

# Climate Change as a Regional Security Issue

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## Introduction

This paper analyzes the impacts of climate change on the roles and missions of the armed forces in Latin America and the Caribbean, and examines the range of missions generated or affected by direct or indirect effects of climate change. First, it starts with credible evidence from the United Nations' intergovernmental panel on climate change, which states that temperatures are likely to rise by two to four degrees Celsius, thus increasing the number of extreme weather events, and leading to a number of adverse impacts on the region's economies and socio-economic environments; and encourages the governments of Latin America and the Caribbean to ask for the help of their armed forces. Second, this article includes responses to direct effects of weather events, such as tropical storms, floods, droughts, and epidemics and pandemics and, additionally, responses to indirect effects of climate change, such as increases in the magnitude and frequency of forced migration, crime and social protest, and a possible increase in wars between states. This paper also examines the possible roles of the armed forces in helping their communities reduce carbon emissions and mitigating the effects of the environment created by global warming.

The analysis concludes that the armed forces will face a large number of missions, and a change in the mix of missions, with some presenting greater demands than before. With these anticipated changes, this paper argues that the armed forces need to address a dialogue within their communities about their roles responding to new challenges, to include authorizations and legal protections, funds, equipment required, and changes in their organizational structure, military education, training, concepts and doctrine; in order to play an effective role in governmental response.

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## Strategic Climate Framework

Environmental experts generally agree that the commitments reached between world governments at the Conference of the Parties (COP) under the 1992 United Nations Framework Convention on Climate Change (UNFCCC) 26 (COP-26) in Glasgow in November 2021 to reduce carbon emissions will not be enough to restrict the rise in global temperatures to 1.5 degrees Celsius.<sup>1</sup> In Glasgow, it was agreed, in principle, to stop deforestation and lower methane emissions before 2030, and also to lower the use of coal in energy production.<sup>2</sup> It is estimated that COP-26 commitments and agreements, if implemented, could lower carbon emissions in 2030 by 7.5 percent, compared to the 55 percent reduction needed,<sup>3</sup> if the increase in global temperatures is actually limited to 1.5 degrees Celsius.<sup>4</sup> Also contributing to pessimism, COP-26 commitments are only intents, without treaty status, or force of law between the signatory countries. Thus, the high costs and difficult economic impacts of the commitments made in Glasgow mean that perhaps only a small part of what was agreed upon will be fulfilled.

The implications of a realistic assessment of the global trajectory for the environment over the next half century are dire. The United Nations Climate Change Agency, which is the most respected group of scientists in the public discourse on the subject of climate change, anticipates that, in the coming years, global temperatures could rise two to four degrees Celsius.<sup>5</sup> This change is anticipated to uncover several serious impacts, which could include an increase in extreme weather events, such as droughts, tropical storms and hurricanes, and changes in disease patterns and pestilence.<sup>6</sup> For example, because warming the air increases the amount of water that the atmosphere can absorb, it increases the possibility of heavier rains causing flooding, and storms that accumulate even more energy. Global warming would also have an impact on geographic locations where such events occur regularly. Anticipated effects of climate change could also include a significant rise in sea level, severely impacting small island states, and coastal areas around the world, to include many of the world's most populous areas, which are urban coastal areas.<sup>7</sup>

This worrying anticipated future will have enormous implications that go far beyond just disturbing the environment. These changes in climatic conditions and extreme weather events will profoundly affect the economic and social dynamics of all the countries where they occur, and their neighbors as well. Climate change will displace people from their homes and communities by direct damage; either by impacting their ability to get food, water, or work, or by fostering conditions for pestilence, crime, and insecurity. Additionally, these changes and climatic events, combined with citizens frustrated with the response of their governments, will increase discontent and social mobilization, possibly fomenting riots or po-

litical violence. It could also generate conflicts over resources, or migrations that precipitate incidents or interstate wars.

All these events, which are direct or indirect effects of climate change, will have implications for the missions of the armed forces in the region. In some cases, it will increase the frequency and/or magnitude of certain traditional missions of the armed forces to respond to disasters, control populations, transport and distribute aid, or protect property and people; and act in other ways to respond to protests, murky and riots, and other social violence.

For this reason, it is important for the armed forces in Latin America to consider, as part of their planning for the environment of the future, the direct and indirect effects of climate change on the global strategic environment, and on the countries that it is their duty to protect. This planning process must include more thought among the armed forces, their governments, and the communities around them, on the issue of how climate change changes the missions of the armed forces, what implications these changes have, and how the armed forces and governments must act to better anticipate and prepare for these changes and their requirements now.

### **Impact on the Missions of the Armed Forces**

The anticipated impacts of climate change on armed forces missions can be divided into four categories: (1) climate incidents directly impacting national security, (2) indirect effects of climate incidents on security, (3) indirect effects of wars between states, and (4) missions of the armed forces to combat global warming and/or strengthen society against its future effects.

As indicated by this list, the implications on the roles of the armed forces in each area involve different material solutions, training and organization, and different authorities within legal and constitutional frameworks. Thus, the possibilities for the response of the armed forces to these challenges will be unique between countries, as a function of the legal frameworks, traditions and expectations for their use of armed forces; and the possibility of using them in these roles, as a function of their equipment, doctrine, and organization, among other factors.

### **Incidents Impacting Homeland Security**

Global warming most likely has had a role in the increasing frequency and severity of extreme weather events in recent years, which have impacted the national security of the countries where they have occurred, requiring in most cases that the armed forces contribute as part of governmental response. As for hurricanes and tropical storms affecting the Caribbean, Central America, Mexico and the US, for

example, 2020 incurred 13 hurricanes and 30 tropical storms.<sup>8</sup> The occurrence of hurricanes Eta and Iota, with little separation in time, had a devastating impact on Honduras and other parts of Central America.<sup>9</sup> Honduras' armed forces played a key role in their society's response.<sup>10</sup>

Although the number of named storms in 2021 was fewer, hurricane Grace had a severe impact on Mexico, among other places. Mexico's armed forces played a key role in the national response with their "Aid Plan for the Civilian Population in Cases of Disaster."<sup>11</sup> Similarly, Comodoro Rivadavia recalled in April 2017 how the armed forces played a key role in the response to protect the civilian population through the National System for Integral Risk Management and Civil Protection (SINAGIR).<sup>12</sup>

As for droughts, climate change was identified as a possible factor in the drought that impacted crops and populations in Brazil, Paraguay and Argentina in August 2021.<sup>13</sup> In Mexico, the armed forces stimulated rain in response to droughts in Sinaloa, Sonora and Chihuahua.<sup>14</sup>

As for fires, 2020 was also a memorable year for the region, particularly in Brazil and Bolivia. Brazil's armed forces shared responsibilities in responding to those that occurred in its national territory.<sup>15</sup> Although much of the discourse on fires was related to the role of humans in burning forests to prepare land for agricultural use and the role of government politicians in indirectly influencing this; including unusually dry conditions, fires increased due to global warming as well, and had a role in the number and severity of fires in the region. Thus, global warming can be expected to increase the challenges of armed forces in responding to fires in various parts of their countries in the future.<sup>16</sup>

Another area of incidents requiring a role for the armed forces, further impacted by global warming, are epidemics. The armed forces participated in many ways in the Covid-19 response across Latin America and the Caribbean.<sup>17</sup> These responses included a wide range of missions, from border control to performing medical logistics, distributing food and materials, to building and operating field hospitals and producing personal protective equipment.<sup>18</sup>

These incidents affected plants and animals, as well as people. In recent years, the region has not only been affected by the Covid-19 pandemic, but also Zika, dengue, and malaria, among others. Climate change will affect transmission rates and the spread of where bacteria, viruses and other threats to humans, animals and plants can reproduce well in complex ways.<sup>19</sup> Epidemics in the region also include impacts to animals, such as swine influenza, which has increased as a threat to pigs and the pork industry in recent years.<sup>20</sup> As for plants, in 2017, Honduras lost a significant portion of the forest in the east of the country to a type of insect pest.<sup>21</sup>

Climate change has an important, albeit indirect, effect on epidemics, in multiple ways. Changes in heat and humidity drive migration of animals and humans. They impact where certain plant species can grow, and increase the possibility of types of infections, through reducing time and freezing seasons that traditionally kill certain species of insects, animals and plants involved in disease transmission. In addition, extreme weather events displace animals, as well as people from some areas. It also drives changes in habitats where they can live and find food, as the heat drives migration of animals and people in a way that also helps in transmitting diseases.

Although the specific way in which the armed forces are integrated into the natural disaster response system in the region is different in each country, it is usually integrated into a government-wide response system, with plans to interact with civil society, neighboring countries, and forces from other countries and organizations coming to help. In the case of hurricanes, storms, floods, and fires, this includes rescue operations. These, like in droughts and epidemics, can involve transportation and providing help for those affected, the construction and operation of hospitals, and temporary housing for displaced populations. In addition, as demonstrated in the response to Covid-19, the armed forces can engage in security operations for affected populations, such as to protect stores against looting, impose curfews or, limit movement in certain areas.

Depending on the legal framework of the country in which the challenges occur, the contribution of the armed forces in combating diseases may also include helping to kill or isolate animals with diseases or providing logistical support in times of epidemics. It can also include specialized actions appropriate to the operation, such as cutting trees to control fires or the advance of plant diseases, as they did in Honduras before the advance of insects killing pines in 2017.

Response plans, such as the DN-IIIe in Mexico,<sup>22</sup> and the protocols, legal frameworks, and inter-agency systems and structures established to respond will greatly impact the way and effectiveness with which the armed forces can carry out their work in this area. The key thing is that, with the increase in these types of incidents due to global warming, the armed forces will probably have more and more cases in which they will have to respond with carrying out this type of operation.

### **Indirect Effects of Climate Change Impacting National Security**

In addition to extreme weather events whose frequency, magnitude and location are impacted by global warming, climate change also tends to generate a series of serious indirect effects through its impact on the economies, social fabric, and

political dynamics of countries. Depending on the legal framework and traditions of use of the armed forces in internal missions, these indirect effects could increase the frequency with which the armed forces called to support their governments to protect lives, social order, and other services in support of the state. Some categories of tasks in which the armed forces may be required more frequently, and to face challenges of greater magnitude, include a role for them in controlling migration, crime and insecurity, and social mobilization. In some cases, the roles in which the armed forces are most often demanded could drive important questions about their roles in society, and the boundaries and controls associated with those roles.

In terms of migration, weather events often destroy homes, food sources, drinking water, electricity, or other necessities. As a consequence, such destruction often forces impacted populations to move temporarily or permanently, in search of other places to live. The effects of global warming can force the displacement of populations in more indirect ways, with damage or closure of workplaces, or by creating conditions that encourage looting or another phenomenon that makes it impossible for residents to continue living in the affected place. In the same way, the effects of climate change affecting migration can be indirect, to include heat waves that allow insects or invasive species to enter an area where they were not previously found, making it difficult for local residents to continue living there.

Depending on the nature of migration driven by climate change, the armed forces may have a different number of roles in this regard, to include establishing temporary shelters, feeding or otherwise caring for displaced populations, attempting to manage, order or otherwise influence migrant movements. These types of efforts may also include border control, providing security or logistical support to camps and migrant groups, and other activities.

Rather than just impacting migration, the indirect effects of global warming, by the same dynamics driving migration, can also increase crime and insecurity, raising the number of cases in which supplementary support from the armed forces is required. On the one hand, weather events affect the availability of the basics needed to survive, such as food, water, and resources to buy necessities. Their absence motivates a desperate minority to participate in criminal activities to obtain them. Their activities may include robbery, extortion, assisting drug trafficking groups with planting coca, processing cocaine, operating and guarding warehouses or illicit activities, participating in gangs and other organized groups, or laundering assets, among other activities to obtain resources. In addition to the urge to commit crime out of necessity, the suffering of slums from natural disasters can open the door to increasing the influence of criminal groups there.

The economic difficulties and displacement produced by global warming can also increase social discontent, frustration with the situation, and the perceived

inadequate performance of governments, or corruption in their response, as happened in many countries with the response to Covid-19.<sup>23</sup> By making the situation more difficult, certain groups in search of their own ends can channel discontent through polarization, just as the “arming” and channeling of social discontent in the protests in Ecuador and Chile in October 2019, that almost overthrew their governments. In this context, the armed forces may be required to control riots, or protect property or public spaces, as they did in Ecuador<sup>24</sup> and Chile<sup>25</sup> in 2019.

In responding to all these indirect effects of climate change, the missions involved for the armed forces are not as unusual or different compared to their responses in other situations protecting internal security order, although what they can do specifically depends on the legal framework, and the protections and restrictions on the use of the armed forces in internal security operations established by its laws and constitutional framework. It is also possible to anticipate new types of missions that correspond specifically to respond to the unique dynamics of the effects generated by climate change. Also, the generation of new concepts for the use of the armed forces in this context can be anticipated, especially when the frequency and magnitude of the challenges that the armed forces need to help increases, thanks to global warming.

### **The Impact of Climate Change on State Conflict**

Just as global warming can contribute to conditions within a country that require help from the armed forces, such as immigration, crime, insecurity, and social instability, it can also spur conflicts between states; by nature, such interstate conflicts require the employment of armed forces for the defense of the homeland against external threats.

The sources of interstate conflict that can be driven by climate change are multiple. Prolonged droughts, for example, can foster fights over water use between upstream versus downstream countries, where the survival of populations, their electricity supply by hydroelectric plants (dams), and their economic bases depend on access to water, with the interstate fight stimulated when its availability for use on both sides of the border is shrinking. Similarly, population displacement (discussed in the previous section) can contribute to migration and cross-border crime by desperate populations, driving fights between states on both sides of the border over the mistreatment of citizens of a country by the neighboring country, or on the other hand, the perceived failure of security forces to control criminal acts from their side of the border affecting the population on another. In more extreme

conditions, the economic or political destabilization of a country on one side of the border can produce flows of refugees, or armed groups harming populations on the other side, which can force its neighbor to protect itself against the effects, as in Colombia, although for reasons not linked to climate change.<sup>26</sup>

### **Prevention and Adjustment to Climate Change**

In addition to the increase in situations that require the armed forces of the region to respond to the direct and indirect effects of climate change, it can also be anticipated that the countries of the region, seeing the seriousness of the threat of climate change, will seek to involve the armed forces more actively in the prevention and adjustment of society to its effects. The leaders of the armed forces must anticipate this, and plan what options and plans they can present to their civilian leaders in this regard.

For both symbolic and real reasons, Latin American communities are likely to demand that the armed forces, like other government entities, do their part to lower their carbon emissions, and become “greener.” These demands could translate to an increase in the use of electric vehicles within the forces, and the use of renewable energy for barracks, facilities, to include replacing hydrocarbon-based generators with solar and wind generators, if operational requirements and budgets permit.

It is possible that governments’ demands on the armed forces to lower carbon emissions will create dilemmas among pragmatic militaries, concerned that an emphasis on new green technologies could lower their range or effectiveness in combat, or that the process of converting from hydrocarbons to cleaner forms of energy generation may create unwanted expenses in times of limited resources, which can force postponing other types of needed investments.

In addition to the demand for conversion to a greener military force, it is also possible that the armed forces will be called in to manage, implement, or carry out projects to advance the reduction of carbon emissions. This would be consistent with the use of the armed forces in many countries to foster societal modernization or meet other socio-economic needs.

The use of the armed forces in this way could include the use of military engineers to assist in the construction of hydroelectric dams, windmills, or photovoltaic panel farms, and/or the protection of strategic energy facilities of this type, just as the Mexican Navy is assigned to protect oil facilities in national territory.<sup>27</sup> In some countries of the region, depending on the political attitude and historical context of the role of the armed forces in the economy, it could be contemplated

to assign the armed forces to implement entire industries in the generation and transmission of clean energy, transportation, or other sectors whose administration as “green” industries, despite economic calculations, is considered strategic, and whose transformations are considered urgent and beyond the reasonable possibility of civil entities to achieve it.

Beyond the transformation and management of national industries in some countries of the region, armed forces can be used in tasks to implement and facilitate green policies within the civilian population. This, for example, in its most basic form, could include replacement of traditional lights with LED lights in homes, replace coal stoves with those based on natural gas, green electricity among populations with fewer resources, or monitor society’s compliance with laws on limited use of electricity, and other rules.

Beyond just green electricity measures, there could also be interest in some countries in using the armed forces more extensively to protect forests and the jungle against illegal logging and the burning of trees to dispossess land, and to preserve vegetation that absorbs carbon to restrict increases in global temperature. Also, proactively, the armed forces could be used to plant trees.

Finally, it is also possible that some countries could use the armed forces to help society physically adapt its structures to the new complex reality of a warmer planet, with high sea levels, more severe and frequent extreme weather events, and with more social unrest and political violence. All these conditions, discussed in earlier sections of this paper, can be addressed in part with physical structures, and built using the management, engineering, equipment, and possibly workforce of the armed forces. Engineering corps, for example, could be used to build retaining walls to protect low lands near the coast against rising sea levels, or strengthen bases, government buildings, and community structures against extreme weather effects, to be less vulnerable to riots, vandalism, and other types of political and criminal violence. As for construction, the migration of people and animals, discussed in previous sections, could imply that the armed forces will have to relocate or build more facilities in response to increased criminality, according to the missions that the armed forces have been assigned, within the legal and constitutional framework in the country.

## **Implications for the Roles of the Armed Forces**

Although it is difficult to say precisely where and when crises that require the involvement of the armed forces will occur, the analysis of this work indicates that the number and frequency of events in which the help of the armed forces will be needed will increase, as a planned part of the response, or as emergency measures. Thus, a sustained increase in the missions of the armed forces within communities

can be anticipated in a significant number of areas. This will have implications for the resources needed, the type of equipment, doctrine, and training. It is also very likely to generate much debate within the countries of the region about the desired and permitted role of the armed forces in the large number of areas in which they could theoretically contribute, if they had the legal and constitutional framework, and adequate resources. It is the duty of responsible members of the armed forces to plan for this now, and not when the event comes.<sup>28</sup>

To properly understand possible implications, it is useful to consider, area by area, how the required mission profile of the armed forces may change as a result of climate change, summarized shortly here, albeit incomplete, limited only by imagination, resources, and legal and constitutional frameworks:

- More demanding missions to evacuate and rescue people in the face of hurricanes, tropical storms, and floods.
- More demanding missions to transport, store, and distribute humanitarian aid after hurricanes, tropical storms, floods, droughts, forced displacement events, and epidemics.
- More missions to control borders, populations, reinforce curfews, respond to protests, and protect populations and property against riots and looting, in the face of migration, epidemics, protests and riots.
- The possibility of building strengthening missions and constructing retaining walls and other protections for government, community, and military facilities buildings, against extreme weather events.
- A possible role in fortifying government buildings, bases, and community structures against vulnerabilities stemming from an increase in political and criminal violence that could occur as an indirect effect of global warming.
- The possibility of missions to build and store clean energy infrastructure.
- The possibility of managing clean energy or transportation sectors or other key sectors to facilitate their transformation and management in a “green” way.
- The possibility of missions to protect forests/jungle and the environment against illegal logging, illegal mining, and other crimes against the environment.
- The possibility of missions to promote low carbon emissions among the population, to include light bulb replacements, and replacement of wood stoves with greener solutions, etc.
- The possibility of environmental remediation missions such as planting trees and performing other types of bioengineering to increase carbon absorption on the planet.

- The need to change the carbon profile of the force (increased use of electric vehicles, clean electricity generators, better efficiency in the use of energy, water, recycling, etc.).
- Changes in mission locations, driven by population migration, new maritime transit routes (e.g. Arctic), new fishing patterns with changes in water temperatures; new storms, floods, and drought locations.
- Relocation and construction of new bases and cartels and other military infrastructure that correspond to changes in mission locations.
- The need to develop new concepts by using the armed forces to respond to the direct and indirect effects of climate change, and helping to prepare their communities to mitigate and prepare for the new world created by its effects.

This likely change in the missions required of the armed forces implies the importance of thinking on several key issues to prepare the armed forces adequately for their evolution.

As indicated previously, the large number of areas in which the armed forces could theoretically respond to the demands of a hot global environment does not correspond to the traditions, or authorizations and legal frameworks in which it has traditionally operated. In areas where it does correspond to these authorizations and traditions of use, it is not clear that they would have the resources for all the possible ways in which they can be used. Thus, it is almost inevitable to anticipate a debate in the future, when several actors in communities, and possibly elected governments, propose the use of the armed forces for these purposes, and what the response would be with regards to what the armed forces will need in terms of resources, changes in doctrine, organization, equipment, education and training, among other aspects, to fulfill these new missions.

It is important for the armed forces to anticipate these requests by the societies they serve, and what their response should be. The dynamic “default” in the face of many disasters and challenges will be to use the armed forces under the conditions in which they find themselves, with the resources and legal framework they have, when the situation exceeds the capabilities of other parts of the government. The armed forces adapt to the demands of the situation, and later seek (sometimes successfully, sometimes not) reward for the extra expenses and deterioration in equipment and impacts on their people. Despite this default, frequently repeated in the history of the armed forces in the region, the gradual way in which the effects of global warming occur means that there is time to think through the requirements and respond in a less ad hoc way.

Although the armed forces can help fulfill many roles, many presented in this article, in an ideal world these roles can be better performed by other governmental

or societal entities, either already in existence or that can be newly established. In many cases, it would be more logical to respond with civilian agencies, if they had the capability to do so, or to start working now to address their limitations or increase their capabilities as needed. This does not mean that the armed forces would not have some role, but that they would not be the “lead” for these types of responses. As an example, one can take the use of the Federal Emergency Management Agency (FEMA) in the US, and the way in which the armed forces, including the National Guard, can plug in and support FEMA activities when necessary. Similarly, increasing the capabilities of the police or other civilian security authorities in the countries of the region, can be an effective way to manage the likely increase in crime and social unrest that could accompany global warming, as can the formation of new police entities or civil bureaucracies with increased capacities and authorizations, to perform environmental duties, such as monitoring forests, transforming industries, or building walls and other infrastructure against rising sea levels, storms and floods, or the fortification of buildings against social unrest.

Recognizing that the transformation or creation of civilian agencies, and the contracting of works by the private sector also has its own problems and limitations. If, in a frank dialogue with politicians and society, the decision is made to actually use the armed forces as a key instrument in some of the roles presented in this work, it would be absolutely necessary to have public dialogues to achieve political consensus, within society and elected governments, on the required legal framework and supply of the necessary resources:

For example, the establishment of vehicles for the use of the armed forces for these duties, in terms of budgets and compensation for unanticipated expenses, is imperative. For the institutional health of the armed forces, it would be much better to do so in advance, rather than adopting ad hoc resolutions, where the armed forces respond, spending institutional resources from their operating or procurement budgets for the future, only to receive compensation (most often partial) from their governments at some later time.

It is also important for the armed forces to speak explicitly about the needed legal authorizations and constitutional framework in which they operate when carrying out these types of operations. Although the armed forces should never seek to operate with “impunity,” or without oversight and supervision and accountability to civilian authorities for their performance, it is vital that there is clarity on certain issues, such as what the laws authorize and protect, the legal representation members accused of violations will be afforded, to include responsibility for legal costs.

Likewise, the reverse applies as well. If the armed forces are involved in the construction or management of green infrastructure, then it is necessary to analyze how legal controls will ensure that the armed forces, like other institutions, will be subject to compliance enforcement and review, without falling into the traps of corruption that can affect commercial entities. It will also be important to assess whether the armed forces, versus private companies or other state entities, are better positioned to fulfill roles such as training of personnel for administration, implementation, and other roles, to include their ability to adequately hire and supervise needed civilian experts. Most likely, one component would be to contemplate changes to organizational structures, professional military education, and training programs, among others, to ensure that the armed forces are adequately prepared. For certain areas, such as the construction and management of green energy infrastructure, additional supplemental training might be required either through their own military institutions or civilian organizations.

Another important adjustment for the armed forces would be to ensure that in their acquisition planning, planners, as well as leaders, make logical and realistic plans to ensure that what they are buying really corresponds to the mix of missions they anticipate accepting, to include missions in response to the demands of global warming, instead of solely focusing on traditional national security missions. While it is legitimate for the armed forces, consistent with the directives of their elected civilian authorities, to only concentrate their efforts on preparing for defense of the country during a state war; if they are led by their civilian leaders to accept and plan to fulfill missions responding to climate change, they have to ensure that their procurement corresponds to the responsibilities they have accepted.

Finally, in terms of strategic thinking, in the long term it is important that the armed forces think more about a “holistic” strategic concept taking into account the contribution of the armed forces as part of a whole of government response to the challenges of climate change, coordinated within society, neighboring countries, and other international actors. This comprehensive “holistic” concept is currently missing, as the armed forces’ mission is currently primarily defined by response to national disasters, protests, and other challenges without thinking how all these individual missions form part of a comprehensive effort, which will best serve society through a combined approach.

## **Conclusion**

The armed forces have much to consider in preparing for the demands and missions to come with global warming. Although the progress of the phenomenon is relatively slow in comparison with other missions in the global environment, the time it gives us should be used wisely as a strategic resource, to prepare in the

best service of the country. The increase in extreme weather events also serve to remind communities that there is no infinite time left to orient themselves well in advance of this new challenge.

It is critical that the armed forces begin high level internal planning now, and have frank conversations with their political leaders and its communities regarding the role that the armed forces must play as part of an overall governmental and societal response, rather than allowing their role to be determined by the need at the moment.

The armed forces have always had, as a fundamental mission, the defense of the sovereignty of the country and the well-being of their citizenry. The threat of global warming is, in its nature, very different than threats coming from other countries. However, the scale and nature of this threat is equal or even more extreme and total, and as always, it is the duty of the armed forces to respond. □

## Notes

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