India’s Defence and Security in the 21st Century: Hard Choices

Dipankar Banerjee

The Context
With a new government in place since India in May 2014, there are fresh hopes and high expectations. The last few years and more had seen a sharp decline in India’s economic growth and along with it, much of its global promise. The elections represented a major turning point. Prime Minister Modi’s call for good governance and development struck a chord amongst the people. They felt that instead of subsidiary sops, their many unfulfilled aspirations at last had a promise of realisation. They gave Modi what they had denied earlier governments in Delhi—a clear majority in Parliament. In turn, this has put an enormous challenge on the new government to deliver, but also an opportunity to strike a new path. What then are the implications for Indian security in the decades ahead?

It is in this backdrop that we need to look afresh at our defence and security policies and chart a pragmatic course to allow the pursuit of India’s national interests of a more secure, prosperous and fulfilling life for all its citizens. The world is entering once again a turbulent,

Major General Dipankar Banerjee (Retd) is the Founding Director, Institute of Peace and Conflict Studies, New Delhi.
India is no longer a nation that responds to the will of others and adjusts its policies to fit external developments. Power balances are changing, new power centres are emerging and fresh alliances are being formed. India is no longer a nation that responds to the will of others and adjusts its policies to fit external developments. Today, it is an autonomous actor on the world stage and in order to survive and prosper, must carefully carve for itself an independent space. A space that it must then secure, not as much with military force, as with a complex web of national capabilities and strategic coalitions. Simultaneously, India must utilise this time to build comprehensive national strength.

In order to achieve this, it will be imperative that it reviews and realigns its defence posture and reorients its foreign policy. This is a task larger than altering priorities in the annual defence budget, or building force structures to counter yesterday’s threats, or signing a plethora of often meaningless ‘strategic partnerships’ with countries far and near. A fundamental review of security and foreign policy is required based on revolutionary changes taking place all around us. This is reflected by the changes in global geo-politics, with the sudden rise of China and the emergence of “radical Islam” in West Asia. Revolutionary developments are taking place in science and technology, which, in turn, is altering fundamentally the role of force in international relations—future wars will differ dramatically from the ones fought in the 20th century. In addition, the India of tomorrow will have to prepare for new threats in the maritime environment. From kinetic weapon systems, we will have to acquire space-based systems, knowledge warfare capabilities and cyber defence potential.

National policies will also have to be long-term, focussing on synergising the whole of government effort. For a large country like India, securing national interests calls for close coordination among all
government departments and establishments. Silo-based responsibilities will no longer suffice. There has to be greater integration of policies under an expanded executive office, which many countries define as a National Security Council or the Office of the Head of State. These will function increasingly—as already doing in many other countries—as planning and monitoring offices overseeing all government functions, bringing each into harmony under a single executive authority.

Global Developments and Futures
The Cold War ended two and a half decades ago but the world has yet to define this new era. From an ‘end of history’ to a ‘clash of civilisations’ to the ‘long war against terror’, the search for a term that will define this period continues.¹ The only thing that appears constant is that war as an instrument of policy to pursue national interests, remains with us. Within this construct, India is located in a turbulent region. To India’s east and west, new dangers have emerged. The north sees the sudden rise of a major power, and the ocean to the south provides both a challenge and an opportunity. A brief recapitulation may set the context.

Challenges in Eastern Asia
A major contest for global supremacy is likely to be played out in Eastern Asia. A region of enormous possibilities and sudden prosperity, it encompasses the Indo-Pacific Oceanic Zone (IPOZ) extending from the mid-Pacific to the northern Indian Ocean, including Australia. Within a shrinking world, this entire large area today has come together as a single strategic zone, where developments in any one part will affect the entire region. Within the IPOZ, the oceans and their passageways, the island territories and undersea resources are all increasingly being contested.
China’s assertive posture in the Pacific and its expanding maritime claims in the seas has led to the US’ “Pivot to Asia”. The sea lanes that carry the region’s trade and, hence, are potentially the bearers of prosperity are, in turn, the most vulnerable.

China’s assertive posture in the Pacific and its expanding maritime claims in the seas has led to the US’ “Pivot to Asia”. Defence expenditures are rising, militaries are expanding and tension is mounting. Recent years have witnessed increasing aerial near misses, missile lock down of naval and air targets, declaration of aerial exclusion zones and ship tracking by submarines and their targeting by torpedoes. An accident anywhere can rapidly escalate to a crisis. The Association of Southeast Asian Nations (ASEAN) remains divided on how to counter China’s sudden rise. A few countries are seriously challenged by Beijing’s aggressive and assertive policies, including claims to island territories. Yet, others remain heavily dependent on China for their economic growth and all of them trade with it more than with any other country in the world. After almost two decades of economic stagflation, Japan today confronts slow economic growth and a rapidly ageing population. Whether Abenomics will be able to turn this around is a major question, to which we may not have an answer soon. Sino-Japanese relations are at their lowest ebb in decades with many in the mainland calling for war. The US is overstretched, but remains committed to support its treaty allies in Asia to the extent possible, though its resolve may be increasingly questioned. The Republic of Korea (ROK) and China are deeply intertwined economically and share a certain historic animosity to Japan. Yet, the ROK remains within the US military alliance. The Democratic People’s Republic of Korea (DPRK) continues to be a rogue state with nuclear capabilities. Military historians have begun to compare developments here with the Athens-Sparta spat over two and a half millennia ago. It was then a contest between an established power and an emerging one. Graham Allison of Harvard University
has warned the world about falling into the “Thucydides Trap” (after the ancient historian who chronicled that period).\(^2\) According to this thesis, an emerging contender (China) challenges an existing power (the USA) and in the resulting fear and anxiety, new alliances are formed and new competitions emerge, inexorably leading to war—a conflict that neither side may actually want but is unable to prevent.

To New Delhi, Beijing has offered membership of the Shanghai Cooperation Organisation (SCO), which is sometimes referred to as the Asian North Atlantic Treaty Organisation (NATO), along with Mongolia, Pakistan and Afghanistan.\(^3\) India has responded with eagerness, but may not have fully comprehended the reciprocity involved in granting China full membership of the South Asian Association for Regional Cooperation (SAARC), which many of its other members may be keen to bring about. Will an expanded SCO emerge as a new and more robust security architecture for the heart of Asia led from Shanghai? Beijing may also offer India observer status in November 2014 at the Asia-Pacific Economic Cooperation (APEC) Summit. The aim of this may well be to counter the US move for an Asia-Pacific Partnership, from which both may well be excluded. Where would India’s interests lie?

China has reached out to India in recent months in significant ways. The border patrol intrusion of March/April 2013 in western Ladakh was resolved speedily and was followed by an improved Border Defence Cooperation Agreement (BDCA) signed in Beijing in October the same year.\(^4\) A number of high-level meetings have taken place recently between the two countries. Along with Myanmar, both celebrated the 60th anniversary of the *Panchsheel Agreement* or the Five Principles of
Peaceful Coexistence of 1954. A joint Army exercise is scheduled near Pune in India in end 2014. The potential for strengthening bilateral economic cooperation remains high. Beijing’s involvement in India’s infrastructure building can provide enormous mutual benefits to both. Peaceful and stable relations between both Asian giants could be a major incentive for peaceful development and growth for Asia and the world.

Yet, there have been several disquieting developments in recent months. Since 2006 China has significantly changed its stance on the border. It has coined a new geographic term, Southern Tibet, to include all of Arunachal Pradesh, which it claims in full. This is contrary to its earlier position, when in 1962 it withdrew entirely across the McMahon Line to the north after its unilateral declaration of a ceasefire.5 This was different, of course, from Ladakh where it retained areas that it wrongly claimed. This is patently a major pressure point on India and a policy of coercion, which New Delhi can hardly accept.

A big question that both sides will have to confront sooner rather than later is how far improved relations can be sustained without a border settlement. This issue came to the fore once again as if on cue, during Xi Jinping’s visit to India in September 2014. Confrontations on the border at two places in Chumar and Demchok raised more questions on this relationship than were answered during Xi Jinping’s visit to India in September 2014. This is a policy remarkably similar to the one China has adopted in the western Pacific. There it altered cartography, claiming many islands of the South China Sea. Arbitrarily, it drew the nine dash
lines, built islands out of submerged atolls to claim territory in the sea, launched an international campaign to justify its tenuous claim, created administrative arrangements to control the region, sent its naval forces to capture additional islets, and then reinforced them with fortifications before occupying them fully.

The Chinese road and rail infrastructure in Tibet is now poised for its next stage of expansion. From its current position a few kilometres from the Indian border, it is ready to extend to the subcontinent in two directions. One, from Shigatse towards Kathmandu in Nepal, and the other to Bhutan and Arunachal Pradesh from Nyingchi. China’s inexorable move to the Indian Ocean continues as before. In addition to port facilities in Chittagong and Gwadar, China has extended its presence in Myanmar (Kyakpaw), Sri Lanka (Hambantota and the new Colombo port) and the Maldives. These are natural measures by a rising superpower with vulnerabilities in its maritime access that can hardly be denied. Yet, it should also be recognised for what it is; a unilateral expansion of its footprint that has the potential to alter the balance of power in the entire maritime region.

A Period of Unprecedented Instability in Eurasia
In a conversation with David Rothkopf of *Foreign Policy* on July 14, 2014, Zbigniew Brzezinski described the current global geo-strategic environment as “a time of unprecedented instability.” He suggests that in the vast stretches of Eurasia and the Middle East, we may be seeing a parallel of the Thirty Years’ War in Europe. As in Europe nearly five centuries ago, rising religious identification, in all its ethnic and sectarian divergences, comprised the original motive for military action, leading to complex regional power rivalries. We are already witnessing its horrific consequences of death and destruction. All across the region, except the two original nation states (Iran and Egypt), all other cartographic creations post World War I, are facing the possibility
of a break-up. Vicious ethno-religious wars are afoot across the region, extending from the Sahel, Mali and Nigeria in Africa to all of West Asia and parts of Europe. Of particular concern is the sudden rise of the Islamic State of Iraq and al-Sham (now Islamic State), with its aspirations of creating a new Islamic Caliphate.

Given current developments, Afghanistan is almost destined to fall into this pattern come 2015, notwithstanding recent political compromises. Ethno-sectarian violence engulfing the entire Af-Pak region is deeply embedded in Pakistan. Since March 2014, terrorism has spread rapidly to Xinjiang. China’s response has been swift. It has come down with massive force against the Uighur minorities there along with a liberal financial and developmental package. This gives rise to a major question of our times. Will China succeed in its strategy of coercion and simultaneous economic generosity in quelling a complex ethno-religious insurgency, in which few countries have succeeded in the past? In turn, what will be its evolving relations with the Muslim countries of Central Asia, which were to be the springboard for the extension of its Silk Road Highway to Europe? Will it impact its close alliance with Pakistan, which remains the global ‘terrorist central’?

**National Interests and Goals**

All these developments are taking place in India’s neighbourhood when it is poised to emerge as a global player of consequence; a potential ‘global swing state’. This distinction is important. India has indeed a long way to go in terms of developing comprehensive national power, even if its gross Gross Domestic Product (GDP), in Purchasing Power Parity (PPP) terms, seems impressive. In most measures of national capacity, in terms of power potential measured in per capita, India falls way short to between one-fourth to one-fifth that of China. To fulfill its promise and bridge this gap will take many years of very hard and focussed national effort. Bridging the defence capability gap with China will call for a
level of defence spending and an organisational sophistication that India can at present only dream about. Any mis-step based on an inadequate understanding of these issues in the interim may prove disastrous. We need to be patient and mindful of this difference and not bask in unnecessary and premature self-praise and overconfidence. This particular phase with a wide gap between aspiration and reality is also when India will remain at its most vulnerable.

This is where we will need to focus on defining and then achieving our national goals with a long-term perspective and a matching strategy. A time horizon that should be visualised in this perspective should be the year 2050, barely 35 years from now.\textsuperscript{10} Even within this, there need to be two distinct phases, as follows:

- Phase 1: 2015-2030 – Period of Consolidation and Cooperation.

**Phase 1: 2015-2030 – Period of Consolidation and Cooperation**

Fifteen years is not too long in a nation’s history, yet the next decade and a half will be crucial to secure India’s future. If we wish to emerge as a global player willing and able to secure our national interests, we must first reach a minimum set of standards to enable us to build comprehensive national strength. A suggested set of guidelines by 2030 may be as follows:

- A per capita income of US$ 10,000 at market exchange rates.
- Universal education to a minimum standard of class 10 (age of fifteen) with comparable proficiency approximating the East Asian countries according to the Programme of International Students Assessment (PISA) tests for about 50 percent of its children.\textsuperscript{11}
- Reasonable proficiency in selected trade and universal internet access and familiarity in its use.
- Higher standards in the Human Development Report (HDR) and environment according to UN guidelines.
It is necessary to mention the above in this paper in order to highlight the priority that needs to be given to comprehensive development of the country, which alone will ensure social and political stability, which, in turn, is the bedrock of national security. Achieving this level of growth will call for massive effort in these areas. This was also the case in China in the early 1980s. In spite of a ‘less than satisfactory performance’ of a decrepit and ageing People’s Liberation Army (PLA) in Vietnam in 1979, Deng Xiaoping announced at an enlarged session of the Central Military Commission (CMC) six years later in 1985, that defence modernisation would still have to wait. Greater resources for military modernisation were provided only five years later, from 1990. It will not be possible to achieve a stable and secure environment during this transitional period without a carefully crafted national strategy. Some of its elements are likely to be:

- While continuing to expand economic footprints around the world, our strategic focus will have to be on our immediate region. Strengthening relations with SAARC and our near neighbourhoods, Myanmar, northern Indian Ocean, Afghanistan and the Central Asian Republics must be accorded high priority. It is from a secure base that India will be able to reach out to the world.

- Strengthening strategic deterrence, enhancing comprehensive maritime capability in the Indian Ocean including sub-surface capability and a major presence in the air space above will need to be accorded higher priority. Simultaneously, reaching out to the IPOZ, a single strategic area, and which is of great importance to India.
• Instead of prioritising conventional military force accretions (a very expensive option), doctrinal modernisation, equipment upgradation through indigenous capability and improving technological proficiency of combatants of all kinds must be the highest priority.

• This should lead to a dramatic reorientation to build over a longer period cyber warfare capability, space dominance and maritime defence extending beyond our immediate vicinity.

At the same time, we need to recognise the limitation of influencing geo-political developments very much beyond our region till we reach a desirable level of comprehensive power. Building national and regional resilience will be the key during this stage and will include the following: strengthening economic cooperation and trade with China, including participation in Silk Route projects that are defined jointly and benefit both; building strong economic partnerships with ASEAN; through the United Nations and its agencies, increasing participation in multilateral institutions and ensuring a say in the governance of the global commons; participating more actively in UN peace-keeping operations and demonstrating through it greater commitment to global peace and security. It is in this context that India must decide its priority for cooperation in the region. Building resilience within SAARC is the key to bring this about. India must ensure a neighbourhood policy that contributes to its strength rather than saps it. For far too long we have allowed this neighbourhood to keep us tied down and then recently allowed China a role without a quid pro quo. Modi has demonstrated how regional relationships can be turned around, with Bhutan, Nepal and China. Bangladesh and Sri Lanka are also being wooed. Already, we can feel the benefits of this policy.

Regrettably, we have to accept this will not work with Pakistan in the near term. Islamabad’s internal political turbulence is not likely to disappear soon. It will urgently need to redefine its identity, sort out its
From a Look “East”, develop a clear “Act East” policy. This is the centre of gravity of Indian security for the near future.

Islamabad, not much will be possible. Meanwhile, we should aim at a minimum agenda of mutual security, stressing halting of cross-border terrorism. This may, as a temporary measure, lead to developing sub-regional cooperation within SAARC, without any expectation of full range regional cooperation. Regrettably, this may also limit our interaction with countries immediately to the west, which is dependent on land connectivity. Political ideology led violence is likely to remain the principal threat to the world during this period and we need to recognise this and consider policies to seriously enhance national resilience. In this phase of national development, this would call for a careful rebalancing of internal and external threats.

A Strategy for the Period

Five clear priorities in national security policies emerge for this period:

- Strengthen and prioritise internal security policies, structures and training. A whole of government approach rather than separation of responsibilities.
- Stabilise the northern borders. An equitable resolution of the northern borders is essential that will be based on mutual accommodation of vital national interests. Such a solution is possible given firm political will on both sides. A certain compromise and give and take is always an ingredient of such a resolution and given a strong and popular Indian governance and demonstrate a willingness to engage positively with India and the world. This is a task that Pakistan alone can achieve and anything we do is likely instead be counterproductive. We should recognise this reality and limit our engagement and support till this happens. New Delhi can reach out as much as it wants, but unless there is a willingness and consensus on a policy of cooperation in
government at present, this level of popular support can be achieved.

- From a Look East, develop a clear Act East policy. This is the centre of gravity of Indian security for the near future. Not just statements and agreements, but firm commitments towards strategic cooperation will be necessary.

- Make ‘Connect Central Asia’ a reality. Without land connectivity, this would surely pose a major challenge, but innovative policies should provide modest but desirable outcomes.

- Finally, redouble our efforts for a secure IOPZ. Our efforts since the Milan Exercises in the 1990s have borne fruit. These have to be consolidated through strengthening multilateral relationships as well as building, at the earliest, a maritime capability that will support this objective.

Phase 2: 2030-2050 – Securing Our Position in Asia and Globally

Fifteen years is not too short a period to attempt to assess possible changes in global power equations. Brief comments and not a comprehensive net assessment can still provide us useful directions. China will continue on its path of economic growth and through this, attempt to shape the world according to its own interests and ideas. Every indication of national strength suggests that China is firmly and steadily on this path. There may be severe fiscal, economic and structural constraints, but China today has the means to overcome these. The only area where it will face a challenge is its domestic arena, where the question regarding the success of its current single party authoritarian governance system is under serious challenge.

Perhaps the idea of Europe that evolved over the second half of the 20th century and achieved enormous success has largely played itself out.
The US’ power and leading role in the world will continue well beyond this period. Its technological prowess and ability to combine this with the innovation capability of its people will keep it in the forefront of global power. The US will be in the lead as long as its universities are the best and most sought after by the brightest young brains in the world. Here, democratic and participatory governance is not just an idea but largely achieved in a practical sense. These conditions may well prevail for several decades in the future. The same may not be true of Europe. Perhaps the idea of Europe that evolved over the second half of the 20th century and achieved enormous success has largely played itself out. While its global political role is an attractive model, economically and strategically its importance and relevance has waned. The challenges in Central Europe and its inability to develop a partnership with Russia are what may reduce its global role even further.

Instead, Africa has emerged as a region of future promise. A rapidly growing population of already over a billion people in a resource rich continent will have a potential that is beginning to be realised. Parts of Latin America too will gain in importance in the coming decades, perhaps at a slower pace. It is to these continents that India will need to reach out.

The strategic priorities for this period are clear:

- India needs to build a model of itself that will attract the world; based on plurality, democracy, freedom and tolerance. But, rooted in a comprehensive capability of deterrence that will provide it the necessary security to achieve its national goals.

- This will call for new strategic doctrines and a move towards full spectrum dominance of India’s immediate neighbourhood and a presence around the world.

- Much greater effort needs to be devoted towards new technologies of deterrence.

- Playing a greater role in shaping the global agenda through active participation in global economic and security fora.

Dipankar Banerjee
The mood of the nation today is positively upbeat. India and its people are aware of the challenges that lie ahead for the nation. But, equally, its citizens are ready to make the necessary sacrifices. What is necessary is a debate over the choices facing the nation, firm and clear policies and a clear direction of the path ahead. It is imperative that we select the right path and then are able to move forward together.

Notes
1. Francis Fukuyama, “The End of History and the Last Man,” Samuel P Huntington, “The Clash of Civilization”; and http://www.foreignpolicy.com/articles/2014/07/21/a_time_of_unprecedented_instability_a_conversation_with_zbigniew_brzezinski%20 emaking of World Order, Simon & Schuster, August 2011; The post 9/11 wars after the attacks on the twin towers have led to a large number of books, but the quote is attributed to President George W Bush.
2. Graham T Allison of Harvard University suggested that just as the Pelopponesian War in the 5th century BC was caused by the rivalry between a rising power and an existing hegemon, Sparta and Athens, the sudden rise of China will cause one in East Asia.
3. Along with membership to Pakistan, Afghanistan and Iran. SCO is headquartered in Shanghai and is closely controlled by Beijing.
4. Signed on October 23, 2013, in Beijing; The full agreement can be obtained from the Public Information Bureau, India, website at http://pib.nic.in/newsite/erelease.aspx?relid=101179
5. China has consistently and steadfastly opposed the McMahon Line in principle and does not recognise it. But, it has also accepted the high ‘watershed principle’ for its border alignment with Nepal, Bhutan and Myanmar. A high possibility should exist for a similar settlement here as well, in accordance with the principle of mutual accommodation.
6. See, for example, Dr Monika Chansoria’s competent analyses of its strategic significance in the Indian Army’s CLAWS Journal in October 2014, http://www.claws.in/images/publication_pdf/1652884248_IB-40DrMonika.pdf
8. A war that was fought between 1618-1648 in Europe, which is explained by the editors of the Encyclopaedia Britannica, as “a series of wars fought by various nations for various reasons, including religious, dynastic, territorial, and commercial rivalries. Its destructive campaigns and battles occurred over most of Europe, and, when it ended with the Treaty of Westphalia in 1648, the map of Europe had been irrevocably changed”, available at http://www.britannica.com/EBchecked/topic/592619/Thirty-Years-War
9. It has, of course, worked in Tibet, but there were many ameliorating factors. Tibetan
Buddhism places enormous importance on non-violence, hence, self-immolation rather than suicide bombers have been the norm. The Dalai Lama’s enormous restraining influence and India’s policy of severe curtailing of any hostile act against China were other factors.

10. We do not, unfortunately have the luxury of a hundred years time span as Deng Xiaoping visualised in 1997. The world will not give us that much space and neither will our people wait till then, and there lies the challenge.

11. A test developed and administered by the OECD since 2000, for 15-year-olds in Science, Mathematics and Reading. About 500,000 students from 68 countries were tested in 2012. India has not participated in this. Children from Shanghai, Singapore, Hong Kong and Scandinavian countries have traditionally been amongst the top performers, available at http://asiasociety.org/education/learning-world/what-pisa-and-why-does-it-matter

12. Xiaobing Li, “A History of the Modern Chinese Army,” describing the historic decisions taken by Deng at the extended meeting of the CMC from May 25 to June 06, 2005, at http://books.google.co.in/books?id=svBt-hzD53AC&pg=PT264&lpg=PT264&dq=PLA+CMC+meeting+of+June+1985&source=bl&ots=SStrVQXvn-&sig=xAlOvYUr0mrC5CNdQJxXYH1b3s8&hl=en&ei=ecs6VIPgCoOWuAT4voHQBw&ved=0CEUQ6AEwBg#v=onepage&q=PLA%20CMC%20meeting%20of%20June%201985&f=false;

Dipankar Banerjee
Every time I do, I hear voices expressing concern about burden-sharing in the transatlantic alliance. Their message is clear: the Europeans do too little. I can understand this view, but it’s not the full picture. As a European, I have always admired the America that did so much to save my continent from tyranny in the 20th century. I am also proud that following the 9/11 attacks, in America’s hour of need, Europe responded by invoking Article 5, NATO’s self-defence clause. And all European allies stand shoulder-to-shoulder with the US in Afghanistan, where they are making significant contributions. My answer is that today’s India is one of the important power centers in the world. Defence and strategic cooperation between India and the U.S. have strengthened considerably. Through regular annual summits, the India-Russia relationship has been stabilized and deepened, their strategic essence being kept in constant view. Relations with China came under much stress, particularly during the Doklam crisis in 2017. The short point is that India’s relationship with P-5 nations of the UN Security Council remains a top priority for policymakers. We need good, stable and cooperative equation with all of them and a few more such as Japan and Germany. Part of: Peace and Security in the 21st Century (22 Books). Kindle e-Readers. Kindle (5th Generation). More Buying Choices. New (1) from $51.29. See All Buying Options. I would rank Global Security in the Twenty-first Century as one of the finest textbooks on the market today for international security courses. It presents an innovative and effective balance of classic and contemporary dimensions of security. Another great asset is Kay’s deft ability to combine theoretical approaches and policy-oriented questions and frameworks. Security Challenges in the 21st Century: The Changing Nature of Risk, Security and Sustainability. July 2018. Advances in Intelligent Systems and Computing. DOI: 10.1007/978-3-319-60747-4_17. Conference: International Conference on Applied Human Factors and Ergonomics. Project: Security Challenges in the 21st Century. Authors: Glenn L Pierce. Security concerns facing the United States today are broader and more complex than at any time in our history. They range from concerns arising from threats to systems that allow society to control intergroup and interpersonal conflict to more recently recognized concerns associated with threats to social and economic systems, and threats to the natural/environmental systems on which society depends.