

# Preventing the World's Next Refugee Crisis

*Famine, Conflict, and Climate Change in Nigeria, South Sudan,  
Somalia, and Yemen*



American Security Project

Perspective

J. Jordan Burns

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Lieutenant General Norman R. Seip, USAF (Ret) served in the Air Force for 35 years. His last assignment was Commander of 12th Air Force.

## In this Report:

In an unprecedented humanitarian crisis, four countries: Nigeria, South Sudan, Somalia, and Yemen are all on the verge of famine at the same time. A catastrophe of this magnitude would perpetuate mass migrations of people as well as create environments for terrorist groups to prosper. This report details the unique factors that have driven each of these four countries to their current levels of instability while also discussing their common challenges. This report examines the high levels of conflict that exist in all four countries, with close attention to how the security ramifications of climate change have contributed to these conflicts. Most importantly, this report concludes with a discussion on how the world can avoid new, destabilizing disasters similar to the Syrian refugee crisis.

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## IN BRIEF

- 20 million lives are at risk of famine in Nigeria, South Sudan, Somalia, and Yemen. The situation in each country has been escalated by severe weather and dryness linked to climate change.
- Although not the sole factor for the instability, climate change has accelerated the systemic threats that exist in each country to make each case more aggravated.
- Nigeria, South Sudan, Somalia, and Yemen already have a heightened vulnerability to climate change because of their reliance on subsistence agriculture and food imports. When extreme weather linked to climate change collides with other systemic threats in this susceptible environment it contributes to chaos and conflict.
- Challenges that exist in all four countries such as impotent governments, rapid population growth, and local terrorist initiatives are amplified by severe droughts which are exacerbated by climate change.
- Failure to address this crisis will result in the deaths of thousands, create refugee crises similar to the one currently emanating from the Syrian civil war, and provide militant terrorist organizations with fertile grounds for recruiting new members.
- The United States and the international community need to take swift action to mitigate this disaster as this situation has substantial destabilizing potential. At this stage, the U.S. should provide robust support to international organizations such as the UN in order to prevent certain catastrophe.

## About the Author

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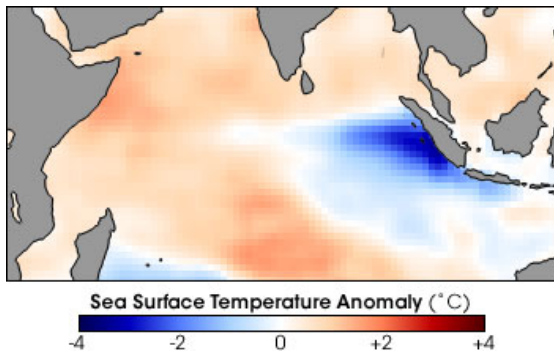
## Introduction

As the new Trump administration settles into its role within the United States government, a humanitarian crisis of historic magnitude is unfolding in Sub-Saharan Africa and across the Red Sea in Yemen. The citizens of Nigeria, South Sudan, Somalia, and Yemen are in mortal danger due to impending famines, which stem from factors that are as multi-dimensional as they are volatile. Conflict exists across all four countries and is often credited with being the clear and present driver of the humanitarian crisis. However, there is another factor at play that is not given enough attention: climate change. The situation in each country has been escalated by severe weather and dryness linked to global warming. Although not solely responsible for the instability, manmade climate change is playing a critical role as an accelerant.



**Nigeria, South Sudan, Somalia and Yemen are in mortal danger.**

Climate change is often ruled as an environmental issue only associated with polar bears, bird migrations, or glaciers, but this phenomenon has cascading effects on fundamental security interests throughout the rest of the world. Scientists have linked human-caused climate change to heat waves, droughts, and floods across the planet.<sup>1</sup> For example, the food scarcity in East Africa is linked to droughts, which have become more frequent and more severe due to climate change.<sup>2</sup>



**In this image blue areas are colder than normal, while red areas are warmer than normal. NASA image.**

More specifically, scientists have attributed some of the blame to weak La Niña conditions and the resulting “Indian Ocean Dipole.”<sup>3</sup> According to NASA this “dipole” is a configuration that occurs when the influence of La Niña is amplified by patches of unusually cool water in the western Indian Ocean and unusually warm water in the eastern part of the basin.<sup>4</sup> The dipole is separate from El Niño, but behaves in a similar fashion and affects rainfall patterns in Africa.<sup>5</sup> According to Robert Marchant, head of the Institute for Tropical Ecosystems at Britain’s University of York, climate change is influencing the Indian Ocean Dipole to become more extreme, ultimately amplifying East African droughts and contributing to severe food scarcity.<sup>6</sup>

Four famines occurring all at the same time would be an unprecedented disaster. Across the four countries, there are about 20 million people on the brink of famine, and in some areas of South Sudan, famine has already been declared.<sup>7</sup> United Nations aid officials have warned that the situation, if left unchecked, will likely develop into a disaster worse than that of 2011 when 260,000 people died of famine in the Horn of Africa.<sup>8</sup> A catastrophe of this size will have serious consequences for national and global security by driving mass migration, destabilizing regional governments, and providing terrorist organizations with opportunities to prosper amid the chaos. To comprehend the situation’s destabilizing potential, it is necessary to look at relevant comparisons; perhaps the most clear-cut examples are the Syrian civil war and the Arab Spring.

As the American Security Project and others have argued, the political unrest, which manifested in the Arab Spring, was directly tied to increasing global food prices. The five years preceding the beginning of the unrest during the Spring of 2011 (2006-2010) saw a drought of unparalleled length and severity in recent Syrian history.<sup>9</sup> By late 2010, global food prices had increased by 40% over the year, largely due to drought and wildfire in grain exporting regions of Russia and Eastern Europe, as well as unprecedented floods in grain-importing Pakistan.<sup>10</sup> In such a way, climate change accelerates instability in places that are not equipped to handle it. The Assad regime failed to take steps to adapt to climate change, and was therefore left vulnerable.<sup>11</sup> The Syrian Civil War has implications for the current situation in Africa and Yemen, as they share meaningful similarities.

Nigeria, South Sudan, Somalia and Yemen already have a heightened vulnerability to climate change, because of their reliance on subsistence agriculture and food imports. This increased susceptibility, combined with impotent governments, rapid population growth, and influential terrorist organizations, can result in chaos and conflict if not managed. Failure to address this impending disaster will result in the deaths of thousands, and will create refugee crises similar to the one currently emanating from the Syrian civil war. It will provide militant terrorist organizations with fertile grounds for recruiting new members. If this catastrophe is allowed to continue, it will put even greater stress on the African continent, as well as America's allies in Europe, and ultimately detract from the safety of the international community at large.

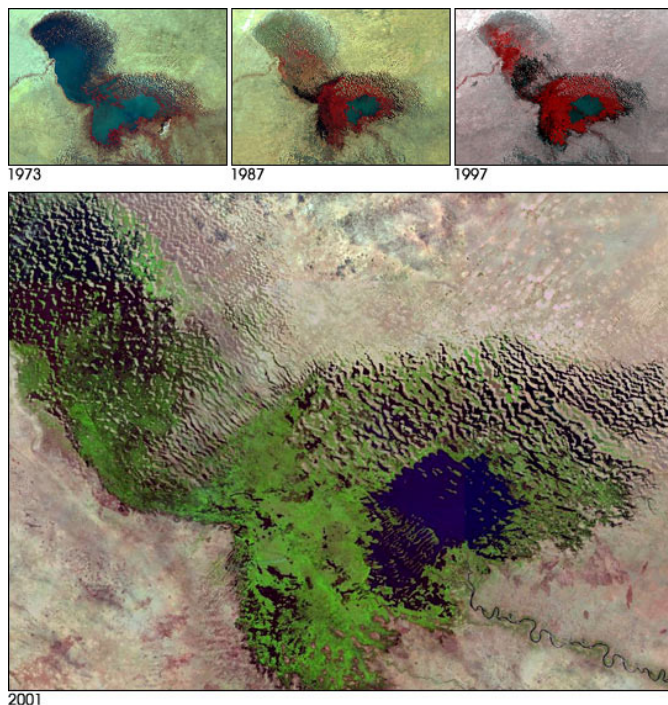
The United Nations has called upon the international community for \$4.4 billion to mitigate this crisis, but has only raised a fraction of that.<sup>12</sup> Emergency funding will not fix the systemic destabilizing factors within these countries, but it will keep the situation from spiraling out of control. Failing to take action will allow this problem to grow in size, complexity, and danger until it can no longer be ignored. The world has the opportunity to either take the appropriate steps while this crisis is still manageable, or wait to deal with it later on when it becomes a disaster of great proportion.

This report details the unique factors that have driven Nigeria, South Sudan, Somalia, and Yemen to their current levels of instability while also discussing their common challenges. More specifically, the following analysis will examine the high levels of conflict that exist in all four countries, with close attention to how the security ramifications of climate change have contributed to the conflict. Most importantly, this report will conclude with a discussion on how the world can avoid new, destabilizing disasters similar to the Syrian refugee crisis.

## Historical Context & Analysis

### Nigeria

The situation in Nigeria has become increasingly unstable with some 5.1 million people labeled as food insecure out of a population of 5.8 million in the three affected northeastern states.<sup>13</sup> The famine is at its worst in the country's Northeastern region, near Lake Chad. The lake is situated on the borders of four countries: Nigeria, Cameroon, Chad, and Niger. It was once the largest water reservoir in the Sahel region, covering an area of 9,700 square miles, but, by 2001, drought had shrunk the lake to less than one-fifth of that area.<sup>14</sup> Although the depletion of Lake Chad is not directly tied to the Indian Ocean Dipole, which mainly influences East Africa and Yemen, Lake Chad's demise is linked to manmade climate change.



**This image illustrates the decline of Lake Chad's size from 1973 to 2001. NASA image.**

The drying of Lake Chad began with severe droughts in the Sahel region of Africa during the 1970s and 1980s<sup>15</sup>. Originally, these droughts were thought to have been triggered solely by poor agricultural practices and over grazing, but research conducted by the University of Washington found man-made climate change to be a key factor.<sup>16</sup> Specifically, the research discovered that small particles of sulfate, called aerosols, were a significant contributor to the extreme dry weather. These “sulfate-laden aerosols” were produced mainly by American and European coal-burning factories from the 1960s through the 80s, and, according to researchers, they had substantial effect on rain patterns in the Sahel during the same time period.<sup>17</sup> The findings indicate that these aerosols cooled the entire Northern Hemisphere, shifting tropical rain bands south, away from the Sahel region. In light of this, it is fair to say that pollution has played a significant role in the depletion of Lake Chad.

About twenty two million people depend on the lake for their livelihood.<sup>18</sup> The dwindling water supply has devastated food production and fostered economic and political tensions, which has supplemented the rise of militant terrorist organization, Boko Haram. The group's name, when translated into English loosely means, “Western education is sinful.”<sup>19</sup> Founded in 2002, Boko Haram has embarked on a ruthless and disturbing crusade in Nigeria, with the underlying mission to overthrow the national government, evoke sharia law, and establish an Islamic state with no Western influences.<sup>20</sup> <sup>21</sup> They are perhaps most notorious for kidnapping 276 girls from a secondary school in Chibok—85 of which were recently released after three years of imprisonment.<sup>22</sup>

In addition to perpetuating the loss of human life, drought has impacted the socioeconomic well-being of Nigeria, by destroying crops, and raising unemployment due to declines in production. Rising unemployment helps to sustain Boko Haram's recruiting process. Poor economic conditions and government incompetence has led to discontent among the masses of unemployed youth in Northeast Nigeria, which has benefited Boko Haram by supplying them with a susceptible and impressionable recruitment pool.<sup>23</sup> This demonstrates how climate change can indirectly exacerbate critical factors that benefit terrorist organizations.

A militant terrorist organization such as Boko Haram, although based across the Atlantic, is still a serious concern for United States security. As we have seen with ISIS in Syria, the group's ideology is just as dangerous as the group itself. The U.S. must work with Nigeria to alleviate the current hunger crisis, as it is an important step on the path toward Boko Haram's elimination.

## South Sudan

Moving eastward across the Sahel region is the young nation of South Sudan, where the government has already declared famine in two counties.<sup>24</sup> One UN humanitarian officer reported, “The situation [in South Sudan] is worse than it has ever been.”<sup>25</sup> The crisis has been driven, in large part, by the constant devastation of violence and conflict. South Sudan gained independence from Sudan in July 2011 as the outcome of a 2005 peace deal that ended Africa’s longest-running civil war.<sup>26</sup> Two years after South Sudan gained its independence internal conflict erupted as the result of a power struggle between the president and his former deputy.<sup>27</sup> Ongoing fighting between government troops and rebel factions has led to the deaths of over 50,000 people and displaced more than 1.6 million.<sup>28</sup> Currently, the UN says 5.5 million people will be on the verge of starvation by July if they do not receive food aid.<sup>29</sup>

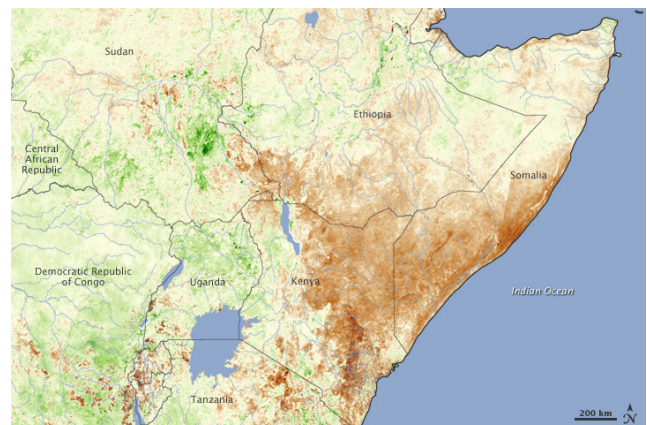
The food crisis in South Sudan has developed in part because of changing global climate patterns. “Climatic changes have affected South Sudan in both floods and droughts. Rainfall that was supposed to have started early this year was delayed. This change in rainfall patterns has led to [the need for] repeated planting,” said Joseph Lual Acuil, the Minister for Humanitarian Affairs and Disaster Management, in 2011.<sup>30</sup> A large portion of South Sudan’s population, like much of Africa, depends on subsistence agriculture for their livelihoods. Less consistent rainfall and harsher droughts endanger those livelihoods and contribute to the current crisis.

Climate change has affected the rainfall patterns of the region, and has caused droughts to come more frequently and harshly. When extreme dry weather afflicts a region already struggling with internal conflict it is difficult for people to maintain their livelihoods. The long-term conflict in South Sudan, paired with drought caused by climate change, has interrupted food production, making an already desperate situation even worse. This combination puts millions of lives at risk and drives migration by forcing people to relocate in order to stay alive.

According to the UNHCR, the mass exodus of people out of South Sudan is quickly making it the world’s fastest growing refugee crisis with 1.6 million people displaced in surrounding regions; 14.5% of South Sudan’s total population of 11 million.<sup>31 32</sup> Stability in oil-rich Sudan has historically been a priority for American foreign policy; U.S. policy brought about the creation of South Sudan in 2011.<sup>33</sup> In South Sudan’s current state of instability, oil production has stalled. Stabilizing this region should remain a priority for this administration, as the oil trade could stabilize the region and mitigate the refugee crisis from expanding to allied nations in Europe.

## Somalia

Further east is the Horn of Africa, which is no stranger to severe food crises. In 2011, prolonged drought in Somalia directly contributed to a famine, which killed nearly 260,000 people; 133,000 of which were children under the age of five.<sup>34</sup> The current drought is worse than that which preceded the 2011 famine.<sup>35</sup> The drought has lasted for two consecutive years and has caused the whole country to suffer significant crop failure.<sup>36 37</sup> As is consistent with the other three countries, the majority of the people are pastoral and depend on their livestock and crops for survival.



**This image illustrates the severe drought that afflicted East Africa in 2011.**

The climate change and security link in Somalia has glaring similarities to the situation in Northeast Nigeria with Boko Haram. Climate change has caused the droughts in Somalia to become longer and harsher, and, as a result, has supplemented the al-Qaeda affiliated militant terrorist organization, al-Shabaab.

The U.S. State Department designated al-Shabaab as a foreign terrorist organization in March 2008.<sup>38</sup> The group is considered to be the most dangerous Islamist group in Somalia, with the goal of transforming Somalia into a fundamentalist Islamic state.<sup>39 40</sup> Much like Boko Haram in Nigeria, al-Shabaab's recruiting is made easier by the desperation of the Somali people. At the height of the humanitarian crisis in 2011, the number of Somali refugees in neighboring Kenya was 519,411.<sup>41</sup> The refugee camps in Kenya are ideal grounds for radical Islamic extremists looking for new recruits. For example, the Dabaab refugee camp near Kenya's border with Somalia is the world's largest refugee camp with more than 200,000 people; it is said to be a recruiting center for al-Shabaab and a base for launching attacks.<sup>42 43</sup> The Kenyan government even went as far to call Dabaab, 'a nursery for al-Shabaab.'<sup>44</sup>



**Refugees at the Dabaab camp in Kenya.**  
USAID image/L. Meserve.

To make matters worse, al-Shabaab frequently prevents food aid from reaching areas where food scarcity is most severe. Al-Shabaab has lost much of its territory in recent years, but the group still controls a considerable amount of Somalia, particularly in southern rural areas which are at a higher level of urgency compared with the rest of Somalia.<sup>45</sup> Al-Shabaab fighters block roads that aid vehicles need access to effectively carry out their deliveries.<sup>46</sup> Additionally, al-Shabaab is known for restricting the movement of citizens living within their territory; making the search for water that much more difficult. However, recently al-Shabaab has indicated that they will allow civilians to move about more freely.<sup>47</sup> This may be part of their recent efforts to improve the general public's opinion of the group.

Al-Shabaab has a history of trying to improve their public image by leading their own food aid initiatives; a PR strategy that they have recently resurrected.<sup>48</sup> In light of this, al-Shabaab is able to capitalize on the vulnerable Somali people's food needs to increase their own legitimacy. The unrelenting drought has supported al-Shabaab's control of food access, because it has severely restricted crop production. If Somalia became more resilient to severe drought it would remove a significant component of al-Shabaab's strategy. This could be possible through resistant crop production and other sustainable agriculture techniques. The United States should assist Somalia with adapting to climate change, as it could allow the Somali people to sustain themselves without needing emergency food aid, or more importantly, aid from al-Shabaab. This course of action is important for America's overarching mission of combatting terrorism.

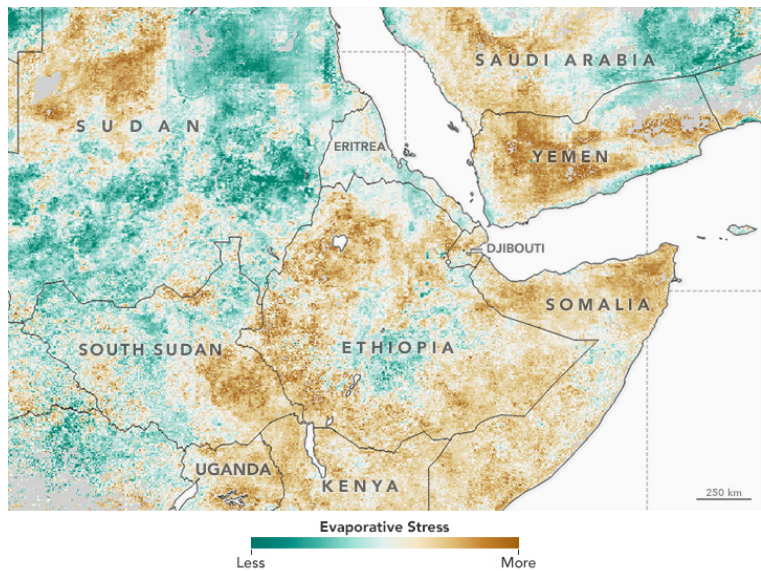
## Yemen

Yemen has a history of unrest and societal tension for reasons both economic and political. However, the current situation in Yemen has developed into a picture of hopelessness. Since 2015, Yemen's economy, infrastructure, and resources have been rocked by civil war; over the past two years, Yemen's currency, industry, transport infrastructure and public services have all been obliterated.<sup>49</sup> According to the Washington Post, an estimated 17 million people, 60 percent of the country's population, are in need of urgent humanitarian assistance.<sup>50</sup> Yemen's current misfortune stems from years of interlocking factors that can be traced back to the Arab Spring of 2011.<sup>51</sup>



The situation in Yemen is multifaceted, and it can be difficult to dissect all of the factors contributing to its instability. However, a significant source of Yemen's destabilization is the failed political transition that came about after the Arab Spring. This transition was meant to bring stability to the country after the Arab Spring uprisings pushed out Ali Abdullah Saleh, Yemen's authoritarian president, who ruled for 33 years.<sup>52</sup> Saleh begrudgingly handed over power to his deputy, Abed Rabbo Mansour Hadi, in February 2012.<sup>53</sup> The new Hadi government immediately faced significant challenges and this weakened state presented an opportunity to the Houthis movement. The Houthis are a Zaydi Shia rebel group which took control of Yemen's Saada province while Hadi's new government struggled.<sup>54</sup> Further attempts by the Houthis to take control of the rest of Yemen have prompted a Saudi-led intervention.<sup>55</sup> However, the situation has shown little improvement.

The political transition failed for many reasons, but one significant factor was the condition of Yemen at the time of the transition. Food and water scarcity, coupled with a rapidly growing population, left the country highly unstable. Yemen is among the world's most water insecure countries in the world, and drought exacerbated by climate change is making the situation worse.<sup>56</sup> In 2015, Oxfam reported that at least 16 million Yemenis were without a clean water supply or sanitation.<sup>57</sup> Currently, the parties in conflict utilize water as a weapon by blocking their adversaries' food and water aid deliveries.<sup>58</sup> In this way, water scarcity, made worse by climate change, acts as one of the drivers of the conflict.



**This map shows the severe water stress of Yemen. It depicts the extent of drought conditions for a 12-week period ending on February 15, 2017. NASA image.**

As stated in the introduction, the Syrian Civil War and the Arab Spring provide a clear example of tensions and conflict erupting because of poor circumstances exacerbated by climate change. Yemen's condition shares glaring similarities to the case in Syria.<sup>59</sup> Yemen's current hapless state is the result of a heterogeneous mixture of influences, including government mismanagement, overpopulation, unemployment, local terrorist initiatives, and water scarcity.<sup>60</sup> However, beneath all of these factors is one vital, underlying influencer, climate change, which has accelerated these risks and multiplied already existing threats.

Instability in Yemen is a problem for the United States; American spy agencies have indicated that Yemen's al-Qaeda branch has prospered as a result of Yemen's instability.<sup>61</sup> This represents another intersection of America's national security interest and intervening in this humanitarian crisis. Stabilizing Yemen may not be possible without American intervention as the crisis is already far gone. This situation is consistent with the other cases; the U.S. has something to gain by assisting this nation on its path to stability. Terrorist organizations thrive in an environment like this. Taking action is central to America's core values and interests.

## Conclusion

Planet Earth is a fascinating place and its climate system, though distressing, also demonstrates how interconnected everyone and everything truly is. This report has shown how climate change has collided with other systemic threats in these four countries to make each case more aggravated. It is apparent that climate change, although not the sole factor, multiplies these threats and is thus inextricably linked to international security.

Preventing a crisis before it is able to gain footing is the most optimal solution. There is still time to avoid another refugee crisis that destabilizes vital regions and allies. Providing aid and promoting climate resiliency is only but a piece of what it will take to ensure stability in these four countries and this region in general. However, even though challenges will still exist, the situation will be more manageable and that will be essential going forward.

In the long term, a sustainable political solution for addressing climate change must be found. Otherwise, these misfortunes will repeatedly resurface and grow in severity. But much like a burning house, the flames must be put out before it can be rebuilt. Adapting to climate change is essential for each of these countries and it is in the best interest of United States national security and the safety of the international community to assist these nations along their paths toward building resiliency and development. At this stage, though, the United States should provide international organizations like the UN with robust support to assist in preventing the impending disaster.

This White House Administration is presented with the opportunity to weaken global terrorist organizations, conserve America's disaster relief funds by preemptive action, evade increased migration stress on Europe, and save countless lives. An opportunity such as this does not come along every day; swift action will not only prevent certain catastrophe, but it will carry honor throughout the international community. Furthermore, as a global super power with substantial capability for assistance, the United States carries some responsibility to act. Providing assistance amid this crisis is not only benevolent, it is in America's best interests.

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The American Security Project (ASP) is a nonpartisan organization created to educate the American public and the world about the changing nature of national security in the 21st Century.

Gone are the days when a nation's security could be measured by bombers and battleships. Security in this new era requires harnessing all of America's strengths: the force of our diplomacy; the might of our military; the vigor and competitiveness of our economy; and the power of our ideals.

We believe that America must lead in the pursuit of our common goals and shared security. We must confront international challenges with our partners and with all the tools at our disposal and address emerging problems before they become security crises. And to do this we must forge a bipartisan consensus here at home.

ASP brings together prominent American business leaders, former members of Congress, retired military flag officers, and prominent former government officials. ASP conducts research on a broad range of issues and engages and empowers the American public by taking its findings directly to them via events, traditional & new media, meetings, and publications.

We live in a time when the threats to our security are as complex and diverse as terrorism, nuclear proliferation, climate change, energy challenges, and our economic wellbeing. Partisan bickering and age old solutions simply won't solve our problems. America – and the world - needs an honest dialogue about security that is as robust as it is realistic.

ASP exists to promote that dialogue, to forge that consensus, and to spur constructive action so that America meets the challenges to its security while seizing the opportunities that abound.



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