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MESSAGE OF PATRON

The evolving global security environment is though complex and challenging but it offers opportunities to those who position themselves correctly. Correct strategic positioning is invariably a result of conceptual clarity obtained through objective research and analysis. To this end, Armed Forces War College (AFWC) at the National Defence University endeavours to create knowledge through enhanced research, discussions and analysis in the field of national security.

This edition of OPINION e-journal comprises research work undertaken by the course members of National Security and War Course (NSWC) 2015. The selected articles are of general interest to a wide range of researchers, scholars and policy makers. We expect the journal to promote scholarly knowledge by inspiring discussions and information sharing with regards to comprehensive national security.

I would like to acknowledge the commitment and hard work of the entire team of OPINION on publication of its 5th edition. I hope the ideas shared would contribute towards creating awareness on the security matters and highlighting need to promote peace and stability.

Major General Muhammad Naeem Ashraf
Commandant, Armed Forces War College
National Defence University, Islamabad
CHIEF EDITOR’S CORNER

We feel great pleasure in presenting the 5th edition of our AFWC “Opinion” e-journal, the first publication of this year’s biannual issue. Deliberate efforts have been made by all concerned to maintain the high standard set forth by the University in bringing the well researched work by the panels of NSWC 2015 mainly comprising research work of individuals / panels on key issues.

For our new readers, OPINION journal is a publication of Pakistan’s premier institution National Defence University Islamabad. The magazine is a collection of selected researched work of the panels /individuals. The Journal is broadly divided into four sections i.e. Global / Regional issues, National Security, Military Strategy and Views of individual writers on contemporary issues.

I strongly believe that readers will feel a professional analytical approach and find new ideas in this edition as well. This edition will definitely be NDU’s another leap for intellectual and professional development.

Midhat Shahzad
Chief Editor OPINION
AFWC Journal
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PART – I

Global / Regional Issues

➢ Climate Change – Impact on Global Security
➢ Greater Middle East and Future Geo-Strategic Calculus
➢ Resources – conflict nexus; implications for Security calculus
CLIMATE CHANGE - IMPACT ON PAKISTAN’S NATIONAL SECURITY

Mrs. Amna, Col Waseem and Lt Col Nadir

Abstract

Climate Change is more than just a warmer planet and changing weather patterns; it’s more about long term impacts on socio-economic, political and environmental aspects besides security ramifications. The world community concerns over the global environmental change on social, ecological and security environment, “environmental change is now recognized as a key driver of national security.” Accordingly, this paper analyses the impact of climate change on non-traditional security concerns like, water, food, energy, economy, and societal security besides implications for traditional security aspects like defence, terrorism and extremism. Historically, civilizations perished both due to climate shifts as well as socio-economic and politico-security causes. From scientific standpoint, regardless of our ability to accurately understand and predict the drivers of climate change, variation in the earth’s climate will continue as it has throughout geological history. Already water stressed, Pakistan is fast becoming a water scarce country. This problem is compounded by Pakistan’s inadequate water storage capacity to capture the water run-off from glacial melt and changing patterns of rain. Agriculture sector of Pakistan is adversely affected due to climate change. While energy and water security are issues of great security importance therefore for Pakistan, policymakers need to link the two issues for better future management. In order to address the challenges posed by climate change, there is a need to devise a three-pronged strategy through prevention, mitigation and adaptation. Unless addressed meaningfully, climate change issues will continue to have impact on our national security, hence, it is suggested that the study on climate change should be given its due place in the national security policy paradigm.

Introduction

Climate Change is much more than just a warmer planet and changing weather patterns; it’s more about long term impact on socio-economic, political and environmental aspects besides having serious security ramifications. In 1971, Richard Falk identified environmental change as a security concern and introduced first law of ecological politics,¹ which says that if weather changes are faster, than there will be less time to adapt and greater will be the impact on the world. In the backdrop of concerns shown by the world community over the impacts of global environmental change on social and ecological systems, coupled with changed international security environment post-Cold War, “environmental change is now recognized as a key driver of national security”.² It is in this framework that an attempt is being made to study the impact of climate change and analyze national security issues like, water, food, energy, economy, and societal security besides implications for defence.
Effects of Climate Change on Civilizations & Cultures


–Voltaire

Climate change is not a new phenomenon and has been happening throughout the history of Earth. The rise of civilizations and consequent development of culture seems partially dependent on the climate, because, “a stable climate ensures crops grow year after year, and a reliable source of food frees people to settle down and develop culture”. Consequently, many civilizations flourished and later perished due to climate shifts; notable examples are: the Mayans, the Sumerians, ancient West Asia, China, etc., which collapsed with climate change being one of the contributory factors. Before delving into history, it will be appropriate to define what climate change is? Is weather and climate different or synonymous? To answer these questions: “Weather reflects short-term conditions like sunshine, rain or snow, while climate is the average daily weather for an extended period i.e. from decades to millions of years; therefore the difference is temporal.

Oceans absorb “twice the sun’s radiation as atmosphere or land surface”; thus has great impact on land temperatures. Formations of separate continents “changed the flow of ocean currents and winds”, and thus shift in the climate. Volcanic dust blasts into the atmosphere causes temporary cooling, which can have negative impact on crops. If the tilt of the earth is more, than there will be more severe season, which may translate into warmer summers and cold winter. So if the tilt is less than there will be milder seasons. El-Nino is presence of comparatively high temperature, whereas, La-Nina is presence of comparatively lower temperature in eastern pacific equatorial region, causing torrential or irregular rainfall in parts of Central and South America during respective phenomenons. The impact of these phenomenons is felt as far as Africa, Australia and Asia.

The earth’s climate is constantly changing, but there is a conjecture that recent warming maybe occurring beyond the established, natural cycles. A myriad of reasons have been proposed to explain the drivers of climate change, and the Heartland Institute an American think tank based in Chicago has identified seven major classifications of climate change theory, which are; Anthropogenic Global Warming (AGW), this theory is based on the proposal that manmade greenhouse gases (GHG) such as water vapour, methane, nitrous oxide and primarily carbon dioxide (CO2) are causing a rapid increase in world temperatures.

The Bio-thermostat theory contends that increases in atmospheric CO2 are naturally regulated by biological and chemical negative feedback systems. In this way fluctuations in climate are controlled by a natural thermostat system. The proposed major driver for this is the carbon cycle. Increase in CO2 and temperature provide favourable conditions for photosynthesis resulting in an increase in plant biomass. This increased vegetation captures and stores CO2 resulting in a stabilisation of atmospheric levels and climate. The theory of regulation of global temperature by tropical cloud formation is based on observation rather than scientific modelling. After observing cloud changes during past climate fluctuations,
a number of US and NASA scientists have proposed that clouds act to regulate the tropical Sea Surface Temperature (SST) between 28 and 30°C. Heating of the water surface produces warm, moist air stimulating cloud formation and the low level clouds shield the sea surface from further heating.

Human activity other than GHG may also drive climate change. Human demography has seen a population shift from rural areas to urban cities. Urbanisation has created “Heat Islands” due to replacing vegetation with concrete buildings and asphalt that absorb and reflect solar energy and an increase in heat producing mechanical equipment and cars. Deforestation associated with urbanisation reduces arable land for carbon sequestration and therefore limits the carbon sequestration process associated with bio-thermostatic regulation. The sea surface is heated in the tropics and ocean currents distribute this absorbed heat to Polar Regions. Warm, shallow currents cool upon reaching higher latitudes and after releasing heat energy, subside into deep, colder currents before welling up in lower latitudes. This continual process is known as ventilation and the global currents are depicted at Figure 1. The cycle occurs every one to two thousand years.

The earth’s orbit shape is also constantly changing from nearly circular to an exaggerated elliptical. This cycle takes about 1000 years to complete and the differing orbital paths cause variations in the macroclimate of the earth. Periods of maximum tilt combined with maximum elliptical orbits result in long cooling periods, or ice ages. Warming periods result from the opposite circumstances.

The solar variation theory of climate change contends that energy from the sun is a major contributor to atmospheric temperature and that variations in the solar cycle drive climate change. Temperature is not simply controlled by exposure to solar radiation, but solar activity has more complex effects such as solar radiation influencing the formation for condensation nuclei for cloud formation. Some scientists are proposing that although the world’s average temperature increased during the late 20th Century, it has now stabilised over the last 18 years. Figure 2 depicts a neutral trend that can be derived from temperature data collected at the three terrestrial and two satellite collection systems used to calculate global monthly temperatures.
Impact and Implications

Despite lack of consensus on the drivers of climate change at global level, climate change is part of top ten challenges world faces today. The “three major global surface temperature reconstructions show that Earth is being warmed since 1880”. In the last one hundred years the temperature has gone up by 0.76°C, and it is predicted to keep going up if the humans continue to dump fossil fuel into the atmosphere at the rate of 2.5 ppm (parts per million) per year. Extreme events are more intense, frequent and longer lasting. European heat wave of 2003 is an example which led to 80,000 dead. Intense cyclones, hurricanes, prolonged wet and dry spells with floods and drought are the likely fallouts of warming. Globally, 95% of the Glaciers are shrinking to include glaciers in Alps, Himalayas, Andes, Rockies, Alaska and Africa. In the 20th century, “global average sea level rose at a rate of about 1.7 mm/year”. Now, it is rising at 3 mm per year, which is almost double from last century. The main contributing areas are: oceans warming and melting of ice over land, adding water to the oceans. Oceans grew warmer by 0.59°C in the 20th Century and Jul 2009 was the warmest year on record. Higher sea level and warmer ocean temperatures alter habitat and impact weather worldwide. Introduction of CO2 into the seas is raising the acidity level, thereby “affecting the life cycles of many marine organisms, particularly those at the lower end of the food chain.”

Climate change will affect agriculture and global food supply. Extreme events will reduce crop yields, fisheries and livestock productivity. Increases in extreme events will diminish water quality, cause algal bloom and increase bacteria. Additionally, areas with frequent droughts will have less water available for crops and livestock, resulting in increased competition for water resources, causing global, regional and national security concerns. Warmer average temperatures can cause more people to fall sick due to heat-related infections; however, the impact will vary on the health sector capabilities of that community and the risk associated to “age, gender, and economic status of individuals affected.” Therefore, poor countries and communities can be at higher risks especially once seen in the context of their adaptive capability. Fifteen Asian megacities are “sensitive to sea level rise and increased coastal storm surges”. Individuals and groups respond to climate change differently, “such as elderly, infirm, children, native and low-income populations”. Extreme events as a result of Climate change may affect the migration of people
within and between countries around the world, and their frequency is likely to increase.\textsuperscript{31}

Africa is one of the most vulnerable continents “due to multiple stresses and low adaptive capacity”.\textsuperscript{32} By 2050, it is projected that 350 - 600 million people would experience enhance water shortages. Moreover, “towards the end of the 21st century, projected sea level rise will affect low-lying coastal cities”.\textsuperscript{33} Glaciers in Asia are melting faster, increasing the risks of flooding and avalanches. Coastal areas are threatened due to sea level rise and increased flooding from the sea and from rivers. Sickness and deaths due to disease are likely to increase owing to projected changes in the “hydrological cycle”.\textsuperscript{34} India and China considered being among the leading CO2 emitters are enhancing the risks related to climate change on other countries as well. In Europe, higher temperatures and drought affect the water availability, hydropower production and tourism, whereas, colder regions face mixed effects with some benefits like less heating requirements, better crop yields, and healthy forests. In Northern America, the warming of western mountainous regions is likely to decrease snow accumulation with enhanced winter flooding, resulting in reduced summer flows aggravating competition over water resources. Moreover, reduction of sea ice and permafrost would have negative impacts on infrastructure and winter activities “such as ice fishing and transportation”;\textsuperscript{35} however, more economical northern sea routes can be available for shipping industry.

**Climate Change and Pakistan’s National Security Implications**

Pakistan is amongst the countries which are highly vulnerable to the adverse impact of climate change despite the fact that its global GHG emissions contribution is “only 0.8%.”\textsuperscript{36} Major impact of climate change on Pakistan are; Pakistan has experienced an average rise of 0.57 °C \textsuperscript{37} in temperature during last century and it is projected to increase further by 4.4 °C by the end of 21st century. During last century, the precipitation change over Pakistan has shown an increase of 25%\textsuperscript{38} with variations in the timings and quantity of rains. As per 2007 IPCC report, Glaciers in the Himalayas are receding and it is very likely that they will decrease significantly by the year 2050.\textsuperscript{39} The mean sea level has risen to an estimated 19 cm\textsuperscript{40} during last century. The Arabian Sea level has been rising approximately at 1.2 mm/year.\textsuperscript{41} Some of the incidents in recent past include glacial dam outburst Lake at Attabad (2010), Floods (2010), two super cyclones namely Gonu and Yemyin the Arabian Sea in June 2007, which hit Makran coast and adjoining countries.

Climate change poses serious challenges to National security of Pakistan. It is projected that next two to three decades, Pakistan challenges of water, food, energy and societal security may get compounded. Due to increasing population, Pakistan already water stressed country is fast becoming a water scarce country. The per capita availability of river water has been reduced from 5650 m$^3$ per person per year to 1100 m$^3$ in 2010\textsuperscript{42} and is projected to be around 885 in the year 2020. Pakistan’s water storage capacity of 18.37 MAF has been reduced to 14.28\textsuperscript{43} due to silting, reservoirs which is still continuing. The present reservoir capacity is only 9 percent of the average annual rivers flow which is very low as compared to world average of 40%. Worse still, the water storage capacity per citizen in Pakistan is extremely low i.e only 150 m$^3$. 

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Pakistan is already facing acute shortage of electricity, causing shut down of industry. The electricity produced through hydel resources accounts for 30% of the total generation, and due to receding glaciers, water in the rivers will reduce significantly causing a serious imbalance in the future energy mix. If unaddressed, growing energy requirements of the country will mostly remain unfulfilled. Also, there is likely to be increased energy demand for pumping ground water to compensate gap in agriculture/domestic demand & supply along with enhanced energy demand for cooling due to increase in temperature. Moreover, extreme climatic events will pose threat to power transmission infrastructure as well.

Climate change result into variety of natural disasters, reduced yield and energy production. These all contribute to economic meltdown. According to the Pakistan Strategic Environment Assessment Report by World Bank, the annual cost of environmental degradation in Pakistan has been estimated at 6 % of GDP. As per study done on Flood Assessment damage, 2010 floods alone cost economy up to $10 billion.

In the aftermath of 2010 floods, “over 37 million medical consultations were reported within one year of the floods”. Most of the consultations were for respiratory infection, skin diseases, diarrhea and malaria. Such extreme climate events usually lead to serious health catastrophes which may be beyond the capacity of available national health care resources. Droughts, rising sea level and melting glaciers affect the populace and force them to migrate to other regions. The growing pressures over cities because of rural to urban migrations, and inter-provincial migrations of people could itself weaken the internal cohesion and undermine security. Higher un-employment rate, rising poverty and forced migrations due to extreme weather events will contribute to adverse law and order situation. These may lead to creation of condition favorable to giving rise to extremism and terrorism.

The Way Forward

In order to suggest a way forward, it would be prudent to summarize the prior discussion. Historically, civilizations and their cultures perished both due to natural causes like drought, floods or extreme cold, as well as socio-economic reasons like lack of interest in food security, or utter apathy of humans towards natural environment. Regardless of our ability to accurately understand and predict the drivers of climate change, variations in the earth’s climate will continue as it has throughout the geological history resulting in change in physical environment. Climate change is a global phenomenon irrespective of the source of GHG emissions, the world as whole will have to bear the effects, and need to arrive at a global consensus.

Already water stressed, Pakistan is fast becoming a water scarce country. This problem is compounded by Pakistan limited water storage capacity to capture the water run-off from glacial melt and changing patterns of rain, warranting immediate construction of water storage facilities. With reduction in availability of fresh water and receding glaciers due to climate change, there is a likelihood of water becoming a cause of conflict. Agriculture sector of Pakistan is adversely affected due to climate change. Besides aggravating food security issues, this will also cause enormous loss to national economy in the long run. While energy and water security are current
issues for Pakistan, their implications for national security will be significantly magnified by the impacts of climate change.

**Policy Guidelines**

Clearly policy makers need to recognise the importance of environmental protection as a major premise of national security. In order to address the challenges posed by climate change and governance shortfalls, there is a need to devise a three-pronged strategy through **prevention**, **mitigation** and **adaptation** in following areas:-

There is an urgent need to increase water storage capacity from current level of 9% to 40% of available water. This increase will provide more water for irrigation, power generation and to mitigate damage from flash floods. Beside this, there is a need to adopt water conservation technologies (Drip and sprinklers technologies) and to improve underground water table by embarking upon recharging water aquifers (Wetlands, rain water harvesting, tree plantation). Also, inter-provincial distribution of water should be done according to crop-sowing timings.

There is a need to develop national level Management Information System about crop, soil and climate to identify ideal cropping pattern for each agro zone. There is a need to focus on energy efficient farm mechanization (solar tube wells, drip irrigation, sprinklers), besides establishing Climate Change units to carryout farm-related research in order to figure out strategies for projected impacts of climate change on farming. Media should be used for effective communication of climatic predictions as well as weather forecasting and corresponding advice to the farming community. Government should also develop a proper risk management system including crop insurance to safeguard against crop failures due to extreme events (floods, droughts etc.). In the field of livestock, develop and introduce better breeds for higher productivity of milk and meat and are less prone to heat stress and more drought tolerant.

Reforestation should be embarked upon at priority and adopt new forest management and planning options in line with research on climate change. Also consider expanding protected areas in the country, which should also include conservation of wildlife. Also, prevent cutting of trees as fuel.

As suggested by UNFCCC (Article 4.1b), Pakistan needs to shift current energy policy mix from Coal, Oil, Gas which causes environmental degradation) towards renewable energy option. Give preference to generate and import of natural gas, Liquefied Natural Gas (LNG) and Liquefied Petroleum Gas (LPG) over import of oil and coal. In the public domain, improve energy efficiency by introducing standardized building and construction codes through legislation and by giving incentives for remodelling etc. For institutional improvement, ensure quality management of energy production and supply, by reducing line losses both during transmission and distribution.

**Socio-Economic Dimension**

To cope with the challenges of disease outbreaks, systematic monitoring and forecasting systems are required. There is also a need to sensitize the public and
educate and train health personnel about climate change related health issues. Furthermore, educate masses about preventive measures besides ensuring availability of required vaccines, quality medicines and clean drinking water to the general public during extreme events like floods and droughts.

There is a need to ensure implementation of laws regarding prohibition of human settlements on river courses, besides undertaking hazard mapping and zoning of areas before construction. In the long term, update town planning design principles for lesser carbon trails. There is a need to monitor and institutionalize rural urban migration, which is posing serious threats in already over-burdened cities and towns.

In order to improve upon the social indicators and also be in league with the global community on “Convention on Biological Diversity”, the state needs to fulfil its obligations to provide people the basics like food, fresh air, water, shelter, and a clean and healthy environment to live. On the other hand, climate change poses serious threats to biodiversity through land degradation processes of water logging, salination, and wind and water erosion. Therefore, there is a need to set National Biodiversity Indicators and allocate sufficient budgetary resources to execute Biodiversity Action Plan (BAP).

There is need to formulate “Corporate Social Responsibility” (CSR) guidelines and encourage corporate sector to create CSR-fund to cover carbon emission reductions efforts in industrial sector. Also, encourage industrial sector to have periodical “Energy Efficiency Audit to contribute in the overall saving of energy. There has to be an institutional response with regard to developing environment friendly transport system. In this regard, government should support the public-private transport sector partnership. Also, focus on upgrading and expanding the railway network in the country as the advantages of railway over road travel in terms of carbon emissions are well recognized.

There is need to establish the National Climate Change Commission for coordinating all climate change activities at national and international levels. There is an urgent need to improve the inter-ministerial and inter-departmental decision making and co-ordination mechanism on climate change issues both at provincial and federal levels especially to strengthen disaster risk managements system. Also, provide training and support, at national and international levels, to the concerned officials and experts of line ministries and departments and strengthen national climate change science related institutions, in particular the Global Change Impact Studies Centre (GCISC). To offset the impact of extremist outfits in relief and rehabilitation post disaster, disaster management system should be strengthened by increasing its capacity through new enrolment, buying new equipment, and continuous training of these personnel.

The effects of climate change have linkages between domestic and regional / global efforts. Therefore, the initiative should drive from top, so that the way forward becomes binding on the countries and they are unable to rescind unilaterally. Irrespective of the controversy with regard to future projections, the effects of climate change should figure far above in priority of challenges, the world is facing today. At the regional levels, the needs to support the establishment of SAARC Climate Change Research Centre in close proximity to the Global Change Impact
Study Centre (GCISC). In the backdrop of water becoming a tool of coercion and a likely cause of military conflict between regional countries, a pro-active diplomatic approach will be required to sensitize international community about the severity of issue.

Conclusion

The drivers of climate change may be open to debate, but what is certain is that variations in the earth's climate will continue as it has throughout geological history. These changes will have real and significant impact on the physical environment with major implications for national security that cannot be ignored. Unless addressed meaningfully, climate change issues having multifaceted implications on economy, environment, social, but most importantly the overall security paradigm, will continue to have adverse impact on our national security.
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GREATER MIDDLE EAST (GME) AND FUTURE GEO-STRATEGIC CALCULUS

Brig Rizwan, Lt Col Wajid and Mr. Ayaz

Abstract

Post 9/11 US invasion of Iraq and later Arab Spring, has significantly changed the security milieu of the region. The disappearance of relatively strong Iraq has disturbed the regional balance of power in the Middle East and currently the latent sectarian rivalries are manifesting into violent separatist movements. The surprising rise of brutal self-proclaimed Islamic State has further complicated the situation and poses serious challenges to regional and global powers to find solution to the ongoing security situation. At the same time Arab Spring offered an opportunity to further concept of democratization of Middle East. US deliberately sacrificed pursuance of their valued ideal of democratization in Egypt, as they saw rise of radical political Islam as a nemesis; interests preceded over values. Chaos in Libya, Yemen, Syria, Iraq and dreadful IS phenomenon are threatening to divide the region on ethno-sectarian lines. Yinon Plan or broader concept of blood borders is being unfolded; only time will reveal. This uncertainty demands that Pakistan must maintain constant vigil so as to formulate effective and timely policies. Post Arab Spring flux has added to dangerously evolving chaos in the region with numerous policy challenges for Pakistan. For Pakistan, Middle East has always been an important region; today it offers both complex challenges as well as unique opportunities which need to be intelligently tackled so as to further our national interests.

Introduction

The present day Middle East as a geographically defined entity came into existence after World War II and has seen various ups and down throughout the recent history. Events post 9/11 US invasion of Iraq and later Arab Spring, have significantly changed the security milieu of the region. The disappearance of strong Iraq disturbed the regional balance of power in the Middle East, consequently the sectarian rivalries are transforming into violent separatist movements with ideological basis. The surprising rise of brutal self-proclaimed Islamic State has further complicated the situation and poses serious security challenges to regional and global environment. The continuing chaos in the region has a strong possibility to spread beyond traditional Middle East and affect Pakistan, often shown as integral part in some modern geographical imaginations of the region commonly referred to as Greater, Broader or New Middle East. Middle East is very important region for Pakistan; prime reasons are political, economic, social and religious. Politically, it is important because of its geographic proximity and our special relations with many of the states. UAE is one of our major export destinations and a source of large Foreign Direct Investment and remittances. While KSA has always remained an important ally and source of financial assistance during crises. Similarly Pakistan, by and large enjoys very cordial relations with all other countries of the region. Pakistan’s greater bondage with these countries predominately is through religious affiliation.
In 1902, the term Middle East became common, when Alfred Mahan, an American naval historian, used it for the region between the Suez and Singapore. During WW I, UK and France supported Arabs against the Ottomans and secretly signed Sykes - Picot Treaty in 1916 to outline the share of Arab lands. This actually defined the contours of modern day Middle East. Decline of British Empire made the boundaries of the region even more uncertain, while the modern day Middle East became strategically important due to discovery of energy resources. The exact countries thought to be part of Middle East are often debated. There are different maps with varying extent, some even showing Pakistan, Afghanistan and certain central Asian states as part of Middle East. In recent decades, there has been a growing trend in the relationship between imagined geographies and the foreign and security policies of the states. According to American Historian, John Gaddis; Geopolitical imaginations are important as they provide the ground for publically justifying a state’s foreign policy stance, while actually serving its national interests. In historical context, we see some important theories which profess the idea of redefining the boundaries in Middle East and bear some relevance to ongoing crisis and concept of geopolitical imaginations like GME.

In 1982 Oded Yinon an Israeli journalist working for Israeli Foreign Ministry professed the theory of greater Israel, consisting of area extending from Nile Valley to Euphrates. He suggested that Israel in order to survive must become an imperial power, must reconfigure its geopolitical environment through the balkanization of the surrounding Arab States into smaller and weaker states. Essential the theme implied that Muslims’ infighting / instability for sectarian or other reasons is in effect Israel’s insurance policy.

Post USSR dismemberment, Islamic fundamentalism and terrorism paved the way for new geopolitical code - War on Terrorism. With intervention in Iraq, Bush administration launched an ambitious policy to forge new democratic Middle East and termed the project as “Greater Middle East Initiative”. The geography described as part of the GME project comprised of Arab League countries, Israel, Iran, Turkey, Afghanistan and Pakistan. Due to criticism from Arab world and reservations from EU, the term Broader Middle East Initiative was accepted with inclusion of North African Countries. Blood Borders, a very intriguing balkanized map defining New Middle East was constructed by a Colonel (retired) Ralph Peters which was published in the US Armed Forces Journal in Jun 2006 under the article Blood Borders - the map includes Afghanistan, Pakistan, Armenia and Azerbaijan as part of New Middle East. Ralph Peters does admit that his propositions are “draconian” in nature, but he insists that they are necessary pains for the people of the Middle East.

Since the birth of Israel, US have committed itself to its security and prosperity and is likely to continue in future for domestic, political and economic expediencies. Being rich in oil, the Middle East has been high on the priority list of regions. Securing sea-lanes for oil supply and keeping the price of oil stable in the international market is also a key US concern. However, with the discovery of huge reserves of shale oil (around 42.2 billion barrels) and gas (around 328 trillion cf) US dependency on the Middle Eastern oil has reduced. Another key US strategic interest is to prevent a regional hegemon. WMD proliferation and terrorism are also a major US concern. After the rise of IS, Middle East has regained US focus in the region.
Russian policy is driven by fear of US plan to restructure the world to spread global domination and chaos in the Muslim states on its southern border which may engulf the northern Caucasus. Russia’s concern in the outcome of the Syrian civil war stems from two critical interests as Sunni Jihadis who dominate the rebel opposition and Naval supply station at Tartus which supports the expansion of Russia’s naval presence in the Eastern Mediterranean. Russia continues to support Bashar al-Assad and was key to Syria agreeing to give up chemical weapons. It effectively blocked anti-Assad resolutions at the UN Security Council. It also continues to supply Syria with arms.

The EU has been a reluctant player in the ME crisis. The member countries differ on a number of issues such as Israel’s highhandedness and engagement with Iran. It has allowed the US to take a lead role in dealing with the crises in Syria, Iraq and Iran. Britain has been a trusted, historic ally of the US in the region and supports most US initiatives. In May, 2013, the UK, along with France, successfully lobbied for the EU’s arms embargo to be lifted, so as to allow further supplies to Syrian rebels. With Iran, it shares the interest of stopping IS. Britain has decided to reopen its embassy in Tehran after the mob attack four years ago.

Saudi Arabia has been a key player in the region due to its wealth and being home to Harmain. It is vying for regional supremacy with Iran with whom, its relations have been tense due to; the potential development of a nuclear weapon and Iran’s alleged interference in other states of the region particularly those with significant Shiite population. Saudi Arabia has also championed the Palestinians cause. It did not approve of the Arab Spring and extended outright support to Ben Ali of Tunis, Hosni Mubarak and Ali Abdullah Saleh of Yemen during the revolution. However, it acquiesced with Western Powers in the ouster of Qaddafi with which it had serious differences. Saudi Arabia-Syria relations have been tense for years. Saudi Arabia has been particularly active in pushing for action against Mr. Assad, and called for "all legal means possible" to be used to stop the bloodshed. In Iraq, Saudi Arabia sees Iran’s influence with disapproval. Iran on its part accuses Saudi Arabia for funding Salafi Sunni factions in Iraq including the IS.

Iran sees itself as one of the most important member and leader of the Islamic world. Its role and relations with the west in toppling Saddam and Talibban in Afghanistan in 2001 has greater convergence of interests. With the West, its policies in the region are marked by cooperation in Iraq and difference over Syria. Since mid-1990s, Iran is pursuing its nuclear programme. Arabs share Western perceptions that Iran’s programme will threaten peace in the region. It is alleged of supporting pro-Iran Shiite communities in the world especially in the Middle East, and has supported politically and materially Hamas, Hezbollah and Kurds and has strategic alliance with Syria. It is coordinating its resistance to IS’ advance while the US carries out air strikes.

In the recent past Turkey has also been re-asserting itself for a leadership role in the region. Its relations with Arab states are tense due to its role in Egypt. Its strong pro-Palestine and anti-Israel stance is also seen as policy shift in its policy. It is deepening its relations with Iran sensing its growing understanding with US over checking the rise of fanatic forces in the region.
Israel has spurned all proposals for a peaceful settlement of the Middle East Crisis. It regards President Assad as an enemy, but has refrained from publicly backing military action against him. It is against a nuclear Iran. For India, the ME is of high strategic importance. It enjoys good relations with all the states and has strategic agreements with Iran, Israel and some GCC countries. Its trade with GCC exceeds $100 billion for non-oil products alone. It has 6 million-strong workforce in the region, which remits over $40 billion back home. India’s 61% oil comes from the ME. It is pursuing for observer status at the OIC after late King Abdullah offered it in 2006 during his visit of India.

**Conflict Dimensions of the Region**

Iran and Saudi Arabia were engaged in a strategic rivalry for influence in the region long before the Arab Spring. Both maintain tangent views on regional order and aspire for the leadership of the Islamic world. The major causes of their not so friendly relations could be summarized as; collapse of Saddam Hussain which brought Iraq into the Iranian sphere of influence. Possibility of US-Iran rapprochement which will impinge upon the privileged position of the Kingdom with US, sectarian and ethnic differences and divergent political ideologies. Different agendas of both the countries at OPEC and positions taken in regional conflicts, particularly during the Arab Spring. Perception that Iran is meddling in the affairs of the Arab World and promoting Shia Crescent, whereas KSA being seen by promoting Sunni sect.

While remaining on same side of the strategic equation, some minor tensions are also simmering in the GCC states; the apparent one seems to be between Qatar and KSA. Qatar has recently tried to take the lead in the regional conflict resolution and management, thus challenging the leadership of KSA. Both Qatar and KSA have different views about role of Muslim Brotherhood particularly in Egypt.

Struggles between Sunni and Shiite forces have fed a Syrian civil war that threatens to transform the map of the Middle East and fuelling violence that is fracturing Iraq. This rivalry is likely to shape the political balance between Sunnis and Shiite and the future of the region, especially in Syria and Iraq. Many experts express concern that Islam’s divide will lead to increasing violence and a growing threat to international peace and security. It is important to add that sectarian dimension of conflict in ME is a consequence, caused by regional and international influence to maintain their interests.

The rise of the IS and its proclamation of a so-called caliphate indicate a new and more brutal face of “terror in the name of religion”. The network has drawn a number of young Muslim fighters from the Western countries into its ranks. In its advance toward Baghdad, IS has already blurred national boundaries between Iraq and Syria, captured significant arms and weapons caches, caused a spike in global oil prices and increased the sectarian conflict across the Arab world.

Most of the separatism is attributable to artificiality of Sykes-Picot boundaries. Due to eruption of chaos and instability, the geography of the region as well as ethnic and sectarian lines has come into play, which is resulting in separatist movements. In Syria, the Aleppo region is closer to Iraqi Mosul than to Damascus. More so, sectarian divide within Syria may even take a sharper division with greater
polarization which may sow the seeds for break-up of the country; so is Iraq which clearly seems divided in three regions of Sunni Iraq, Shiite Iraq and Kurdistan. But, Kurdistan affects Turkey as well as parts of Iran and Syria. In Libya, we also witness the revival of the historic regions of Tripolitania and Cyrenaica.

Sectarian and ethnic conflicts have been fueled by regional and extra-regional players to spark militancy resulting into a situation that looks more like a ‘war of all against all’. However, this seems to consequence instead of a cause. Importantly, most of the militancy has been directed inwards against the citizens. The eventual outflow of these militants with Western passports is viewed as a potential “Terrorist Diaspora” that could eclipse the global terror networks that emerged after the Afghan war against the Soviet Union in the 1980s.

The continuous ongoing systematic brutalities committed by Israel against unarmed Palestinians marks the conflict in Gaza and West Bank as a flash point in ME. So far, around 2300 Palestinians have embraced Shahadat. Such brutalities will further radicalize the Arab society, increase the tensions and diminish the prospects of any early solution.

In none of the Spring States, a successful transition to a democratic dispensation has been achieved. Tragically, what promised to be the dawn of a new era of individual freedoms, now become a nightmare across the region, millions of suffering Arabs are yearning for a return to the stability and relative wealth offered by the likes of Muammar Qaddafi and Saddam Hussain. Three years after the Arab Spring, elections are in process across the Middle East, but an embedded culture of democracy remains a distant dream. All the original Spring States have now become worst tyrannies or failed states after the so-called Spring less Tunisia. The phenomenon was just another name for twitter-driven change of old guards who had lost their utility for their masters. The uprisings of the Arab Spring have so far produced anarchy in Libya and a civil war in Syria.

**Emerging Trends and Projected Scenarios**

Important trends which have emerged so far in the region are as; deepening sectarian and ethnic cleavages with no end in sight. Sudden rise self-proclaimed IS as one of the richest, highly organized and effective ‘Militant Organization’, getting funding and attracting fighters from all over the world including West, increased sense of vulnerability amongst the ruling elite will inevitably translate into enhanced spending on military hardware. Without a dramatic transformation in geo-political climate, regional alliances will continue to be formed on sectarian lines, chronic political injustice and socio-economic deprivation resulting in rise of militancy with foreign support and sectarianism as catalyst. Despite the failure of the recent Arab Spring, educated Arab youth will probably rise once again and the region is likely to go through another cycle of political unrest, multitude of human crises and sufferings; refugees and IDPs. This may put Gulf States will and capacity to serious tests. Iran emerging as stable regional player vis-à-vis KSA and other GCC countries with changed political focus and regional realities. Historic rivalry of opposing camps KSA vs Iran continuously being played out and Iraq and Syria are likely to remain a contested frontier region in near future and the external players as drivers have successfully influenced internal voices in the region. Security of energy supplies and stability of oil prices - a point of convergence for all the international players in the
Fundamental realignment of the geopolitical chessboard, with US led west increasingly improving relations with Tehran. External influence/US interventions, Iran - KSA rivalry, Sectarianism, Geo-economics/Hydro Carbon reserves and Israel – a wild card are some major drivers while disenchanted youth, Globalization and social media, Petro dollars, Centrifugal tendencies - Separatism and Irredentism and Questionable legitimacy of political dispensation can be listed as key enablers for changing scenarios.

All major drivers have been reflected on the ‘impact – predictability’ graph which indicates that external influence and Iran-KSA rivalry are the two drivers with maximum potential to influence the situation in ME and are highly unpredictable.

Four different scenarios are as; Managed Chaos, Balkanization, Political Détente and Diverse Mix.

Current chaos and volatile situation in the ME continues but within manageable limits; Present political map of the ME may survive all the turmoil around regional, tribal, ethnic, and sectarian issues. The failing states of Iraq, Syria and Libya may continue in the same state of internal conflict and emerge on the other end as largely intact. Monarchies in the Gulf take the Jordanian route and liberalize their rule through greater participation. The Iran-KSA regional rivalry, in this scenario, may continue but remain within manageable limits. GCC forms a confederation of its own and an effective Peninsular Shield emerges. Sectarian tensions increase but the self-proclaimed IS’ victory is short lived. Israel and the Palestinian Authority fail to reach a comprehensive peace and security agreement. In this scenario, economic conditions are challenging but not desperate. The United States puts pressure on the Saudis to begin to mend ties with Iran in view of Iranian efforts against the IS. The international recruitment, radicalization and funding issues will keep challenging the security apparatus in the West. The scenario hinges on global powers finding an abiding interest in survival of the region’s current political map.

The current state of violence and war of all against all may actually yield to a transformed map of the region with several new political entities carved out of the present states. Under this scenario, major projections are; the entire region may be engulfed by intense conflict and another wave of violent revolutions. In the short to medium term, most likely candidates for further fragmentation are Iraq and Libya.
In the long term, Yemen and Syria may face similar situation. Cold war between KSA and Iran transforms into more active proxies in each other’s mainland. Israel may be able to expand geographically and address its immediate security concerns. If and when the borders are drawn up along sectarian and ethnic lines, frequent inter and intra-state wars may be a feature of the region, like Africa. United States remains less engaged in the region. A difficult global economic outlook helps to accelerate the growing fragmentation and conflict. The growing sectarianism makes it impossible for Iran and P5+1 to reach agreement and the Saudis and others accused Iran of supporting the growing Shiite rebellion in Gulf countries. Except for the Kurds, everyone would lose as sectarian tensions grow in a major conflict with the battleground extending across the complete central Levant region.

Successful Iranian Nuclear deal and new political détente emerges; Iran and the P5+1 clinch a more far reaching deal than anticipated.\textsuperscript{12} Iran reduces its footprint interference in the sectarian conflicts in Syria. Regional cold war between Iran, Saudi Arabia and Israel begins to thaw. Whereas conflict has fed on itself, a deal with Iran prompts a ceasefire agreement in Syria resulting into peace and prosperity of the region. Relations between other regional powers as Turkey, Israel and Egypt also see upward improvement thereby helping in moving towards resolution of Palestinian issue. The new political détente lays the groundwork for a new phase of economic development throughout the region. The region adopts sweeping reforms to train its huge domestic population with skills that can add value to the economy.

A diverse mix of partial fragmentation, manageable chaos and political reforms; the region is likely to witness diverse range of activities ranging from partial fragmentation at one place to manageable chaos at other and to a meaningful reform process with positive outcomes at remaining places. Terrorist entities like Islamic State successfully manage to divide Iraq along sectarian cum ethnic lines with a continuous spate of violence in Syria. Monarchies in the Gulf may take a multi-faceted approach using both hard and soft power and re-distribute oil wealth amongst the disenchanted masses. The Iran-KSA regional rivalry, in this scenario, will continue to fester but shall not cross the tipping point. Since the scenario anticipates partial fragmentation, therefore inherent element of instability will persist.

**Summing up – Scenarios**

Considering the overall trends emerging in the region vis-à-vis analysis of all scenarios, the first scenario i.e. Managed Chaos is the most likely because international community will not let the chaos to escalate due to economic and security compulsions; will therefore intervene and manage the spread of the conflict. Balkanization is the most dangerous scenario, considering its impact and far reaching ramifications for the region. Owing to its horrendous consequences, it is not much probable scenario because key regional countries like KSA, Turkey and Iran will apply security and diplomatic safeguards to check the chaos before it threatens their integrity. Meaningful turnaround as projected in Political Détente Scenario is not likely in short term due to structural nature of economic problems. However, we may witness the beginning of economic recovery towards the end of the forecasting period - so long as the needed reforms are initiated. Clinching a major agreement with Iran could be an important confidence-building catalyst for reorienting the ME on a more positive path.
Way Forward For Pakistan

Pakistan; even considered by some key players as integral part of Greater Middle East is deeply influenced by events in the ME. There is a need to review, revise and relook into our outlook towards the region. The theories of ‘Yinon Plan’ and Blood Borders essentially hinge on spread of ethno-sectarian tensions. Playing faith games, West may eventually be on the course of collision with Islam – possibly theory of ‘Clash of Civilization’ in operation. The ethno-sectarian crisis in Middle East can also affect us and therefore is our prime internal security challenge. Lal Masjid and similar radical setups do have sentimental attachment with radical groups operating in Syria and Iraq. Naming of a training camp in Iraq after Ghazi Abdul Rasheed (Lal Masjid) is clear indicator in this direction.

The concept of blood borders seems to be the extension of Yinon Plan, which also included a fragmented Pakistan along ethno - sectarian lines. We need to ensure communal harmony and address the grievances of aggrieved communities.

Rise of self-proclaimed Islamic State is both surprising and intriguing hence engenders suspicion. If true, then it is fraught with risks. Since chaos, engineered based on faith can get out of control and may even threaten its architect. Self-proclaimed IS can be defeated mainly on ideological plane with selective use of force, as disproportionate use of force could multiply the threat. Strong alliance built around Muslim countries is essential. Activating greater intellectual dialogue and existing organizations in forums such as Arab League and OIC could lead the way. Arab Spring and consequent regime changes have not directly affected Pakistan so far; however, any internal instability in KSA and Gulf countries will have serious security and economic consequences for Pakistan. US - Iran evolving rapprochement, if credibly materialized will be a game changer. This presents both risk and opportunities; possibility of better relations with Iran can help further our trade and accrue stability in Baluchistan. KSA increasing isolation will essentially pressurize and test Pakistan policy in the region. KSA - Iran rivalry if transited into direct conflict can seriously influence our economy. We may have to think for an alternative plan to combat economic challenges in such an eventuality. The solution of the Middle East crisis lies within Middle East; KSA - Iran understanding is necessary else peace in the region will remain elusive. Pakistan due to its special place should play a more constructive role. The probable scenarios presented indicate consequences and demand a relook on our domestic and regional policies.

Important aspects of Pakistan’s existing policy on Middle East are; relations in the past have been largely characterized by personal equations with the Arab rulers and have little people to people contact. Russo - Afghan war of 80s not only fundamentally affected our foreign policy in the region; but also disturbed the texture of our internal stability by radicalizing our society. Our economic needs and easy solution led to a clear tilt towards conservative monarchies; Pakistan instead of forging economic alliances and trade partnerships remained contented with aid and oil on subsidized rates. Besides other factors, our visible tilt towards Saudi Arabia kept our immediate neighbors Iran often antagonized. The Saudi - Iran rivalry is a sectarian thorn; it is constantly bleeding the region and has affected Pakistan’s internal stability and regional outlook.

Since Pakistan’s internal stability has intimate linkage with Middle East, therefore there is a need to define clearly domestic and build on it our regional
policy. We must opt for bilateral relations with states and not personalities willingly delinking ourselves from sectarian clubs. We need to improve our security outlook, induce confidence in foreign investors, and develop long-term durable trade partnerships. Our relationship should help enhance people to people contact; not only our leadership but our Diaspora must also get due respect in Arab world. Pakistan needs to keep pace with evolving situation and develop interest based paradigm for foreign relations with KSA and Iran. We must act as a bridge between the two countries.

While keeping cordial relations with KSA, firm efforts are needed to stay away from the sectarian conflict brewing in the region and ensure that our engagement is not seen as extension of radicalism. We must endeavors for more trade, invest in human resource development and enhance defense cooperation. Exploiting the window of opportunity of US - Iran relations, we need to balance our relations with Iran while pursuing foreign policy objectives with KSA. US - Iran rapprochement happen if it will also open a unique window of opportunity for Pakistan. We must also gradually increase our relationships with Iran. This would not only help further our gas pipeline project, revitalize our bilateral trade but may also help in restoring stability in the region and would help in improving domestic situations in both the countries.

In the aftermath of Arab Spring, the Gulf Countries seem to have become internally insecure and vulnerable, similar eruption again cannot be ruled out. Pakistan should offer its expertise to enhance defense exports and cooperation. After Afghanistan, now Syria and Iraq are turning out to be the playground for the power politics. Pakistan needs to stay away from the heat of this conflict and must ensure that no wrong signal is generated as the same can draw reactions from own radical religious organizations. The ongoing crisis has significantly exposed US / West double standards on human rights and excessive use of force bears strong lesson for Pakistan and whole Muslim community. Pakistan must continue to supports Palestinian cause.

Internal Policy

We must continue to de-radicalize our society, with an objective to avoid rise / linkages of our people to ISIS like phenomenon. Careful analysis will reveal that Pakistan has also been subjected to deliberate sectarian division. Baluchistan and Gilgit - Baltistan have been the center of sectarian violence for last few years. Government must evolve and establish serious mechanism to curb the rising sectarian discord at priority.

We need to improve the living standards of our citizens as unhappy people are natural fodder for radicalization, terrorism and criminality. We have to end political distortion and let people have better governance, justice and law and order. Arab spring was not violent, whatever violence we saw was essentially externally backed; but in Pakistan if we don’t correct now we may also see a spring of consequence. Pakistan and Arab nations know for sure that their internal threat is far graver than the external. The people not only need jobs, but they also demand dignity. Mohammad Bouazizi, who ignited the Arab revolts by setting himself ablaze, was actually protesting against the excesses of Tunisian authorities. In Pakistan, the
situation is not very different; at times it is worst -number of incidents of similar nature is on rise – if we don’t change, the change is inevitable.

Conclusion

The Middle East is undergoing an era of revolutionary change that is challenging the foreign policies of all the stakeholders. For Pakistan, Middle East has always been an important region, today it offers both complex challenges and as well as unique opportunities. The theories like blood borders and imaginations like GME will keep on popping up mainly due to world’s powerful player’s quest for greater control on the region and its resources. The possible scenarios we saw today are perturbing as they impact on both our security and economy. We must start from within, improve our governance, de-radicalize our society and above all maintain balance but vibrant regional policy. This is only possible if we keep analyzing the developments in ME with greater focus and objectivity vis-à-vis our national security objectives.
Endnotes

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RESOURCES – CONFLICT NEXUS; IMPLICATIONS FOR SECURITY CALCULUS

Lt Col Shahab Aslam, Lt Col Saeed and Lt Col Salman Hayat

Abstract

Quest for resources has been a challenge confronted by humanity since long; with variations in type and quantum over centuries. Industrialization in the 20th Century further catapulted this phenomenon manifold. Conflicts over the control/access have been one of the major drivers of shaping geo-politics over the past twenty years in which, inter and intra-state conflicts have been seen with varying intensities. Iraq’s invasion of Kuwait, followed by 1st and 2nd Gulf Wars is the major examples that have affected the global arena. Burgeoning population in the third world and the increased industrialization, there is a further pull on the depleting global resources. Such a trend is not only to shape the interstate but intra-state dynamics of the future. A careful analysis can underscore the criticality of the issue. Pakistan with its inherent advantage of geo-strategic location sits at the crossroads of future energy corridor. Additionally, with the depleting water resources, it also faces water scarcity; which if not addressed, can lead to serious existential threat for human security of the country. In view of the evolving criticality and threat posed, there is need to develop a greater understanding of the interplay of global politics onto the manipulation and access to these resource basis so as to carve out pertinent future strategies and tackle the evolving global energy mosaic.

Introduction

Conflict for resources has been going on perpetually with new dimensions being added as mankind grows both in size and stature. The process of colonization started avaricious quest for resources. As enunciated by Toffler1, The first wave settlements, being agrarian based, kept quest for resources at a lower key. With the advent of second wave, i.e. industrial age, human contest for resources manifested itself in the shape of colonization and violent wars. This competition is visible among different countries of the contemporary world even today. The pattern may not be similar; the cause – resources – remains the same. Taking example of Arctic ice melting, where the global players are increasingly jockeying to reach out to this previously regarded as barren wastelands.

Resources-conflict nexus has been a complex yet recurring phenomenon. Most of the internal or at times inter-state conflicts over resources have been associated with developing and less developed countries, which often have regional and global security consequences. There are different schools of thought regarding linkages between resources and conflicts. The phenomenon is different in various states depending upon the characteristics of the environment and the value the resource.

Pakistan’s geographical location places it in close proximity of energy rich Central Asia and oil-rich Gulf. Pakistan itself is blessed with enormous quantity of resources, awaiting optimal utilization. This endowment can be advantageous if resource acquisition in these areas remains peaceful; on the contrary any conflict
over the resources in these areas has consequences on the regional as well as national security.

Interplay of Natural Resources and Conflicts

Any given conflict in history is not solely attributed to one factor only. Conflicts are caused by a complex set of events. Natural resource is also one factor, which, in combination with other set of conditions, can cause conflicts. UN estimates that 40% of the conflicts have factor of natural resources associated with it. Homer-Dixon, believes that it is the scarcity of resources which breeds conflicts. The population growth and unequal social distribution are considered as major drivers to fuel the sub-national violence. The second school of thought considers that it is not the scarcity of resources, rather the resource value and the wealth associated with a natural resource that instigates conflicts. It is resource abundance that some countries experience as a “resource curse”. Abundance or scarcity of valuable resources in itself is not a sufficient cause of conflict. The resource abundance and scarcity perspectives need to be considered in concert with the other factors which interact to create or avoid conflicts. These factors would be analyzed in this paper.

An early study of causes of modern wars during the 1878 to 1918 emphasized that the increasing demand of raw material and energy sources due to industrialization led to the conflicts; for example, the War of the Pacific between Chile and Bolivia (1879–1884). The rising energy demand of growing population and economies and water are strong motives for conflict, as these directly relate with human security. Few examples energy and water related conflicts are:-

- The Iraq-Kuwait war in 1990 was a result of dispute over the Rumaila oil field. The dispute on Kuwait’s slant-drilling and violation of oil quota were the pretexts of Iraq’s invasion of Kuwait.
- About 2nd (Gulf) War (2003), much literature is available to suggest that this Gulf war was about oil. Saddam’s intention to trade the oil in Euros instead of US Dollars and securing continuous oil supply to the US and security of Israel were the catalysts.
- An important cause of the Six Days War between Israel and Arab states was the struggle for water resources of the Jordan River and other rivers in the area.
- Driven largely by water and food shortages linked to drought in the Horn of Africa, almost 185,000 Somalis fled to neighboring countries in 2011.

Weak political structure, poor governance and corruption, mistrust between people and government and lack of social harmony lead to conflicts within society. While non-participative government structure, manipulation of resources by the elites, inequitable distribution of resources among society and lack of just resource use and sharing mechanism between federating units are some more causes contributing towards conflicts.

Democratic Republic of Congo (DRC), Algerian War of Independence (1954–1962) and Rebels fighting in Sudan, Darfur are some examples of poor dispute resolution mechanism which is a strong factor that leads to bigger and longer conflicts. Socio-cultural outlook of a society also plays important role in the conflicts.
Heterogeneous, tribal and religious or ethnically divided societies are more prone to conflicts. World Bank research suggests that societies, in which the largest ethnic group accounts for 45% or more of the population, have a 33% higher risk of conflict. Lack of education further accentuates the ethnic divide. Violent secessionist movements are statistically much more likely if the low income country has valuable natural resources, with oil being especially dangerous. Examples include Aceh, Biafra, Cabinda, Katanga, and West Papua. Larger conflicts over resources start as local competition (between different groups), often escalating with new actors engaging and new topics being connected to it. In the worst case, conflicts get politicized and become ethnic or religious conflicts. The Angolan Civil War (1975 to 2002), Republic of Chad, The Nigerian Civil War (1967 to 1970) and Sierra Leone are some examples in this regard.

Economic structure of a country plays an important role in onset of conflict. Three significant factors, i.e. per capita income, rate of economic growth, and dependence of GDP on commodity exports have been identified as indicators for ascertaining probability of conflict. A recent report by the World Bank, found out that states with dependence of 50% GDP or more on minerals, saw their GDP per capita fall 1.15% per year. When a country’s growth rate turns negative, civil war is more likely to break out. For three years before the war in the DRC, GDP growth averaged −5.56%; Liberia’s GDP growth was -1.94% at the start of civil war. Data of world’s 20 most oil-dependent and mineral dependent states reveals that the countries which have dependence of GDP more on the export of mineral or oil are prone to conflicts and in-stability. Twelve of the twenty mineral dependent countries have been classified as “highly indebted poor countries” by the World Bank. Since 1990, five of them have had civil wars. Three of the top six states are classified as highly indebted poor countries by World Bank so to conclude we can state that Economic diversity and sustained growth figure out as the most important factor to avoid internal conflicts.

Intra-State Conflicts

Physical scarcity and distribution factors can lead to conflicts for resources. A heterogeneous society with tribal culture and ethnic or religious divide is more prone to conflicts. Poor political structure, bad governance, corruption by elites, mistrust between people and government, lack of socio-eco development and unjust distribution of resources can lead to rebellion or secessionist movements. Lack of economic diversity, excessive dependence on resource exports and low per capita income are strong indicators of potential conflict. Climate change may increase the pressure on natural resources (particularly water and vegetation), which may trigger conflicts.

Inter-State Conflicts

The resource scarcity and energy demand of great powers has a direct linkage with the likelihood of conflict between states. The inter-state conflicts are more about gaining physical control over the natural resource, securing its supply routes and ensuring the sustained supplies. Oil has been the most sought after resource causing the conflicts on natural resources followed by diamonds, gold, copper etc. While the ‘need’ has been the driver for most of the oil and water related conflicts, ‘greed’ has
often been the driver for precious minerals based conflicts. Conflict financing by other countries for their vested interests adds violence to the conflict and prolongs it.

**Quest for Resources**

The ever increasing gap in supply and demand, with more players seeking their share of the pie, resource based conflicts seem likely. Let’s briefly look at the resource demand of some important players in the equation.

**Oil**

Total US oil consumption as of end 2013 is 832 million tons (19% of the World consumption) likely to increase at the rate of 2% per annum. However, the production is 446.2 million tons and proved reserves are only 2.6% of the world. There is a gap of 385.8 million tons and it has to import 46.37% of oil to meet its consumption demand. It may be asserted that at least for the next two decades, the Persian Gulf will be vital to U.S. interests in reliable oil supply.\(^{12}\)

Total oil consumption of China, as of end 2013 is 507.4 million tons. It is likely to increase at the rate of 3.8% or more per annum. However, the production is 208.1 million tons (5% of the World production) and it’s proved reserves are meager 1.1% of the World. There is a gap of 299.3 million tons and it has to import 58.99% of oil, which becomes approximately 15% of the total world oil imports, to meet its consumption demand. China has diversified its sources of crude oil imports in recent years. EIA expects China to import over 66% of its total oil by 2020 and 72% by 2040 as demand is expected to grow faster than domestic crude supply.\(^{13}\)

Total Indian oil consumption as of end 2013 is 175.2 million tons, which becomes 4.2% of the World consumption. It is likely to increase at the rate of 1.2% or more per annum. However, the production is 42 million tons (1% of the World production) and it’s proved reserves are meager 0.3% of the World. There is a gap of 133.2 million tons and it has to import 76.03% of oil, which becomes approximately 10.14% of the total world oil imports, to meet its consumption demand. The Middle East has been the major source of crude oil supply to India, followed by countries in the Americas (mostly Venezuela) and Africa.

Japan’s total oil consumption as of end 2013 has been 208.9 million tons, which becomes 5% of the World consumption. It has shown a decreased consumption trend, mainly because of shifting to renewable energy resources. It does not have any worthwhile domestic production and imports approximately 90% of its required oil, which becomes approximately 9% of the total world oil imports. Its oil supply mainly comes from Middle East with no likely chances of conflict over it, in long term.

**Gas**

US has proved gas reserves of 330 trillion cubic feet (5% of the World), production is 66.5 billion cubic feet per day. Its consumption is 71.3 billion cubic feet per day, which makes 22.2% of the World consumption. Depending on the phenomenal exploration and shift to Shale gas, no problem is envisaged thereafter as well.
China has proved gas reserves of 115.6 trillion cubic feet (1.8% of the World), production is 11.3 billion cubic feet per day. Its consumption is 15.6 billion cubic feet per day, which makes 4.8% of the World consumption. With the current rate of production, its domestic reserves are likely to last for another 28 years. China is meeting the shortfall of production to consumption by importing LNG, mainly from Qatar and through gas pipeline from Central Asia.

India has proved gas reserves of 47.8 trillion cubic feet (0.7% of the World), production is 3.3 billion cubic feet per day. Its consumption is 5 billion cubic feet per day, which makes 1.5% of the World consumption. With the current rate of production, its domestic reserves are likely to last for another 39 years. India relies upon import of LNG, mainly from Qatar and a part of it from few African countries. Its dependency on import of natural gas will remain in long term.

Japan has no worthwhile proven reserves of gas. It consumes 11.3 billion cubic feet per day, which makes 3.5% of the World consumption. It relies upon import of LNG from approximately 18 supplier countries with highest share from Qatar, followed by Russian Federation.

Water

The world’s fastest growing demand of water for industrial and food production and household needs is in Asia. The environmental effects of causing scarcity add to the problems in areas where drought like conditions already prevail.

About 66% of Africa is arid or semi-arid and more than 300 of the 800 million people in sub-Saharan Africa live in a water-scarce environment – meaning that they have less than 1,000 m\(^3\) per capita. With the increasing population and changing climatic conditions, the water scarcity is going to increase, especially, in Sub-Saharan, Sahel Region, and Nile River line. Its population is expected to nearly double in 50 years, lowering the average per capita amount of renewable fresh water to around 1,100 cubic meters a year. The conflict over water scarcity or water shortage-induced food scarcity can trigger conflicts, especially between the migrants and the locals.

Asia, the home to 60% of the world’s population but it has only 36% of its water resources. Per capita availability here is the lowest in the world. Central Asian republics have a looming water crises among upper and lower riparian countries. The lower ones are industrialized but lack requisite water; however, the upper two are under developed. Although there is no significant history of water conflicts in this area, the gradual shift from water sufficiency to water scarcity, may change the equation.

Trends and drivers

China’s major economic and diplomatic efforts to secure natural resources, among other actions, involve befriending resource-rich nations that the United States and others see as pariahs. This policy is likely to continue without any troubles however, may lead to application of force for safeguarding natural resources supplies, in long term.
State-controlled energy companies are now working as frontrunners for their respective countries' interests. Taking example of Russia, which is not dependent on external supplies of energy resources, however, it can exercise extended leverages over other dependent countries through its frontrunner company like Gazprom, used for cutting off gas supplies to Georgia, Ukraine, Belarus and Moldova in 2000s. Increased use of such like options, especially in Central Asia and Europe, is not unlikely. There have been examples of use of force to indirectly secure the supply of oil, at least as seen in Iraq War of 2003 and French air campaign against Libya in 2011. Further showdowns of such kind are not difficult to imagine. Sea lanes are crucial to the survival and prosperity of the Asia Pacific countries. Any interruption of these routes by one of the players will be contested by the affected.

Renewable Energy is an important and frequently adopted trend. There has been a total investment of $214 billion in renewable energy technologies world over in 2013 reflecting the trend. While the trend of research and investment in energy efficient technologies to save on fuel is on the increase, there is a continuous emphasis on developments in Shale Gas extraction technologies, making it most cost effective and environment friendly.

Major players are aligning themselves with different partners into alliances, aimed at securing the future supplies of resources. Securing energy rich regions on one pretext or the other where examples like air strikes in Libya against Qaddafi regime and Iraq War to take out perceived Weapons of Mass Destruction point to this trend. These alignments can help reducing the conflicts due to interdependency as well as trigger conflicts when interests of the global powers are threatened.

There is an increasing focus on Arctic region, with US, Canada and Russia as major players. The Caspian Basin is resource-rich with disputes over the areas among Azerbaijan, Iran, Russia and Turkmenistan. The chances of direct violent conflict are least, however, cannot be ruled out in long term. The possibilities for the opening of new sea lanes and the exploration for natural resources, energy and commerce, also [have] with them dangerous potential for conflict in the Arctic. The region is perceived to contain 7.7 billion proven barrels of oil and around 266 trillion cubic feet of natural gas. It has been a longtime flashpoint of regional tensions, aggravated by the involvement of external players. The Chinese expeditions in South China Sea as part of the 2013-2023 International Ocean Discovery Programme, with mission to search for oil and gas in the South China Sea, is pointing towards this trend. Phenomenal development in shale gas exploration will reduce the stress over natural gas thereby minimizing the chances of conflict related to its scarcity.

The world is steadily transiting into multi-polarity. The possibilities and capacity of a single world power to wage war in different regions is waning. With the changing world order, the conflict over resources is likely to take the form of proxies and covert activities. Instability / Intra state war in resources rich countries will cause the major players, dependent on the region for resources, to ensure their influences through indirect / proxy wars. Denial of access to resources by employing direct / indirect means and involvement of major power in the conflict to safeguard their interest. Due to rising interdependencies on resources, emphasis on use of soft power and regional alignments will play a greater role in ensuring access to
resources. Resources demand vis-à-vis shortage could create the potential for instability.

**Dynamics for Pakistan**

Pakistan is largely dependent on import of energy from Middle East whereas most of the countries in the region including India are diversifying their energy need for the standpoint of evading consequences of destabilizing of dependent energy rich region. Substantial investment in alternative energy sources by Pakistan is not visible. The low storage capacity will have consequences towards oil-stamina of the country. Inadvertent delay on major transnational gas import projects, would keep the demand and supply gap widened; hence discontent of the public. Dwindling domestic production of energy; likely shortage by Year 2022. Balochistan has great potentials of oil exploration. However, unless the security situation is improved the potentials will not be used optimally.

Increasing scarcity has the prospects for trans-boundary and intra-state conflicts. Interplay of domestic politics causing delay in water storage projects, increasing the water scarcity can lead to internal fissures. Lack of water preservation and management in rainy season, causing damage to life and property, adds chances of desperate domestic acts of violence.

Pakistan possesses extensive reserves of mineral deposits; however, the current contribution of mineral sector to the GDP is meager 0.5%. Deteriorating law and order situation and security issues are proving to be major barriers against the inflow of FDI, especially in Balochistan and KPK. Terrorist groups, if get hold of some mineral source in the tribal belts of Balochistan and KPK, can use it for conflict financing. According to EIA 2013 report, Pakistan holds 105 trillion cubic feet of technically recoverable Shale Gas reserves. If capitalized, these reserves can meet the energy demand of Pakistan for long term.

Geo-strategic location of Pakistan places it as a bridge state for connectivity based economy, linking various regions. China-Pakistan Economic Corridor, although a landmark, is just a fraction of the bright prospect that this geographical advantage holds for Pakistan. However, the prospects of stability or prosperity in view of conflicting interests of global and regional stake holders, manifesting into proxies, remain a challenge for Pakistan.

**Analysis**

No resource pressure has grown faster than the demand for fossil fuels, which are finite and present reservoirs are rapidly diminishing. The industrialized and rising powers have a compulsion to meet their energy demand and the quest for clout and resources will continue to challenge global security. The Middle East will remain vital to the West, especially the US, for reliable oil supply in the long term. Any interruption or threat to the sustained oil supplies may result into a conflict. Owing to the centrality of the Middle East in oil supply, the conflict here will have global effects.

Increasing Chinese acquisition in Africa may put it in confrontation with oil companies of powerful countries in long term with enhanced regional security
consequences. Although the US-Iran rapprochement has improved the security concerns to an extent, the overall security mosaic remains complex and delicate. Growing influence of ISIS, turmoil in Syria and Libya, and recent Yemen crisis will bear heavily on global oil supply prospects. The competing interests of major players could result into a global fall out. Securing the gas supplies or their closure to other countries, through diplomatic maneuvers and coercive actions has been in vogue. With the precedence, conflicts of global security consequence are not likely to happen over gas in mid to long term. The shale gas revolution has considerably re-calibrated the global players’ orientation and long term strategy for the quest of natural gas. Phenomenal development in this sector will reduce the stress over natural gas in the long term. Water being a non-transportable commodity over longer distances, conflicts over it is likely to remain confined to a domestic or bilateral level. India is likely to increasingly suffer water stress as a result of population and industrial growth; hence there are chances of increased violations of Indus Water Treaty by India.

Globalized Scenario

Instead of direct conflicts / involvement, trans-national companies are increasingly acting as the forerunners of the parent-states, raising the stakes of a resource-rich country and its elites in trade cooperation with these companies. The Arctic resource reserves are likely to be contested intensely as existing reserves of oil and gas are depleted over the coming decades; however bigger powers like US, China, Russia and Canada are likely to prefer proxies instead of a direct conflict. The disagreements over division of the seabed among the Caspian littoral states have increased the possibility of conflicts as Russia, China, Turkey, Iran, and the United States seek to secure their interests in the region. The likelihood of denying the resources to the other contesting country(s) or through insurgencies and internal conflicts is more as compared to the direct confrontation between the states. Increased resource demand, coupled with the absence of any peaceful solution to the boundaries issues and Global players’ interests combined together bear potential for a conflict in mid to long term, having global security implications.

Intra-state conflicts over resources are more likely to develop in the low income and less developed countries with lack of economic diversity, heterogeneous society with tribal culture and ethnic or religious divide. Unless the benefits of extracted resources are transferred to the native populous, probability of internal conflicts will remain there. Such conflicts may exacerbate with the interest and involvement of external players.

Security Implications for Pakistan

Pakistan’s oil imports are modest and heavily dependent on Middle East, especially Saudi Arabia. Although the disturbance in the Gulf may not directly impact the oil supply, it would have security implications being in close proximity. Conflict in Caspian littoral states will have security implications for trans-national energy projects with spillover of ethnic and sectarian clashes. CPEC and resultant development of Gwadar Port run opposed to the interests of some regional and extra regional players. Such a conflict of interests bears consequences for Pakistan, keeping the security situation in Balochistan fragile. Moreover, being in immediate
neighbourhood, any contest over resources of Central Asia and Caspian Region also has security implications for Pakistan.

Pakistan, being water stressed country with trans-boundary and intra-state water issues and limited storage capacity may face serious economic and food security issues, both at intra and inter-state levels, in mid to long term. The existence of potential reserves of Shale Gas in areas closer to Indo-Pak borders, including the disputed boundary at Creeks, could become a source of bilateral conflict in mid to long term. The discovery of minerals and fossil fuels in Balochistan is likely to further the incentives for defecting sardars towards secessionist movement, as well as enhance the interest of regional and global players in the area. Pakistan's mineral and other resource potentials are vastly located in low-developed and tribal areas which are already causing instability. Continued deprivation and grievances, coupled with external rival factors have national security implications for Pakistan.

Way Forward

Pakistan's oil supply is largely dependent on Saudi Arabia; a part of it also comes from the Gulf. Any disruption in the supply sources or routes will adversely affect Pakistan. Therefore, Pakistan must diversify its oil sources especially from Oman and Africa. Optimizing Gwadar Port can act as a vital link to China, Afghanistan and the Central Asian Republics, throughout the year. Given any conflict in the Gulf, and to optimally use its significance, Pakistan must fast-track the port facilities to include oil terminals and road linkage to up-country. Improve law and order situation in Balochistan by a two-pronged strategy of effective law enforcement along with political harmony and socio-economic development. We must seek for complete peace and stability in Afghanistan, since optimum utilization of Gwadar Port depends upon its linkage with Central Asia, route passing through Afghanistan.

A large quantity of unexplored resources is estimated to be present offshore as well as inland. These should be explored and capitalized with highest priority to reduce external dependence. Taking lessons from the study of the conflicts, Pakistan must address the potential causes of intra-state conflicts for example socio-economic development of the backward and resource-rich areas to eliminate sense of deprivation and improve governance to ensure that the benefits of the extracted natural resources are shared by the native populace as well. Situation in Balochistan and FATA can be handled with two-pronged strategy for which separation of secessionist privileged sardars from the citizen by directly benefiting the masses through development and poverty alleviation programmes. Forging sense of security among the citizen to stand independent of sardars and militant leaders. While on the other hand there should be targeted operations to deal the hardcore militants with the heavy hand. The links of militant leaders and sardars with external players and their financing should be cut by adopting proactive monitoring and counter measures.

The instability in Middle East is likely to endure, with increased capacity of financing the conflict by ISIS through seizure of oil fields. Pakistan should proactively undertake elimination of breeding grounds for the extremists, especially the long awaited measures in Southern Punjab. LEAs and intelligence based operations be made effective use of to break any possible linkages of these extremist elements with the ISIS and other such militant organisations, as these have the
capacity to finance as well as influence the ongoing low intensity conflict in the Country.

Pakistan’s water situation is not encouraging. Growing shortage has a conflict potential, both at domestic as well as bilateral levels with India. To avoid such conflict, we should improve water management through conservation and development of additional storages, taken as an immediate national priority and proactive pursuance of implementation of Indus Water Treaty is ensured.

Pakistan should follow a proactive diplomacy to join the contemporary regional alliances for mutual cooperation on energy supplies and conflict avoidance / resolution. We must evolve a consensus-based conflict resolution mechanism, with legal cover, involving; equal representation from all federating units at national level and intra-province mechanism should have representation of all ethnic factions.

Conclusion

Since the Twentieth Century, the resource consumption has grown incredibly fast, just like the population growth. Governments around the globe are running for economic progression, for which secure and continuous availability of resources is a must. The identified trends have strong potential for triggering conflicts, but are not inevitable. With right policies in place and preparing for the challenges ahead, we can mitigate the threats of conflicts and brace for peaceful progress future.
Endnotes

6 The events leading to Iraq war 2003 have been discussed in detail by Daniel Luban in his article titled, ‘Why Iraq? The state of debate on the motives of the War’, available at www.ips-dc.org, as updated in May 19, 2009.
7 Natural Resources and Violent Conflicts, A study by World Bank; adopted from Collier (2003).
9 “Natural Resources and Violent Conflicts”, A study by World Bank; adopted from Collier (2003).
11 ibid
17 The statements of Paul Wolfowitz and other US administration members of that time, set the case of actual motives of securing oil supplies under the pretext of WMD in Iraq. Moreover, French oil motive behind the attack on Qaddafi’s Libya has also been much written about.
22 Ibid.
PART – II

National Security

- Coastal Development in Pakistan – An Integrated Approach to Internal Security and Economic Growth
- Economic Policy for Pakistan
COASTAL DEVELOPMENT IN PAKISTAN – AN INTEGRATED APPROACH TO INTERNAL SECURITY AND ECONOMIC GROWTH

Lt Col Faisal, Col Sheharyar and Mrs. Raheela

Abstract

Global economic outlook suggests increased dependency on sea trade. To harness and exploit opportunity, there is an on-going global and regional realignment to develop ports and supporting infrastructure to accelerate economic development. In this broader domain; developing countries like Pakistan need special endeavour to keep pace with regional and global trends. Pakistan being located on the confluence of land locked CARs, China and Afghanistan can greatly benefit by intelligently exploiting this geographical advantage by converting its ports as hub of trade and energy. It is for this reason that regional countries have expressed great interest in developing Gwadar Port as a major port of the region to handle their trade. Due to non-development of coastal belt which is around 1000 km with exception of port at Karachi and Port Qasim the desired economic activity is still negligible especially the coastal areas of Baluchistan, which is 670 km long. Similarly Pakistan’s vast Exclusive Economic Zone (EEZ) offers a lot of opportunities for economic progress of the country. However, due to lack of realization of potentials and development required infrastructure of coastal region, the desired impact is still negligible; especially in the region of Baluchistan that remains volatile. Any coastal development in this region will greatly assist in accruing maximum advantages offered by Pakistan’s geo-strategic location.

Introduction

An overview of the world map reflects on two basic components i.e. land mass and water; comprising 29 percent and 71 percent of total planet surface respectively. Countries which have coastline in its geographical layout have tremendous advantage over the ones which are landlocked. Nicholas J Spykman, an American geo-strategist highlights importance of geography of a country as, “geography is the most fundamental factor in the foreign policy because it is the most permanent”. It is this foundation of the state laid down through its geographical presence on world map which drives political, strategic, and economic and security interests of a state. World powers including members of G20, G8 and P5 are either littoral states or have a developed coastal region, which contributes towards their development.

Sea has remained the vital trade route since long; the modern seaborne trade transports over 90 percent of world trade. Sea ports are the main hub of commercial activity and give substantial fillip to the economy of a country. Littoral states are moving towards seas and oceans to sustain their economic development and national power, this phenomenon is known as “Blue Economy”. The idea of Blue Economy recognizes the “seas and oceans” as main drivers for the economic development with great potential for innovation and sustainable growth. Pakistan’s vast Exclusive Economic Zone (EEZ) offers a lot of economic and trade opportunities. However, due to lack of realization of potentials and development of coastal region, the resultant effects are negligible; especially in the region of Balochistan that remains volatile.
Any coastal development in this region will greatly assist in accruing maximum advantages offered by Pakistan’s geo-strategic location.

Indian Ocean (IO) which is the third largest body of water in the world occupies 20 percent of the world’s ocean surface. It occupies an area of 68,556 million square kms which is about 5.5 times the size of the US. Forty seven countries have the IO on their shores. The IO is a major sea lane connecting Middle East (ME), East Asia and Africa with Europe and the America. More than 83 percent of the world’s seaborne trade in oil, transits through IO’s choke points, with approximately 40 percent passing through the Strait of Hormuz, 35 percent through the Strait of Malacca and 8 percent through the Bab el-Mandab Straits. Nearly half the world’s armed conflicts are presently located in the IO region, while the waters are also home to continually evolving strategic developments including China and US. It is for this reason that IO assumes greater importance when it comes to energy security especially in context of interest of US, China, India and other countries. Pakistan is located at the confluence of three vital regions of South, Central and West Asia and provides the shortest access to IO for all landlocked countries of CARs besides Western China. Pakistan’s proximity to oil rich Gulf States makes us an important maritime state in the IO.

Competing interests of major global and regional powers in ensuring safety of energy highways passing through IO has magnified its importance. About 60 per cent of China’s energy passes through Straits of Hurmoz. Coastal Chinese cities and Southern China are more developed than North Western and South Western China. Access to IO through Pakistan offers her an alternate trade links taking her as far as Africa and Europe through a shorter and more secure route. Development of Pakistan China Economic Corridor (PCEC) is a step in this direction. Salient of the project are; The planned “Trade and Energy Corridor” linking IO with Western China comprising Gwadar Port Complex connected through a railroad link, an oil pipeline, number of proposed industrial and green zone would emerge as a regional hub East of the Persian Gulf. Both Gwadar and Kashgar fall in line with China’s March towards West and Pakistan’s Look East policy. This serves as a dual purpose for China: peace and stability through economic prosperity in Xinjiang and simultaneously exploit advantage of peace in region for trade transactions with energy rich Central Asia. Gwadar - Xinjiang connection will reduce distance to warm waters from western China to 2500 Kms. Currently Chinese oil tankers on an average take 20 days in reaching the Gulf through China Sea, while with corridor developed they would reach Gwadar, right on the mouth of the Gulf, within 48 hours. A distance advantage chart is as under:-

<table>
<thead>
<tr>
<th>Origin</th>
<th>Urumchi via Shanghai (Sea Route) (Kms)</th>
<th>Urumchi via Khunjrab (Land) (Kms)</th>
<th>Difference (Kms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gwadar</td>
<td>9850</td>
<td>2927</td>
<td>6923</td>
</tr>
<tr>
<td>Dubai</td>
<td>10455</td>
<td>3835</td>
<td>6870</td>
</tr>
<tr>
<td>London</td>
<td>17041</td>
<td>10281</td>
<td>6760</td>
</tr>
</tbody>
</table>

Communication and trade correlation between South, Central and West Asia passing through Pakistan has the potential and offers new opportunities for transforming Pakistan into an economic hub besides enhancing inter-regional
economic activity. Iran being a large oil supplier to China will focus on shorter and quickly accessible route to Western China. Co-location of Chahbahar and Gwadar which are merely 70 Kms apart can contribute to each other’s strength after development of PCEC. In all logics, Iran after completion of PCEC would need Gwadar as its link with China for oil export. Pakistan - Iran coastal belt therefore, can be seen as a one big coastline. In 2010, Afghanistan’s mineral resources were estimated at the tune of US $ 908 billion, including high-value resources such as gold, iron, copper, and lithium. At present it lacks functional economy of any significance; however, with stability in Afghanistan, a formidable trade activity is expected to trigger using Pakistani ports. US dependence for oil imports from ME is over 18 percent of her annual oil imports which mostly come from Saudi Arabia. Americans’ anxiety about Chinese military presence and their perceived string of bases along IO stands as one of the reasons for US “Rebalance to Asia”. At an average two Aircraft carriers along with 25-35 naval war ships presence in IO as part of coalition maritime plan. Like Pakistan, more than 90 per cent of India’s trade by volume is transported through the sea. India’s 62 per cent oil is imported from Gulf States transiting through Indian Ocean and Pakistan’s EEZ. The gap between India’s oil demand and supply is widening, thereby, creating demand supply gap of over 2.7 million barrels per day.

Geo Economic Significance

Pakistan’s coastline being in close proximity of CARs, Gulf and Afghanistan, provides an excellent opportunity to equip with infrastructure necessary to handle cargo destined for ME, CARs, the South East Asia and the SAARC as well as for Western China. China is fast growing economy in Asia with an annual growth rate at 7.5 % (2013). With further expansion and upgrading of this traffic artery and proposed linkages to Gwadar via economic corridor, shall make it the shortest and viable route connecting Gwadar to Western China. The road distance from CARs to Pakistan’s coastline is approximately 1200 Kms; 2200 Kms shorter in comparison with the nearest Black Sea port of Odessa in the Ukraine; that makes Pakistan in a geographically advantageous position. Afghanistan would require an outlet which is provided through Pakistani ports. The volume of bilateral trade between Pakistan and Afghanistan has increased manifold during the last few years which in 2011-12 stood at US $2.4 billion.

Pakistani coastline stretches from the Iranian border at the mouth of Dasht River to the Indian border at eastern edge of Indus Delta contains rich fisheries, minerals and hydrocarbon resources. The coast of Pakistan can be divided into two distinct parts due to climatic conditions, terrain and geographical locations. These are:-

- **Sindh Coast** stretches over 300 Kms from Sir Creek to Hub River. It has two parts; Indus Delta and Karachi coast. The Indus Delta stretches from Sir Creek to Port Qasim and covers a coastal belt of about 180 Kms.
- **Balochistan Coast** is arid and comprises sedimentary rocks like lime/mud stone and sand. The Balochistan coast has two parts i.e. Lasbela Coast from Hub River to Hingol River and Makran Coast from Hingol River to Dasht River.
Keeping in view Sindh’s coastal infrastructure first of all established in 1973, the port Qasim has 16 berths; Grain and Fertilizer Terminal, Qasim International Container Terminal (QICT), Liquid Cargo Terminal, Liquid Nitrogen Gas Floating Terminal (LNG), Coal Clinker / Cement Terminal, besides, newly constructed Oil terminal and Steel ore Jetty. The Port has an earmarked area of 12200 acres for industries dedicated as Textile City.

Karachi Port, a historical port, divided into East and West Wharf, has 30 berths, 3 Oil Terminals and 2 Container Terminals, capable of handling, dry, wet, bulk, break bulk and container sup to maximum of 75,000 DWT. The oil terminal provides services for Pakistan and Afghanistan. Any disruption in its operation will have negative effects both on Pakistan and Afghanistan.

Karachi Shipyard and Engineering Works (KS&EW) has built over 440 vessels of different types and sizes. The Shipbuilding Division is well equipped to build ships up to 26,000 DWT including Frigates, Fast Attack Crafts and Logistic Support Ships. Karachi fish harbour was handed over to Government of Sindh in 1974, which has seen many developments since then.

Baluchistan coastal infrastructure can be highlighted first of all by Gadani Ship Breaking Industry. Pakistan’s ship breaking industry was world’s No.1 during 1970’s and 80’s. However, over the years this industry too has suffered decline and now ranks 5th in the world. In 2013 Gadani Ship breaking Industry scraped only 104 ships, 8 percent of total ship breaking volume after India at No.1 with 343 ships scraped and Bangladesh at No. 3 with 210 ships scraped; 26 percent and 16 percent of total world ship breaking volume respectively.

Phase-I of Gwadar Port became operational in 2008 with 3 jetties. So far it has handled limited cargo. In order to attract private investment, connectivity of port and unstable socio – political situation is restricting optimal utilization of this strategic infrastructure. The planned second phase for development through private sector, will offer additional facilities; Container Terminal - 2 berths (300 m each), Bulk Terminal - 2 berths (300 m each), RORO Terminal - 1 berth (200 m) and Oil Terminal - 2 piers (8 million tons/year each).

Pasni Fish Harbour, Built in 1989, with the assistance of Asian Development Bank for handling 3500 fishing boats of varying displacement. However, due to silting, has lost over 80 percent of its designed capacity and is presently in a deplorable condition.

Makran Coastal Highway, 653 kms long coastal highway was completed in 2004. The road has triggered economic activity in Gwadar and rest of coastal harbours. Presently, cargo offloaded at Gwadar port is transported to Karachi for further dispatch to hinterland.

Extension of Gwadar Airport, PC 1 for construction of new Gwadar Airport was approved in 2008 and was to be completed by 2009. However, FWO could only complete 29 per cent of total work due to frequent interruptions caused by litigation and security concerns. Keti Bandar Power Project, Two 660 MW coal fired power plants planned with possible extension of six more using indigenous and imported
coal. However, so far construction has not started. Gadani Power Park of ten 660 coal based power plants are planned to be constructed at Gadani utilizing imported coal.

**Potentials of Pakistan’s Coastline**

Pakistan’s sea gradient offers multiple choices to develop small, medium and large port facilities ranging from fish harbours to deep sea ports. Technical study suggests that Gadani, Pasni, Hangol and Jiwani can be developed as fishing-cum-miniport.

Fisheries provide about 25% of the world supply of the animal protein. Pakistan is ranked 28th in terms of production and 50th in terms of export but contributes only 0.27% in the world’s export market which has a total volume of US$ 55 billion. As per estimates there is a standing stock of more than 2 million metric tons of fish resources in our waters. Inferior quality boats/trawlers, inadequately trained fishermen, non-availability of proper stowage and processing, inadequate marketing/packaging are considered as some of the areas affecting full exploitation of this resource. Pakistan has 6th largest Mangroves Forests in the world. They are home to several species of flora and fauna besides, protecting the coast against erosion. It is estimated that 1 hectare of mangrove could produce an annual yield of 100 kilograms fish and 25 kilograms shrimp. Lack of awareness has resulted in failure to accrue economic potential from developing mangroves.

Samphire is a sea plant which is in abundance on our coastal region which besides having potential for edible oil is being investigated for use as bio diesel in the West. Pakistan imported 2.2 million tons of edible oil in 2013 at an approximate cost of US $ 600 per metric ton. General coastal features and sea water conditions suggest that it can be cultivated along Indus Delta to meet edible oil requirements of the country. By producing edible oil from Samphire, it is estimated that over US $ 1320 million can be saved each year.

It is believed that Pakistan has the potential of offshore discoveries of mineral and hydrocarbon in North Arabian Sea, which is still under explored. Some estimates have indicated reserves of up to 40 billion barrels of oil and over 200 trillion cubic feet of gas in our EEZ.

Pakistan’s coastline has tremendous wind potential. High upfront cost and lack of expertise are impediments in harnessing this resource. At present, Jhimplir Wind Power Plant is operational with a total capacity of 50 MW. Generating power from ocean currents is essentially the same as generating it from wind. Indus Delta receives the highest marine wave/current energy for any river in the World. Delta front during South-West monsoon receives more wave energy on a single day than the Mississippi Delta receives in an entire year. Korea currently generates over 1 percent of her energy demand from ocean current and plans to increase it to 5.2 percent of total energy demand by 2020.

Shale gas has the potential to change the existing energy security paradigm. It’s abundant, it’s cheap and it burns cleaner than fossil fuels and is found almost everywhere. Pakistan has estimated 105 Trillion Cubic Feet (TCF) reserves of Shale
Gas which has remained unexplored owing to high cost and lack of technological expertise.29

Pakistan has tremendous potential to sublet the rights of exploration and fishing in her EEZ to generate foreign exchange, which, so far has remained a neglected area. Coastal areas are some of the most productive and biologically diverse regions on the planet. On top of this, 80 percent of all tourism takes place in coastal areas, with beaches and coral reefs amongst the most popular destinations worldwide. Pakistan has not been able to attract corresponding tourism due to lack of adequate supporting infrastructure and security issues.

**Impediments in Developing Coastal Regions**

Voluntary situation in Afghanistan for the last three decades, unpredictable situation in Iran impacting the regional stability has negatively and directly impacted the internal situation of Pakistan particularly Balochistan. Internal factors impacting development of coastal areas of Pakistan can be grouped into security, political, and governance related issues.

One of the major reasons of lack of development of coastal areas of Pakistan, besides lack of awareness, has been volatile security situation in the last over 3 decades. Presently, there are only 11 police stations along the entire Makran Coast. Similarly, only PMSA has a relatively elaborate infrastructure with the Coast Guard being a distant second. Footprint by Pakistan Customs is even more limited. Coast Guard claims jurisdiction over land from 40 to 200 km inshore. On the other hand, inshore presence of PMSA comprises 3 major bases at Gwadar, Pasni and Karachi and 1 minor base at Korangi/ Ibrahim Hyderi. In order to maintain effective law and order, capacity of Police, PMSA and Coast Guard will have to be enhanced besides establishing Marine Police Stations along the coast.

Baloch nationalist elements, sponsored by external players are a major concern. Presently there are four main militant outfits operating in Balochistan with Baloch Liberation Army (BLA) being the most prominent amongst them. Besides BLA, three other militant organizations including Balochistan Liberation Front (BLF), Balochistan Republican Army (BRA) and Lashkar e Balochistan have emerged to challenge the writ of the government. Arms, drug and liquor smuggling cartels operating along the coast (Makran and Sindh coasts) remain a challenge for law enforcement agencies. Arms smuggling into Baluchistan through the sea route is a case in point. Due to minimal connectivity and lack of worthwhile developmental projects in Balochistan, a large population particularly its youth became disenchanted. This societal fissure was exploited by local as well as foreign anti-state elements which contributed towards worsening of security situation in Balochistan. Centre – Province friction, religious extremism etc are other issues impacting security situation in coastal areas of Pakistan.

Lack of political will to reconcile, non-representation of masses and mistrust amongst local population, sense of deprivation, provincial autonomy, ethnic culture and issue of lack of funds are some of the prominent factors exacerbating fragile political situation in Balochistan. The phenomenon of poor governance and corruption prevails in most parts of Balochistan. Political government as well as the bureaucracy lacks wherewithal and necessary resources to eradicate the root causes
of corruption leading to dissatisfaction of masses. The development of coastal region of Pakistan has suffered from slow and often lack of implementation of policy at national and provincial levels. This has largely been due to lack of institutional capacity, focus and paucity of funds. There are 22 districts in Balochistan, where male literacy is more than 20 per cent while there are only two districts namely Quetta (45%) and Panjgoor (22%), where female literacy exceeds even dismal 20 per cent mark. The female literacy fails to go into double digits in 14 out of 26 districts of the province.

**Policy Issues**

Another major impediment in developing coastal areas of Pakistan is policy gaps, inconsistencies therein and above all, lack of their proper implementation. There are over 7 different ministries and departments responsible for coastal development one way or the other. During analysis of these policies issued by the federal and provincial governments, it emerged that these policies are complex, mutually exclusive and lack cohesion and synergy resulting in unsustainable pattern of development besides creating confusion and conflict in implementation. It is important to note that the first ever ‘National Maritime Policy’ was promulgated by Government of Pakistan as late as 30 November 2002. This policy laid emphasis on tapping vast sea resources within the EEZ extending up to 200 nautical miles in the Arabian Sea. However, nothing substantial could be translated into action. Recently, revised ‘National Maritime Policy’ was issued in 2013. This policy lays focus on developing a framework for overall growth of all maritime sectors within an integrated, secure and sustainable environment. It also seeks to strengthen existing public sector maritime-related organizations like Karachi Port Trust (KPT), Port Qasim Authority (PQA), Gwadar Port Authority (GPA), Pakistan National Shipping Corporation (PNSC), KS&EW, Fisheries departments etc and giving impetus to private entrepreneurship and investment. However, nothing substantial could be manifested on ground so far due to lack of focus by relevant authorities.

**Mombasa International Port and Associated Infrastructure – Case Study**

In order to understand and suggest a model for revamping existing coastal developmental initiatives in Pakistan, study of Kenya’s Mombasa Port for its similarities with prevailing environments and socio-economic issues faced by Pakistan’s coastal region was considered. Both Kenya and Pakistan are developing countries, with similar geographical layout and socio-political issues. Kenya acts as a gateway to landlocked countries of Central Africa as Pakistan is for Afghanistan and CARs. Furthermore, both countries have commonalities in terms of security challenges with the terrorist group AL Shabaab operating in the East African coast. Above all, both countries lack sufficient fiscal space to execute mega projects at their own; thus relying on IFIs for development of coastal region/port.

The Port of Mombasa is the largest port in East Africa. Besides Kenya, it also serves landlocked countries of Uganda, Burundi, Rwanda, South Sudan and others. The sea trade forecasts in 2006 projected almost 100% increase in trade volume by 2015. This necessitated substantial improvements in existing port infrastructure. Accordingly, Kenya conceived and implemented a three pronged plan that focused on economic, social and political governance. In this regard, a process of reforms was initiated for poverty alleviation through economic growth driven by infrastructure...
development. This project was considered the most important regional priority projects in Africa and was designed to be completed by 2015 with a total cost of 34,800 million yen. As a prelude to the project, Kenya introduced structural reforms to remove bottlenecks in processing, clearance, transportation and road space management of goods. These initiatives resulted in reduction of time taken from Mombasa Port to Malaba (Uganda), from 18 to 8 days; a 56 percent improvement in just six months. This was a major achievement, which boosted commercial relations, forestalled competition from alternative transit routes and ultimately reduced the cost of doing business. Important question here is that how Kenya achieved substantial growth in such a short span of time? This was achieved through; Creation of cabinet subcommittee of Cabinet Secretaries responsible for Mambasa Port development and its connectivity with hinterland. The committee was directly responsible to the President, who would chair progress monitoring meeting on weekly bases. All agencies involved in the port project were placed under overarching command of Kenya Ports Authority (KPA) and were to take final orders from KPA.

Public Private Partnership (PPP) was introduced to enhance the fiscal space and competitiveness. Advanced technology was introduced for processing, clearance, transportation and road space management of goods. This resulted in time saving. Kenya Ports Authority, as the lead agency for the project, has concluded a comprehensive Port Facility Security Assessment for the port of Mombasa in compliance with the International ship & Port Facility Security (ISPS) Code. An International Security Consulting firm was contracted and funded by the World Bank to conduct the assessment.

**Recommendations**

In order to develop the Pakistan’s coastline, it is suggested that “Vision 2030” which states “A national long-term plan to develop coastal belt of Pakistan including development of ports and associated services; connecting hinterland through rail, road and air services; thus, maximizing sea front for domestic, industrial and commercial activities in a sustainable and environment friendly manner by 2030”.

In order to realize the vision setting up of a high powered authority by the name of “National Coastal Development Authority (NCDA)” under patronage of Prime Minister, with ministerial level representation from Ministry of Ports and Shipping, Communication, Defense, Finance, Planning Commission, Foreign Affairs along with representations from relevant departments, judiciary, leader of opposition and all four provincial Chief Ministers. An implementation committee working directly under this authority for seeking approvals is recommended to be headed by a three star Admiral (preferably Director General Coastal Development). Balochistan Coastal Development Authority (BCDA), Gwadar Development Authority (GDA) and Sindh Costal Development Authority (SCDA) to be merged within implementation committee of NCDA. Coastal Development may be considered as Federal subject till completion of Vision 2030.
To implement Vision 2030, following three tiered recommendations are offered:-

**Short Term (1-5 years)**

- Launch comprehensive media campaign through local print and electronic media to bring harmony and educate masses about potential of our coastal region and positive impact of Vision 2030 on prosperity and wellbeing of people.

- Bridging gaps through political reconciliation, alleviation of grievances, power sharing and creating incentives for collaboration over violent activities.

- Stakeholders to be incorporated to achieve improved security through negotiation and national reconciliation process focused on onetime policy of ‘Forgiveness’.

- Targeted campaign through Foreign Office and diplomatic missions abroad to sensitize the international community regarding immense potential of coastal region to attract FDIs and cooperation.

- Develop wind energy power plants besides study of ocean current energy power generation.

- Protect and develop fish Industry by construction of cold storages, jetties and improvement in hygiene conditions for enhanced exports.

- Develop and protect mangroves by identifying areas for new plantation and manage existing plantation.

- CARs and Afghanistan be made partners through joint ventures in coastal infrastructure. Similarly, landlocked provinces of Pakistan may be involved in coastal development by offering sea frontage for commercial and industrial activities.

- Facilitate establishment of cluster of industrial parks and economic zones to create employment opportunities. To have speedy connectivity of coastal belt with hinterland complete/ improve three road links; Gwadar-RatoDero, Coastal highway and Gwadar - Herat Highway.

- Adopted PPP and BOOT model be to meet shortfall in financial resources and timelines. Provide subsidised land in coastal region for tourism development to national and International investors.

- Train workforce to meet future requirements of industrialization. Set up own consulate in Urumqi (Xinxiang) to boost bilateral trade and commerce apart from current diplomatic presence in Beijing, and Shanghai.
• Shipbuilding and ship breaking industries be revived by offering suitable incentives in both fields. Focus on completion of Early Harvest Projects for electricity generation (5000 MW) to address shortages and deliver benefits to the masses.

**Mid Term (5-10 years);** Complete PCEC road and industrial parks projects, completion of Gwadar Port Ph II remaining projects and due to existing depth constrains at Karachi Harbour, KS&EW may be relocated to a suitable location near Gwadar.

**Long Term (10-15 years);** Construction of rail link PCEC, construction of gas / oil pipeline PCEC and explore Shale Gas reserves under joint venture with support of IFIs. Corresponding development of Pakistan Navy, MSA, Coast Guard and land based LEAs i.e. Police, Customs and ANF for ensuring credible security of maritime trade and coastal infrastructure.
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ECONOMIC POLICY FOR PAKISTAN

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Abstract

Economy being a fundamental pillar of national power remains critical for any country’s progress. Macro and micromanagement together can bring about a viable and a progressive economic system that can sustain the requirements of a country’s growth and financial needs. Developing nations faces a mire of challenges to attain sustainable level of economic growth. These countries mostly remain challenged with issues like energy crisis, corruption, lack of financial capacity and an institutionalized approach to bring about a healthy economic environment. Additionally, global financial institutions as well as trade agreements also play an important role in reviving the economy. Pakistan like other developing nations also faces unique challenges to its economy. Debt servicing and financial discipline being the major ones, while corruption and a lack of institutionalized approach have kept it far from realizing its true potential. A critical review of the Pakistan's economic woes, enables the identification of key areas, which if addressed can enable us to chalk out a workable and sustainable economic revival in medium to long term.

Introduction

Economy is an extremely important element of national power; fundamental to the strength and stability of the state and assurance of its sovereignty. Pakistan as a developing country has had an irregular economic growth in the past, where there have been decades of growth but also periods of economic stagnation. It started out as a capable and fast growing economy but subsequently lagged behind the dynamic economies of East Asia and China.

Pakistan is strategically located with a sizeable territory (36th) and large population but its potential remains far from utilized. The factors that plague growth prospects include political instability and governance, fragile public sector enterprises (PSEs), non-implementation of reforms for public service delivery and regulatory framework. The agriculture yields are low even by South Asian standards, the country’s manufacturing production and export base has yet to graduate beyond textile and tanneries. Additionally low rate of savings and investment, chronic fiscal deficits and energy shortages are ever threatening inhibitors towards a sustainable growth in Pakistan. The lack of economic vision and populist instead of viable economic policies has resulted in unfulfilled promises.

The economic benchmarks for development are uniform all over the world but varied routes have been adopted by countries according to their pecutair domestic environment. Although economic outlook of the country has relatively improved but without a clear vision, positive approach and consistent policies the economy may follow another era of lost opportunities. In order to embark on the right economic path a holistic policy is required. The economy has enormous potential and can quickly respond to concerted efforts by higher rates of growth, provided the recipe is
correct and the efforts are sustained. Any such policy is likely to lay the foundations for a promising beginning.

**Economic History of Pakistan**

The Beginning’s (1947-1958), International environment at the time was marked by the creation of World Bank and IMF at Bretton Woods, USA in 1946 to facilitate economic cooperation. World currencies were fixed with US dollar. Global economy saw rise of IFIs mostly housed and controlled by the western countries. In early years Pakistan registered low GDP growth of 2.5% due to stagnant agriculture and resultantly 20% wheat was imported. Large Scale Manufacturing sector initially grew at an annual growth rate of 28% but declined to 4.9% in 1957-58. To promote trade and industry, Pakistan Industrial Development Corporation was established in the wake of trade deadlock with India. Fiscal and Monetary position had been weak as revenue was only 3.5% and tax 5.2% of GDP. Rupee was devalued by 30% in 1955. This era was marked by low growth attributed to weak fiscal and monetary position, stagnant agriculture and weak state institutions.

Ayub’s Era (1958-1968), The US support for Breton Woods System started to decline due to its weakening economy, while Europe benefitted from growing economic integration. Gold standard ended and major currencies were floated. This Era was marked by emergence of new trading centres due to export led growth in Japan and Korea that created new challenges to US trade. Ayub Khan’s policies were marked by pro-industrial bias. Inexpensive imports, friendly policies and overvalued rupee resulted in an era of swift industrial development. Foreign aid was used for infrastructure development in water and power projects, like Mangla and Tarbela Dams. Per capita income increased by 40% (US$ 91). Green Revolution was the high point of the era as incentives in agriculture sector helped increase food production by 75%. Later stagnant exports led to trade deficit, which affected Foreign Exchange Reserves, however, social sector remained neglected. It was an era of mega projects in water and power sector, industrialization, green revolution and development of institutions but low priority was assigned to social development.

Bhutto’s Era of Socialism (1971-1977), Oil crisis of 1973 plunged the world economy in stagflation leading to world’s recession. BWS collapsed and global trading system grew under GATT, which led to increased protectionism and non-tariff barriers. Developing countries launched new international economic order from the platform of UN for greater economic sovereignty. Bhutto introduced Land Reforms by cutting down the ceiling of land holdings by 75%. The government nationalized all industries and banks etc. Oil Price Shock weakened external payments position as crude oil bill rose from $250 Million to $1.5 Billion. Manpower export to Middle East significantly improved foreign exchange reserves and balance of payment position. Runaway inflation forced Government to devalue Rupee by 200% and introduced food rationing. High defence spending led to fiscal imbalance. Bhutto’s period was an era of nationalization, high defence spending and stagflation, hurting everyone despite pro-social initiatives.

Gen Zia’s Era (1977-88), in this period the international environment was marked by raise in US interest rate to stem inflation. IMF was called in to prevent debt default and neo-liberal policies brought liberalization and deregulation. During this era agriculture registered 6% growth, industry grew by 9% and exports increased
three times. Diversification of economy led to 43% increase in income. Tax system marginally improved from 12% to 13%. Defence spending increased six times to Rs 47 Bn. Zakat and interest free banking was introduced as part of Islamization of economy. Mega projects like Kala Bagh Dam were not pursued despite availability of funds. It was an era of diversified economy, growth, low inflation and Islamization of economy but weak fiscal policy due to high defence spending. Pakistan also received significant aid from US and some ME countries due to ongoing war in Afghanistan.

**Benazir and Nawaz’s Era (1988 -1999),** This era was marked by Washington Consensus to safe guard the interests of US and West, end of Cold War, East Asian Financial Crisis and establishment of WTO, opening a new forum for international trade. WB and IMF were deeply involved in promoting ‘Good Governance’. IMF imposed very strict conditions on borrowing countries in wake of 1997, East Asian Financial crisis. During this era the Governments sought more foreign assistance to cover heavy import bill of furnace oil for IPP’s causing huge trade deficits. High taxation was introduced without broadening the tax net under the influence of IFI’s. FDI investment shed away due to law and order situation. Stagnant exports put pressure on foreign exchange reserves. Nuclear explosions led to sanctions and the freezing of foreign currency accounts. It was an era of IMF induced reforms, low foreign exchange reserves and high fiscal and trade deficits.

**Musharraf’s Era (1999-2008),** Financial crisis of 2008 was hallmark of the era as it pushed oil prices to $147 per barrel. Stimulus packages from IMF came to the rescue but still some of the EU economies are struggling to get out of recession. G-20 tried to safeguard interests of these countries in globalized world. Economic growth was 5.8% to 9.0% with high PSDP, possible due to achieving revenue targets. Privatization of banking, telecom and energy sectors as well as liberalized foreign exchange regime. About $12.5 Bn debts were rescheduled including some write offs. Inflation was controlled that remained in a single digit. Energy Policy based on furnace oil, led to subsidies and circular debt. This was an era of liberalization, privatization and deregulation with high growth but weak energy policy. Pakistan has completed nine Development Plans. Plans under President Ayub and Zia were growth focused and successful. Pakistan’s second Plan was also successfully adopted by South Korea. Development Plans during Bhutto’s era and Political Governments of 90’s fell short of objectives. From 1999 to 2005 yearly plans were followed but launched with a new name of MTDF in 2005. This also failed due to policies post 2007 and world recession of 2008. However, during Military Rules due to stability and consistency of policies Pakistan achieved over 5% GDP growth.

From above discussion about economic history of Pakistan, we can conclude that, stability, contributed directly to the growth of economy, hence reasserting its importance. Strained relations with India forced Pakistan into compulsive defence spending at the cost of social development. Heavy reliance on foreign grants and borrowing led to fiscal imbalance and resulted in budget deficits. High current expenditures forced cuts in development expenditures and retarded infrastructure development. Non progressive tax structure with narrow tax base resulted in weak fiscal space. Unsustainable population growth burdened the economy and stagnated per capita income. Lack of focus affected industry and promoted low value added activities. Lowest saving rate resulted in low investments thus retarding development.
Comparisons of some progressing economics viz a viz Pakistan would lead us towards a clear road map for economic revival. China and Brazil are cases to be included.

China is currently the world’s second largest economy with a GDP of $13.39 trillion on PPP basis. It ranks 29th on GCI and 91st on HDI. China is the largest holder of foreign exchange reserves worth $3.8 trillion. It is estimated that to-date 500 million people have been raised out of extreme poverty. Prior to 1979 under the leadership of Mao Zedong, China maintained a command economy, where competition was nonexistent and trade and investment flows were mainly limited to Soviet bloc countries. As a result the economy was poor and relatively isolated from the global economy. In 1979, Deng Xiaoping launched several reforms which included, price and ownership incentives for farmers, established special economic zones along the coast for attracting foreign investment, boosting exports and importing high technology products, decentralization of economic policy making where control of enterprises was given to provincial and local governments, liberalization of trade which led to removal of trade barriers and encouraged greater competition, additional regions were designated as open cites and development zones that offered tax and trade incentives, high rate of domestic savings were used by government for investment. Economic decentralization led to the rise of many private firms.

As a result of reforms, China’s GDP grew by 10% and doubled the size of its economy every eight years. The highlights of its economic indicators are International Monetary Fund project that China’s GDP growth will average 7.0% from 2014 to 2018 and is expected to overtake United States, within the next five years, it would be the world largest manufacturer with value added manufacturing equal to over 30.5% of GDP, compared to 12.3% for the United States and 18.7% for Japan, presently it is the second largest destination of FDI and approximately 445,244 foreign invested enterprises account for 47.3% of China’s exports and 44.8% imports, it is the world’s number one exporter and third largest importer. Chinese exports rose from $ 252 billion in 2000 to $2.2 trillion in 2013, while merchandise imports grew from $245 billion to $1.9 trillion. It has a trade surplus of $261 billion, China Investment Corporation (CIC) has made $541 billion worth of FDI abroad in order to seek more profitable returns on its foreign exchange reserves and in future; with massive investment in Human Capital, China plans to transform into a knowledge based economy.

Brazil is the world’s seventh largest economy with a GDP of $2.41 trillion on PPP basis. It ranks 56th on GCI and 79th on HDI. It has the eight highest foreign exchange reserves in the world worth $378 Bn. In 1987, due to uncontrollable inflation Brazil defaulted on its foreign debt of $103 trillion. Resultantly inflation peaked at over 2,730% in 1993. To tackle the situation, Brazil initiated economic reforms, announced the “Real Plan” in 1994 that introduced a new currency pegged to US dollar. A more restrictive monetary policy and a severe fiscal adjustment that included a 9% reduction in federal spending and an across-the-board tax increase of 5% were adopted. These measures stabilized the economy, state-owned enterprises were privatized and the Brazilian economy gradually opened up to foreign trade and investment, after 1998 financial crises, Brazil adopted the three pillars of its macroeconomic policy; a floating exchange rate, a primary budget surplus, and an inflation-targeting monetary policy, agricultural reforms included strengthening
family agriculture, redistribution of land to poor farmers and subsidy for cattle farming, the country adopted an industrial policy, known as ‘Brazil Maior’, which targeted tax cuts for enhanced domestic manufacturing, Brazil introduced the “Growth Acceleration Plan” in 2007 to improve infrastructure and reduce unemployment, to address energy shortages, Brazil focused on ethanol and became the world largest producer (6.1 billion gallons). Hydroelectric projects were also initiated under public-private partnerships that provide 90% of the nation’s electricity, to reduce poverty, Bolsa Família (Family Grant) Programme was introduced to ensure that children attend school and receive medical care, other social welfare programmes such as Minha Casa, Minha Vida (My House, My Life) have been initiated to increase formal housing for low-income Brazilians, Brazil adopted consistent policies and promoted entrepreneurship to sustain economic growth and political stability contributed to sustained development.

The reforms made Brazil the world’s 7th economy overtaking the United Kingdom. Brazil is the 23rd largest exporter and importer with $244 billion worth of exports and $241 billion of imports. It is the 12th highest destination of FDI and its per capita income is over $11,000. Brazil has fast-growing middle class of 91 million people, which represents 49.22% of the population and account for 46% of national income and boost domestic demand. Population below poverty line is 6% and unemployment rate is over 5%.

The above case studies may lead to some conclusions such as; visionary leadership embarks nations on path of accomplishment by taking bold decisions and grasping timely opportunities, consistent and viable economic policies and efficient state institutions for service delivery provide basis for sustainable economic growth, charting a course of progress according to the country’s peculiar domestic environment, domestic investments, FDI and exports provide sustainability to growth, promoting domestic competition makes products competitive in domestic and international market, establishment of clustered economic zones integrated by services, energy supply and capital flows is a recipe for growth and development and best investment a state can make is in the human capital followed by development of infrastructure.

**Appraisal- Current State of Economy**

Global economic activity has strengthened with growth projected to improve from 3 percent to 3.6 percent. Growth in East Asia and Africa is likely to accelerate offering new avenues for trade. Primacy of geo-economics over geo–politics continues and offer avenues for pursuing economic interests. Global wealth is shifting from West to East creating new opportunities and challenges for developing countries. Quest of energy and natural resources is a main driver of global economy. New energy and trade corridors are being sponsored by US and China, which is likely to accrue benefits to the connected countries. Free Trade agreements and Preferential Trade agreements are being used as political tools of influence. Increasing role of International Financial Institutions (IFIs) in developing economies is creating both opportunities and challenges. The Multi-National Companies (MNCs) are regulating the market with Foreign Direct Investments as the main engine.
China has recovered from global crisis and is touching 7% growth. India’s growth remained under 5% for two successive years, however; its growth is expected to recover to 5.4 percent in 2014. A single-party government with predominantly economic agenda is likely to initiate reforms and take hard economic decisions that had proved difficult for coalition governments in the past. Another important country and Pakistan neighbor Iran’s growth remained negative during last two years and its future outlook is linked to nuclear deal with P5+1. Afghan economy is foreign aid dependent and likely to face challenges due to draw down and internal security situation.

Economic performance of Pakistan, has relatively improved, with modest growth rate of 4.1 percent the highest since 2008-09. Last fiscal year has displayed some positive indicators including, picking up of economic growth, single digit inflation, reduction in fiscal deficit, GSP plus status by EU, increased remittances, launching of Euro Bonds, auction of 3G / 4G licenses; rise in foreign exchange reserves and stability rather some appreciation in Pakistan currency. However, long standing issues of revenue generation, fiscal indiscipline, debt, lack of FDI, energy and internal security situation remains major impediments in achieving improved economic growth. Absence of conducive economic environment has resulted in re-location of industry from the country. The envisaged Economic Corridor Initiative between Pakistan and China will improve connectivity and is expected to serve as a driver for growth.

Pakistan’s GDP is worth $236 billion on nominal exchange rates and is 44th largest in the world, while on PPP basis its size is $576 billion and 26th largest in the world. GDP growth has improved to 4.1% in 2014 the highest since 2008-09. Industry and services supported growth improvement however, agriculture sector contracted. The growth was primarily driven by private consumption, including strong worker remittances informal economy and higher fiscal spending. Sector wise share of the GDP include agriculture constituting 21.04% of GDP and provides employment to 43.7% of work force, industry contributes 20.8% to the GDP and provides jobs to 21.5% of the total work force and services constitute 58.1% of the GDP, employing 34.9% of workforce.

Economic indicators of last 5 years do not reflect a healthy picture of our economy. Except remittances all indicators needs special attention.

<table>
<thead>
<tr>
<th>S/ No</th>
<th>Economic Indicators</th>
<th>Five Years Average (2010-14)</th>
<th>Financial Year (2013-14)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Growth Rate</td>
<td>3.56%</td>
<td>4.14%</td>
</tr>
<tr>
<td>b.</td>
<td>Inflation</td>
<td>10.04%</td>
<td>8%</td>
</tr>
<tr>
<td>c.</td>
<td>Budget Deficit</td>
<td>6.18%</td>
<td>5.8%</td>
</tr>
<tr>
<td>d.</td>
<td>Tax to GDP Ratio</td>
<td>9.24%</td>
<td>8%</td>
</tr>
<tr>
<td>e.</td>
<td>Savings to GDP Ratio</td>
<td>13.44%</td>
<td>12.9%</td>
</tr>
<tr>
<td>f.</td>
<td>Investment to GDP Ratio</td>
<td>13.25%</td>
<td>14%</td>
</tr>
<tr>
<td>g.</td>
<td>Public Debt</td>
<td>-</td>
<td>Rs 15.7 Tn(domestic 10.92 Tn and External 4.81Tn)</td>
</tr>
<tr>
<td>h.</td>
<td>Foreign Exchange Reserve</td>
<td>-</td>
<td>$ 11.2 Bn</td>
</tr>
</tbody>
</table>
Outlook of the national economy remains far from satisfactory and many of the issues confronting it are perennial, and not necessarily the result of economic management of last year. Starting from limited fiscal space we see that net revenue collected is only 70% of required expenditures, 30% of the expenditures is therefore met through bank borrowing leaving fewer resources for development. Current expenditure constitutes 80% of the total expenditure. Borrowing from State Bank induces inflation, while borrowing from commercial banks result in crowding out private investor. Subsidies and grants are more than Rs 650 billion in current budget and witnessed a 16 times increase in last 10 years. Total tax base of the country is around 1 Million, which is less than 1% of population. In Pakistan, tax in the last five years has remained only 9.24% of GDP that is one of the lowest in the world. Taxes collected are far below potential due to lack of Government’s will to implement tax reforms, unhealthy mix of direct and indirect taxes, culture of SROs and poor documentation of economy.

Inflation is currently at 8%, while it has seen the height of 20.8% over the last eight years. Inflation should remain between 4% to 8%. High inflation affects the poor more than the rich. Savings are discouraged due to high inflation because it reduces the real rate of return on financial assets that leads to less investment and in turn lower economic growth. Pakistan today is in the grip of a serious energy crisis. The power cuts affect all sectors of economy particularly industrial production. The installed capacity of electricity is 23048 MW, whereas current generation is around 14000 MW against the demand of 18500 to 19500 MW. The demand outstrips the current electricity provision leading to shortfall between 4,500 - 5,500 MW in summers. Some salient impediments in overcoming the energy crises can be energy mix, high cost of electricity generation, subsidies to power sector and management issues.

Till 2008, financing of our 80% imports through were export earnings. This ratio has come down to 55% that needs 45% financing in order to keep up with the import level. During the last fiscal year our exports were $25.13 billion and imports $45.11 billion thereby causing a trade deficit of almost $20 billion. Moreover Pakistan consumes more and save less i.e. about 13% of our national income. This means that less amount of money is available to invest for economic growth. To grow by 6%, a country needs at least 24-25% investment rate for which domestic savings should be in the range of 25% or more.

Debt to GDP ratio is currently at 64%, while the Fiscal Responsibility Law 2005 outlines that the government borrowing should not exceed 60% of GDP. Total debt has reached Rs.15.7 trillion, an increase of Rs.1.3 trillion during one year. Domestic debt is Rs.10.92 trillion and external Rs. 4.81 trillion. Debt servicing reached Rs.1.15 trillion, out of which Rs 246.2 billion were paid against principal amount and remaining against interest. Overall domestic economic environment is characterized by inconsistent policies over the years leading present state of economy, low trust of investors due to prevailing security situation in the country, poor economic indicators are reflecting the shortcomings in various segments of the economy is affecting the industrial sector and infrastructure issues like:- Energy crisis, inadequate Ports & Shipping and insufficient Road and Railways also continues to add to our problems.
Opportunities

Pakistan has enough underlying opportunities that cannot only arrest the decline but also revive the economy:-

Pak-China Economic Corridor (PCEC) is a hallmark of opportunities lying in this strategically important country, Pakistan. Road and railway network right from Gwadar to sust, running through about all parts of Pakistan having about 48 Economic zones, and a huge international port this may become a turning point for Pakistan’s Economic progress. GSP-Plus status from EU is another breakthrough for the progress in Exports. Being 4th largest milk produce, 5th largest meat producer we can bring white revolution via live stock. Growing global demand of Halal meat can easily be catered for by Pakistan to a greater percentage share. PCEC and other underdeveloped infrastructure can pave the way for more investment opportunities for local as well as foreign investors.

With 60% youth population better Economic planning and management we can make it a demographic dividend. Skilled, educated, trained youth may become an asset pool for world’s labour / skilled worker / professionals demand. Untapped natural resources are another asset our country has. Larger tax base and privatization of PSEs will also help economy to revive at its own.

Being located at the centre of south and central Asia Pakistan can become a regional hub of Economic activities. Regional trade is a great opportunity waiting for economists’ realization.

Conclusions

Pursuit of short-term relief instead of structural reforms prohibits meaningful economic progress thus implementation of economic reforms are mandatory to put the economy on track. Internal security situation and inconsistent polices have contributed to a steady decline in FDIs and low economic growth. Continued fiscal deficiencies addressed through debts have put the financial management in a vicious cycle. Economic recovery would need fiscal discipline and cutting down of unnecessary expenditures. Indirect taxation though regressive but easy way of revenue generation is utilized instead of formulating prudent tax policy due to lack of political will. Energy shortages are affecting all segments of economy, where energy sector itself suffers from generation and distribution issues and has to be addressed agriculture and industrial sectors suffer from productivity, low value addition, access to finance and regulatory issues. Neglect of both domestic savings and exports perpetuated heavy reliance on foreign aids resulting in low rate of investment. Culture of savings has to be introduced and exports promoted through products and markets diversification. Exports suffer from lack of strategy, products and markets diversification. Existing social safety network provide charity instead of skill development and job creation. Poverty alleviation programs have to focus on skill development and job creation. Successful macroeconomic reforms call for an Independent State Bank with primary focus on containing inflation, preferably, through inflation targeting. Lack of good governance is one of the major causes of all economic issues being faced by the Country.
Endnotes

5. International Monetary Fund, World Economic Outlook—Recovery Strengthens, Remains Uneven (Washington, April 2014), 1
8. Pakistan Economic Survey 2013-14 (Islamabad: June 14), 4
10. Federal Budget 2014-15 Budget in Brief (Islamabad: June 14), 9
PART – III

Military Strategy

- Evolution of Naval Operational Thought and Employment of Naval Power
- Evolution and Employment of Air Power
EVOLUTION OF NAVAL OPERATIONAL THOUGHTS AND EMPLOYMENT OF NAVAL POWER

Cdre Foad, Cdre Naveed and Capt Irfan,

“The Navy is indispensable guarantor of peaceful, strategic order, and because it doesn’t require a physical presence ashore it can, speak softly but still carries a big stick”.

Theodore Roosevelt

Abstract

Naval power has historically remained an essential component of the national security framework and means to accomplishing a nation's enduring responsibilities and role in the world. The naval power has proven its utility in both peacetime and war, offering unique operational characteristics and capabilities to further a country's military and diplomatic strategic objectives. The evolution of the navy dates back to the Age of Galley (2700BC – 16 Century). And has seen many transformations such as “Age of Sail”, “Age of Steam”, the “Age of the Carrier” and the “Missile age” leading into “Age of information networks and unmanned platforms”. The changes in technology kept revolutionizing the naval warfare and with it the naval operational thought. In the contemporary era due host of factors, importantly, nuclear deterrence and globalization the role of navies has expanded from traditional military domain to constabulary and diplomatic role to counter emerging threats including LIC and 4th/ 5th Generation Warfare. Similarly, the classic naval battles have given way to new strategies biased towards collaborative approach to ensure maritime security in global commons- the ocean. However, Navy remains the preferred mean for projection of power and the key enabler for Global powers; Sino-US competition in Indo-Pacific is reflective of such competition. Evolution of naval power and the changing role of navies hold key lessons for Pakistan. Pakistan is blessed with requisite potential necessary to become a significant maritime player however, lack of maritime awareness creates impediments in realizing this potential. What is needed is prudent investment in maritime domain and supportive national policies. Thus development of balanced maritime and naval power can prove to be a game changer for Pakistan.

Introduction

The oceans cover over 70% of the planet connecting nations of the world. Approximately 95% of the world’s population lives within 600 miles from the sea. About 60 % of politically significant urban areas around the world are located within some 60 miles from the coast. The gains of the sea such as its resources, freedom to reach all across the globe, to exchange information and means to extend dominion have historically been intimately connected with each other, and each also exhibits the cooperative and conflictual tendencies characteristic of international relations. This gave rise to competing interests and a need for protection of the Gains offered by the sea – the reason d’être of the navy. Consequently, great maritime nations have traditionally maintained strong navies to protect their maritime interests ensuring
safe flow of shipping and protection/ acquisition of resources. Naval power has thus historically remained an essential component of the national security framework and an important means to accomplishing a nation’s enduring responsibilities and role in the world. Just as land warfare had its strategic thinkers such as Clausewitz, Sun Tzu, and Jomini, sea power had its own unique thinkers like Mahan and Corbett. The Navy’s modern operational concept has evolved according to dictates of current geopolitical realities. The naval power has proven its utility in both peacetime and war, offering unique operational characteristics and capabilities to further a country’s military and diplomatic strategic objectives. Pakistan is blessed with requisite potential necessary to become a significant maritime power however, lack of maritime awareness creates impediments in realizing this potential.

**Evolution of Naval Operational Thought – Historic Perspective Early Era**

The evolution of the navy dates back to the Age of Galley (2700BC – 16 Century). During this period, ships were built from timber while propulsion was by human physical strength using oars. At that time, navies centered on long, narrow vessels powered by banks of oarsmen (such as triremes and quinqueremess). While most accounts of naval history in this period mention Greeks, Phoenicians (Syrians) and Romans as dominant naval powers, it is interesting to note that during the Islamic Golden Age from 7th to 13th centuries Muslims navies ruled the seas. Many of the navigational advances made towards the end of the European Middle Ages were derived from contact with the Islamic world. Long before the Portuguese, Dutch, and English conquered the seas, the Arabs were navigating on the open ocean.

In West Pacific Chinese naval power emerged in the 12th century as China’s first permanent standing navy was established by the Song Dynasty. Employing paddle wheel crafts and trebuchet’s throwing gunpowder bombs from the decks of their ships, the Chinese became a formidable naval power. Subsequently, as pioneers of cannon onboard ships, the Yuan Dynasty (1215) of China became a powerful naval force in the Western Pacific and Indian Oceans. The naval thought at this time was limited in scope, mostly exhibited in the form of tactical brilliance of the Commander at sea. The tactics employed revolved around massive close quarter attacks involving ramming and boarding actions - with vessel itself used as a weapon - leading eventually to hand to hand combat between the opposing crew. Navies thus remained limited in range and application.

The Age of Sail (16 Century – mid 19 Century) brought with it the European Colonialism. The European distinctive approach to sea power at this period was to gain huge advantage from the close association between the military and the mercantile aspects of sea power. Naval tactics involved long range engagement with broadside and line of battle tactics. Bases were also established along trade routes to protect sea trade. It may be discerned that naval power was the primary element of National Power in making these European empires possible. The period also ushered in the beginning of national navy. The period saw dramatic increase in the reach and the speed of the ships; Cannon transformed naval warfare as it became deadlier and more accurate with rifling.

In the age of sail, Englishmen like Sir Walter Raleigh; Sir Drake and Sir Francis Bacon were evolving naval operational thought for the age of sail. The
overriding preoccupation in naval operational thought was how to maneuver the fleet in order to maximize its firepower thus focused largely on the conduct of battle and the tactical level of war. However, even tactical naval engagements have had strategic effects. The famous battle of Trafalgar fought in 1805 between the British Royal Navy and the combined fleets of the French and Spanish Navies forever laid to rest Napoleon’s plans of invading Britain and never again did the French Fleet challenge the Royal Navy. The employment concept revolved around blockade, commerce protection/destruction and reconnaissance. The principal method of combat employment of one’s fleet to attain an operational and sometimes strategic objective was a “decisive naval battle.” The next major transformation was the “Age of Steam” in the middle and late nineteenth century concurrent with the second industrial revolution when British Empire was at its peak primarily due to its naval power. Ships were built of iron plates and propelled by steam. The Battleship was the principal symbol of naval power. The employment of mines in naval warfare was also experienced within this era.

The concept of “Fleet in Being”, offensive action and blockade were employed during this period particularly in the Russo–Japanese Wars (1905) and the Crimean war in the Black Sea theatre. It was in this period that the naval strategy and operational thought gained pre-eminence with strategists like Admiral Alfred Thayer Mahan and Julian Corbett. Mahan was a United States naval officer, historian and strategist. His book “Influence of Sea Power upon History” made him arguably the most influential naval historian. Mahan’s concept of sea power had an enormous influence in shaping the strategic thought of navies across the world, particularly in the United States, Germany, Japan and Britain. Mahan explained British success by developing a simple deduction: “greatness and strength is the product of wealth derived from the trade and navies protect trade”. The ability to produce a navy capable of maintaining this accumulated wealth was the result of certain key elements of maritime power as; Geography (an insular power astride the sea lanes), Physical conformation (the possession of useful ports and harbors), Extent of territory (large enough to supply the necessary material wealth, but not so large as to be indefensible), Population (large enough to man the ships), Character of the people (seafaring) and Character of government (willing to support a progressive naval policy).

Sir Julian Stafford Corbett was a prominent British Naval Historian and strategist of the late 19th and early 20th Centuries. One of his most famous works is “Some Principles of Maritime Strategy” which remains a classic among students of naval warfare. Some salient concepts of employment of naval power as depicted in operational thoughts of these great naval thinkers are discussed; Mahan concluded that Sea Power was a necessary enabler for a state to become a Great Power. Corbett on the other hand argued that Great Powers were not just reliant on the sea power but also the combined interplay and exploitation of its naval, military, economic, and diplomatic powers in a comprehensive manner. Command of the sea is defined as the possession of such a degree of superiority that one’s own operations are unchallenged by the adversary, while the latter is incapable of utilizing the sea to any degree. Mahan professed Command of the Sea and asserted that the primary mission of a battle fleet is to engage the enemy’s fleet in decisive battle. Corbett contested Mahan’s idea and professed that to accomplish command of the sea it is not always necessary to fight a decisive battle. To Corbett, command of the sea was relative and not absolute. He thus gave the concept of Sea Control which was limited Command
of the sea. Mahan was a proponent of Sea or Naval Power and preferred Fleet Battles on high seas. Corbett underscored the significance of joint operations by the navy and army. He defined “maritime strategy” as application of naval warfare in support of national power and insisted that the maritime and continental strategies should not compete against, but complement each other. According to Mahan, the Offensive through “Decisive Battle” proved instrumental in the success of Great Britain’s Empire. Corbett on the other hand, favored the strategic defensive, with intense local offensive. Corbett’s principles of sea control and focus on maneuver for tactical advantage form the foundation of today’s naval maneuver warfare. Both strategists emphasized the relevance of fleet concentration in naval warfare. Mahan was of the view that a fleet is much stronger as a homogenous body. Corbett on the contrary, was of the view that a fleet was not necessarily stronger as a homogenous group but as a compound body controlled from a centre and flexible enough to allow it to cover a wide area without sacrificing the mutual support of its parts. It may be summarized that Mahan was the greatest advocate of Sea Power and perhaps Corbett was the best judge of its place in national policies.

**Naval Operational Thought - WW I to Modern Era**

**WW1 (1914 – 1918)** also saw significant evolution in naval warfare in the technological domain. The development of new, small platforms like destroyers, torpedo boats and gunboats started reducing the reliance on Battleships. Submarines too first became a major factor in naval warfare during World War I (1914–18), when Germany employed them to destroy merchant vessels. The WWI naval aspects were most thoroughly analyzed by French Admiral Raoul Castex in his five volumes of “Theories Strategiques”. While dominant navies focused on Fleet vs Fleet action, Adm Castex - from a relatively weaker French Navy’s perspective- argued that “Useful things could be done with smaller forces, if they were properly handled. Limited counter-offensives of various kinds to disperse the enemy forces and render him vulnerable to defeat in detail”. The Introduction of submarines, super battle ships and aircraft carriers led to evolution of operational concepts such as, “Convoy operations” and “Submarine Commerce Warfare”, as witnessed during the battle of Jutland (1916).

The World War II saw beginning of the Age of the Carrier; the Battle of Midway epitomized Carrier as the principal ship of the era, replacing the Battleships. US strategic analysis of WW II by Bernard Brodie and Adm Nimitz highlighted the importance of naval strategy in the success of the allies. While Mahan and Corbett remained the principal inspiration for stronger navies, WW II saw the application of thoughts of Admiral Wolfgang Wegener of Germany who professed that “A smaller fleet could still pursue the offensive and so become a strategically vital tool of a country.” He proposed the strategy based on threatening the sea lines of communication of the United Kingdom with surface and sub-surface forces.

WW II saw application of naval operation art in its many manifestations. Among these, a few standouts such as Adm Nimitz’s campaign in Pacific during WWII spanning different sea areas such as Coral Sea, Midway, Philippines Sea and Leyte Gulf to accrue the synergetic effect of US regaining control of the Pacific theatre. Similarly in the Atlantic theatre, the Germans following Adm Wegner’s thought conducted Commerce raiding campaign through numerous operations both through surface raiders like “Combat Group Bismarck” and U Boat submarines to
achieve synergetic effect of strangulating the British economy. Thus naval operations transcended from tactical to operational plane during WWII.

**Cold War Era & the Nuclear Age**

The end of WWII brought the Nuclear age; USS Nautilus – the first nuclear submarine was launched in 1954. Soviet Union however, was the first to field a Ballistic missile firing submarine in 1955 establishing the role of nuclear submarine as the only assured second strike option for strategic deterrence. Cold war era also saw the early beginnings of the missile age with the destruction of Israeli destroyer Eilat by Egyptian missile boats in 1967. The effectiveness of missile was further established during the 1971 Indo-Pak and the Falklands wars wherein missile strikes had devastating effect on opposing Fleets, further emphasizing the significance of missiles in naval warfare. The technology took few more leaps in the form of strategic surveillance and strategic intelligence with the induction of space based systems. Strategic Deterrence dominated the naval operational thought in Cold war era. During this period the Soviet navy reached challenging eminence because of the strategic insight and vision of Admiral of the Fleet S.G. Gorshkov. During this period, the traditional ideas on naval operational thought were questioned. The impact of technology and nuclear weapons raised the issue of utility of naval warfare. British naval historian Geoffrey Till however, argues that traditional concepts of naval warfare still remain relevant in the new paradigm. He has deliberated on many important aspects of naval warfare including the impact of nuclear age.

**Employment Concept – Cold War**

While nuclear deterrence generally restricted conventional Fleet vs Fleet battles, US backed the Policy of Containment of Communism with application of naval force. Global US deployments were meant to influence the international affairs. Blockade and LIC at sea came to prominence as an element of employment spectrum of naval power as witnessed in Korean and Vietnam wars. The tanker war between Iraq and Iran in 1980s signified the vital importance of choke points like Straits of Hormuz. And sensitivity of international community to any disruption to global energy supplies as both super powers US and Soviet Union started protecting neutral shipping by providing them their Flag or escort. The concept of Blockade was exercised by Iran against Iraq; by UN and US against Korea and Vietnam respectively, and by India against East Pakistan. The otherwise benign concept of Quarantine was used by US in a unique belligerent way in the Cuban missile crisis in 1962. The British innovated with the concept of Maritime (Argentine specific) and Total Exclusion Zones (non discriminatory) during the Falklands war in 1982.

**Operational Thought and Employment Concept – Post Cold War Era**

The end of Cold War saw the introduction of new technologies like Stealth, UAVs/ UCAVs, and other unmanned vehicles, modular vessels and information systems in all domains. This was the time the RMA came into preeminence and space and information based technology led to dramatic advancement in NCW, C4ISR and Information warfare.
The uni-polarity in the immediate post cold war era led to resurgence of Mahanian thought and application of Sea Power for dominion of slightly different kind supporting the concept of globalization. Post Gulf War 1990, US naval operational thought shifted from Blue waters to the littorals. The first manifestation was the strategy document titled “From the Sea” (1992).13 This strategy emphasized on strategic deterrence and defense, forward presence and crisis response. This strategy was subsequently modified in 1995 as “Forward...From the Sea”14 to add emphasis on forward deployed expeditionary forces around globe. After the experience of Iraq War 2003, US evolved a new more assertive strategy called Global Power Projection –“Sea Power-21” – 2003.15 This concept focused on Global power projection; the offensive element in this strategy was Sea Strike aimed at projecting decisive and persistent offensive power anywhere in the world. It symbolized the “Offensive”. This was facilitated by Sea Shield or a protective umbrella around Sea Strike forces to assure access throughout the battle space for joint force. This symbolizes the “Force Protection”. The logistics element was covered by Sea Basing, reducing reliance on land bases within the operational area. These forces were to be knit together through FORCE Net command and control system.

Contemporary Naval Strategies and Employment Concepts

Employment spectrum with changing environment and emerging threats, LIC and 4th/5th Generation Warfare have come to dominate the threat spectrum. This change has been brought about due; Nuclear Deterrence, Development of the United Nations Convention on Law of the Sea (UNCLOS 1982) which accepts sea as ‘Common heritage of mankind’ thus provides a common medium for cooperation between the nations, globalization and inter-linkage of commercial interests whereby, effects of blockade can be easily achieved by international monetary restrictions and trade embargoes rather than decisive battles at sea and finally, the major threat to good order at sea is the rise of non-state actors and asymmetric threat.

Fourth Generation Warfare

Maritime arena by virtue of being porous and borderless offers great liberty to miscreant to further their illicit activities at sea. Maritime terrorism, narco-arms and human trafficking, poaching and environmental issues at sea have significantly been enhanced in recent years. Thus in the realm of maritime security an “age of asymmetric challenges at sea” is dawning as depicted by terrorist attacks on USS COLE in Oct 2000, MV Limburg in Oct 02 and MV Star in Jul 2010. The Mumbai attacks of 2008 are reflective of the scale of instability that acts of terror can create between two nations where trust deficit prevails. Piracy though not exactly a form of warfare has emerged as a security challenge using the tactics of 4th generation warfare. To counter threats posed to maritime security like terrorism and piracy effectively, international maritime powers are resorting to regional and multinational coalitions. US led Coalition Maritime Forces including counter terror and counter piracy forces are operating in the Indian Ocean.

Low Intensity Conflict (LIC) at sea may take variety of forms like Quarantine, intimidation, coercion, harassment to shipping, ADIZ/EEZ violations, difference over territorial disputes, terrorism/insurgency etc. Perhaps the best example to quote is the LIC faced by Sri Lankan Navy in the Tamil insurgency where the rebels
posed a formidable challenge to Sri Lankan Navy for a prolonged period. To meet the
requirements of contemporary environment, then US CNO Admiral Mike Mullen
came up with the concept of 1000 ships Navy in 2007. The concept, later renamed
the "Global Maritime Partnership," was a coalition concept to guard the global
maritime commons. In October 2007, a further adjustment was made to create
greater synergy at home. "A Cooperative Strategy for 21st Century Sea power".

**Contemporary Strategies**

The US ‘Pivot to Asia’ or ‘Rebalance to Asia’ is morphing into “Indo-Pacific
alliances” with regional partners like India, Australia, Japan, Korea and other SE
Asian countries like Singapore and Philippines. The US naval deployment in South
China Sea (SCS) under the “Freedom of Navigation” pretext, is meant to reassure
regional allies, however, it implicitly challenges China’s dominance of SCS. US naval
operational thought is evolving from liberal cooperative model to the realist
paradigm of alliances and containment aimed at China as reflected in US Chief of
Naval Operations Admiral Jonathan W. Greenert’s three sailing directions to US
Navy: War fighting First, Operate Forward, and Be Ready. On the other hand, China
has capitalized on Mahan’s guidance and adopted a maritime strategy which has
facilitated her unprecedented economic growth. In her quest for resources her
influence is increasing in the Indian Ocean. The Maritime Silk Road for 21st century
initiative is aimed at securing cooperative relations with reliable partners along the
Indian Ocean littorals. As China’s naval strength increases, it is adopting an
increasingly assertive attitude towards its maritime claims in South China Sea.
Concurrently as China maritime interests expand, the country has started building
up its naval power. Adm Liu Huaqing regarded as Chinese Mahan is credited with
the modernization of PLA Navy. He had outlined a vision by which China would have
a navy of global reach by the second half of the 21st century. Liu entertained a vision
of China as a vibrant sea power, staking the nations claim to great power status.

Apart from US-China competition, another major development is resurgence
of Russian Navy and rapid force development, as depicted in Maritime Doctrine of
Russian Federation which envisages exploitation of ‘Northern Sea Route’ and
regional deployment strategy being manifested through surveillance patrols close not
only to European but also US territory by submarines and aircraft.

Just like China, India has followed Mahan’s precepts and is exploiting
opportunities offered by the Sea to boost its economy with a gradual transition to a
maritime strategy. Indian Navy developmental plan hinges on three Carrier Battle
Groups and sea based deterrence, portraying its intention to project Indian Navy as a
regional power. As a regional naval power, apart from massive naval build up, India
has concluded security pacts with Maldives, Mauritius and Seychelles; communication and electronic intelligence outposts in Madagascar; reflective of
Mahan’s principle of strategic bases and out posts. Her recent alignment with US has
led her to venture even beyond Indian Ocean into South China Sea. Indian Navy’s
emancipation of “Collaborative Approach” and “Reach” is exemplified by her joint
patrols in Malacca Straits, counter-piracy operations in HOA and conduct of
multilateral initiatives such as MILAN and Indian Ocean Naval Symposium. Four
cardinals of Indian Maritime Doctrine are aimed at strategic deterrence, acquiring
littoral warfare capacity through strike capability, enhanced influence over Indian
Ocean Region from Malacca Strait to Persian Gulf and acquisition of land attack capability to influence events ashore.

Iran’s maritime thinking has played an important role in the formulation of her strategy, especially with regards to the Strait of Hormuz. Iranian naval strategy is geared towards confronting a technologically superior enemy with a peculiar form of guerrilla warfare at sea.

The Future Trends of Employment of Naval Power

The Relative Importance of the Sea and Sea power will tend to rise in the Twenty-First Century with increasingly globalised world, increasing concern for diminishing resources, need for protection against traditional and non-traditional threats and Global power play. Accordingly, the importance of the navy and the Range of Naval Tasks is Likely to Increase in future. The employment of navies against asymmetric threat and in policing role will remain the dominant trend; however, high intensity conflicts in global hot spots remain a possibility. The navies will continue to operate in coalitions and partnerships for the common interest of maritime security and free flow of trade. The emphasis on regional countries participation in coalitions will increase. There will be a Continuing Focus on the Littorals and projection of power far into the interior of the littorals. Technology will continue to drive the changes in employment of naval power with introduction of longer range, more lethal and highly precise weapons transforming the concept of naval battles/ engagements to “Strikes”; future naval power will move from manned to unmanned platforms and from platform centric to net-centric, with increased role of information warfare and cyber warfare. Future holds reduced “freedom to act” for commander at sea due ever expanding political, legal and environmental limitations as well as greater real time connectivity with HQs.

Lessons for Pakistan

The evolution of Sea Power holds some key lessons for Pakistan; maritime power backed by a strong navy is the key to prosperity. There is a dire need to enhance maritime awareness especially at the policy making level to capitalize on our un exploited maritime potential by bringing our maritime policies in line with the emerging global and regional maritime realities. Ninety five percent of our trade by volume is carried through the sea; in this perspective Pakistan is like an island nation. We would not be able to harness the true potential of our economy without developing our maritime sector. As our maritime sector grows in future it would mandate proportionate increase in maritime and naval assets. China’s rising maritime power and growing reach in Indian Ocean offers opportunities for strategic maritime cooperation; tensions in South China Sea further enhances China’s interest in alternate trade route to Africa and Middle East for which Gwadar is the port of choice. Early completion of China Pakistan Economic Corridor coupled with operationalization of full potential of Gwadar port is a common imperative. As Gwadar becomes a hub of maritime activity, maritime security of this region will assume higher priority and place greater demand on our Navy. Apart from safety of energy highways, geo-political interests and presence of non-traditional threats entail continued presence of Extra Regional Forces (ERF) in North Arabian Sea (NAS). In line with emerging trends of enhanced role of regional countries in multilateral coalitions, Pakistan Navy has an important role to play, in regional
maritime security for which a potent naval capability is essential. In another context
sea based nuclear deterrence is the only assured second strike option. Indian
acquisition of sea based deterrent has completed her nuclear triad. Completing
“Nuclear Triad” should remain a priority for Pakistan. Corbett emphasized the
importance of navy’s contribution to overall war effort; current naval trends also
emphasize a littoral bias of maritime operations. At the military operational level,
our naval strategy can make significant contribution to Land campaign by acquiring
Littoral warfare capabilities. For our developmental strategy: As a relatively smaller
navy, Pak Navy should harness the technology. Investment in both niche
conventional and asymmetric capabilities in line with technological trends could
make the difference.

Conclusion

The Evolution of naval operational thought on employment of naval power has influenced different navies in different manner while US Navy being the Global
tleader can exercise the entire range of concepts relevant to current age, smaller
navies also draw inspiration from these innovations and selectively adopt/ adapt to
the new trends according to their environment and capabilities. Pakistan Navy too
has been influenced by evolution of naval thought on employment of naval power as
well as the evolving environment. Maritime sector is vital to our economic
development and in the military context, Navy has an important role to play in
defending the maritime interests and in contributing to the overall military strategy;
what is needed is prudent investment in maritime domain and supportive national
policies. Thus development of balanced maritime and naval power can prove to be a
game changer for Pakistan.
Endnotes

EVOLUTION AND EMPLOYMENT OF AIR POWER

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Abstract

In the 19th century may well be credited with the conceptual visualization of air power, with initial roles restricted to reconnaissance and artillery observations but quickly transformed the warfare. Subsequently, command of the air became an essential prerequisite for all land and air warfare. While a majority of theories and prophecies regarding air power have come true, except visualization of the defensive warfare against air threat, which could and did reduce the impact of air power. Although, it is understood that air superiority is not an end in itself; however it is essential to exploit the situation on surface and in air. In other words, airpower is indispensable, which along with political will and military intent is required to gain advantage and ultimately win wars. Air power is inherently offensive in nature since its birth and continues to spread its influence on warfare with the rapid advancement of technology in all spheres. Air power met with unprecedented success in post cold war era. Conventional wars in 1990s and at the beginning of this millennium forced the proponents and critics of air power alike to suggest that air power was a panacea for all problems as far as war was concerned. Most of the concepts of Air Power employment that were evolved during Second World War continue to remain valid till today. What has changed is the methodology of the conduct of these aerial operations primarily due to enhanced space based information operations, aircraft capabilities and the availability of more precise, lethal, long range and effective weapons. Warfare is becoming increasingly joint, not only because of organizational imperatives but also because airpower has permeated all the services to such a great extent. In short, the views of all the services are beginning to focus on the same area, thus facilitating a more comprehensive and complementary approach to war fighting.

Introduction

The first manned flight at Kitty Hawk, USA in 1903 by Wright brothers brought revolution not only in human history but also in the future of warfare.\(^1\) Thence the acclaim for first practical use of air in actual combat went to Italians, when in 1911; they dropped two hand grenades from the airplane in the Arab encampment during Libyan campaign. Thus started the voyage of use of air for military purposes.\(^2\) This journey saw many highs and lows of concept and precepts, witnessed many successes and failures of manifestations of cognitive and physical progresses, and ultimately reached the contemporary stage where the longstanding conceptions became realities. The airplane became the corollary of weaponisation of the third medium, the axiom of AIRPOWER, which meant, “The ability to use platforms operating in or passing through the air, especially for military purposes”.\(^3\) Despite its overwhelming success in the recent conflicts air power seems to be grappling for response to a new kind of war that is 4th generation war with complex nature of conduct and enemy. Lack of clear Centre of gravity, dispersed targets, protracted struggle by the enemy and highly itinerant enemy called for a different response strategy to successfully exploit the air power. Air power has to
transform to be able to effectively. In future conflict apart from low intensity conflict air power is likely to play predominant role in all dimensions with space based operations enhancing the efficacy of air power employment. Although till date it still holds that air power alone cannot win war but no war can be won without the effective employment of airpower as well. This paper would briefly explore the evolution of air power, its contemporary employment and future prospects.

**Historical Perspective**

During WW I, the concept of airpower was non-existent and the aircraft were modestly employed for reconnaissance, artillery observations and occasional hand grenade bombing raids. In 1915, Germans created first machine gun equipped fighter aircraft to reach the battlefield, opening the era of air-to-ground attack and air-to-air combat. The inter war era saw employment of airpower in different conflicts. During this period, the air power practiced missions like liaison, reconnaissance, close air support, interdiction, casualty evacuation and transport. However, the physical prowess was not possible without compatible evolution in conceptual domains. The foremost airpower theorists like Giulio Douhet, Billy Mitchell and Hugh Trenchard advanced shared views on airpower except for few differences. In essence, owing to the reach, capacity and unhindered operability of airpower, all of them believed that attacks on vital targets would render war so decisive and quick that the enemy would be forced to end the war. These visionaries dreamt to establish the primacy of airpower to be decisive in war by achieving the command of the air and attacking the enemy vital centres. Concurrently, the Americans at Air Corps Tactical School forwarded the concept of attacking the enemy’s industrial vulnerability nodes, thereby severely limiting the enemy’s ability and morale to wage a prolonged war. All these theories were equally put to practice during WW-II by Allied and Axis powers with varying degrees of results.

During WW-II, the airpower contributed to the war effort as an assertive force. The Air forces became central to the conduct of war and premium efforts were devoted to the conduct of strategic bombing campaigns against variety of targets like population, industrial and military centres. Few important campaigns include; German Blitzkrieg in European theatre especially during initial air & ground-support operations; Battle of Britain, where initial Luftwaffe onslaught remained inconclusive while Royal Air Force response created far-reaching effects; strategic bombing campaign over Germany that played a vital role in ultimate allied victory in Europe; and Pacific Air Wars with both sea & land-based aircraft operations for achieving sea control through command of the air. Nevertheless, despite extensive application, the airpower could not create the asserted effects and remained wanting in variety of realms, owing to a range of reasons. Key lessons learnt from both the great wars were; first, though airpower could not establish itself as a sole captivating factor yet winning the control of air proved the most vital prerequisite to any modern land/sea offensive. Second, inconsistency in Luftwaffe’s strategic orientation and her inability to conduct sustained and concentrated strategic offensive, was an important factor in Germany’s failure to win the war. Lastly, axis powers failure to reinforce the essential air effort at the most crucial time of defensive battles proved disastrous for their objective.⁴
Post WW II Development (Cold War Era)

Owing to non-existence of any other carriage source, airpower became vital to nuclear warfare, as the only delivery mean for this “absolute weapon”. Technologically developed defence aviation became an important factor in national military supremacy and imbued a desire in every country to have a stronger air element safeguarding her frontiers. In 1948, the Berlin airlift generated another fanciful performance by the airpower, where 4700 tons of daily supplies were air delivered to West Berliners within one year. During 1950s Korean War, the US airpower played an important role flying more than 730,000 sorties, dropping more than 653,000 tons of bombs and inflicting 180,628 enemy troop casualties.

Air Campaign in Vietnam War, was also built around the concept of strategic bombardment with a combination of Industrial–web and military-targeting theories. In this campaign, over 864,000 tons of bomb load was dropped, nevertheless, the failure to completely halt the North Korean forces highlight the futility of airpower if applied in piecemeal, with indecisiveness and conceptual inadequacy. Ultimately, although the American air arm could establish air control but failed to affect the desired national objective of war. In 1967, Israel Air Force (IDF/AF) inflicted heavy losses on all Arab air forces and achieved air supremacy. Subsequent to which, IDF/AF effectively devastated Arab land forces in support of Israeli Army. In 1973 Arab-Israeli war, IDF/AF’s failure to win an early command of the air cost them greatly. However, later re-establishment of air superiority with intra-war American help, turned the war in their favour. During Ops Peace for Galilee, Israeli AF again established complete air supremacy, giving comprehensive freedom of operation to IDF's. The overall effect of all regional conflicts demonstrates that though establishment of Air Superiority ultimately facilitates the achievement of overall military aims yet 60s & 70s airpower had not became independently capable to realise the national military objectives.

Air Power - Post Cold War Era/ Current Times

The post-cold war era and its strategic constraints saw the emergence of ideas of limited air strikes for achieving desired politico-military results. The new conceptual targets included enemy will, her cognitive domains, intellectual cycle, perceived ‘Centres of Gravity’ (CsoG) and sections designed to influence political leadership; all under the concepts of Paralysis theory, Decapitation theory etc. by contemporary air theorists. John Warden promoted the concept of parallel surgical strikes against key targets that would render an adversary physically incapable of resistance as the connection between the commander and troops would be severed from different nodes. Robert Pape considered joint operations simultaneously targeting key enemy military capabilities as the vital to achieving enemy paralysis; while John Boyd focused on more successful model of psychological disorientation and physical dislocation of adversary through superior and quicker decision-making loops. The proposed simultaneous destruction of enemy’s capability to sense, process, and act on information, forces the enemy to lose coherence with the changing environment and end up in paralysis. ‘Decapitation Theory’ was practiced during 1991 1st Gulf War. The air campaign was orchestrated against all elements that could contribute to national resistance or war efforts. With no connection within and annihilation from the air, Iraqi forces collapsed completely and rapidly against the Coalition air assault. Later-on, other theories were also practiced and
employed during major conflicts of late twentieth century including in Bosnia, Kosovo, Afghanistan, Iraq and our recent LIC operations. The history of air operations in last two decades have re-validated the concept of a campaign where airpower, when selectively and objectively applied, rendered opposing forces virtually ineffective. It has therefore been agreed that airpower, whether applied independently or through Joint Air Operations Plan, would continue to be an indispensable and prime decisive military tool in all future operations.

Influence of Technology on Air Power Employment

The nuclear revolution began at the end of World War II, where air power was the only means for delivery of the “absolute weapon”. As the smaller number of aircraft started to influence the greater areas, air power grew ever more capital-intensive and effective. Fewer aircraft could achieve the desired results in later wars as compared to the numbers utilised in WW-II. Air lift of troops and equipment was possible over greater distances due jet transport aircraft.

Over the past four decades, trends have been dramatically reinforced by the development of air-to-ground precision-guided munitions (PGMs), stealth aircraft, and new sensors and systems for air battle management, which were the focus of air campaigns in Iraq, Serbia, and Afghanistan, bring out the concept of “one bomb one target”. Since, 90s the manifold jump in the capability of air power was not only a function of combat aircraft and aircrew, but in development of “enabling” capabilities including airlift, aerial refuelling, command and control, intelligence, surveillance and reconnaissance (ISR). Lately, leading air forces of the world are transforming their approaches to air power by coming to terms with, and gradually embracing, unmanned aerial vehicles (UAVs).

EBO (effect based operations) have been utilised for centuries with an aim to affect the enemy's capacity and will to wage war. EBO thus is an exercise of power to 'produce intended effects'. Hence, it can be defined as;

“Operations conceived and planned in a systems framework that considers the full range of direct, indirect, and cascading effects, which may - with different degrees of probability - be achieved by the application of instruments of power”.

There are currently three major theoretical approaches that dominate analyses and descriptions of military operations. They are Operational Art, Network-Centric Warfare (NCW) (or network-enabled operations (NEOps) and effects based operations (EBO). In fact, it is argued that the concept of EBO is currently having a significant influence on Operational Art and NCW, as well as how operations are conceptualized in the new security environment. The theory focuses on shaping the adversary's behaviour. The concept is nothing new and resonates with the ideas of classical military theorists Sun Tzu and Clausewitz, both of whom emphasized war's psychological aspects. While the need to identify and influence key nodes, or centres of gravity, has long been understood as a cornerstone of military planning and operations, our ability to predict multiple cascading effects remains an elusive goal.

Air power and EBO work hand-in-glove. Air power historians argue that the air power was originally conceived as a “theory composed of three axioms; Air power
can be employed decisively in war by striking at the heart of the enemy, To use air power decisively, command of the air (i.e., air supremacy or superiority is a prerequisite) and To gain command of the air and to use air power decisively in war, air power must be centrally and independently controlled.

Resultantly, the dawn of Air power and its development over the years has made it a formidable platform to define and measure the success of operations conducted in terms of the effect achieved. Air power theorist of 1920s like Billy Mitchell and Giulio Douhet believed in unleashing the lethality of air power on the enemy in a chain of EBO targets. For them, EBO leading to massive destruction by airpower would humble the enemy into submission. In World War II, air leaders believed in the importance and necessity of EBO. Hence, as war broke out, an air war plans division was established to devise target sets for air attack. Businessmen, engineers and bankers were contacted to generate targets for Effect Based Operations. During the famous Normandy invasion in 1944, in order to blunt and disrupt Luftwaffe’s response, oil factories and dumps were targeted to create fuel shortage and negate its full response, which led to the desired effect. Interestingly, it was later discovered that if the intel would have been available, Allied aircraft could have targeted only a handful of Tetraethyl lead (TEL) factories. Tetraethyl lead (TEL) was the chemical added to gasoline to raise its octane level and was crucial for the high performance of German aero planes (like the Spitfire, P-51 and FW-190). If destroyed, German aviation gasoline would have been rendered nearly useless and allied bombers would have had a field day.

Effects-Based Targeting

As per US Air Force Doctrinal Document, The focus at a given level of war is not on the specific weapons used, or even on the targets attacked, but rather on the desired effects.

Simply put, effects-based targeting is identifying and engaging an adversary's key capabilities in the most efficient manner to produce a specific effect consistent with the overall objectives. The underlying concept posits that it is possible to direct airpower against targets in ways that cause military and political effects beyond the mere destruction of those targets. Hence, a destruction of a target is only one effect within a spectrum of desired options. Consequently, effects-based targeting focuses on destruction primarily as a means and rarely as an end in itself. The aim is to use target destruction to generate predetermined second-order effects at the operational and strategic levels of war, which, in turn, compel enemy decision makers to respond in a desired ways. The net result suggests airpower can be applied more economically and with greater coercive effect—goals ever important in times of fiscal and material constraint.

Challenges of Effects-based Operations

The main problem with EBO lies in the realm of predicting human behaviour in a crisis, as different people respond variously to the same stimuli. Hence, human behaviour, especially when under pressure, is incredibly difficult to predict. In short, while Air power has ascendency over all other media of warfare, the selection of targets to conquer the “human will” will always remain a challenge in EBO warfare. While being a promising concept, EBO undertaking is quite complex. Being
Air Power in Contemporary Operating Environment

Although, it is understood that air superiority is not an end in itself; however it is essential to exploit the situation on surface and in air. In other words, airpower is indispensable, which along with political will and military intent is required to gain advantage and ultimately win wars. Air power continues to spread its influence on warfare with the rapid advancement of technology in all spheres of symmetric warfare. But despite its overwhelming superiority, airpower is found to be grappling for a suitable response to asymmetric threat or a new generation of war i.e 4GW. Spectrum of contemporary conflicts includes from humanitarian peace keeping to general war as displayed with varying degree of violence and extent of affected area and people. The air power is employed in a range of operations like, counter (air, land, sea), strategic strikes and combat support. With capabilities like precision strike, precision engagement, A2/AD (rapid force projection / C4I2SR), high tempo and parallel operations, any modern air force has the ability to debilitate a weaker opponent. Air power by virtue of its speed, reach and lethality can neutralize most of the CGs. Examples include phased campaign against Iraq in1991 and High tempo operations resulting in shocking the Iraqi forces.

Despite its inherent limitations of dependency on bases, impermanence, limited pay load, high cost and fragility, air power proved its worth due to its responsiveness, flexibility, speed and reach. Now let us see how the air power creates effects in somewhat blurred boundaries in kinetic & non kinetic domains both in symmetric and asymmetric warfare. Kinetic warfare: Air power’s key capabilities of ISR, mobility, agile combat support, precision engagement, and command and control can deliver a variety of effects from great distance without increasing force presence in a region or country; Power projection / Rapid mobility: A nation’s military strength can be projected more readily through airpower. A2/AD is the new name of this capability. Few examples are gulf wars, operation in Iraq and Afghanistan, post Mumbai PAF response, transportation of 5,000 trucks off dangerous Iraqi roads in a single month by C-17. Force Multiplier: air power permits fewer forces in conflicts to achieve desired results (AWACA & AAR). By virtue of its effectiveness and lethality it minimizes the overall force effort of land and naval forces to execute a task. Fewer US troops in Afghanistan supported by air that too from IOR. Coin Ops: Air power is being employed for rapid insertion, evacuation, force protection and Psy Ops for WHAM in COIN Ops. Persistent ISR and Precision strikes enhance effectiveness with the least cost in blood and treasure. Degree of Assurance: all-weather and precision air attack can now decisively shape the battle space with reasonable assurance, while space capabilities remain integral to most aspects of military operations.

Non Kinetic Warfare

Deterrence (coercive force): even a relatively smaller Air Force can provide deterrence far greater than other forces many times its size. Air power, can provide credible deterrence, for success of nation’s defense strategy. Examples include 2nd
strike and A2/AD capability, (post Mumbai PAF response is a case in point. Info Ops (C4ISR): operations planned with the support of appropriate C4ISR system would give the airpower the advantage of initiating effective and timely actions. Persistent aerial reconnaissance, HUMINT and communication monitoring, is being used to locate and eliminate desired targets. Inadequacy in this regard may lead to a perception of over kill as shown. Truly speaking What has changed is the methodology of the conduct of aerial operations primarily due to technology, enhanced space based information operations, aircraft capabilities and the availability of more precise, lethal, long range and effective weapons.

**Airpower in LIC & 4th GW**

The first use of aircraft in combat was against irregular forces in 1916 with limited success in terms of reconnaissance, surveillance, and in maintaining communication with deployed troops. During World War II, airlift, communication, and medical evacuation provided by air assets were paramount. Delivery of firepower played only a minor role. Unprecedented success of air power in symmetric / conventional wars forced the proponents and critics of air power alike to suggest that air power was a panacea for all problems. They were destined to be surprised soon when faced with asymmetric threat of new generation of war, the 4th GW with lack of clear CGs, dispersed targets, protracted struggle by the enemy.... needing a different response strategy to successfully employ the air power. Imperatives of Conduct: Detailed consideration of imperatives like C4ISR and Air Space Management is vital in effective integration of airpower in LIC as air space would be filled with UAVs, UCAVs, fighter aircraft, intelligence platforms, army aviation assets, artillery fire, small arm fire and air defence assets, hence Without a well-established area control, it may not be possible for all the elements to coordinate the use of air space for efficiently creating desired effects; Inability to bring full capability into play (massive fire power cause collateral), Small and mobile targets (CGs) with shorter appearance help escape to prolong conflict, Collateral damage counterproductive and Fusion of information and inability to capitalize on timely ISR.

Some of the lessons underscored includes; Persistent and accurate ISR is the key to success, Timely air effort for TST is crucial and costly preposition and drain resources, PGMs and low yield conventional weapons minimizes collateral damage, Joint ops enhances success rate and FAC training must be integrated to capitalize on TST.

**Employment Options for Small Air Forces**

Before discussing the options for smaller air forces, let’s first define the smaller air force. An air force that is smaller to its neighbours in line comparison of aircraft, weapons, equipment and manpower is called a smaller AF. As the smaller size of this force prevents it from destroying the stronger and bigger adversary completely, they usually pursue a strategy of deterrence that deters any potential attacker with costly, irreparable and painful consequences. This strategy has to cater for both offensive and counter offensive contingencies and necessitates perfecting response during the periods of peace and war. Beside resource constraints, limited war stamina and dependence on foreign spares, the small air force is also constrained by limited numbers, technology sensitivity and obligation to support surface forces. Therefore, the emphasis remains on surprise, initiative, better training, swift
response, innovative operational options, deception and bold offensive strategy. Thus, while finalising the details of combat schemes, the smaller air force has to prepare with the tenacity of inflicting pain and perforations that are difficult to heal.

With these propositions in view, it becomes the air commander’s call as to how he plans to orchestrate his war. Therefore, the issues confronting the planner of an air campaign include; Requirement of concurrent/consecutive conduct of counter-air, air-land &/or air-sea operations, Assignment of proportional effort for above operations and Use of air power in crises, i.e. fast-progressing enemy ground/sea onslaught.

With these predicaments in view, the air commander has to orchestrate his operational response from one of the following domains. Offensive has many advantages including initiative, deception, carrying the war to the enemy and forcing the enemy to reaction. It also makes optimum use of effort with desired concentration of mass and weight, keeps enemy under greater pressure and proffer the opportunity of attacking the enemy CoG at own choosing of time and place. Therefore, this remains the best option to attain to favourable results. However, owing to already discussed limitations, smaller air forces cannot maintain much of the steam for the entire duration of war and is therefore limited on exercising this option. Defensive Strategy, For ensuring a sound defence, smaller air force should never rely on defensive operations as they cause problems that are hard to handle. For example, scoring a defensive aerial kill means more effort for fewer gains. Secondly, the defence passes the initiative in attacker’s hand; giving him the choice of time & place of engagement. Lastly, aircraft waiting for enemy attack are a waste of effort. Thus, the concept of defensive air strategy becomes a detrimental notion, accomplishing maximum a stalemate.

The smaller defending air force can only win if its aircraft are offensively employed with a concentration to outnumber the attacker in a given engagement. However, following considerations would help in robust designing during offensive-defensive campaign; the relationship of numbers between the attacker and defender is of prime importance to the air defender; for the attacker’s forces must be met with equally strong forces. The key is to inflict enough damage on the enemy that he becomes unable or unwilling to pay the price. The numbers of shot down aircraft are important but more important are the timing of their destruction. Lastly, loss rates vary disproportionately with the ratio of forces involved. Smaller the force, greater would be loss rates and greater would be the impact and vice versa.

Air warfare especially for smaller air force is extraordinarily complex and demanding. Comprehensive knowledge, sound planning and careful execution are the most vital requirements. The fight can be won only if the air commander employs his forces well. If he observes, orientates, decides and acts quicker and aptlier than his adversary, he can overcome a larger air force. Future Air power will operate on the principle of the “Right Effects through Precise Control” and would be complex, diverse, diffuse and lethal. Fundamentals of future air power will be accurate and timely ISR, seamless C2 and decision systems, and flexible, adaptable people and platforms. The future trends can be divided as Air Environment, Air Roles, Platforms & Weapons, Air Warfare and 5th Generation Air Power.
In future, adversaries will confront from Congested Battle Space in which the Land forces will often have to operate in terrain comprising a mosaic of open as well as restricted spaces which shall restrict movement and deny observation. Similarly the airspace will be congested with friendly, hostile and unmanned aircraft. This clutter which leads to an inability to distinguish would make it difficult to acquire, track and engage possibly ambiguous targets, resulting in collateral damage. Therefore a proactive strategic communications capability will be essential to the future delivery of air power.

Roles of Future Air Power

Control of the Air will remain a priority task, both to defend the state and to enable deployed operations. New technologies, in cyber domain, UCAVs and air defence/ anti air defence would be employed. Multinational collaborated missile defence system would provide necessary control of the air from long distance surface weapons. Another important aspect that future air and space control will be achieved by synchronised, cross-domain integration of effects of all the Services Control of Space will play a pivotal role as space based assets would remain quintessential for global communications, media operations, functioning of remote sensing and spy satellites, surveillance and maintenance of GPS. Counter-space operations would be carried out to deny the adversaries access to space and assure own freedom of action. The side in future with ascendancy in use of space based assets will control the battlefield.

Air Attacks, The deterrent affect offered by a credible, long-range, precision attack capability would be air forces’ most significant attributes. The attack would be carried out through a coherent combat air system comprising offensive cyber operations, electronic attack and the increasing employment of smart munitions including direct energy weapons and unmanned air systems. Targeting would be a full-spectrum process exploiting the potential of emerging kinetic and non-kinetic targets. Intelligence and Situational Awareness, Responsive ISR configured for rapid understanding would increase the requirement in strategic posture. Developing collection technologies would be able to analysts risk within a large volume of data. Dependence on Space-based ISR and terrestrial ISR would increase mainly depend on networked command and data transmission links, vulnerable to disruption without suitable defensive counter-measures. Overflow of information due to multiple technological sources for the exchange of information make the situation Informational Complex. It shall become difficult to control and sift critical information for time sensitive usage. Air Mobility and Lift, Air transport assets would be required in-theatre operating bases to deliver effect and influence directly to the point of need. Specialist force protection and trained personnel capable of activating, manning and defending deployed operating bases. Transport aircraft would provide with multi-role capabilities as part of a future combat air system.

Future Warfare

Asymmetric threats along with conventional would be the character of Future conflicts, with enhanced transparency of battlefield. In future adversaries and threats will blur. Especially in irregular warfare in urban areas, infrastructural vulnerability; dispersal; depth; miniaturization of combat power and precision will be exploited. The range of threats will spread in the domains of kinetic and non-kinetic warfare,
cyberspace and other novel and irregular spheres. Joint Operations, future warfare would be carried out through joint operations. Forces are already working on concepts like “Joint Synergy”, in which capabilities of all kind of forces would be employed to gain maximum by utilising minimum of force in order to economise on effort but maximising the results desired by compensating each other’s weaknesses and capitalising the strengths. Future combat air capability would base on systems approach rather than individual platforms.

**Future Platforms and Weapons**

The fifth generation aircraft is already entering into service. 5th Generation fighters are designed nose-to-tail with low observable, stealth technologies which ensure reduce radar cross-section, infrared and visible signatures, as well as minimising electronic emissions making it almost impossible to detect them. The aircraft have the ability to see who is around, both friend and foe, and to build a 360 degree situational awareness picture around them well before anyone can get close enough to threaten friendly forces. Electronic support sensor technology will enable targets to be detected without the knowledge they are being tracked. The future fighters will be born networked whose sensor data can be shared with other platforms in real-time to enhance the battle space picture of other combat elements in the area. Many adversaries may be engaged and neutralised without ever being aware they were under threat or if detected the engagement time will be so short as not to permit sufficient time to take defensive actions. The key features of fifth generation fighters include thrust vectoring, composite materials, super-cruise, stealth technology and advanced radar and sensors. However the future technology has not stopped here. The aviation industry has already started working sixth gen fighters. The aircraft in concept are expected to outperform all fighters in terms of speed, range, stealth and self-healing structures. Not only fighters but development in UAV’s are also in pipeline. Future UAVs will be of stealth in design, fighter size, and heavy weapon delivery platform and would be able to operate at much higher heights. The UAV would resemble with gliders having solar panels to maintain power and sensor arrays and operated on automated systems. Rather than rely on satellite imagery these would give war fighters persistent situational awareness. The viability of unmanned combat air systems in the air-to-air role is not certain within the concept timeframe. They are likely to form part, but not all, of control of the air capability. These future aircraft will have future weapons mainly Directed Energy Weapons are capable of destroying a target by sending extreme amount of energy towards the target. Future weapons would mainly be Directed Energy Weapons and Electromagnetic Bombs.

**Fifth Generation Airpower**

The core image of fifth generation airpower is the ability to shape a “combat cloud” a new concept as a key element of the battle space within which the various deployed aircraft interact together to shape air dominance to achieve joint force objectives. “Combat Cloud” necessitates a command and control (C2) paradigm that enables automatic linking, transfer of data seamlessly, and without need for human interaction within the air combat cloud nodes, plus it must be reliable, secure, and anti-jam proof. This combat cloud would be enabled by fifth generation aircraft which are flying sensor nodes that have the capability to employ weapons and include the ability to link to legacy aircraft. This capability would then define the
approach to any systems added thereafter, such as the long-range ISR / strike aircraft. To summarize the “air combat cloud” requires treating and equipping every platform as a sensor as well as a “shooter”, defined as an ability to achieve a desired effect.

Conclusion

Air power has played a dominant role in deterrence and coercive deployment of power, making it an ideal weapon for deterrence by denial or punishment. The emerging airpower capabilities are increasingly sophisticated in nature. Their application ranges from low intensity operations at one end of the spectrum to nuclear delivery on the other. Information and network centric warfare hold the key to success. Technology of recognition and identification makes concealment extremely difficult, weather and night, the traditional barriers to air operations are becoming insignificant. Airpower is about compressing time and space as well about exploiting operations in the third dimension with a speed and agility which is its hallmark. However, it is the joint-ness and superior air power which has dominated all wars fought across Europe and Asia since three decades.

Air Power will continue to have great influence on military affairs in future. Especially so due to the UAVs/UCAVs and carrier based airpower that would play major role in power projection and A2AD. Yet, air power alone has never won a war. Even though technology may produce airpower weapons with the potential to do so in the future, doctrine should not raise this possibility. It simply does not fit in with the team concept necessary to effectively conduct joint warfare operations as “Airpower alone cannot win wars but no war can be won without airpower”.

Endnotes

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PART – IV

Views

- Political Process in Pakistan
POLITICAL PROCESS IN PAKISTAN

Mr. Amjad, Maj Gen Imran and Lt Col Solat

Abstract

Political system provides a frame work for progress and prosperity for any nation. Pakistan was born as a truncated Muslim majority state with colonial baggage. The violent birth of the country did not allow founding fathers the time to focus on developing an effective political system down to grass root level. Military interventions have negatively impacted legislative functions despite steady economic growth. Socio-economic environment has been dominated by political elite (feudal) and quasi-religious bodies, of late. Dividend from cultural plurality could not be accrued and was subsequently marred by substantial governance inadequacies. The political process remained seriously handicapped due to unstable political system, weak judicial dispensation, unsteady electoral process, hereditary politics, absence of local government and politicization of state institutions. Pakistan needs ‘participatory democracy’ thus ensuring political stability and well-being of common man through electoral reforms, fair and effective lower judiciary with depoliticized executive.

Introduction

The political process can be described as the flow of political power. This flow never stops and it has its own patterns. It moves through institutions, links and channels, which connect society with the state, namely Executive, Legislature and Judiciary, however in the contemporary setting media has also played an instrumental role to garner this connectivity. Different models are followed in the world to govern societies with no one size fits all. Two main segments exert influence on the evolution of any political system, interest groups and political parties with the bidirectional phenomenon of flow of power, from society to the state and from state to the society.

Socio-cultural, economics and governance are the main stay of any political system. However, the basic actor in the political process is the individual citizen but most individuals can have any impact only by acting through interest groups. In modern societies, interest groups vary in structure, goals, style, financing and support base. Interest groups seek to influence the state, whereas a political party seeks to gain control of the state. Political parties provide links between the rulers and the ruled. Two basic types of party systems exist, namely Competitive (in democracies), and Non-competitive. Officially a federal republic, Pakistan has a long history of alternating periods of electoral democracy and authoritarian military government. Military presidents included General Ayub Khan in the 1960s, General Yahya Khan in the 1970s, General Zia ul Haq in the 1980s, and General Pervez Musharraf from 1999 - 2008. Pakistan has witnessed its first ever transition from one democratic government to another democratic government, though it has come too late and our system is taking too long to mature as compared to other regional contemporary democratic systems. However, there are pertinent questions concerning the dividends of this political transformation from the delivery point of view from the state to the society for their well-being.
“Islam and its idealism have taught democracy. Islam has taught equality, justice and fair play to everybody. What reason is there for anyone to fear democracy, equality, freedom on the highest standard of integrity and on the basis of fair play and justice for everybody.....Let us make it (the future constitution of Pakistan), we shall make it and we shall show it to the world”.

Quaid e Azam M A Jinnah, Address to Bar Association, Karachi, 25 Jan 1948

System of Government

Governments distribute power among different parts and levels of the state. The amount of power held by the central government determines the system of government a state has. The three main systems of government in use today; a) Unitary System, which has the highest degree of centralization where the central government holds all the power. Absolute monarchies operate under unitary systems but democratic unitary states exist as well, eg, France. b) Federal System, which has a mix of national, state and local governments. The federal government usually handles defense and foreign policy, but local governments have a great deal of say over most other policy areas. Pakistan has a federal system of government and c) Nonfederal system, which sits at the other extreme in terms of centralization. A confederacy is a loose relationship among a number of smaller political units. For example, Belgium is a confederacy between Flanders and Wallonia.

Out of many different regimes generally identified, the two pertinent systems are Direct Democracy, wherein technically, every citizen has an equal say in the working of government. Many scholars point to Athens as an example of direct democracy with Switzerland as the contemporary example. While in Representative Democracy, citizens elect legislators directly or indirectly for making laws. These are also called Republics where minority rights are ensured through provisions in constitution and law. Contemporary republics include; Crowned (constitutional monarchy, e.g. UK), Single Party, Federal (USA is often referred to as a federal republic) and Parliamentary (India).

The main institutions of government are; Legislature, to prescribe laws and regulatory framework, Executive, to make policies and supply public goods and services, Judiciary, to protect rights and interpret laws and Media, of late has been referred to as the fourth pillar of state.

Sir Syed Ahmed Khan’s political views are regarded as the seeds which germinated into Muslim political thought. He was one of the exponents of Two-Nation theory, convinced about Hindu insincerity towards Muslims after the Hindi-Urdu controversy. Formation of the Indian National Congress (1875) and Muslim League (1906) set India on path to democratic process. The Government of India Act 1935 provided an elected bicameral Indian legislature with special powers granted to governor general. It also established federal and constitutional courts and gave more autonomy to provinces. However, it was rejected by both Quaid e Azam and Nehru. In 1937 provincial elections, Congress won eight out of the eleven provinces. The Muslims feared being swamped by the two-third Hindus in an independent India. Muslim League under Quaid e Azam demanded Pakistan as separate state for the Muslims. In August 1947, the Indian Independence Act was signed creating an independent Pakistan and India. However, this act was based on the much reviled Government of India Act -1935. Each political era after independence has been
analyzed through conclusions drawn from political process for Legislature, Executive, Judiciary, Political parties and economy. Thus the connection or otherwise of state with society will be established with analysis being focused only on political process.

**Formative Years (till 1956 Constitution),** Pakistan was established as quasi-federal parliamentary system on lines of West Minister system. Due to innumerable problems faced, during formative years, constitution making was not accorded due importance and legislators did not fulfill their important function of constitution making. Therefore, Pakistan became a virtual administrative state with the balance of power shifted to the Executive, i.e. Governor General/President”. In 1954 Governor General dissolved Constituent Assembly mandated to frame first constitution which was challenged but Federal Court decided in favour of Governor General. Thus, judicial bias towards executive provided justification for later military takeovers. At the time of inception, GDP growth was 2.5%, era was marked with low growth, weak fiscal and monetary position. To summarize, this era was dominated by Executive duly supported by judiciary and Legislative failed to deliver. Political process failed to connect society with the state.

**Drift to Authoritarianism (1958 till 1971),** A uni-cameral National Assembly, elected by an electoral college of 80,000 Basic Democrats, was established as the federal legislature. The fatal flaw of Ayub Khan's political system was that its support was drawn from a relatively narrow social stratum through state patronage. Power was concentrated in the hands of President who relied on the bureaucracy for running state affairs. Supreme Court justified the martial law; thus, judicial support to executive overtures continued. After taking over, Ayub Khan discredited political parties through EBDO, 1959. Thereafter, he combined fragments of the old Muslim League and created Pakistan Muslim League (PML) as the official government party. Thus set the trend for succeeding military rulers to attempt establishing credibility through some Muslim League. Ayub Khan's era was of mega projects, water and power sector, industrialization, green revolution but low priority assigned to social development and equitable distribution of resources. To summarize, this era was dominated by Executive duly supported by judiciary and subdued Legislative. Political process failed to connect society with the state and identify the approaching storm. Political milieu in the early years kept attention of political elites away from festering problems in East Pakistan. The formation of Awami Muslim League in 1950s founded on nationalistic agenda was disregarded. The general elections of 1970 on basis of adult franchise revealed for the first time in Pakistan's history how regionalism and social conflict had come to dominate politics despite the efforts at controlled development. This led to independence of East Pakistan.

**Bhutto Era (1971 – 1977),** This could be regarded, as the most important period in political history of Pakistan where legislative was able to provide a comprehensive, consensus constitution, i.e. 1973 Constitution. Bhutto was the most populist leader professing democratic values, at the same time, he manifested autocratic streak in his restructuring of civil services trying to create a personalized chain of command. As a first, the Supreme Court declared martial law illegal. This decision played a major part in Bhutto removing martial law and subsequent drafting of 1973 constitution. PPP started with a socialist, secular outlook but then moved towards Islamic Socialism due to Bhutto's personal ambitions. Bhutto's period was an era of nationalization, high defence spending and stagflation, hurting everyone
despite pro-social initiatives. To summarize, this era was dominated by legislatures providing necessary support to Executive and judiciary working efficiently. Political process connected society with the state. The most enduring legacy of this era is the 1973 Constitution which is still being followed and consists of parliamentary system with Prime Minister as Chief Executive. The system is established at three distinct levels:-

**Federal Level**, the bicameral federal legislature is the Majlis-i-Shoora, consisting of the Senate, elected by provincial assembly members and National Assembly elected by universal adult suffrage on basis of population. **Provincial Governments**, Federalism being key, Pakistan's four provinces enjoy considerable autonomy. Since 18th amendment, maximum services are provided by provincial governments. **Local (District) Government**, Under 18th amendment, provinces have enacted their respective Local government acts, LG Acts 2013. LG Acts for each province, in their current form, provide limited autonomy to the local councils. Serious anomaly exists in from of special status to FATA, PATA and Category B areas in Balochistan. People of these areas have been marginalized due to lop sided political system.

**Zia Era (1977 – 1988)**, Legislature was reconfigured, as Majlis e Shoora and then elections were held through separate electorate, non-party elections for bicameral federal legislative, in 1985. In 1973 constitution, power had been in the hands of the Prime Minister; by 1985, through eighth amendment, article 58 2 b, it was concentrated in the hands of President. Supreme Court once again justified non-constitutional action. This way judiciary sided with Executive as against legislative. Gen Zia’s era was of diversified economy, high growth, low inflation but weak fiscal policy due to high defence spending (Afghan War) and meteoric rise of Islamic political parties. To summarize, this era was dominated by Executive (President) supported by judiciary and subdued Legislature. Political process failed to connect society with the state and infact sowed the seeds of polarization of society mostly on religious and somewhat political lines.

**Democratic See Saw (1990s)**, Due to musical chairs; no real progress was made to establish a proper, well entrenched political system in the light of 1973 constitution. With “troika politics”, President, Prime Minister and COAS dominating the political system; judiciary remained a neglected part of political process. 1990s was an era of IMF induced reforms, low foreign exchange reserves, high fiscal and trade deficits. Liberalization and privatization with high growth but weak energy policy was witnessed. To summarize, this era was dominated by friction between executive and legislative authority, not allowing democracy to bear fruit. Political process failed to connect society with the state.

**Military Era (1999 – 2007)**, Initial restrictions on legislative placed upon takeover were eventually removed and elections in 2007, paved way for re-establishment of legislative primacy. During this regime, local government system was again revived through a new local government plan. However since then local government elections have been held in only one province thus negatively affecting provision of local governance. As with earlier military regime, political parties were allowed to join the system, in 2002 after carving another Muslim League. Political parties reentered the system through NRO in 2007. To summarize, this era was dominated by Executive supported by judiciary initially but later along with Legislature re asserted itself. Political process failed to connect society with the state.
Present Democratic Era (since 2008). General Elections were held in Pakistan, in 2008. First successful transition of democratic setup was completed through general elections after completing 5 years. In June 2013 the current government assumed the powers and thus, at present, Pakistan has headed back toward a major “transition” from the erstwhile semi-presidential system to parliamentary democracy rule. Political process is seen to be moving in right direction, albeit with undesirable progress and pace particularly the delivery part.

Impact of Political Process in Pakistan

Pakistan is a resilient society with rich culture and strong social bondages. At the time of inception the state of development of the society; including the human resource and its economy was quite low. This state of the society influenced the way the political process evolved in Pakistan. Pakistan has historically faced a number of social cultural and economic challenges that have been a stumbling block in the way of true democratic traditions taking roots as following;

Pakistan was fortunate to have Quaid-e-Azam as the founder of Pakistan, however after his early demise Pakistan suffered political leadership vacuum which resulted in distorted democracy finding difficulty to take roots. Military and religious groups played their parts thus grooming of leadership was impeded. Whereas the majority is endowed with the spirit of Islam as the guiding principle of life, they maintain a moderate dispensation and religious parties have never been able to gain majority in the elections held so far in the country’s history. The political order at the time of independence was dominated by powerful feudal landlords. Democracy was adopted in letter but not in spirit. The feudal still hold most of the seats in the parliament. The feudal manipulate and coerce the exercise of independent franchise and put the electorate hostage to it. The society had a moderate to liberal disposition till late 1970s when the Afghan Jihad started. At that time with the arrival of foreign money Madrassas were developed as seminaries to support the Afghan Jihad. Sectarian sentiments also flourished. A few outfits became very powerful and started preaching their own brand of religion, some of them supported extreme views and endeavored to enter the political mainstream. Subsequently, this had a significant effect on the political process in Pakistan and continues to do so. some extremists groups started challenging the writ of the state. They started carrying out terrorist attacks against the masses, indulged in kidnapping for ransom and target...
assassination of the affluent including politicians. After 9/11 there was a major upswing in this activity. There is an estimated loss of 60,000 lives and 102 billion dollars to our economy in the last decade. Unfortunately, some of the political parties are allegedly connected for instability in Karachi, thus tarnishing the political landscape of the country. At the time of partition, social order was strongly based on ethnic sentiments and linkages, which still hold strong. This breed nepotism, give rise to explorative politics and voting is also on these lines. It runs counter to nationalist democratic spirit. These sentiments remained persistent due to discontent with the style of governance being delivered by the political system since inception. It was fueled by foreign hand for their own vested interest. Their alignment within the political process remained highly variable. Tribal areas even after partition, continued to be governed by the colonial Political Agent System under FCR 1901. Social economic development could not take place since the governance remained autocratic denying even basic rights to the people. Lack of respect for rule of law is persistent in our society. Its enforcement is discriminatory induces frustration and lack of faith in the rulers. Tax evasion is also attributed to lack of implementation of rule of law. The percentile ranking of Pakistan by Worldwide Governance Indicator (WGI) at 19% speaks for the same.

The election process in Pakistan is generally marred by irregularities and rigging. It is carried out on whims of political bigwigs. Hence, the elected individual is generally not true representative or popular choice. Corruption is endemic in the society. It is attributed to lack of transparency and accountability. Since the politicians come from this society, hence they are not safe from this malady. There are abounding cases with NAB still lying unresolved. Worldwide Governance indicators place Pakistan at mere 12% in the percentile rank.

Rapidly growing population is a socio economic challenge. Pakistan has one of the world's largest youth potential. Over 60 percent are under 30 years of age. Harnessing the youth potential properly holds promise for a bright future for Pakistan; if undeveloped they will be prone to agitations. Basic facilities are deficient and many find health care ill affordable. Improvement of health care of the society remains a persistent challenge for any political system. Politician makes promises for provision of better health care at the time of elections. When, unfulfilled it disillusion the masses and reduces the credibility of the politicians.41% do not go to
school. Those who do; are subject to three different education systems and 75 percent dropout before reaching 10th grade. Lesser the level of education, lower the chances of becoming an informed voter. Breed discontent, frustration, vulnerability to exploitation and tendency for crime. The society loses faith in the political system. A large segment of the population i.e. about 49% is living below the poverty line (2350 calories per day). In the Human Development Index as per UNDP Report - 2013 places Pakistan at 146th position among 187 developing countries. very limited group of families have monopolized political system. They have made elections as their family business and legacy with second generation ready to set in. It indicates non inclusiveness mindset and explains resistance to devolve authority. The elite relish VIP culture; masses have no option but to oblige. The class system flourishes and is reflected in the political dispensation. Middle class, forms the backbone of all nation states. The rise of the educated middle class in Pakistan holds promise for improvement in the political system. It will shape our future. Pakistan since its creation has made little progress in socio-economic and cultural spheres. Our politicians are quite averse to these issues related to societal system and remain reluctant to address them.

**The issue of Good Governance**

It is the job of the politicians to provide leadership for good governance. "Governance without good leadership is like a ship drifting in an uncharted waters. But leadership without good governance is like not going to sea at all." In order to understand the reasons why the political process in Pakistan could not lead to good governance, we shall consider the underlying factors:-

**Political Instability**, even though Pakistan inherited a worthwhile bureaucratic and military establishment at the time of independence, the political set up was untutored and immature. The leadership of Quaid-e-Azam and Liaquat Ali Khan devolved on political grounds, but thereafter the bureaucracy, and later a combination of bureaucratic and military leadership, assumed charge while politicians were relegated to the background. Imbalance between the institutions of the state emerged as a major destabilizing factor. On coming to power, the political parties were frequently not allowed to complete their terms severely undermining the evolution of the political system. Constitution making exercises, over the years, have pandered more to vested interests and constitutions have been haunted by abrogation’s, abeyances and amendments. For example; 3rd to 7th amendments aimed at gagging the judiciary, making judges liable to transfer and keeping judiciary away from challenging any declaration of emergency. 18th Amendment brought in devolutionary mechanisms. It seemed to be a way forward in empowering provinces. However, the provinces lacked the requisite infrastructure to be able to take charge effectively. The country experienced a number of Martial Laws. Military may have been welcomed by the masses disillusioned by the inept political system. However, it brought discontinuities whereby the political system was not able to self-correct and mature.

The Civil Services Act of 1973 was particularly damaging to the civil services. Merit was trampled upon as nepotism prevailed. Transfers, postings and promotions of the civil servants started depending mostly on political affiliations. Hence, civil servants failed to relate with the public they had to serve and became much more subservient to the interests of their political masters. The end result was a
demoralized and underperforming service. Political influences and nepotism have tarnished the image and competence of the judicial system. The role of the Higher Judiciary as an independent jurist body has been chequered through controversial judgments. The lower Judiciary has serious problems of corruption within its ranks. Absence of justice has contributed greatly to the rise of militancy. Our weak judicial system is contributing towards abysmally low conviction rates, even in terrorism cases, which creates an impression of there being impunity for the criminals and the terrorists. The concept of rigging in elections has been taken for granted. It has become deeply embedded in the system. The election commission was not allowed to become independent, build up its capabilities and exercise its writ. For over a year, there had been procrastination in appointing a Chief Election Commissioner - one got appointed only recently.

We have lacked an effective parliamentary system conforming to best practices and standards, akin to what the developed and progressive countries have; of drafting legislation, making budget appropriations, holding hearings with experts, and oversight by parliamentary committees; People who chair the parliamentary committees have little clue as to where to begin, what questions to ask, and how to hold corrupt executives accountable. There has been a failure of development of a 'cadre' of formally educated and well-trained politicians, specifically in building competence through good governance education. The members of the civil and military services have the requisite educational facilities; however, no such training exists for the politicians who get elected to the highest positions of leadership. Most of the politicians lack the basic competence to understand and appreciate their responsibilities. They are often uninformed about most of the key issues of governance brought for discussion on the floor. As a result, the level of parliamentary debate is very poor, and important budget priorities and policies are agreed upon, and laws are passed, without fully taking into account the issues involved. The way the budget priorities are set, runs the risk of breaching the social contract. There are small allocations for social sectors like health and education and high fiscal deficit on account of government spending on pretext of development projects. Deficit financing is carried out influencing the State Bank to print money resulting in high inflation, and by bank borrowings which crowd out the credit-starved private businesses.

Political parties have failed to develop as building blocks of democracy; hereditary bloodlines have become a pre-requisite for leadership. The party system is dominated by feudal, dynastic mindset. The resultant governance has been non-inclusive, centered around personalities rather than institutions. Most of the powerful political elite have held on to their positions for years. The barriers set up against entry of newcomers have been very high. Intra-party elections are mandatory, but are seldom held. The political parties have little faith in their own cohesion and credibility, manifested by the introduction of the 'Defection Clause' or 'Anti-horse trading amendment' in the constitution; to disqualify those voting against the Party direction. (Article 63A (b), 14th Amendment). In general, the educated middle class has largely been excluded from the political process. Anti-corruption measures have been lack luster; especially against the elite; By and large, there has been failure of the political parties in purging corruption from within their ranks and generally from within the society. It may not be that our politicians lack moral character (after all, why should they be less moral than politicians elsewhere?); but that the majority of Pakistanis have lacked the capability to hold them
accountable. Despite being the first country in South Asia to introduce a right to information law, the law has not been implemented effectively. The measures taken to improve upon the state of the society, and quality of life, have been inadequate; Human resource development has remained low and the need for basic necessities like drinking water, sanitation, health, education, jobs, justice and security has largely remained inadequate for most of the population. The lack of interest and low priority accorded to the masses, by the political elite, is reflected by the miniscule national budget allocation for health of less than 1% of GDP and merely 1.9% for education. There has been a lack of political will and ability to reform the outfits generating radicalism and extremism; which breeds terrorism and undermines the writ of the state. The time for half measures is over - a definitive solution is required. Most citizens face problems that are of a local nature and would prefer that their problems be handled promptly and with the least inconvenience; by Local Governments. Local Body Elections have not been held for more than seven years. The apparent reasons are that the politicians; a) Dislike loss of control over the development funds, b) and fear losing their influence over people to those in local government.

**Recommendations/ Way Forward**

Political history of Pakistan has been plagued by Institutional imbalance. The three pillars of government i.e. judiciary, executive and legislature have mostly been working at cross purposes. The effect of this skewed relationship has been a weak polity. Towards improving matters the following recommendations are being made. In recommending a system of government the panel proposes:-

**Participatory Democracy**, Where the system of government recommended for Pakistan is a continuation of the present parliamentary system with a strong system of local government.

**Political Stability**; Its effective control over executive and judicial officers deputed for election duty. The scrutiny of nomination papers of candidates should be started six months prior to elections. The ECP should be given complete power over approving election rules, budget, organizational structure and operations. Returning Officers are appointed by ECP. Swift disposal of electoral complaints and petitions by Election Tribunals. Electronic Voting Machines (EVMs) and biometric verification of voters is needed. Elections need to be held in phases. Elections are the life blood of democracy and should be held regularly. This will educate the voter on how to best use his vote and eventually hold the leadership accountable. Weak party structures lead to exercise of authority by the few at the top. For strengthening of party structures; Intra party elections be held every two years under ECP supervision. Mohallah, ward, city and provincial representatives should form the Electoral College for the election of party leadership. Non-compliant Parties should be disqualified. Transparency in political parties is introduced through regular audit of their accounts. Parties in Pakistan should engage in fund-raising activities and thereby finance their candidates and not vice versa. Local government is more accessible, more sympathetic and quicker to respond to local needs. This tier of government, managed by local politicians and not civil servants having the power to levy taxes and raise revenue, needs to be introduced at the earliest.
Legislative Reforms

At the heart of parliamentary democracy lies the parliament. For improvement there should be oversight over the executive needs strengthening by re-invigorating the committee system, while capacity of the National Assembly and Senate secretariats is built to support parliamentary committees and parliamentary work.

Judicial Reform, for reforming the judiciary there is a need for streamlining of cumbersome Court room procedures to speed up dispensation of justice. Bridging the Coordination gap between Police and judiciary. The office of ombudsman is made more effective to deliver quick relief to citizens. Small claims courts need to be established in all the provinces and increasing the number of courts at the district level.

Executive Reforms

To check corruption strict departmental action against corrupt employees is initiated. The culture of plea bargaining in NAB should be discouraged while NAB is to be made an independent organization. To De-Politicization of Civil Services, recruitments are ensured merit based, postings and transfers are transparent and without favor, security of tenure is ensured and promotions are linked to performance. For reforming the Police, the Police Order 2002 needs to be implemented in its entirety. This is a people friendly law and holds the police accountable for their actions more so than any previous law. FATA needs to be taken away from Presidential purview and placed under the parliament. Local bodies’ elections need to be held in FATA. Regular court system needs to replace FCR. Baluchistan has suffered from a festering insurgency for a long time. To grapple with this difficult problem the improvements can be made by extending economic opportunities in the disturbed areas, education opportunities for tribal youth and conversion of ‘B’ areas into ‘A’ areas.

Independent Media, An independent and unbiased media not only informs its clientele but also is one of the most effective mediums of accountability to educate the electorate, thus; Media coverage of election activities under a code of conduct should not be hampered by political parties or their activists. There should be official monitoring of media to ensure that they remain impartial. The government should likewise not impede the media in its coverage of election activities. Role of PEMRA be made more effective.

Conclusion

Any system of government, no matter how successful in all areas of government, failing to transfer the fruits of its success to its citizens is bound to fail. In our context the political system has failed to fulfill its obligations towards the people by failing to improve their standards of living.
Endnotes

1  http://www.wegovern.ca/
2  Dr Hasan Askari Rizvi, Paper prepared for the Project on State of Democracy in South Asia as part of the Qualitative Assessment of Democracy Lokniti, Centre for the Study of Developing Societies Delhi (accessed on 17 September 2014)
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