lifesaving humanitarian assistance and advocate for the protection of civilians and the respect for international humanitarian law," Skaardal said.

The evolving landscape of warfare, including increasing urbanization and deliberate targeting of civilians, presents substantial challenges for humanitarian efforts to mitigate risk and offer protection.

"What we often find in armed conflicts today is that restrictions on movement of humanitarian personnel is directly imposed by armed actors to reduce our access to the populations that are affected," said Skaardal, who deployed to Ukraine to help improve humanitarian access in conflict zones after Russia's invasion. "On the one hand, we are unable to reach conflict-affected populations with much needed humanitarian assistance and, on the other, human rights abuses and violence that may take place goes under the radar."

Negotiating humanitarian access is often slow because of the hierarchical nature of armed actors, which can delay delivery of lifesaving assistance and hinder localized solutions. Providing assistance without engagement with parties to the conflict, however, can place humanitarian personnel at heightened risk. These obstacles have been evident in Myanmar, where the junta in September 2022 ordered U.N. agencies and

NGOs to stop providing humanitarian assistance in Rakhine State, where access to communities was blocked by clashes between military forces and ethnic armed groups, The Irrawaddy news website reported.

Despite such challenges, UNOCHA and other organizations are working to protect civilians, alongside efforts to codify the protection of civilians into military practices, such as the DOD's new Civilian Harm Mitigation and Response Action Plan. Still, Skaardal said, accountability mechanisms must be bolstered for violations of international humanitarian law.

"Working in the U.N. system and working in the humanitarian sector, the centrality of protection has been there for a long time," she said. "There has been a process in humanitarian institutions for several years to strengthen the centrality of protection, but it is perhaps garnering a new momentum now because of the war in Ukraine, but also the recognition that Ukraine is only one high-profile context out of many, many examples where the civilian populations are suffering the most."

Climate Change Impacts

The destabilizing impacts of climate change threaten human security. Heatwaves and droughts reduce food production. Floods, storms and wildfires damage and destroy lives, livelihoods and infrastructure. Climate change can render vulnerable lands uninhabitable via inundation or desertification, driving human migration as people escape these threats.

"We have witnessed these impacts that will continue to happen," said Steve Frano, program manager for CFE-DM's new Climate Change Impacts program. "A clear example in the Pacific Islands is sea-level rise. It is not just going to be water moving up and just basically forcing a community out. It's going to be the slow onset example, where there has now been enough sea-level rise and enough storm surge that saltwater intrusion has impacted their ability to live and grow food. If they can't adapt to survive on their land anymore, they have to move … so where can they go? For many of these countries, their community, their family, their history, everything ties to the
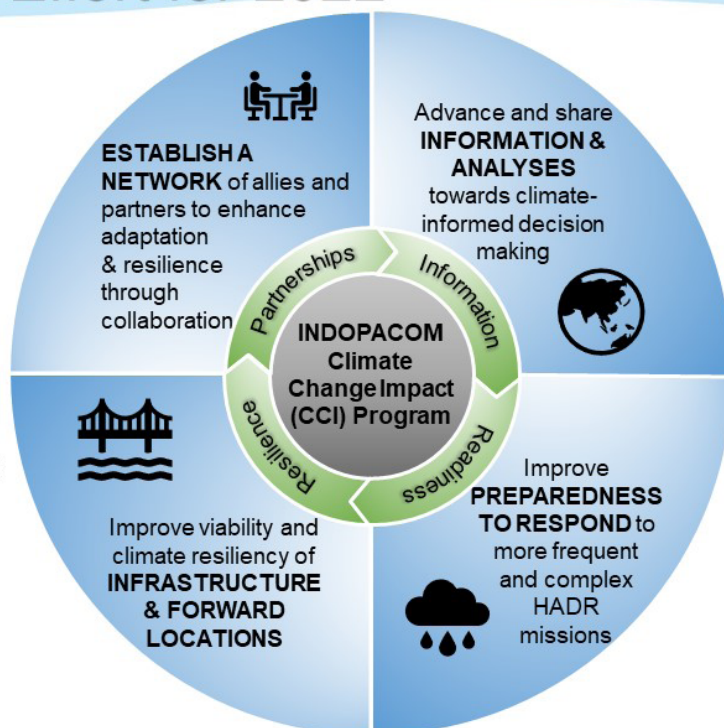

Climate Change Impact (CCI) Program
Lines of Effort for 2022

ESTABLISH A NETWORK
- ✓ Community for Indo-Pacific Climate Security (CIPCS)
- ✓ First INDOPACOM Climate Security Conference

ESTABLISH A NETWORK of allies and partners to enhance adaptation & resilience through collaboration

Advance and share **INFORMATION & ANALYSES** towards climate-informed decision making

INFORMATION & ANALYSIS
- ✓ Best Practices
- ✓ Data Repository
- ✓ Original Research
- ✓ Technology Insertion

Partnerships — Information — Readiness — Resilience

INDOPACOM Climate Change Impact (CCI) Program

INFRASTRUCTURE & POSITIONS
- ✓ Vulnerability Analysis
- ✓ Construction Program
- ✓ Mission Assurance Projects
- ✓ Allies & Partner Climate Resilience Development

Improve viability and climate resiliency of **INFRASTRUCTURE & FORWARD LOCATIONS**

Improve **PREPAREDNESS TO RESPOND** to more frequent and complex HADR missions

PREPAREDNESS TO RESPOND
- ✓ HADR Training
- ✓ HA-Related Exercises
- ✓ Bilateral discussions

land, so the idea of leaving the land is, in some cases, an untenable solution."

The CCI program supports awareness building and knowledge exchanges that emphasize climate change's impact on regional security initiatives that advance a Free and Open Indo-Pacific. A key focus is to facilitate a comprehensive regional network of climate security experts and provide a forum to exchange information and discuss cooperative plans and programs to respond to the security impacts of climate change. By engaging with regional partners, experts can share their country's approach to climate change and security and highlight priorities. "We talk with our allies and partners, we develop programs and initiatives, and we incorporate it in our own planning," Frano said.

Understanding the potential for changes to the natural environment — as well as their effect on people, communities and countries — is also vital for regional military entities such as USINDOPA-COM because the issues affect the military's ability to maintain security and stability. As nations turn to others for relief in the face of more frequent and severe natural disasters, there may be worries about diminishing sovereignty. For some Pacific Island Countries, for example, rising seas already are washing away some of the very borders that define their sovereignty — an erosion that may eventually prompt large-scale human relocation and, in turn, undermine the foundations of regional security.

"When we look at sovereignty and HADR [humanitarian assistance and disaster response], it's not always going to be the earthquake scenario: something happens; we go and respond to it," Frano said. "But it's these other changes that are going to push us in a direction that will stress countries' abilities to provide services for their people."

Thus, CFE-DM's programs and branches will remain engaged with partners in the region and beyond to ensure that climate change concerns and the protection of civilians are integrated into HADR planning and execution. As it nears its 30th anniversary, CFE-DM remains a rich resource for U.S. and partner militaries, civilian agencies and humanitarian organizations that seek to improve civil-military response to natural and manmade disasters — its

core functional areas of training and engagement, research, information-sharing and operational planning are as relevant today as they were when the center was established. At the same time, CFE-DM continues to pivot and evolve to address emerging requirements of the DOD and USINDOPACOM, with the Protection of Civilians and Climate Change Impacts programs just two of the new initiatives to respond to a changing Indo-Pacific and global strategic landscape.

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