Chapter 5
Towards Planetary Governance Systems

Abstract Over the next century, the world community will be inching towards singular and unified planetary governance. Nation-states are not equipped to deal with planetary systemic problems and national sovereignty will increasingly be ceded to planetary organizations. This chapter summarizes the key humanitarian challenges of the constellation of KSI nations, as they inexorably converge and forge a planetary system. Humankind faces a range of existential threats, including environmental, pandemic, technological, and war conflicts that necessitate a planetary systems approach. Moreover, there are 20 probable hot zones of war conflict that require the urgent international need for preventive measures for a more just and peaceful world. Cogent transformational leadership seeks to overcome systemic challenges effectively, efficiently, and ethically. 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. Finally, the chapter posits that planetary transformational leaders, or “Planetarians”, will transcend national paradigms and form the foundations and shape of future planetary systems. Planetary systems will not be a panacea, but will allow for collaborative, humane, and rational approaches to human and technological development and foster greater planetary harmony, justice, and peace.

Keywords Existential threats · Future conflict zones · Planetary systems · World government · World leadership · World peace

5.1 Contours and Future Twenty-First Century Landscape

The fundamental humanitarian problems of the 12 Key Strategic Influencer (KSI) nations cannot be ignored and require coordinated and urgent planetary responses. Across the 12 KSI nations, there are well over one billion live in acute socio-economic distress; over 1.5 billion do not have access to adequate health care or sanita-
tion systems; 900 million lack access to clean and safe water; over 800 million suffer from food insecurity, hunger, and malnutrition; and over 600 million are illiterate. Of the 12 nations, China, India, and Nigeria face the grave and great challenges. With over 13 million who are HIV+, AIDS claims over 340,000 lives in Brazil, India, Nigeria, the Russian Federation, and the USA alone. Road trauma claims over 800,000 lives annually with the highest rates in China and India. Over 400,000 people who commit suicide present a social epidemic in China, the EU, India, Japan, and the USA. Moreover, over 210,000 annual homicides are a plague of violence across Brazil, India, Mexico, Nigeria, and the USA. Air pollution account for over 3,330,000 deaths annually, particularly in China and India. Environmental deterioration adversely affects over 2.5 billion across all 12 KSI nations. Premature deaths from AIDS, air pollution, homicides, road trauma and suicides cost the collective national economies over 3.3 trillion dollars annually with the highest losses in China, the EU, India, and the USA.

How these nations face the myriad of challenges will influence the evolution of the planetary society of tomorrow. Ultimately, the KSI of tomorrow will be the ones that most effectively overcome humanitarian and socioeconomic challenges. They will also be the ones at forefront of knowledge and research in new advanced and innovative technologies such as Arctic and desert habitat technologies, big data systems, biotechnology, cybersecurity, extraterrestrial habitat and space technologies, genomics, hyper-transportation, nano-technology, nuclear fusion, ocean sciences, pharmaceuticals, renewable energy systems, robotics, superintelligence systems, and synthetic biology (Waslekar & Futehally, 2011). An Eastphalian world will likely replace the Westphalian world by the end of this century (Coleman & Maogoto, 2013). Moreover, new ecospheres will likely arise in this century, including an African ecosphere forged with Nigeria and other ECOWAS nations, Congo, Ethiopia, South Africa, and the emerging East African Federation; and an Arab and Central Islamic ecosphere including Algeria and other Maghreb nations; Egypt and other Mashriq nations; Iran; Kazakhstan; Pakistan; and Turkey.

Today’s world order is disintegrating rapidly. The days of geopolitical machinations and the dictum that might makes right are numbered. The assumption that nations with military power should impose their values on others is bankrupt. Some political leaders are blatantly corrupt and are not held to account when their actions and behaviours fail to meet the highest ethical standards and the expectations of their people. Some are incompetent and fail to address or fully understand pressing national and planetary challenges. This is to the direct detriment of the health and social development of peoples who are often oppressed and suffer through misplaced national priorities. Globalization has become an omnipresent reality with transformations that require advanced and novel sophisticated forms of governance. The decline of sovereign power of nation-states and increasing international anarchy are already in evidence. The alarming socioeconomic disparities and inequities, deteriorating environments, increased international criminality and terrorism, the proliferation of infectious diseases and pandemics, and violence point to an increasingly chaotic world. The ability of the United Nations to effectively engage in peacebuilding and positive development is blocked and stymied in the face of grow-
ing international chaos. The abysmal and miserable conditions of hundreds of millions feeds into the chaotic mass migration and mobility of the global poor. This is clearly not sustainable. The key principle of the international order of non-interference in internal affairs is increasingly an impediment to dealing with humanity’s most pressing challenges. The full social and technological development of humankind may take another 90 years or three generations (Turchin, 2007). A new world order with cogent planetary governance may not see the light for three to five generations hence. It may not be until the middle of the next century when this will take full effect, but the evolution of unified planetary governance systems is well underway and is inexorable.

5.2 Existential Future Threats

The existential risks are incalculable and remain elusive given the accelerating rate of changes in complex planetary systems. The potential for unforeseen and unpleasant shocks is becoming greater. The unfamiliar does not mean improbable. There is a myriad of prognostications for the future of humankind ranging from existential obliteration to a nirvanic technological utopia. The world of the future will no doubt lie between these two extremes. Class exploitation, environmental devastation, global and national inequality of income and wealth, internal and external violence, pandemics, poverty, racism, and starvation continue to plague humankind (Anderson, 2016; Sachs, 2005). The complex system of global capitalism with its economic uncertainties also contribute to socio-political instability (Chaulia, 2013; Kyrtsis, 2010; Piketty, 2014; Soros, 1998). Endless demands of the wealthiest are incompatible with the basic needs of the planet’s dispossessed. With 1% of the richest owning more than the remaining 99%, is it any surprise that conflict and violence are rampant across the world? There are four substantial existential threats (Dartnell, 2015; Torres, 2018; Wilson, 2006) that will accentuate the Malthusian problems of water scarcity, food scarcity, the destruction of health care systems, and the decline of socioeconomic health and sociopolitical viability. They threaten the environmental integrity, physical, mental, and spiritual health, and well-being of humanity. “Thinking the unthinkable” is now thinkable (Caro, 2000a). They may be categorized as follows.

5.2.1 Demographic Threats

By 2050, there will be more than ten billion people on the planet and over four billion will be living in unacceptable conditions. National democratic systems are not effective in dealing with this monumental planetary challenge (Robinson, 1990). As the Nobel Laureate and American physicist, Henry W. Kendall asserted: “If we do not halt population growth with justice and compassion, it will be done for us by
nature, brutally, and without pity and will leave a ravaged world” (SyamRoy, 2017). Indeed, the severe problems overpopulation and their consequences cannot persist indefinitely (Diamond, 2005). Diamond underscored that human history consists of unequal conflicts between the haves and the have-nots, and between the myopic interests of the powerful and the strategic long-term interests of humankind (Diamond, 1997). Isaac Asimov (1966) predicted that the world population explosion, not nuclear warfare, presents the greatest dangers to humankind. As he wrote in a 1966 letter:

To bring about destruction by overcrowding, mass starvation, anarchy, the destruction of cherished values—there is no need to do anything. We need only do nothing, except what comes naturally and breed. And how easy it is to do nothing (Asimov, 1995, p. 256).

Indeed, it is demographic and population explosive growth present titanic problems that drive and accentuate the humanitarian and socioeconomic challenges across the planet. The resolution will largely depend on the heavy weight KSI nations, particularly China, India, Indonesia, and Nigeria to manage the demographic problems effectively and ethically. The receptivity of open space nations, such as Australia, Canada, and the Russian Federation to accept millions of new immigrants will also be crucial. It will also be incumbent on all KSI nations, particularly Australia, Canada, the EU, Japan, the Russian Federation, and the USA to cooperate proactively to redistribute the economic wealth equitably across the planet. This is no doubt a tall order as all KSI nations even those with large economies face internal issues.

5.2.2 Environmental Threats

Environmental threats include increased atmospheric pollution and toxicity (Kulshrestha & Saxena, 2016); climatic destabilization (Ehlers & Krafft, 2006; Hansen, 2009; Victor, 2011; Wagner & Woltzman, 2015); and massive ecosystem degradation (Carson, 1962). Much attention has been drawn to the Anthropocene, the current epoch in which climatic changes result from human development (Bonneuil & Fressoz, 2016; Davies, 2016; Hamilton, 2017; Viola and Franchini, 2018). The consequences of a projected rise of 2–6 °C will likely be a catastrophic tipping point (Gladwell, 2000), resulting in sea level increases of 1–6 m with the inevitable melting of glaciers. This poses a threat to the availability and productivity of agricultural land; the stability of distribution and supply chain systems (Andreoni & Miola, 2015); and the viability of major coastland urban regions. Hundreds of millions of people are at risk of being displaced, especially across Bangladesh, China, India, and Indonesia. Tropical cyclones, hurricanes, and tornados are increasing in intensity causing trillions of dollars in damage and losses annually and affecting the lives of billions (Nordhaus, 2013; Therivel, 2010). Climate control through geoengineering and coordinated global proactive strategies in eliminating the dependency on non-renewable energy resources remain key systemic solutions
However, American philosopher, Abraham Kaplan (1968) cautions “We can solve some problems in life, but they are usually the less significant ones. Those that are more significant we can only cope with them, we can at best learn to live with them.” Indeed, in the face of unrelenting population growth and demands, environmental risks may require coping rather than preventive strategies in the short to medium term.

5.2.3 Pandemic Threats

The risk of global pandemics will only increase with time and pressing population growth (Dixon, 2015). This includes viral infections, such as the coronavirus diseases (Covid-19 and SARS-CoV) infections, ebolaviruses, human immunodeficiency viruses, influenza viruses, such as avian and H1N1 flus, and bacterial infections, such as Methicillin-Resistant Staphylococcus Aureus (MRSA) Super bug. All pose significant threats to human life across the globe. Often, they are zoonotic in origin and spread quickly in nations with high population densities, poor socioeconomic regions with adverse environmental health conditions, inadequate sanitation, and slow governance response. Integrated globalized markets and transportation systems act as vectors of these diseases that also spread rapidly in nations with high socioeconomic disparities, poor health care infrastructures, and underdeveloped emergency management systems. Unchecked these diseases contribute to the impoverishment of economies, societal breakdowns, and sociopolitical anarchy (Diamond, 1997, 2005). They carry high mortality and morbidity rates that are propagated rapidly in environments with inadequate public health controls and where antiviral solutions remain unavailable. High level collaboration and efforts of all KSI nations are critical in dealing with these insidious and pervasive threats.

5.2.4 Technological Threats

Over the twenty-first century, big-data systems, deep-learning technologies, and super-intelligence systems will be instrumental in solving many currently intractable problems, such as climatic changes and previously incurable diseases (Ford, 2018). However, the proliferation and future ubiquity of these disruptive technologies in themselves pose threats to humankind (Bostron, 2014; Bowes & Christensen, 1995; Inglehart, 2018; Lee, 2018; Tegmark, 2017). Technological singularity is the tipping point whereby superintelligence systems will supersede human cognitive capabilities and intelligence (Kurzweil, 2005; Shanahan, 2015), as the groundbreaking AlphaGo first demonstrated (Zhou, 2017). This profound transformation will increasingly more evident as human labour redundancies, massive unemployment, pervasive disruptions of labor markets, profound socio-psychological effects, social anarchy, structural violence, and technostress (Head, 2014; Lee, 2018; Sethi,
Caro, & Schuler, 1986). Mills (1959) predicted a decline of human cognitive and thinking abilities in a society obsessed with technological innovations. Technostress, the ever-increasing anxiety, and stress of proliferating disruptive technologies that call for constant adaptation and endless systems reengineering take a toll on the psyche (Caro & Sethi, 1985, 1986, 1988; Harmon, 2019). American sociologist Lewis Mumford (1971) warned of the societal dangers of rapidly adopting novel technologies uncritically. Manson (2014) summarizes Mumford’s vision as follows:

The obsolete individual would be entirely de-skilled, reduced to a passive, inert and trivial accessory to the machine. Technical surveillance and limitless data-collection—an all-seeing eye, or Panopticon—would monitor every individual on the planet. Ultimately, a totalitarian technocracy, centralizing and augmenting its power-complex, ignoring the real needs and values of human life, might produce a world fit only for machines to live in.

Indeed, technological advances are rapid and ubiquitous and give governance powers significant and uncompromising social control and surveillance capabilities over people. Increasingly, the autonomous individual is subject to social conformance to technological norms of controllability and predictability. The omnipresent danger is that humans become totally alienated and non-sentient automatons (Hughes, 2004; Tegmark, 2017). Moreover, there is a growing philosophical movement of transhumanism that seeks the evolution of intelligent life beyond human form and limitations through human enhancement technologies (Bostrom, 2005; Burdett, 2011; Cole-Turner, 2011; Hansell & Grassie, 2011; Mercer & Maher, 2014; Mercer & Trothen, 2014; More & Vita-More, 2013; Ranisch & Sorgner, 2014). In particular, extropianism underscores the need to explicitly recognize cognitive and morphological freedom of individuals to use human enhancement technologies at will (Kaku, 2011; More, 1990, 1993). With exponential increases in big data systems, nanotechnology, robotics, and superintelligence systems may command more authority than humans. Systems algorithms will arbitrate human lives and will be posited as being preferential to human knowledge and wisdom (Boden, 2016; Mulgan, 2018). In this scenario, machines dominate humankind that in turn become subservient to machines. Already, proponents of dataism maintain that the human species is merely a single data processing system and the value of humans is solely defined as their contribution to these systems (Harari, 2017; Lohr, 2015). Dataism presents an existential challenge to the dominant moral ideology of humanism, whereby human feelings and thinking remain important. These technological threats, in the form of a Homo Technomorphis, would signal the spiritual death of human beings (Manson, 2014). In the face of this threat, it is incumbent on KSI nations to reaffirm human dignity and values, as they mature as technological societies. Here the importance of indigeneity and respect of diverse cultures and ethnicities hold the key to what it means to be fully human in a planetary society.
5.2.5 War Conflict Threats

War conflict threats are omnipresent and present in variegated forms that in their extreme include chemical, biological, radiological and nuclear (CBRN) weapons of mass destruction (WMD) (Baum, 2015; Coyne & Rachel, 2011; Falk, 2015; Forest & Howard, 2012; Gunaratna, Jerard, & Nasir, 2013; Rees, 2018; Wiist et al., 2014). Internal and external war conflicts with massive death, physical and psychological trauma, and population displacements that cause incalculable and unspeakable intergenerational trauma. Wars are the ultimate in horror and obscenity in and of themselves. Massive destruction and disruptions of distribution and supply chains, economies, infrastructures, and telecommunication systems represent collateral damage that remain minor in relation to the incalculable assault on the human psyche and humankind. Alas, war conflicts continue as hideous realities today, as they have throughout history (Themnér & Wallensteen, 2012), Socioeconomic disparities inflame inherent deep ethnic, ideological, linguistic, racial, and religious differences (Robinson, 1996). “Us-and-Them” mindsets that cleave the social world into in- and out-groups evoke powerful emotions that breed ethnocentrism and intolerance (Haidt, 2012; Kandel, 2018; Siegel, 2016). Social communities of homogenous peoples promulgate inequalities, polarization, segregation, and xenophobia (Bishop, 2009; Cowen, 2017). Identity politics and populist nationalism that focuses on social inclusivity and power distorts sociopolitical priorities and outcomes (Fukuyama, 2018). Risk factors for and root causes of war include: disparities in education and health; failing infrastructures; high population densities; inadequate access to water and food resources; low literacy rates; oppression of ethnic and religious minorities and indigenous peoples; overpopulation; poor socio-cultural cohesion; significant investments into WMD; socioeconomic distress, including unemployment and poverty; and weak governance and leadership (Solar & Irwin, 2010). These in turn amplify extreme ideologies, incite xenophobia, and provoke violence through mass and social media outlets that disseminate bias, disinformation, and propaganda. Violent imagery provokes and sanctifies destruction and the horrors of war. Moreover, war conflicts often become conflagrations that transcend national. They spread like wild forest fires that cannot be easily contained nor controlled. Even today, income inequality, inefficient access to key needed survival resources, inequality of opportunities and ignorance breeds exploitation, extremism, and national disintegration (Joffe & Mindell, 2006; Krieger, 2008; Levy & Sidel, 2008; Stewart, 2002). This in turn engenders further humanitarian crises, the mass displacements of desperate, impoverished, and unemployed millions; not to mention the biome, ecosystem and environmental damage reeked. Among the KSI nations, the risk of internal conflicts and national disintegration is greatest in the EU, India, Indonesia, and Nigeria. Moreover, every ecosphere has a belt of chaos where these conflictual fires continue to rage often silently and beyond the public eye. All wars have unknown outcomes with untold destruction of human societies and structures and incalculable human suffering. As the Russian writer Vasily S. Grossman expressed in his classic Life and Fate (1960), wars are: “fought
by a great evil, struggling to crush a small kernel of human kindness. But if what is human in human beings has not been destroyed even now, then evil will never conquer.” (Grossman & Chandler, 2006). Wars are preventable and the risks mitigated, but they require cogent leadership with courage, foresight, great resolve, and vision. It is incumbent all the KSI nations to collaborate to eliminate the endemic root causes of war. War remains the common enemy of all humankind.

5.3 Planetary Hot Zones

There are numerous global hot zones that will compel the KSI nations and the world community to prevent and resolve in the twenty-first century. Massive and urgent humanitarian assistance, development and significant investments in peacebuilding are essential to avert destructive wars in these regions. From 2020 to 2050, the technologically advanced nations of Australia, Canada, the EU, Japan, the Russian Federation, and the USA have special peacebuilding responsibilities as they assist in the development and stabilization of maturating KSI and RT2 nations. Collaboration on urgent humanitarian assistance efforts across international borders remains essential. The exercise of soft power must take precedence over hard power politics of economic and military dominance and war (Nye, 2009; Watanabe & McConnell, 2008). Buckminster Fuller (1992) asserted that: “traditional human power structures and their reign of darkness are about to be rendered obsolete”, he was referring to the obsolescence of hard power (Fuller & Kuromiya, 1992). No good will ever come from destructive military interventions and involvement that would be disastrous for the future of all humanity. In the interim, the planet remains highly unstable and volatile with significant regional flashpoints or hot zones that are potentially conflictual and pose catastrophic risks to humanity and ecosystems. Climatic changes, environmental disasters, ethnic tensions, food shortages, overpopulation, poor income and resource distribution, poverty and water shortages will be the root causes of these future conflicts. Unless these planetary issues are addressed, these regions could see the deployment of unspeakably horrific biological and technological weaponry. This must be avoided and mitigated at all costs. Without cogent leadership and concerted peacebuilding efforts to resolve profound humanitarian challenges, regional eco-wars will be inevitable with titanic implications for humankind.

5.3.1 Euro-Indian Ecosphere

This is the most unstable and volatile of the planetary ecospheres and the one with the greatest risks of destructive war and humanitarian catastrophes. While the EU, India, Nigeria, and the Russian Federation struggle to stabilize, they are at the nexus of emerging and volatile African and Arab-Islamic ecospheres. Over the next cen-
tury, these regions risk becoming more conflictual with unparalleled human suffering. They include the following.

- **The Middle East and Persian Gulf region** The Middle East region remains an extremely dangerous and volatile region with flashpoints that include Iran; Israel; the Mashriq nations of Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Palestine, Qatar, Saudi Arabia, Syria, and the United Arab Emirates; and Turkey. Many states in this region are overmilitarized, politically divided and virulently hostile. Among the many conflicts include: the fratricidal Iraqi, Syrian and Yemeni civil wars; the hostility towards Israel, Lebanon, and Palestine; the opposition to an independent state of Kurdistan; the religious intolerance between Christians, Jews and Muslim sects; the waxing and waning of the Islamic Caliphate movement. As these war conflicts rage, these nations are struggling with massive humanitarian and development challenges that will not likely be fully met before 2040. The growing scarcity of clean water and overpopulation will only make this region even more inimical to peace. The military intervention of EU members, Iran, the Russian Federation, the UK, and the USA in this fractured region has greatly complicated and detracted from peacebuilding. The end of all external military intervention and the constructive, direct, and positive dialogue and engagement between all peoples in the region, irrespective of religious sects and sociopolitical ideologies, is critical. The growing tensions between Shiites and Sunni Moslems fueled by resource and socioeconomic disparities lie at the heart of the dangerously militarized nations bordering the Persian Gulf. The flashpoints include Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates and Yemen. The military presence of international forces that safeguard the shipment of non-renewable resources, such as oil, make the risks for global conflict, particularly disconcerting and worrisome.

- **The Black Sea and Caspian Sea regions** The EU, the Russian Federation, Iran, and Turkey are essential parties in creating conditions for peace in the Black Sea and Caspian Sea. This regional theater that includes the Balkan states, Caucasian states and Ukraine will likely remain volatile and unstable until 2050. The positive peacebuilding efforts of the EU and Russian Federation working closely and assiduously with Turkey in the Black Sea region and with both Iran and Kazakhstan in the Caspian Sea region remain essential. Military adventurism and involvement on the part of any nation will only complicate and delay stability and peace in this region.

- **The Caucasian region** The Caucasian nations of Armenia, Azerbaijan, and Georgia, as well as the Russian Federation Republics of Chechen, Dagestan, Ingushetia, Kabardino-Balkaria, Karachay–Cherkassy, and North Ossetia–Alania are highly volatile and are recovering from the terrible regional wars of 1988–2008. Ethnic and religious divisions and competition for scarce resources lie at the heart of conflict in this region. The risk of Iran, the Russian Federation, and Turkey being drawn into war conflicts remains high. Addressing the humanitarian challenges are primordial in this region.
• **The Euro-Russian region** The ongoing Russo-Ukrainian war since 2014 has destabilized the Eastern regions of the EU and have strained the relations between the EU and the Russian Federation. The extension of NATO military forces to Estonia, Latvia, and Lithuania has only exacerbated regional tensions. By 2045 the Ukraine will likely have recovered and forged new relationships with the EU and the Russian Federation. All nations in this region must focus on developing their deep common interests and peacebuilding.

• **The Balkan and Mediterranean Sea region** The Balkan nations presents an area of instability that risks drawing the EU, the Russian Federation and Turkey into conflict between 2020 and 2040. As the EU expands and integrates its economies with potential member-states of Albania, Bosnia-Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia, there may be increased ethnic tensions between Christians and Moslems with roots in socioeconomic disparities. The EU member-states of Bulgaria, Croatia, Greece, Italy, and Romania could be on the frontlines of conflict, as could the Russian Federation, Turkey, and Ukraine. As KSI nations, the EU and the Russian Federation have key peacebuilding responsibilities to prevent wars in this region. As their populations continue to grow and as access to clean and safe water become problematic, the Maghreb nations of Algeria, Libya, Morocco, and Tunisia may also become flashpoints of conflict with the South EU member-states of Italy and Spain by 2050. Addressing the issues of growing economic disparities and resource needs of all peoples in this region will be important in creating conditions of peace in this region.

• **The Central Asian Islamic region** Since 1979, this region has seen the struggle to establish an Islamic Emirate of Afghanistan through a Sunni Islamic fundamentalist political movement, known as the Taliban. The Soviet–Afghan war from 1979 to 1989 and the Afghan civil war from 1989 to the present exacted over 2,100,000 lives to date. The Tajik Civil War from 1992 to 1997 saw close to 60,000 casualties and the displacement of over 1.2 million leaving Tajikistan in a state of economic devastation. Iran, Turkmenistan, Uzbekistan, and the Pakistani provinces of Baluchistan, Khyber Pakhtunkhwa, and its Federal Administered Tribal Regions, all loom as contentious ethnic areas in the struggle for scarce resources. Raising the literacy rates and socioeconomic conditions of people, particularly of women, in this region are of paramount importance. Peacebuilding efforts of China, Iran, Kazakhstan, the Russian Federation, and Turkey will likely be crucial to stability in this region over the next 40 years.

• **The Horn of Africa and Nile River region** Scarce food and water resources in the face of growing desertification, massive overpopulation, and the increased scarcity of water pose serious threats of droughts and massive famines in this region. This increases the risk of destructive conflicts with critical flashpoints in Djibouti, Egypt, Eritrea, Ethiopia, Saudi Arabia, Somalia, and Sudan. Cogent international humanitarian assistance and concerted peacebuilding efforts of all KSI nations are essential in preventing the continued mass sufferings of the peoples in this region.
The Sahelian region: The growing expansion of the Sahara Desert and the ever-increasing populations of the Sahelian nations of Burkina Faso, Chad, Mali, Mauritania, Niger, Nigeria, and Sudan place this region as a high conflict zone. With great socioeconomic disparities, massive overpopulation and scarce food and water resources, the risk of violent conflict is ever-increasing. Moreover, the agitation and growth of an Islamic Caliphate across the Moslem nations represents an added destabilizing factor. A worst-case scenario would see Nigeria may fracture along ethnic and religious lines, sparking anarchy and violence across other ECOWAS nations, such as Benin, Cameroun, Ghana, Guinea, Ivory Coast, Liberia, Senegal, Sierra Leone, Togo, as well as across the Sahelian nations. The concerted efforts of all KSI nations together with the African Union and the Arab League nations are needed to assure that the humanitarian needs of these peoples are met.

The African Great Lakes region: This region includes the Rift Valley Lakes of Albert, Edward, Kivu, Kyoga, Malawi, Mweru, Rukwa, Tanganyika, Turkana, and Victoria. The potential flashpoints include the African nations of Burundi, Congo, Ethiopia, Kenya, Malawi, Rwanda, Tanzania, and Uganda. As have been witnessed in the recent Congo and Rwanda civil wars, deep ethnic tensions, massive population growth and socioeconomic distress risk inciting mass ethnic violence that will be difficult to control.

The Indo-Pakistani region: The Kashmiri and Thar border regions between India and Pakistan remain highly contentious and flammable. The Indian Union territory of Jammu-Kashmir and states of Gujarat, Punjab, and Rajasthan and the Pakistani provinces of Azad Kashmir, Gilgit-Baltistan, Punjab, and Sindh remain flashpoints for conflict with religious animosities between the two massively populated nations. Although wars have been fought in Jammu-Kashmir, the growing Thar Desert is encroaching on scarce productive farmland and decreasing water supplies that raise regional ethnic and religious tensions. The lack of resolution of territorial claims together with the nuclear capabilities of the major contesters makes this region a particularly dangerous hot zone that underscore the need for constructive and peaceful solutions.

The Bay of Bengal region: The nations bordering the Andaman Sea and Bay of Bengal such as Bangladesh, India and Myanmar remain very unstable and risk becoming a major conflict point after 2050. Catastrophic climate changes and massive overpopulation striving for scarce agricultural and food resources and clean and safe water may well trigger great regional wars. Bangladesh, Myanmar, and the Indian states of Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, and West Bengal have extremely high population densities coupled with grave socioeconomic challenges. The immense pressure on scarce agricultural and water resources and the agitation of diverse indigenous groups may add to the regional volatility. The Andaman and Nicobar Islands on the Andaman Sea could be flash points. It is critical that all measures to bring peace and understanding through cooperation, partnerships, and solidarity be fostered among all its peoples. Access to clean and safe water, adequate food, education, health care, and employment opportunities are of paramount importance to the world com-
munity. The Rohingya of over one million in Myanmar have been subject to ethnic persecution and genocide with over 200,000 people killed, or subject to terrible human abuses are a reminder of the potential of the humanitarian tragedies that may become more common in the decades ahead in this region. China, India, and Indonesia have peacebuilding responsibilities in this region.

- **The Indo-Sino borders** The Xizang Autonomous Region of China borders along the Indian states of Arunachal Pradesh, Nagaland, and Sikkim, as well as Bhutan and Nepal, may become future flashpoints of conflict. Both China and India must collaborate and work hard to resolve resource and territorial disputes in this region peacefully.

### 5.3.2 East Pacific Ecosphere

With population growth and strategic influence of China and Indonesia, this ecosphere will see many conflicts.

- **The East Sea region** The East Sea, also known as the Sea of Japan, centres around the KSI nations of China, Japan, and the Russian Federation. The major flashpoint includes the People’s Democratic Republic of Korea and the Republic of Korea—both being highly militarized and war ready. Considerable tension and unrest on the Korean Peninsula may continue until 2040 by which time both nations will ultimately decide their collective future as a reunified nation. The military involvement, posturing and presence of the USA military throughout the region only complicates the reconciliation process and lowers the possibility of a peaceful reunion. Moreover, a nuclearized Korean peninsula is a serious distortion of desperately needed humanitarian resources and does not help the cause of peace. Peacebuilding in this region will require cogent statesmanship of China, Japan, the Russian Federation, and both Korean republics. Ultimately, the withdrawal of USA military forces from this region will be important in avoiding destructive confrontations. Also, over the next decades, Japan will inevitably strive for a positive rapprochement with China and a future united Korea, if there is to be peace in this region.

- **The Melanesian Pacific region** As the populations of Indonesia and the Philippines increase rapidly, there may be increased conflict in this region, particularly on the island of New Guinea that include Indonesian provinces of Papua and West Papua and the nation of Papua New Guinea. With massive population increases on Java, Sulawesi, and Sumatra islands, Indonesia will likely exert significant pressures on incorporating and settling Papua New Guinea into the Indonesian archipelago. By the middle of the twenty-first century, the entire island of New Guinea and the surrounding Maluku and North Maluku may become as volatile, as the Balkan states in Europe were during the past century. Australia and the Philippines risk being engaged in the coming regional conflicts. Diplomacy, peaceful mediation, and social justice will become paramount
in this part of the world where population pressures and the need for extra living space and resources may become unrelenting.

- **The South China Sea region** The People’s Republic of China have long sought reunification with the Republic of China (Taiwan). The USA military presence has hitherto been a deterrent and raises the specter of war conflicts in this region. Aside from China and Taiwan, other flashpoints include Singapore, Thailand, and Vietnam. The USA has enormous military resource commitments in this region, particularly in Japan, the Philippines, the Republics of China (Taiwan) and Korea. A stalwart approach to China’s growing regional influence could become a casus bello with catastrophic consequences. Vietnam will likely be drawn into this conflict. China will increasingly exert and extend its strategic influence in the East Pacific over the next 40 years. The presence of USA military forces in this region will be increasingly challenged as Americans come to terms with their considerable national debt and internal challenges. The eventual withdrawal of American military engagement from this area will see China to extend its influence that it considers as part of its ecosphere.

- **The Sino-Russian region** After 2060, it is likely that China and Japan will contest the current borders with the Russian Federation. The flashpoints here include Mongolia, and the Russian Federation Republics of Altai, Buryat, Khakassia, Tuva, and Yakutia (Sakha). Moreover, the oblasts of Amur, Irkutsk, Kamchatka, Khabarovsk, Magadan, Sakhalin, and Tomsk, the krais of Altai, Primorsky, and Zabaykalsky will potentially be on the conflictual frontlines, as will the Chukotka Autonomous Okrug bordering the Bering Strait across from Alaska. Population growth and resource needs will likely fuel these potential conflicts.

### 5.3.3 West Atlantic Ecosphere

The next 20 years will be a period of reassessment and readjustment of the vast American military commitments internationally. The USA will be increasingly drawn to its own internal humanitarian and socioeconomic challenges and those of its regional neighbours in the West Atlantic ecosphere. Addressing the enormous humanitarian needs of the Caribbean and Central American regions will require significant focus and resources. Americans will increasingly realize that they are overextended in East Asia, Europe, and the Middle East. By 2055 Brazil and Mexico will likely stabilize as fully developed nations and economies, as will those of Argentina, Columbia, and Peru. In this ecosphere, there are three key regions that will risk becoming focal points of strife unless the endemic humanitarian, overpopulation, and poverty challenges are addressed.

- **The Caribbean Sea region** These include the flashpoints of the Dominican Republic, Haiti, and Jamaica. It is critical that urgent humanitarian assistance and development be brought to bear on these nations. The wealthier nations, such as Canada and the USA and other nations, such as Cuba and Mexico, have
responsibilities to alleviate the sufferings of people in this region. Economic sanctions and open hostility against Cuba and other nations neither helps alleviate the suffering of the people nor promotes peace in this region. The USA has much to gain in the long term from a policy of openness, peacebuilding, and reconciliation in this growing problematic area.

- **The Central American region** The key flashpoints in this region include the nations of Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, and the Mexican states of Campeche, Chiapas, and Tabasco. Endemic poverty, growing populations, social injustice towards the indigenous peoples and socioeconomic disparities are at the root of regional conflicts and violence. Canada, Mexico, and the USA have significant responsibilities in alleviating humanitarian distress, poverty, and social injustice in this region. Only through aggressive anti-poverty initiatives will there be an end to the cycle of misery, population displacements, poverty, and rampant crime and violence in this region.

- **The Mexican-USA border region** In the face of increasing desertification and pressure on scarce water resources, this region may even more unstable and volatile towards the middle of the twenty-first century. In particular, the Mexican El Norte states of Baja California, Chihuahua, Coahuila, Nuevo Leon, Sonora and Tamaulipas and the USA states of Arizona, California, New Mexico, and Texas may well see important levels of strife and violence engendered by endemic poverty and socioeconomic disparities.

### 5.4 Quo Vadis Planetary Peace?

Humanity remains resilient and undeterred in the face of obstacles. Great existential threats also bring new insights, opportunities, and constructive possibilities to overcome adverse conditions. Advancements in scientific knowledge and technology have the potential to mitigate and obviate existential risks. More importantly education and cogent leadership with strong values of courage, resolve, and wisdom are essential in navigating between the straits of peace between Scylla and Charybdis. All KSI nations face human challenges of varying magnitude that remain common to all humankind. Although on different trajectories, these nations share fundamental and shared planetary aspirations and hope. There is a growing planetary consciousness that binds every human being into a community and family of humankind. Shared problems require planetary solutions that with time will underscore the need for cogent effective world governance. What form might this take? This will likely be the outcome of synergetic interactions of metasystems and values of the KSI nations and ecospheres. How the world community collectively and effectively response to existential threats will require the ethical reaffirmation of fundamental and shared value systems of all humankind; proactive education of positive peace and social justice values; cogent and effective planetary infrastructures and ethical
transformational leadership. There are three key pillars to this evolving planetary society. These include the following.

1. Planetary consciousness
2. Planetary governance systems
3. Planetary transformational leadership

### 5.4.1 Planetary Consciousness

As Nobel Peace Prize laureate Lester B. Pearson (1957) asserted: “The best defence of peace is not power, but the removal of the causes of war.” The greatest challenge of the twenty-first century is peacebuilding (Bacevich, 2009). The primordial prevention of wars is paramount (Ackermann, 2003; Bretherton & Law, 2015; Cohen & Chehimi, 2010; De Jong, 2010; Galtung, 1969; Hinde, 2008; Lederach, 1998, 1999, 2002, 2005; Legge, 2019; Schmelzle, 2005). Ostensibly, the massive redress of resource and socioeconomic inequities globally is essential (McLaren & Hawe, 2005; Stewart, 2002; Thomas, Sage, Dillenberg, & Guillery, 2002). Conflict mediation and prevention, dialogue, nonviolence, reconciliation, and truth are important in peacebuilding (Bergmann, 2019; Philpott & Powers, 2010; Ramírez, 2007; Thomas et al., 2002). Conflict resolution and peace calls for deep sociocultural engagement and understanding. Fundamentally, peace begins with the understanding of the functioning of the human brain (Dietrich, 2018; Dietrich, Echavarria-Alvarez, & Koppensteiner, 2006) and its cognitive limitations that predispose humans to paranoia and violence (Koestler, 1967). A planetary, or “us-and–us”, mindset countervails ethnocentrism and xenophobia through social behavioural change that build positive shared identities. A holotropic integration of the conscious and the unconscious lies at the heart of this process (Grof, 2012; Siegel, 2016; Wilber, 2000a). Ultimately, a “planetary consciousness,” rooted in a common identity as humanity, is essential (Kabatt-Zin, 2006; Sagan, 1994). Just as nation-states operate as system value cauldrons, so would planetary systems. KSI nations are in effect vast social experiments that forge value linkages between diverse peoples within human communities that will lay the foundations of future planetary values. A planetary community would espouse positive human values that transcend cultures and ideologies and would include the following.

- **Human health** Health is the full and positive expression through development and growth to become fully human. This focuses on the right to integrated well-being, including mental, physical, psychological, and spiritual health within positive, safe, and ecologically sustainable environments.

- **Human dignity and rights** Human dignity is inherent and transcendent. Persons have the right to life and to human dignity, freedom, integrity, and respect. As such, they have the right to full human development as individuals and uniquely created beings.
• **Human duties and responsibilities** Persons also have obligations towards other human beings, ecosystems, and life forms. Individual rights without due diligence to duties and responsibilities leads to escalation of demands that are indiscriminate, limitless, and ultimately destructive to human communities and the biosphere.

• **Planetary reverence for life** As the American cosmologist Carl Sagan (1994) asserted; “This pale blue dot is our planetary home”. Protecting biodiversity in all its forms and sustaining ecosystems remains a quintessential human duty and responsibility. It begins with each person’s reflection of the fundamental principle of what the noted humanitarian and theologian Albert Schweitzer (1933) called “reverence for life”, where all forms of life and their ecosystems are respected and safeguarded.

• **Planetary solidarity** Humankind is interconnected and interdependent as a global community. As such, peoples must collaborate in solidarity to promote social justice and strengthen global communities. In the face of socioeconomic and sociopolitical inequities, it is important to confront the destructive effects of blind materialism, deleterious substance use, forced displacements, human degradation and trafficking, and all forms of cultural and structural violence.

• **Social compassion and peace** The reaffirmation of human dignity, duties and responsibilities are essential to the promulgation of social peace. Caring, compassion, and empathy are essential (Caro, 1993). The moral litmus test of any polity is how the most socioeconomically distressed and most socially vulnerable are treated. Governments have a paramount responsibility to address socioeconomic and sociopolitical inequities, while promoting human dignity and environmental sustainability.

• **Social engagement and participation** Well-ordered communities require the recognition of mutual rights, duties and responsibilities for community harmony and order. As instruments that promote develop the common good and promulgate human dignity and rights, social communities need to exercise their responsibilities effectively and efficiently. Social engagement reaffirms that all peoples have the duty and the right to proactively engage in the cultural, economic, and political decisions that affect their communities.

• **Social health of communities** This requires a commitment to peace and the necessary networks to promulgate socioeconomic and sociopolitical justice that transcends nation-states. This protects and safeguards the fundamental human rights to adequate education, employment, food, health care, income, healthy environments, and water. This also underscores the development of healthy economies and effective infrastructures that include public protection and security, renewable energy systems, technological systems, and transportation systems.

• **Social justice and solidarity** As Pope John Paul II affirmed (2000): “There is no true peace without fairness, truth, justice, and solidarity.” Human communities directly affect individual dignity and social development. Effective governance, ethical population management policies, gender equality and parity, recognition
and respect for diverse ethnicities and indigenous peoples, sociocultural harmony, and integration are essential in fostering social dignity and justice.

• **Socioeconomic justice** Local, national, and global economies must foster and promulgate human and social development. This recognizes the right to gainful employment and freedom from socioeconomic distress. It underscores the avoidance of public debt; the need for responsible fiscal and monetary policies that include the equitable and fair distribution of tax revenues; ethical, fair, and robust global trade; and zero tolerance of all forms of corruption and criminality.

• **Technological integration** Scientific and technological advances and innovations must facilitate, serve, and support the aspirations and needs of humankind first and foremost. This is the ethic whereby machines and technology are subservient to humankind, not the reverse. One potential instrument in building a universal humanity consciousness is the establishment of a planetary citizenship charter. This would define and establish what it would mean to be a planetary citizen. Such a rudimentary instrument if introduced at elementary learning levels could be educational, informal, and voluntary. It would complement, not supersede, the upholding of national laws and obligations of citizenship. Such a grass-roots charter would articulate common planetary values that would guide a code of behaviour and conduct that ultimately promulgates the healthy development of humanity. This might also take the form of a pledge to avoid all forms of ethnic and religious discrimination; to proactively assist in humanitarian efforts to eradicate hunger, illiteracy, poverty and want; and to consciously and resolutely avoid all forms of corruption, crime and violence. It would affirm a commitment to healthy living practices and to biodiversity, ecosystems, and environmental integrity. An international Planetary Citizenry Board would attest to an individual’s adherence to basic humanity values, issue planetary citizenry certificates and recognize those who exceed expectations and are model planetary citizens and leaders.

### 5.4.2 Planetary Governance Systems

The planetary community need greater collaboration and cooperation to tackle supra-system problems. Towards that end, the United Nations Systems (UNS) will likely evolve into cogent governance networks leveraged and supported through big data and superintelligence systems. By the end of the century, a Planetary Congress will likely replace current UN General Assembly and the Security Council. This Congress would be a Katimavik, a gathering place, a third space nexus where humankind gathers (Soja, 1996). This would likely include a Peoples’ Congress directly representing the world’s people and a Peoples’ Council that would directly represent ethnic, indigenous peoples and national polities. A Planetary Secretariat will likely be the operational branch of this World Congress. A planetary Socioeconomic Council will ultimately replace the current Economic and Social Council and render the G7 and G20 structures defunct and obsolete. The central role...
of the International Court of Justice, or World Court will no doubt continue to be crucial as its planetary judicial and legal systems consolidate and expand. Indeed, many of the current UNS agencies will either extend their operational functions or consolidate as new supra-organizational networks.

Currently, UNS agencies remain highly Euro-centric with over 85% of the current operations centralized and headquartered in Europe. Future planetary governance operations will be more equitably distributed globally through advanced technological networks across all the KSI nations, including Australia, Brazil, China, Japan, India, Indonesia, Mexico, Nigeria, and Russian Federation. Moreover, the RT2 nations of Argentina, Bangladesh, Columbia, Congo, Egypt, Ethiopia, Iran, Kazakhstan, Pakistan, Peru, the Philippines, South Africa, Thailand, and Turkey will also be critical nodal centers of planetary operations. An emerging Arab Federation of the Maghreb and Mashriq nations and East African Federation will also play critical roles in planetary governance operations, as the world becomes unified through superintelligence systems and technologies. New future organizational networks will crystalize and evolve with specific mandates within this projected planetary governance order with accountability to the Planetary Congress. Constant performance monitoring for effectiveness will assure that the missions, goals, and objectives of these networks are met. Potential planetary organizations might include the following.

- **World Arctic Organization** This organization would focus on the development of sustainable human habitats in both the Antarctic and Arctic regions, while safeguarding cold climate biodiversity and ecosystems. It would incorporate the generational wisdom of the indigenous peoples, such as the Evenks, Inuit, Iñupiat, Kalaallit, Nenets, Sami, Yakuts, and Yupik peoples among others living in the circumpolar regions of North America and Eurasia.

- **World Cultural Organization** Its mission would be to foster respect and understanding of the immense cultural diversity of the human family, while reaffirming the commonality of all humankind. It would oversee the protection of the cultural and historical property, and treasures of all peoples, cultures, and religions.

- **World Deserts Organization** This organization would focus on the development of sustainable human habitats in the desert and semi-arid regions of the planet. These would include the Arabian, the Chihuahua, the Gobi, the Great Basin, the Great Victoria, the Kalahari, the Namibian, the Patagonian, the Sahara, the Sonora, and the Syrian Deserts. It would also seek ways to control and reverse the rate of desertification that robs the planet of valuable agricultural lands. It would capitalize on and incorporate the generational wisdom of the indigenous peoples, such as the American Navaho and Yuma peoples, the Australian Aborigines, and the Maghreb peoples, such as the Bedouins, the Bejas, the Kabils, the Sans, and the Tuareg peoples, who have thrived in desert environments for centuries.

- **World Development Organization** This organization would oversee the socio-economic development and health of populations. Its mission would be to assure the elimination of both poverty and unemployment while assuring the equitable distribution of incomes across the planet. Closing the gap between the poorest
and richest nations and regions would be a prime priority, as would raising the levels of sustainable living incomes. It would seek the elimination of structural violence in the form of discrimination that contribute to despair, poverty, and the sense of helplessness across the globe. It would harmonize effective fiscal policies, including full employment, income distribution, and taxation policies for positive human development, while outlawing tax evasion and havens internationally.

- **World Education Organization** This organization will eradicate illiteracy and promulgate digital, linguistic, and numerical literacy levels across the globe. As it promotes the highest quality standards of education, it would seek to create lifelong and open learning opportunities for all (Illich, 1970). It would foster advanced learning systems to enhance the quality of human life through engineering, mathematics, medicine, science, and technology. It would work to ensure the full accessibility and equity of learning opportunities across diverse ethnicities, functional abilities, genders, religious faiths, and socioeconomic classes. It would foster collaboration, cooperation, and partnerships among all post-secondary and university facilities, while enabling global faculty and student learning exchanges and partnerships in all positive human endeavours. Very importantly, it would promote a planetary consciousness of what unites the human family and foment positive ethical values for planetary citizens.

- **World Emergency Management Organization** This organization would assure that the world community have effective resources to protect the biome and human populations from threats and vulnerabilities. The planetary risks include those from cyclones, droughts, earthquakes, environmental disasters, famines, floods, heat waves, landslides, massive bush and forest fires, pandemics, population upheavals and massive displacements, social anarchy and unrest, technological and transportation accidents, tornados tsunamis, and violence. Risk assessment and disaster planning, preparedness, recovery, and reconstruction would be central to its mission, as it would coordinate effective emergency management systems internationally (Caro, 1999, 2000b).

- **World Employment and Labor Organization** This organization would promote effective labour laws and productive employment policies and standards; promulgate occupational health and safety; and safeguard environmental work conditions. It would also lead in the development and innovation of new twenty-first century occupations and vocations for knowledge societies and encourage the growth of efficient human-robotic technologies and teleworking for a planetary labour force. Effective employment regulations and standards; the improvement of working conditions, protection, and safety; and vocational training would also be central to its goals.

- **World Energy Resources Organization** This organization would oversee the development and equitable distribution and growth of clean hydroelectrical and renewable energy resources throughout the planet. It would encourage effective, efficient, and sustainable uses of energy technologies and the innovation and research into new forms of energy. This includes assisting nations making the difficult transition from non-renewable energy to renewable energy deploying ocean, solar, and wind technologies. It would promote conservation, the effective
recycling and waste management systems and transnational sharing of energy through effective distribution systems. It would also closely monitor the use of non-renewable and nuclear energy systems throughout the world.

- **World Environment Organization** This organization would promote and protect the planetary environment in all its diversity to assure sustainable and viable ecologies. It would promulgate the biodiversity of ecosystems and safeguard environmental integrity through cogent laws and regulations. It would seek to eliminate air, noise, and water pollution and toxicity that compromise the quality of life, countervail the highest levels of environmental health, and foster climatic changes. Ecosystem vitality through effective biome and species protection, natural parks development and reforestation would be an important mandate. The protection of endangered animal and plant species would be key and the wanton slaughter of wildlife for pleasure, or profit would be prohibited. It would also encourage sustainable eco-tourism.

- **World Faith and Spiritual Council** This Council would be important in fostering international dialogue, reconciliation and understanding of the world faith systems that are so central to the spiritual development and health of the entire human family. It would work closely with educational systems to promote tolerance and mutual understanding of different faith paradigms.

- **World Family Council** This Council would emphasize the central importance of the family unit in a planetary society. It would promulgate and strengthen healthy family development, growth, and planning. The all-important healthy development of children would be central to its mission. It would also underscore the importance of the elderly in the strengthening of families and communities.

- **World Food Organization** This organization would continue to oversee the effective management of the world’s agricultural and food supplies. Its mission would be to eradicate hunger and malnutrition for all humans and safeguard the right of food security. The expansion of productive agricultural lands; food resource harvesting from the oceans, rivers, and seas; and the improvement of the world food supply distribution systems would be central to its mandate. It would also develop international food banks in anticipation of droughts and famines and other emergencies around the world. It would seek to encourage the development and fair trade of food exports, while keeping food quality and production safety standards high. It would also encourage innovative research into agronomy, agribusiness, and aquaculture.

- **World Health Organization** This organization would continue in its important mandate to promote effective and integrated health care systems and safeguard the mental, physical, and spiritual well-being of humankind (Caro, 2002, 2011). Its key goals would include the elimination of infant and maternal mortality, the extension of life expectancies, and the raising of the quality of life internationally. It would assure that health care systems have the capacity to effectively expand in response to emergencies, natural disasters, and pandemics. The development of biotechnologies, health care team resources, and telehealth systems, as well as the effective distribution of pharmaceuticals are critical. This body would be in the vanguard in the fight against cancer, cardiovascular diseases,
infectious diseases, mental health disabilities, and trauma that plague humanity. It would also encourage the development of effective medical, nursing, and para-medical education programs globally. It would lead the fight against infectious diseases, such as AIDS and coronaviruses, and deleterious substance abuse, such as alcohol, heroine, opioids, psychopharmaceuticals, and tobacco. Primary and secondary prevention are primordial, as are tertiary and palliative care (Caro, 1982). The promulgation of quality of life is an essential focus, as is environmental health, genomics, and medical innovation and research. The elimination of dangerous and toxic environmental conditions, road trauma and suicides are also vitally important. Finally, it would encourage the development of integrated e-health systems, teleconsultations and telesurgery globally (Caro, 1983, 2002, 2005a, 2005b, 2007, 2008).

- **World Megalopolises Council** Given the challenges of the world megalopolises, this Council would provide a special forum of urban regions of greater than ten million to resolve common problems. It would seek innovative solutions to high-density population issues, such as ecological management, effective housing, mass transportation systems, public health systems, and sustainable development and growth.

- **World Meteorological Organization** This organization would continue in its mandate to monitor the world’s climatic changes and weather patterns. Its mandate would include weather alert and preparedness systems and research into climatic and meteorological changes and weather control systems.

- **World Monetary and Trade Organization** This organization would harmonize monetary and trade policies internationally. It would work towards currency stabilization and a single digital world currency. It would encourage equitable, ethical, fair, and sustainable international trade for the benefit of people. The elimination of the public debt across the world would be a key priority. It would foster innovative research and new export industries that would benefit the human condition, such as agronomy, biotechnology, genomics, nanotechnologies, ocean technologies, renewable energy, robotics, solar technologies, space technologies and superintelligence systems.

- **World Oceans and Water Organization** As undersea explorer and writer, Arthur C. Clarke once asserted: “How inappropriate to call this planet Earth, when it is quite clearly Ocean.” (Nelleman et al., 2009). This organization would monitor the biodiversity, ecological health, and effective management of the world’s oceans, rivers, and seas. Its mission would be to safeguard the right to clean and safe water for all humanity and to address the issues equitable access and distribution of water resources. It would oversee guidelines and policies for desalination plants, international water distribution networks and water management and recycling systems. It would also encourage the development of aquatic life parks and preserves and sustainable undersea human habitat stations through oceanographic innovation, research, and technologies.

- **World Peace Organization** The mandate of this organization would be to promulgate peacebuilding internationally, particularly in high risk conflict zones. It would encourage and coordinate peace initiatives and research focused on conflict resolution, nonviolence, and war conflict prevention.
• **World Population Management Organization** This organization would assure that effective and efficient population management policies are in place internationally. Given demographic explosions, it would encourage effective and ethical human population control and planning and the equitable and orderly mass population movements across the planet. It could encourage the development of vertical sky cities and land reclamation efforts. Humane policies for the growth of new sustainable and viable human communities in diverse environments is important. It would encourage ethical and positive population management through birth control, family planning, and reproductive technologies.

• **World Peoples Protection and Security Organization** This organization would seek to eliminate corruption and criminality internationally. Through a planetary protection and security force, it would coordinate efforts to eradicate bribery, cybercrime, embezzlement, gang formations, graft, human and illicit substance trafficking, money laundering and thief. This also includes zero tolerance of hate crimes, genocide, homicides, and all forms of violence.

• **World Science and Technology Organization** This organization would have a mandate to advance and coordinate innovation, scientific and technological frontier research for the positive development of humanity. The promulgation of advances in biological sciences, chemical sciences, engineering, genetics, mathematics, and physical sciences would be central to its mission. This organization would encourage the development and integration of robotics, superintelligence systems, and advanced forms of telecommunications (Clarke, 1992) technologies as part of the evolution of an ethical and safe planetary society.

• **World Space Organization** This organization would coordinate the future development of sustainable and viable extraterrestrial, lunar, and Martian colonies; and encourage space exploration, the expansion of space industries and innovative technologies, as well as spaceports internationally.

• **World Sports and Youth Organization** This organization would coordinate and promote fitness and international sports to bring diverse peoples, particularly world youth, together.

• **World Transportation Organization** This organization would have the mandate to encourage the development and growth of safe innovative and integrated hyper-transportation systems internationally. This would include the integration of air, land (rail and road), space and water transportation systems to effectively facilitate the flow of people, goods and supplies throughout the planet. Public safety and efficiency would be paramount. The ecological design and protection of ecosystems would be important in the planning and design of future travel modalities. It would encourage the innovative development of driverless robotic transportation, drone technologies, hovercraft travel, hypersonic flights, Maglev rail technologies, and space travel. It would encourage and oversee critical future projects, such as bridge and tunnels linkages around the world. These linkages might include those across: the Bab-el-Mandeb Strait between Djibouti and Yemen; the Bering Strait between the Russian Federation and the USA; the Strait of Gibraltar between Morocco and Spain; the Strait of Hormuz between the United Arab Emirates and Iran; the Strait of Malacca between Malaysia and Indonesia; and the Palk Strait between India and Sri Lanka, among others.
5.5 Planetarian Transcendent and Transformational Leadership

Over the next century, the world community will be inching towards a singular and unified planetary governance. Nation-states are not equipped to deal with planetary systemic problems and national sovereignty will increasingly be ceded to planetary organizations (Rees, 2018). Our small planet with its global existential challenges and threats will compel it. The world’s peoples will demand it. Planetary transformational leadership will articulate and implement it. Planetary governance will not be a panacea, nor will it be dystopian, nor utopian. It will, however, allow for integrated, rational, and sane approaches to human and technological development and foster greater planetary harmony, justice, and peace. The evolution from nation-state power politics to unified planetary governance systems will be fraught with considerable risks and potential setbacks. The twenty-first century leaders of the constellation of KSI and emerging RT2 nations are inexorably setting the foundations a new unified planetary society and world order of 2090 and beyond. In the interim, all world nations will focus on resolving pressing internal humanitarian, socioeconomic, infrastructure, and governance challenges. Many nation-states may collapse and crumble under the weight of herculean challenges. Increased human suffering will no doubt form part of the wave of their failures.

The literature on the epistemology of leadership reveals a range of theoretical paradigms, including: adaptive leadership (Moerschell & Lao, 2012; Obolensky, 2014); authentic transformational leadership (Avolio & Gardner, 2005; Bass & Bass, 2009; Bommer, Rubin, & Baldwin, 2004; Caro, 2015b, 2015c; Price, 2003); and integral leadership (Larsson & Eid, 2012; Wilber, 2000b). All underscore the importance of legitimacy of leadership through ethical behaviors, integrity, openness, and truthfulness. Leadership is a nexus of individual actions, collective behaviors, and system processes in dynamic and evolving socio-cultural contexts. The Wu-Shi-Ren (WSR)-li paradigm is a relevant ontological paradigm, if one views leadership in the context of complex and dynamic adaptive systems that are constantly evolving (Caro, 2016a; Ma & Osula, 2011; Zhu, 2001, 2002). Essentially, this model maintains that psychological-cognitive elements (shi-li) and socio-political processes (ren-li) that allocate systemic resources (wu-li) are in continuous interplay. The four main components include: relational capital (shi-li), such as authenticity, cognition, ethics, integrity, respect, and trustworthiness; transactional capital (wu-li), such as adaptability, expertise, knowledge, and systemic resources; transactional processes (ren-li), such as collaboration, continuous learning, coordination, knowledge diffusion, negotiation, open communication, resource exchanges, and systems integration; and transformational strategic processes (ren-li). From Zhu’s (2002) perspective, “sensing and caring (shi-li)” influence the “knowing (wu-li)” that propel the “doing and transforming” (ren-li). Transformational leaders are change agents that form the backbone of high-performing and effective systems that result in positive outcomes systemic evolution, growth, and resilience (Kantur & Iseri-Say, 2012; Urby & McEntire, 2015). They engage in change management, conflict resolution, environmental and scenario analysis, risk assessment, and strategic analysis (Caro, 2016b).
The future leadership competencies and skills sets required for planetary governance will be radically different than that of current leaders. The future planetary leaders, or Planetarians, will be both transformational and transcendent leaders. Building on relational capital of sociocultural respect, trust, and understanding, they will engage in high-level sociopolitical strategic processes to direct and influence the evolution of the planetary governance systems. Their perspective will transcend the bounds of nation-states and ecospheres and encompass a planetary perspective. Planetary leadership will articulate peacebuilding values and inspire and motivate humankind to create the future planetary society. These future change agents will be at the nexus of constructive actions, collective positive behaviors, and effective system processes that will transform nations in pursuit of harmony and peace. The future leadership competencies and skills sets required for planetary governance will be radically different than that for current leaders. Future planetary leadership will be transcendent and transformational and have deep caring values (Caro, 2015a). Building on relational capital of sociocultural respect, trust, and understanding, they will engage in high-level strategic processes to direct and influence the evolution of planetary governance systems. The Weltanschauung of these future leaders, or Planetarians, will transcend the bounds of nation-states and encompass a planetary perspective. Effective and high-performing planetary governance will require cogent, innovative, integrated, and stable collaboration across nation-states. Super-intelligence systems support will be critical and enable the future Planetarians to effectively govern. These leaders will be technologically adept and at ease with high-level systems thinking.

Transformational leadership in an emerging planetary society will require multivariate skill sets, including the ability to prevent and resolve conflicts, adaptability, the agility to negotiate in the face of complexity and uncertainty (Joiner & Josephs, 2006). It will also call for a profound understanding of diverse sociocultural and sociopolitical systems (Fullan, 2006; Michael & Petito, 2009). Accountability, astuteness, credibility, discipline, emotional intelligence, high personal ethics, and integrity are essential relational capital for effective, harmonious, and stable planetary collaboration. Advanced cognitive and intuitive abilities, courage, decisiveness in the face of pressures and uncertainty, and equanimity are also critical (Caro, 2016c). All these attributes inspire, motivate, and foster trust across planetary cultures and organizations. The transcendent skills of planetary governance leaders will require foresight and vision, innovative thinking, international coalition building, and negotiation to foster excellence, harmony, and peace. Profound and cogent value commitments and dedication to the service of humankind is crucial. Most importantly, they articulate peacebuilding values that inspire and motivate billions of people the world over. They will possess values that preserve and uphold health, well-being, and communal integrity with a holistic understanding of ecosystems, humankind, systems, and technologies (Wilber, 2000a). Deep caring values, compassion for humankind, empathy for the human condition, honesty and humility will be at the heart of future planetary leaders (Caro, 1981) and will inspire others to act ethically.

Global demographic changes and growing socio-political chaos and turmoil will likely increase exposure to the range of existential threats in vulnerable environ-
ments internationally. Through proactive scenario analysis, leadership that inspires planetary preparedness and collaboration for humanity is crucial. Ultimately, it is the world peoples who will judge whether planetary governance leaders meet expectations with ethical and moral integrity. They will hold future leaders accountable particularly in time of ultimate tests of catastrophes, disasters, mass emergencies and pandemics. Leaders must not be found wanting. Planetary threats do not end at the door of national governments. Rather they find closure when communities of the afflicted and dispossessed are accorded social justice and have been liberated from the economic, humanitarian, and social sufferings they endure and have recovered from the ordeals experienced. What with limited political will, planetary resource constraints, and wavering popular support, future sustainable planetary governance systems will require profound caring values, and cogent transcendent and transformational leadership. Cogent and profound value commitments and dedication to the service of humankind is paramount centrality to these leaders. Indeed such Planetarians, or the future leaders of planetary governance systems, will be crucial in the constructive, effective, and peaceful evolution of this “Pale Blue Dot” (Sagan, 1994)—our home we call “Earth”, be it ever so humble.

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