Mitigating Mayhem

By **Lt. Col. Michael Hagan**, U.S. Air Force

Nations must address the challenges posed by global population trends

Rapid population growth, especially in the developing world, will likely increase and exacerbate global security challenges such as civil wars, ethnic violence, starvation, border conflict and violence associated with neo-nationalism. Unfortunately, sovereign states tend to react to the security symptoms of global megatrends instead of comprehensively addressing the root causes. Evolving global demographics will likely strain the resources and resilience of all states, yet no single state or international entity is responsible for global population management. Recent and projected population trends, including urbanization, suggest that there will be significant security challenges as a result of uncontrolled international migration. As the global population increases from the current 7.3 billion to an estimated 9.7 billion in 2050, a proactive international community must prioritize a holistic approach to prepare for and mitigate the security problems associated with population growth.

Ultimately, rapid population growth and urbanization in the developing world are exceeding its carrying capacity, thereby increasing controlled and uncontrolled international migration. A likely consequence of this migration is a rise in ethnic nationalism, which could increase security challenges for the developed and developing worlds. This assessment raises two key questions for the international community: Are the consequences of current trends inevitable for future generations? Or can they be mitigated with action today?

Migration writ large is not necessarily a security threat. In fact, the movement of people from high density to declining population centers is necessary for sustainability and development. In a globally connected world, human movement benefits developing and developed states. Nonetheless, contemporary migration flows highlight short- and long-term global security challenges. The relationship between uncontrolled migration and a rise in nationalism is underappreciated. Nationalistic sentiments promote isolationism, threaten international political stability and tax the resources of security organizations. They also hinder the cooperation needed to effectively respond to transnational challenges such as migration, crime, terrorism and pandemics.

The United States and its security institutions must have an objective understanding of the demographic

trends that will significantly alter the global environment for the foreseeable future. The goal of any strategy is to create a deliberate plan with an advantageous end. That said, developing a strategy is a gamble because plans are largely informed by projections. The failure to accurately assess the threats associated with global population growth and to anticipate large-scale population movements will lead to an ineffective strategy, resulting in the unnecessary expenditure of national blood and treasure.

Likewise, European states must honestly examine global demographics and migration. The impacts of migration and population growth are arguably more critical for Europe because of its geographic proximity to strained states. Europe should anticipate hosting a significant number of migrants for the foreseeable future. There may, however, be a silver lining. Properly managed, a large influx of young immigrants could be essential to maintaining Europe's high standard of living. European countries have aging native populations, and an intelligent migrant integration could advance national interests, according to the United Nations' "International Migration Report 2015." The key question is whether Europe can maintain its identity while absorbing waves of immigrants who do not share a common education or ancestry with Europeans.

Most sovereign states view population according to their respective national interests. Consequently, states analyze national demographic trends through the prism of how changes affect social stability and economic security. This is understandable, yet myopic. By examining demographic trends and their potential impacts, European states can set a clear path to proactively advance national, regional and global interests.

Demographic trends

In 2015, human births surpassed deaths by a staggering 83 million, according to the U.N.'s 2015 "World Population Prospects" report. To put that number in context, this one-year snapshot of global growth exceeds the entire population of Germany. Also of note, 14 percent of the humans who have ever lived on Earth are alive today, as Corey Bradshaw and Barry Brook point out in their article, "Human Population Reduction is not a Quick Fix for Environmental Problems." This fact is interesting but irrelevant, assuming the planet can sustain the present human population. However, population projections are a cause for concern when combined with other demographic trends. Prior to World War I, there was a global population of 1.6 billion. The U.N. optimistically estimates that by the end of this century, 11.2 billion people will be on Earth, a surge of 9.6 billion within only 200 years.

In addition, according to the U.N. migration report, this increase is expected to take place primarily within the developing world. By 2050, the developed world will have 1.2 billion people, while the population of the developing world is expected to swell to 8.4 billion. Concurrently, developing states are experiencing rapid

Migrants wait to be rescued in the Mediterranean Sea, 10 miles north of Libya. GETTY IMAGES

rural-to-urban movement, a phenomenon known as urbanization. Author and strategist David Kilcullen predicts that population growth and urbanization, combined with littoralization and technological connectedness, will define the future security environment. Ultimately, states with limited resources and governance capacity are likely to undergo increasing strain under these population trends. The logical outcome of these trends includes decreased stability and increased migration rates.

Carrying capacity

It is tempting to examine the number of inhabitants on Earth using deterministic terms such as overpopulation. In his book, *The Coming Anarchy*, Robert D. Kaplan states that a surging population implies a competition for the scarce environmental resources requisite for survival. Environmental strains vary significantly between developed and developing states, according to Bradshaw and Brook, but become more pronounced as developing states gain affluence and increase consumption. Therefore, the number of people on the planet is less relevant than sustainability, or the ability to feed all of its human inhabitants, Vivien Cumming surmises in a British Broadcasting Corp. article, "How Many People Can our Planet Really Support?" But it's difficult to accurately predict how many people the planet can sustain. A helpful, yet limited, construct for this analysis is the concept of carrying capacity, which can be distilled to the regional, state or even city level.

Carrying capacity is defined by the World Population History website as an ecological construct that identifies "the maximum number of a species an environment can support indefinitely." Globally, carrying capacity is difficult, if not impossible to determine, as humans do not reproduce, consume and interact uniformly. As early as 1798, at a time with significantly less population strain, Robert Malthus explored this concept in *An Essay on the Principle of Population*. Malthus surmised that the Earth's capacity to sustain human life would be perpetually stressed as unchecked population growth occurs geometrically, while the means of sustenance increases only arithmetically. To Malthus, preventive and positive "checks" were necessary to match populations with subsistence demands. Malthus described preventive checks as family planning practices, while positive checks more ominously involve "misery and vice," such as war, uninhabitable environments and disease, all of which disproportionately affect the laboring poor.

Malthus' concepts are increasingly relevant to contemporary population trends, but are by no means deterministic of negative outcomes. Critics of neo-Malthusian logic, such as Betsy Hartman,

Anne Hendrixson and Jade Sasserm in their report, "Population, Sustainable Development and Gender Equality," argue that the blame for social maladies is placed upon the impoverished, while poor governance by developing world elites is ignored. Still others, such as Robert Fletcher, Jan Breitling and Valerie Puleo in a 2014 article in *Third World Quarterly*, maintain that overpopulation provides a pre-emptive scapegoat for development failures, which limits the accountability of developmental models and management. Proponents, such as Kaplan, call Malthus the "prophet of West Africa's future." Both critics and advocates of Malthus' perspective offer insight toward holistic courses of action. Malthus accounts for the "inventiveness" of man to compensate for subsistence demands, yet according to Robert Mayhew, who in 2011 wrote "Malthus and the Seven Billion," in 1798 he could not have projected advances such as genetically modified foods or global distribution chains. Still, Klaus Hofmann in "Beyond the Principle of Population: Malthus's Essay," notes it is impossible to project if, or at what population point, no additional "labor or ingenuity of man" can support subsistence requirements.

Urbanization

If populations increase as expected in the developing world, increasing the carrying capacities of the developing and developed worlds is paramount. The question of how developing states can absorb rapidly swelling numbers is of the greatest concern. Therefore, urbanization trends merit considerable reflection. Financial activity and economic opportunities inherent within cities increasingly draw migrants from rural areas, according to Jon C. Lovett in "Urbanization and Over-Population." The International Organization for Migration's "World Migration Report 2015" finds that the global movement toward cities is happening at a rate of 3 million people per week. Generally, urban areas in less developed regions are absorbing most of the global population growth, according to the U.N.'s "World Urbanization Prospects 2014" report. Further, an estimated 2.5 billion additional people, largely motivated by economic opportunity, are expected to relocate to cities by 2050. Ninety percent of this urbanization is expected to occur within Africa and Asia.

The speed at which urbanization occurs is notable. After millions of years as a tribal species, humans were genetically ill-prepared for the onset of urbanization, zoologist Desmond Morris argues in *The Human Zoo: A Zoologist's Classic Study of the Urban Animal*. He notes that in 1950, global population distribution was 70 percent rural. By 2014, 54 percent were urban dwellers. Since 78 percent of the developed world's population is already urban, according to the 2014 urbanization prospects report, projected rates and increases will disproportionately impact regions most impeded by progress restraints. Nigeria, for example, was 90 percent rural in 1950, but is equally rural and urban today

and is expected to be 70 percent urban by 2050. This rapid urbanization presents challenges to the stability of cities, states, regions and the international community.

Unplanned urban growth comes with significant consequences. The report also finds that, as of 2012, slums and informal urban settlements housed more than 863 million people in the developing world. This equates to 2.67 times the population of the U.S., or over 10 times the population of Germany, residing within areas of inadequate sanitation, services, governance or infrastructure. The U.N. Development Programme Regional Bureau for Arab States points out that 28 percent of Arab urbanites reside in slums and are increasingly exposed to social exclusion, poverty and violence. In his book, *Out of the Mountains: The Coming Age of the Urban Guerrilla*, Kilcullen describes these ungoverned, ad hoc peri-urban settlements as "feral cities," regressing to untamed characteristics in the absence of central governance. Inescapable threats caused by rapid urbanization will likely aggregate push factors for further migration.

Migration trends

Population growth and urbanization trends logically suggest high and perpetually increasing rates of international migration. This is relevant, as higher-income countries manifest decreasing resilience and tolerance for migration. The U.S. National Intelligence Council's "Paradox of Progress" report surmises that the drive to obtain a better existence, or to escape a horrific reality, must be significant to relocate internationally. Malthus noted that "few persons will leave their families, connections, friends, and native land to seek a settlement in untried foreign climes without some strong subsisting causes of uneasiness where they are, or the hope of some great advantages in the place to which they are going." So what then, are the quantifiable trends and likely projections of migratory movement?

As of 2016, the number of international migrants on the planet had never been higher; however, these numbers are far from reaching their apex. In 2016, 244 million people resided outside their country of origin, which is an increase of 71 million since 2000. Refugees and asylum-seekers account for 10 percent of these, according to the U.N. Secretary-General's "International Migration and Development" report. The U.N.'s migration report notes that refugee numbers have not been so pronounced since World War II. In addition to refugees who have left their country for another, 40 million people are currently displaced within their respective countries of origin, according to the U.N. More alarmingly, in excess of 740 million people are in transit within their own countries in pursuit of economic opportunity, according to the International Organization for Migration. Such internal movement contributes greatly to the phenomenon of urbanization.

Whether motivated by economic, environmental, political or security reasons, humanity is on the move. Globally, the increase in migrant numbers exceeds the rate of population growth. This fact is exceptionally relevant, considering impressive population increases. Further, the U.N.'s migration report also finds that with population growth, push factors for human movement increase at a higher rate. International migrants accounted for 2.9 percent of the global population in 1990, but this increased to 3.3 percent by 2015. Notably, China, India and Bangladesh — which represent the most populated and second- and eighth-most populated countries, respectively — currently have the highest levels of net emigration. Although people choose to relocate for numerous reasons, the numbers clearly indicate that the strain on local carrying capacity related to urbanization is one of the primary reasons for global migratory movement.

Immigration routes clearly follow paths toward perceived economic opportunity. Half of international migrants live in only 10 developed countries, the International Organization for Migration notes. Further, the U.N.'s migration report points out that, as of 2015, 71 percent of international migrants lived in high-income countries. The U.S. and Germany are currently home to 31 percent of global migrants, with 47 million and 12 million, respectively, while 84 percent of all migrants live within Europe, Asia and North America. Ultimately and understandably, the preponderance of global migration follows the money. Therefore, wealthy nations must anticipate enhanced desirability among economic migrants, as wealth distribution is concentrated among fewer, superannuated hands within the developed world.

Pull factors

Despite global population trends throughout this century, wealth distribution could likely remain relatively static, assuming no major disruptions to the global economic order. The U.N. population prospects report states that by 2100, high-income countries will host 1.5 billion people, quite consistent with contemporary figures. Therefore, a global addition of nearly 4 billion people will result in a large increase in people seeking economic opportunity. For the bulk of immigrants from the developing world who are seeking better lives for themselves and their children, the preferred destination is likely to remain high-income countries. Ultimately, the populations of high-income countries will decrease

and grow older; in contrast, the developing world is increasingly more youthful and populous.

This trend is most evident in Europe. By the end of this century, Europe's population is expected to decline from 738 million to 635 million, despite positive net migration projections. Aforementioned fertility rates within Europe largely explain these projections, but omit a key consideration of aging when isolated. Twenty-four percent of Europe's population is already over 60 years old. German citizens, for example, have a median age of 46.2 that is expected to increase to 49.6 by 2035, according to the U.N. population prospects report. Concurrently, global life expectancy improved to 70 years, with higher longevity in high-income countries. Germany impressively boasts a life expectancy of 80.6 years, while Nigeria's is only 52.3 years. Demographics will strain Europe as it adapts to a reality of a smaller and older native population.

In societies with low fertility and aging citizenry, fewer workers must support more dependents. A combination of reduced tax revenue and rising social responsibilities for the aging, challenges development, Gary L. Peters finds in "Depopulation in Some Rich Nations: Good News for Planet Earth?" Fiscal strains due to aging are best measured with the potential support ratio (PSR), which compares working-age citizens (20-64 years old) with the population over 65. A high PSR projects potential instability due to unemployment, while an insufficient PSR implies economic stagnation due to disproportionate revenue supporting the elderly. As a generalization, a PSR of 4 provides adequate economic revenue and sustainable support, according to the U.N. population prospects report. By 2050, 24 European states will have a PSR of 2 or lower, juxtaposed to the current 12.9 PSR among African states. Further, if tax revenues directly transfer toward security spending, and the preponderance of military professionals are younger, aging states can become more insecure. With regard to Europe, a U.S. Joint Chiefs of Staffs report, "Joint Operating Environment (JOE) 2035," finds "demographic and fiscal pressures will continue to challenge NATO's capacity and capability."

Assuming revenue, security and social stability are among state interests, sage immigrant integration policies remain essential to aging European states, and to a lesser degree to the U.S. But migration to counter aging is but a temporary reprieve, because migrants age as well, David A. Coleman finds in "Mass Migration to Europe: Demographic Salvation, Essential Labor,

> # Whether motivated by economic, environmental, political or security reasons, humanity is on the move.

or Unwanted Foreigners?" Unfortunately, a focus on border security often diminishes the potential utility of essential immigration among wary recipient states, according to James O. Ellis, James Mattis and Kori Schake in "Restoring our National Security." Legal, interest-driven immigration consistently occurs at roughly 1 million per year in Europe and North America, as noted by the U.N.'s International Migration and Development report. These figures are miniscule in relation to destination and origin populations, yet remain critical toward guaranteeing the prosperity of aging states.

With automation and technology, developed economies rely less upon unskilled labor. Therefore, the "Paradox of Progress" report states, unskilled laborers will increasingly pursue irregular migration routes toward the developing world. National policies targeting skilled migrants unmistakably advance the interests of developed states, yet with unintended consequence toward countries of origin.

The exodus of skilled workers from the developing world, a phenomenon frequently labeled "brain drain," impedes requisite reform within developing states. If economic opportunity or political inclusion for skilled workers is absent, migration offers status-quo regimes a convenient venue to extricate "malcontents," claims

the U.N.'s "Arab Human Development Report 2016: Youth and the Prospects for Human Development in a Changing Reality." Hartman, et al., argue that, absent popular dissent, powerful elites can theoretically maintain power without accountability or essential development. Discontent catalyzes political change, as evidenced by an educated, unemployed Tunisian man self-immolating in December 2010, thereby igniting the Arab Spring. To both sustain Western interests and refine conditions in the developing world, nuanced national policies on highly skilled migrants are essential. Incorporation of highly skilled migrants is enticing to the short-term interests of developed states, yet does little to advance strategic progress within the developing world. Therefore, conditions that push migration are likely to persist.

Push factors

When looking at the root causes of migration, it is important to distinguish push factors from pull factors. In other words, it is important to understand the reasons people leave a location and the reasons they are drawn to a location. To quantify this distinctly subjective perspective, U.N. researchers created the Happiness Index, which measured well-being via a milieu of variables that included perceptions of freedom, corruption, gross domestic product and life expectancy. They found that countries with low-density populations such as Denmark, Switzerland, Iceland, Norway and Finland rated high on

the Happiness Index. On the other hand, nations with dense populations, including Nigeria, China, India, Egypt and the Democratic Republic of the Congo, ranked relatively low. This study suggests that quality of life is simpler to advance when a country's carrying capacity is not exhausted. Countries that are close to exceeding their carrying capacities are often those with nascent or unstable governance. Unfortunately, this seems to be the scenario in much of the developing world.

Regarding strain upon carrying capacity, Malthus noted that suffering from hunger, hard labor and unwholesome habitations existed primarily within large cities. Today, there are 28 "megacities" in excess of 10 million inhabitants, compared to only 10 such cities in 1990. Rapid population growth most often precedes basic infrastructure, sanitation, health care and water requirements. In Sub-Saharan Africa, 61.7 percent of urbanites survive in slums, according to the International Organization for Migration. In a 2011 paper for the Africa Center for Strategic Studies, Stephen Cummins points out that 300 million of these people lack basic sanitation, and 225 million have limited access to potable water. Inadequate population preparation negatively correlates to quality and length of life.

Lack of carrying capacity in developing states and urban centers undoubtedly exacerbates humanitarian crises. Loss of life is significant during disasters or pandemics when demand exceeds infrastructure, security, transportation and medical services. The U.S. Joint Chiefs of Staff JOE report contends that, although tragic, these concerns are often secondary to security professionals and policymakers. Those skeptical of the validity of population strain see an environment of "persistent disorder" among states incapable of domestic order or good governance. The JOE report finds that, as carrying capacity overextends struggling governance, vacuums of power are increasingly filled with insurgents, urban gangs, and globalized crime and terror organizations. Cummins notes nascent governments are often unable or perceptibly unwilling to provide basic services and security, resulting in the political mobilization of unemployed youths in densely populated areas. Concurrent mitigation is essential to meet the challenges associated with excessive populations and poor governmental services.

Interestingly, the youth of contemporary population swells are technologically connected. In 2013, 6 billion people had cellphones, which was 2 billion more than had access to clean water. Therefore, awareness of relative deprivation merges with the ability to mobilize grievances. Since rapid urbanization often occurs within the capital seat of state governance, the stability of developing states is increasingly put

Yellow minibuses clog the roads in Lagos, Nigeria. Rapid urbanization threatens stability in developing countries. AFP/GETTY IMAGES

at risk by globally connected populations, Andrey Korotayev, Julia Zinkina, Svetlana Kobzeva, Justislav Bozhevolnov, Daria Khaltourina, Artemy Malkov and Sergey Malkov assert in a 2012 paper for *Cliodynamics: The Journal of Theoretical and Mathematical History*. State ineffectiveness, rooted in an inability to govern expansive populations, projects regional instability, according to the JOE report. Finally, Korotayev, et al., warn that in the coming decades the demographics and urbanization conditions present before the Arab Spring will be similar in countries such as Burkina Faso, Eritrea, Malawi, Niger and Tanzania. The pending government instability related to population and migration trends in the developing world will likely result in an increase in international migration. The U.S. National Security Strategy says that youths in the developing world — enabled by technological connectivity — possess higher expectations for economic opportunity and governance. Ideally, a well-organized, youthful political movement could catalyze government solutions, instead of political instability and further migration.

Recommendations

The strain on carrying capacity in the developing world can be expected to increase the motivations for human migration. Whether for economic opportunity or for refuge from persistent disorder, people will seek to improve their lives. Migration will increase when developing states lack either the willingness or capacity to provide security and opportunity for growing populations. Developed states should anticipate increased irregular migration in the coming decades. Isolationist policies might temporarily assuage domestic concerns, but they will do little to proactively address the root causes of population movement. According to the World Population History website, carrying capacity can be mitigated through the comprehensive measures of — to use a simple analogy — fewer forks, better table manners and a bigger pie. Practically speaking, this manifestation is possible through enhanced women's rights, civic nationalism, governance improvements and sustainable development.

Investment in women's health and family planning is critical, according to the U.N. population prospects report. Such investment would ideally come from within developing states, although cultural norms and internal priorities often preclude progressive gender programs

> Migration will increase when developing states lack either the willingness or capacity to provide security and opportunity for growing populations.

in such states. Nongovernmental organizations, such as the Bill and Melinda Gates Foundation, and intergovernmental organizations, such as the United Nations Population Fund, advance these interests.

Hartman, et al., argue further that advancing sexual and reproductive health rights, including holistic family planning education and contraception, is imperative throughout the developing world. Enhanced women's education, contraception access and empowerment is feasible, according to Leo Bryant, Louise Carver, Colin Butler and Ababu Anage in "Climate Change and Family Planning: Least Developed Countries Define the Agenda," and is significantly preferable to draconian measures employed historically, including coerced limits, sterilization and forced abortions. This endeavor is challenging because cultures and religion can resist the advancement of gender equality, the U.N.'s Arab human development report notes.

The political and economic empowerment of women provides the dual benefits of reduced fertility and a more developed society. Ultimately, fertility reduction is inextricably linked to equality among genders. Cultural gender constructs are difficult to shift progressively, but external facilitation from intergovernmental organizations and nongovernmental organizations will likely expedite this process. Such endeavors are essential among developing communities to promote fertility reduction and alleviation of carrying capacity burden.

Summary

Rapid population growth and urbanization exceed the developing world's carrying capacity, thereby increasing international migration and invigorating ethnic nationalism. Developing world fertility rates and movement trends project continuation of this phenomenon as people seek enhanced security or economic opportunity. Migratory push and pull factors will only increase as population stagnancy within the developed world is juxtaposed with youthful population explosions in the global South. Controlled migration is mutually beneficial, yet demographic realities imply an increase of irregular movement as recipient states exhibit more ethnic nationalism and move to reject migrants.

Skeptics may not be interested in developing the world's carrying capacity. But the time is now for forward-thinking mitigation policies that positively shape the pending migration environment. Otherwise, the future will include more of the same disorder — much more. ☐