idsa

INSTITUTE FOR DEFENCE
STUDIES & ANALYSES
रक्षा अध्ययन एवं विश्लेषण संस्थान

**asian
security
conference
2010**

RAPPORTEURS REPORT

Asian Strategic Futures 2030 : Trends, Scenarios and Alternatives February 11-13, 2010

Session-I: Economic Growth, Globalisation, Poverty & Equity

Chairperson : Mr. K. Subrahmanyam

Prof. Nayan Chanda	Mr. Mohan Guruswamy	Dr. Amita Baviskar	Dr. Adrian V. Gheorghe

Nayan Chanda's presentation on Relative Growth of Nations: A View in the Mirror of History, dwells on factors responsible for shifting of growth and prosperity between Asia and West. Chanda points out that China and India, once the leaders in world economy in the pre-industrial world accounting for half of the world's output, slipped far behind other powers of the West in the 19th century because of abandonment of policies that were built around human resource, skill development, technological innovation, wealth creation, and proper allocation of resources. The West, in contrast, made the best use of these factors and rose in both economic and political terms.

Chanda points out that economic reforms, which started in 1978 in China and in the early 1990s in India, have yielded tremendous dividends to these countries and in the process have facilitated in shifting the balance of economic power to Asia. In a cautious note, he says the future prosperity of the region is not free from challenges. China, which is now the second biggest economy and top exporter in the world, will have to develop its domestic market, reduce economic disparity between regions, repair environmental degradation and develop alternative sources of energy, to keep the economic momentum going. Similarly, India will have to develop its rural economy, maximise its demographic advantage, and build transport and communication infrastructures, to sustain its economic prosperity.

Adrian Gheorghe in his presentation on Status of Critical Infrastructures points out that critical infrastructures such as the electric power system, the transportation system, the water supply system, and information and communication have evolved over time as integrated systems, with some transcending national boundaries. Because of their criticality to social welfare and national and international security, they are also vulnerable to multiple threats arising out of terrorist attacks, natural

disasters and institutional changes. He argues that there is an immediate need to address such possible contingencies "with appropriate risk assessment and in-time policy assessment at an international level."

The Siamese Twins by Mohan Guruswamy dwells on the unsustainable approach followed by the United States and China in their economic and financial matters, leading to the present economic and financial crisis. Guruswamy reiterates that America's financial profligacy, reflected in its burgeoning trade deficit and mounting national debt, combined with China's reckless pursuit of external trade are largely responsible for the present crisis. He argues that the solution to this problem is not free from negative impacts, on both these countries and others. If the US administration balances its budget, like it did during the Clinton administration, the American standard of living will be affected by way of reduced consumption and less imports. For China, the balancing act will have an adverse impact on its manufacturing- and export-driven economy. When the two largest economies are engaged in containing the negative fallout, the world economy, Guruswamy argues, "will inevitably have to slow down."

Amita Baviskar in her presentation, Poverty, Equity and Perceptions of Justice, brings out the stark differences between India's pursuit of development, and the resultant poverty and inequality that exist in society. She argues that the State's role as a provider of public goods and justice has taken a somewhat backseat. She points out that while India is moving a head in terms of urbanisation and building of 'mega' projects, a vast section of the population lack even basic amenities. She advocates that the State needs to assume more responsibility and provide "critical infrastructure of public order and rule of law" to all.

Prepared by Laxman Kumar Behera, Associate Fellow, IDSA

Session II: Climate Change, Environment, Energy, Water and Resources

Chairperson: Amb. C Dasgupta

Dr. Anshu Bharadwaj	Mr. Ruth Greenspan Bell	Dr. Stephan Harrison	Dr. Uttam Kumar Sinha

Ambassador Chandrashekhar Dasgupta opened the session by noting the contrast between the attitudes towards climate change in the early 1990s and the present. In the 1990s, climate change was seen as a purely meteorological subject. Now, however, it is on top of the agenda globally since there has arisen a critical understanding that energy, water and other resources are affected by climate change.

The first speaker, Dr. Stephan Harrison, Associate Professor of Quaternary Science at Exeter University and Director of Climate Change Risk Management, made an extremely informative presentation titled "Climate Change and implications for security". He left no doubt about the occurrence of global warming and showed how the most accurate instrumental records indicate that the end of the 20th century and the beginning of the 21st century have been the warmest years. There has been a 0.8°C rise in temperature over the last 100 years, corresponding to a 36 per cent rise in carbon dioxide. An important point he made was that projections depend on our understanding of climate sensitivity, which is the equilibrium temperature response of the climate to a doubling of carbon dioxide. The current estimate is 3°C, but he claimed that it might actually be higher.

Its impact on national security will be in terms of transboundary water (with increasing demand, water wars in Asia over a finite source of fresh water), migration (due to the impact on living conditions in an affected environment), and food shortages (due to regional precipitation changes).

Dr. Harrison also pointed out that cynics might view climate change as a geopolitical weapon used by the West against rising Asian powers like China and India in order to curb their potential as competitors since mitigation measures will slow down their development.

The problems he listed for planning for conflict are as follows: the future of climate change will be very non-linear and abrupt, there is regional variability to the impact of climate change and its subsequent risks, and the dislocated nature of the transfer of information between climate scientists and military and political planners.

The second paper presented was "Water Security in Asia 2030: A Look at Indus and Ganga-Brahmaputra-Meghna River Basins" by Dr. Uttam Kumar Sinha of IDSA. Dr. Sinha pointed out the crucial fact that water is a finite source and only 1 per cent of it is usable. South Asia has 34 per cent of Asia's population and only 4 per cent of annual renewable water resources. Transboundary rivers are an essential source of water for more than one country and, therefore, a source of conflict. Since China enjoys the status of a permanent upper riparian, it plays a key role in determining the relations between nations in terms of water.

He proposed six scenarios regarding the situation around the rivers that originate in Tibet and flow through other South Asian countries. These scenarios were constructed keeping three determinants in mind: (1) there are vast water resources in Tibet – are they only for China? (2) China's own water requirements (3) the complex riparian relationship India has with its neighbours.

The six scenarios are as follows:

- Tibet is completely annexed by China and China uses the water resources for its own interests only.
- Tibet gains partial independence, which results in China losing control over water resources.
- Ecological concerns from global pressure and environmental lobbies within China itself to control activities that are harmful to the environment.
- A coalition of lower riparians against China in order to put pressure to share water resources equitably.
- The India-Pakistan equation with the Indus Water Treaty, whereby India uses its upper riparian status to modify the treaty in such a way as to keep Pakistan in check.
- China and Pakistan form an alliance to threaten India.

In conclusion, Dr. Sinha asserted that transboundary rivers need to be managed for stability in the region.

The third paper "Asian Energy Scenarios: 2030" by Anshu Bharadwaj, Shuba Raghavan, and E. Subrahmanian was presented by E. Subramanian. He explored the options for carbon intensity cuts and

whether or not India and China can stick to their goals of reducing carbon intensity without compromising on their economic growth. He claimed that there are 5 to 6 years available for technology development and adoption and the impact of CO2 policy will be visible only after 2015.

India has proposed a CGI cut of 15 per cent by 2020 and 30 per cent by 2030. After examining the alternative energy options available, Subramanian concluded that these cuts are very much achievable without reducing our GDP growth rate of 6 to 8 per cent. The same is true of China.

Though Ruth Bell could not attend the seminar, Avinash Godbole summarised her paper, which he titled "Climate Change, Security, and Energy Policy". There are two perspectives of climate change: (1) security argument based on scientific certainty which implies that militaries must look out for their national interests; (2) skepticism regarding climate change and whether or not it should be considered in policy making.

The former point was taken up to show how existing social instability and political conflicts increase the vulnerability of areas that are impacted by climate change. Thus, when the security of a region gets affected, the military will be called as a rescue option.

Climate change poses economic, social and other challenges, thus energy choices have their implications in this regard. The adoption of CNG for public transport in New Delhi is an example of creative thinking. Thus, the need of the hour is good policy and the political will to implement them.

The questions and discussion that followed were diverse in scope and engaging. The confusion over climate change and the question of what to believe was highlighted. However, Dr. Harrison summed up the issue by saying that though different models may give different results at the micro level, they all show a trend of global warming at the macro level, so warming itself is an established fact which needs to be dealt with.

Prepared by Shubha Prasad, Intern at the IDSA

Session III: Demography, Migration and Urbanisation

Chairperson : Prof. P R Chari

Prof. Phillip Longman	Prof. Judith Brown	Mr. Narendra Sisodia and Dr. Sarita Azad	Dr. Ali Karami

The third session on Demography, Migration and Urbanisation included four panellists" Prof. Phillip Longman of the New America Foundation, Washington DC, Prof. Judith Brown of Oxford University, United Kingdom, Mr. Narendra Sisodia and Dr. Sarita Azad of the Institute for Defence Studies and Analyses, India, and Dr. Ali Karami of the Bagyatallah University of Medical Sciences, Iran. The session was chaired by Prof. P.R Chari.

In his paper titled, The Geo-politics of Global Aging, Prof. Phillip Longman, focused on the geographical implications of demographic changes in the twenty-first century. He drew attention to two contending doomsday scenarios which dominated the thinking of the 1960s and 1970s—the thermonuclear bomb and the population bomb. Focusing on the latter, he pointed out that the predictions of the population bomb have been falsified and that a new trend is emerging. This emerging trend is in the form of a declining birth rate coupled with an increase in life expectancy, which he stated would be manifested in the global aging of the population across the world. Citing the projections from the United Nations Population Division, he underlined the fact that the share of the elderly is expected to rise to 23 per cent by 2030 and to 26 per cent by 2050. Based on this analysis, Prof. Longman offered three scenarios. In the best case scenario, Prof. Longman proposed that slower world population growth can offer many economic benefits to developing countries and the population and GDP of the developed world as a whole will steadily cause their global influence to decline. He also projected that high rates of immigration from the developing to the developed world may help to smooth out existing imbalances in the age structures of the different regions of the globe. In the baseline scenario, Longman noted that many countries, notably Sweden, Germany, United Kingdom and Japan, would initiate cuts in their pension promises to future retires which could threaten social stability in these countries. A major challenge in this scenario would be issues related to "productive aging" and stagnant or declining working-aged populations, which he

predicted would retard economic growth in the absence of "game changing" technological developments. In the worst case scenario, Longman proposed that the maximum effect of demographic changes are likely to occur in the 2020s and military manpower shortages, along with fiscal constraints caused by population ageing, would play a decisive role in determining how wars are fought, and by whom. He also pointed out that a long term implication of this trend can be situated in asking the quintessential question: where will the children of the future come from? An answer he located amidst those groups whom he argued would reject the "game" altogether. If so, he pointed out the future may belong to fundamentalism.

In her paper, Population Movements and Diaspora, Prof. Judith Brown argued that diasporic movements could become an issue of significant concern in the 21st century as they often play a dual role. While on one hand such movements could economically benefit a country, on the other hand such movements could also complicate the domestic politics of the concerned countries. Prof. Brown defined the South Asian diaspora as "transnational people" stating that many interlocking strands had shaped the identity of the diasporic communities at large. This, she argued, often gets reflected in the responses of the Asian diaspora in trying to balance the sense of belongingness to a land of origin and often having kin in other countries and continents. She noted that though in recent years the Indian government had been taking a special note of its diasporic communities abroad, she cautioned that India should also be wary of the consequences of such engagements. Prof. Brown pointed out that through diaspora charity networks often cultural agendas can be forged, which can be detrimental to the secular fabric of the country. The case of diaspora in fomenting the troubles in Punjab, and the Swaminarayan movement which has an elaborate project of religious cultural and social outreach particularly among tribal peoples in Gujarat, were highlighted to underline the political consequences of such cultural linkages. Prof. Brown also argued that more sinister is the evidence that Hindus in the diaspora are more prone to viewing India as a Hindu nation and have been an important source of funding for parties such as the Bhartiya Janata Party which perceives India as a Hindu nation.

In their paper Rural Urban Divide and Urbanization: Implications for Security, Mr. Narendra Sisodia and Dr. Sarita Azad laid out the problems of rural and urban migration and their impact on national security. At the outset they pointed out that urbanisation is not a cause of wars but an issue of human security and can increase the risks for future conflicts. They stated that the main factors driving urbanisation were demographics, economic development, degradation of agricultural land and globalisation. Considering these key drivers, they projected that though slums and mega cities would inhabit a growing number of people, however smaller towns would emerge as the main population hubs. They pointed out that urbanisation would lead to a decrease in agricultural productivity and thus also causing marginal land to decrease. Poverty is therefore more likely to increase in India than in China. Highlighting the consequences of urbanisation, they argued that the rate of unemployment in cities especially amongst the youth would be on the rise, migrants would face exclusion, and there could be an increase in criminality rates. Also, environmental degradation due to various interacting factors is likely to increase. Offering base line, best and worst case scenarios by 2030, Mr. Sisodia and Dr. Azad argued that the rise of left wing extremism, globally interconnected cities and urban caliphates which would represent the nexus between youth, poverty and Islamic fundamentalism with growing plausibility of a WMD strike, respectively, are the likely causal pathways of urbanisation in the next thirty years.

In his paper titled Pandemics and its consequence for the future of Asia, Dr Ali Karami defined an epidemic as an abnormally high occurrence of disease in a particular population or geographic area. Pandemic is a global epidemic that crosses international boundaries. Dr. Karami highlighted the growing threat of new diseases, pointing out that according to United Nations Reports, in the last few decades at least forty five diseases have passed from animals to humans. Stating that diseases like Small Pox, Spanish Flu, Black Death, HIV/Aids, Cholera and Typhus had impacted millions of lives in Asia, he argued that the risks of Emerging Infectious Diseases would be a major non-traditional security threat in the 21st century. Highlighting the high costs of EIDs, Dr. Karami pointed out that the total losses of infectious diseases in the last two decades had exceeded US$200 million. A potential security concern was the likely use of pathogens by terrorists, a threat which can have high impact given the accelerated rate of globalisation and increased connectivity. He also cautioned that the use of disease as weapons could also rope in the interests of pharmaceutical companies, which could impact the public health infrastructure at large. Potential options for combating such threats included, amongst others, facilitating biodefence research, early warning systems and regional and international collaboration on bio-incident data base management, detection and surveillance of infectious disease.

Prepared by Medha Bisht, Research Assistant at the IDSA

Session IV: Transformational Technologies and their Impact on Society

Chairperson : Mr. K Santhanam

Dr. Virginia B. Watson	Dr. Roland Heickerö	Wg Cdr Ajey Lele	Mr. David E. Fuente

Dr. Watson noted that forecasting the world's technological is not an easy exercise. There is a substantive gap between the world's technological future and emerging security trends. The extant literature reflects this gap. Dr. Watson noted that technological transformations interweave with traditional and non-traditional security issues and concerns generating relationships characterized by interdependence, fusion, competition and spill-over. The Asia-Pacific region is the context in which Dr. Watson makes her case. The region is extremely diverse with a range of security issues and challenges. Yet it is also a major hub for technological developments that could be significant game changers in the international political and economic arenas. These states include China, Japan, South Korea, Singapore and India.

Dr. Heickero in his presentation noted that the exponential expansion of information and communication technology or ICT during the last few decades has changed the way we interact, communicate and distribute information between people and organizations, regionally and globally. An increased connectivity and accessibility to the "Net" as well as to services and applications will continue in a faster pace over time. By 2030, the information and communication technology sector is predicted to evolve even faster than today. New technologies are foreseen. Some disruptive technologies include quantum computers, quantum ciphering, artificial intelligence (AI), ambiguity networks, telematics and autonomous and intelligent machines and sensors. One major driving force is the convergence between sectors and technologies exemplified by the fusion of biotech and IT technology. These technological developments lead off course to new challenges regarding cyber security: how to protect critical information and systems from antagonists. A cyber conflict could rapidly diffuse across borders and lead to consequences on security policy. India and other developing Asian nations are no exception according Dr. Heickero are already investing heavily in ICT.

Wing Commander Ajey Lele noted that substantial progress has been made by states like Japan, China and India in the space arena during the last couple of years. In relative terms, most of the other Asian

states are still at the level of infancy when it comes to investments in space technologies. A few states within the region also have missile ambitions and are found using space technology as a front-end to develop and demonstrate their missile capabilities. However, it still remains more of an exclusivist technology and due to its dual use capabilities the possessor of this technology views it as a symbol of national power. Wg. Cdr Lele argues that the revival of the moon programme by a few states within the region, in the post Cold War era, goes beyond symbolism and is also about the race to grab the natural resources on the moon. Such ambitious missions by these states imply that they intend to rapidly change the unipolar world with multiple power centres and would use space technology as one of the components to do so.

Mr. Fuente in his presentation noted that there is increased international attention to green house gas emissions, climate change and geopolitical energy security has placed renewable energy technologies at the center of mainstream public media as well as national and international policy discourse. As home to two of the globe's most populous countries and rapidly growing economies, Asia consumes more total energy than the Americas or Europe. In parallel with increasing energy consumption, Asian countries are quickly moving to become global leaders in clean technology manufacturing and renewable power generation. This is reflected in the aggressive renewable energy targets and policies adopted by India and China as well as strong private investment in clean technology across Asia. Across Asia, Mr. Fuente noted there is an upsurge in activity in developing new renewable energy technologies, products, and services to meet the energy needs of the poor. Access to electricity is however very uneven across Asia. Small scale projects have short gestation periods in contrast to large scale energy projects.

Q&A and Comments

Questions:

Can autonomous systems become a threat?
Is space weaponization inevitable?
What is the future relationship between nanotechnology and IT?
Are there only civilian applications in the realm of space in the future?
What is the scope of future energy projects? Will small scale projects dominate as opposed to large energy projects?

Answers:

1. Nanotechnologies are important and will improve capacity to replace limbs of soldiers wounded in war. Innovative developments could happen within the civilian domain and migrate to the military.
2. Small scale energy investments require ground level involvement. Large scale energy projects require political, legal and bureaucratic clearances. Both are beneficial and therefore both are necessary.

Prepared by Kartik Bommakanti, Research Assistant at the IDSA

Session V : Asian Militaries and the Future of War

Chairperson: Air Comde. (Retd.) Jasjit Singh

Prof. Martin Van Crevald	Dr. Yong-Sup Han	Col. John P Geis	Dr. Vijay Sakhuja	Ms. Nabnita Krishnan

The fifth session of the 12th Asian Security Conference was devoted to "Asian Militaries and the Future of War". The Session, chaired by Air Cmde. (Retd.) Jasjit Singh, former Director, IDSA, had five presentations focussing on the future of Asia from army, navy and air force perspectives, among other things.

The Chair, in his introductory remarks said that since Twenty-first Century is the Asian Century, whatever happens here would affect the countries of the region and even beyond. Asia, today, has nine nuclear weapon countries and that makes the continent even more prominent in world politics.

Prof. Martin van Creveld, in his presentation titled "War in 2030," asserted that we have seldom heard the term 'War' over the last two years, even less heard is the term 'fighting' which according to Clauzwitz is at the heart of war. Why has there been so much/so little talk about fighting? The answer, according to him, is Nuclear Proliferation. Fear of Nuclear war has almost put an end to large scale wars. Since 1945, no two big powers have engaged in a large scale war and every single war had one insignificant/less significant country as a party. Prof. van Creveld opined that a reliable defence against nuclear weapons can never be realised. So far as MAD (Mutual Assured Destruction) is concerned, it has prevailed not as a strategy but as a situation only, and "will prevail in years to come."

Conventional warfare too has, according to Prof. van Creveld, been declining since 1945. If wars are looked at in terms of number of people involved, the number of armed forces personnel has gone down drastically - by 85 per cent. Airpower; which is considered as indispensable in modern world warfare, is also experiencing a decline. However, the fall in numbers is accompanied by technology upgradation. Accuracy and precision are the most important things today.

As conventional war is shrinking, its place is being taken over by other forms like terrorism, Guerrilla fighting, insurgency and piracy. Modern weaponry would not be of any help to achieve victory against these forces. Those who learn to adopt with these new challenges will survive and those who fail will perish.

Dr. Yong-Sup Han, in his paper "Changing Security Threats, Future Asian Armies in 2030," focussed on three vital issues pertaining to Asian Armies of 2030: emerging threats for Asian armies, decisive issues in 2030, and emerging issues and missions to deal with the change. The nature of conflict, Dr. Yong argued, has transformed as conventional war is disappearing in Asia. Key actors responsible for such a situation are guerrilla fights and insurgencies. Hybrid warfare in Asia is another threat. WMD will certainly be a part of the problem for Asia. For instance, by 2030 China will possess 500 nuclear weapons and 1,000 missiles. North Korea, on the other hand, will also develop more nuclear weapons and Theatre Ballistic Missiles. The two major powers of the day, Russia and the United States will remain strong. North Korea and China due to the lack of transparency in their policies will keep developing more and more nuclear weapons silently. This will be due to their intentions of hedging against uncertainty in future. South Korea and Japan will remain US allies. Japan will be a major sea power and will keep the size of its army low, while South Korea will downsize the army. North Korea today has a formidable army and is not likely to reduce the number by 2030 unless the political system fails there.

In the case of North Korea there could be three scenarios:

- The Kim regime fails and the state breaks up.
- Kim and his son continue to rule in future. If this happens North Korea will further build up its capabilities.
- Kim and his relatives go out of power. In such a situation coup will change the political scenario and North Korea's political vulnerability might push it to go on the war path against South Korea.

In 2030, the United States will keep a strong military presence so as to secure its strategic interests as ever. China, by 2030, will become a major regional power and will maintain an army based on its assessment of threats. India will cut down on the size of its army while upgrading the technological aspects of war-fighting. However, China will remain one of the most important concerns for India. India, in all probability, will develop and regularise its army and will seek network centric approach.

The future battlefield will be different and political and psychological warfare will be of crucial importance because new challenges cannot be comprehended without advanced technology. To meet the challenges political and historical remedies will be needed.

Col. John P. Gies in his paper "Asian Airpower in 2030" talked about the alternative futures in 2030 based on 'quantitative analyses'. In his idea of alternate futures, issues such as failed states, Jihadists and China figured prominently. By using quantitative analysis he put in perspective the role of Airpower in 2030. Airlift, precision strikes and space capabilities are, according to Col. Gies, going to play a bigger role since he believes that the terrorists and Jihadi forces are not going to have space capabilities even by 2030.

His study of the future alternate scenarios notes:

- A small group of countries will have access to advanced high technology, while the majority of countries will be deprived of it.
- Individual groups may have nuclear weapons, so the world community is moving towards a phase where high technology is destined to be of immense importance.
- Greater salience of Unmanned systems.
- Increased importance of cyberspace domain.

Col. Geis provided a few suggestions to states including India and the United States:

- Pursue communication technology for long range skills and persistence.
- Invest heavily in UAVs.
- Increased emphasis on defence capabilities.
- Improve speed and effectiveness of defence acquisition process.

Col. Geis concluded by saying that the next 50 years are going to witness two great power transitions and the possibility of a conventional war in such a scenario cannot be ruled out.

Dr. Vijay Sakhuja made a presentation on "Asian Navies: Trends towards 2030". He put forth three perspectives to look at the future of Asian navies:

- Fiscal
- Techno-operational
- Geo-strategic

He argued that the countries of the Asia Pacific region are spending a lot on naval acquisition and the trend will continue in future. Asia's share in terms of percentage of global military spending is rising that of the North American region is falling.

Asian naval acquisition is intended to work as a deterrent and preclude littoral dominance by external powers. Other reasons include: globalisation and economic growth, and the consequent need to protect maritime boundaries and energy supply chains as well as the need to exercise jurisdiction over EEZs.

According to Dr. Sakhuja, there is a strong desire among Asian navies to possess aircraft carriers. While some are aspiring for aircraft carriers, others are striving for pseudo-aircraft carriers. However, the fact remains that submarines have humbled aircraft carriers. The trend also indicates that unmanned aviation, aerostats and ASBMs are going to figure prominently in a country's naval strength.

He emphasised that there are some macro trends: Force structuring, quest for three-dimensional navy and transition from buyer-seller to joint ventures will be some of the key features of navies of Asia in 2030. Will all this lead to an arms race in the Continent? Dr. Sakhuja says it is possible though the possibilities are bleak.

Ms. Nabnita Krishnan's paper was on "Defence R&D in Asia: Achievements and Future directions". She focussed on seven major Asian countries: China, India, Japan, Iran, Pakistan South Korea and North Korea. The country specific analysis was essentially on achievements in the last twenty years, major acquisitions and products and the overall strategy of the country which is the key to future.

Japan has the world's largest engineering workforce engaged in defence industry. Japan's strategy for coming years is to spend on electronics and seek the help of allies on other things. South Korea on the other hand is relying on the idea of utilising expertise in electronics and engineering systems while acquiring missile systems and naval platforms from the United States.

Pakistan's strategy apparently is to jump start on build-up by wholesale importing proven systems from China, Russia and the United States, to partner with North Korea and Iran and make limited changes using indigenous capability. Iran's strategy for the future is: wide based attention to most technological domains, focus on materials/electronics as basic science, focus on missile systems, utilising complimentary skill sets of China and North Korea. North Korea has been strategising to concentrate

resources on missile R&D, testing and production, importing contents manually for raw material and utilise complimentary systems of China and Iran to fill technological gaps.

China is and intends to concentrate on acquisitions of basic technology through major purchases, technology diffusion between acquired systems and indigenous development, develop all-round indigenous capability through multi-pronged efforts involving the academia, industries, research institutions and national laboratories. India's strategy is mostly in-house ab initio development, though involvement of the private sector is also slowly picking up; joint collaborations are also being initiated but no Government policy has come up so far.

In conclusion, Dr. Krishnan said that China will emerge as the leader in all sectors followed by India.

The Chair concluded the session by saying that in war one does not defeat the enemy by defeating his military forces; one does it by defeating the opponent's strategy. It is therefore important for a country to concentrate on technology up-gradation, particularly airpower. The future lies in Aerospace power. He said that war in 2030 is not going to be terribly different from 2010. What is emerging is that there will be handful high-tech efficient countries while others will be left behind and this handful of countries will significantly determine the future of Asia.

Prepared by Rahul Mishra, Research Assistant at the IDSA

Session VI : WMD Weapons and International Security

Chairperson : Amb. Satish Chandra

Prof. Pervez Hoodbhoy	Prof. Sumit Ganguly and Prof. David P. Fidler	Mr. Charles P. Blair and Dr. Gary Ackerman	Ms. Angela Woodword

The chair Ambassador Satish Chandra began the session by stating that WMD proliferation and international security theme is extremely important and timely in the context of President Obama's vision for a global nuclear zero and the spate of measures being proposed to further the global disarmament agenda and to strengthen the nuclear non-proliferation regime.

Prof. Pervez Hoodbhoy, in his paper titled "The Relevance (Or Otherwise) of Nuclear Weapons in the 21st Century" argued that profound changes are visible in the US nuclear posture and is marked by a new momentum towards reduction of nuclear weapons. What accounts for this change of heart towards nuclear weapons? He explained that the long awaited change occurred not because of moral reasons but for certain practical compulsions that cannot be glossed over anymore. First, the threat of nuclear terrorism is real. Secondly, the strategic redundancy of nuclear weapons has reduced their salience in military doctrines. And thirdly the fact that nuclear weapons neither win the war nor guarantee the superpower hegemony in the 21st century have further reduced their importance. It is realpolitik and not moralpolitk that explains the momentum towards nuclear disarmament.

Hoodbhoy further argued that the probability of nuclear terrorism in Pakistan cannot be measured in definite terms, though it is a major security concern. The possible target for nuclear terrorism today is not New York, London or Madrid but the Pakistani population itself as fanatics do not spare fellow Muslims. India forced Pakistan to nuclearise in 1998 which in turn severely limited its ability to respond to the Pakistan military's sub-conventional tactics.

Looking towards 2030, it is evident that the advances in Science and technology will make the acquisition of nuclear weapons easier and a nuclear Iran will be a tipping point. The future is also increasingly marked by cuts in nuclear arsenals due to the threat of nuclear terrorism, though it would be increasingly difficult to eliminate the last few. The world continues to remain under the shadow of terror. Nuclear weapons will not be the focal point of international relations, whereas the issues of food security, climate change, and population explosion would be paramount.

Prof. Sumit Ganguly, in his paper titled "Asian Security, Chinese and Indian Power, and Nuclear Non-proliferation," pointed out that the future of the Nuclear Non-Proliferation Treaty (NPT) will receive much attention in 2010 because of the NPT Review Conference in May. With China's and India's emergence as important geopolitical players, the national, regional, and global security interests of these countries are likely to shape the nuclear non-proliferation regime over the next twenty years. He premised his presentation on two major arguments. First, the health of the NPT and its related agreements and instruments will not constitute the most pressing issue for Asian security generally or China and India individually. Second, Chinese and Indian interests in the nuclear non-proliferation regime are likely to reflect a conservative approach to nuclear non-proliferation issues.

The NPT regime is being constantly challenged by the breakout states. The disarmament pillar of the NPT has also been under stress because non-nuclear weapons states within the NPT have grown increasingly frustrated with the lack of progress towards nuclear disarmament by the nuclear-weapons states (NWS), especially the United States and Russia. The third pillar of the NPT, assuring states parties of the ability to access and use civilian nuclear energy technologies has also come under pressure from different directions.

Ganguly explained that the non-proliferation regime has an embedded multipolarity in its structure and dynamics by virtue of the participation of multiple nuclear-armed powers; and the underlying, interdependent bargains between these powers and the non-nuclear weapons states. This embedded multipolarity provides a difficult context in which to address problems relating to non-proliferation, disarmament, and access to peaceful nuclear technologies. Into this difficult environment of embedded multipolarity comes the larger geopolitical multipolarity that is complicating non-proliferation. The strengthening of the nuclear non-proliferation regime faces, therefore, a double burden: overcoming the problems associated with embedded multipolarity in the non-proliferation regime and that of geopolitical multipolarity, where nuclear non-proliferation is only one of many areas of strategic contestation among the great powers.

Both India and China, he argued, do not want to see a nuclear-armed Iran, but both countries are unwilling to play leadership roles, with the United States and its European allies, in getting Tehran to toe the non-proliferation line. China and India will not wish to be perceived as revisionist challengers of the general international order or of the nuclear non-proliferation regime. Both India and China do not wish to see the NPT regime collapse, though China will pursue its national and strategic interests strongly and its position will continue to cause difficulties in various parts of the non-proliferation regime. China will continue to approach the CTBT cautiously, with the expectation that the United States must ratify the CTBT before China will accept it. India would like to join NPT as a nuclear weapon state and its inclusion as a nuclear weapon state will strengthen the regime as all the major powers will have the same rules to follow.

Angela Woodward, in her presentation on "CBRN Terrorism," explored the range of biological risks – in the form of natural disease outbreak, accidents, negligence, vandalism/sabotage and deliberate use of bio-agents and toxins. She devised the threat assessment methodology as

- Bio/chemical terrorists threats = consequence of attack × likelihood of attack.

Analysing the trend in Asia, she pointed out that the probability of bio-terrorism is more acute in failed and weaker states like Bangladesh and Myanmar. Hence comprehensive legislative and export control measures are necessary in these states of high probability. She also suggested various licensing, regulatory and cooperative measures for potential misuse and manhandling of bio-agents. Inter-regional cooperation in this area is slow and uneven.

Dr. Charles P. Blair and Dr. Gary Ackerman argued in their paper "Nuclear Terrorism" that Asia has been the fulcrum of CBRN use in the form of toxic smokes and agents. The probability of nuclear terrorism is essentially based on two main factors: the capability and motivation of an actor. The emerging trends in Asia indicate that the rapid diffusion of knowledge of sensitive technologies has made the probability of nuclear terrorism more distinct and imminent.

The four presentations were followed by a wide range of questions and an enriching discussion. Responding to how India's inclusion in NPT as a nuclear weapon state will impact on the non-proliferation architecture, Prof. Ganguly explained that India is a sui generis case. Though India's inclusion may not ameliorate the existing anomalies within the non-proliferation regime, it will nonetheless result in all major powers adhering to the same set of rules and obligations towards non-proliferation and disarmament. Hence it will be imprudent to keep India out of the NPT loop. The chair questioned the US motives in pushing the disarmament agenda in the wake of upcoming NPT review conference. However, he ended the session on the positive note that the current momentum towards global disarmament would likely to continue till 2030 and beyond.

Prepared by Kapil D. Patil, Research Intern at the Pugwash India

Session VIII: Geo-Politics in Asia: Country Perspectives

Chairperson: Mr. K. Subrahmanyam

Prof. Aaron Friedberg	Dr. Li Li	Dr. Makoto Iokibe	Dr. Stanislav Tkachenko	Prof. Amitabh Mattoo

In his paper titled "The Geo Politics in Asia in 2030: An American Perspective", Aaron L. Friedberg makes an attempt to assess how the stability and character of relations in any system of states is still largely determined by the distribution of power among them. According to him, despite the increasing attention paid in recent years to "soft power," "smart power," and other similar concepts, "hard power" - measured roughly by the size and sophistication of a nation's economic, scientific, and industrial base, and the quality and quantity of its armed forces - remains the essential currency of politics among nations. He describes the distribution of power in any international system as either balanced or unbalanced. Between the two, balanced system has been the historical norm. In the paper, Friedberg has divided balanced systems into two types: bipolar and multipolar, and examines a range of possibilities from unbalanced/unipolar to balanced/bipolar to balanced/multipolar. Here he has chosen to focus only on those that appear to be quite possible at present.

As far as a unipolar Asia is concerned, American hegemony as well as Chinese hegemony has been discussed. According to Friedberg, for long the United States alone enjoyed a huge advantage in Asia, both economically and militarily. But recently with China's rise, American supremacy is being challenged in the region. On its part, to achieve the goal of hegemonic power, however, China has to fulfill certain conditions, such as, Beijing would have to continue to have rapid economic and military expansion; the United States would have to withdraw substantially from the region; and Beijing would have to find ways to prevent the other regional actors from trying to join together to form a countervailing coalition capable of balancing its power and challenging its influence.

While describing the possibility of a bipolar Asia, Friedberg draws the following scenarios: a Sino-Indian divide and Sino-American 'bi-gemony'. According to him, a Sino-Indian relationship with an increasing element of competition seems more probable than one that is purely cooperative and congenial. He also believes that if China continues to grow, and the United States remains vigorous and engaged, in near

future, the two may arrive at a position of broad equivalence, at least in terms of their influence in Asia. But this scenario too seems to be less likely.

As for a multipolar Asia, this paper discusses two more plausible scenarios: a US-China-India triangle and a continental-maritime divide. A triangle created by the United States, China and India may not be stable, however. This is so because while India may pursue a policy of "equidistance," avoiding overly close alignment with either the United States or China. But this may not be favourable to India since China would not give India what it really wants; the United States too would withhold cooperation with India; and above all, India would still have to face a rising China.

One final possibility could be a continental maritime divide. Instead of being dominated by a Sino-American condominium, Asia could effectively be divided into two camps - one led by China with countries like North Korea, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Pakistan, Myanmar, Laos, and possibly Vietnam; and the other led by the United States with countries like Japan, South Korea, the Philippines, Indonesia, Australia, Singapore, Thailand, India, and possibly Mongolia. In case of the emergence of such groupings in Asia, the situation could come to resemble a new Cold War, with the United States and China sharply at odds with one another, and each trying to bind its friends into a more tightly integrated coalition.

In her paper titled "China and India: Geopolitical Centre of Asia in 2030," Dr. Li Li offers an analysis of the possible geopolitics in Asia 2030 by foreseeing that the gravity of Asia will shift westward, from the western Pacific Rim (Japan, South Korea, China and South-east Asia) to China and India. It also explores the drivers of this change and its implications for Asia and the world. Dr. Li discusses the possibility of a simultaneous rise of China and India by 2030. She argues that if the two can sustain rapid growth in the next 20 years, by 2030 they will multiply their respective national power by combining economic might with demographic strength. Factors like energetic labor force, fast-growing middle class, pragmatic national strategy, peaceful international environment, etc., will help the two countries in their rapid rise.

While drawing its possible geopolitical implications in Asia, Li argues that the simultaneous rise of both India and China will not only ensure the rise of Asia but will also strengthen the trend toward a multipolar world. If the two states continue to have a peaceful relationship with each other, it will make sub-regional cooperation more vibrant and efficient. However, the improvement of well-being in China and India will put pressure on energy, food, water resources, and environment. Although many scholars predict that these might create a future conflict between China and India or among big powers, Li still believes that the simultaneous rise of the two giants is a stimulus to stronger international cooperation on technological innovation, because war will never be a solution to these problems.

In his paper "Japan and American Factor in Asia," Makoto Iokibe argues that despite earlier predictions that the bilateral security alliance would eventually get dissolved in the post-Cold War era, it is still going strong. According to him, in the near future, the US presence in Asia would continue to play an important role. He argues that although economically the United States might be caught up by the rise of China and India, militarily it would remain a predominant superpower. Although the United States is presently considered to be a declining power, American resilience to reshape itself on the back of freedom and diversity of the civil society cannot be underestimated. Above all, Asia which has many inter-state disputes needs the American presence as a stabilizing force.

In the paper titled "Russia's Asia Policy in 2030," Stanislav Tkachenko suggests four possible scenarios of how Asia might evolve in the future up to the year 2030. The paper also speculates as to how Russia might adjust its strategy in the region vis-à-vis a long-term Asian development. According to him, the most probable scenario will be the emergence of multipolarity in Asia. For Russia, a multipolar Asia with

Russia, China and India as the three poles will be quite instrumental in maintaining peace and stability in Asia. But it looks better in theory than practice as the long-term national interests of the three states are quite different.

Tkachenko also discusses the possibility of an Asia led by China. According to him, with China's emergence as a global economic power, it will definitely have a say in various international issues. In fact by maintaining high GDP growth rates and boosting the consumption capacity of its national market, China is increasing its attractiveness as a centre of magnetism for the world economic processes. Still, the scenario of 'leadership of China' seems to be unlikely due to the following reasons: a total lack of political reforms and failed attempts to reconcile the ideas (rhetoric) of socialism with the market economy; growing divide between China's affluent coastal area and the poor central and western parts, which could heighten social tensions and political instability; the economic slowdown due to the global crisis and as part of a long-term global trend which started in the OECD countries in the middle of the previous decade; growing unemployment and dissatisfaction with the policy of moderate reforms of the Communist party and the military elite; etc. According to Tkachenko, China will undoubtedly be the most notable actor of Asian politics by 2030, but its influence will be counterbalanced by other states or their alliances.

Two more scenarios have also been discussed by Tkachenko: US leadership, and the possibility of chaos. Between the two, the latter is argued to be least possible. It is so, because, the forces that promote order and stability in the region are considerably stronger than the forces and processes of destruction.

In the last paper titled "Geopolitics in Asia 2030: A view from India", Prof. Amitabh Mattoo briefly describes the key drivers of change in Asia, four plausible scenarios in the region, and alternatives for India. Mattoo identified eleven key drivers of change in Asia. They include demography and human resource, military power, soft power, alliances and partnerships, political stability, energy and water resources, etc. Then, he discussed four plausible scenarios in Asia: rising Chinese hegemony, balance of power, status quo and common security. According to him, Chinese hegemony will be the worst case scenario while common security will be most preferred one as far as India is concerned.

In his presentation, Mattoo identified the following signs within China that signal the rise of Chinese hegemony: abandonment of Deng Xio Peng's 24 character strategy, firm control of CCP and PLA, quick repression of social and ethnic unrest, sustained economic growth, military modernization, increased diplomatic impatience, etc. All these factors may soon translate into the following scenarios: Chinese values and interests emerging as a defining feature in Asia; US retreat from the region or its acceptance of Chinese hegemony in Asia; stunted multilateralism in Asia, etc.

As far as balance of power in Asia is concerned, according to Mattoo, both hard balancing through military power as well as soft balancing through soft power can be possible. However, in the coming years, it will be soft power which will probably be much more utilized.

As far as status quo is concerned, both ugly as well as presentable scenarios were discussed. On the ugly side, while instability, being prone to conflict, lack of cooperation, lack of adequate institutionalization, etc were assessed, on the presentable side more stable and cooperative interstate relations and more institutionalization, were analysed.

Based on the above discussion, Mattoo outlined the necessity of two models in Asia: cooperative security and pluralistic security community. According to him, India desires to have for itself stability, security and strength. And to achieve such goals, it aspires to work for common security in Asia.

In his final remark, Mattoo outlined an eight fold grand strategy for India to adopt: realize the demographic dividend; ensure sustained and inclusive economic growth, settle internal conflicts, stabilise the neighbourhood, build military capability, use Indian soft power, be willing to take some international risks to protect the national interest, and sustain partnership with great powers. However, if India fails to do so, it will have to give in to Chinese hegemony, be encircled by China and remain confined to South Asia.

During the Q&A session, questions were raised regarding economic growth and climate change in China, the possibility of Chinese absorption of Taiwan and its possible implications for Asian security, the necessity for India to take international risks in its national interest, etc.

While concluding the session, the Chairperson K. Subrahmanyam stated that in the future it will be the issue of energy that is going to dominate. He believes that energy generation will soon undergo new changes. And so will energy consumption and generation process. Energy scarcity will definitely create frictions among the states. That is why, energy sector should be analysed more closely in the future. He further stated that the 21st century will be a 'knowledge century'. So, the power of a nation will be on the basis of the knowledge possessed by its population. For the generation of knowledge, however, states would require suitable 'knowledge' partners in the form of states. K. Subrahmanyam firmly believes that it is the United States with which India should develop a knowledge partnership.

Prepared by Pranamita Baruah, Research Assistant at the IDSA

Session IX: Asia 2030: Alternative Scenarios

Chairperson: Mr. Pradeep Kumar

Amb. Sudhir T Devare	Dr. Chien-peng Chung	Prof. John Ikenberry	Dr. Namrata Goswami	Cdr. Steve Aiken

Amb. Sudhir Devare in his paper pointed out that a plethora of multi-lateral institutions have been erected in the aftermath of World War II in the politico-strategic and economic spheres. However, these institutions have not performed up to expectations. Countries most often use such forums for political posturing and prefer bilateral relationships to sort out any problem arena. Multi-lateral institutions in the economic sphere have tended to perform better than their political or strategic counterparts. In the Asian context, ASEAN has clearly shown the limitations of multi-lateralism due to political concerns among countries limiting the scope of effective cooperation. These include lingering disputes between Malaysia and Indonesia or Malaysia and Singapore. The ASEAN Regional Forum (ARF) has also not been able to formulate a credible plan of action. The SEANWFZ has not been fully operational due to non-verification of its protocol. Lot of proposals are currently in vogue to bring together a community of like-minded nations. These include the East Asian Summit proposed in 2005; ASEAN+3+3 (China, Japan, Korea + Australia, India, New Zealand); the idea of an East Asian Community (EAC), proposed by Japan; and the Asia Pacific Community proposed by Australia. The issue of membership in these groupings remains a main consideration inhibiting further progress.

On future scenarios for multi-lateralism, Amb. Devare noted that lack of political will, tussle for influence, and balance of power politics would continue to play a limiting role in the efficacy or success of institutions like the ARF, SCO, SAARC, ASEAN. While regionalism has not made much headway in South Asia, sub-regionalism has better prospects to succeed in the areas of transport connectivity, energy supply, environmental issues, among others. For instance, the author noted that the economic stakes of members of BIMSTEC was too large to be ignored. The author also noted the mushrooming of free trade agreements (FTA's) in the Asia-Pacific region. While SAFTA has become operational in South Asia, there are webs of inter-locking bilateral FTA's among China, Japan, Korea, India, among others.

The author concluded by noting that multi-lateralism could not be exclusive anymore. He noted the emergence of G20 in the place of the G8 and the important role played by BASIC countries (Brazil, South Africa, India, and China) in the climate change negotiations at Copenhagen in December 2009.

Dr. Chien-peng Chung in his paper "The Geo-Politics of Asia in 2030 from China's Perspective and Interests" dealt with issues like China's domestic developments, challenges facing China, and its foreign

relations, and its perceptions of the regional and world order. The author noted that political and not economic modernisation was the major challenge facing China. He posited that administrative and other changes instead of more democratisation could be expected in the domestic sphere, though there would be greater individual liberties and choice. He added that nationalism acted as social glue in China.

The author noted that by 2030, China will be the second most powerful country in the world, though the US will remain the pre-eminent power. The Chinese would have a couple of aircraft carriers and economically, the yuan would be a key currency with Shanghai becoming the financial capital of the Asia-Pacific. The author noted that although political differences might remain with other countries as regards territorial or other issues, they may not obstruct mutually beneficial relations. A political agreement with Taiwan could undercut the rationale for US forces in the region, including in Japan and South Korea as well. US-Japan alliance may be far less salient. India could emerge as a 'swing state' and its principal objective would be to ensure regional balance of power. China and India could also form an oil and natural gas importers cartel. Japan will continue to be the largest provider of developmental aid, though China may catch up in this aspect. A united Korea could come into being, without the Kim dynasty, though it will still be nuclearised. The UN Security Council will be reformed, with China even supporting Indian candidature. Concluding that there could be no Asian century without good relations between India, Japan and China, the author noted that the flow of economic influence from the West to East was inexorable.

Prof. John Ikenberry in his paper "Hegemony or Balance of Power? Regional Order and Conflict in a Transforming Asia" pointed out that great changes were occurring in Asia and it was becoming a playground for grand narratives – East Vs West; conflict Vs cooperation; old Vs new order; rise of India and China and their growing defence budgets; unresolved territorial disputes, among others. He noted that the geo-political space of Asia was increasing due to inclusion of India. The region is also witnessing the rise of new antagonisms and growing importance of non-traditional issues like energy security and trans-national crime.

The author pointed out that in the 'old' hegemonic order, the US played a central role and Japan was restrained and could remain a 'civilian' great power. The US maintained a 'hubs and spokes' arrangement with alliance partners to maintain regional order. Prof. Ikenberry explicated certain major issues in the 'new order' including a return to multi-polarity with new and separate and inter-dependent poles emerging. This would be a stable multi-polar order which will come about in three different stages – differences in power, which was already happening leading to the rise of new poles; the eventual rise of new poles and independent great powers; and geo-political security competition among these poles. Another feature of this 'new order' would be the democratic-autocratic divide which will see the US and China as rivals having power disparities, ideological and historical grievances, alternate political systems and political legacies. This would be a kind of a Cold War which could either be stable or dangerous. Another outcome will be the US and its allies leading a partial hegemonic role wherein the US would remain committed to Asia and great inter-dependencies will exist especially in the economic realm.

Stating that the great powers have a lot to cooperate on, including on issues relating to environment, clean energy, terrorism, and failed states, Ikenberry advocates an American grand strategy where in it will be the major security provider in the region through alliance systems and it should also attend to regional institutions and work towards a mechanism where China and US can cooperate.

Dr. Namrata Goswami in "Is Conflict Inevitable in Asia in 2030" focuses on the conflict dynamics which can dominate the relationship between the great powers in Asia in 2030, namely, the US, China, India, Japan, and Russia. The paper identifies three significant drivers of conflict - nationalism and ideology, military postures (and related security dilemmas), and weak institutions and argues that while inter-state

wars are perhaps not inevitable in Asia in 2030, tensions could arise between these potential great powers due to uncertainty about each other's intentions, ideological leanings, aggressive nationalism and military postures, and the absence of an overarching mediating regional institution. Resource competition, the ascendancy of zero sum perspective which asserts that one country's economic and military gain is another country's loss, relative power competition, and 'prestige seeking' instead of 'security seeking' states in Asia could further lead to systemic tensions.

For the author, ideology and nationalism occupy first position among main drivers in the uncertainty matrix. She points out that the power of nationalism, especially in China, Russia and Japan is strong, rooted in internal power dynamics. The author notes that Chinese military modernization and posture is looked upon with great suspicion by other states due to the nature of the Chinese political system. Dr. Goswami points out that security dilemma can be created by offensive military postures, and a change in military postures from offensive to a more defensive mode can diffuse tensions. Pointing out that military postures can have a direct bearing on peace in Asia, she notes that China and India have been two of the largest recipients of conventional weapons with the US and Russia being the biggest exporters followed by Germany, France and the UK accounting for 79 per cent of total world exports. As regards her third driver, the author notes that Asian institutions are still weak to influence state behaviour.

The author goes on to identify three scenarios on the nature of state relations in Asia in 2030. These include 'Cloudburst' where there is sudden rise in tension between states like the US, China, and India in 2030 as a result of extreme forms of ideology and nationalism (Driver I), offensive military postures (Driver II), and the inability of regional institutions to mitigate tensions (Driver III). 'Rainbow' is Scenario II where multilateral cooperation triumphs in Asia thereby neutralizing conflict. In 2030, the Asian countries will manage their nationalism (Driver I), ensure that their military postures (Driver II) are defensive, and undertake a pro-active engagement policy negating several military posture-related security dilemmas. Scenario III is 'Dragon Fire' (Rapid Change) where sudden geo-political changes occur as nationalism and ideology (Driver I) takes a back seat and states become post-modern and start opening up borders as is the case with the European Union (EU). Military postures (Driver II) become less important as states enmesh their economies together propelled by stronger economic integration through mechanisms like a newly created Asian Union (AU) in line with EU and a regional free trade agreement. Weak Institutions (Driver III) are strengthened by the collective efforts of states and China and India take on a leadership role with US and EU support.

Dr. Goswami also notes three wildcards – conflict between China and the US in 2030 as China suddenly occupies Taiwan by using massive conventional military force; the US targeting China's energy lanes of communication in the Indian Ocean with nuclear weapons; and China imploding internally due to domestic strife and political dissent.

Cdr. Steve Aiken in his paper "Asian Futures 2030: Global Strategic Trends and Alternative Scenarios" posits that the period leading up to 2030 will be a time of considerable transition both globally and for Asia. The region will be characterised by instability, both in the relations between states, and in the relations between groups within states. During this time frame, the world is likely to face the reality of a changing climate, rapid population growth, resource scarcity, resurgence in ideology, and shifts in global power from the West towards Asia. The author notes that there will be several states and institutions competing for regional and global influence, cooperating and competing within the international community in a multi-polar distribution of power. Globalisation is likely to continue, underpinned by the rapid development of global telecommunications and will be an engine for global growth. The physical manifestations of globalisation are likely to be most apparent in the globalised core, which comprises the most interdependent and economically successful regions of the world. Climate change will amplify existing social, political and resource stresses, potentially shifting the tipping point at which conflict

ignites, rather than directly causing it. Cdr. Aiken states that though sufficient energy, food and freshwater resources are likely to be available to sustain the growing global population and the global economy, their distribution and access to resources will be uneven. By 2030, around 65 per cent or 6 billion of the world's population will live in urban areas, attracted by access to jobs, resources and security. He posits that the strategic balance of military power is likely to change as Asian states close the technological gap with the West.

Given the above drivers, the author looks at different regions of Asia and the way they will be impacted. In the Far East for instance, among other developments, China will remain both an opportunity and a threat. The state in North Korea will become increasingly brittle and may suffer political collapse which will also likely result in a reunified Korea. China's current policies of non-intervention and non-interference are likely to be superseded by a more interventionist approach, as its power and influence increases. The Indian Ocean region, and particularly the Asian Meridian, is likely to become areas of geo-strategic competition. The author notes that although China's continuing economic development is likely to establish it as the leading power in Asia, it is unlikely to directly challenge the US militarily outside of this region. China's future according to him will ultimately be defined by whether and how it manages to create a system of politics that can sustain social cohesion alongside rising prosperity.

The 'Asian Meridian' is defined as the region which sits astride the Malacca and Lombok Straits and encompassing several big and small states and even smaller City states. 20 per cent of global oil production is transported through this region, including 80 per cent of China's oil imports. The author notes that Islamic influences and competition for regional influence is likely to be significant in this region, exacerbating instability and possible disputes over resources and sovereignty. Russia for the author is an Asian power which is striving to regain its global standing in the face of domestic political, social, and demographic challenges. In an unstable Pakistan, the Armed Forces are expected to prove resilient though a dynamic intelligentsia and diaspora might transform Pakistani society and prevent the fragmentation of the state. India is likely to follow an 'India First' policy as it acquires political power and influence and is likely to become a permanent member of the UN Security Council. Internally, India is expected to face complex, protracted challenges from insurgents and terrorists. The United States, despite its geographical position, is likely to remain an Asian power out to 2030.

The issues raised by the audience in the subsequent debate included the possibility of creating a pan-Asian security architecture, like NATO in the European context; the apparent neglect of Africa as a major issue affecting the situation in Asia by 2030, especially due to rising instability in states bordering the Indian Ocean; India's appetite to take on its role as a rapidly rising power; possibility of competition between India and the US; the growing significance of a rising Vietnam; among other issues.

Prepared by S. Samuel C. Rajiv, Research Assistant at the IDSA