Chapter 1
Towards Planetary Governance

Abstract This chapter addresses common and fundamental systemic challenges that nations face from a humanitarian and planetary systems perspective. In the face of a myriad of existential threats, including environmental, pandemic, technological emergencies and war conflicts, the need for peace and planetary system integration becomes compelling and essential. This chapter uses a planetary systems theory approach whereby humankind and the biosphere form a holistic, integrated, and interdependent entity. Nation-states are meta-systems through which human populations take form, find expression, and interact with the biosphere within a planetary system. Twelve Key Strategic Influencer (KSI) nations will shape the contours of an emerging planetary system of this century. As adaptive and complex systems, each nation confronts a myriad of significant humanitarian, socioeconomic, infrastructural, and governance challenges. Moreover, these system domains consist of 18 components each associated with a fundamental human right that KSI nations must effectively address. The effectiveness with which challenges are met is assessed through composite benchmark metrics that form a basis of international comparisons. KSI nations are on similar trajectories to becoming advanced technological knowledge societies that are converging and evolving into an integrated planetary system by the end of the twenty-first century. This chapter defines the contours of the emerging planetary systems and the requisite leadership.

Keywords Humanitarian systems · International human rights · Key world nations · National systems benchmarks · Planetary systems · Population governance

The deadliest poison of our time is indifference.
Saint Maximilian Kolbe (2013)


1.1 Towards a Planetary Society

This is an age of marvelous scientific achievements and unimaginable technological advances that promise to benefit generations. Yet, billions of humans around the world struggle daily to survive and find a basic quality of life that brings a measure of dignity and meaning to their brief existence on the planet. Currently, vast masses face incalculable and silent physical, mental, and spiritual suffering with a despair so profound and bottomless as to be almost paralyzing. Millions face environmental degradation and destruction, ethnic violence and wars, food insecurity and hunger, physical and psychological illnesses, socioeconomic distress, and poverty. At the same time, millions live in astounding wealth and freedom from mundane worries and are oblivious to the struggling masses. There is a deep complaisance and malaise in many societies that are numbed by greed and an obsession of material wealth. Bereft of ethical and spiritual values, many people struggle to find meaning in their lives and those of their families. The economic and political leadership of many societies have failed their people in their aspirations for better lives and purposeful meaning. In some nations, political leaders often corrode the ethical values of societies leading to more desperation, hopelessness, and violence. The greatest challenge of many human communities is that of finding faith, hope, love, and meaning through economic and social justice. Yet, there are breathtaking technological advances and millions are being raised out of material poverty. Moreover, millions of lives are awe-inspiring and give great hope to others that there is a better way for the future. Their lives give ample expression of courage and hope even in the face of corrupt leadership and despairing societal conditions. Many people stand in defiance of leaders and media sources that focus on the irrelevant, while fomenting anxiety, despair, and fear (Biedarieva, 2017).

This book speaks to common and fundamental underlying issues that national communities face from a humanitarian and planetary systems perspective. From the globalization initiatives of the last decades, a dynamic and interconnected new planetary system order is emerging. Humankind faces a myriad of existential threats that require increased dialogue and collaboration globally (Diamond, 2005; Torres, 2018; Wilson, 2006). These threats include environmental changes, such as climatic disruptions (Hamilton, 2017; Hansen, 2009; Wagner & Weitzman, 2015); pandemic threats, such as AIDS and a range of coronaviruses; technological threats, such as machine supremacy over human intelligence and lives (Boden, 2016; Rees, 2018; Shanahan, 2015); and war conflicts, including bioterrorism (Diamond, 1997; Falk, 2015; Forest & Howard, 2012). Convergence and transformational processes are already shaping the contours of a global and tightly coupled planetary society. Human communities and the human condition matter (Malraux, 1933). Health is the highest level of physical, mental, social, and spiritual well-being. Every person has immutable rights to live and to a quality life of decency and dignity. Every person also has profound duties and responsibilities to promulgate development and health in face of the human condition and variegated experiences (Frankl, 1946). As the renowned psychoanalyst Erich Fromm (1968) stated: “The knowledge of human
nature, its various possible manifestations, its optimal forms of development and the real needs conducive to human optimal development, not maximal production, should be the orientation.” This book underscores the need for decent societies that enable individuals to reach full human potential (Fisher, 2009; Fromm, 2010). It explores the future directions of 12 Key Strategic Influencer (KSI) nations through 18 systemic factors that will shape the contours of a future planetary governance this century. It is a clarion call to youth and future generations to strive and work for a hopeful and safer planet in the decades to come.

World-systems theory maintains that there is one global socioeconomic system with a single division of labor and multiple sociocultural systems. World-empires are, in effect, world-systems with large bureaucratic systems and a single political control point (Wallerstein, 2004). However, the perspective espoused in this book is that of planetary-systems theory. Here the world is as an integrated biosphere of which humankind is a vital part. The biosphere is composed of ecospheres where humankind is organized into polities, or nation-states. These include Key Strategic Influencer (KSI) nations with significantly large populations, geographical sizes, and ocean and sea coastlines; and Regional Tier 2 (RT2) nations with smaller populations, territories, and coastlines. KSI nations face common systemic challenges as they exert significant influence on the development of their ecosphere. Moreover, they will play a critical role in the evolution of planetary governance systems in the decades to come.

The systemic questions that form the underlying themes include the following:

1. How effective are KSI nations in confronting common systemic challenges in an emerging planetary society?
2. Is it possible to mitigate and prevent future existential threats facing humankind?
3. What are the likely contours of the emerging planetary society in this century?
4. What will be the attributes of future transformational leaders, or Planetarians, of a future planetary society?

This book proposes a nonconventional systems paradigm of Key Strategic Influencer (KSI) nations that are forging the emerging future planetary society. This chapter defines the underlying metasystems paradigm that form the conceptual themes of this book. It identifies three ecospheres with KSI nations that will determine the shape of the twenty-first century and beyond. The common meta-systemic challenges of each are delineated. Chapter 2 examines the systemic challenges and potential directions of the West Atlantic ecosphere nations of the USA, Canada, Brazil, and Mexico. Chapter 3 underscores those of the Euro-Indian ecosphere including India, the European Union (EU), the Russian Federation, and Nigeria. Chapter 4 does so for the East Pacific ecosphere including China, Japan, Indonesia, and Australia. Chapter 5 outlines the existential threats that humankind faces, including the probable hot zones of conflict, that underscore the urgent need for preventive measures for a more just and peaceful world. In evoking the possible contours of the future landscape, this chapter underscores the cogent and ethical
leadership values that will transform an emerging planetary society towards the end of the twenty-first century.

1.2 The KSI Constellation

“And God created great whales and every living creature that moveth which the waters brought forth abundantly.” (Genesis 1:21, The New King James Version, n.d.). Indeed, not all nation-states and polities are equal. Each nation faces unique geographical, historical, and socioeconomic circumstances and constraints, as they leverage their singular strengths and opportunities. The extent to which each does so effectively will influence the emerging contours of a planetary society. There are 12 nations that will exert global leadership and become the central arbitrators and architects of the evolving landscape of a future planetary society. The centrality of these Key Strategic Influencer (KSI) nations is underscored through their projected 2050 populations, territorial size, and the length of ocean and sea coastlines (Central Intelligence Agency, 2019; Janssen & Liu, 2019; United States Census Bureau, 2019). Organized into three global ecospheres, they include: the East Pacific nations of the People’s Republic of China (China), Japan, Indonesia, and Australia; the Euro-Indian nations of India, the European Union (EU), the Russian Federation and Nigeria; and the West Atlantic nations of the United States of America (USA), Canada, Brazil, and Mexico. As the world evolves into an integrated planetary society, these nations will eclipse the old Western world-order that for centuries have been influenced by the traditional European powers of France, Great Britain, Italy, and Spain. In addition, within each ecosphere there are several regionally important nations that have relatively smaller projected populations, limited geographical size, and coastlines. These Regional Tier 2 (RT2) nations include: Korea (the People’s Democratic Republic of Korea and the Republic of Korea), the Philippines and Vietnam in the East Pacific; Bangladesh, Egypt, Iran, Pakistan and Turkey in the Euro-Indian ecosphere; and Argentina, Columbia, and Peru in the West Atlantic. Moreover, over the course of the next 30 years there will be an emerging Arab Islamic ecosphere that includes the Maghreb (Algeria, Libya, Mauritania, Morocco, and Tunisia) and the Mashriq (Egypt, Iraq, Saudi Arabia, Sudan, and Yemen) nations. There is also an emerging African ecosphere that will include the Democratic Republic of Congo; the Economic Community of West African States (ECOWAS) from Nigeria to Senegal; Ethiopia; South Africa; and the nascent East African Federation (Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda). These RT2 nations, along with smaller ones, are currently developing and form a belt of chaos of conflictual, fragmented, and unstable nations.

The KSI nations are vitally important in the development, peace, and stability of their respective ecospheres in this century. Moreover, they will determine the extent to which existential threats to humanity will be mitigated, if not eliminated. All nations face humanitarian, socioeconomic, infrastructure and governance systemic challenges that might well corrode, if not derail, their future planetary potential. The
days of many current nation-states are numbered. Indeed, although KSI nations possess enormous assets, resources, and structural strengths, they are not fully guaranteed to meet the aspirations of their peoples nor fulfill their future promise.Cogent ethical and principled transformational leadership will be instrumental in building positive social development to meet these challenges within a tightly integrated planetary community. Constructive and humanitarian leadership values will catalyze and unleash the creativity and innovative transformative power of their peoples and influence the future of humankind.

1.3 The Meta-Systems Paradigm

Nobel Peace Prize laureate Dr. Martin Luther King Jr. (1967) asserted: “If we are to have peace on earth, our loyalties must become ecumenical, rather than sectional. Our loyalties must transcend our race, our tribe, our class, and our nation; and this means we must develop a world perspective.” Holistic system theory forms the underlying paradigm for understanding and resolving complex diverse world systemic problems (Boulding, 1985; Capra, 1982, 1997, 2003; Capra & Luisi, 2016; Sen, 1999). A holistic paradigm recognizes the synergetic relationships within systems that make the whole greater than its parts (Alley, 2011; Fuller, 1969, 1975; Fuller & Kuromiya, 1992; Rimanoczy, 2014). From this high-level Weltanschauung, the planetary system is a dynamic and evolving metasystem, or systems of systems, that adapts to transformational environmental changes and demands (Fullan, 2006; Wallerstein, 2004). Resource flows surge through the system to maintain a state of homeostasis and counterbalance entropy. Intelligence systems act as algedonic alerts, or cybernetic feedback loops, when systems performance fail (Beer, 1985). Planetary-systems are autonomic systems that embody cognition that strengthens resiliency and robustness through evolution and growth in volatile conditions and environments (Taleb, 2012). They are adaptive learning systems and are “consilient” in that they integrate intelligence and knowledge from variegated disciplines (Senge, 1990; Wilson, 1998).

The 12 KSI nations are metasystems that are shaping the contours of the future planetary meta-system. Although each is developing at a different rate and velocity, they are converging towards and evolving into an integrated planetary society. As Loehr and Schwartz (2003) maintain that: “Energy, not time, is the fundamental currency of high performance.” Indeed, KSI nation responds to common systemic challenges in humanitarian, socioeconomic, infrastructure and population governance domains in unique ways. Large populations or territorial size does not necessarily equate to great strength. Nor is the strength of KSI nations a function of military budgets and strength. Rather the degree of effectiveness in meeting its systemic challenges that determines national strength. From this perspective, nations are still evolving, growing, and learning. In so doing, they must cope with systemic chaos, complexity, fragility, instability, and uncertainty as part of a future planetary-systems order. Moreover, a planetary society is emerging in the face of variegated
existential systemic threats confronting humankind everywhere. This new world order will reflect the boundless creative energy, fortitudinous courage and will-power, innate collective intelligence, and innovative spirit of humankind. Hope is immanent and will triumph. As the late political leader Jack Layton (2011) expressed it in his last letter to Canadians: “My friends, love is better than anger. Hope is better than fear. Optimism is better than despair. So, let us be loving, hopeful and optimistic. And we’ll change the world.” This peaceful world order will not result from geopolitical machinations, Realpolitik struggles, nor win-lose conflicts with vast investments in military buildups that lead to destructive wars. If KSI nations focus solely on geopolitical and hard power strategies, then peace, positive development and social justice will be elusive and will remain a mirage. War conflicts are not only predictable, but they are primordially preventable. As KSI nations face common systemic challenges of varying magnitude, planetary collaboration in humanitarian and peace endeavors are of paramount importance. Evolving systems require effective changes with caring and ethical transformational leaders (Caro, 2001, 2016).

1.4 Deconstructing Metasystems

The interconnectivity of energy resources, food, human habitats, population management, poverty, water, and wealth redistribution remain complex and dynamic (Brundtland, 1987). There are limits to economic growth and sustainable development that meet present and future generational needs. These constitute dynamic metasystems that interact with complex biophysical and ecological environments. The KSI nations are essentially complex meta-systems composed of system domains (macro-systems) and components (mesosystems). For the purposes of this book, there are four generic domains composed of four key components. Although each may be further functionally analyzed on a micro-level, it is not the intent of this book to do so. Rather this approach is a meta-level systems perspective that discerns how high-level domains and components of KSI nations might shed light on the future of an evolving planetary society. The goal of each systemic component within a domain is associated with a fundamental human right. Benchmarking forms the basis of system performance assessment using a standard that gauges current resources against potential capacity (Beer, 1985; Caro, 2010c). The number of systemic monitors is almost limitless. Identifying system benchmarks and standards is not for the faint of heart (Anthopoulos, Janssen, & Weerakkody, 2016; Bannister, 2007; Broome & Quirk, 2015a, 2015b; Maheshwari & Janssen, 2014). Systems monitoring metrics are complex and by no means uniform and universal (Doumeingts & Browne, 2016; Seabrooke & Wigan, 2015). They do, however, facilitate a perspective of systemic challenges and problems (Simon, 2008). High-level systems analysis requires delimiting the number of metrics to a few simplistic potent ones to assess systemic performance (Caro, 1990, 1991, 1992, 1993a, 1993b, 1993c, 1994). These metrics form landscapes of significant systemic challenges that each KSI
nation confronts. The main data sources on KSI nations in this effort are drawn in part from secondary sources that include: The CIA World Factbook 2019 (Central Intelligence Agency, 2019); the Corruption Perception Index (Transparency International, 2020); the Institute for Health Metrics and Evaluation (2017); the International Atomic Energy Agency (2019); the International Food Policy Research Institute (Von Grebmer et al., 2016); Interpol (2018); the Inter-Parliamentary Union (2019); the Organization for Economic Cooperation and Development (OECD) (2019); The Statesman’s Yearbook (Palgrave Macmillan, 2019); the United Nations AIDS Program-UNAIDS (Carlsson, 2019); the United Nations Office on Drugs and Crime (2017, 2018); the United States Census Bureau (2019); The World Almanac and Book of Facts (Janssen & Liu, 2019); the World Bank (2019a); the World Health Organization (2018, 2019); the WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply, Sanitation and Hygiene (2017); the World Nuclear Association (2020); the World Resource Institute (2012); Worldometers (2020); and the Yale Centre for Environmental Law & Policy (Wendling, Emerson, Esty, Levy, & de Sherbinin, 2018). Taken together, possible contours of future planetary order scenarios emerge (Fauré, Arushanyan, Ekener, Milutenko, & Finnveden, 2017; Friedmann, 2009; Iversen, 2006). The key system domains and components include the following.

1.4 Deconstructing Metasystems

1.4.1 Humanitarian Systems

This systemic domain assures that the fundamental needs of a population, such as clean and safe water resources, food resources, health care, education, and environmental health are met. According to Nobel Peace Prize co-laureate and former President of East-Timor, José Ramos-Horta (2017) asserted: “These are matters of survival for all and yet, to date, there has not been enough understanding of the urgency of addressing these challenges.”

1.4.1.1 Water Security: The Right to Freedom from Thirst

“The afflicted and needy are seeking water, but there is none. And their tongue is parched with thirst.” (Isaiah 41:17, n.d.). Water resources are critical for life and essential for agriculture, growth, and sustainability. There are an estimated over four billion people who face critical shortages of water globally. As American writer Stephen King (2010) expressed it: “In hell, people got an occasional sip of water, if only so they could appreciate the full horror of unrequited thirst when it set in again.” In this century, water resources are becoming what oil and petroleum were in the twentieth century. Climatic change, desertification, and droughts are becoming more severe. Limited access to potable water contributes to social unrest, violence, and wars. Scarce water resources compromises agricultural productivity; increases the risk of desertification and droughts; and leads to mass migration from
rural to urban regions (Viola & Franchini, 2018). The ideal amount of water that serves as the systemic benchmark is 8000 m³/capita. Whereas Brazil, Canada, and the Russian Federation have exceptional water resources of over 40,000 m³/capita; China, India, Mexico, and Nigeria have critical shortages of under 4000 m³/capita (Central Intelligence Agency, 2019; Janssen & Liu, 2019). Governments have a responsibility to provide access to adequate clean and safe water resources for their people. As world populations grow and global process of desertification increases, the need for water resources will become more acute, particularly across Australia, China, India, Mexico, Nigeria, and parts of the USA. Moreover, the distribution of water within nations may not be equitable. Poor access to basic sanitation and the lack of wastewater treatment plants contributes to pollution, diseases, and the destruction of biodiversity. Over the next decades, nations will be challenged to overcome shortages through water conservation and recycling; desalination technology; effective waste management engineering; and the equitable distribution of resources through water networks. Judicious water management and global cooperation and sharing of water resources will become the watchwords of tomorrow.

1.4.1.2 Food Security: The Right to Freedom From Hunger

Food resources through productive agriculture and aquaculture are critical to human survival and development. Over four billion people worldwide and over 610 million in the KSI nations face food shortages, hunger, and malnutrition. The lack of access to adequate food and nutrition is the great insecurity of the twenty-first century. As Nobel Literature laureate Elie Wiesel (1958) wrote:

From the depths of the mirror, a corpse was contemplating me. The look in his eyes as he gazed me has never left me. Our first act as free men was to throw ourselves onto provisions. That is all we thought about. No thought of revenge or of parents. Only of bread. And even when we were no longer hungry, not one of us thought of revenge.

Governments have a responsibility to provide basic agricultural and food resources to their peoples. International cooperation is also essential in sharing agricultural resources and food to the millions of hungry in this century. The proxy benchmark metric is 0.22 mi² (0.57 km²) of arable land per capita. On this basis, China, India, Indonesia, Japan, Mexico, and Nigeria have a critical shortage of agricultural lands to feed their peoples adequately (Central Intelligence Agency, 2019; Janssen & Liu, 2019). Ideally, nations should allocate at least 15% of their territory to agriculture. From this perspective, Australia, Canada, and the Russian Federation have considerable potential in expanding their agricultural capacity and becoming major food exporters (Central Intelligence Agency, 2019; Janssen & Liu, 2019). Despite having ample arable lands, India has significantly high levels of global hunger, as do Brazil, China, and Mexico (Von Grebmer et al., 2016). These KSI nations have limited capacity to mitigate food insecurity, hunger, and malnutrition for their burgeoning populations. Moreover, food insecurity and hunger also affect up to 5% of the populations in KSI nations, such as Australia, Canada, the EU, Japan, and the
USA. Here socio-economically disadvantaged groups in rural and urban areas, as well as isolated communities, face challenges of hunger. All this is compounded by food wastage, high food costs, inefficient distribution and supply chain systems, and transportation system challenges. The expansion of agricultural capacity and productivity, food wastage prevention, and the judicious harvesting of ocean and offshore nutritional resources is essential. Investments in agricultural sciences and marine resources have significant potential in resolving food scarcity globally. The equitable distribution of these resources through effective international distribution and supply networks is the key to salvage the hungry and malnourished millions across the planet in this century.

1.4.1.3 Health Care: The Right to Healthy and Quality Lives

Effective health care remains key for the advancement of peoples and remains a primordial global priority. As the philosopher and theologian Ivan Illich (1976) expressed it: “Healthy people are those who live in healthy homes on a healthy diet in an environment equally fit for birth, growth, work, healing and dying”. Inadequate health saps the energy and potential of nations and make social development difficult. Governments have a responsibility to provide access to adequate and effective health care for their populations. Recognized health system indicators include the average life expectancy and infant mortality rates. Of the KSI nations, Japan has the highest life expectancy at 85 years and lowest infant mortality rate at 2 per 1000 live births (Central Intelligence Agency, 2019; Janssen & Liu, 2019). The health outcome standard based on Japan’s performance is as follows: [the average life expectancy − the infant mortality rate per 1000]/83. Aside from the Japanese, the American, Australian, Canadian, and European health care outcomes are generally excellent. Yet, at least 1.7 billion people in the KSI nations do not have access to adequate health care. Inequities in health care delivery within nations is growing more than ever (Krieger, 2008; Navarro & Shi, 2001). Over 320 million Chinese citizens and over 860 million Indians still need access to basic health care. Moreover, the health care situation in Nigeria with its extremely high infant mortality rates and its population of over 205 million is particularly dire and in need of international attention. In addition, a key proxy metric for health care systems capacity is the hospital bed density expressed as number of beds per 1000 population. Here the ideal systemic benchmark is 10 beds/1000 persons. Whereas, Japan exceeds this benchmark, the Russian Federation has excellent capacity and that of the EU is fair (OECD, 2019). The systemic capacity of Australia, Canada, China, and the USA is relatively poor, whereas those of Brazil, India, Indonesia, Mexico, and Nigeria are critically poor. This implies that in times of emergencies, such as natural disasters and pandemics, the capacity of the health care system to respond efficiently and effectively is limited. The Covid-19 coronavirus pandemic exposed the limitations of many systems to respond to and expand to meet the needs of health care services, particularly in high density regions (Worldometers, 2020). Moreover, health care may greatly vary regionally with variations in accessibility, equity, and quality.
across vast lands, such as in Australia, Brazil, Canada, and the Russian Federation. Cardiovascular diseases and cancer account for at least 75% of deaths across the KSI nations. Moreover, over 12.5 million people in these nations are HIV+ and have AIDS (Carlsson, 2019). Furthermore, there are over 810,000 deaths from road trauma (World Health Organization, 2018) and over 400,000 suicides (Hardiman, 2015; Wasserman, 2016; World Health Organization, 2019) at an estimated economic loss of over USD 1.13 trillion annually across these KSI nations.

1.4.1.4 Education: The Right to Be Free of Ignorance and to Understand the World

As the renowned British author Herbert G. Wells (1920) asserted that: “Human history becomes more and more of a race between education and catastrophe.” Learning determines humankind’s future. It creates and enables humane and sustainable communities and propagates hope (Hooks, 2003; Illich, 1970). Literacy is freedom (Sen, 1999) and opens the doors to future educational, employment and development opportunities. The attainment of full literacy is a key first step in participating in and contributing to the larger society and underscore the needs for governments to provide and promulgate educational levels (Caro, 1987, 1994, 1996). The literacy rate is one basic metric of educational systems. Except for India and Nigeria, all KSI nations have excellent literacy rates of over 90% (Central Intelligence Agency, 2019; Janssen & Liu, 2019). Low literacy rates pose obstacles to employment, contribute to socioeconomic distress and poverty, and provide a breeding ground for crime and violence. India has the highest number of illiterate peoples at over 375 million. China and Nigeria account for 135 million people who are illiterate with an addition of over 40 million across other KSI nations. Moreover, educational levels vary regionally and across socioeconomic groups within nations. It is incumbent upon governments to equalize educational opportunities across ethnic groups, gender, and internal and isolated regions. The educational battle against ignorance and illiteracy will continue to be the watchwords of the twenty-first century.

1.4.1.5 Environmental Integrity: The Right to Environmental Health and Ecosystem Vitality

As the Brazilian environmental activist and Yanomami indigenous leader, Davi Kopenawa maintained: “If they persist in devastating the forest, all the unknown and dangerous beings that inhabit and defend it, will take revenge. The sky will start moaning and begin to break apart” (Kopenawa & Albert, 2013, p. xvii). Pollution-free environments are essential for the growth and sustainability of ecosystems and human communities. This underscores the importance of the Cree’s concept of Wahkohtowin, or the interconnectedness and interdependency of ecosystems and human communities. Governments must be at the forefront in the battle for healthy and safe human environments and biodiversity. Black carbon, carbon dioxide, meth-
ane emissions from fires, industrial and vehicular sources contribute to environmental degradation, as do nitrogen dioxide, nitrogen oxide and sulfuric dioxide. Household solid fuels, lead exposure and solid particulate matter also compromise air quality, contaminate agricultural soil and plants, and foster climatic changes. The systemic metrics of environmental performance with health and ecosystem vitality components defined through the Yale Centre for Environmental Law & Policy are highly relevant (Wendling et al., 2018). The overall environmental performance index for the KSI nations is 61%, ranging from 31 in India to 75 in Japan. China, India, Indonesia, and Nigeria have the lowest environmental health scores of under 50% and are the most polluted KSI nations. Environmental health in India is alarmingly poor. In comparison, the overall environmental health is relatively good in Australia, Canada, Japan, and the USA with regional variations within each. Across the KSI nations, air pollution accounts for over 4.3 million deaths annually and directly affects the lives of over 2.3 billion people with an annual economic cost of over USD 2.1 trillion. Ecosystem vitality reflects a KSI nation’s biodiversity and habitats that require adequate biome, marine and species protection. Decreasing fish stocks and deforestation point to declining biodiversity. Across most KSI nations, the ecosystem vitality is marginal and deteriorating at best, with India and Indonesia experiencing the most alarming and rapid declines.

1.4.2 Socioeconomic Systems

Nobel Peace Prize laureate, Dr. Kofi Annan, the former Secretary General of the United Nations, noted that “extreme poverty is a threat to human security everywhere and is a denial of human rights” (Annan, 1998). Effective socioeconomic systems promulgate and sustain fiscal health through adequate incomes per capita, full employment and the elimination of poverty. Effective taxation systems generate sufficient revenues that are then redistributed to meet basic humanitarian and socioeconomic needs of populations. Zero tolerance of all forms of corruption and crime, while maintaining the highest levels of corporate and governance transparency are also important. Effective monetary policies that encourage ethical, fair, and positive export performance, while mitigating the debt-to-GDP ratios are central to healthy socioeconomic development.

1.4.2.1 Fiscal Health: The Right to Freedom from Poverty and Socioeconomic Distress

Luiz “Lulu” Da Silva, the former President of Brazil, expressed it well: “It is not possible to continue with an economic order in which some people eat five times a day and others go five days without a meal.” (Wainwright, 2003). Fiscal health is associated with the absence of poverty, full employment, and sustainable incomes per capita supported by effective taxation systems. Socioeconomic distress is evi-
denced through unemployment rates and the percentage of the population living under the poverty line. This provides a breeding ground for corruption, crime, despair, human exploitation, poor health, social unrest, substance abuse, and violence. Governments have a moral responsibility to provide full employment and lift people out of poverty. The systemic benchmark target is zero unemployment rates and zero percentage of people living in poverty. Across the KSI nations, an average of 25%, or over 970 million people, live in socioeconomic distress (Central Intelligence Agency, 2019; Janssen & Liu, 2019). This remains a travesty and its elimination a first order priority. Peace and world stability cannot prevail when so many live under despairing human conditions. India presents a most troubling picture of over 350 million living in dire conditions of poverty and unemployment, followed by China and Nigeria. Moreover, significant numbers suffer from socioeconomic distress in Brazil, the EU, Indonesia, Mexico, and the USA. Furthermore, each KSI nation has internal regional differences and variations. International collaboration and efforts are essential in the mitigation and elimination of unemployment and poverty globally. Socioeconomic distress remains a great plague of the twenty-first century. Adequate income per capita is important for an affordable and basic quality of life. The USA with the highest income per capita at over USD 62,500 is the systemic benchmark. Australia, Canada, the EU, and Japan have relatively high per capita incomes (Central Intelligence Agency, 2019; Janssen & Liu, 2019). On the other hand, India, Indonesia, and Nigeria have critically low average incomes per capita. An essential role of national governments is to assure equitable and fair distribution of finances across regions and socioeconomic classes (Smith, 1776). As unpopular a fiscal measure as it is, social taxation is a prime governance instrument to ensure the appropriate financing of education, health care and socioeconomic development of peoples. Tax revenues that are ethical and fairly raised and equitably redistributed have potential to eliminate government debts, expand infrastructure capacities, leverage humanitarian and social development, and raise socioeconomic levels. The ideal systemic benchmark to effectively meet equitable income distribution and social development needs is 50% of a KSI nation’s Gross Domestic Product (GDP). The KSI nations’ average is about 32%. Strengthening taxation infrastructures, cogent social financing and rigorous accounting controls go hand in hand. Ineffective and weak taxation systems with poor social investments contribute to socioeconomic disparities and poverty and inhibit the full potential of a society and its peoples. Of the KSI nations, Australia, Canada, and Japan have the strongest taxation systems, whereas Brazil, India, Indonesia, Nigeria, and the Russian Federation have the relatively weakest (Central Intelligence Agency, 2019; Janssen & Liu, 2019). Interestingly, most member states of the EU, such as France and Sweden, have strong taxation levels. However, the EU as a global polity is among the weakest of the KSI nations with 2% of the Union’s taxation potential based on its collective GDP.
1.4.2.2 Corruption and Crime: The Right to Freedom from Corruption and Crime

The obsession for rapid and vast private profits together with gross displays of materialism point to deep societal malaise. According to the revered Mahatma Gandhi (1958): “The world has enough for human needs, but not for human greed.” The widening gap between the socioeconomically poor and rich are evidence of the distortion and wastage of resources (Bakshi, 2000, 2010). Intricately linked with responsible social taxation is the necessity of accountability and governance transparency. Both are integral to the socioeconomic health of a nation. High transparency in governance fosters public confidence and trust. The systemic benchmark is zero percent in corruption and crime and 100% transparency in governance. Transparency International in Berlin is a key organization at the forefront of assessing corruption and transparency globally. Corporate and political corruption is the power of elected leaders and technocrats to use their position for illegitimate personal and private gain through criminal behaviors. These range from bribery, embezzlement, extortion, gang formation, graft, human exploitation to illicit substance trafficking, influence peddling, money laundering, nepotism, patronage, terrorism, and theft. Bribery, money laundering and tax evasion have significant systemic corrosive effects (Baker, 2005; Hayek, 1944; Partnoy, 2003). Criminal activities thrive where there are high levels of socioeconomic distress, high rates of poverty and unemployment, a lack of respect for human dignity and rights, low literacy rates, poor accounting controls and practices, social injustice, tax havens, and both weak legal and policing systems. Violent crime and homicides thrive in these environments. As the noted Brazilian writer, Maria Carolina De Jesus (2003) expressed it:

The enemy is the acceptance and tolerance of the economic and social injustices, human suffering, hunger, and pain in a world where the rich promote and sanction greed. This creates conditions where people live with the loss of dignity and in utter desperation and brings out the worst in people.

The overall average corruption rate of the KSI nations is marginal at 50% (Transparency International, 2020). The annual cost of corruptive practices is estimated to be 5% of the national GDP (United Nations, 2018). Australia, Canada, and Japan have the highest governance transparency levels and lowest corruption rates (Transparency International, 2020). The world’s highest rates of crime and homicide rates are in Brazil, Mexico, Nigeria, and the Russian Federation, whereas Japan has the lowest (United Nations Office on Drugs and Crime (UNODC), 2018). Governments have a duty to eliminate corruption and crime to advance the socioeconomic development of their peoples. High levels of corruption also foster global crime that calls for proactive international monitoring and policing (Interpol, 2018). Transparency and freedom from corruption and crime places nations on peaceful and positive paths of full development and stability.
1.4.2.3 Monetary Health: The Right to Exchange, Innovate and Trade Effectively

Monetary policy is instrumental in determining export performance and eliminating national debt, expressed as the debt-to-GDP ratio, central to the socioeconomic health of KSI nations. All nations have the potential to increase international trade relations and promote export performance to the benefit of their peoples (Caro, 2010a, 2010b; Chaulia, 2013; Lindh, n.d.; Stiglitz, 2006). Healthy exports and positive trade balances are instrumental in maintaining and promulgating socioeconomic health. Full employment and the mitigation of poverty is intrinsically linked to strong export industries and performance. Governments have a responsibility to identify national comparative advantages and drive growth, innovation, and scientific and technological advances in leading edge industries. A proxy systems benchmark of relative export performance potential is a factor of ten times the national population, expressed in US dollars (USD). Of the 12 KSI nations, Australia and Canada have the strongest export performance relative to their population size. On the other hand, that of Brazil, India, Indonesia, and Nigeria have not reached their full export potential (Central Intelligence Agency, 2019; Janssen & Liu, 2019). The world is transitioning from non-renewable energy, based on carbon and oil sources, to clean renewable hydroelectrical, solar and wind energy sources. KSI nations will need to build on comparative strengths as they develop new industries. Significant investments will be needed in innovations ranging from agricultural sciences, aquaculture, biotechnologies, driverless and drone technologies, genomics, hologram technology, knowledge engineering, mass transportation, medicine, nanotechnologies, pharmaceuticals, robotics, oceanic and space technologies, renewable energy technologies and super intelligence systems. In the twenty-first century, the ingenuity of KSI nations will be tested as never before. Those nations that emphasize and invest significantly in engineering, mathematics, sciences, and technologies will be the ones that that drive the export industries of tomorrow. Innovation and research will be the watchwords of the emerging globalized world. The long-term socioeconomic health and sustainability of KSI nations also depend on public debt avoidance and mitigation. As financial writer Addison Wiggin (2005) maintains:

Debt itself has become institutionalized. Today, many people simply accept as a fact of life that the national debt is unimaginably high. The problem, though, is that we cannot continue the exponential expansion of debt without a catastrophic economic outcome.

The average debt-to GDP ratio of the KSI nations hovers at a high rate 68%. If one assumes the systemic benchmark ratio should be close to zero, Japan and the USA have the highest debt-to GDP ratio, followed by Brazil, Canada, and the EU (Central Intelligence Agency, 2019; Janssen & Liu, 2019). In contrast, Indonesia, Nigeria, and the Russian Federation have relatively low debt-to-GDP ratios. While maintaining high standards of living, Canada and the EU have incurred high public debt, while Japan and the USA have alarmingly so. In effect, these nations have essentially mortgaged the future of the next generation to pay for the current living standards. These nations will likely face arduous socioeconomic choices, such as
austerity measures, government program cutbacks, severe service rationing, and taxation increases to control growing and unsustainable public debt. The management of public expectations and the instilling of values of discipline and sacrifice lie at the heart of the public debt dilemma from which no nation is exempt. Fiscal discipline, restraint, and freedom from public debt will be the watchwords of the twenty-first century.

1.4.3 Infrastructure Systems

Effective infrastructures support humanitarian and socioeconomic needs. This critical domain includes transportation systems, such as airports, railways, roadways, and seaports; hydro-electrical and renewal energy systems; socio-technical systems, such as Internet technologies; and public, protection, and security systems, such as defence and police services.

1.4.3.1 Transportation Systems: The Right to Integrate Human Communities

The transportation systems capacity indicates the degree of economic, geographical, and social integration within each KSI nation. Significant investments in these systems are crucial in bringing resources to market, maintaining national cohesiveness, responding to national disasters and emergencies, and sustaining effective supply distribution systems. Effective and well-integrated transportation systems include airport, railway, roadway, and seaport capacities. All are key for export performance and socioeconomic development. One proxy metric is calculated as the \[ \frac{\sum (\text{airport potential} + \text{railway potential} + \text{roadways potential} + \text{waterways potential})}{4.0} \]. The systemic benchmark is 100%. From this perspective, the EU and Japan have excellent transportation networks (Central Intelligence Agency, 2019; Janssen & Liu, 2019). The USA has excellent airport networks. All other KSI nations have significant potential in strengthening their transportation systems. This is particularly so for Australia, Brazil, Canada, Nigeria, and the Russian Federation that have underdeveloped systems relative to their vast territorial size. Generally, densely populated regions have superior transportation networks relative to vast remote areas, such as the mountainous regions of China and the USA that have difficult terrain and low population densities. Ironically, extensive overdevelopment and overreliance on airports and roadways in parts of the EU and the USA entail opportunity costs that limit agricultural land, forests, and living spaces. A balanced approach to transportation systems that includes spaceports and space travel will grow in importance. Balanced, ecological, and integrated mass transport networks will be the watchwords in the twenty-first century.
1.4.3.2 Renewable Energy: The Right to Abundant and Clean Renewable Energy

Reliable and renewable energy systems that include biofuels, hydroelectric, ocean, solar, thermal and wind energy systems are the wave of the future (Goldemberg & Lucon, 2010; Mabee, 2007; Nielsen, Hørmann, Rud, & Laugesen, 2016). Currently, these naturally replenishable resources represent an estimated 20% of all energy consumed globally, as KSI nations make the onerous transition from carbon and oil-based energy dependence. As Nigerian economist Abidemi O. Lalude (2015) stresses: “Oil is the most political of energy sources, the resource that makes countries go to war and the resource that countries must have to wage war. It is the single largest commodity in international trade and has been one of the most volatile”. Nevertheless, the transition to clean renewable energies is at the core of a Green economy that will require the massive re-engineering of energy infrastructures over the next 30 years. Currently, hydro-electrical energy resources are important to meet the needs of populations and for the technological development. The systemic metric for hydro-electrical power needs is the [actual hydro-electrical production (billions of kW h) ÷ (population × 10^4)]. From this perspective, Australia, Canada, the Russian Federation, and the USA have sufficient hydro-electrical power relative to their population (Central Intelligence Agency, 2019; Janssen & Liu, 2019). On the other hand, India, Indonesia, and Nigeria have critically insufficient hydro-electrical energy resources that may impede their socioeconomic and technological development. This does not consider the development and use of other nonrenewal or renewal energy sources, nor does it reflect the consumption and distribution patterns of energy resources within KSI nations. The challenge in KSI nations is to enable and facilitate effective transitions from non-renewable to renewable energy sources, while promulgating sustainable development. About 10% of the world’s electrical energy is generated through over 600 nuclear reactors that are either in operation or under construction (International Atomic Energy Agency, 2019; World Nuclear Association, 2020). The EU, particularly France and Sweden, rely heavily on this source, although other member-states, such as Germany and Poland, do not, or are closing reactors. Of other KSI nations, Canada, the Russian Federation, and the USA also depend significantly on nuclear reactors for electricity. All other KSI nations have low reliance, notably in Japan, the site of the Fujiyama disaster of 2011. As Canadian geneticist and writer Dr. David Suzuki (1997) maintains: “Doing all we can to combat climate change comes with numerous benefits, from reducing pollution and associated health care costs to strengthening and diversifying the economy by shifting to renewable energy.” Indeed, the watchwords for the twenty-first century will be for abundant and clean renewal energy.
1.4.3.3 Sociotechnical Capacity: The Right to Network with Human Communities

A key indicator of sociotechnical capacity is the degree to which information, knowledge and telecommunication technologies interconnect and create networks through all sectors of human activity, including commerce, governance, health care, and learning. The universal access to Internet technology is one hallmark of an advanced technological society. According to cosmologist Dr. Stephen Hawking (n.d.): “We are all now connected by the Internet, like neurons in a giant brain.” There are over 2.5 billion netizens interconnected in the KSI nations. The metric for maturity is the percentage of the population that are netizens and the Internet penetration benchmark is 100%. Australia, Canada, the EU, Japan, and the USA are the KSI nations with the highest percentage of Netizens; with India and Nigeria have the lowest relative to their populations (Central Intelligence Agency, 2019; Janssen & Liu, 2019). On the other hand, the largest Internet user communities are in China, the EU, India, and the USA. Sociotechnical maturity suggests that robotics, sensor technologies and super-intelligence systems also permeate every sector creating in effect an advanced knowledge society. Governments have a responsibility to assure that populations advance technologically and mature into knowledge societies. Australia, Canada, the EU, Japan, and the USA are well on the way to becoming full knowledge societies. Ironically, China, India, Indonesia, and Nigeria are laggards relative to their enormous populations. This century will see enormous technological advancements that will impact all nations as they converge into an integrated planetary society, or space of flows (Castells, 1989). The digital divide between KSI nations will likely disappear by 2040. Yet the challenge will be to close gaps to interconnectivity across diverse ethnicities, isolated regions, and socioeconomic groups within each nation.

1.4.3.4 Public Protection and Security Systems: The Right to Peace and Security

The Singaporean academics Gunaratna, Jerard, and Nasir (2013) underscored: “The Achilles heel of many governments is their inability to adequately protect their communities from disasters and large-scale emergencies.” Governments have responsibilities to protect and safeguard their populations across vast lands against a range of national threats (Prenzel & Vanelay, 2014). Public protection and security (PPS) systems include air, ground, and marine defence forces and police forces. A proxy metric for PPS systems is calculated as the sum of defence and police personnel relative to size of the population (Central Intelligence Agency, 2019; Janssen & Liu, 2019; UNODC, 2017). The systemic PPS benchmark is 1% of the population and the average for KSI nations is estimated to be 0.47%. This does not account for defence and police budgets, nor for technological applications and tools, nor does not necessarily assume equitable distribution of resources within a polity. The systemic benchmark is 1% of the population for effective response to natural disasters,
mass emergencies, and pandemics. China, India, the Russian Federation, and the USA have the world’s largest PPS forces yet are not at their full capacity or potential of 1% (Central Intelligence Agency, 2019; Janssen & Liu, 2019; UNODC, 2017). Moreover, although collectively the member-states of the EU have one of the world’s largest PPS capacities, these are not under a unified command and do not constitute an EU force, as such. Also, the Russian Federation may seem to have the strongest PPS capabilities for its modest population size. Yet the Federation remains vulnerable relative to its immense territorial expanse, as are Australia and Canada. This century will see a paradigm shift from conventional and traditional forces to include a broader range of services using advanced drones, big data, robotics, sensors, super-intelligence systems and nanotechnologies. Furthermore, it is posited that future PPS systems will expand and integrate conventional defence and police forces with border control and security, cybersecurity, emergency preparedness, environmental protection, fire and rescue, forest and wildlife protection, paramedical, paramilitary, national reserves, robotic response forces, and space forces. Moreover, unified PPS forces in response to global disasters, mass emergencies, and pandemics will become the watchwords during this century.

1.4.4 Population Governance Systems

Population governance systems provide the context in which the other system domains operate and thrive. They include population control and management, such as demographic and population growth; sociocultural cohesion and integration, such as the recognition of and social justice towards diverse ethnic, indigenous and minority groups; gender equity and parity; democratic and equitable representation in national governance; and cost-effective and efficient regional governance.

1.4.4.1 Population Control and Management: The Right to Humane and Sustainable Living Spaces

The renowned biochemist and writer Dr. Isaac Asimov (1988) maintained that:

Democracy cannot survive overpopulation. Human dignity cannot survive it. Convenience and decency cannot survive it. As you put more and more people into the world, the value of life not only declines, but it disappears. It does not matter, if someone dies.

The projected world population in 2050 is over 9.5 billion. The average population density of over 200 persons/mi² (77 persons/km²) serves as the systemic benchmark over the world’s land mass. With over 300 persons/mi² (116 persons/km²), China, the EU, India, Indonesia, Japan, and Nigeria may be considered overpopulated, or “heavy weight”, nations. On the other hand, Australia, Canada, and the Russian Federation with under 30 persons/mi² (12 persons/km²) are under-populated or “open space” nations with the potential to accommodate more of the world’s
population (Central Intelligence Agency, 2019; Janssen & Liu, 2019). The global population crisis is not simply one of overpopulation, but rather one of maldistribution. KSI nations need to manage populations wisely so that they are balanced and effectively accommodated. This requires international cooperation and ingenuity to overcome geographical and spatial constraints with orderly and planned migrations across the world (Betts, 2013). China, the EU, Indonesia, and Mexico have potential to redistribute populations to less populated regions internally. However, India, Japan and Nigeria have little such capacity and will likely be the major source of massive emigrations to open space nations in the years to come. Vast planetary regions that include the Arctic and Antarctic frontiers, the Australian and Sahara deserts, the oceans, and seas and in the distant future even extra-terrestrial environments may potentially accommodate new human communities and settlements. However, it will be for future generations to advance engineering, science, and technology to create sustainable, thriving, and viable ecosystems suitable for human habitation in these challenging regions.

1.4.4.2 Sociocultural Cohesion: The Right to Coexist and Flourish as Viable Cultural Communities

Nobel Literature Prize laureate Antoine De Saint-Exupery (1939) underscored the importance of sociocultural cohesion asserting: “Our highest accomplishments still have the single aim of bringing men together.” Nation-states result from highly dynamic processes of sociocultural integration of diverse individuals that create a sense of belonging and social identity essential for co-operation and development (Austin & Worchel, 1979). Moreover, cultures are highly dynamic and mutate continually into novel hybrids of landscapes and imagined communities with different doxa and epistemes (Anderson, 1983; Ashcroft, Griffiths, & Tiffin, 2006; Bhabha, 2004; Castells, Caraca, & Cardoso, 2012; Foucault, 1970). Predominant national languages and religious affiliations are two key dimensions along which nations coalesce. Shared histories and ideologies also play a cohesive role in sociocultural integration (Zizek, 2014). Diverse and heterogeneous ethnic groups, languages and religious faiths enrich nations, yet may pose integration challenges. Compromise and constructive dialogue, mutual respect and tolerance are essential for national harmony, peace, and unity. The systemic metric for sociocultural cohesion and integration for a KSI nation reflects the degree of linguistic and religious faith commonality. In highly integrated nations over 90% of a population share a common language, or religious faith. Japan is among the world’s most homogeneous and socio-culturally integrated society. Brazil and Mexico are also strongly integrated along primary language and religious faith lines. The Russian language provides a strong bond in the Russian Federation, whereas Islam is a cogent force in Indonesia (Central Intelligence Agency, 2019; Janssen & Liu, 2019). In Australia, Canada and the USA, English serves as the centripetal social force that binds sociocultural cohesion. Yet in the EU, India and Nigeria, language as a cohesive integrator remains weak given their ethnic diversity. In the EU, India, and Indonesia religious affilia-
tion serves as a key sociocultural integrator. Christianity plays a strong integrative role in Australia, Brazil, Canada, the EU, Mexico, and the USA; Hinduism in India; Islam in Indonesia; and both Buddhism and Shintoism in Japan. In China and the Russian Federation, religious affiliation remains weak, but sociocultural cohesion is maintained through the official national languages of Mandarin and Russian, respectively. In Nigeria, religious affiliation is a highly divisive factor, as the percentage of Christians and Moslems are almost comparable. Although English serves as a lingua franca between diverse and heterogeneous ethnic groups, Nigeria’s great diversity makes its sociocultural cohesion markedly fragile and marginal. Regardless of the degree of sociocultural integration, governments must strive for diverse sociocultural accommodation, equity and understanding among diverse groups through fairness, inclusion, social justice, and tolerance.

1.4.4.3 Indigeneity: The Right to Recognition of Indigenous Rights and Social Justice

There are an estimated over 400 million indigenous peoples across the 12 KSI nations. India, China, Indonesia, Mexico, and Nigeria have the largest numbers and account for over 95% of the estimated total of indigenous peoples (Indigenous Peoples, n.d.). Moreover, these peoples account for 15% of the world’s poor (World Bank, 2019a). Recognition, reconciliation, respect, and social justice towards indigenous peoples is critical for social development and peace. Too often indigenous lands, resources and territories have been unfairly misappropriated and fundamental indigenous rights as peoples denied. In Australia, Brazil, Canada, and the USA, there is an ongoing struggle to balance regional economic development with the inherent rights of indigenous peoples. In some KSI nations, such as China and the Russian Federation, have granted many indigenous peoples a degree of autonomy and political recognition as national people in the form of recognized distinct polities, such as autonomous regions, or republics. Under the pressure for development and growth, it is paramount that indigenous rights and freedoms are duly accorded, recognized, respected, and protected. Doing so elevates and enriches all humankind.

1.4.4.4 Gender Parity in Governance: The Right of Equitable Participation in Governance

Gender equity and equitable representation of women in national governance is a proxy of social justice in societies. As the former Secretary General of the United Nations, Kofi Annan (1998) expressed: “Gender equality is more than a goal. It is a precondition for meeting the challenge of reducing poverty, promoting sustainable development, and building good governance.” KSI nations are inexorably striving for gender equity and parity in governance. Yet, discrimination against women remains an international challenge and is even apparent within the United Nations (Lewis, 2005). As a metric and systemic benchmark for gender parity, females
should compose up to 50% of national governance legislative bodies (Inter-Parliamentary Union, 2019; World Bank, 2019b). The Mexican Congress comes closest to this target and serves as an international model. Whereas, Australia, Canada, China, and the EU are progressing toward the goal, Indonesia, Japan, and Nigeria are laggards in the cause of the advancement of females in governance. No doubt gender parity and the equitable representation of women will be the watchwords for the twenty-first century.

1.4.4.5 Regional Governance Efficiency: The Right to Balanced, Cost-Effective and Equitable Governance

In a famous quote in the sixth century BC, Laozi is cited as saying: “ Govern a great nation as you would cook a small fish.” (Laozi Sixth Century BC, 1905). Sociopolitical efficiency depends on the careful balance between regional divisions that recognize unique cultures on one hand and governance costs, on the other. Polities that are relatively small and under 58,000 mi$^2$ (150,220 km$^2$) and have small populations of less than one million may engender governance inefficiencies, higher costs and create imbalances in national governance. By consolidating small regional polities within larger ones where feasible, KSI nations may streamline governance costs and avoid duplication of services. For some nations, creating and maintaining autonomous political entities might maintain the unique identity of ethnic, or indigenous groups. From this systemic perspective, Australia and China appear to be regionally efficient in so far as they balance geographical size and population equitably. On the other hand, the EU, Indonesia, Japan, Mexico, and Nigeria have numerous small member-states, provinces, prefectures, or states that complicate national coordination and decision-making and increase governance costs (Central Intelligence Agency, 2019; Janssen & Liu, 2019; Palgrave Macmillan, 2019). Consolidation of smaller polities within each KSI nation has the potential to strengthen the overall national fabric, while achieving governance cost savings and economies of scale. Regional equity and governance costs will continue to pose challenges into the twenty-first century.

1.4.4.6 Sociopolitical System Effectiveness: The Right to Equity, Expression, Inclusion, and Fairness

Karl Marx (1859) maintained: “It is not the consciousness of men that determines their existence, but their social existence that determines their consciousness.” Effective sociopolitical systems are important in the equitable distribution of resources and social justice (De Jouvenel, 1949; Green, 2008; Mannheim, 1936). Ineffective systems contribute to higher costs; the deterioration of the quality of life; the erosion of education and health care; and structural violence. Socio-political governance systems drive complex economic and social development trajectories that shape national destinies (Acemoglu & Robinson, 2013; Türke, 2008). Ethical
and principled leadership with inspired visions and strategic solutions to national challenges is important (Nixon, 1983; Tiffen, 2017). Over time, ineffectual leadership and oligarchies generate socioeconomic inequities and weaken national fabrics (Morgenthau, 1948). Effective sociopolitical systems depend on the ability of people to express themselves through political parties and coalitions. In most bicameral systems, the people directly elect members to a lower house that represents the population and a directly elected upper house reflects regional polities. The number and strength of political parties is important in forging a national agenda that reflects the will of the electorate. The greater the number of political parties, the more fractured the political landscape. Parties with over 10% of public support form the basis of unified discourse and those with over 50% reflect a high degree of political consensus and cohesion. Balanced representation is important, as insufficient seats may not fully reflect the will of the people. On the other hand, excessive representation incurs higher bureaucratic and governance costs; slower consensus building and decision-making process; and lower overall governance efficiency. Regional representation in an upper house gives political expression to diverse polities of sizable heterogeneous populations. The metric and systemic metric for sociopolitical system effectiveness is a function of the average of five key components including the: proportion of government seats held by women; lower house effectiveness; upper house effectiveness; political party effectiveness; and regional governance efficiency. From this metric, Australia and the USA have the strongest sociopolitical systems of the KSI nations followed by Brazil and Mexico; whereas Canada, the EU, and India have the weakest (Central Intelligence Agency, 2019; Janssen & Liu, 2019; Palgrave Macmillan, 2019).

1.5 Towards Planetary Systems Leadership

KSI nations are complex adaptive systems that are evolving on two planes into an integrated planetary system. The horizontal plane consists of humanitarian, socioeconomic, infrastructure, and governance domains. The vertical plane includes the KSI nations that influence the development and growth of the RT2 and smaller nations within their ecosphere that are forging an emerging planetary sphere. Horizontally and vertically integrated systems exhibit performance levels as they strive to meet systemic benchmarks. In normative times, national governance systems tend to function as loosely linked systemic silos that reflect their internal development and evolution. However, in times of catastrophes, disasters, mass emergencies and pandemics, the need for close planetary system integration becomes compelling and essential in the struggle for continued life of humankind. Planetary leadership integrates nations into a planetary system in normative and chaotic situations. Faced with omnipresent existential threats, planetary leadership forges planetary systemic responses to existential threats. Cogent transformational leadership seeks to overcome systemic challenges effectively, efficiently, and ethically (Caro, 2011, 2014). The KSI nations are on similar development trajectories.
to becoming advanced knowledge societies that are converging and integrating as a singular planetary society. Future transformational leaders, yet unborn, will face vastly different world imperatives and will be the ones to create the first true planetary society. These are the coming Planetarians.

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