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# Margalla Papers

Institute for Strategic Studies; Research & Analysis  
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## FOREWORD

Margalla Papers is an annual publication of National Defence University, country's apex institution of national security and strategic studies. Based on contributions by prominent scholars and eminent writers, it provides a forum for discussion and debate on current issues impacting the national security. The "Institute for Strategic Studies; Research and Analysis" (ISSRA) of the University engages itself in bringing the insights of scholars to bear upon the advanced research on key issues facing the country. The articles of this journal deal with global, regional, internal and military subjects written with tremendous knowledge base and in-depth research by experts in these fields.

In the first paper Lt General (Retired) Talat Masood has analysed and discussed the international perspective of Global War on Terrorism (GWOT) within the backdrop of impending change in US administration. The article is an analytical work and makes an interesting reading.

Pakistan currently is confronted with serious energy crises, which are analysed by Dr. Zahid Anwar. The author has given out options of having alternative energy sources.

Mr Fazal-ur-Rehman undertakes an in-depth analysis of, "Shanghai Cooperation Organization: Potential and Prospects". The author covers its evolutionary process, highlights its geopolitical trends, future prospects and preconditions for success of SCO.

Ms. Sadia Tasleem's article on, "Assessing Impact of Indo-US Strategic Partnership on Strategic Stability in South Asia", has carried out detailed analysis of Indo-US Partnership, highlighting its implications for the region and has made policy recommendations to address the long term regional imbalances.

Sadia Nasir in her article, “Shanghai Cooperation Organization: Challenges and Responses” has discussed the issues pertaining to the potential of the SCO as how the organization is responding to the regional challenges and what success it has achieved so far. Author has given out future prospects of the organization as an effective regional forum for Central Asian States.

Dr. Gulfraz Ahmed’s article on “Energy Security in South Asia: Trends and Challenges for Future Stability” gives an account of energy deficit South Asia that lies in a boarder region adjoining energy surplus West Asia and Central Asia. The article projects South Asian Socio-Economic Review, Energy Security Matrix, Pakistan and India’s Energy Demand and Supply Projections and Natural Gas Transportation Economics. The author has also given summary of challenges facing India’s Energy Sector.

While providing a overview of the various topics selected for the “Margalla Papers 2008” I also avail this opportunity to inform our readers that all articles published in the Journal are peer reviewed by the highly competent national and foreign reviewers. We look to receive valuable comments and suggestions for further improving our publications.

**Major General Azhar Ali Shah**  
**Director General**  
**Institute for Strategic Studies; Research & Analysis**

# LEADERSHIP CHANGE AND ITS IMPACT ON GWOT: AN INTERNATIONAL PERSPECTIVE

*Lieutenant General Talat Masood (Retired)*

## **Background to GWOT**

The catastrophic events of September 2001 (9/11) dramatically changed the world. United States (US) for the first time faced the threat directly on its soil despite its unique geography, overwhelming military superiority and economic strength. For American leadership the most pressing issue was the security of the homeland and protection of its global interests. The United States strategic community that had remained preoccupied with the Cold War found a new focus – “war on terror”.

President Bush with his team of neo-conservatives, using America’s enormous military might first invaded Afghanistan that was followed by an attack on Iraq to make the world supposedly a safer place. The invasion of Iraq was cloaked under the false pretext that President Saddam Hussein was building Weapons of Mass Destruction. In fact it was meant to advance America’s strategic interests in the energy rich Middle East and strengthen the security of Israel. Iraq was a convenient target as it was not only an Arab country rich in oil resources but Saddam was intensely detested by President Bush. Iraq’s invasion also meant completion of another unfinished mission that senior Bush had undertaken when Iraq was invaded in the First Gulf War in 1991. It had failed to reach the logical conclusion of removing Saddam and bringing in regime change. Moreover, America’s military impulse was not satisfied by invading Afghanistan it needed to hit some country in the Arab-Muslim world, as 9/11 hijackers were Arabs. President Bush also proclaimed that he would transform the politics and culture of the entire Islamic world.

Military confrontations may have partially served some of United States strategic and economic objectives, but surely has destabilized the region and made lives of millions of people of Iraq

and Afghanistan as well as countries adjoining the region and brought Pakistan into the war zone.

The invasion of Afghanistan was meant to dislodge the Taliban and to capture and kill Al-Qaeda. United States did succeed in removing the government of Taliban but after seven years they have reemerged as a major force especially in the Pusthun belt. There is now a growing sense among US and NATO that war against the Taliban cannot be won and the aim should be to bring it down to manageable limits.<sup>1</sup>

Failure of US and NATO to block routes on the Pak-Afghan border has enabled the Taliban and Al-Qaeda also to create sanctuaries in Pakistan's tribal belt. This partly facilitated Al-Qaeda and Taliban operatives to keep crisscrossing the Pakistan-Afghanistan border.

In the last one year there has been a sharp resurgence of insurgency in Afghanistan. It essentially resulted from United States shifting its focus in 2003 to Iraq from Afghanistan. Initially, when United States invaded Afghanistan and brought massive fire power, pulverizing southern and eastern provinces of Afghanistan Taliban leadership went into hiding and their structures collapsed. As Washington's attention deflected toward Iraq objective conditions in Afghanistan further deteriorated.<sup>2</sup> Since 2003 Taliban have been making a come back and insurgency is on the rise and now in 2008 they are threatening allied forces on many fronts.

Meanwhile, in Pakistan's tribal belt and several districts of NWFP militant groups and local Taliban have become powerful entities and challenging the writ of the state. Pakistan's regular forces and militia are engaged in military operations to drive out militants from their hideouts. United States and NATO's view that militants have been able to find sanctuary in Pakistan, and Taliban leaders operate from Pakistani hide outs though exaggerated is partly true. Moreover, in both countries Taliban are increasingly turning to terrorism directed against security forces and the people. The year 2009 could well be decisive in case the insurgency in Afghanistan and Pakistan keeps rising. American presence in the

Persian Gulf and Central Asia and occupation of Iraq and of Afghanistan will largely depend on the success of stabilizing these countries.

### **New US Leadership**

Presidential elections in the United States that were held in November 2008 are going to bring in a new leadership and new administration to power in Washington in early 2009. With Mr. Barack Obama's convincing victory and Democratic Party majority in both houses of Congress it is clear that Global War on Terror (GWOT) would remain among the highest priorities of American leadership. Notwithstanding that a deep economic crisis, resurgence of Russia and ascending Chinese power would be major challenges that the President elect Barack Obama will be giving equal if not greater attention. Policies pursued by the new American leadership would greatly influence and determine the future course of the GWOT.

There is by and large bipartisan consensus on the war on terror and no radical change in direction and policy is expected at least initially when the new President assumes office in January 2009. There could of course be stylistic and nuanced changes in approach and possible rearrangement of priorities. Terrorism will remain the foremost threat and central concern of the next American Administration. Al Qaeda and the growing wide network of radical Islamist organizations whose capabilities and support is increasing at least in soft Muslim states would be the prime focus of attention. Al Qaeda is devoid of a state and from United States and Western perspective weak states such as Afghanistan, Iraq, and the tribal belt and parts of Pakistan will remain vulnerable where they could continue to expand influence and even capture power. Of course there are other Muslim countries such as Somalia, Sudan, Yemen and Algeria that are considered as potential threats from a US perspective.

Bush Administration and both presidential candidates have shifted focus on Pakistan's tribal belt claiming that it poses the greatest threat to the US and the world.<sup>3</sup> The next U.S. President and



Congress want Pakistan to firm up on its counterterrorism commitment.

The two presidential candidates have repeatedly expressed fears that militant entities operating autonomously in the tribal belt are capable of launching terrorist attacks. Barack Obama has been more explicit that he will attack hideouts in Pakistan if there was actionable intelligence. Senator McCain has been more discreet diplomatically, but his policy is no different.

They would continue to pressurize Pakistan that it should be more aggressive against militants and deny them safe havens. On ISI and other intelligence agencies the pressure would remain that they should not protect militant organizations. The pressure would also continue in Pakistan for removing the alleged tilt of the lower echelons of the ISI and other intelligence agencies towards the Taliban and other militant groups. This clearly is the message that President Zardari and Prime Minister Gilani brought back from United States after their meetings in 2008 with both Republican and Democratic leadership.

Fast growing influence of Taliban and militant groups in Pakistan is a source of great concern to the international community and the incoming American leadership. American's perceive Pakistan as a major Muslim country that is densely populated, strategically located and is a nuclear power. If Pakistan's democratic government fails to stabilize and Pakistan- Afghanistan border turns into a protracted battle zone it will have far reaching impact on south and Central Asia and the Middle East. As it is, some of these Muslim countries though on surface appear stable are simmering from within and have the potential of undergoing a social and political change.

### **Growing influence of Al-Qaeda**

A host of external and internal factors contribute to the radicalization of Muslim populace. Grave injustices brought upon the people of Palestine, Kashmir, Lebanon and more recently on Iraq and Afghanistan by United States and Western powers are

deeply resented by the masses. Poor governance, seeping corruption and gross human rights violations of rulers and their subservience to foreign powers is humiliating and cause of deep anguish that finds expression in violence. By capitalizing on these grievances Al Qaeda and other radical Islamist groups have cultivated sympathy and support in many Muslim countries. And have found havens in weakly governed states or areas of Afghanistan, Yemen and tribal belt of Pakistan.

Al-Qaeda is loose amorphous organization and more a movement and a political philosophy with pan Islamic overtones. Its origins could be traced back to an Egyptian Islamic scholar Sayyid Qutub of the Muslim Brotherhood who wanted to create a Muslim caliphate and the rule of Islamic Sharia. Osama was also greatly influenced by Abdallah Azzam's thinking. Osama bin Laden and his most trusted colleague al-Zawahiri gave the theory an operational content by waging Jihad, a struggle or "war", not only against the United States and the West but also against the Muslim regimes that they perceived as corrupt, "un-Islamic" and subservient to foreign dictates. In 1998 bin Laden issued a fatwa for the killing of American and allied civilians and soldiers.<sup>4</sup>

The invasion of Iraq by the United States deflected world attention away from Afghanistan to Iraq. Al-Qaeda that was non-existent at the time of Saadam Hussein also moved their focus to Iraq. Al-Qaeda tried to capture the sympathy and support of not only their narrow band of adherents but all the nationalists and moderate forces which otherwise had an adversarial ideological relationship. A new generation of Al-Qaeda leadership indigenous to Iraq and oriented to the region came into being. It expanded influence and supported the resistance movement. The American and the coalition forces after six years of raining death and destruction on the country have been able to bring about relative calm and fragile government. This provides an opportunity for the United States to gradually withdraw its forces from Iraq. It would be for the new American leadership to learn lessons from the mistakes and formulate a more comprehensive and effective policy to combat terrorism.

In many ways United States invasion of Iraq did great

damage to the image to America's value system and discredited the war on terror. This has resulted in a global slide in public's faith in democracy as a system and in leadership of Bush and his allies of the coalition of the willing.<sup>5</sup>

### **Moving towards Multilateral Approaches**

President elect Barack Obama is likely to gradually terminate the war in Iraq by phased and orderly withdrawal and shift focus on Afghanistan and Pakistan as the real centers of war on terrorism. Both Democrats and Republicans agree with US intelligence estimates that radical Islamic extremism is the "transcendent threat of the 21<sup>st</sup> century".

Despite the priorities and inclinations of the new administration it will nonetheless, find its foreign policy very much influenced by domestic politics, the overall state of economy and the international environment. A new administration would probably like to build a consensus of major powers and adopt multilateral approaches to GWOT. They are likely to work in concert and more closely with NATO countries, always prepared in the end to take unilateral action to defend the vital interests of the country. In pursuing this approach United States would expect from its allies far more robust and effective multilateral action. It is likely to assert pressure on them for sharing the burden by contributing troops and financial costs, especially now that US economy is on the down slide.

Apart from terrorism there are other strategic and economic motivations for United States to retain its presence in Iraq and Afghanistan even if it were to thin out its military presence. Energy resources of Central Asia and Middle East, containment of China and Iran and security of Israel are factors that no President can ignore.

United States and ISAF have a dual role in Afghanistan. They are engaged in counter-insurgency operations against insurgents. To reduce American casualties they have been exploiting ethnic and tribal rivalries and making different groups in

Afghanistan fight each other. The requirement for nation building on the contrary is just the opposite. The problem becomes difficult as insurgency demands fighting people that take cover among innocent people that results in collateral damage to the civilian population. The question is to what extent the new American leadership will focus on political engagement and strike a balance between these conflicting demands to succeed in the war on terror.

### **Focus on Pakistan**

There is a growing perception in the strategic community of the United States and it was being reflected in the statements of the two presidential candidates as well as President Bush that the real emerging crisis is centered round Pakistan. The National Intelligence Estimate also came out with a similar assessment in July 2007 that Al- Qaeda has protected and regenerated key elements of its capability to attack US and found Pakistan's tribal areas as a safe haven for its leaders. And Pakistan's government is too weak and the military is more interested in peace deals and less in fighting the militants. Although in view of the more aggressive stand taken by the government since mid July 2008 and intense counterinsurgency operations taking place in Bajaur and other parts of tribal belt and Swat this perception should change.

President elect Barrak Obama opposed the war in Iraq in the Senate and voted against the resolution. In all his references he has all along maintained that Iraq is the wrong war and Afghanistan the right one that has been neglected. He has already called for increase of force levels by shifting two U.S. combat brigades of 10,000 troops from Iraq to Afghanistan.<sup>6</sup> Barak Obama is emphatic that US should militarily intervene in Pakistan's tribal belt if there is evidence of high value targets if its military lacks the capacity and will.<sup>7</sup> This policy would be no different since President Bush has already sanctioned cross border incursions in FATA to destroy sanctuaries and safe havens since July 2008. This change in policy was reiterated in a meeting of top US and Pakistani military leadership in August 2008 which US defense officials expressed their deep concern over Pakistan's inability or unwillingness to take action to rein in Taliban in FATA. United States has conducted

several drone operated assaults in the last few months including one land operation led by US Navy Seals in a Pakistani village of Angoor Adda. These violations have given rise to deep resentment and fueled further anti-Americanism in Pakistan.

Republican presidential candidate John McCain had taken a more nuanced approach toward attacking militants in the tribal belt. In fact he wants to pursue the same policy either with tacit approval of Pakistan, or failing which in a more clandestine manner that could turn out to be even worse from a Pakistani perspective. Barack Obama during electioneering has to show especially to the Washington establishment and defense industrial complex that he is more resolute on issues of security and would make a powerful and effective Commander-in Chief. President elect Obama may see things differently and will find himself far more constrained.

Moreover, even if additional forces in Afghanistan are inducted it is unlikely that it would resolve its myriad problems and bring peace and stability to the region. If we go by historical evidence, lay of land and Pashtun characteristics of resisting foreign domination the chances of success by relying on enhanced military capability alone would not work. After all the Soviets had sent one hundred and fifteen thousand troops and yet failed miserably in turning the tide against them. Notwithstanding that United States, most of the western European countries, China and Pakistan were supporting the Afghan Jihad against the Soviets and that contributed to its downfall.

Afghanistan is far more complex and solutions more difficult than Iraq. Human and physical structure in Afghanistan is very weak or totally absent. The strong linkages of the Pashtun communities on both sides of the Pak-Afghan border reinforce insurgency that becomes difficult to contain. United States may find itself bogged down in a quagmire. It is most likely that as Pentagon shifts its forces from Iraq to Afghanistan Al-Qaida would also move resources to Afghanistan and according to General David Petraeus, commander US Central Command the movement has already started.

## **Complexities of the Conflict**

After seven years of occupation Americans and NATO have little to show in Afghanistan. There are also hardly any political forces that have a wide appeal and broad acceptance among the people and on whom the United States and international community could rely. President Karzai's regime exercises very limited control over the country and it is not sure if the change in leadership, if any, after the presidential elections in Afghanistan in 2010 would make a difference. More than sixty percent of the Afghan economy is criminalized and is heavily depended on poppy cultivation. The next president of the United States will have to deal with the elimination or at least minimizing poppy cultivation on a high priority, as it constitutes the major source of revenue for the Taliban.

United States invasion and the current occupation although sanctioned by the UNSC, have given rise to a strong nationalistic impulse that has combined with Islamic radicalism, a highly explosive mix.

The strong nationalistic and ethnic impulse of Pashtun elements in Afghanistan that has always resisted foreign domination will be a great dilemma for the next president. How will they deal with the upsurge of nationalist impulse and growing influence of Taliban in Afghanistan that it be satisfied?

In Pakistan's tribal belt too, pashtun nationalism and religious fervor is combining to and giving rise to insurgency.<sup>8</sup> As a result Taliban and other militant groups have increased their influence in Pakistan's tribal belt and are creating instability not only in Pakistan but affecting the security of Afghanistan. The basic problem undoubtedly lies in Afghanistan and unless stability returns to Afghanistan the region as a whole will remain in turmoil.

President Karzai's writ is confined to Kabul, the state structures are non-existent and Taliban are emerging as a major force especially in South, South East and South West of Afghanistan. President Karzai's shortsighted policy of shifting responsibility for the poor security situation in Afghanistan on

Pakistan is counter productive. New civilian leadership of Pakistan is, however, taking several initiatives to develop a more cooperative and broad based relationship with their counterparts in Afghanistan. President Karzai has expressed similar feelings for Pakistan and it is to be seen how these sentiments are transformed into action. President Karzai is also making conciliatory overtures for engagement with Taliban leadership. Pakistan Army's recent intensification of military operations in FATA and political engagement only with reconcilable elements has also helped in allaying Afghanistan's fears.

Role of General Petraeus as chief of CENTCOM could bring change in the situation in Afghanistan. The cerebral General is likely to apply some of the successful policies that he applied in Iraq, although in the two countries objective conditions are very different. Afghanistan has very limited infrastructure, extreme terrain, widespread poverty and illiteracy and absence of credible political system. Iraq is relatively more developed, enormous oil and gas reserves and a significant educated class.

General Petraeus, as commander of the American forces in Iraq won over the Sunni tribes by pursuing an astute policy in which he was able to convince them that the best course was to get rid of Al-Qaeda and those groups, who support their agenda. In this way the Sunni's could maintain a more balanced relationship with the Shia community and not allow Iran's influence to dominate over Iraq.

### **Major Issues of the Muslim Countries and impact on GWOT**

The policies adopted by the next president of the United States on major issues affecting the Muslim world would be crucial in reducing terrorism at the global level. Settlement of Palestinian-Israeli conflict, attitude toward Iran, Syria and Lebanon and treatment by United States and Western leadership of Muslim countries and Islamic sensitivities would be crucial in combating terrorism. European media continues to ridicule Islamic tenets and publishes blasphemous cartoons and articles on the holy prophet Mohamed, peace be on him, causing outrage and violence among

Muslims.

Barak Obama has gone out of his way to please the Jewish community by re-assuring them of full political support and guarantee to protect Israel's security. In his choice of Senator Biden as Vice-President, apart from other considerations such as his firm grip on foreign affairs, his proximity to Israel and Jewish community would have been a major factor. Support of the Jewish community is crucial for financial and political considerations as well. Barak Obama went to assure the Jews that Jerusalem will remain the capital of Israel eternally. This statement was far stronger even by American standards and went far beyond what President Bush or any United States Administration had ever stated. If after coming to office he would adhere to this policy then the rise of radicalism and terrorism in the Middle East and Muslim world will continue. Policies that have discredited U.S. in the eyes of the Muslim world are its Middle East policy. The genesis of terrorism in Muslim countries finds its roots in the injustices committed to the Palestinians. Its resolution on the basis of justice and international norms is the only way of resolving it. From what emerges from the statements of both the presidential candidates it does not seem to be the case.

The Arab and Muslim countries fully empathize with the sufferings and aspirations of the Palestinians and United States completely identifies itself with Israel. This polarization is highly detrimental and it is doubtful if the new leadership in United States could bring about any fundamental shift in this one sided policy. Perhaps there is no other issue that central in promoting radicalism as denial of justice and basic human rights to Palestinians. Without alleviating the basic cause of grievance anti- Americanism will continue to be on the rise and radical Islam will find resonance among broad segments of society.

The next President will have to be more equitable and just to Palestinians and give recognition to Hamas who are the genuine representatives of the people. Unless U.S. does not put pressure on Israel to accede to a viable two nation state, one of the major sources of alienation, it will keep fueling unrest and radicalism. In order to seriously address the Palestinian problem the next President will



have to take it up within a few months of his assumption of office. Deferring it to the end of the presidential term has invariably made the task of U.S. playing any effective role practically impossible due to the Jewish factor in American elections.

Israel's 2006 bombing of Lebanon civilians with United States blessing did great damage to its image in the Muslim world. There is a wide perception among Muslims that the war on terror is primarily directed against Islam and is a clash between Christian and Islamic civilizations. It is a major factor in increasing anti-Americanism and helping Al-Qaeda and other militant groups to promote radicalism and terrorism. This perception can only be removed if the leaders of the Western world especially the U.S. adopt fair and equitable policies and review their general attitude toward towards the Muslim countries and people.

In this context a peaceful resolution of the current US-Iran impasse over the nuclear issue would be a significant breakthrough. It is generally perceived that Washington is selective in its non-proliferation policies. In respect of Iran and Pakistan it applies different standards as compared to how it treats Israel and India. United States along with its European partners has been pressurizing Iran and has been successful in moving UNSC to apply a set of economic sanctions three times with increasing severity so that it abandons its uranium enrichment program. Moreover, United States and Israel have been frequently threatening military action and building pressure by projection of military power in the Gulf and conducting military exercises in the vicinity. On the other hand United States completely ignores Israel's nuclear weapons program and the inventory of hundreds of nuclear weapons. Republican candidate McCain is taking a more hawkish stand on Iran and is not very different from the existing Bush Administration policy.

Obama has said in his speeches that he will engage Iran and is likely to take a less aggressive attitude towards it. Better relations with Iran can reduce the tension in the gulf region and help in the management of Iraq. There is a better appreciation in the Obama camp of the role that Iran can play in the region, especially in the context of Iraq, Afghanistan and Lebanon.

Obama's father was a Kenyan, has lived in Indonesia for four years in the early part of his life and traveled to many countries. Whereas, it is expected that he should have a better understanding of the social and cultural aspects of Muslim and developed countries. Similarly, United States has followed a highly exceptional policy with India by signing the U.S- India nuclear deal. In a recent development, the International Atomic Energy Agency (IAEA) and Nuclear Suppliers Group have also approved the deal. Washington's diplomatic clout has been a major factor in India getting this approval. Pakistan despite being a close ally of U.S. on the war on terror and a strategic partner and its energy requirements are substantial has been denied a similar deal. On the grounds of its recent history of proliferation and that relationship with India is on a different plane.

The Indian national elections are due in 2009. Policies formulated by the next leadership of India on the treatment of Muslims and especially the issue of Jammu and Kashmir will greatly determine the future stability and level of militancy in the region. The fear is that if Kashmir continues to fester the peaceful resistance movement may be overtaken by events. There is a definite possibility of linkages developing with other militant groups in the region.

These unilateral and discriminatory policies of the United States against the world of Islam have led to increase in anti-Americanism that has been exploited directly or indirectly by militants to advance their agenda.

### **Status Quo or Change**

Barack Obama's current statements notwithstanding, his main election plank has been that he stands for change. Globally, too there is yearning for new leadership and for leaders who can work together on issues of terrorism and other security and non-security threats. To what extent he will be able to depart from the present policy on the GWOT is not clear. If he were able to bring about a change in U.S. grand strategy from unilateralism to a multilateral, more global and people centric that would help in winning back the

confidence of the world community. Just as individual countries need the support of the people to win the war at the national level similarly cooperation and support is essential for fighting militancy at the global level. Multilateral approach by the next U.S president will also reduce the global surge in anti-Americanism.

Irrespective of change in grand strategy it can be safely presumed that Barack Obama will pursue a more cooperative and multilateral approach in fighting GWOT. This would be a departure from Bush's policy of forming unilateral partnerships such as the "coalition of the willing". One of the most damaging facets of Bush's highly aggressive and decisive foreign policy was that it has eroded the support and credibility of America worldwide.

Barack Obama would refurbish America's image and its relations with the Muslim world by dismantling Guantanamo Bay and Abu Ghraib. The atrocities committed at these places has grossly undermined US soft power and discredited the war on terror. Next President has to review the adverse fall out on human rights aspects of the war on terror and bring in substantive changes. It is also possible that the entire semantics may change and the term "war on terror" may be replaced with combating militancy and terrorism. Already, Britain and many European countries have dropped this terminology since last one year.

The war on terror during President Bush took on the menacing overtones as though it was war directed by the U.S. against Islam. Never before, in recent history has there been such bitterness and anti-Americanism among the Muslims. By default this has strengthened Al-Qaeda, Taliban and other Muslim related insurgencies. In fact by giving GWOT a strong anti-Islamic coloring it has unified the Muslim world on one platform and provided a good incentive to militant outfits to recruit fresh recruits including suicide bombers. Major task of the new president would be to drastically revise this policy to win back the confidence of the Muslims and make the task of moderate Muslim governments to rally public opinion against militancy and terrorists easier.

With increasing multilateralism and less reliance on use of military force to influence events the new American leadership should drop the neo-con terminology of the “axis of evil” and abandon or at least soften the imperialistic approach that “either you are with us or against us”.

Barack Obama is better intellectually equipped to deal with the world and is likely to be more cooperative and pursue sound policies in dealing with GWOT.

Mc Cain is a seasoned politician and an experienced leader, but in respect of both Iraq and Afghanistan he had stated that he favored a double surge of troops. President Bush and Prime Minister Nouri al- Maliki have agreed to a “general time horizon” proposal whereby the reduction of forces is being linked with progress on the ability of Iraqi security forces to take control of cities and provinces. Washington and Baghdad are finalizing an arrangement to enable US troops to stay in Iraq at least up to end of 2011.

Barack Obama’s policy of pulling out troops from Iraq resonates with the leaders and people of Iraq. Moreover, the current state of US economy which is undergoing a serious financial crisis will make it problematic to sustain two reinforced military fronts. In the event that Obama’s administration pursues Bush’s policy or a more aggressive policy in Afghanistan than the only possibility of withdrawal of US and NATO forces from there would be in the event they meet a serious military and political set-back. This would provide an opportunity or an excuse to withdraw, somewhat similar to the devastating events that preceded the withdrawal of US forces from Vietnam. In an Op-ed in New York Times described the invasion as the correct strategic move. Yet since then it seems as if the United States has been trying to turn the conflict into the Vietnam War of the early 21<sup>st</sup> Century.

Notwithstanding America’s current decline there is only one nation that has the comprehensive power so if it were to have a leader who is prepared to take its allies and most of the world with than it is possible that he may be able to redirect the GWOT that brings success.

### **Attitude of Major Powers toward GWOT**

The US quest in the post Cold War global hegemony was undermined by the skewed global aspirations of neo-cons and emergence of major regional players. These regional players that include China, India and Brazil are not prepared to accept U.S. leadership on all matters relating to GWOT.

If the Russian leadership were in a clandestine way to support Taliban for dragging the US into a quagmire as a pay back for the past deeds then United States will be in serious trouble. But that is unlikely as Russia would not like to confront Washington. Any support to radical Islamist groups is not in Russia's interest as it has a serious problem of insurgency in regions of Chechnya and Dagestan.

Since British Prime Minister Gordon Brown has assumed office there appears to be a shift toward a more cooperative approach with the allies instead of merely working closely with US. There is a likelihood of greater emphasis on dialogue and economic development by NATO countries as tools against insurgency. In a way the British leadership has somewhat distanced himself from merely towing the American line on GWOT. Gordon Brown is one leader in Europe who is more interested in longer term approaches and cooperative solutions to genesis of the conflict rather than short term expedient military solutions. Britain's young and cerebral Foreign minister Miliband has openly taken a position different to that of US, at least in terms of nuance that gave greater importance to engagement and dialogue. There are indications that he may challenge Prime Minister Gordon Brown's leadership of the Labor Party for the next elections. In the event this change occurs and the Labor Party is able to win the elections it is possible Mr. Miliband may support bolder and more innovative approaches to addressing the root causes of the spread of militancy and terrorism in Muslim countries and societies. He is also likely to take a more balanced and even handed approach toward the Israeli- Palestinian conflict. The Conservative Party victory is unlikely to bring any change.

Britain, however, can only exercise limited influence on United States policy, which remains the dominant and key country influencing the strategy on the GWOT. Ever since the tragic events of 9/11, European countries have been US partners in the war on terror and 33 countries have sent their military units as part of ISAF. Germany, France, Netherlands and few others are also providing development assistance to Afghanistan. Many countries in Europe have been targeted by terrorists --Madrid, Casabalanca and Istanbul.

German Chancellor Merk Angel has not shown any propensity toward playing a leading role on the GWOT. The position is likely to stay that way. Germany's military is therefore located in the relatively Northern province of Afghanistan in Kunduz and is providing security for development activity. She is also constrained by constitutional and legal impediments to engage German forces in combat, except in self defense. Military engagement in Afghanistan is not supported by the people and the parliamentarians either. This makes the task of expanding the mandate of their operations in Afghanistan difficult for Chancellor Merk, even if she feels otherwise. Most German parliamentarians would give higher priority to economic and social development of Afghanistan than be associated with military operations. From their perspective, increasing troops is unlikely to yield long-term stability. More effective utilization of economic assistance, development of basic facilities at the local level and elimination of warlords and drug barons should be the real priorities.<sup>9</sup>

Ever since Nicolas Sarkozy assumed French Presidency in 2007 he has tried to improve France's relations with the US, which went through a difficult period due to President Chirac opposing US unilateral action against Iraq. President Sarkozy has made efforts at strengthening the Atlantic Alliance and stepping up French contribution to ISAF in Afghanistan. It has agreed to increase the force levels by another 3000 personnel and willing to assign them in relatively more dangerous missions. France has also sent trainers for the Afghan Army, so that it is in a position to fight against the Taliban. President Sarkozy in his speech at Fifteenth Ambassadors Conference in August 2007 emphasized the need to strengthen the

Afghan Army, “since it is the army that must, first and foremost, wage and win the fight against the Taliban”.<sup>10</sup> France has also committed itself to support reconstruction effort in Afghanistan. President Sarkozy has been insisting that the military and reconstruction assistance of France is closely linked to the stability of Pakistan. If the tribal belt and NWFP become a refuge of militant organizations especially of Taliban and Al-Qaeda then Pakistan would be a major casualty and all efforts of the international community will be in vain. But Sarkozy domestic problems and his loss of popularity has made his task of providing any effective or independent leadership in the fight against GWOT difficult. For all purposes Europe is going to remain engaged in Afghanistan with minimum level of military engagement and will focus more on reconstruction effort, provided security situation permits. Nonetheless, France could play a special role in view of its close association with countries of the Mediterranean. In France Islam is the second biggest religion after Catholicism. There are as many as a thousand mosques. It is also true that France has the third highest Jewish community in the world after Israel and the U.S. All these factors compel France to balance its interests with these communities. President Sarkozy realizes the dangers inherent in the war on terror being perceived as a confrontation between Islam and the West. For that purpose it would support forces of moderation and modernization. The question is whether Europe and especially France and Germany would take an equitable and just position on the Israeli- Palestinian conflict, Jammu & Kashmir, Iranian nuclear issue, Iraq and Lebanon.

No single European leader however, is either likely or in a position to adopt a very different or independent position to the US on the GWOT. European Union has emerged as a strong economic community, but is far away from becoming an autonomous military power, capable of taking a unified position on defense issues or GWOT that are fundamentally different from that of Washington. The world is likely to see much closer cooperation between US and EU on GWOT.

**End Notes**

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- 1 Sunday Times. Interview Brigadier Mark, UK Commander in Afghanistan, Oct 5, 2008.
- 2 Zbigniew Brzezinski Second Chance, Catastrophic Leadership, P148
- 3 National Intelligence Estimate- 2007
- 4 “United States has been occupying the lands of Islam in the holiest of places (Saudi Arabia), as well as devastating Iraq and supporting Israel. 1998 bin Laden fatwa. See also M.A. Muqtedar Khan, “Radical Islam, Liberal Islam”.
- 5 Newsweek, June 23, 2008, Time of the tough Guys.
6. Joseph S. Nye, Jr Patrick J. Buchanan.Syndicated Columnist. Obama’s War? “What does President Obama do then? Send in 10,000 more”? July 2008.
- 7 Presidential debate Senator Barack Obama, “If the United States has Al-Qaeda, bin Laden top lieutenants in our sights and Pakistan is unable or unwilling to act then we should take them out.
- 8 Daniel Consolatore. The Trouble with Pakistan. As reputed analyst Vali Nasr puts it Talibanization that has occurred in Pakistan’ tribal belt is the equivalent of the “Islamization of Pathan nationalism”.
- 9 Ibid.
- 10 Nicolas Sarkozy, President Republic of France.Speech on the Fifteenth Ambassador’s Conference, Paris 27 August 2007.

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## **ENERGY CRISIS AND ALTERNATIVE ENERGY SOURCES: OPTIONS FOR PAKISTAN**

*Dr. Zahid Anwar*

Energy is the life line of Pakistan's development; it is a developing country that requires growing amounts of energy to keep the pace of development intact. Agriculture and industrial sectors are two important components of Pakistan's economy. China, India and other fast developing countries' quest for external energy resources is influencing the international energy system of supply and demand. China is projected to consume within twenty years what USA is consuming today. China is negotiating oil projects in different regions of the world. India considers energy security only second to its food security. The daily imports of India will rise more than three-fold within twelve years. The rise of Asia as a manufacturing power contributes to a precarious balance in the world's market for oil and natural gas. <sup>1</sup>

Middle East and Central Asian regions are rich in fossil fuels and Pakistan's contiguity with those regions is a precious asset. All major sources estimate that the world's proven oil reserves were between 1.1 and 1.2 trillion barrels. Nearly 65 percent are found in five countries in the Persian Gulf area: Saudi Arabia, Iraq, Kuwait, UAE, and Iran. <sup>2</sup> OPEC account for 69 percent of the world's proven oil reserves. <sup>3</sup> Unless alternative to crude oil quickly prove themselves, the market share of the Middle Eastern members of the OPEC will rise rapidly. <sup>4</sup> It is in the interest of both consumers and suppliers to diversify routes to avoid disruption caused by technological problems or political disputes. <sup>5</sup> Pipelines have become necessary evil for Central Asian Countries because existing export routes out of the Caspian basin are overtaxed, inadequate, inconvenient and unreliable and the open seas far away, large pipelines appear to be the only economic means of transferring Caspian crude oil. <sup>6</sup>

The energy crisis is international but in Pakistan it is severe mostly due to internal factors. Lack of long term planning, poor management, lopsided priorities, lip-service to conservation

measures, ad hocism, lack of accountability and international price hike are some of the major causes of the current energy crisis in the country. Though causes of insecurity in the region are global in nature yet measures should be adopted to improve the situation and transform Gwadar port into an energy transport hub and construct pipelines like TAP, IPI, and GUSA. Development of small hydro projects with an accelerated pace will help to overcome the immediate energy crisis. In recent years, the combination of rising oil consumption and flat oil production in Pakistan has led to rising oil imports from Middle East and the lack of refining capacity leaves Pakistan heavily dependent on petroleum product imports. Generating capacity needs to grow by 50 percent by 2010 in order to meet expected demand.<sup>7</sup> In 2005, 86 percent of primary energy production in the world came from burning fossil fuels.<sup>8</sup> By 2010 the gap between demand and supply of energy could reach up to 8,000 MW in Pakistan.<sup>9</sup> The power shortage is estimated to increase to about 5300 MW by 2010. The overall energy requirement of Pakistan is expected to be about 80 million tons of oil equivalents (MTOE) in 2010. The development of water resources would resolve the problem in the long run but in the short term, there was a limit to constructing costly thermal power projects given their high economic costs. A major shortfall is expected in natural gas supplies, as an official energy demand forecast indicates that the demand for natural gas, which makes up about 50 percent of Pakistan's energy consumption, would increase by 44 percent to 39 MTOE from 27 MTOE currently<sup>10</sup>.

The government had planned five major initiatives, including three gas import pipelines, the Gwadar port as energy hub and the LNG import to meet these energy requirements. But four of these measures, namely the three import pipeline projects, are uncertain at present, while concentration on energy facilities in Gwadar would chiefly depend on security situation, besides oil and gas import pipelines.<sup>11</sup> There is need to make the best use of existing power generation by taking conservation measures at individual, community and national level.<sup>12</sup> The programme of expansion of generating capacities that has been laid down under “Vision 2025” programme will help in this connection. It envisions increasing existing power generating capacity by 10000 mw by 2010 and

around 35000 mw by 2025 at an enormous cost of \$35 billion to be shared by the government and private sector. The share of different sources of energy is stipulated to be as follows: hydro-electricity: 22563 mw, new gas fired plants: 4680 mw, coal fired plants: 4350 mw, nuclear plants: 1800 mw and finally 1500 mw from renewable energy resources.<sup>13</sup>

The difference between firm supply and peak demand is estimated at 5,529 MW by the year 2009-10 when firm electricity supply will stand at 15,055 MW against peak demand of 20,584 MW. The following projects will be great leap forward in this connection. The details of projects are Malakand-III (81MW), Pehur (18MW) and combined cycle power plant at Faisalabad (450MW). Mangla Dam raising project would also add 150 MW capacity to the national grid. Besides this, Khan Khwar (72MW), Allai Khwar (121MW), Duber Khwar (130MW) and Kayal Khwar (130MW) are expected to be completed in 2008 along with Golan Gol (106MW) and Jinnah (96MW). Moreover, Matiltan (84MW), New Bong Escape (79MW) and Rajdhani (132MW) are expected by 2009 while Taunsa (120MW) is likely to be completed by 2010. WAPDA has also planned to install a high efficiency combined cycle power plant at Baloki (450MW), which is expected to be completed by 2010. A power plant 1 and 2 of 300 MW each at Thar Coal with the assistance of China are also planned for commissioning in 2009.<sup>14</sup>

Almost every regime has dealt with energy on an ad hoc basis. Long-term and sustainable planning of energy have been an alien concept. The fact that the IPPs were set up at the terms of the investors suggest that it was a move made in panic. Another example worth quoting here is that of the 969MW Neelum-Jhelum hydroelectric project. It was to be constructed in 2003 at a cost of \$1.5 billion. It got abandoned until the present power crises intensified towards the end of 2007. The revised estimate is around \$2.25 billion. In terms of project cost alone the delay has caused an extra \$750 million. A positive step to cope with the current energy crisis is that energy offices should be run by qualified, committed and deserving people equipped with due mandate. Relevant ministries and departments should also be overhauled.<sup>15</sup> Government

has devised an energy management plan to save unnecessary use of power supply by closing commercial centers and markets at 9 pm.<sup>16</sup> To lower oil and energy prices in Pakistan some people suggest that by implementing 1 percent energy tax on all items that have GST will help.<sup>17</sup> The prevalent crisis is a consequence of imprudent energy policies over the last three decades.<sup>18</sup> There is a finite limit to future hydrocarbons supplies and it is time to look for new and innovative avenues to resolve our energy problems.<sup>19</sup> We are used to thinking of energy as something that can be found in reservoirs and coal seams, the resource of future lie elsewhere in the form of energy, but also in efficiency itself-in doing more with less.<sup>20</sup>

There is great scope for hydro power generation in Pakistan. Hydroelectric energy is a term usually reserved for large-scale hydroelectric dams. Micro Hydro systems are hydroelectric power installations that typically produce up to 100 kW of power.<sup>21</sup> Hydro-electricity accounts for 33 per cent.<sup>22</sup> In the fiscal year 1990-91 hydropower accounted for 45 per cent of all electricity produced in the country but it was reduced to 26 per cent with a 10-year period. The share of thermally generated electricity increased from 54 per cent to 71 per cent during the same period. Between the period of 1990 and 2003 the total consumption increased by 84 per cent, from 31twh to 57twh. Presently, an annual average increase of 7 per cent has been postulated.<sup>23</sup> In hydro power sector the potential which has been identified is about 46,000 MW out of which only 6,595 MW is utilized in the country.<sup>24</sup> It generates only 8000 mw of electricity against an installed capacity of 11327 mw.<sup>25</sup>

Most of the hydro power potential lies in the NWFP, Northern Areas (NA) and AJK. The potential available in canal system and in small rivers and streams if exactly calculated will give out much more higher figures. The country has over 2,000 MW of sites with studies to pre-feasibility and beyond for small and mini hydropower projects under 50 MW capacity, with many more sites yet to be identified. Small and Micro-hydropower projects are suitable for domestic investment and individual projects can come on line within 2-3 years. The total capacity in Pakistan is 19403 MW out of which the installed capacity of the hydropower stations in the country is about 6595 MW, in which 3767 MW is in NWFP, 1698

MW in Punjab, 1036 MW in AJK and 93 MW in the Northern Areas. This shows that only about 15 percent of the available hydropower potential has been harnessed. Micro, mini hydropower projects were developed for rural electrification by the provincial bodies, mainly in the North West Frontier Province through Sarhad Hydel Development Organization (SHYDO), Northern Areas Public Works Department (NAPWD) in administrative Northern Areas (NA) and NGOs like the Aga Khan Foundation with community participation. A similar approach was also adopted in Upper Dir district of NWFP by an European Union funded project together with IUCN. In addition, Pakistan Council of Renewable Energy Technologies (PCRET) also introduced the community based micro hydro stations (20-30 kW) in parts of NWFP in Swat, Dir, Chitral, Kohistan, Mansehra and Abbottabad districts. According to National Power Plan (NPP), the average annual growth is projected at an average of 7 per cent over the period of next 10 years, which means that country requires installing about 1200 to 1500 MW installed capacity each year in order to avoid load shedding and serious power shortages. This corresponds to a peak demand of nearly 30,000 MW in 2010 and 50,000 in 2018.<sup>26</sup>

The average cost of hydel energy generation in Pakistan was Rs0.50 per kilowatt hour in 2000-01. The annual per capita electricity consumption in Pakistan is around 320kwh, and this only caters for 60 per cent of the population. Forty per cent of Pakistanis still have no access to electricity. In Vision-2025 a short-term plan was developed and the commissioning date of eight hydel projects with a total generation capacity of 716MW was fixed on June 2006. These projects were proposed and designed as 'run-of-river' plants, which have no storage capacity, such as Ghazi Barotha hydropower project, in which no big reservoir is to be constructed. But unfortunately none of these projects could be completed.<sup>27</sup> The root-cause of the failure to provide the needed energy is lack of strategy for implementation. The strategy fails to take into account the ground realities and the project management capabilities of executing agencies.<sup>28</sup> Another reason is that the federal government has not taken small hydropower projects (SHPs) in its own hands. Such projects are very viable as they do not require building of large dams and do not pose problems of deforestation, submergence or

rehabilitation. Comparatively small capital investment and short gestation periods are required to complete these. In Pakistan all small hydropower projects up to 50MW are the responsibility of the provincial governments which cannot construct small hydropower projects due to financial constrains, among other reasons, Punjab has enough financial resources but it has made no real progress on small hydropower plants even though WAPDA has not only identified various locations having a potential of 350MW but also completed the necessary design works. In Azad Jammu and Kashmir, which is endowed with abundant hydel potential, the AJK Hydroelectric Board has only completed hydro projects having a capacity of 36MW against an identified potential of 5,329MW. This hydrogenation cannot even meet the electric demand of AJK itself, which is 250MW.<sup>29</sup> In Northern Areas the electricity demand is more than 100MW but total power generation from hydel power stations is a mere 46MW. To bridge the gap between demand and supply a diesel power plant with a total generation of 5MW has been commissioned by the government. Some experts have suggested power line from Tajikistan via Afghanistan to Northern Areas. Development of small hydro projects at an accelerated pace should be one of the tasks set by the policy to meet the present power crisis.<sup>30</sup>

Alternative Energy Development Board (AEDB) has initiated and successfully completed Pilot Project for the Development of Kaplan Turbines Technology in the local industry to harness the low head hydel potential in canals, streams and barrages to generate electric power.<sup>31</sup> Renewable energy is derived from natural processes that are replenished constantly. Included in the definition is electricity and heat generated from solar, wind, ocean, hydropower, biomass, geothermal resources, and biofuels and hydrogen derived from renewable resources.<sup>32</sup> The principle of supply and demand suggests that as hydrocarbon supplies diminish, prices will rise. Therefore higher prices will lead to increased alternative, renewable energy supplies as previously uneconomic sources become sufficiently economical to exploit.<sup>33</sup> Alternate energy technology can provide quick and sustainable solution for domestic sector in step with international practice replace 20-25 percent of fossil fuel based current energy generation with alternate

energy; cut fossil fuel imports. The 'plug and play' and main grid compatibility of these alternate energy options can alleviate misery of masses; therefore, it is time to shift country's domestic and agriculture sectors to alternate energy. It will help in the following ways: 1) The 'plug and play' and 'grid ready' alternate energy technology can bring immediate relief at grassroots and end three year waiting period. 2) The alternate energy solutions are cheaper because: (a) due to their proximity to consumers they reduce line losses, which in turn reduce energy cost. (b) it will allow energy generation at districts, tehsils and individual level. 3). Cheaper energy will promote small/medium industrial and manufacturing setups with multiple advantages including generation/sustenance of millions of jobs. 4) Cheaper sustainable alternate energy solutions will support and sustain country's agricultural sector offering critical advantages including higher production and increasing employment opportunities. 5) Reduce energy related disputes between federation and provinces.<sup>34</sup>

The shift to alternate energy can help Pakistan save 300 billion rupees being paid in annual subsidies to energy companies at the rate of 25 billion rupees per month.<sup>35</sup> The renewable market will boom when cost efficiency attains parity with other competing energy sources. Other than market forces, renewable industry often needs government sponsorship to help generate enough momentum in the market. Many countries and states have implemented incentives to encourage consumers to shift to renewable energy sources.<sup>36</sup> Critics suggest that some renewable energy applications may create pollution, be dangerous, take up large amounts of land, or be incapable of generating a large net amount of energy. Proponents advocate the use of "appropriate renewable", also known as soft energy technologies, as these have many advantages.<sup>37</sup> Thermal power is mostly produced by burning either natural gas or imported oil. Thermal power accounts for 64 per cent of the total installed capacity. Nuclear power plants account for 3 per cent. Nuclear energy is yet another source of energy and at present PAEC produces 472 mw. The country also needs to switch over to coal from the indigenous source of energy that is estimated to be the third largest in the world with a reserve of 33.0 trillion tons.<sup>38</sup> Coal currently provides about half of America's energy needs.<sup>39</sup> There is

a reservoir of 135 billion tonnes of coal in Tharparkar that can help produce more or less 20,000 MW of electricity. Some experts have also suggested that Pakistan should import electricity from Iran for Baluchistan as it would cost comparatively lesser than other measures.<sup>40</sup>

An important source of alternative energy is wind power. The wind is the fuel, which drives the turbine that generates electricity into a grid. Airflows can be used to run wind turbines. Modern wind turbines with rated output of 1.5–3 MW have become the most common for commercial use. Wind power projects can start generating electricity within two years.<sup>41</sup> In Pakistan 4200 MW can be generated by 1600 wind turbines with each generating of 3 MWs. The purchase of 1600 wind turbines should cost around 0.192 billion dollars (1600 x \$1,20,000 per piece) which is not only fraction of 4.6 billion dollars being currently paid under subsidy head but will also cut expenditure on import of costly furnace oil and ease pressure on foreign reserves etc.<sup>42</sup> Pakistan has a considerable potential of wind energy in the coastal belt of Sindh, Balochistan and as well as in the desert areas of Punjab and Sindh. The coastal belt of Pakistan is blessed with a God gifted wind corridor that is 60 km wide (Gharo~Kati Bandar) and 180 km long (up to Hyderabad). This corridor has the exploitable potential of 50,000 MW of electricity generation through wind energy. In addition to that there have been some other wind sites in coastal area of Balochistan and Northern Areas. It is estimated that more than 5000 villages can be electrified through wind energy in Sindh, Balochistan and Northern areas. So far more than 18 villages have been electrified using micro wind turbines. Indigenous development of micro wind turbines has also commenced in Pakistan. World Wide Fund for Nature (WWF) erected three 500-watt windmills in Sindh. Each windmill cost about \$1,000, including installation.<sup>43</sup>

Another form of renewable energy is solar energy. Solar energy in the context of renewable energy refers to energy that is collected from sunlight.<sup>44</sup> Solar energy has excellent potential in Pakistan that receives high levels of solar radiation throughout the year. Solar Energy is available at a rate of 1000 watts per square meter in Pakistan. This can be converted to DC electricity with the



help of Solar Photovoltaic cells, which may be used to pump water, operate fans, TV and telecommunications directly during daytime.<sup>45</sup> There are two types of Solar Thermal Technologies that are mature: (1) Solar Dish Stirling Engine Technology: A solar dish/engine system utilizes solar energy as the source energy to heat the working fluid of a Stirling engine which drives an electric generator. (2) Solar Parabolic Trough Technology: This system also utilizes solar energy as a heat source to generate steam which in turn runs a steam turbine which is used to generate electricity. Pakistan lies in an area of one of the highest solar insolation in the world. This vast potential can be exploited to produce electricity, which could be provided to off-grid communities in the northern hilly areas and the southern and western deserts. Applications other than electricity production such as solar water heaters and solar cookers also have vast applications.<sup>46</sup> It is said that solar energy is the one existing non-hydrocarbon technology that has any hope of filling the projected need for huge volumes of new carbon-free electricity-twenty eight terawatts-by 2050.<sup>47</sup>

Biogas is another source of renewable energy. Biogas can easily be produced from current waste streams, such as: paper production, sugar production, sewage, animal waste and so forth. These various waste streams have to be slurried together and allowed to naturally ferment, producing methane gas. Alternatively biogas can be produced via advanced waste processing systems such as mechanical biological treatment.<sup>48</sup> Biodiesel is a clean burning alternative fuel, produced from renewable resources. Biodiesel can be blended with petroleum diesel to create a Biodiesel blend or could be used directly. It can be used in compression-ignition (diesel) engines with little or no modifications.<sup>49</sup> Biofuel Plants use photosynthesis to grow and produce biomass or biomatter. Biomass can be used directly as fuel or to produce liquid bio-fuel. Liquid biofuel is usually either a bioalcohol such as ethanol fuels or a bio-oil such as biodiesel and straight vegetable oil. Solid biomass is mostly used directly as a combustible fuel, producing 10-20 MJ/kg of heat. Its forms and sources include wood fuel, the biogenic portion of municipal solid waste, or the unused portion of field crops. Biomass / Waste to energy systems are very versatile and can be used to many types of Biomass /waste into energy. Every city of

Pakistan produces thousands of tons of solid municipal waste as well as millions of gallons of waste water. It can be converted into energy and organic fertilizer. Biomass like rice husk, cotton stalks, jute waste, bagasse and other crop residues are also produced in thousands of tons in Pakistan that can be used for power generation purposes. AEDB is actively working for the Biogas, Landhi Cattle Colony; Karachi Pilot Project is to be funded by New Zealand Aid (NZ AID). AEDB has also issued LoI to M/s Abbott Energy and Environment Consultant, Canada for 05 MW biomass / waste to power generation for Peshawar city.<sup>50</sup> Ethanol is a potential bio-fuel, which can be produced from molasses (a waste / by-product of sugar industry). Pakistan has large quantities of molasses, which become a renewable bio-mass for ethanol.<sup>51</sup>

A global seismic belt passes through Pakistan and the country has a long geological history of geotectonic events which indicates that Pakistan should not be lacking in commercially exploitable sources of geothermal energy. Potential geothermal energy sites are identified at Sehwan in Sindh and Koh-e-Sultan in Baluchistan. Geothermal power can be used for power production by pumping hot geothermal water from source rock to the surface and producing steam through heat exchangers to subsequently run steam turbine for electricity generation. The energy from hot geothermal water can also be utilized for conversion to power with the help of power tube thermal riser. This is one of the latest technologies for utilization of geomagmatic energy.<sup>52</sup> The wild wind and the radiance of the solar do not require an overseas army to defend the supply line or a foreign policy to manage it. Homegrown combustibles such as corn-based ethanol do not require an overseas army to defend the supply line or foreign policy to manage them. No of the alternative requires an army or a foreign policy. Windy places can capture wind, sunny places can capture solar, coastal realms and suitable terrain can capture forms of thermal.<sup>53</sup> It is also claimed that hydrogen is the end game, the final objective in the man's quest to become energy independent.<sup>54</sup> For instance it is said that Honda's FCX is the first of a new generation of twenty first century electric cars. FCX is driven by electrons, not by internal combustion. Those electrons are created by a hydrogen fuel cell.<sup>55</sup> Just as coal replaced wood and as oil replaced coal, the hydrogen fuel cell may at last

offer the economic proposition that could end the hundred-year monopoly of over transportation and revolutionize the economics and politics of energy.<sup>56</sup>

Hydrogen fuel cell is considered the power source of the future. Some experts suggest that it is time to replace fossil fuel and they think that hydrogen offers the best opportunity to do that.<sup>57</sup> Hydrogen fuel cell is a device. A fuel cell is a mini power plant that produces electricity without combustion. Chemical energy is converted directly into electrical energy and heat. When hydrogen fuel is a fuel source, heat and water are the only byproducts. Alternative Energy Development Board (AEDB) has taken an initiative in propagation and development of hydrogen fuel cell technology in Pakistan. Efforts are underway to introduce methanol-hydrogen fuel cell buses in major cosmopolitan cities of Pakistan. 01 kW Hydrogen fuel cell electric vehicle is being developed by a project sponsored under Public Sector Development Programme (PSDP)<sup>58</sup>. Some experts are of the opinion that the launch of a South Asian hydrogen and fuel cell technology platform through the South Asian Infrastructure Fund (SAIF) could lead to a long-term South Asian strategy for hydrogen and fuel cells to guide the transition to a hydrogen future in the next 20-30 years.<sup>59</sup>

We need to create the mixture of technologies, fuels, investments and policies working in concert. We need many fuels not just one. The technologies of the fuel of the future will not come cheaply, easily, or even soon.<sup>60</sup> It is vital for Pakistan to develop its own oil, gas, and hydel resources. Pakistan is blessed with abundant alternative/renewable energy resources all over the country. It has bounteous solar energy, the coastal belt is suited for wind turbines and its coal reserves are third largest in the world. It is time to look for new and innovative avenues to resolve our energy problems. More energy can be produced from hydrocarbons, hydel, nuclear, and particularly renewable resources like, wind, solar photovoltaic cells, geothermal, hydrogen fuel cell, geo-magmatic, biodiesel, methane, ethanol etc. Development of alternative resources needs huge investment but it will be a risk worth taking for the safe energy future. The energy crisis in Pakistan is acute, self-inflicted but still addressable, what needed is vision and devotion.

**End Notes**

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- 1 Oystein Noreng, *Crude Power Politics and the Oil Markets* (New York: I.B. Tauris, 2006) P. xxix
- 2 Leonardo Maugeri, *The Age of Oil, the Mythology, History, and Future of the World's Most Controversial Resources*(London: Praeger, 2008) P212
- 3 Aloulou Fawzi, *The Future Importance of the Gulf in US Oil and Gas requirements, in Gulf Oil and Gas Ensuring Economic Security* (The Emirates Centre for Strategic Study and Research, 2007) P. 230
- 4 A.Y. Zalloum, *Oil Crusades America through Arab Eyes* (London: Pluto Press, 2007) P. 18
- 5 Rob Johnson, *Oil, Islam and Conflict Central Asia since 1945* (London: Reaktion Books, 2007) P 210
- 6 Michael P. Crossant and Bulent Aras, *Oil and Geopolitics in Caspian Sea Sea-Region* (London: Praeger, 1999) P75
- 7 Energy: General Overview, <http://www.eia.doe.gov/emeu/cabs/Pakistan/Background.html>
- 8 World Energy Overview, *International Energy Annual 2005*. <http://www.eia.doe.gov/iea/overview.html> , (Retrieved on 9/9/2008)
- 9 Dr Muhammad Asif, *Pakistan: Energy crisis in industrial sector*, 30<sup>th</sup> October, 2007, <http://www.gasandoil.com/goc/news/nts74780.htm>.(Retrieved on 19/7/2008)
- 10 *Pakistan's Energy Crisis to Worsen in Next Two Years*, Jan 9, 2008 Xinhua English Newswire, <http://tdworld.com/news/pakistan-energy-crisis>
- 11 Ibid
- 12 M. Sharif, *Pakistan's energy crisis: short and long-term solutions* The News, 3/4/2008 also <http://www.opfblog.com/1499/pakistans-energy-crisis-short-and-long-term-solutions> (Retrieved on 19/7/2008)
- 13 Ibid
- 14 Saqib Saleem, *Energy crisis in Pakistan and its solution* <http://www.thefrontierpost.com/News.aspx?ncat=cn&nid=541&ad=05-05-2008> (Retrieved on 1/7/2008)
- 15 Dr M Asif, *Coping with the energy crisis*, April 17, 2008 [http://www.thenews.com.pk/daily\\_detail.asp?id=107244](http://www.thenews.com.pk/daily_detail.asp?id=107244) ,(Retrieved on 1/7/2008)
- 16 *Government striving to overcome energy crisis* [http://www.app.com.pk/en/\\_index.php?option=com\\_content&task=view&id=38889&Itemid=2](http://www.app.com.pk/en/_index.php?option=com_content&task=view&id=38889&Itemid=2) (Retrieved on 24/5.08)
- 17 *How to lower oil and energy prices in Pakistan?* <http://v4votes.com/2008/04/how-to-lower-oil-and-energy-prices-in-pakistan>
- 18 Dr M Asif-II, *Coping with the energy crisis*, April 17, 2008 [http://www.thenews.com.pk/daily\\_detail.asp?id=107244](http://www.thenews.com.pk/daily_detail.asp?id=107244), (Retrieved on 1/7/2008)

- 
- 19 Usman Aminuddin, *Opportunities in the Development, of the Oil and Gas sector in South Asian Region, Islamabad papers*, [http://www.issi.org.pk/islamabad\\_paper/2004/oil\\_2004.htm](http://www.issi.org.pk/islamabad_paper/2004/oil_2004.htm), (Retrieved on 1/7/2008)
- 20 Lisa Margonelli, *Oil on the Brain Adventures from the pump to the Pipeline* (New York: NAN A. Talese 2007) P. 286
- 21 *Renewable energy*, Wikipedia encyclopedia [http://www.wired.com/news/planet/0,2782,67121,00.html?tw=wn\\_tophead\\_2](http://www.wired.com/news/planet/0,2782,67121,00.html?tw=wn_tophead_2) [http://www.stanford.edu/group/efmh/winds/global\\_winds.html](http://www.stanford.edu/group/efmh/winds/global_winds.html) <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=504&ArticleID=5562&l=en> (Retrieved on 1/7/2008)
- 22 M. Sharif, *Pakistan's energy crisis: short and long-term solutions* The News, 3/4/2008 also, <http://www.opfblog.com/1499/pakistans-energy-crisis-short-and-long-term-solutions> (Retrieved on 10/7/2008)
- 23 Ibid
- 24 *Micro-Hydel* [http://www.aedb.org/microhydel\\_basics.php](http://www.aedb.org/microhydel_basics.php)
- 25 Op. Cit. Pakistan's Energy Crisis
- 26 *Micro-Hydel* [http://www.aedb.org/microhydel\\_basics.php](http://www.aedb.org/microhydel_basics.php)
- 27 Arshad H Abbasi, *Hydropower: way out of energy crisis* [http://www.thenews.com.pk/daily\\_detail.asp?id=16101](http://www.thenews.com.pk/daily_detail.asp?id=16101) (Retrieved on 24/5/08)
- 28 Ibid
- 29 Ibid
- 30 Ibid
- 31 *Micro-Hydel* [http://www.aedb.org/microhydel\\_basics.php](http://www.aedb.org/microhydel_basics.php) (Retrieved on 17/07/2008)
- 32 Biomass / *Waste to Energy Basics* [http://www.aedb.org/biomass\\_basics.php](http://www.aedb.org/biomass_basics.php)
- 33 Fossil Fuel, [http://www.solarnavigator.net/fossil\\_fuel.htm](http://www.solarnavigator.net/fossil_fuel.htm), (Retrieved on 19/7/2008)
- 34 Rizwan Ghani, *Power crisis & alternate energy technology* <http://pakobserver.net/200805/03/Articles04.asp>, (Retrieved on 24/5/08)
- 35 Ibid
36. *Renewable energy*, Wikipedia encyclopedia [http://www.wired.com/news/planet/0,2782,67121,00.html?tw=wn\\_tophead\\_2](http://www.wired.com/news/planet/0,2782,67121,00.html?tw=wn_tophead_2) [http://www.stanford.edu/group/efmh/winds/global\\_winds.html](http://www.stanford.edu/group/efmh/winds/global_winds.html) <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=504&ArticleID=5562&l=en> (Retrieved on 19/7/2008)
- 37 Ibid
- 38 Op. Cit. Pakistan's Energy Crisis
- 39 Edwin Black, *Internal Combustion How Corporations and Governments addicted the World to Oil and Derailed the Alternatives*(New York: St.

- 
- Martin's Press, 2006) P. 278
- 40 Azhar Masood, *Construction of Dams to Overcome Energy Crisis*  
<http://www.pak-times.com/2008/05/10/construction-of-dams-to-overcome-energy-crisis-prof-khurshid> (Retrieved on 24/5/08)
- 41 Malik Ahmad Jalal, Wind power: a solution to energy crisis  
<http://www.dawn.com/2007/01/29/abr13.htm> (Retrieved on 22/5/08)
- 42 Rizwan Ghani, *Power crisis & alternate energy technology*  
<http://pakobserver.net/200805/03/Articles04.asp>, (Retrieved on 20/5/08)
- 43 Mick Elmore, *Pakistan Searches for Solution to Power Shortages*,  
<http://news.boloji.com/2008/04/19616.htm>, (Retrieved on 23/5/08)  
*Pakistan energy crisis and opportunities* also  
<http://towardsgreenerlife.blogspot.com/2008/04/pakistan-energy-crisis.html>  
[http://economictimes.indiatimes.com/PoliticsNation/Pakistan\\_searches\\_for\\_solution\\_to\\_power\\_shortages/articleshow/2929969.cms](http://economictimes.indiatimes.com/PoliticsNation/Pakistan_searches_for_solution_to_power_shortages/articleshow/2929969.cms)
- 44 Rodney Janssen, Renewable Energy Working Party, The Netherlands, October 2002  
[http://www.iea.org/textbase/nppdf/free/2000/Renew\\_main2003.pdf](http://www.iea.org/textbase/nppdf/free/2000/Renew_main2003.pdf)  
(Retrieved on 26/07/2008)
- 45 *Solar Photovoltaic Alternative Energy Technologies*  
<http://www.aedb.org/solarpy-basics.php> (Retrieved 11/7/2008)
- 46 *Solar Thermal*  
<http://www.aedb.org/solarthermal-basics.php> (Retrieved on 11/7/2008)
- 47 Paul Roberts, *The End of Oil The Decline of the Petroleum Economy and the Rise of a New Energy Order*, (London: Bloomsbury, 2004)
- 48 *Renewable energy*, Wikipedia encyclopedia  
[http://www.wired.com/news/planet/0,2782,67121,00.html?tw=wn\\_tophead\\_2](http://www.wired.com/news/planet/0,2782,67121,00.html?tw=wn_tophead_2)  
[http://www.stanford.edu/group/efmh/winds/global\\_winds.html](http://www.stanford.edu/group/efmh/winds/global_winds.html)  
<http://www.unep.org/Documents/Multilingual/Default.asp?DocumentID=504&ArticleID=5562&l=en> (Retrieved on 19/7/2008)
- 49 *Biodiesel*  
[http://www.aedb.org/biodiesel\\_basics.php](http://www.aedb.org/biodiesel_basics.php) (Retrieved on 19/7/2008)
- 50 *Biomass / Waste to Energy Basics* [http://www.aedb.org/biomass\\_basics.php](http://www.aedb.org/biomass_basics.php)  
(Retrieved on 15/7/2008)
- 51 *Ethanol* [http://www.aedb.org/ethanol\\_basics.php](http://www.aedb.org/ethanol_basics.php) (Retrieved on 1/7/2008)
- 52 *Geothermal Basics* <http://www.aedb.org> (Retrieved on 1/7/2008)
- 53 Edwin Black, *Internal Combustion How Corporations and Governments addicted the World to Oil and Derailed the Alternatives* (New York: St. Martin's Press, 2006) PP. 274-5
- 54 Ibid PP. 310-311
- 55 Paul Roberts, *The End of Oil The Decline of the Petroleum Economy and the Rise of a New Energy Order* (London: Bloomsbury, 2004) P. 67

## SHANGHAI COOPERATION ORGANIZATION: POTENTIAL AND PROSPECTS

*Mr. Fazal-ur-Rehman*

The Sixth Summit of the ‘Shanghai-Five’, held on June 14-15, 2001 in Shanghai, was a historic event. During this Summit the Shanghai-Five – a process initiated by China in 1996 for confidence-building with Russia, Kazakhstan, Kyrgyzstan and Tajikistan – was transformed into Shanghai Cooperation Organization (SCO), a more formal and comprehensive regional organization. Uzbekistan, at this occasion was also included as the sixth member. Since its creation, there has been an ongoing debate focusing on the purpose and viability of the SCO. Though, the aims and objects of the SCO are clearly defined in its Charter, yet there were strong suspicions especially in the West on the real intent of the major players in the SCO. It was generally considered at that time that a WARSAW type military alliance was in the making. However, there has been a broad agreement amongst analysts that creation of SCO was a Sino-Russian response to the growing Western influence in Central Asia where both had strong political and economic interests.<sup>1</sup> However, over the years with the changing global and regional strategic dynamics, SCO is now viewed by the West as a factor of stability in the Central Asian region.<sup>2</sup> The Treaty of Good-neighbourly Relations signed by the SCO members in August 2007 in Bishkek is a long-term measure for ensuring stable intra-state relations and fostering multifaceted cooperation in the region.

The Eighth SCO Summit, held in Dushanbe on August 28, 2008, was a testimony to the fact that the SCO has come to stay and its importance will grow with the passage of time. The August 2008 Joint Communiqué of SCO Heads of State Council issued at Dushanbe Summit states, “the heads of state expressed their support for further expansion of international ties of the Organisation. Work with the SCO observer states – India, Iran, Mongolia and Pakistan – will be lifted to a qualitatively new level and with due regard for their considerations. For the sake of providing additional opportunities for mutually beneficial cooperation with interested

states and international organisations the heads of states approved the Regulations on the Status of Dialogue Partner of the SCO. A decision was taken to set up a special expert group to consider a whole range of issues related to the expansion of the Organisation.”<sup>3</sup> SCO is moving forward, albeit at a slow pace, which is primarily due to multitude diversity in the region. Multilateral organizations such as the SCO has to follow a pace keeping in view the comfort-level of each of its member states.

SCO is a unique experience in multilateralism, especially in the Asian context, where unlike European Union (EU) and Association of Southeast Asian Nations (ASEAN) models for regional cooperation, security cooperation has preceded the economic cooperation. It is still the only multilateral framework in Asia, in the post Cold-War period, which directly addresses the security issues in a pragmatic and practical way. The critics of the SCO usually refer to the issues of trust deficit among its members; divergent national interests and inspirations; pre-eminence of China and Russia in the organization; unclear mission of the organization; and very little progress on the ground etc.

In the short history of its existence, performance of the SCO is reflective of the fact that the Organization has the potential of becoming a dynamic, vibrant and forward-looking framework for regional cooperation. It has been able to successfully institute mechanisms for multi-dimensional cooperation, which would serve as basis for coordinated cooperation at multiple-levels amongst its member states and also enabling its engagement with other states and international institutions. SCO is increasingly becoming instrumental in laying the foundation for promoting region-wide security and stability, while offering a framework for cooperation in economic and other areas of mutual interest in an adequate manner.

The importance, effectiveness and usefulness of SCO has been duly recognized when it was accorded Observer’s status in the United Nations General Assembly (UNGA) as an international organization in December 2004. It has also signed the MoUs for institutional cooperation with ASEAN and Commonwealth of Independent States (CIS), and is opening up to expand its sphere of



interaction with other states, international institutions and sub-regional groupings such as Economic Cooperation Organization (ECO) and Collective Treaty Organization (CSTO), Eurasian Economic Community (EEC), United Nations Development Programme (UNDP), Asian Development Bank (ADB) etc. SCO has also constituted a special Afghanistan-Contact Group in November 2005, with an aim to help Afghanistan combat terrorism, drug trafficking and reconstruction. In 2005, SCO expanded its geographic scope by incorporating Pakistan, Iran and India as Observer members. Mongolia had already secured SCO membership in 2004. The role and functions accorded to the Observers are very limited and non-participatory in the decision making.<sup>4</sup> It is hoped that once the permanent members of SCO are ready, the Observers would be accorded full membership status.<sup>5</sup> At present, some SCO members consider that expansion of the SCO would compromise some of the advantages that each major player has in the present form of the organization.

Although, the primary focus of SCO has been on issues pertaining to security and political stability, it is seen gradually making a transition towards focusing more on economic and energy related cooperation within the SCO framework, while at the same time consolidating security related cooperation.

### **Evolution of the SCO**

To have a good understanding of the history of evolutionary process of any multi-lateral organization is important for examining its potential and the future trajectory of its development. The SCO has its roots in the 'Shanghai-Five' process, which was initiated by China after the dismemberment of the Soviet Union and emergence of the successor states bordering China. The Shanghai-Five process primarily aimed at resolving the boundary disputes through negotiations and creating stability in the border regions that China shares with Russia, Kazakhstan, Kyrgyzstan and Tajikistan. China's prime concern was to make its border regions peaceful and trouble free so that its economic development remains uninterrupted. China, even before the break-up of Soviet Union, had reached an understanding with Russia that the border demarcation issue would

be resolved through peaceful means. With the emergence of independent states in Central Asia, China sought Russian assistance to create a regional framework for confidence building, resolving boundary disputes and reducing troops in the border regions. Two committees were established in 1993 on the basis of 4+1 formula (Russia and three Central States bordering China plus China); one committee was formed for confidence building and arms reduction; and the second for joint boundary demarcation. The first agreement was achieved by the committee for confidence building and arms reduction in Shanghai in 1996. In this agreement, all five heads of state agreed to stabilise their border regions by creating 'non-military zones'. On April 24, 1997, heads of five states held the second summit in Moscow, where they signed the Agreement on mutual reduction of military forces in the border regions. Since then, the 'Shanghai-Five' mechanism became known for confidence building. In the subsequent years, with enhanced mutual trust, cooperation among its members grew and the agenda for discussion also expanded to including security related issues of regional and international importance. Consultations on the issues of terrorism, separatism and extremism became more intense as these issues constituted a common threat. Besides these, possibilities were explored for cooperation in the areas such as economic, trade, culture, science and technology, and revival of communication links such as the Silk Road.<sup>6</sup>

Shanghai-Five indeed was a new experiment in regional cooperation among the countries having great deal of diversity and several outstanding intra-state disputes, to share a vision for common development on the basis of equality, respect and non-interference in the internal affairs of each other; allowing each country to develop at its own pace in view of their domestic realities. The 'Shanghai-Five' framework brought stability to the region on many counts, for example, it allayed the fear of smaller and weak Central Asian states of domination either by Russia or China; it helped resolving border disputes; it regulated strategic competition between Russia and China for influence in the region, moreover, it gave a collective strategic vision to region. Also, it provided a platform to Russia to remain relevant and influential in a region that was once under its control. It is interesting to note how

the divergent agendas of each state have contributed towards achieving a regional consensus on accommodating the issues of individual and common concerns.

In 2000, at the 5th 'Shanghai-Five' summit in Dushanbe, some substantive measures were agreed upon to further strengthen cooperation. The heads of state decided to establish an international organisation for regional security and cooperation, which would be open to surrounding states as well. Uzbekistan was considered a top candidate for the next full membership of the planned organization. It was evident that without Uzbekistan's involvement no regional framework could succeed. Uzbekistan enjoys a special strategic location, in the middle of Central Asia and Uzbek ethnic minorities are present in all other states as well.

The transformation of 'Shanghai-Five' process into 'Shanghai Cooperation Organisation' came about as a result of a Declaration signed by all five heads of state including Uzbekistan, on June 15, 2001, in Shanghai. In this landmark summit, there was a consensus among all the leaders that 'Shanghai-Five' has been instrumental in 'stimulating and deepening mutual trust, good-neighbourly and friendly relations among the member states besides strengthening regional security and stability.' They all agreed that 'the 'Treaty on Deepening Military Trust in Border Regions' in 1996 in Shanghai and the 'Treaty on Reduction of Military Forces in Border Regions' in 1997 in Moscow signed by the heads of states of Kazakhstan, China, Kyrgyzstan, Russia and Tajikistan, as well as the summary documents of the 1998 Alma Ata Summit, the 1999 Bishkek Summit and the 2000 Dushanbe Summit, have made significant contribution to regional peace, security and stability. The Declaration further states, "Against the backdrop of political multi-polarisation, and economic and information globalisation in the 21st century, the presidents firmly believed that to transform the 'Shanghai Five' mechanism into a higher level of cooperation will help member states to share opportunities and deal with new challenges and threats more effectively."<sup>7</sup> Based on the above considerations, leaders of the six founding states announced establishment of SCO. Subsequently, on June 7, 2002, at a meeting of heads of SCO member states, in St. Petersburg, the Charter of

SCO was signed.<sup>8</sup> The other plausible underlying reasons for creating SCO were:

- To contain the expanding US/EU influence (through OSCE, PfP programme of NATO) in Central Asia.
- To oppose the US missile defence programme especially the Theatre Missile Defence (TMD) component of the National Missile Defence (NMD) programme.
- To regulate the increasing competition – for influence and gaining access to strategic energy resources – between China and Russia in Central Asia.
- The Central Asian States sought to have multiple options in order to engage with other powers besides Russia. China provided a counter balance to Russia in the strategic milieu of Central Asia; allaying fears of being dominated by one major power.

Since its inception, the SCO has passed through several stages of its evolutionary process, and at each stage its agenda has been expanding by incorporating more issues of common interest to the member states such as, factors threatening regional stability or providing new opportunities for cooperation in a regional framework. The noteworthy achievement of SCO has been the creation of mechanisms and institutions which would serve to institutionalise cooperation and interaction at various levels amongst the member-states and with other states and international institutions. The Charter of the SCO provides the guidelines for its effective functioning and gives out the details of its various institutions. There are 26 Articles of the SCO Charter; however, the first 13 are important for understanding the aims, objectives and other functional aspects stipulated in the Charter.<sup>9</sup>

### **Geopolitical Trends and the SCO**

At the time SCO was created, a common perception on Central Asia was that it is a region with economic instability, weak civil societies, and repressive political climate, in which Russia and China by virtue of their much larger geographic size, economic strength, and military power, dominated their weak, smaller and

in stable neighbours by providing them protection for their territorial integrity and supporting the authoritarian leadership and their policies.<sup>10</sup> In such a geopolitical environment, the two countries used the platform of SCO for not only addressing the regional issues, but also the issues of international significance such as the US programme of National Missile Defence system, viability of the ABM Treaty, issue of Taiwan etc., which had little or no relevance to the Central Asian States. 'These were concerns that Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan seldom voiced, if at all, before the formation of the SCO,' or in their individual capacity elsewhere.<sup>11</sup> These were primarily the issues of concerns of China and Russia, which they still continue to raise from the SCO forum.<sup>12</sup>

The operational effectiveness of the SCO largely depends on the nature of evolving Sino-Russian relations and their foreign policy priorities. In every multilateral organisation there are always one or two leading countries, which serve as the mainstay of that organisation. In the case of SCO, China and Russia happened to be the core countries. Therefore, the success or failure of SCO would largely depend on the strategic cooperation or strategic competition between these two major players. In that sense SCO can be termed as a tri-polar organisation in which China, Russia and Central Asian states each constitutes a pole. Here, the Central Asian states are at the receiving end due to their inherent internal weaknesses and divisions, while Russia and China are the determining forces. Therefore, SCO would require a fine calibration for the interests of the two key players to be an effective and functional organisation.

Also, there is a stark difference in the vision of Russia and China regarding the mission of the SCO. Russia lays more emphasis on the security side of cooperation, while China focuses more on the aspects of economic cooperation and integration. The Central Asian States have limited or no options but to collaborate for the sustenance of their regimes and ensuring security against 'three evils'. Central Asian states' participation in the Organization for Security and Cooperation in Europe (OSCE) and 'Partnership for Peace' (PfP) programme of NATO did not provide enough clout to exercise alternative options. Their efforts for exploring possibilities in regional economic cooperation by joining the Economic

Cooperation Organisation (ECO) met with frustration due to the differing agendas of the member states (especially Iran and Turkey) and instability in Afghanistan. So, the best available alternative for Central Asian states has been offered by the SCO framework under the joint leadership of China and Russia. Both, China and Russia needs the cooperation of these states to contain the growth and spread of 'Islamic extremism', which has been impacting the separatist groups in Chechnya and Xingjian and threatening some of the SCO member regimes as well. The unfolding geo-political environment provides a common ground for the Central Asian governments and the neighbouring China and Russia to calibrate anti-terrorism, anti-extremism and anti-secession policies and strategies in a regional framework i.e., SCO. Besides the security and political stability factors, both Russia and China have high stakes in the energy sector of the region and would resist any external influences undermining their interests on that count. SCO, including its Observers, constitute the largest bloc of energy produces and consumers, therefore, prospects of creating a region-based energy cooperation mechanism in the future are promising.

However, events of 9/11 drastically altered the geo-strategic environment, with the presence of US/coalition troops on the SCO territory. Since the thrust of SCO was on anti-terrorism, some of the Central Asian member states accepted the US request for allowing the coalition forces to use their territories for launching attack on Afghanistan. Russia and China, following the events of 9/11, immediately condemned the terrorist attacks and expressed their support for the US. The four Central Asian SCO members-states followed suit and the SCO foreign ministers issued a statement expressing their intent for cooperation in international anti-terrorism efforts. It was an opportunity for the SCO member states in their individual capacity for improving their regional standing by getting closer to the US and gaining favours. Fostering cooperative relations with the US continues to constitute a top priority even for China and Russia. Given the US emphasis on war on terrorism, China and Russia tried to bring their own terrorism problems in the ambit of international terrorism in order to have legitimacy for their anti-terrorism policies, which were considered by the US as a case of human rights violations.<sup>13</sup> The Central Asian member-states of the

SCO hoped to balance the Russia-China influence by cooperation with the US. These possibilities allowed the US to militarily enter and establish a foot-hold in the region. Uzbekistan immediately negotiated and offered its military base at Khanabad. Tajikistan and Kyrgyzstan also agreed to the US presence on their territories. Uzbekistan and Tajikistan both have common border with Afghanistan, and it made sense that the US required launching bases in these countries. But, Kyrgyzstan's acceptance of the US proposal, created doubts in Moscow and Beijing, on the intent of US and Kyrgyzstan. The events of 9/11, provided the US with a unique opportunity to push its other agendas in the region in the garb of anti-terrorism cooperation. This was very evident both in the case of Central Asia and Southeast Asia, where the US renewed its military-to-military relations and secured a foot-hold for promoting other areas of cooperation such as energy, which would have not been possible otherwise. It was a strategic setback for China and Russia, while an opportunity for the Central Asian states.

Relations between the SCO member-states of Central Asia and the US improved as the US started pouring in economic and military assistance and its stance on democracy and human rights softened. This situation undermined the operational efficacy of SCO, as some of the Central Asian states like Uzbekistan tried to exercise multiple options simultaneously by engaging with all sides competing for the regional influence. Despite all that the SCO continued to hold its multi-level periodic meetings and moved, albeit slowly, on the decisions taken by the leaders. However, the US presence in the region created a degree of discomfort for Russia and China alike.

The situation began to change with the developments in Ukraine, Kyrgyzstan and Uzbekistan. In Ukraine and Kyrgyzstan, ruling regimes were changed through popular soft revolutions. These developments reflected the ground realities that the regimes in Central Asia were under threat and the US strategy of 'regime change' was presumably at play in the region, compelled the leadership to redefine their relations with the US. These developments also helped Russia and China to regain the lost ground and strengthen the SCO framework by

rendering support to the existing leadership in Central Asia.

The May 13, 2005, Andijan violence in Uzbekistan was a turning point that had cast a deep shadow over the strategic alignments in the region, especially in terms of relations with the US. Issues, irking China and Russia, such as the US troop's presence in some of the SCO member states once again came to the fore. On June 16, Uzbekistan banned night-flights into and out of the US air base in Khanabad in response to the US demand for an independent inquiry on the incidence which resulted, according to the reports, in death of 800 people, including women and children. Anxious to eliminate the US military presence in Uzbekistan and to draw Tashkent firmly and unequivocally into Central Asian strategic alliance – the SCO – Moscow and Beijing supported the Uzbek President, Islam Karimov, and accepted his version of Andijan crackdown and his decision to reject calls for an international investigation into the incident.<sup>14</sup> Finally, the US had to vacate Khanabad air base.

### **Future Prospects of SCO**

Presently, SCO is gradually evolving as a comprehensive framework for the development of the entire region, which includes possibilities of cooperation amongst its members in the areas such as, politics, trade and investment, defense, law enforcement, environmental protection, culture, science and technology, education, energy, transportation, credit and finance and other areas of mutual benefit. In the meeting of the SCO Heads of States in September 2003, the 'programme of multilateral trade and economic cooperation of SCO member states' was approved; adding an economic dimension to cooperation. The programme precisely determines basic goals and objectives of economic cooperation within SCO framework; prioritize direction and spells out concrete practical steps for cooperation with special emphasis on long-term planning. In view of the existing ground realities, SCO has envisioned to expand economic cooperation in the next 20 years, and reaching a stage enabling its members for free flow of goods, finances and services – ultimately leading to regional integration. At the time of its creation, some Western analysts were of the view that



“if the SCO expands and encompasses not just only security issues, but also addresses economic and social concerns, then it will be a powerful regional player indeed.”<sup>15</sup> As the time passed by, SCO has not only expanded into economic sphere, but also the leadership of its member states have expressed determination and set economic cooperation as a priority goal to be achieved in due course.

It is expected, as the current trends show, that in the coming years, cooperation in sectors such as communication infrastructure and energy will expand and pave the way for expansion in trade, investment and other economic activities. The SCO leadership has plans to create a SCO Development Fund; SCO Business Council, Banking Union and a SCO Forum are already functional. These organizational setups, once fully functional, would greatly facilitate a coordinated approach towards socio-economic cooperation. On 21 May, 2008, at the inaugural of the ‘Hi-Tech Industry Finance Innovation International Forum’ in Beijing, the secretary General of the SCO said, “The SCO member states possess a vast combined market, immense mineral reserves, well-developed industrial facilities as well as scientific and technological potential, which can well ensure successful implementation of joint projects, particularly in the fields of high tech and investment, capable of maintaining a long-term prosperity in our countries and in the whole region.”<sup>16</sup> However, the pace of development in strategic cooperation among the major players of the SCO would set the rhythm of overall progress of the Organisation.

It is important to note that in SCO, all the countries have different levels of development, different economic bases, and different approaches and orientation to achieve their national development. In such a case, to forge comprehensive cooperation at political and economic level would require a strong political will, commitment and vision on part of the leadership of the member states in order to realize the objective of regional cooperation. There has to be short and long-term policies for incremental cooperation keeping in view the comfort level of less developed members.

## **Preconditions for the Success of SCO**

There are two broad categories of constraints impacting cooperation in the SCO framework; the first category is essentially of political nature and related to the issues of divergent national interests, political stability, political will of the states to cooperate, level of trust etc.; the second category is primarily based on the disparity in economic structures, availability of resources, inadequacy of infrastructures, and lack of other such factors, which could contribute to the economic growth and facilitate economic cooperation. Therefore, the success of the SCO would largely depend on the following:

- Sino-Russian strategic relations are central to the regional cooperation and success of the SCO. Though the two countries share many interests in Central Asia, yet both have a differing vision for the future direction of the SCO. China's emphasis is on the economic cooperation, energy security being a major component of it, for regional integration, while Russia's priority is clearly placed on cooperation on security related issues leading to cooperation in other areas amongst the SCO member states. "Russia and China are, to some degree, competitors for Central Asian oil and gas reserves."<sup>17</sup> So far this competition is benign, but given the finite nature of hydrocarbon resources and China's increasing reliance on import of energy resources for sustaining its economic growth, the prospects of an intense competition resulting in fractious relations can not be ruled out in the future.
- Enhancing security and political stability of the member states is a prerequisite for bilateral and multilateral cooperation in Central Asia. Domestic political stability creates enabling environment for economic growth and progress. In turn, economic development helps achieving greater security and political stability, when poverty and unemployment is reduced and the living conditions of the people across the board improve. Economic stability denies space to some of the factors of instability such as the four evils (terrorism, extremism, separatism and narco-trade). At present times, to deal with the trans-national nature of non-

traditional security threats, it is imperative for states to engage and cooperate in multilateral frameworks.

- Achieving higher degree of trust in inter-state relations is yet another prerequisite for the success of SCO. Inter-state relations among the member countries should be based on the principles of mutual trust, equality and non-interference into each other's affairs. Achieving a higher level of multilateral cooperation is essentially a political decision, and such decisions cannot be implemented in an environment of mistrust and lack of confidence. Without a higher level of trust economic cooperation cannot be realized. Although there can be some exceptional cases in bilateral context. Strong regional cooperation can never be effective unless both people and their leaders can comprehend the mutual benefits of coming together. Unless the comparative advantage of inter-regional economic relations are realized by the trade and economic leaders, and until the cost of non-cooperation is calculated by the decision makers, substantive initiatives related to economic cooperation can not be undertaken. Therefore, the level of trust among member states would determine the level of economic cooperation.
- There is a need to inculcate a political will for strengthening cooperation within the framework of SCO. It will only materialize when there is a higher degree of trust and the states are willing to compromise on the question of state sovereignty to some extent. The political will of the states to come together despite differences in size, level of development and differing perceptions has to be further enhanced; if created, it would be an invaluable asset for regional cooperation. In this case the examples of EU and ASEAN can be cited, where despite differences on many counts, the political will to cooperate prevailed and resulted in experiencing successful regional cooperative frameworks. In the cases of SAARC and ECO, where the political will remained weak, regional cooperation could not take place at a desired level. Geo-strategic competition should not be allowed to undermine geo-economic cooperation.

- For the success of SCO, economic policy coordination for sustainable economic cooperation is essential. Economic competition has to be channelised to create a win-win situation for all member states. Accommodation of small and weak economies in the SCO framework would ensure long-term common prosperity of the entire region. A coordinated region-based growth strategy will enable the member countries to deal effectively with the future challenges, especially in view of economic globalization. There is a need to synthesize the divergent interests and create complementarities. A coordinated economic-policy-approach is important for the long-term regional integration.

### **Conclusion**

SCO is emerging as a multilateral international organisation focusing on political economic and security cooperation among its member states and with other neighbouring countries and regions. As a young international organization, it is facing a number of challenges for fostering comprehensive cooperation. The success of SCO would largely depend on the bilateral relations between China and Russia and to a lesser extent on the US involvement in the region. If Russia-China strategic partnership continues to develop, the two countries would have a chance to contain the US influence in Central Asia and shape SCO according to the regional strategic dynamics. In fact the key to SCO's future growth is in the hands of China, given its increasing economic capacity to contribute for the development and integration of the region. However, China seems to be interested more than anything else in securing its future energy needs from the region. Therefore, it is important for both China and Russia to admit new members only once the SCO is consolidated from within. In the conclusion, one would like to emphasize the fact that there is enormous potential for multilateral economic and security related cooperation in the SCO framework. Benefits of this potential can only be realized by ensuring effective and timely implementation of the decisions taken by the member states within the framework of SCO; and the principle of mutual benefit and common growth should be the guiding spirit and no small or less-developed state should feel being marginalized in the process.

## End Notes

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- <sup>1</sup> At the time Shanghai-Five process was initiated in 1996, both China and Russia had been experiencing tense relations with the US. Russia was concerned and resisting the enlargement of NATO in the Eastern Europe and China had difficulties in its relations with the US over Taiwan. China and the US narrowly escaped a conventional conflict in the March 1996 stand-off between the two over Taiwan issue.
- <sup>2</sup> US Assistant Secretary of State, Richard Boucher, said at a Congressional hearing on April 8, 2008, that the SCO “might have wandered off in various directions” but “I would say it probably stabilized again – back to the basics: border security, cross-border cooperation, customs and border procedures, common efforts against terrorism. I think to the extent the Organization has done those things, it has contributed to better security and stability to countries involved.” “It is not a Warsaw.” *Daily Times*, April 10, 2008.
- <sup>3</sup> See ‘Joint Communiqué of meeting of SCO Heads of State Council, 2008’ at [http://www.sectsco.org/news\\_detail.asp?id=2359&LanguageID=2](http://www.sectsco.org/news_detail.asp?id=2359&LanguageID=2), (accessed 7 October, 2008).
- <sup>4</sup> A state or an organization with observer status has the rights to; attend open meetings of the MFA Council and Conferences of the Heads of Ministries and/or Departments of SCO member-states; participate in discussions over issues lying within the competence of the SCO institutions without the right to vote and with advance consent of the chairperson, to circulate through the SCO Secretary General statements, written in the working language of the SCO, on issues of their concern lying within the competence of the SCO; gain access to documents and decisions of the SCO institutions, mentioned in Article 4 of the Charter, if the relevant institutions of the SCO do not impose restrictions on their dissemination. See unofficial translation of the ‘Regulations on Observers Status at SCO’ at [www.sectsco.org](http://www.sectsco.org)
- <sup>5</sup> So far the role of Observers has been kept very limited. Observers can attend SCO meetings with appropriate representation, but can not take part or influence decision making. There are no provisions thus far to engage Observers in economic activities and infrastructural projects as is the case in ASEAN that Sectoral Dialogue Partners are allowed to cooperate in specified areas.
- <sup>6</sup> Fazal-ur-Rahman, ‘Pakistan Embraces the Shanghai Spirit’, **Strategic Studies**, Vol. XXV, Autumn 2005, No.3.
- <sup>7</sup> Ibid.
- <sup>8</sup> Ibid.
- <sup>9</sup> See Charter of the SCO at [www.sectsco.org](http://www.sectsco.org).
- <sup>10</sup> Sean L. Yom, ‘Power Politics in Central Asia’, *Harvard Asia Quarterly*, Autumn 2002, Vol. VI, No. 4., <http://www.asiaquarterly.com/content/view/129/40/> (accessed on October 6, 2008)
- <sup>11</sup> Ibid.
- <sup>12</sup> See Article 2 of the Dushanbe Declaration of August 28, 2008, which states, “The establishment of a global antimissile defence system will not contribute

to the maintenance of strategic balance, the international efforts for arms control and nonproliferation of nuclear weapons, or the strengthening of trust between countries or regional stability.”

- <sup>13</sup> In October 2001, US President Bush said China should not attempt to use the war on terrorism as an excuse to persecute minorities. However, under intense Chinese pressure, East Turkistan Islamic Movement (ETIM) was declared by the US in September 2002 as a terrorist organisation.
- <sup>14</sup> Fazal-ur-Rahman, ‘Pakistan Embraces the Shanghai Spirit’, *Strategic Studies*, Vol. XXV, Autumn 2005, No.3.
- <sup>15</sup> Sean L. Yom, ‘Power Politics in Central Asia’, *Harvard Asia Quarterly*, Vol. VI, No.2, Autumn 2002, at <http://www.asiaquarterly.com/content/view/129/> (accessed on October 8, 2008.)
- <sup>16</sup> Speech by SCO Secretary-General at the opening ceremony of the High-Tech Industry Finance Innovation International Forum, Beijing, 21 May 2008, at <http://sh.aiby.net/html/02170.html> (accessed on October 8, 2008.)
- <sup>17</sup> Dr. Martha Brail Olcott, “The Shanghai Cooperation Organization, Changing the ‘Playing Field’ in Central Asia”, testimony before the Helsinki Commission, September 26, 2006, Carnegie Endowment for International Peace.

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# ASSESSING IMPACT OF INDO-US STRATEGIC PARTNERSHIP ON STRATEGIC STABILITY IN SOUTH ASIA

*Ms. Sadia Tasleem*

## **Abstract**

Strategic Stability in South Asia concerns many across the world in general and the United States in particular. Vast body of literature has therefore been produced on the subject, pertaining to the state of stability in South Asia, possible causes of its breakdown and the challenges faced by India and Pakistan in this regard. A good deal of debate however is confined to the critique of structural, institutional and technological irritants that possess the potential to instigate instability in this part of the world.

The impact of the nature of relationship of a Super Power in a volatile region (i.e. one amongst few of the significant determinants and a component of structural factors) on strategic stability has emerged as a relatively less attended area. Interestingly, South Asia presents a challenging case-study in this regard. Past few years have uncovered new strategic realities with Indo-US Strategic Partnership consistently gaining momentum. Perilously the Strategic Partnership between the two stands on an edifice of few of those highly crucial components that directly impinge upon strategic stability. This paper therefore attempts to explain how and to what extent would the Indo-US Strategic Partnership undermine strategic stability in South Asia?

The paper draws an assessment of the impact of some of the highly critical areas of cooperation between India and the US that have the likelihood to induce strategic imbalance causing instability. It offers a critical evaluation of the Indo-US Nuclear Deal and the New Framework for Defence Cooperation. The paper also proposes some recommendations - with particular reference to the role of the United States - that may help improve upon the state of stability in South Asia.

## **Defining Strategic Stability**

This paper shall be referring to stability purely in context of nuclear armed rivals. In this context, stability implies, “maintaining a situation where no development disrupts the existing equilibrium in a way that it results in active conflict”.<sup>1</sup> To be more precise, the focus shall be drawn from Legault and Lindsey’s concept of strategic stability. They state, “We could define a state of stability as the absence of rational motive to launch an attack. When there is a rational motive for either (or both) antagonists to launch a first strike, there is instability. But when he who launches a first strike must expect unbearable retaliation, there is deterrence”.<sup>2</sup>

Strategic Stability largely depends on ‘deterrence’ that implies, “maintenance of such a posture that the opponent is not tempted to take any action that significantly impinges on its adversary’s vital interests”.<sup>3</sup> Here one needs to keep the difference between “mutual deterrence” and “unilateral deterrence” very clear. While, “mutual deterrence” helps ensure stability, “unilateral deterrence” has a higher likelihood of damaging it. Also it is significant here to highlight that Deterrence Stability needs to be matched with Arms Race Stability and Crisis Stability to ensure Strategic Stability.<sup>4</sup>

## **Setting the Context**

Some of the academic discourse on “Nuclearization in South Asia” features the ‘triangular deterrence’ that exists between Pakistan, India and China.<sup>5</sup> It stretches the scope of debate well beyond the geographical boundaries of the region; this paper shall limit its focus to India and Pakistan, for the simple reason that much of the available evidence rules out skepticism regarding the breakdown of strategic stability between India and China. On contrary, a good deal of the existing and emerging fears, based on a combination of factual assessments as well as speculative imagination revolves around the Indo-Pak equation.<sup>6</sup>



## **Introduction**

Strategic Stability overshadowed intellectual discourse and policy-making debates throughout the Cold War. However, the demise of Soviet Union and the transition of world order from bipolarity to unipolarity diffused the debate and shifted the focus towards the need to redefine and evolve new concept to partake the role of Mutual Assured Destruction, deterrence and strategic stability. It did not last for long. During the same decade with explicit revelations of initially the advanced status of nuclear weapons programs of India and Pakistan and later with the two formally adopting an overt posture, the debate on strategic stability resurfaced with almost the same vigor as it existed during the Cold War. Scholars in strategic studies have made innumerable efforts to explore various dimensions of strategic stability in South Asia ranging from its nature and character to the identification of challenges and possible causes of its breakdown.

Since the Indo-Pak equation has some unique features, it may not really be taken as a parallel against the Cold War for the purpose of research. Two factors<sup>7</sup> that stand critical in this regard need to be highlighted here;

- During the Cold War, the main actors themselves were at the top of things running the show and shaping the world order. Whereas in case of nuclear South Asia, it is a world order predetermined by external actors where the regional actors have to place them and accommodate them accordingly. For these regional actors there is little freedom of action as far as shaping the world order is concerned and therefore little place to maneuver. On most of the occasions it is not about taking initiatives, it is rather about responding to the limited available options.
- Cold War marked bipolarity, whereas Indo-Pak nuclear politics exists in a unipolar world order. And the politics in a unipolar world order essentially leaves a lot at the discretion of the Super Power, i.e. in the contemporary scenario, the United States.

These differences might not sound that significant, they have practically drawn a cleavage between US-USSR strategic stability equation during the Cold War and Indo-Pak stability equation in the post-Cold War Unipolar World Order. These differences have consequently made unipolarity and the role of a super power therein as few amongst the most significant determinants of strategic stability.

The aim of this paper is therefore to first of all explain the relationship between strategic stability, unipolarity and the role of a super power in a fragile region. A relationship once established, this paper would then attempt to assess the impact of Indo-US Strategic Partnership on strategic stability in South Asia.

The paper is primarily descriptive in nature. Different tools of research have been intertwined in order to meet the requirements of various segments of this research paper. These tools include technical data analysis, content analysis and informal conversations with experts on this subject. Most of the available literature has also been thoroughly studied for this purpose. Nonetheless, there were some serious limitations faced during the course of research. For instance, measuring the nature of impact of the underlying issues in tangible terms has been found extremely difficult primarily because of two reasons;

- Most of the implications are not really quantifiable.
- And the areas where quantitative analysis is possible, pertains to issues falling mostly in classified domains where data is rarely accessible.

### **Literature Review**

From the definition to the dynamics, every facet of strategic stability has been debated extensively but there is still no end foreseen to this debate in the near future. Existing literature on the subject delves heavily on Glenn Snyder's Stability-Instability Paradox, Deterrence Stability, Arms Race Stability, Crisis Stability and Technical Stability as few of the fundamental concepts in order to assess strategic stability.<sup>8</sup> Undoubtedly these concepts manifest a

lot of overlapping trends; they set the basic parameters in correct perspective as far as the question of measuring strategic stability is concerned.

Keeping in view the fundamentals of the above-mentioned concepts, there began a far-stretched debate in the post 1998 scenario over whether nuclear deterrence will work or fail in South Asia. There are different streams of argument primarily overshadowed by the existing international schools of thought, i.e. the Optimists and the Pessimists led by Kenneth Waltz and Scott Sagan respectively.<sup>9</sup> No consensus has however been achieved so far on this, neither is one foreseeable in the existing highly fragile and delicately maintained deterrence situation in South Asia.

There is no end to the challenges adequately identified and debated by various scholars of and on. Some of them have been addressed some still need to be tackled with. For instance, most of the scholars have put a huge thrust on Territorial Disputes, Mistrust, Lack of Institutionalized Crisis Management Mechanisms, Understanding of nuclear strategy & deterrence, Presence of ethno-religious cleavages, Political Control of Operations, Risk of Preemptive attacks/Disarming Surprise attack, Accidental use of nukes, Uncertainties associated with nuclear weapons, Absence of Nuclear Risk Reduction Measures, Tendency to resort to brinkmanship over Kashmir, Impetus to horizontal proliferation, and Conventional Imbalance as major challenges to strategic stability.<sup>10</sup> Certainly all these factors do have the potential to breakdown strategic stability. Nonetheless most of these elements pertain to structural issues. An overview of past ten years shows that the governments at both sides have successfully managed to overcome at least few of these especially pertaining to the structural factors by taking up some fundamental corrective measures.<sup>11</sup>

However there is a continuous influx of newer issues posing newer kinds of challenges that may prove to be detrimental to the strategic stability in South Asia in specific and the world in general. This refers to an unending list of issues and problems emerging due to the consistently growing tensions in the region, the presence of extra-regional forces, the international engagements, a continuously

deteriorating international system, a rapid inflow of new rules of engagement and confrontation primarily designed by the United States, the polarity debate and the changing nature of alliance patterns. Some of these have been highlighted in the existing literature; others have not received adequate attention primarily because of their evolving character. This paper, due to limitations set by its scope would not take up all of these challenges. It shall rather keep its focus confined to one of the missing aspects of the 'polarity debate'<sup>12</sup> followed by an exhaustive analysis of the role and impact of US policies on strategic stability in South Asia.

So far most of the work done on the role of the US in this particular context highlights its contribution to bring a peaceful end to the Kargil crisis and the Indo-Pak military standoff 2001-02.<sup>13</sup> There has been and rightly so, a lot of appreciation and acknowledgement for the constructive part played by the US during those high times of tensions. It is also widely recognized that the US has played a highly significant role in brokering the peace-process between India and Pakistan. However, developments in the past few years have unfolded new realities.

The recent trends in the US pattern of relationships in South Asia project that the US is pursuing a path that has serious repercussions for strategic stability. Indo-US Strategic Partnership and its various components on which it depends have been assessed and evaluated time and again by academicians and policy-makers.<sup>14</sup> Many have in their own capacities highlighted the impact of these developments on strategic stability, however a composed body of literature on the issue, proposing a case to include 'pattern of relationship of a Super Power' having both direct and indirect impact amongst the exhaustive list of determinants of strategic stability/instability has been found missing. This paper therefore undertakes this task.

### **Theoretical Construct**

This paper draws its theoretical construct on the underpinnings of the Balance of Power theory with subsequent references to the Power Transition Theory<sup>15</sup> that positions the issues

on contrary pedestal and therefore offers an entirely opposite interpretation of events and their causal and consequential explanation. According to the Balance of Power theorists, “states seek to dominate other states, when they have the means to do so, they will act; the conflict between states is thus a consequence of the unequal distribution of power within the system. When power is distributed evenly, conflict naturally diminishes: each state lacks the means to challenge any of the others, and so the system becomes relatively stable”.<sup>16</sup> They also maintain that the “movement toward parity should reduce the chances of at least violent conflict; neither party will attack the other because each lacks a clear advantage”.<sup>17</sup>

It has been nonetheless specific to the nuclear balance. Irrefutably history has shown that the conventional military power could not always helped prevent wars,<sup>18</sup> however balance maintained in the nuclear realm has unquestionably been able to successfully attain this objective so far. And that is where the actual argument begins. The experience of the past decade in South Asia has established it as a matter of fact.

India and Pakistan since 1970 have never maintained a conventional parity. It was only with the successful development of the nuclear weapons by both sides that the balance of power between the two could be achieved. So far deterrence has been maintained and strategic stability could be sustained between the two despite the fact that India enjoys conventional military superiority, only because the nuclear weapons potential of the two is very close. And the potential possessed by each side to cause damage to the other side also stands nearly equal.<sup>19</sup> This delicately maintained balance of power however, if disturbed would lead to catastrophic consequences for strategic stability.

### **Underlying Assumptions**

- The hostility between Pakistan and India needs no reiteration.
- States in their behavior are highly unpredictable. Given the capabilities, intentions may take moments to change. States, if possess sufficient capabilities, tend to expand

their influence all across and make all possible efforts to secure their interests.

- In the unipolar world order a Super Power's influence goes far beyond its conventional domain. Its policies may have serious consequences for strategic stability in other regions of the world.
- De-hyphenation is an absurd myth in case of the US relations with India and Pakistan.<sup>20</sup>
- "States act with less care if the expected costs of war are low and with more care if they are high".<sup>21</sup>

### **Stating the Hypothesis**

The premise of the study states; in a uni-polar world order, a Super Power's preferential treatment (especially in perspective of issues of strategic significance) towards the stronger contender in a volatile region has all the likelihood to undermine strategic stability. Playing favorites in a manner where the bullying capacity of a stronger party considerably enhances relentlessly injures the hardly-maintained balance of power equation.

### **The US Preferential Treatment & Its Possible Impacts<sup>22</sup>**

In the post 9/11 world order, the Bush administration coined a new terminology i.e. popularly pronounced as "de-hyphenation"<sup>23</sup> to define the character of its change in policy towards India and Pakistan. By this the US meant that relations with India and Pakistan would be dealt with separately due to the new realities and significance of both countries in different domains. A new yardstick with a discriminatory approach was hence introduced, disregarding the fact that the policies and nature of relationship of a super power with an adversarial pair would impact on both and would affect a flimsy region in the existing world order.

The US recognizing India's market potential and its capability to help the US contain China, has started building up Strategic Partnership by opening up a lot of avenues for cooperation both at traditional and nontraditional levels. There is an exhaustive list of the areas where India and the US have agreed to cooperate.

(See Annex A). While, Pakistan also stands as a significant ally in the “War against Terrorism”, supposedly the “Most Favored Non-NATO Ally”; the relationship with India and Pakistan is growing on different pedestals.

De-hyphenation has practically provided the United States enough space to extend preferential treatment towards India. Notwithstanding the fact that the preferential treatment of a Super Power might upset the Balance of Power equation in South Asia, the US has offered to India, cooperation in some of the most critical domains that have a direct bearing on strategic stability in the region. Undoubtedly, the US has to make its own calculations and draw its policies accordingly; however cooperation in all those areas that have potential implications for strategic stability needs to be looked into; since it is an undisputed fact that instability in South Asia would not serve any one’s interests.

First and foremost comes the “Indo-US Nuclear Deal”,<sup>24</sup> and equally significant stands the “New Framework for Defence Cooperation”.

Indo-US Nuclear deal clearly marks preferential treatment by the US towards India. The US while defying its own non-proliferation commitments and hurting the sanctity of NPT has offered Nuclear Cooperation to India. Contrary to this, it has flatly refused to extend any such opportunity to Pakistan under the pretext of Pakistan’s poor proliferation record, notwithstanding the fact that India also does not have a clean past. On one hand, Pakistan’s proliferation record is being blown out of proportion; on the other hand, much skepticism is being raised over the issue of safety of its nuclear assets. It appears as a structured campaign to corner Pakistan which has long term implications for strategic stability in the region.

Exceptional in nature, the Indo-US Nuclear deal opens up prospects for India to draw benefits from the US cooperation in the nuclear energy sector. However, statistical analysis has proved that this deal shall provide India a chance to utilize imported fuel for its power reactors, freeing up its domestic resources to be diverted for weapon purposes. This would in turn, enhance India’s capability to

multiply its nuclear weapons arsenal. Indian Defence Ministry sources have also mentioned plans for 300-400 weapons within a decade. Such a trend may provide impetus to India's "unilateral deterrence"<sup>25</sup> however it would gravely undermine Pakistan's calculations of Minimum Credible Deterrence.<sup>26</sup> Pakistan would be pushed to pursue rigorous efforts to catch up with India's arsenal so as to secure its position against any kind of Indian adventurism. This would initiate an arms race, leading to a highly precarious future marked by acute volatility.

Proponents of the deal in the US maintain that India committed to its rapid economic development is not interested in multiplying its nuclear arsenal. Existing evidence however presents the contrary picture. A content analysis of the ongoing debate over the deal in India, the statements of Indian leadership in Lok Sabha and on other public forums indicates that the political will is certainly there. Also the wisdom of *real politik* suggests that, 'given the capabilities, intentions may take moments to change'.

Though the Hyde Act envisages in it some of those measures that are designed to keep a check on India's plans of upgrading its nuclear weapons arsenal at least to a certain degree; those measures have not been incorporated into 123 Agreement – the bilateral agreement that India is obliged to follow. 123 Agreement, on contrary, being "vague" on issues of concern, leaves enough room open for India to explore its options. Muted response of 123 Agreement on the fate of nuclear deal in the backdrop of a nuclear test conducted by India raises further concerns. The deal in its existing form has undoubtedly all the likelihood to induce strategic imbalance in the region.

As far as the New Framework for Defence Cooperation<sup>27</sup> is concerned, it identifies two critical areas of cooperation. One is the cooperation in the realm of conventional weapons and the other is the Missile Defence program.

In so far as the issue of conventional weapons is concerned; certainly both India and Pakistan are the 'beneficiaries' in this field. (For details see Annex II). It is the nature and the terms and



conditions of the agreements with the two that mark the discrimination and establish the preferential treatment being extended to India. Unquestionably, Pakistan has received “huge amount of defence aid” from the US in the post 9/11 years. Sanctions of defence trade were also waived off and therefore military sales have been made to Pakistan. There are some significant weapon systems that Pakistan has already acquired and hopes to acquire in this regard.<sup>28</sup> Weapon systems delivered and those in the pipeline to be delivered may even outnumber those provided to India in the recent past. However, it is all restricted to “aid” and “military sales”. This trend marks dependency and enhances a state’s vulnerability that is much evident with the US Congressmen time and again raising the issues of reviewing “aid policies”.

With India under the New Framework for Defence Cooperation, it is the other way round. It is cooperation in terms of joint production and technology sharing. Joint production, by all means is far better than defence aid and military sales. The future of defence aid and military sales is much doubted. However, joint production empowers a state with the capacity to improve its indigenous production.

India already enjoys quantitative superiority in terms of conventional armaments which has been identified by the analysts as a possible irritant for future of stability in the region.<sup>29</sup> If it improves qualitatively in terms of its indigenous production capabilities, Pakistan would be placed at a highly disadvantageous position.

The US assistance especially in terms of transfer of high-tech weapon systems and cooperation on Naval and Air platforms would prove crucial in boosting up, not only India’s tangible potentials but also providing her with a decisive psychological advantage. This may encourage India to explore and exploit space that exists between the lines. For instance, India may, actually plan to pursue strategies like “hot-pursuit” and “Cold-Start” etc. This, in turn, would lower the nuclear threshold, perilously undermining strategic stability. Henry D. Sokolski for instance has identified India’s growing conventional forces and its encirclement against Pakistan as

would-be “propellant for future proliferation, nuclear build ups, and war”.<sup>30</sup>

Second area of crucial significance and heightened concern is the US offer to extend cooperation to India in the field of Missile Defence systems. India for a long time has been working on a missile defence program indigenously. It has already tested its anti-ballistic Prithvi missile. However, analysts believe that the tests do not mark the acclaimed success.<sup>31</sup> It therefore may need US assistance to improve upon the quality of its weapon systems. On the other hand, the US has shown a lot of interest in extending cooperation to India in this field<sup>32</sup> that offers a huge market and a lot of hard currency for the United States thereby.

Missile defence system asymmetrically breaks down mutual deterrence, since it strengthens what an Indian analyst described as, “the satanic idea of fighting and winning a nuclear war”.<sup>33</sup> India’s missile defence system, if deployed would reduce Pakistan’s ability to retaliate, thus completing India’s Strategic Superiority. As pointed out by Gregory S. Jones, “if India were to deploy an effective anti-missile system around some of its cities, it could seriously affect Pakistan’s nuclear strike capability. Pakistan would either have to deploy more longer-range missiles so as to be able to strike undefended cities, or obtain counter measure technologies from the Chinese”.<sup>34</sup> Undoubtedly, India has made a good deal of progress in the development of a Missile Defence System on its own, the US assistance at this crucial juncture nonetheless would help India attain its goals in a limited span of time.

### **Analysis of the past & the possible future scenarios**

Summit Ganguly and Davin Hagerty while drawing propositions behind crisis stability in Indo-Pak military standoff 2001-02 and Kargil mentioned; “i) timely and forceful US intervention, ii) mutual fears that war might escalate to the nuclear level and iii) one or both sides lack of sufficient conventional military superiority to pursue a successful blitzkrieg strategy”,<sup>35</sup> as three primary determinants that helped ensure that strategic stability remains intact.

These propositions are extremely vital. It must be noted that the authors talk of ‘mutual fears’ as a precondition for crisis stability. Now looking at the ongoing developments and shedding the illusive myths of idealism or moralism, if one may analyze and draw a futuristic scenario, there is a higher likelihood of nuclear build up by India coupled with Missile Defence Program it may erode the existing equation of mutual fear, tilting the balance in favor of India.

Moreover, if one may pick up the hypothetical scenario drawn by Gregory S. Jones, the situation appears bleaker.<sup>36</sup> The author draws the cutting edge for the breakdown of nuclear threshold. He asserts that in case India takes a decision to take up ten million casualties (i.e. hardly one percent of India’s total population), in a situation where it is assumed that Pakistan (her vital enemy) may no longer exist, India might vie for such a bargain. Essentially, it would be a crucial political decision to make. One may not like to buy this argument, however, there is nothing like impossible in international politics.

Situations can be created and circumstances can be pushed that far. An important point to understand here is that what appears to be an irrational act today may turn up as the popular choice tomorrow. Keeping in view the societal structure and normative belief in South Asia, one may not really be able to draw parallels between them and the populace in the Western nations especially when it comes to the conduct and behavior during wars. People in South Asia are not shy of death and that is where the difference comes. So a big technological, quantitative and qualitative gap between India and Pakistan would not serve the purpose of strategic stability. Fuelling an arms build up means the world needs to get ready for any kind of eventualities.

Ganguly and Hagerty also categorically highlighted as mentioned above, “One or both sides lack of sufficient conventional military superiority to pursue a successful blitzkrieg strategy” as another reason behind crisis stability between India and Pakistan. Given the present circumstances, it is evident that if India would continue to grow its conventional weapons arsenal coupled with an

increased nuclear weapons inventory shielded with the missile defence systems, ensuring its unilateral nuclear deterrence, this would tremendously add to India's psychological comfort and confidence, providing it a rationale to pursue a blitzkrieg strategy.

## **Conclusion**

In the existing World Order, the impact of the nature and pattern of US relationships on strategic stability in a volatile region need immediate attention and thorough assessment. The United States possesses massive potential to influence few of the fundamental determinants of strategic stability, e.g. the conventional and nuclear balance etc. With these potentials, the current bid of the United States to build India as a major power may therefore prove to be detrimental to strategic stability.

India's conventional military superiority, strategic supremacy and missile defence capabilities, coupled with its long-aspired dreams of 'Greater India' would put Pakistan under tremendous pressure. There would be serious implications for the size, shape and technical character of the nuclear forces that Pakistan might need to counterbalance Indian might. The resulting arms race will jeopardize strategic stability.

Moreover India's growing political clout with the US efforts to accommodate India into global nuclear order and signaling skepticism over the safety and security of Pakistan's nuclear arsenal is going to boost India's confidence that in turn would increase India's bargaining leverage and would harden its position on core issues like Kashmir, upsetting the peace process. This would also not bode well for the strategic stability.

## **Recommendations**

- Strategic Stability in South Asia heavily rests on strategic balance between India and Pakistan. Any efforts to build up India in view of perceived geopolitical compulsions/interests that impinge upon Pakistan's security calculations would cause instability.

Undoubtedly, instability in this part of the world is going to seriously undermine US interests in the region. Therefore, all such efforts should be avoided.

- As far as the Indo-US partnership is concerned, it opens up one window of opportunity that may help strengthen strategic stability. Since the US enjoys a better position than ever before, it may exert influence on India to resolve Kashmir issue – i.e. one of the irritants for strategic stability – in a plausible manner.
- While sharing and transferring high-tech weapon systems to India, the US needs to be cautious of conventional imbalance and its fall-outs for strategic stability. Moreover cooperation in the realm of Missile Defence Systems needs to be reviewed.
- With the Indo-US Nuclear Deal already finalized, the new administration in the US needs to work hard to engage India and explore all possible means to prevent any likelihood of diversion of India's nuclear fuel for weapon purposes (in order to prevent a nuclear arms race in the region).

Thomas Donnelly states, “Pakistan has every reason to feel itself an important part of this future, and to become something other than a paranoid state beset by enemies with nothing more than nuclear weapons to guarantee its safety”.<sup>37</sup> The world in general and the US in particular need to pay due attention to this observation and help create conducive environment to prevent Pakistan from turning into a paranoid state totally dependent on the nuclear weapons for its security. This would not only strengthen Pakistan but would help maintain stability in the region that stands paramount for the interests of the US as well as the higher goal of global peace.

## **Annex A**

### **India – U.S. Relations: A General Overview**

The highly successful **summit meetings** March 1-2, 2006 in New Delhi and July 18, 2005 in Washington D.C. between Prime Minister Dr. Manmohan Singh and President George W. Bush indicate the level of transformation in India-U.S. relations and the establishment of a **global, strategic partnership** between our two countries. The leaders of the two largest democracies in the world, committed to the values of human freedom and rule of law, believe that this new relationship will promote stability, democracy, prosperity and peace throughout the world. They believe that this relationship will have a decisive and positive influence on the future international system as it evolves in this new century.

### **Developments in Bilateral Relations**

Prime Minister Singh first met President Bush on September 21, 2004 at New York on the sidelines of the United Nations General Assembly session, where he remarked that the “best” in India-U.S. relations was “yet to come”.

The **tsunami** that struck south and south-east Asia in December, 2004, while catastrophic in the victims it claimed, provided an opportunity for the Indian and U.S. navies to work closely together in search, rescue and reconstruction efforts. It underscored the interoperability of the navies of the two countries in a real life situation.

Meanwhile, the **Next Steps in Strategic Partnership (NSSP)** process, first launched in January 2004 was moving forward rapidly, bringing along in its wake greater transparency and predictability in U.S. licensing arrangements for Indian imports of sensitive items and technology, leading to a significant rise in high-tech trade between the two countries. NSSP was successfully completed during the Prime Minister’s visit.

The conclusion of an **Open Skies Agreement** between India and the United States in April 2005, inked by Civil Aviation Minister Praful Patel and Transportation Secretary Norman Mineta added further ballast to the changing relationship. Enhanced connectivity between the two countries in terms of greater flights will provide a boost to trade, tourism and business. The decision by Air India to purchase 68 Boeing aircraft in a deal valued at US \$ 8 billion is an important milestone in commercial relations.

Visits to India by **Defense Secretary Rumsfeld** in December 2004 and **Secretary of State Rice** in March 2005 gave clear indications that the United States viewed its relationship with India from a strategic perspective thereby providing a framework for greater cooperation between the two countries on a wide range of issues. **External Affairs Minister Natwar Singh and Defense Minister Pranab Mukherjee** visited Washington in April and June, 2005 respectively raising the level of the dialogue to a higher plane and paving the way for the successful trip by Prime Minister Singh in July. The conclusion of a New Framework for the U.S. – India Defense Relationship by Defense Secretary Rumsfeld and Defence Minister Mukherjee imparts further momentum to bilateral ties.

The impact of **Hurricane Katrina** on ordinary people in Louisiana and Mississippi evoked sympathy amongst the people of India. As a token of our support for the affected people, India contributed US \$ 5 million to the American Red Cross and also sent in a planeload of relief supplies and material.

Prime Minister Singh and President Bush, along with UN Secretary General Kofi Annan, launched the **United Nations Democracy Fund (UNDEF)** at New York in September 2005 the two countries being the first to contribute to this initiative to the extent of US \$ 10 million each. Both nations are positively inclined to a replenishment of the UNDEF.

India and the U.S. recently concluded a **Science & Technology Agreement**, after several years of negotiation, in October 2005, aimed at boosting cooperation between our scientists and institutions of higher learning. The Annex to the Agreement

contains ways of handling IPR issues, which may arise in the course of such collaborative efforts.

**President Bush's enormously successful visit to India March 1-2, 2006** reaffirmed the commitment of the President and the Prime Minister to further expanding the growing ties between India and the United States. President Bush's memorable public address from the ramparts of Purana Quila was a highlight of his trip to India.

The successful passage through the United States Congress of the **Henry J. Hyde United States-India Peaceful Atomic Energy Cooperation Act of 2006** was a landmark event in bilateral relations, which enabled President Bush to sign it into law on December 18, 2006. This Act successfully revises U.S. law so as to enable the United States to extend full civil nuclear cooperation to India.

**US Commerce Secretary Gutierrez** visited India in February 2007 and **USTR Susan Schwab** in April 2007. The visits advanced the bilateral India-US commercial relationship and also expanded our interaction on multilateral issues including on the Doha Round of Multilateral Trade Negotiations. Export of Indian mangoes to the United States has commenced. A private sector advisory group has been established to provide inputs for strengthening and expanding commercial relations.

Important forthcoming events include a meeting of the **India-US CEO's Forum** at New York this September and a possible visit by **US Treasury Secretary Paulson** to India. **Secretary of State Dr. Rice** may also visit India later this year.

India and the United States have had some coordination of their respective policies and positions on developments in **Nepal, Sri Lanka and Bangladesh**. More recently, the first **Quadrilateral dialogue** between India, the U.S., Japan and Australia was held in May 2007. India continues to be pressed by the United States Administration and the U.S. Congress on its relations with **Iran and**



**Burma.** In turn, we express our apprehensions of US policies including arms transfers to **Pakistan.**

### **Defense Cooperation**

The new **Defense Framework** seeks to chart a course for the India – U.S. defense relationship for the next 10 years that will support the broader global partnership that our leaders seek to create. The new parameters of the defense relationship include cooperation in defense technology, continued joint and combined exercises and exchanges, expansion of defense trade, increased opportunities for technology transfer, collaboration, co-production and R&D.

The primary mechanism to guide defense ties is the **Defense Policy Group (DPG)** led by Defence Secretary on the Indian side and the Under Secretary of Defense for Policy on the U.S. side. The DPG held its 8th meeting November 2006 in New Delhi. Sub-groups such as the Defence Production and Procurement Group, the Military Cooperation Group, the Joint Technology Group and the Senior Technology Security Group report to and provide inputs to the DPG. A recently established Defense Joint Working Group met in India this April and discussed policy issues.

The armed forces of the two countries have held a number of **joint exercises** aimed at enhancing interoperability of all the services. Joint exercises involving the navies, armies and Special Forces of the two countries have been held. A new development this April was the holding of trilateral India-US-Japan naval exercises in the Sea of Japan.

During Prime Minister Singh's visit to the United States July 2005, the two countries had announced a **U.S. – India Disaster Response Initiative** to build on the successful experience during the tsunami operations of 2004 and to establish an ongoing effort to prepare for and conduct relief operations in the Indian Ocean region and beyond.

During President Bush's visit to India March 2006, the two countries agreed to the conclusion of a **Maritime Cooperation Framework** to enhance security in the maritime domain, to prevent piracy and other transnational crimes at sea, carry out search and rescue operations, combat marine pollution, respond to natural disasters, address emergent threats and enhance cooperative capabilities including through logistics support. Both sides are working to finalize a **Logistics Support Agreement**.

The **Hot-Transfer of USS Trenton**, Landing Platform Dock (LPD) 14 to the Indian Navy (IN) on January 17, 2007 was a significant event. This is the first ship acquisition by India from USA. It will be the first of its type for the Indian Navy. With a displacement of approx. 17,000 tons, the LPD is set to be the second largest ship with the Indian Navy, after the aircraft carrier Viraat. The ship will add punch to India's maritime forces with its capacity to participate in naval operations (ops), peacekeeping ops, tri-service ops and humanitarian relief. It has an unrivalled capacity to carry close to a battalion strength troops and sustain them over a long duration. Ambassador Sen commissioned the ship as the **INS Jalashwa** on June 22, 2007. The ship has now sailed out of Norfolk harbor and will reach India in a few days.

In May 2007 the US Administration notified the U.S. Congress of the possible sale of **C 130-J transport aircraft** to India. This deal is valued at a little over US \$ 1 billion.

### **Economic Relations**

India – U.S. bilateral **trade** grew from US \$ 13.49 billion in 2001 to US \$ 31.917 billion in 2006. India's major export products include gems and jewelry, textiles, organic chemicals and engineering goods. Our main imports from the U.S. are machinery, precious stones and metals, organic chemicals, optical and medical instruments, aircraft and aviation machinery. US exports to India grew by 26.31% in 2006 to reach USD 10.091 billion, while Indian exports to the US increased by 16.07% to hit USD 21.826 billion.

The U.S. is one of the largest **foreign direct investors** in India. The stock of actual FDI increased from US \$ 11.3 million in 1991 to US \$ 5708 million as on January 2007. FDI inflows from the U.S. constitute about 11% of total actual FDI inflows into India.

The U.S. is the leading **portfolio investor** in India. As in December 2006 U.S. based Foreign Institutional Investors have made a net investment of US \$ 17.8 billion of a total of US \$ 51.021 billion in Indian capital markets accounting for 33% of the total.

The U.S. is also the most important destination of **Indian investment abroad**. Between 1996 and July 2006, Indian companies invested US \$ 2619.1 million in the U.S. largely in manufacturing and non-financial services.

The institutional framework for bilateral economic cooperation comprises a **U.S. – India Economic Dialogue** co-chaired on the Indian side by Deputy Chairman Planning Commission Dr. Montek Singh Ahluwalia and on the U.S. side by Dr. Allan Hubbard, Assistant to the President for Economic Policy and Director of the National Economic Council. The sub-components of this dialogue are (a) a U.S. – India Financial and Economic Forum led by India's Finance Minister and the U.S. Treasury Secretary (b) a U.S. – India Commercial Dialogue headed by our Commerce Minister and the US Commerce Secretary (c) a U.S. – India Working Group on Trade co-chaired by our Commerce Minister and the US Trade Representative. The Economic Dialogue has two crosscutting themes in biotechnology and information technology. The IT theme has been expanded to become the Information and Communications Technology Working Group (ICT Working Group) that held its most recent meeting in Washington in July 2007.

In November 2002 a Statement of Principles on high technology commerce was issued which established the **High Technology Cooperation Group (HTCG)** aimed at furthering hi-tech trade including trade in dual-use goods and technologies. This group led by the Foreign Secretary of India and the US Under Secretary of Commerce held its 5th meeting in Washington, DC.

February 22-23, 2007. Comprising of two distinct parts, government-to-government meetings as well as a public-private forum, the HTCG meetings focus on four sectors -- IT, biotechnology, nanotechnology and defense technology.

Prime Minister Singh and President Bush established a **CEO's Forum** prior to their meeting in Washington July 18, 2005. Envisaged as a brains trust of business leaders from the two countries, the CEO's Forum presented a report to the two leaders during the visit to India of President Bush aimed at substantially broadening the levels of economic interaction between India and the U.S. The Chairs of the Indo-US Economic Dialogue have been directed to follow up expeditiously with the CEO's Forum. In this effort they convened a meeting of the Forum in New York on October 25, 2006 with high level government participation from both sides. The next meeting of this Forum is scheduled for September 2007 at New York.

In July 2005, Prime Minister Singh and President Bush established a **U.S. – India Agricultural Alliance** to focus on promoting teaching, research, service and commercial linkages. In March 2006, during the visit to India by President Bush the two countries launched the bilateral **Knowledge Initiative on Agriculture** with a three-year financial commitment to link universities, technical institutions and businesses to support agriculture education, joint research and capacity building projects including in the area of biotechnology. A work plan has been finalized and is being implemented.

President Bush and Prime Minister Singh agreed that their two governments would organize a **high-level public-private Investment Summit in 2006**, with a view to advancing mutually beneficial bilateral trade and investment flows. This was held in New York on October 25, 2006.

The logjam in **multilateral trade negotiations** in the Doha Round of the WTO, has produced a strain among the major trading nations of the world. India-US relations are not completely free from these strains either.

The US Government has **sanctioned a few Indian companies and individuals** for exporting to and contacts with Iranian enterprises and scientific establishments. India has stated that no Indian company or individual has violated either Indian law or international obligations.

### **Cooperation in Energy**

India and the U.S. launched a new **Energy Dialogue** in May 2005 aimed at increased trade and investment in the energy sector. The co-Chairs of this mechanism are Dr. Montek Singh Ahluwalia, Deputy Chairman, Planning Commission on the Indian side and Mr. Samuel Bodman, Energy Secretary on the U.S. side. A Steering Committee has also been formed to supervise the work of the Group headed by India's Foreign Secretary and the US Under Secretary for Energy Efficiency.

Five **working groups** have been formed covering the areas of : (a) oil and natural gas (b) electric power (c) coal (d)energy efficiency, renewable energy and new technologies (e) civil nuclear power. The working groups have finalized their terms of reference and are now moving to achieve their goals which include, strengthening mutual energy security and promoting stable energy markets; advancing understanding of efficient generation, transmission, distribution and use of electricity; developing and deploying clean energy technologies and energy conservation practices; dialogue and action on issues associated with civilian uses of nuclear energy.

**Energy Secretary Bodman** visited India in March 2007. He had meeting with PM and several of our Cabinet Ministers.

During Prime Minister Singh's visit to Washington D.C. July 2005, President Bush told the Prime Minister that he will work to achieve **full civil nuclear energy cooperation** with India as it realizes its goals of promoting nuclear power and achieving energy security. Appreciating India's strong commitment to preventing WMD proliferation and as a responsible state with advanced nuclear technology, President Bush felt that India should acquire the same

benefits and advantages as other such states. He said he would seek agreement from Congress to adjust U.S. laws and policies, and the U.S. would work with friends and allies to adjust international regimes to enable full civil nuclear energy cooperation and trade with India. Prime Minister Singh in turn conveyed that India would reciprocally agree that it would be ready to assume the same responsibilities and practices and acquire the same benefits and advantages as other leading countries with advanced nuclear technology, such as the United States.

The leaders agreed to establish a **working group** to undertake on a phased basis the necessary actions to fulfill these commitments. The working group is co-chaired by the Foreign Secretary of India and the US Under Secretary of State for Political Affairs. The co-chairs are in regular, direct contact.

When President Bush visited India in early March 2006, the two governments announced the **successful completion of discussions on India's plan to separate its civilian nuclear program from its military program**. The passage of the **Henry J. Hyde Act** and its signature into law by President Bush on December 18, 2006 was another landmark in this process. The two sides have also **completed negotiations** on a bilateral civil nuclear cooperation agreement (the so-called **123 Agreement**), which will be signed soon. Further steps include the conclusion of an India-specific safeguards agreement with the IAEA following which the 45-nation Nuclear Supplier's Group (**NSG**) will be requested to change its guidelines to permit such cooperation with India. Thereafter the bilateral 123 Agreement will have to be presented to the U.S. Congress for an up-or-down vote.

India has been invited to join the **International Thermonuclear Experimental Reactor (ITER)** project as a full partner. This decision was taken in December 2005 at the ITER negotiations meeting at Jeju, South Korea. The U.S. strongly supported India's application. ITER is the experimental step between the latest studies in plasma physics and future electricity producing fusion power plants.

## **Cooperation in Science & Technology**

The recently signed **S&T Agreement** between India and the United States is expected to provide a fillip to S&T cooperation and expand relations between the S&T communities of both countries. The Agreement visualized cooperation in areas such as basic sciences, space, energy, nanotechnology, health and IT. The Agreement also establishes IPR protocols and other provisions necessary to conduct active collaborative research.

India and the U.S. have also agreed to enhance joint activities in **space cooperation** including in-space navigation and in the commercial space arena. There is a U.S. – India Joint Working Group on Civil Space Cooperation that discusses joint activities. Its next meeting is scheduled in Washington D.C. end-February 2007. The Indian Chandrayaan – 1 mission to the moon in 2008 will launch two U.S. instruments.

During the visit to India of President Bush, the leaders of the two countries announced the establishment of a **Bi-National Science and Technology Commission** that will be co-funded by the two governments. Its aim is to generate collaborative partnerships in S&T and promote industrial research and development. This initiative emphasizes the importance the two countries place on knowledge partnerships.

Despite the bulk of the sanctions on Indian entities and organizations having been removed over the past few years, Indian scientists working in cutting edge technologies and areas continue to find it **difficult to obtain visas to the United States**. India has brought this to the attention of the U.S. authorities.

An interesting aspect of S&T cooperation between India and the United States is the expanding direct exchanges between U.S. and Indian Universities. Increasingly, the major U.S. Universities have been exploring direct contacts with India and several **University Presidents have visited India**.

## **People-to-People Ties**

The 2.5 million strong **Indian American community** in the United States has been growing in affluence and political strength and has developed into a force for closer and stronger ties between their adopted country and their nation of origin. Their active cooperation and interaction at different levels with the Government of India as well as with the U.S. Administration provides a bridge between the two countries. The passage of the Henry J. Hyde Act by the U.S. Congress saw the Indian-American community coming of age in the United States. Their efforts in support of this Act were magnificent.

**Cultural ties** between the two countries are largely driven by the private sector. Indian music, dance, art and literature is widely appreciated in the United States. Indian cuisine is a favorite with many Americans and Indian films are reaching out to wider audiences here. Efforts are currently underway to spread Indian culture to a more popular level as well as ensuring that Indian artists are able to perform at mainstream theatres and halls.

**Students** from India continue to flock to the U.S. especially for higher, University level education. India is now the number one country sending students to the U.S. with approximately 80,000 students each year, far surpassing China. US Under Secretary of State Karen Hughes visited India in April 2007 with a delegation of 5 US University Presidents and pledged that Indian students would find it easier to obtain visas to study in the US.

## **The Future**

India and the United States are well on the way to the formation of a **strong partnership** based on shared common values including respect for individual liberty, rule of law and democracy.



**Annex B**

**Press Releases 2005**

**The Defense Framework**

New Framework for the U.S.-India Defense Relationship, Signed on June 28, 2005 in Washington DC by Minister of Defense of India, Pranab Mukherjee & Secretary of Defense of the United States, Donald Rumsfeld

**28 June 2005**

The United States and India have entered a new era. We are transforming our relationship to reflect our common principles and shared national interests. As the world's two largest democracies, the United States and India agree on the vital importance of political and economic freedom, democratic institutions, the rule of law, security, and opportunity around the world. The leaders of our two countries are building a U.S.-India strategic partnership in pursuit of these principles and interests.

Ten years ago, in January 1995, the Agreed Minute on Defense Relations Between the United States and India was signed. Since then, changes in the international security environment have challenged our countries in ways unforeseen ten years ago. The U.S.-India defense relationship has advanced in a short time to unprecedented levels of cooperation unimaginable in 1995. Today, we agree on a new Framework that builds on past successes, seizes new opportunities, and charts a course for the U.S.-India defense relationship for the next ten years. This defense relationship will support, and will be an element of, the broader U.S.-India strategic partnership.

The U.S.-India defense relationship derives from a common belief in freedom, democracy, and the rule of law, and seeks to advance shared security interests. These interests include:

- Maintaining security and stability;
- Defeating terrorism and violent religious extremism;

- Preventing the spread of weapons of mass destruction and associated materials, data, and technologies; and
- Protecting the free flow of commerce via land, air and sea lanes.

In pursuit of this shared vision of an expanded and deeper U.S.-India strategic relationship, our defense establishments shall:

- Conduct joint and combined exercises and exchanges;
- Collaborate in multinational operations when it is in their common interest;
- Strengthen the capabilities of our militaries to promote security and defeat terrorism;
- Expand interaction with other nations in ways that promote regional and global peace and stability;
- Enhance capabilities to combat the proliferation of weapons of mass destruction;
- In the context of our strategic relationship, expand two-way defense trade between our countries. The United States and India will work to conclude defense transactions, not solely as ends in and of themselves, but as a means to strengthen our countries' security, reinforce our strategic partnership, achieve greater interaction between our armed forces, and build greater understanding between our defense establishments;
- In the context of defense trade and a framework of technology security safeguards, increase opportunities for technology transfer, collaboration, co-production, and research and development;
- Expand collaboration relating to missile defense;
- Strengthen the abilities of our militaries to respond quickly to disaster situations, including in combined operations;
- Assist in building worldwide capacity to conduct successful peacekeeping operations, with a focus on enabling other countries to field trained, capable forces for these operations;
- Conduct exchanges on defense strategy and defense transformation;

- Increase exchanges of intelligence; and
- Continue strategic-level discussions by senior leadership from the U.S. Department of Defense and India's Ministry of Defence, in which the two sides exchange perspectives on international security issues of common interest, with the aim of increasing mutual understanding, promoting shared objectives, and developing common approaches.

The Defense Policy Group shall continue to serve as the primary mechanism to guide the U.S.-India strategic defense relationship. The Defense Policy Group will make appropriate adjustments to the structure and frequency of its meetings and of its subgroups, when agreed to by the Defense Policy Group co-chairs, to ensure that it remains an effective mechanism to advance U.S.-India defense cooperation.

In recognition of the growing breadth and depth of the U.S.-India strategic defense relationship, we hereby establish the Defense Procurement and Production Group and institute a Joint Working Group for mid-year review of work overseen by the Defense Policy Group.

- The Defense Procurement and Production Group will oversee defense trade, as well as prospects for co-production and technology collaboration, broadening the scope of its predecessor subgroup the Security Cooperation Group.
- The Defense Joint Working Group will be subordinate to the Defense Policy Group and will meet at least once per year to perform a midyear review of work overseen by the Defense Policy Group and its subgroups (the Defense Procurement and Production Group, the Joint Technical Group, the Military Cooperation Group, and the Senior Technology Security Group), and to prepare issues for the annual meeting of the Defense Policy Group.

The Defense Policy Group and its subgroups will rely upon

this Framework for guidance on the principles and objectives of the U.S.-India strategic relationship, and will strive to achieve those objectives.

Signed in Arlington, Virginia, USA, on June 28, 2005, in two copies in English, each being equally authentic.

*Secretary of Defense*  
For And on Behalf of  
The Government of The  
United States of America

*Minister of Defence*  
For and on Behalf of  
The Government of The  
Republic of India

REFERENCE: <http://newdelhi.usembassy.gov/ipr062805.html>

### **U.S. Arms Sales to Pakistan**

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### **Summary**

This report briefly reviews the issue of U.S. arms sales to Pakistan. It provides background details regarding recent major weapons transactions between the United States and Pakistan, as well as the rationale given for such sales. It also reviews the current statutory framework that governs U.S. weapons sales to Pakistan, including existing authorities that could be used to curtail or terminate existing or prospective sales to that country. This report will only be updated should events warrant.

In 2006, the United States signed arms transfer agreements with Pakistan in excess of \$3.5 billion, ranking Pakistan first among all arms clients of the United States during that calendar year. The key elements in Pakistan's arms purchases from the United States were 36 F-16C/D Block 50/52 fighter aircraft for \$1.4 billion; a variety of missiles and bombs to be utilized on the F-16 C/D fighter aircraft for over \$640 million; the purchase of Mid-Life Update Modification Kits to upgrade Pakistan's F-16A/B aircraft for \$890 million; and 115 M109A5 155mm Self-propelled howitzers for \$52

million. The rise of Pakistan to its new status as a major arms purchaser from the United States is particularly noteworthy given the difficulties the United States has had with Pakistan since the 1970s over its successful effort to produce nuclear weapons. The total value of Pakistan's 2006 arms purchases from the United States nearly matches the total value of all Foreign Military Sales (FMS) program purchases by Pakistan from the United States for the entire period from FY1950-FY2001 (more than \$3.6 billion in current dollars).<sup>38</sup>

In the 1950s and 1960s, at the height of the Cold War, the United States saw Pakistan as a useful ally in the effort to contain the military expansion and political influence of the Soviet Union. For its part, Pakistan saw its relationship with the United States as a useful counterweight to India's military power and its prospective threat to Pakistan's security. Beginning in the mid-1970s, Pakistan responded to India's 1974 underground nuclear test by seeking its own nuclear weapons capability. These efforts subsequently led the United States to suspend military aid beginning in 1979. Soon thereafter, following the Soviet Union's invasion of Afghanistan, the U.S. waived its sanctions on assistance to Pakistan in an effort to gain its support for the effort to force the withdrawal of the Soviet military from Afghanistan. Early in the Presidency of Ronald Reagan, the United States sold Pakistan 40 F-16 A/B combat fighter aircraft, an indication of the Reagan Administration's view of that country's potential as a supporter against Soviet Union expansionism in South Asia. Yet in spite of the renewal of U.S. aid and the development of closer military ties in the early 1980s, many in Congress remained concerned with Pakistan's developing nuclear weapons program.

In 1985, Congress added Section 620E(e) to the Foreign Assistance Act.<sup>39</sup> This provision, known as the Pressler amendment, required the President to certify to Congress that Pakistan did not possess a nuclear explosive device during each fiscal year in which the Administration proposed to provide assistance to Pakistan. This placed an important brake on expansion of a defense supply relationship between the United States and Pakistan. With the withdrawal of Soviet military forces from Afghanistan, the nuclear

weapons development program of Pakistan came under intensive U.S. examination again.

Finally, in October 1990, President George H. W. Bush suspended U.S. military assistance to Pakistan. As a result of this action, the United States stopped the delivery of 28 F-16 fighter aircraft that Pakistan had purchased 1989.<sup>40</sup>

Throughout the 1990s, the United States essentially ended military cooperation and arms sales to Pakistan. It was only after the terrorist attacks against the United States on September 11, 2001, that the Bush Administration chose to re-engage with Pakistan in the area of defense cooperation, and was willing, once again, to consider and approve major weapons sales to that country. It secured authority from Congress, which has been extended annually as required, to waive restrictions on aid to Pakistan. President Bush has invoked this authority to keep providing aid. The rationale for this change of policy regarding arms sales to Pakistan was to secure its government's support for the U.S. counter-terrorism program. In June 2004, President George W. Bush designated Pakistan a Major Non-NATO ally.<sup>41</sup>

After a decade of denying Pakistan the right to purchase advanced military equipment and assistance in purchasing it, a major contract was signed in 2006 for the purchase of 36 new F-16C/D aircraft and associated equipment. The express rationale of the Bush Administration for this specific sale was:

Given its geo-strategic location and partnership in the Global War on Terrorism (GWOT), Pakistan is a vital ally of the United States...This proposed sale will contribute to the foreign policy and national security of the United States by helping an ally meet its legitimate defense requirements. The aircraft also will be used for close air support in ongoing operations contributing to the GWOT.<sup>42</sup>

This statement succinctly summarizes what continues to be the underlying argument by the Bush Administration for arms sales and military assistance to Pakistan. Apart from the 40 F-16A/B aircraft sold to Pakistan during the early years of the Reagan Administration, few other major weapons systems have been sold to

Pakistan by the United States until the 2006 F-16 aircraft sale. Other systems sold have primarily been missiles such as the Sidewinder for the F-16 aircraft, and a limited number of Harpoon anti-ship missiles. Since the Bush Administration has announced its willingness to sell major weapons systems to Pakistan, various press accounts have speculated about possible new sales. Apart from the major 2006 F-16 sales and related equipment noted above, no additional major weapon systems have been sold to Pakistan.<sup>43</sup>

The statutory authority governing U.S. arms sales to Pakistan is found in the Arms Export Control Act (AECA).<sup>44</sup> This statute sets out terms and conditions that must be met before any country can be permitted to purchase any item on the United States Munitions List. An essential requirement is that the country seeking U.S. weapons be “eligible” to purchase them. Thus, if there is no other prohibition in other U.S. law that would preclude the sale of a weapon to Pakistan, then it would be “eligible” to make such a purchase from the United States. Because a country is eligible to purchase a weapon does not mean that the United States is obligated to sell it.<sup>45</sup>

Should the United States government choose to do so, it can stop the transfer of defense articles and services to Pakistan for which valid contracts exist, without finding it in violation of an applicable agreement with the United States relating to permissible uses of weapons previously sold. The authority for suspension of deliveries or defense items or cancellation of military sales contracts is found in sections 2(b) and 42(e)(1)-(2) of the AECA. Section 2(b) of the Arms Export Control Act permits the Secretary of State, under the President’s direction, to, among other things, determine “whether there shall be delivery or other performance” regarding sales or exports under the AECA in order that “the foreign policy of the United States is best served thereby.”

Section 42(e)(1) of the Arms Export Control Act states that<sup>46</sup>:

*Each contract for sale entered into under sections 21, 22, 29 and 30 of this Act, and each contract entered into under section 27(d) of the Act, shall provide that such contract may be canceled in whole or in part, or its execution suspended, by the United States at any time under unusual or compelling circumstances if the national interest so requires.*

Section 42(e)(2)(A) of the Arms Export Control Act further states

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on Strategic Stability in South Asia*

that:

*Each export license issued under section 38 of this Act shall provide that such license may be revoked, suspended, or amended by the Secretary of State, without prior notice, whenever the Secretary deems such action to be advisable.*

Thus, all government-to-government agreements or licensed commercial contracts for the transfer of defense articles or defense services may be halted, modified, or terminated by the executive branch should it determine that it is advisable to do so. In this context, should the Bush Administration decide that actions taken by the government of Pakistan are contrary to the national security interests of the United States, the President can suspend or terminate existing arms sales agreements or prevent the delivery of weapons previously ordered, as he deems appropriate. The Congress can also pass legislation that would suspend, modify, or terminate any arms sale contract should it choose to do so.



END NOTES

- <sup>1</sup> Moeed Yusuf, "Nuclear Stabilization in South Asia", *South Asia Journal*, Vol.7, (Lahore: March 2005), P.38.
- <sup>2</sup> Albert Legault and George Lindsey, *The Dynamic of the Nuclear Balance*, (Ithaca: Cornell University Press, 1974), P.182.
- <sup>3</sup> Amoretta M. Hoerber, "Strategic Stability", *Air University Review*, July-August 1968. See at <http://www.airpower.maxwell.af.mil/airchronicles/aureview/1968/jul-aug/hoerber.html>. Accessed on March 01, 2008.
- <sup>4</sup> Ashley Tellis adds technological stability as the fourth factor. However, due to its extremely overlapping contents, I have deliberately refrained from adding it to the list. It may be assessed in conjunction with Arms Race stability.
- <sup>5</sup> See for example, P.R.Chari, Sonika Gupta and Arpit Rajain<sup>(eds.)</sup>, *Nuclear Stability in Southern Asia*, (New Delhi: Manohar Publishers, 2003). Arpit Rajain, *Nuclear Deterrence in Southern Asia: China, India and Pakistan*, (New Delhi: Sage Publishers, 2005). Lowell Dittmer<sup>(ed)</sup>, *South Asia's Nuclear Security Dilemma: India, Pakistan and China*, (Armonk: M.E. Sharpe, 2004). Kraig M.R, "The Political and Strategic Imperatives of Nuclear deterrence in South Asia", *India Review*, Vol.2, No.1, (January 01, 2003), pp.1-48.
- <sup>6</sup> Andrew C. Winner and Toshi Yoshihara, "India and Pakistan at the Edge", *Survival*, Vol.44, No.3, (Autumn 2002), pp.69-86. Chris Gagne, "Nuclear Risk Reduction in South Asia: Building on Common Ground", see at <http://www.stimson.org/southasia/pdf/NRRMGagne.pdf>. Moeed Yousaf, "Nuclear Stabilisation in South Asia", *South Asia Journal*, No.7, (January-March 2005), pp. 36-56. Rodney W. Jones, "Conventional Military Imbalance and Strategic Stability in South Asia", *SASSU Research Paper*, No.1, (March 2005). Paul Kapur, "India and Pakistan's Unstable Peace: Why Nuclear South Asia is not like Cold War Europe", *International Security*, Vol.30, No.2, (Fall 2005), pp. 127-152. Syed Rifaat Hussain, "Analyzing Strategic Stability in South Asia with pathways and prescriptions for avoiding nuclear war", *Contemporary South Asia*, Vol.14, No.2, (June 2005), pp.141-153. Feroz Hassan Khan, "Challenges to Nuclear Stability in South Asia", *The Nonproliferation Review*, (Spring 2003), pp.59-74. Rodney W. Jones, "Nuclear Stability and Escalation Control in South Asia: Structural Factors", in Michael Krepon, Rodney Jones and Ziad Haider(eds.), *Escalation Control and the Nuclear Option in South Asia*, available at <http://www.stimson.org/southasia/pdf/ESCCONTROLCHAPTER2.pdf>. Shaun Gregory & Maria Sultan, "Towards Strategic Stability in South Asia", *Contemporary South Asia*, Vol.14, No.2, (June 2005), pp.135-140. Michael Quinlan, "How Robust is India-Pakistan Deterrence?", *Survival*, Vol.42, No.4, (Winter 2000-01), pp.141-54. Also see, Scott D. Sagan, "Nuclear Dangers in South Asia", published in the *Forum on Physics and Society*, (April 2004), available at [http://iis-db.stanford.edu/pubs/20573/sagan\\_nuc\\_sasia.pdf](http://iis-db.stanford.edu/pubs/20573/sagan_nuc_sasia.pdf).
- <sup>7</sup> Certainly there are many other differences between the two cases (e.g.

differences in terms of geographical location and thereby flight timings, number of weapons required for mutual assured destruction etc). However, most of them have won due recognition in the existing literature on strategic stability. Moreover, the highlighted differences above stand more pertinent and relevant to this research.

- <sup>8</sup> Almost all of the papers mentioned in footnote # 7 refer to these factors.
- <sup>9</sup> Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: A Debate Renewed*, (New York: W.W.Norton & Company, 2003).
- <sup>10</sup> See for example, Syed Rifaat Hussain, “Analyzing strategic stability in South Asia with pathways and prescriptions for avoiding nuclear war”, *Contemporary South Asia*, Vol.14, No.2, (June 2005), pp.141-153. Feroz Hassan Khan, “Challenges to Nuclear Stability in South Asia”, *The Nonproliferation Review*, (Spring 2003), pp.59-74. Rodney W. Jones, “Nuclear Stability and Escalation Control in South Asia: Structural Factors”, in Michael Krepon, Rodney Jones and Ziad Haider(eds.), *Escalation Control and the Nuclear Option in South Asia*, available at <http://www.stimson.org/southasia/pdf/ESCCONTROLCHAPTER2.pdf>.
- <sup>11</sup> These measures include a long list of actions taken by both India and Pakistan. It includes, the beginning of the peace process itself, the institutionalization of Command and Control infrastructure, conclusion of CBMs, NRRMs and CSBMs, relative openness on policy and doctrinal issues and legislation related to Export Controls.
- <sup>12</sup> Polarity debate in the existing literature discusses the “Bipolarity” and “Multipolarity” at great length however it does not explore the impacts of “unipolarity” on strategic stability. This paper therefore aims to fill this gap and looks at un-tapping the potential of “unipolarity” to affect strategic stability.
- <sup>13</sup> See for example, P.R.Chari, “Nuclear Stability in Southern Asia: An Indian Perspective”, in P.R.Chari, Sonika Gupta and Arpit Rajain(eds.), *Nuclear Stability in Southern Asia*, (New Delhi: Manohar Publishers, 2003), pp.133-4 and 138-9. Also see Summit Ganguly & Davin T. Hagerty, *Fearful Symmetry: India-Pakistan Crises in the Shadow of Nuclear Weapons*, (New Delhi: Oxford University Press, 2005), pp.8-9.
- <sup>14</sup> See for example Henry D. Sokolski(ed), *Gauging US-Indian Strategic Cooperation*, (United States: Strategic Studies Institute, March 2007). Cherian Samuel, “Indo-US Defence Cooperation and the Emerging Strategic Relationship”, *Strategic Analysis*, Vol.31, No.2, (March 2007), pp. 209-236. Nicholas Burns, “The US and India: The New Strategic Partnership”, *Remarks to the Asia Society*, (New York City: October 18, 2005), see at <http://www.state.gov/p/us/rm/2005/55269.htm>. Summit Ganguly, “The Start of a Beautiful Friendship? The United States and India”, *World Policy Journal*, Vol.XX, No.1, (Spring 2003). Ashlon B. Carter, “America’s New Strategic Partner?”, *Foreign Affairs*, (July/August 2006). And Niharika Chibber Joe, “The ‘India Deal’: Regional Implications”, *IPCS China & East Asia*, No.2076, (July 18, 2006).
- <sup>15</sup> Power Transition Theorists argue, “the prospects for violent conflict are

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enhanced when the distribution of power between rivals becomes ambiguous... A stronger state need not attack a discernibly weaker foe to accomplish its goals; a weaker state will not attack a stronger one because it will lose". See Gregory S. Sanjian, "Arms Transfers, Military Balances, and Interstate Relations: Modeling Power Balance versus Power Transition Linkages", *The Journal of Conflict Resolution*, Vol.47, No.6, (December 2003), P.719. History however shows a contrary picture. The recent examples of the US attack on Afghanistan and Iraq are cases in point.

<sup>16</sup> Gregory S. Sanjian, *ibid*, pp. 711-727.

<sup>17</sup> *Ibid*.

<sup>18</sup> All the major wars in history have been fought amongst the then great powers with their tremendous conventional weapons potential. Their military capabilities, in a way, encouraged them to show aggression whereas the adversary's potential failed to deter them.

<sup>19</sup> For a detailed analysis see, Gregory S. Jones, "Pakistan's 'Minimum Deterrent' Nuclear Force Requirements", and Peter R. Lavoy, "Islamabad's Nuclear Posture: Its Premises and Implementation" in Henry D. Sokolski<sup>(ed)</sup>, *Pakistan's Nuclear Future: Worries beyond War*, (United States: Strategic Studies Institute, January 2008).

<sup>20</sup> By this I mean that in the contemporary regional settings the nature of the relationship of both sides (in the realm of defence & security) does have an impact on the other. Practically it is impossible to de-hyphenate relations with India and Pakistan at this stage because of the inter-linkages that every development has in terms of its implications.

<sup>21</sup> This is the viewpoint held by Kenneth Waltz. It points towards an inadvertent danger i.e, when the expected gains would become higher than the estimated costs, it would increase the temptation for a state to take risks and opt for an adventure.

<sup>22</sup> See Annex A.

<sup>23</sup> Transcript of an interview with the US Secretary of State Condoleezza Rice by *Post* Editors and Reporters in *The Post Newsroom*, (Friday: March 25, 2005), see at <http://www.washingtonpost.com/ac2/wp-dyn/A2015-2005Mar25?language=printer>.

<sup>24</sup> For a detailed analysis of the following points on Indo-US Nuclear Deal, See Sadia Tasleem, *Indo-US Nuclear Cooperation: Altering Strategic Positioning and Shifting Balance of Power in South Asia*, (Colombo: Regional Center for Strategic Studies, 2007).

<sup>25</sup> It implies that one of the two antagonists possesses sufficient capabilities to deter its adversary. The power balance in such a situation is clearly tilted towards one side. For details see, Albert Legault and George Lindsey, *The Dynamic of the Nuclear Balance*, (Ithaca: Cornell University Press, 1974), P.174 & pp.182-183.

<sup>26</sup> At present the nuclear inventory of the two is as follows; According to an estimate of 2006 Pakistan is thought to have 30-85 kg of Weapon-Grade Plutonium and 1300-1700 kg of Weapon-Grade Uranium that enables it to have an inventory of 70-115 nuclear weapons. India on the other hand was

estimated in 2003 to have a stockpile of fissile material that could be used to build 70 to 100 nuclear weapons. For reference see, See Zia Mian et.al, “Fissile Materials in South Asia: The Implications of the US-India Nuclear Deal”, *International Panel on Fissile Materials research Report No 1*, (September 2006), p.3 at [http://www.fissilematerials.org/ipfm/site\\_down/ipfmresearchreport01.pdf](http://www.fissilematerials.org/ipfm/site_down/ipfmresearchreport01.pdf): (Accessed on June 07, 2008). “Global Stocks of Nuclear Explosive Materials”, *Institute for Science and International Security*, July 12, 2005, revised September 07, 2005 at [http://www.isis-online.org/global\\_stocks/end2003/tableofcontents.html](http://www.isis-online.org/global_stocks/end2003/tableofcontents.html): (Accessed on June 07, 2008). Also see Gregory S. Jones, “Pakistan’s ‘Minimum Deterrent’ Nuclear Force Requirements”, in Henry D. Sokolski(ed), *Pakistan’s Nuclear Future: Worries beyond War*, (United States: Strategic Studies Institute, January 2008), pp. 93-120. Now, as the contemporary trends and developments indicate India has a good chance to rapidly enhance its nuclear weapons stockpiles. Under the present circumstances, if India chooses to embark on such a program, there would be little choices for Pakistan. It would inculcate a deep sense of vulnerability pushing Pakistan to pursue an arms race.

27 ‘New Framework for the US–India Defense Relationship’, Press Releases Embassy of India, Washington, D.C., 28 June 2005: [http://www.indianembassy.org/press\\_release/2005/June/31.htm](http://www.indianembassy.org/press_release/2005/June/31.htm).

28 For example the fleet of F-16 aircrafts.

29 Rodney W. Jones, “Conventional Military Imbalance and Strategic Stability in South Asia”, *SASSU Research Report*, No.1, (March 2005).

30 Henry D. Sokolski(ed), “Pakistan’s Nuclear Woes”, *Pakistan’s Nuclear Future: Worries beyond War*, (United States: Strategic Studies Institute, January 2008), P. 8.

31 For a detailed analysis of why the analysts differ over the success of India’s indigenous missile defence program see, Martin Seiff, “A Giant Leap forward for Indian Missile Defense”, *Space War*, (December 01, 2006), at [http://www.spacewar.com/reports/A\\_Giant\\_Leap\\_Forward\\_For\\_Indian\\_Missile\\_Defense\\_999.html](http://www.spacewar.com/reports/A_Giant_Leap_Forward_For_Indian_Missile_Defense_999.html).

32 “Lockheed Martin: United States, India may Cooperate on Missile Defense”, *India Defence*, (February 07, 2008), at <http://www.india-defence.com/reports-3725>.

33 See in Asley J. Tellis, “The Evolution of US-Indian Ties: Missile Defence in an Emerging Strategic Relationship”, *International Security*, Vol.30, No.4, (Spring 2006), P.118.

34 Gregory S. Jones, “Pakistan’s ‘Minimum Deterrent’ Nuclear Force Requirements”, in Henry D. Sokolski(ed), *Pakistan’s Nuclear Future: Worries beyond War*, (United States: Strategic Studies Institute, January 2008), P. 112.

35 Summit Ganguly & Davin T. Hagerty, *Fearful Symmetry: India-Pakistan Crises in the Shadow of Nuclear Weapons*, (New Delhi: Oxford University Press, 2005), P.188.

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- <sup>36</sup> Gregory S. Jones, *ibid*, P.96.
- <sup>37</sup> Thomas Donnelly, “Bad Options: Or How I Stopped Worrying and Learned to Live with Loose Nukes”, in Henry D. Sokolski(ed), *Pakistan’s Nuclear Future: Worries beyond War*, op.cit, P. 367.
- <sup>38</sup> Data from Fiscal Year Series report of the Defense Security Cooperation Agency (DSCA) of the Department of Defense. Pakistan has contracted for 18 F-16C/D aircraft; it has not exercised its option to purchase the additional 18 aircraft. Descriptions of Pakistan’s 2006 arms purchases from the United States are found in CRS Report RL34187, *Conventional Arms Transfers to Developing Nations, 1999-2006*, by Richard F. Grimmett. This report includes data tables showing Pakistan’s rank among all developing nations in arms transfer agreements with all weapons suppliers for various time periods.
- <sup>39</sup> P.L. 99-83, Title IX, § 902.
- <sup>40</sup> Subsequently, in 1998, the United States agreed to compensate Pakistan for the funds it had expended to purchase the 28 F-16s through a cash payment and goods, including surplus wheat. For a detailed discussion of the various political and military issues in the U.S.-Pakistan relationship see CRS Report RL33498, *Pakistan-U.S. Relations*, by K. Alan Kronstadt.
- <sup>41</sup> The most recent statute providing the President authority to waive restrictions on assistance to Pakistan is P.L. 110-53, signed August 3, 2007. Section 2042 of this act provides that upon receipt by Congress of a Presidential determination that contains specific stipulations regarding Pakistan, the President may waive provisions in law that would otherwise prevent U.S. military assistance to Pakistan. This authority is valid through FY2008; see CRS Report RL33498, *Pakistan-U.S. Relations*.
- <sup>42</sup> Transmittal No. 06-09, June 28, 2006, Pakistan — F-16C/D Block 50/52 Aircraft. Defense Security Cooperation Agency. Available on the DSCA website at [<http://www.dscamilitary.com>]. For a detailed discussion of the policy implications of and issues associated with the aircraft sales to Pakistan see CRS Report RL33515, *Combat Aircraft Sales to South Asia: Potential Implications*, by Christopher Bolkcom, Richard F. Grimmett, and K. Alan Kronstadt.
- <sup>43</sup> The United States has provided excess defense systems to Pakistan such as 8 excess P-3C Orion maritime patrol aircraft, and refurbished AH-1F Cobra attack helicopters. The United States has also provided 6 C-130 military transport aircraft, surveillance radars, military radios, and over 2,000 TOW anti-tank missiles. But, as noted above, apart from the F-16 fighter aircraft, the U.S. has not sold Pakistan other major combat systems, such as main battle tanks or naval vessels. Summaries and details of past weapons orders by Pakistan from the United States and from other arms suppliers are found in Forecast International, *Asia, Australia & Pacific Rim*, Pakistan, October 2006.
- <sup>44</sup> P.L. 90-629, as amended. 22 U.S.C.2751 et. seq.
- <sup>45</sup> A discussion of how the AECA can place conditions on the use of U.S. weapons sold to foreign nations is in CRS Report RL30982, *U.S. Defense Articles and Services Supplied to Foreign Recipients: Restrictions on Their*

<sup>46</sup> Use, by Richard F. Grimmett.  
22 U.S.C. § 2791(e).

## **Bibliography**

### **Books**

- Chari, P.R. Gupta, Sonika & Rajain<sub>(eds.)</sub>, Arpit. *Nuclear Stability in Southern Asia*. New Delhi: Manohar Publishers, 2003.
- Dittmer<sub>(ed)</sub>, Lowell. *South Asia's Nuclear Security Dilemma: India, Pakistan and China*. Armonk: M.E. Sharpe, 2004.
- Ganguly, Summit & Hagerty, Davin T. *Fearful Symmetry: India-Pakistan Crises in the Shadow of Nuclear Weapons*. New Delhi: Oxford University Press, 2005.
- Haider, Ziad. Krepon, Michael & Jones, Rodney<sub>(eds.)</sub>. *Escalation Control and the Nuclear Option in South Asia*: <http://www.stimson.org/southasia/pdf/ESCCONTROLCHAPTER2.pdf>.
- Legault, Albert & Lindsey, George. *The Dynamic of the Nuclear Balance*. Ithaca: Cornell University Press, 1974.
- Rajain, Arpit. *Nuclear Deterrence in Southern Asia: China, India and Pakistan*. New Delhi: Sage Publishers, 2005.
- Sagan, Scott D. and Waltz, Kenneth N. *The Spread of Nuclear Weapons: A Debate Renewed*. New York: W.W.Norton & Company, 2003.
- Sokolski<sub>(ed)</sub>, Henry D. *Gauging US-Indian Strategic Cooperation*. United States: Strategic Studies Institute, March 2007.
- Sokolski<sub>(ed)</sub>, Henry D. *Pakistan's Nuclear Future: Worries beyond War*. United States: Strategic Studies Institute, January 2008.
- Tasleem, Sadia. *Indo-US Nuclear Cooperation: Altering Strategic Positioning and Shifting Balance of Power in South Asia*. Colombo: Regional Center for Strategic Studies, 2007.

### **Official Documents & Statements**

- New Framework for the US–India Defense Relationship’, Press Releases Embassy of India, Washington, D.C., 28 June 2005:
- [http://www.indianembassy.org/press\\_release/2005/June/31.htm](http://www.indianembassy.org/press_release/2005/June/31.htm).
- Burns, Nicholas. “The US and India: The New Strategic Partnership”. *Remarks to the Asia Society*. New York City. October 18, 2005:
- <http://www.state.gov/p/us/rm/2005/55269.htm>.
- Transcript of an interview with the US Secretary of State Condoleezza Rice by *Post* Editors and Reporters in *The Post* Newsroom. March 25, 2005:
- <http://www.washingtonpost.com/ac2/wp-dyn/A2015-2005Mar25?language=printer>.

---

**Journals**

- Carter, Ashlon B. "America's New Strategic Partner?". *Foreign Affairs*. July/August 2006.
- Ganguly, Sumit. "The Start of a Beautiful Friendship? The United States and India". *World Policy Journal*. Vol.XX. No.1. Spring 2003.
- Gregory, Shaun. & Sultan, Maria. "Towards Strategic Stability in South Asia". *Contemporary South Asia*. Vol.14. No.2. June 2005.
- Hoeber, Amoretta M. "Strategic Stability". *Air University Review*. July-August 1968. See at <http://www.airpower.maxwell.af.mil/airchronicles/aureview/1968/jul-aug/hoeber.html>.
- Hussain, Syed Rifaat. "Analyzing Strategic Stability in South Asia with pathways and prescriptions for avoiding nuclear war". *Contemporary South Asia*. Vol.14. No.2. June 2005.
- Joe, Niharika Chibber. "The 'India Deal': Regional Implications". *IPCS China & East Asia*. No.2076. July 18, 2006.
- Jones, Rodney W. "Conventional Military Imbalance and Strategic Stability in South Asia". *SASSU Research Paper*. No.1. March 2005.
- Kapur, Paul. "India and Pakistan's Unstable Peace: Why Nuclear South Asia is not like Cold War Europe". *International Security*. Vol.30. No.2. Fall 2005.
- Khan, Feroz Hassan. "Challenges to Nuclear Stability in South Asia". *The Nonproliferation Review*. Spring 2003.
- M.R., Kraig. "The Political and Strategic Imperatives of Nuclear deterrence in South Asia". *India Review*. Vol.2. No.1. January 01, 2003.
- Mian, Zia et.al. "Fissile Materials in South Asia: The Implications of the US-India Nuclear Deal". *International Panel on Fissile Materials research Report*. No 1. September 2006: [http://www.fissilematerials.org/ipfm/site\\_down/ipfmresearchreport01.pdf](http://www.fissilematerials.org/ipfm/site_down/ipfmresearchreport01.pdf).
- Quinlan, Michael. "How Robust is India-Pakistan Deterrence?". *Survival*. Vol.42. No.4. Winter 2000-01.
- Sagan, Scott D. "Nuclear Dangers in South Asia". *Forum on Physics and Society*. April 2004: [http://iis-db.stanford.edu/pubs/20573/sagan\\_nuc\\_sasia.pdf](http://iis-db.stanford.edu/pubs/20573/sagan_nuc_sasia.pdf).
- Samuel, Cherian. "Indo-US Defence Cooperation and the Emerging Strategic Relationship". *Strategic Analysis*. Vol.31. No.2. March 2007.
- Sanjian, Gregory S. "Arms Transfers, Military Balances, and Interstate Relations: Modeling Power Balance versus Power Transition Linkages". *The Journal of Conflict Resolution*. Vol.47. No.6. December 2003.
- Tellis, Ashley J. "The Evolution of US-Indian Ties: Missile Defence in an Emerging Strategic Relationship". *International Security*. Vol.30. No.4. Spring 2006.
- Winner, Andrew C. and Yoshihara, Toshi. "India and Pakistan at the Edge". *Survival*. Vol.44. No.3. Autumn 2002.
- Yousaf, Moeed. "Nuclear Stabilisation in South Asia". *South Asia Journal*. No.7. January-March 2005.

**Web Pages**

- Gagne, Chris. “Nuclear Risk Reduction in South Asia: Building on Common Ground”: <http://www.stimson.org/southasia/pdf/NRRMGagne.pdf>.
- Seiff, Martin. “A Giant Leap forward for Indian Missile Defense”. *Space War*. December 01, 2006: [http://www.spacewar.com/reports/A\\_Giant\\_Leap\\_Forward\\_For\\_Indian\\_Missile\\_Defense\\_999.html](http://www.spacewar.com/reports/A_Giant_Leap_Forward_For_Indian_Missile_Defense_999.html).
- “Global Stocks of Nuclear Explosive Materials”. *Institute for Science and International Security*. July 12, 2005: [http://www.isis-online.org/global\\_stocks/end2003/tableofcontents.html](http://www.isis-online.org/global_stocks/end2003/tableofcontents.html).
- “Lockheed Martin: United States, India may Cooperate on Missile Defense”. *India Defence*. February 07, 2008: <http://www.india-defence.com/reports-3725>.

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# SHANGHAI COOPERATION ORGANIZATION CHALLENGES AND RESPONSE

*Ms. Sadia Nasir*

## **Introduction**

The Shanghai Cooperation Organization (SCO) is the successor organization of Shanghai Five, which consisted of China, Russia, Kazakhstan, Kyrgyzstan and Tajikistan. The group reshaped itself after the induction of Uzbekistan into the current form and expanded its focus to ensure regional security and stability by including in its agenda issues such as the fight against terrorism, drug manufacturing and trafficking and collective economic projects. The SCO also includes four observer nations: India, Pakistan, Iran and Mongolia and also a contact group with Afghanistan has been set up, bringing substantial weight to the organization.

The focus of the organization has shifted with the changing regional environment. The initial focal point of the Shanghai Five group was regional security and economic cooperation, which shifted towards counter-terrorism after the wave of terrorism in Uzbekistan in 1999. In the aftermath of the September 11, 2001 terrorist attacks on the United States and the consequent US-led War on Terror in Afghanistan, counter-terrorism has emerged as one of the important concerns of the organization. However, economic collaboration and development matters continue to constitute an important leg of its organizational agenda.

Nonetheless, this paper would discuss the issues pertaining to the potential of the organization. For instance, how the organization is responding to the regional challenges and what success has it achieved in this regard? How has the organization grown from a border settlement mechanism to a vibrant regional grouping? In the end, the study will mention the future prospects of the organization as an effective regional forum for Central Asian states. However, it would be pertinent to highlight the organizations' agenda and focus in order to understand its functioning.

## **SCO's Focus and Agenda**

As a regional organization, the SCO started almost a decade ago as Shanghai Five, which aimed at achieving demilitarization and delimitation of international borders in Central Asia. On April 26, 1996, China, Russia, Kazakhstan, Kyrgyzstan and Tajikistan concluded an 'Agreement on Strengthening Military Confidence in Border Areas' in Shanghai, which was named as Shanghai Five.

The organization has undergone changes and adjustments with time, which resulted in shift in focus and agenda of the organization from time to time. From the days of Shanghai Five until its founding time, the SCO dealt with common security threats faced by the members, particularly from religious extremism and terrorism. However, the organization soon widened its focus to encompass a wider range of issues, including economic cooperation, trade and investment, transportation, energy, telecommunication, infrastructure development, agriculture, water sharing, ecology, disaster relief, education, media, tourism, poverty alleviation and technical training.

The SCO has gradually established a foothold in Central Asian politics from a "low level institution confined basically to military security cooperation between China and its four neighbors sharing a common border."...to a "regional cooperation model featuring the basic consensus over the shared need for defending regional peace and stability through effective cooperation to mutual benefits; regional harmony"....and "an authority built on institutionalized regional cooperation through creating mutual military trust and troop reduction in solving border issues and combating religious extremists and organized trans-border crimes".<sup>1</sup>

The initial SCO agenda enlarged over time with expansion in focus and interests of the SCO. New institutions and bodies were also established to cater for increasing requirements of the organization. The SCO emerged to "make its unique contribution to the world community's efforts to protect international security, speed up economic development of the region, preserve and develop

its unique culture.”<sup>2</sup> Some of the areas agreed to be explored have taken distinct shape through growing cooperation. However, the organization has many challenges to be resolved in order to achieve its agenda and to sustain as a true pan-regional organization.

### **Main Challenges for SCO**

The growth of a relatively newer organization, such as the SCO is no doubt a long term and difficult task. The SCO may have emerged as the most prominent organization in Central Asia, but it still has a long way to go. There are at least 30 agreements and normative documents that must be drawn up to set forth the provisions of the SCO Charter.<sup>3</sup> All of these agreements also have to be put into practice. The main challenges for the organization are:

### **Maintaining Cohesion among Members**

An important challenge for the SCO remains maintaining cohesion on the home front, which not only includes establishing cooperative relations between its members but also covers promoting cordial relations between their respective state and civil society institutions. China and Russia being overwhelmingly stronger members and the unstable Central Asian members represents a situation of unequal membership.

The overbearing influence of Russia in the region has been considered a problem in the evolution of the SCO as a dynamic regional grouping. To reduce their dependence on Russia, the Central Asian states have pursued bilateral relations with the US and other Western states. The “temptation to do business with the US rather than relying on an autonomous collective security system in the region may be too great to resist for the Central Asian states,...which are traditionally inclined to pursuing a policy of seeking leverage by playing one external power against the other”.<sup>4</sup> The Central Asian leaders may “seize the opportunity” of using ties with the US to balance their relations with Russia.<sup>5</sup> Nonetheless, some of the security related problems in Central Asia stem from sources other than Islamic militancy and, thus, lie outside the focus of the US agenda. Disparity, unemployment and overall social

unrest are regional issues, and these can be better tackled through a regional grouping such as the SCO.

Moreover, the interests of the member states conflicts with each other in many areas. Kazakhstan and Kyrgyzstan have serious reservations and suspicions about the policies and goals of Uzbekistan. Central Asian states also have long-standing suspicions about Russo-Chinese cooperation and ambitions in the region.<sup>6</sup> Uzbekistan, until recently, had been a US ally and had reservations about joining the Sino-Russian initiative. Another bitter fact is that Chinese and Russian interests do not always coincide. There are differences in their military and strategic considerations. Since 2004, top Russian officials have opposed Chinese military presence in Central Asia.<sup>7</sup>

The conflict of interests among SCO members is more pronounced in the energy sector. For instance, the Russians are interested in promoting the Trans-Siberian railway as a main connecting link between Asia and Europe. The Chinese are said to prefer the southern route to Europe across Central Asia-Transcaucasus-Turkey to the Mediterranean coast. This route is said to provide China's western region "a new geo-strategic importance."<sup>8</sup> Similarly, the interests of Central Asian states may not coincide with China and Russia insofar as the exploitation of energy resources in the region is concerned.

The Central Asian states also perceive their interests and role of the SCO differently. Uzbekistan and Kazakhstan want to play an important role in the region and consider SCO's prestige as helpful in enhancing their own prestige. Kyrgyzstan and Tajikistan, on the other hand, consider their participation in the SCO as tool for resolving domestic issues of economy and stability. Kyrgyzstan particularly co-relates its "domestic stability with security cooperation within the SCO framework".<sup>9</sup> The Kyrgyz are said to be unsatisfied with "ceding a mountain range to China in the framework of a peace treaty".<sup>10</sup> After the Askaniya riots in 2002, an anti-government rally in Kyrgyzstan protested the government's decision to cede "too much" territory to China in land negotiations.

Such difference in perspective does influence the participation and interests of the members-states in the organization. This leads to questions such as how much priority the SCO enjoys in the foreign policies of the Central Asian countries, or to what extent these countries are willing to invest in the SCO, both politically and economically.

The inclination of the Central Asian states towards the US can particularly hinder their participation in regional groupings, since the interests of an extra-regional power and regional powers may not always coincide. Until 2005, SCO's effectiveness as a strategic alliance had been limited by "multi-directional foreign policies of the Central Asian states for gaining maximum advantage by playing off the West—particularly the United States—against the incipient Moscow-Beijing axis".<sup>11</sup> Until the recent past, Central Asian states' short-term security priorities did not match with SCO's long-term developmental strategy. Gradually, however, they have started to express greater interest in the latter.

Another policy dilemma for the SCO in maintaining cohesion is the question of its future role. China and Russia have both stated their desire for the organization to serve as a regional provider of security through intelligence and economic cooperation. Yet, this declared commonality belies certain visible differences between Beijing and Moscow.<sup>12</sup> Among the two important areas of SCO agenda, security and development, Russia emphasizes security, while the Chinese focus has been on development. Hence, a consensus on the future shape of the organization does not exist due to difference in the interests of the members.

In addition, the membership of almost all of the organizations working in Central Asia is overlapping, which means that the members of one organization are also members of other parallel organizations. These security arrangements not only overlap in membership but also in their goals, which limits the commitment of the members, particularly of Central Asian states in a particular organization. The overlapping membership results in differing priorities that member states place on any of the organizations, which may become an obstacle for the SCO. The political interests

of the member states overshadow their commitment to the organization.

Central Asian states' internal politics also has had serious implications for regionalization in Central Asia, which has been a state-centric process without the involvement of civil society. Regional dynamics are being defined by interactions between "highly personalized regimes" rather civil societies. Central Asian leaders do not seem to be fully committed to the agendas of any regional organization that may affect their 'ability to act unilaterally'.<sup>13</sup> Consequently, the rulers have been reluctant to create mechanisms making agreements binding upon their regimes, a factor that has hindered implementation and failure of several of the SCO agreements.

### **The Economic Challenge**

All of the Central Asian states are mired in extreme poverty. Economic decline in Central Asia is coupled with security, border, water and developmental issues. Given that, "there is still little prospect of major Western investment in several of the countries. As for now, the region is too remote, the market too fragmented, and the future too uncertain".<sup>14</sup> Such disappointing economic situation of SCO members surely hinders the implementation of SCO's developmental plans. Central Asian states expect China and Russia to provide for economic development of the region, as they face tremendous difficulties in opening up their markets.<sup>15</sup> However, for their part, China and Russia can spare limited financial and economic resources for the region. This implies that the SCO has to operate within the budget constraints.

Even though, SCO member-states have a common interest in the exploitation of energy resources, expansion of transportation and communication lines, and promotion of trade and economic cooperation, they are a long way from creating a common market. Thus, in the foreseeable future, there is no prospect for the establishment of a free trade zone in the region, since SCO countries differ greatly in their respective domestic economic and political realities.<sup>16</sup> It is China that has pressed the SCO to move towards the

establishment of a free trade zone in the region—a move which Russia has not supported.

Boris Rumer points out that Central Asian states lack “objective preconditions for regional unity’ as neither they share interest in a single market, as in European Union, nor large investment resources from one of the member states, as the US in NAFTA.”<sup>17</sup> The intra-regional trade in Central Asia is low and external trade dependence is high. Exports are mainly in agricultural and mineral products, while informal trade has gained importance with large distortions in the market system. There is limited scope for trade expansion within the region as all of the five Central Asian states export similar range of products. For instance, Kazakhstan exports oil and metal product, Kyrgyzstan exports mainly gas and electricity, Tajikistan exports electricity, cotton and aluminum, Turkmenistan’s products are cotton and natural gas and Uzbekistan exports cotton and gold. Therefore, their economies are more competing than complementary.<sup>18</sup>

In the energy sector, Central Asian states have focused on import-substitution rather than regional trade. Limited rail and air links within Central Asia are also a major constraint on intra-regional trade. There is a serious need for improving transportation infrastructure between Central Asian states. Protectionist trade policies have aggravated the existing heavy dependence on fewer export commodities, making the region more vulnerable to price shocks. Central Asian economies are dependent on a small group of producers, creating monopolies and also a limited market for investors.

In retrospect, the SCO needs to focus on creating a favorable environment for economic cooperation by helping to coordinate relations among governments and relevant departments of the member states. The economic projects intended to strengthen regional economic growth should be supported by initiatives for mutual assistance directed towards encouraging small and medium production units to create more employment opportunities.<sup>19</sup> The SCO has taken several measures and numerous agreements have been signed to boost economic cooperation. However, much more

remains to be done.

### **Counter-Terrorism**

Terrorism has been a high priority issue in the SCO agenda since the beginning, as the ‘perceived potential danger of Islamist militants is the main threat that binds regional security policies of the SCO countries together’<sup>20</sup>. The SCO has established a Regional Anti-terrorism Structure (RATS), but its capacity is limited by the unwillingness of the member states to exchange intelligence.<sup>21</sup> Also the contribution of the member states in terms of military intelligence and police assets remains limited. The RATS has not been able to contribute to regional security in a substantial way due to the lack of resources.

All of the members continue to share unease with separatist movements, and it has increased the importance of the SCO for the members. China faces its persistent Uyghur separatist problem in Xingjian; Russia wages its costly war in Chechnya, and Tajikistan, Kyrgyzstan, and Uzbekistan all struggle with violent Islamist movements, like Hizb-ut-Tahrir and the Islamic Movement of Uzbekistan (IMU). Kazakhstan, Kyrgyzstan and Tajikistan share borders with Xingjian, whose population shares religious and cultural links with the Turkic Muslim population of Central Asia. The unrest in Uzbekistan and Kyrgyzstan is said to have spill over effect on Chinese Uighur problem, due to links between Uighur separatists and terrorist groups in Central Asian nations, particularly Kyrgyzstan.<sup>22</sup> Such extremist and terrorist activities and linkages cannot be tackled by the governments individually. They need a collective response from the SCO, which is seriously lacking. For instance, during the terrorist attacks in Tashkent and Bukhara in 2004 and in Andijan in 2005, SCO’s operational capability was not effectively used.<sup>23</sup>

### **Institutional Issues**

Institutionalization of a multilateral organization is important for identifying the policy issues and processes. The degree of institutionalization of a regional organization is collectively determined by “objectives outlined and achieved; established norms,



procedures, or written set of rules, the size of its physical structures and permanent staff...'<sup>24</sup> The SCO has, indeed, progressively institutionalized, but the proliferation of bureaucratic structures and mechanisms for regular high level interaction among the member governments still constitute a major problem in this context.<sup>25</sup> Several mechanisms dealing with issues like dispute settlement and membership still need to be established.

The SCO has identified 127 areas for cooperation but, due to difference of opinion on the implementation process,<sup>26</sup> most of them have not translated into agreements or been practically implemented. This has reduced the credibility of the organization. Given that, there is a need to develop an institutional structure with specialized organs so that issues such as dispute settlement can be handled effectively. There is no permanent body to settle disputes among the SCO member states. Article 22 of its Charter stipulates no alternatives for dispute settlement other than negotiations and consultations.<sup>27</sup> Most of the regional organizations in the world are equipped with a judicial body for settlement of disputes among members. Hence, it is appropriate that the SCO establishes a judicial body to overcome the challenge of dispute settlement.

The expansion of SCO membership does not appear to be a priority for the SCO. Its Charter does not have any provision regarding the issue of membership. The SCO lacks the legal document on the issue of accepting new members.<sup>28</sup> The organization does have observer states, who were admitted under the Regulations for SCO Observers approved at the Tashkent summit, which serves as a practical basis for external cooperation. However, the lack of an explicit process for membership creates suspicion regarding the agenda of the organization. Also Iran has recently applied for membership and in case the organization considers the application seriously, it would require an explicit process for induction of new members.

### **The Image Problem**

Since its inception, the SCO has been perceived by a section of scholars and policy makers as an anti-West, China-dominated

organization with a “hidden agenda” of reducing US influence in Central Asia. The SCO is perceived as a “ploy for expanding Chinese influence,”<sup>29</sup> or to contain US influence in the region. Such negative image has been an obstacle to enhancing SCO cooperation with extra-regional organizations and actors, and has created difficulties for the SCO members, particularly for Central Asian states, in formulating their foreign policies.

These negative perceptions were reinforced by a statement issued during the July 2005 SCO summit in Alma Ata, calling on the US to set a deadline for the removal of its military bases in Central Asia.<sup>30</sup> Uzbekistan, since 9/11, has been a strategic partner of the US and the US, in return, has guaranteed the security of Uzbekistan, while also providing it with military equipment. However, Washington bitterly criticized the Uzbek government for its crackdown in the country’s Andijan province after the May 2005 uprising there. By then, the Uzbek government had also become suspicious of the US involvement in pro-democratic revolutions in Kyrgyzstan, Ukraine and Georgia. This led to deterioration of Uzbek-US relations. It was essentially in this backdrop that the July 2005 SCO Declaration was issued. From the SCO perspective, the removal of US bases from the region was a common stand of the organization to avoid any physical presence of outside powers in the region, and it was not merely an anti-US step.

The SCO has been perceived as a “Sino-Russian alliance that seeks to compete against” the US and NATO influence in Central Asia. Such perception is derived from the fact the Shanghai Five was established at a time when US relations with both China and Russia were at a ‘dismal low’ and, at that time, China and Russia were beginning to be considered as strategic partners.<sup>31</sup> The “big brother image” of China and Russia has repeatedly been pointed out in the West and has been perceived negatively. This image, in particular, has been associated with China since the Shanghai Five period. As Farkhod Tolipov pointed out, “We should bear in mind that today China is treating the ‘Shanghai Five’ as a ‘transitory structure’ – the basic agreements will expire on 31 December, 2020, that is, they are valid for the period of China’s possible development into a world center of power. After that China will probably act

harshly, especially towards its neighbors".<sup>32</sup>

Central Asian states often played one external power against another in the past. Given that, their participation in the SCO and stand against US bases in the region is considered by some critics as being motivated by the desire gain leverage for more profitable future negotiations.<sup>33</sup> However, it is a fact that Central Asian states have a greater involvement in the affairs of the SCO at present. They have also improved their bilateral relations with China. Central Asian states' greater participation and growing economic integration with the SCO will strengthen their commitment towards the organization and will subsequently reduce the uncertainty about its future.

There is need for political image building of the SCO. This image needs to evolve more closely with the organization's political principles and agenda. To counter its image as an anti-US/West organization, SCO has already emphasized in many of its declarations that it intends to cooperate with all of the states, and that is not a bloc against any state. Moreover, the SCO leadership has frequently stressed that the organization's agenda is geared towards promoting cooperation in non-political areas such as trade and economic issues. Still the organization needs to do a lot more to address its image problem.

### **Environmental Concerns**

Central Asia is engulfed with environmental problems, particularly pertaining to water scarcity. A serious crisis seems to be evolving due to the availability of fewer water resources, including disappearance of Aral Sea and growth of deserts. The principle supply of water in Central Asia comes from the Amu Darya and Syr Darya rivers. However, because of agricultural and industrial development, these rivers have been polluted and are shrinking. This problem is not likely to subside anytime soon as the water demand is increasing and the resources are diminishing.

Such environmental issues have a significant impact on the security, economic stability and social development of Central Asia. Water management has become a major source of dispute among

Central Asian states. For instance, due to the loss of water resources for farming, 15,000 sq km of Kazakh cotton went un-irrigated and rice output decreased approximately 40 percent in 2004. In addition to negatively affecting the economies, water scarcity has aggravated relations between countries of the region. For instance, in 1997, Kyrgyz-Kazakh dispute over water lead to a shut down in cross border trade.<sup>34</sup> Such incidents are set-back for regional harmony.

Central Asian states have failed to manage the problem on their own. The SCO has taken some concrete steps to improve the economic and security situation of the region. Nonetheless, without peaceful water management in the region, an effective implementation of SCO economic policies cannot be guaranteed. The role of SCO in solving Central Asian water problem will be a test for the organization's long-term viability.

### **Tackling the Challenges**

The SCO has a long way to go to be accepted as an influential player at the international level. In this time of rapid changes, the SCO needs to face the above-mentioned challenges to contribute to substantial development of the region. The SCO can increase its international stature only by actively dealing with these challenges. For the purpose, it has to increase the capabilities of its two permanent institutions; i.e., the Secretariat and RATS.<sup>35</sup> Cooperation within the SCO should not be limited to acceleration of economic growth; rather, it should be broad based, encompassing social and cultural contact among people across border and aimed at solving a multitude of political, economic and social problems.

The organization also needs to outline a clear approach towards environmental protection, poverty elimination, sustainable development and cultural cooperation. Apart from terrorism, the non-traditional security threats are also a major challenge for the region, and some mechanism should be evolved to tackle them. The SCO has endeavored to create "strong linkages between economic development and security in Central Asia".<sup>36</sup> However, much remains to be achieved in the security domain.

## **SCO's Response and Achievements**

Over the last few years, the SCO has grown and created mechanisms to fulfill its regional agenda. Efforts are being made to deal with the challenges that the organization and the region as a whole are facing, and some success has been achieved. The SCO has made progress mainly in four areas: establishing mechanisms to deal with security issues particularly with terrorism, progress in economic situation, enhancing its political and international image and creating harmony among the members. Yet, with this success, a lot more needs to be accomplished, though the progress has already begun.

### **Successes in the Security Sector**

Ensuring regional security and stability is another focus of the cooperation among the members, as trans-border security threats call for an effective collective response. Although the SCO agenda had focused on security aspect since the 'Shanghai five' time, serious doubts were expressed after 9/11, as the SCO failed to deliver a collective response to the event other than issuing a collective statement of condemnation. The member states responded individually, creating doubts about the relevance and future of the organization. However, for an objective view of the organization, it should be kept in mind that the organization was created in June 2001 and lacked an institutional structure to respond to such incidents.

SCO has strengthened over time and launched several anti-terrorism initiatives. Establishment of RATS was an important step in this regard. RATS, with its headquarters in Tashkent, was formed in 2004 to help Central Asian states and their neighbors to deal with terrorism problem. The main function of RATS is to coordinate SCO member's activities against terrorism, separatism and extremism. The RATS mandate also includes coordination of services such as border police, customs and national security services. During RATS meeting in April 2006, 14 terrorist organizations were identifying as potential threat for the region,

while RATS efforts for preventing over 250 terrorist attacks in member states, were also commended.<sup>37</sup>

The functions of RATS broadly include (or are likely to expand to include) collection and analysis of information about terrorists organizations, exchange of relevant information and experience among the SCO members, study of different forms of terrorism, monitoring the anti-terrorist struggle of the SCO members, searching for new approaches and methods of anti-terrorism campaign, development of cooperation with similar centers and organizations, encouraging successful implementation of the Shanghai Convention on combating terrorism, separatism and extremism and publication and dissemination of relevant materials.<sup>38</sup>

Several collective anti-terrorism exercises have been conducted among the members to enhance the organization's capability and capacity to respond to the terrorism threat. Such anti-terror exercises have been important in improving anti-terrorism cooperation among the members and also in updating joint command and coordination in anti-terrorist operations. The current strategic role of the organization is not only confined to traditional security, but the non-traditional threats such as smuggling of arms, narcotics and illegal migration are also to be dealt with.

Apart from regional level work, the SCO has also began to interact with other international agencies and has been sending representatives to other international forums on counter-terrorism to learn about the experiences and knowledge of others.<sup>39</sup> It has also established an SCO-Afghan Contact Group to assist reconstruction process in Afghanistan and to control illegal cross-border activities exacerbating terrorism and drugs trafficking problems in Central Asia.

Drug trafficking is another major challenge for the security of the region and the SCO has also extended its joint response to eradicate this problem. Since 2003, joint anti-trafficking exercises have been carried out annually and have included the relevant agencies of all the member states. These exercises and joint operations have achieved the desired targets, for instance, as a result

of 'Kanal 2006' operation, the anti-drug agencies intercepted and destroyed '19285 kg of narcotic substance'.<sup>40</sup> Central Asia has been one of the major drug trafficking routes in Eurasia due to weak border control and insufficient anti-trafficking coordination.

Within the security agenda, military cooperation is also taking place among the SCO member, though to a limited extent. However, such ventures are not directed against any state or a group; rather, these are intended to enhance the cooperation among the member. Regular meetings among the defense ministers of the member states have also been held to discuss issues of collective importance. The SCO also held a joint military exercise in Russia in August 2007, to improve the ability of the SCO states to combat terrorism, separatism and extremism and to maintain peace and security of the region. It is worth noting that most of the activities of the SCO reflect the generally accepted Western policy aims<sup>41</sup> and that has brought reputation for the organization.

### **Progress in Economic and Social Field**

Achieving economic development for member-states has been an important item on the agenda of SCO since its inception. Different strategies have been considered for fostering economic cooperation, and increasing trade and communication links among the members. Soon after SCO's formation, heads of state of the member-states met in September 2001 and signed the 'Memorandum of Regional Economic Cooperation'.<sup>42</sup> The need for creating favorable conditions for economic cooperation among the members, including development of communication corridors and reduction of tariff barriers was emphasized.

In May 2002, SCO members announced the start of negotiations for establishing a SCO free trade zone, aimed at increasing trade liberalization at an advanced pace. Although efforts are under way in this regard, the plan has not materialized yet. During the 2003 prime ministerial council meeting of the SCO, an outline for multilateral economic and trade cooperation was adopted, formulating a macro programme for promotion of regional economic integration and free flow of commodities, capital, skills

and services among member-states in twenty years.<sup>43</sup> The Heads of States also considered creation of SCO Development Fund and SCO Business Council for stimulating developmental activities.

At the 2004 SCO summit, China offered \$900 million in credit at preferential rates to other SCO members. The organization also expanded its horizon to include, among other developmental activities, curtailing uranium pollution in water supply, preventing desertification and effective management of dams' construction.<sup>44</sup> Such activities are not only aimed at ensuring economic development but also in achieving social welfare in the member-states.

In 2005, President Hu Jintao announced that China would set aside development fund of \$10 million for training 1,500 people from other SCO countries, in areas of economic, scientific-technical and humanitarian cooperation.<sup>45</sup> At the bilateral level, China signed an energy agreement with Uzbekistan worth \$600 million. While the bilateral agreement between China and Tajikistan on construction of the 410 km Dushanbe-Ayni-Shahriston-Istaravshon-Khujand-Buston motorway along the Tajik border would revitalize the transport and communication links.<sup>46</sup>

There have also been some multilateral cooperative ventures, like Chinese, Kazakh and Russian investment in hydroelectric power sectors of Kyrgyzstan and Tajikistan. Thus, the regional initiative has also resulted in greater bilateral cooperation among the members. Along with these projects, economic cooperation has also resulted in higher bilateral trade. The trade volume grew to \$1.82 billion from \$460 million during 1992 to 2000. In 2005, it reached \$8.7 billion. In year 2006, the trade volume exceeded \$10 billion.<sup>47</sup> For many Central Asian countries, China has become the second most important trade partner after Russia, as bilateral trade among the SCO members continues to grow.

An Entrepreneurs Committee of SCO has been established as a forum for enterprises of the member states to directly collaborate with each other. 127 cooperative projects involving quality identification, custom house, investment, tele-commerce,



telecommunication, traffic and transport, energy and other fields have already started or will start in the near future.<sup>48</sup> Also Russian President Vladimir Putin has initiated creation of an 'energy club' within the SCO, which would possess half of natural gas reserves and almost a quarter of all oil reserves, if Iran is included in the initiative.<sup>49</sup> Such a project can bring enormous fortune for the region. The SCO is also focusing on construction of roads and particularly China appears to be interested in investment in this area.

The main developmental goals of regional economic cooperation are to identify economic mutual compatibility among the states, expanding trade and investments, facilitating joint ventures and trade activity, creating suitable conditions for gradual free movement of goods, capital, services and technologies. It is also important to harmonize the respective national legislations regulating foreign economic activity and effectively using the existing communication and transportation infrastructure, while also developing mechanisms of regional economic cooperation.<sup>50</sup> Hence, one of the major contributions of the SCO has been enhancement of multilateral economic cooperation by first developing a legal framework for such cooperation.

### **Improvement of International Political Image**

The SCO has improved its image from an anti-US and China-dominated to a regional organization based on the principles of multilateralism and multiculturalism. One of the important factors contributing to this image is SCO's cooperation with other international organizations and non-SCO nations. The SCO obtained observer status in the UN General Assembly in 2004 and signed memorandum of understanding with the CIS and ASEAN in 2005,<sup>51</sup> thus opening up to the outside actors and removing external misgivings about itself.

The SCO has also started accepting observer states, which can participate in the SCO process under the 'Regulations on the Observer Status of the Shanghai Cooperation Organization'. With the inclusion of observer states in the SCO, its influence has grown and its political clout has enhanced. India, Iran Mongolia and

Pakistan have been admitted as observers. Some other nations, including the United States, have expressed interest in gaining observer status in the organization. This alone shows the growing political importance and international image of the organization.

The SCO has repeatedly declared that it is not an alliance against any other state or organization, and its interaction with other institutions and states has helped it enhance its international status. The SCO also established linkages with other regional organizations. In April 2004, the SCO Secretariat and the CIS Executive Committee signed a Memorandum of Understanding, expressing willingness to cooperate in areas of trade, anti-terrorism and social contacts. Similar memorandum was signed between SCO Secretariat and ASEAN Secretariat, for cooperation in economic, finance, tourism, environmental protection, use of natural resources, social development, energy and fight against transnational crime.<sup>52</sup>

The beginning of an institutionalization process of the organization has also consolidated its international image. Although this process is still incomplete, the establishment of the two important permanent organs has given it legal character that is required for any credible international organization. Institutionalization has brought about multi-level cooperation among member-states and helped the SCO to expand its main operative goals. Further institutionalization of the organization will increase cooperation among the members on broader issues.

Over the past five years, the image and international standing of the SCO has gradually improved and the concept of 'Shanghai Spirit' has been accepted as a new security concept for the region. The initial criticism and mistrust associated with the organization was mainly because at the time of the creation of Shanghai Five the relations of the US with China and Russia were not good and the organization was perceived as a Sino-Russian alliance to curb US influence in the region.<sup>53</sup> However, with gradual improvement of bilateral relations of China and Russia with the US and with growth of SCO as a vibrant regional organization, focusing mainly on security and economic cooperation, this negative view has begin to subside.

### **Consolidation of Ties among Member-States**

During the past decade, bilateral relations among the SCO members have improved. The bilateral relationship between China and Central Asian states has also developed and translated into political, economic and military cooperation. A number of cooperation agreements providing legal basis for friendly relations have been signed. Economically, there has been some 'preliminary success' and trade has steadily increased reaching \$2 billion.<sup>54</sup> However, speedier progress for the purpose is being constrained due to mutual mistrust among Central Asian states and their security concerns vis-à-vis China and Russia.

The SCO is also serving as a mechanism to mutually balance Russia and China, while also involving Central Asian members. This has also led to reduction of Russian influence in the region and a more balanced environment. China's participation in the Shanghai Five is not only increasing the military-political potential, but is also making it possible for the Central Asian participants to use it as a tool for creating balance between Russia and China, whose interests are represented in the region.<sup>55</sup>

The mechanism for foreign policy coordination has also been rationalized. The SCO Charter envisaged common viewpoints on foreign policy issues of mutual interest. The Moscow declaration of April 2006 reinforced the need to ensure efficient cooperation between the foreign policy structures, along with other areas. The importance of invigorating contacts between the foreign policy establishments of member-states on matters of international affairs and international organizations was highlighted.<sup>56</sup>

The harmony among the members is also a result of disengagement of the West from the Central Asian affairs and focus of SCO on many of the regional problems which were not considered seriously by the West. This has led to a more positive tilt of Central Asian member-states towards the organization. The SCO has also acted as a catalyst for new Chinese, Russian and even Western technical, educational and financial ventures aimed at strengthening Central Asian defense capabilities. The number of

Central Asian personnel going to Russia for study exchange and training has increased and China has opened up its law enforcement and military training institutes for Central Asian states.<sup>57</sup>

The SCO process has helped the Central Asian regimes and leaders to pursue a spirit of dialogue among them. The leaders now meet at least annually and there are also many regular contacts within the organizational functioning. Revival of contacts among the members has helped build confidence and bring development and stability in the region. Differences and tensions among Central Asian states have been curtailed, and steps have been taken to resolve tensions on Uzbek-Kyrgyz and Uzbek-Tajik borders. For instance, in 2004, the Uzbek President announced his country's readiness to de-mine the border zone with Tajikistan and Kyrgyzstan.<sup>58</sup>

### **SCO: A long way to go**

With growing interdependence among states, the role played by global and regional economic cooperation organizations has enhanced. The SCO has played a significant role in building mutual trust and developing state-to state relations based on partnership rather than alliance.<sup>59</sup> However, factors of instability exist in the region and it would take a long time for the states and the SCO as a regional organization to deal with them.

The SCO has provided a diverse opportunity for the member states to cooperate and resolve issues of concern at a multilateral level. The SCO is turning in to an effective mechanism for boosting mutual trust, economic cooperation and building a positive image at the international level. The prospects for cooperation are broad; however, a lot of problems persist. There are loopholes in every area and much more commitment is required from the members to ensure regional development.

The future of the organization would undoubtedly depend on the success of the SCO in addressing common problems of the region such as terrorism, smuggling, economic problems and also environmental problems like water issue. These issues have to be

tackled gradually, in order to vitalize the SCO as a representative organization in Central Asia.

### **Future Prospects: A reflection**

It is clear from the preceding discussion that the original agenda of the Shanghai Cooperation Organization has not fundamentally changed. Rather, its focus has shifted and expanded over a period of time. The challenges being faced by the SCO, and the way it has responded to them, establishes the fact that the organization was essentially created to meet the objective needs of its members and their realization that a multitude of problems they faced could only be solved through mutually beneficial cooperation. Two features that distinguish the SCO from other Central Asian organizations are the diversity of its membership and its consensus-based policies. From a strategic perspective, the Sino-Russian partnership in a regional organization is significant. This factor plus the presence of four Central Asian states makes the SCO a regional organization whose international significance, especially in coming years and decades, cannot be overlooked.

The SCO has gradually evolved mechanisms for fulfilling various economic, political and security tasks. However, these mechanisms are not yet fully developed. Issues such as dispute settlement need specific mechanisms, which the SCO Charter does not provide for currently. Another issue that the SCO might face in future is that of crisis management. For instance, while the democratic upsurge of 2005 affected its Central Asian members, the SCO could not play any role in managing the ensuing crisis due to its principle of non-interference in the domestic affairs of its members. Given that, the SCO Charter may have to evolve some kind of mechanism in future to deal with such crisis under some regional security mechanism to avoid instability at the regional level.

Apart from this, the SCO will also have to concentrate more on deepening its existing partnerships rather than expanding the organization. Having admitted India, Iran, Mongolia and Pakistan as observers, the organization does not seem to be ready for new

members. The SCO is still not the highest priority of the Central Asian states, which hinders its effective role. Despite this, the organization has been instrumental in creating harmony among its members and promoting economic and security cooperation among its members, particularly between Russia and China. Its future viability, however, will be determined largely by greater economic cooperation. Enhanced economic and trade relations may discourage Central Asian member-states to look towards the United States and the West for assistance, thereby fostering harmony among all of the SCO members. It may be concluded from the study that the organization has been able to create a cooperative framework to address common concerns, particularly pertaining to security of the members and broadly in promoting stability in the region.

## End Notes

- <sup>1</sup> Xu Tao, "Regional Cooperation in Central Asia and Shanghai Cooperation Organization", *Contemporary International Relations*, Vol. 15, No. 11 (November 2005), pp. 19-20.
- <sup>2</sup> A. Lukin, "Shanghai Cooperation Organization: Problems and Prospects", *International Affairs: A Russian Journal of World Politics, Diplomacy and International Relations*, Vol. 50, Issue 3 (2004), p. 34.
- <sup>3</sup> Gregory Logvinov, "The Shanghai Cooperation Organization: A New Qualitative Step Forward", *Far Eastern Review*, Vol. 30, No 3, (2002), p. 25.
- <sup>4</sup> Khalid Mahmud, "Shanghai Cooperation Organization (SCO): Beginning of a New Partnership", *Regional Studies*, Vol. XX, No. 1 (Winter 2001-02), p.14.
- <sup>5</sup> Roy Allison, "Regionalism, regional structures and security management in Central Asia", *International Affairs*, Vol. 80, No. 3 May 2004, p. 483.
- <sup>6</sup> Stephen Blank, "The Shanghai Cooperative Organization: Post-Mortem or Prophecy", *CEF Quarterly: The Journal of the China-Eurasia Forum*, Special Edition: The SCO at One, (July 2005), p. 14.
- <sup>7</sup> Ariel Cohen, "The Dragon Looks West: China and the Shanghai Cooperation Organization", *The Heritage Foundation*, 7 September 2006, <http://www.heritage.org/Research/AsiaandthePacific/hl961.cfm>, accessed on 7 April 2007.
- <sup>8</sup> Jyotsna Bakshi, "Shanghai Cooperation Organization (SCO) before and after September 11", *Strategic Analysis*, Vol. XXVI, No. 2, Apr-Jun 2002, [www.ciaonet.org/olj/sa/sa\\_apr02baj01.html](http://www.ciaonet.org/olj/sa/sa_apr02baj01.html) accessed on 10 Jan 2007.
- <sup>9</sup> Sun Zhuangzhi, "New and Old Regionalism: the Shanghai Cooperation Organization and Sino-Central Asian Relations", *The Review of International Affairs*, Vol. 3, No. 4, Summer 2004, p. 607.
- <sup>10</sup> Cohen, "The Dragon Looks West," op. cit.
- <sup>11</sup> Dr. Michael A. Weinstein, "Intelligence Brief: Shanghai Cooperation Organization", 12 July 2005, [www.pinr.com/report.php?ac=view\\_report&report\\_id=325&language\\_id=1](http://www.pinr.com/report.php?ac=view_report&report_id=325&language_id=1) accessed on 3 April 2007.
- <sup>12</sup> Stephen Blank, "China and the Shanghai Cooperation Organization at Five", *China Brief*, Vol. 6, Issue 13 (21 June 2006) [http://www.jamestown.org/publications\\_details.php?volume\\_id=415&issue\\_id=3773&article\\_id=2371203](http://www.jamestown.org/publications_details.php?volume_id=415&issue_id=3773&article_id=2371203), accessed on 3 April 2007.
- <sup>13</sup> Annette Bohr, "Regionalism in Central Asia: New geopolitics, Old Regional order" *International Affairs*, May 2004, Vol. 80, Issue 3, p. 498.
- <sup>14</sup> Rizwan Zeb, "Pakistan and the Shanghai Cooperation Organization", *The China and Eurasia Quarterly*, Vol. 4, November 2006, p. 5.
- <sup>15</sup> Zhuangzhi, "New and Old Regionalism", op. cit., p. 607.
- <sup>16</sup> Farkhod Tolipov, "On the Role of the Central Asian Cooperation Organization within the SCO", *Central Asia and Caucasus*, 2004, <http://cagateway.org/downloads/SCO-04-1.pdf> accessed on 10 January 2007.
- <sup>17</sup> Bohr, op. cit., p. 496.
- <sup>18</sup> Ibid.
- <sup>19</sup> G. Chuftrin, "The SCO: Changing Priorities", *International Affairs: A Russian*

- Journal of World Politics, Diplomacy & International Relations*, Vol. 53, Issue 1 (2007), p. 60.
- <sup>20</sup> Yom Sean L., “Power politics in Central Asia”, *Harvard Asia Quarterly*, Vol. VI, No. 4, Autumn 2002  
[http://www.asiaquarterly.com/index.php?option=com\\_content&task=view&id=129&Itemid=99999999](http://www.asiaquarterly.com/index.php?option=com_content&task=view&id=129&Itemid=99999999)
- <sup>21</sup> Allison, op. cit., p. 479.
- <sup>22</sup> Subodh Atal “The New Great Game”, *The National Interest*, No. 81 (Fall 2005), p. 101.
- <sup>23</sup> Farkhod Tolipov, “Multilateralism, Bilateralism and Unilateralism in Fighting Terrorism in the SCO area,” *Central Asia and Caucasus*, 2004, p. 160,  
<http://cagateway.org/downloads/SCO-04-1.pdf> accessed on 10 February 2007.
- <sup>24</sup> Chien-Peng Chung, “China and the Institutionalization of the Shanghai Cooperation Organization”, *Problems of Post-Communism*, Vol. 53, No. 5 (September/October 2006), p. 6.
- <sup>25</sup> Blank, op. cit., p. 13.
- <sup>26</sup> Zhao Huasheng, “The Shanghai Cooperation Organization at 5: Achievements and Challenges ahead,” *China and Eurasia Forum Quarterly*, Vol. 4, No. 3, 2006, p. 112.
- <sup>27</sup> Mutlaq Al-Qahtani, “The Shanghai Cooperation Organization and the Law of International Organizations”, *Chinese Journal of International Law*, Vol. 5, No. 1 (March 2006), p. 139.
- <sup>28</sup> Ramakant Dwivedi, “Shanghai Cooperation Organization: A Critical Analysis”, *MosNews*, Vol 8, No. 1, (July-September 2006)  
[www.mosnews.com/news/2006russiachinasco](http://www.mosnews.com/news/2006russiachinasco), accessed on 4 April 2007.
- <sup>29</sup> Ibid.
- <sup>30</sup> John Chan, “Russia and China Call for Closure of US Bases in Central Asia”, *World Socialist Website*, 30 July 2005,  
[http://www.wsws.org/articles/2005/jul2005/basej30\\_prn.shtml](http://www.wsws.org/articles/2005/jul2005/basej30_prn.shtml), accessed on 19 August 2006.
- <sup>31</sup> Huasheng, “The Shanghai Cooperation Organization at 5,” op. cit., p. 108.
- <sup>32</sup> Tolipov, “On the Role of the Central Asian Cooperation Organization,” op. cit.
- <sup>33</sup> Peter Mattis, “A Victory for China’s New Security Concept: The Shanghai Cooperation Organization”, *CEF Quarterly: The Journal of the China-Eurasia Forum*, Special Edition: The SCO at One, (July 2005), p. 41.
- <sup>34</sup> Li Lifan and Liu Jingqin, “Central Asian Water Resources and the Future of the SCO”, *CEF Quarterly: The Journal of the China-Eurasia Forum*, Special Edition: The SCO at One, (July 2005), p. 34.
- <sup>35</sup> Zhao Huasheng, “The SCO in the Last Year”, *CEF Quarterly: The Journal of the China-Eurasia Forum*, Special Edition: the SCO at One, (July 2005), p. 12.
- <sup>36</sup> Marc Lanteigne, “In Medias Res: The Development of the Shanghai Cooperation Organization as a Security Community”, *Pacific Affairs*, Vol. 79, Issue 4, (Winter 2006-07), p. 620.



- 37 Ibid., p. 619.
- 38 Tolipov, "On the Role of the Central Asian Cooperation," op cit.
- 39 Atal, op. cit., p. 102.
- 40 Ruslan Maksutov, "The Shanghai Cooperation Organization: A Central Asian perspective" *SIPRI Project Paper*, August 2006, p. 17.
- 41 Ibid, pp. 7-8.
- 42 Zhuangzhi, "New and Old Regionalism", op. cit., p. 603.
- 43 Tao, op. cit., p. 21.
- 44 Lifan and Jingqin, op cit., p. 34-35.
- 45 Chung, op. cit., p. 12.
- 46 Maksutov, op cit, p. 20.
- 47 Zhuangzhi, "From Neighbors to Partners", *Beijing Review*, 1 February 2007, [http://www.bjreview.com/expert/txt/2007-02/01/content\\_54423\\_3.htm](http://www.bjreview.com/expert/txt/2007-02/01/content_54423_3.htm) accessed on 10 January 2007.
- 48 Gu Yu, "The Current Situation in Central Asia", *International Strategic Studies*, Vol. 84, No. 2 (April 2007), p. 72.
- 49 Maksutov, op cit, p. 23.
- 50 Logvinov, op. cit., p. 22.
- 51 Tao, op. cit, p. 24.
- 52 Huasheng, "The SCO in the Last Year", op cit., p. 11.
- 53 Huasheng "The Shanghai Cooperation Organization at 5," op. cit., pp. 107 108.
- 54 Zhuangzhi, "New and Old Regionalism," op cit, p. 602.
- 55 As quoted in Tolipov, "On the role of the Central Asian Cooperation Organization", op cit.
- 56 "Moscow Declaration of Heads of Member States of SCO", *The SCO Website*, 20 April 2006, [http://english.scosummit2006.org/en\\_bjzl/2006-04/20/content\\_93.htm](http://english.scosummit2006.org/en_bjzl/2006-04/20/content_93.htm), accessed on 5 July 2007.
- 57 Maksutov, op cit, p. 16
- 58 Ibid, p. 18.
- 59 "Government White Paper - People's Republic of China", *The Security Situation* (12 September 2002), [www.china.org.cn/e-white/20021209/1.htm](http://www.china.org.cn/e-white/20021209/1.htm), accessed on 18 June 2007.

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## **ENERGY SECURITY IN SOUTH ASIA: TRENDS AND CHALLENGES FOR FUTURE STABILITY**

*Dr. Gulfaraz Ahmed*

### **Introductory Overview**

South Asia covers eight countries including Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. It is one of the most populous regions of the world and is inhabited by over 20% of the global population. The whole region has a high incidence of poverty and nearly half the poor of the world live in these countries. South Asia is an energy deficit region and the rural population has limited and varying degree of access to commercial sources of energy of coal, oil, natural gas and electric supply. They still rely on traditional biomass including firewood, crops and animals waste for their subsistence level energy needs. The consumption of commercial energy per capita is very low which correlates directly with the level of poverty.

The economies of the major countries of the region led by India, Pakistan and Bangladesh have been picking up and maintaining a healthy growth rate of about 6-8% a year. Especially, Indian economy has been growing at about 8% a year for nearly a decade. There is a need for the countries of the region to sustain high level of economic growth over the coming decades to develop required infrastructure, boost industrial capacity, increase Gross Domestic Product (GDP), eradicate poverty and improve quality of life of their people. This underscores the need for an adequate, reliable and reasonably priced supply of commercial energy to sustain the required rate of the economic growth. Energy security is, therefore, a primary concern of all the countries of the region. All countries depend to a varying degree on import of energy mainly in the form of oil or refined petroleum products from international markets.

Energy deficit South Asia lies in a broader region adjoining energy surplus West Asia and Central Asia. Looking at the bigger picture Central Asia, South Asia, West Asia and Arabian Sea

together create a contiguous region of strong energy complementarities. This presents far reaching opportunities to exploit the complementarities through joint energy markets/sources and optimized cross border energy movements and trade. These opportunities when effectively exploited could provide a measure of energy security to the countries of South Asia.

Due to its vital strategic location Pakistan can serve as the regional hub for movement of energy from energy surplus West and Central Asia to energy deficit South Asia both over land and by sea. In fact Pakistan is an essential intermediary for energy movement in the broader region.

Afghanistan is a key link in the realization of the north-south energy corridor between Central Asia and South Asia. In view of the endemic socio-politico-religious conflicts and raging insurgency in that country it is difficult to visualize that it could play the role of energy conduit in the very near-term future of a few years. This scenario brings out the importance of sustainable political, social and economic stability in Afghanistan. A mega effort by an international consortium would be required to develop secure and efficient infrastructure for economical and unrestricted movement of all forms of commercial energy including oil, gas and electricity through Afghanistan for a north-south energy movement/trade corridor. National security in Afghanistan is thus a factor of energy security in South Asia especially for the two major South-Asian countries of India and Pakistan that lie to the West of the region.

Although the region encompasses eight countries as mentioned earlier, this paper is limited in scope mainly to an analysis of energy imperatives, complementarities, and potential of cooperation between India and Pakistan. Historically Pakistan and India have been locked in a perpetually adversarial relation. Kashmir remains the unresolved core dispute that has been triggering destructive wars and military stand-offs in the past 60 years since the independence of the two countries in 1947. There is only one isolated case of bilateral economic cooperation between Pakistan and India that has lasted through and survived the upheavals in their bilateral relation and that is the Indus Water Treaty (IWT). It was brokered by the World Bank in 1960 and addressed an economically

contentious and socially sensitive issue of sharing of waters of the six rivers including Indus, Jhelum, Chenab, Ravi, Beas and Sutlej that originate in the disputed Kashmir and flow through Pakistan to the Arabian Sea. Of these six rivers the Ravi, Beas and Sutlej flow through India (Himachal Pradesh, Haryana and Indian Punjab) and then enter Pakistan. The Indus, Jhelum and Chenab flow through Kashmir and Pakistan without entering India. This treaty led to perhaps the largest basin water restructuring and infrastructure development complex in the world. The IWT can serve as a model for cooperation in the energy sector even if a broader economic cooperation as a part of settlement of the core Kashmir dispute still remains distant. Cooperation in energy sector itself could catalyze broader economic cooperation that could in turn motivate the resolution of the core dispute for a lasting peace in the region.

In limited sense energy security may mean energy independence and freedom from imports. However, in a broader context energy security means a robust and reliable access to adequate supply of commercial energy at reasonable prices. Pakistan and India are energy deficit and are expected to rely heavily on energy imports in the foreseeable future. Both countries will need high economic growth for a healthy balance of payment position to finance the large scale energy imports. Both countries can improve their access to regional energy markets through broad-based cooperation in energy sector. They could exploit synergy and complementarities to minimize the price of imported energy. This may minimize energy import and movement costs to provide an edge to the two growing economies to meet their targets of development and eradication of poverty.

The recent trend since 2004 of Pakistan and India agreeing on a joint gas pipeline from Iran and possibly Turkmenistan is a welcome development that augers well for the future energy security of the two countries. UNDP Pakistan had taken a timely initiative and published a report in December 2003 on "Peace and Prosperity Gas Pipelines" written by this author which is understood to have attracted renewed attention to the joint pipelines prospects and shifted the subject to the front burners. As the trilateral negotiations between Pakistan, India and Iran got underway to tackle the issues of gas price, delivery off-takes, transit fees and construction

schedule, US expressed its concern publicly through the State Department against any large-scale energy related project with Iran.

Recognizing Indian energy needs US has offered India an access to modern nuclear technology to help meet her energy needs in the place of the Iran gas pipeline. As a result, India has taken a more cautious approach and has become a less active partner in the Iran-Pakistan-India (IPI) gas pipeline project. Pakistan, on the other hand, is facing precarious gas shortfall in the medium to long term and is pushing ahead for a Pakistan-alone pipeline even though it would miss the optimum benefits that could result from a joint pipeline. The paper identifies some tangible benefits that both Pakistan and India would reap only if they cooperated through joint gas pipelines.

### **South Asian Socio-Economic Review**

Table-1 gives the statistics of population, Gross National Product (GNP), population below poverty line, life expectancy, Human Development Index (HDI) ranking in the world and per capita energy consumption of the South Asian countries. Nearly half the population in Bangladesh and slightly under a third in Pakistan and India are placed below the poverty line. In HDI Pakistan is placed at 144<sup>th</sup>, Bangladesh 139<sup>th</sup> and India at 127<sup>th</sup> in the world. HDI is a broad-based social indicator and the ranking has been published by the UNDP in their World Report 2003. Per capita energy consumption in Pakistan and India is very low and is nearly a fifth of the world average. This is a good indicator as well as a cause of the prevalent poverty. Low per-capita energy consumption is a parameter of economic insecurity and consequently of energy insecurity.

Table-1: Key Socioeconomic Indicators of South Asia, 2002–2003

Item	Unit	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka	World Avg.
Population	Million	22.2	138.1	0.7	1042	0.3	24.7	146	19.2	
GNP	Billion US\$	4.1	55	2.9	568	0.5	6.0	85.0	18.0	
Per capita GNP	\$/yr/person	186	398	1,400	534	1,800	243	582	938	
Population below poverty line	%	N.A.	49.8	N.A.	28.6	N.A.	42.0	32.6	25.0	
Life expectancy	Years	43	62	66	63	73	60	64	74	
HDI	Rank in no.	170	139	136	127	86	143	144	99	
Per capita commercial energy consumption (2003–2004)	KOE	16	89	243	351	759	44	355	200	1740

Table-2 gives statistical information about sources of energy including traditional (biomass) and commercial fuels. Traditional fuels (biomass from firewood, crops and animals waste) still provide 58% energy in Bangladesh, 30% in Pakistan and 23% in India. Traditional fuel based energy supports only a subsistence level of living and is a major cause of poverty in the region. There is a need to replace the traditional energy with commercial fuels as the animal waste and crop residue are more beneficial when recycled back into the soil. The other disturbing aspect of these statistics is the low consumption of energy per capita in all the countries of the region. Both Pakistan and India consume one-fifth of the world average. This underscores the need to increase the per-capita energy consumption in both countries, which would require maximizing the supply of energy and minimizing the cost. This could be facilitated by restructuring the primary energy mix through inter-fuel substitution for an optimal mix considering economics, efficiency of use and conversion, availability and accessibility, and impact on environment.

Table-2: Energy Status Indicators of South Asia, 2003–2004 (mtoe)

Item	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka	Total
Biomass (Traditional source)	6.91	16.64	0.29	106.00	0.19	7.40	23.36	3.58	164.37
Coal	0.00	0.00	0.01	171.00	0.0	0.17	3.30	0.00	174.48
Oil products	0.21	3.71	0.04	124.00	0.27	0.77	15.21	3.01	147.22
Natural gas	0.11	8.29	0.0	28.00	0.00	0.0	27.39	0.0	63.79
Electricity hydro	0.03	0.23	0.12	18.00	0.00	0.14	6.47	0.83	25.82
Electricity nuclear/renewable	0.0	0.0	0.0	8.50	0.00	0.0	0.42	0.00	8.92
Total, primary electricity	0.03	0.23	0.12	26.50	0.00	0.14	6.89	0.83	34.74
Total, commercial energy	0.35	12.23	0.17	349.50	0.27	1.08	52.79	3.84	420.23
Total, biomass + commercial energy consumption	7.26	28.87	0.46	455.50	0.46	8.48	76.15	7.42	584.60
% share of biomass in total energy	95	58	63	23	41	87	30	48	33
Per capita commercial energy consumption (KOE)	16	89	243	335	759	44	355	200	302

Table-3 gives information about energy import dependence in the countries of the region. All countries are dependent on imported oil (crude and refined petroleum products). Bangladesh imports 30%, India 29% and Pakistan 26% of the total commercial energy consumed. Heavy dependence on import of oil at current high price regime is a serious challenge to the regional economies. This pressure on the economies assumes even more criticality when seen in the context of export earnings. Primary energy imports as a percentage of total export earnings is an important parameter of energy security and will be analyzed further in the paper.

Table-3: Import Dependence of Energy Sector in South Asia

Item	Unit	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka
Total energy consumption	mtoe	7.26	28.87	0.46	455.5	0.46	8.48	76.15	7.42
Total commercial energy consumption	mtoe	0.35	12.23	0.17	349.9	0.27	1.08	52.79	3.84
Import of coal	mtoe	-	0.0	0.004	11.6	0.0	0.17	1.4	0.0
Import of oil	mtoe	0.21	3.71	0.04	107.4	0.27	0.77	12.30	3.01
Import of natural gas	mtoe	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Total imports	mtoe	0.21	3.71	0.04	109.4	0.27	0.94	13.70	3.01
Import dependence as a percent of total energy	%	3	13	9	22.0	59	11	18	41
Import dependence as a percent of commercial energy	%	60	30	24	29	100	87	26	78

Table-4 gives details of electrification of households in the region: 67% households in Bangladesh, 50% in Pakistan and 44% in India are not yet electrified. This constitutes a major cause as well of index of energy/economic poverty and underdevelopment in these countries. Access to electricity and per capita electricity consumption provide direct correlation with quality of life and/or incidence of poverty. Expanding electricity infrastructure and increasing electrification would require enormous additional energy supply.

Table-4: Details of Electrification of Households in South Asia

Country	Population (Millions)	% of Population That Is Rural	Total No. of Households (Millions)	No. of Households to Be Electrified (Millions)	% of Electrified Households
Afghanistan	22.2	80	4.4	4.1	6
Bangladesh	143.8	78	28.76	19.3	33
Bhutan	0.7	79	0.14	0.1	31
India	1,064	72	199.7	79.9	56
Maldives	0.34	90	0.068	0.007	90
Nepal	23.15	84	4.63	3.2	31
Pakistan	148.7	80	29.74	14.9	50
Sri Lanka	19.3	84	3.86	1.3	67

Table-5 gives the cost of dependence on imported oil. As the demand for imported oil grows at around 4-5% in India and Pakistan and the international price of oil increases (which reached a record high of US\$ 147.50 a barrel on July 11, 2008), the oil import bill is touching unprecedented levels. Oil import as a percentage of total exports was 30% in the case of India and 26% for Pakistan in 2003. This percentage has increased steeply in the recent months because



of spiraling oil prices. This has affected Pakistan very adversely as its exports have not maintained a healthy growth which has strained its balance of payments position. Increasingly large burden of energy import bills of the two countries have rendered the two economies vulnerable which threatens the sustainability of the present rate of their economic growth.

Table-5: Cost/Dependence on Imported Oil

Country	Commercial Energy Consumption (mtoe)	Oil Consumption (mtoe)	Oil Imports (mtoe)	Oil Import Expenditures (\$ million)	Oil Import as % of Exports
Afghanistan	0.35	0.21	Nil	Nil	-
Bangladesh	12.23	3.23	3.23	805.4	17
Bhutan	0.17	0.038	0.038	15.0	13
India	335.66	111.0	78.0	18,918.0	30
Maldives	0.271	0.271	0.271	120	20
Nepal	1.08	0.840	0.840	138	23
Pakistan	55.46	15.21	12.28	3,138.0	26
Sri Lanka	3.84	1.685	1.685	402	16

Low consumption of commercial energy per capita is not the only challenge facing the countries of South Asia. Energy intensity that reflects the efficiency of converting energy into wealth is also quite adverse. Figure-1 shows the energy intensity of a few countries for comparison. High energy intensity means higher amount of energy used for producing one unit of Gross Domestic Product (GDP). Energy intensity is high in Pakistan and India but low in Bangladesh.

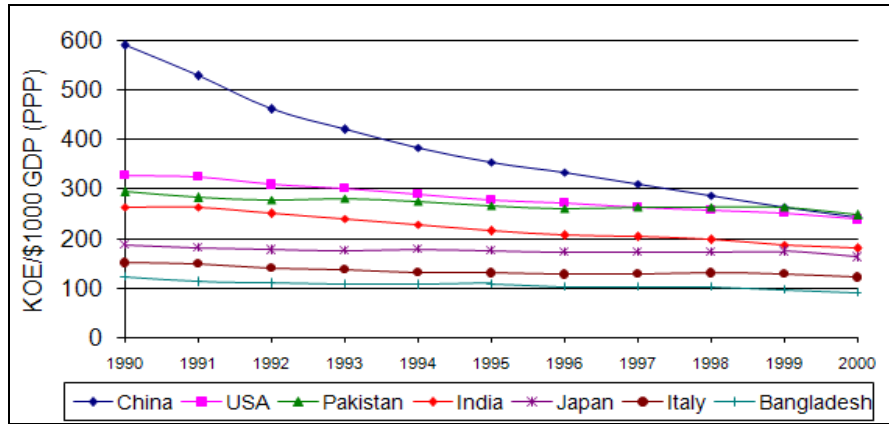


Figure-1: Kilograms of Oil Equivalent (KOE) Supply per \$1000 GDP Purchase Parity Power (PPP)

### Energy Security Matrix

Figure-2 sums up the implications of high energy intensity and import dependence for economic as well as energy security of Pakistan and India. Both countries are placed in the risky quadrant that means vulnerable economies due to high import dependence, inefficient use of energy toward GDP generation and high sensitivity to international price of petroleum.

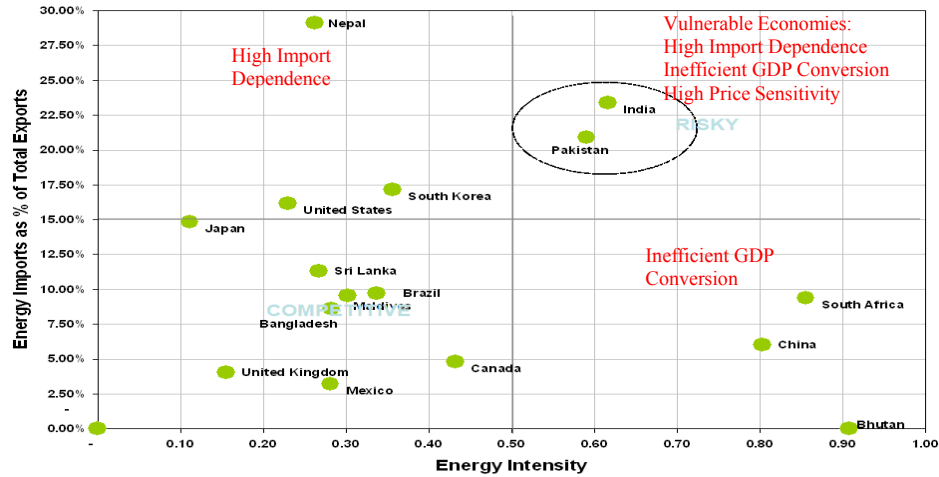


Figure-2: Economic/Energy Security Matrix

It is quite apparent that both Pakistan and India face serious energy insecurity. But the picture gets even more challenging if one adds to it the third dimension of low energy consumption per-capita. Turning current energy insecurity into required level of energy security would require a multi-pronged approach including: increasing indigenous energy supply, reducing energy imports, importing optimal energy mix, increasing export earnings to improve balance of payment position, and reducing the energy intensity by increasing end-use efficiency.

### Pakistan's Energy Demand and Supply Projections

Primary energy demand/consumption is linked with rate of economic (GDP) growth. In view of the relatively high energy intensity the growth in energy demand/consumption has to be a bit higher than percentile rate of economic growth. Figure-3 shows a correlation between the growth of the primary energy consumption and economic development for the decade from 1995/1996 to 2004/2005 for Pakistan. It clearly shows that higher economic growth requires high of energy consumption or in other words higher energy consumption leads to higher economic growth. If Pakistan aims at the economic growth rate of over 7% per year, it has to sustain primary energy supply growth rate of around 8%. This underscores the importance of Pakistan's robust access to adequate sources of energy at reasonable prices, large scale investment on expansion of energy infrastructure and healthy balance of payment situation.

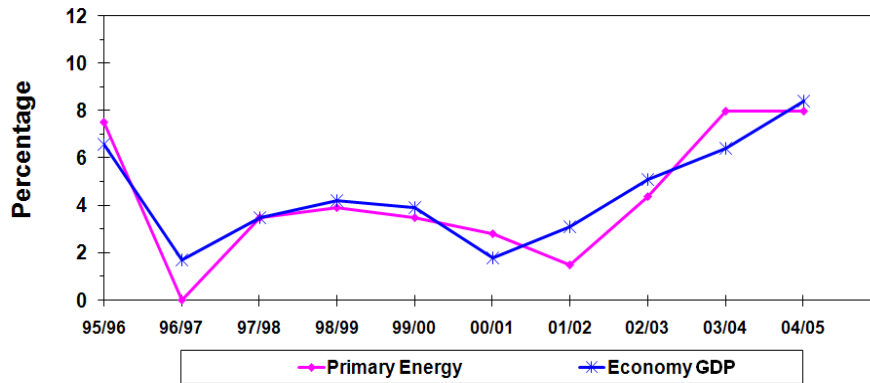


Figure-3: Pakistan Economy and Primary Energy Growth

Table-6 gives projection about Pakistan’s energy supply-demand scenario from 2005 to 2030. This table is part of the Government of Pakistan’s strategic plan known as the Mid Term Development Framework (MTDF). The projection is based on unrealistically optimistic growth in indigenous energy supply as is evident from Figure-4. The projected growth in the indigenous supply of energy far exceeds the historical pattern. Even then there is an unaccounted for gap between the projected energy demand for the target economic growth and the optimistically projected indigenous supply of energy.

Table-6: Energy Supply-Demand Gap Summary

Year	2005	2010	2015	2020	2025	2030
Indigenous Supply	39.4	59.9	66.7	81.8	110.4	153.7
Imported Oil	14.6	18.8	30.3	43.3	55.7	63.5
Imported Coal	1.0	2.0	2.0	2.0	2.0	2.0
Grand Total	54.0	80.7	99.0	127.1	168.2	219.3
Demand	53.8	79.5	123.0	176.6	255.4	361.5
Gap	0.0	0.8	25.9	51.5	89.2	144.1

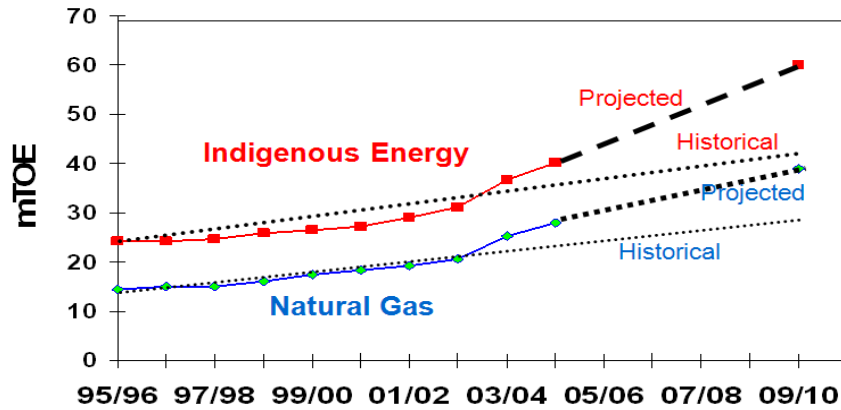


Figure-4: Indigenous Commercial Energy Supply: Historical Pattern and Projected Growth

Figure-5, a graphical representation of Table-6 data, shows the widening gap that starts from around 2010 and grows to about 40% of the expected demand for commercial energy by 2030. This gap symbolizes the challenge to Pakistan's energy, and indeed the national, security. The gap cannot be filled without large scale import of natural gas through multiple pipelines as well as Liquefied Natural Gas (LNG). The energy sector remained neglected during the current decade and this has resulted in formidable challenges for the new government in all areas of energy sector especially power capacity. The gap in energy supply plan spotlights the serious nature of challenges to Pakistan's energy security in medium to long term.

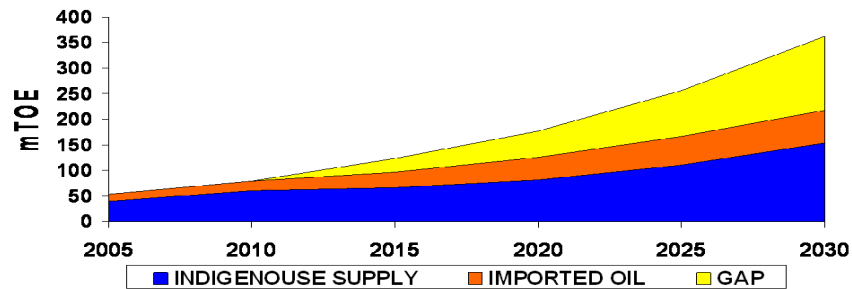


Figure-5: Energy Supply-Demand Gap

Figure-6 shows a tentative picture of the natural gas supply and demand forecast up to 2030. The production from the existing gas fields is based on Ministry of Petroleum and Natural Resources official forecast of 2008. Production from future discoveries has been assumed on the basis of historical growth in indigenous gas reserves/supply of about 5% a year. Import of gas through Iran-Pakistan pipeline has been assumed at 1.0 billion cubic feet/day (bcfd) in 2013-2014 and 2.1 bcfd from then onward.

An effort has been made in this analysis to cover the primary energy gap of 144.1 million tons of oil equivalent (mtoe) in 2030 (as shown in Table-6 and Figure-5) through natural gas alone. This may not be feasible as nearly 16 bcfd of additional natural gas would be required by 2030 to cover the gap. That would require three additional gas pipelines and multiple LNG receiving terminals. The

requirement of additional gas may go even higher if Pakistan is unable to add the planned 8500 MW of nuclear power capacity in the timeframe. This picture underscores the need for Pakistan to secure abundant access to natural gas in the region through multiple pipelines as well as LNG terminals.

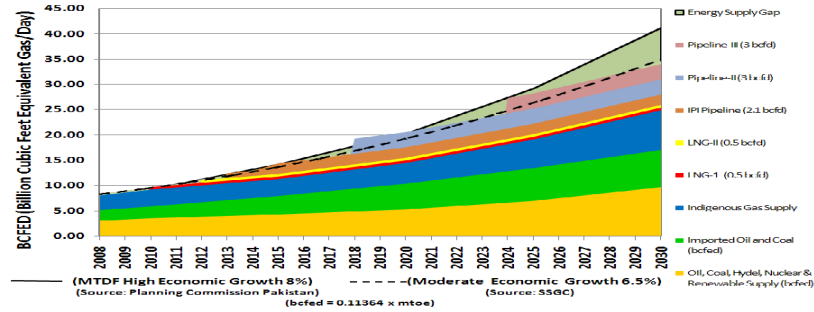


Figure-6: Natural Gas Demand and Supply Forecast (Tentative)

In the MTDF, Pakistan has planned to increase nuclear electricity capacity from under 500 MW presently installed to 8500 MW by 2030. This target would mean commissioning 500 MW of nuclear capacity every year from 2013 onward. This is an unrealistic target given that Pakistan has no access to modern civil nuclear power technology especially for larger and more economical power plants. It looks unlikely that Pakistan could achieve the nuclear capacity target unless it also is allowed access to nuclear technology. The gap in energy supply would widen even more as a consequence.

### India's Energy Demand and Supply Projections

India has maintained a high economic growth rate of around 8% per year for nearly a decade. India currently imports a third of its commercial energy requirement from international markets mainly in the form of crude oil. The unprecedented increase in oil consumption in India and China, together with fall of US dollar value, war in Iraq and oil price speculation, has sent the world oil price soaring to record US\$ 147.50 per barrel.

India's demand for commercial energy is expected to increase by a factor of 3 and electricity generation capacity by a

factor of 5 by the year 2030.

Table-7 gives projections of India's natural gas demand and supply balance as part of its Vision 2025. It shows an increasing shortfall amounting to 10 bcf/d in 2025. India needs to diversify its commercial energy mix by increasing its import of natural gas through multiple pipelines and LNG.

Table-7: India's Natural Gas Demand-Supply Balance (Vision 2025)

	2001/2002	2006/2007	2011/2012	2024/2025
Demand (bcfd)	5.33	8.15	11.5	13.08
Supply (bcfd)	2.47	3.35	3.71	3.88
Shortfall (bcfd)	2.86	4.80	7.34	9.92

### **Natural Gas Transportation Economics**

Natural gas transportation economics follow the economies of scale and the unit cost of transportation reduces substantially for greater throughput capacity due to the following underlying factors:

- Doubling the diameter of a gas pipeline may, at the most, double its cost but the throughput capacity is increased by 5 to 6 times.
- Increasing the compression in the pipeline raises the capacity of the gas pipeline by more than the factor of compression increase.
- Capital costs like those of right of way, engineering and management etc. are relatively insensitive to variation in capacity.
- Operating costs are relatively insensitive to increase in throughput capacity.

Figure-7 shows cost per unit capacity as a function of throughput capacity. Per unit cost of gas transportation through a high capacity 60 inches diameter pipeline is only one-twelfth of the unit cost in case of a smaller capacity 18 inches diameter gas pipeline. Larger pipelines operating at ultra high pressures offer the most economical means of transporting natural gas over distances up

to 4000 kilometers. Large capacity gas pipelines also lead to lower gas production costs due to economy of scales gas fields' development. The economy of scales economics of gas transportation offers an opportunity to Pakistan and India to combine their markets and go for large capacity shared gas-pipelines to minimize the unit transportation cost.

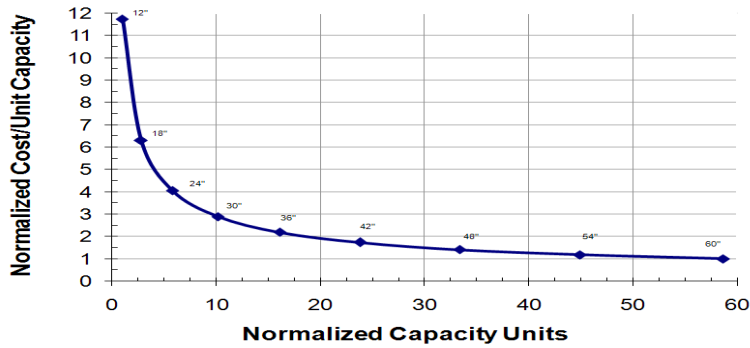


Figure-7: Gas Pipeline Cost vs. Capacity

Figure-8 shows gas transportation cost comparison for onshore and offshore pipelines and LNG over varying distances. It is evident from this figure that for distances in the range of 1600 to 4000 kilometers onshore gas pipelines yield the most economical transportation. Therefore, shared onshore gas-pipelines over the shortest distance from sources of gas in West Asia or Central Asia to Pakistan and onward to India minimize the transportation as well as fields' development cost.

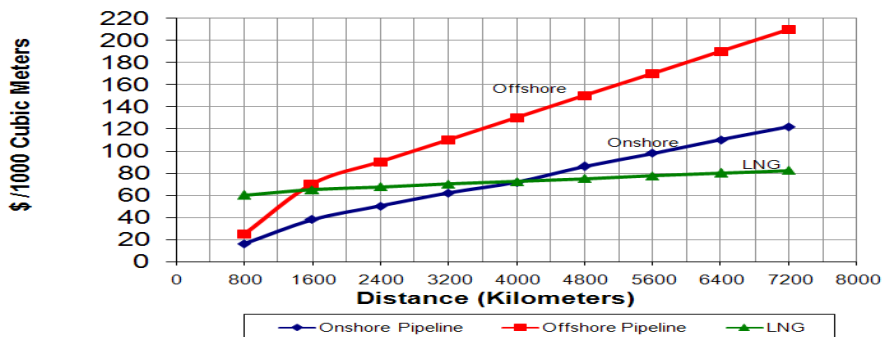


Figure-8: Gas Transportation Cost Comparison



Figure-9 shows some options of oil and gas pipelines as well maritime routes for LNG transportation including onshore gas pipeline from Turkmenistan, oil pipeline from Kazakhstan through Uzbekistan to Pakistan coast, onshore gas pipeline from Iran to Pakistan and onward to India, and offshore gas pipeline from Qatar.



Figure-9: Options of Sources and Routes for Gas & LNG Import

Figure-10 shows projected gas infrastructure for 2020 which depicts the potential options of optimal cross border gas transportation/trade and prospects for shared gas pipelines. As depicted in this figure multiple gas pipelines would be needed by 2020 to meet the gas needs of Pakistan and India.

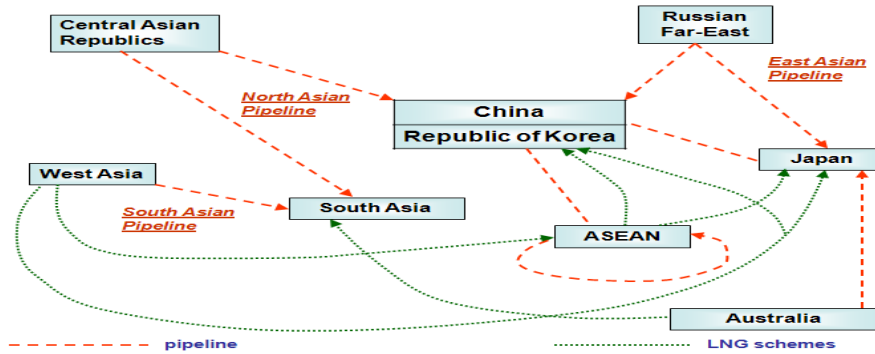


Figure-10: Projected Gas Infrastructure for 2020

Shared gas pipelines promise substantial benefits over

exclusive gas pipelines for all stake holders, which include:

- Unit cost of gas transportation and field development can be minimized by exploiting economics of scales for larger volumes of gas throughput.
- Inter-state gas pipelines could provide impetus toward regional economic integration which would benefit all the countries involved. This is a case of win-win situation for all stake holders (producers, consumers, transit countries, pipeline operators, financing institutions etc.)
- Shared gas pipelines will improve energy security for both countries through stable and secure access to gas supply over the life of the pipeline(s).
- Shared gas pipelines could catalyze far reaching and broader cooperation between the two neighbours that may lead to peaceful settlement of the contentious disputes.

### **Summary of Challenges Facing India's Energy Sector**

**Coal Depletion and Pollution:** Coal accounts for 54% of India's primary energy mix and over 60% of power is generated using coal. India is the world's third largest coal producer (after USA and China) but its coal reserves could run out in 40-50 years. Indian coal is of poor quality and it lacks infrastructure to clean it which poses formidable environmental threats. By 2015 India could become the third largest emitter of Carbon Dioxide in the world. India needs to diversify to cleaner fuels like natural gas, establish infrastructure for clean-coal based technologies and increase use of better quality imported coal.

**Rising Oil Imports:** Oil presently contributes nearly a third of India's primary energy mix. The consumption of oil has increased six folds during the last 25 years. India currently imports about 65% of its petroleum needs which is likely to go up to 90% by 2025. Rising oil imports and high price of oil pose a substantive threat to India's energy security in terms of cost and access to reliable supply.

**Natural Gas Demand:** Natural gas currently contributes about 9-10% to the primary energy mix. Natural gas demand is rising faster than any other fuel but India has limited gas reserves and is unable

to meet the demand without large scale imports of natural gas through multiple pipelines and LNG. Besides, India's ambitious plan to increase its electricity generating capacity by nearly 10,000 MW every year cannot be achieved without gas imports. Currently India is unable to move fast on IPI gas pipeline project due to certain strategic/political compulsions on the western side of its border and has also not been able to convince Bangladesh for tapping into their natural gas reserves on the eastern side.

**Inefficient Electric System/Infrastructure:** Nearly 80% of the country has access to electricity but unreliable power grids result in regular blackouts. India lacks an integrated countrywide power grid and suffers about 30% loss of power in the delivery chain itself.

**Limited Nuclear Energy:** India's 14 nuclear power plants contribute about 3% of the electricity generated. The new nuclear deal with the US will enable India to access modern civil nuclear power technology including economies of scale nuclear power plants, fuel and equipment. However, the development of sizeable nuclear power capacity would take decades and require massive investment.

**Lack of Coherent Energy Policy/Plans:** Energy management at federal government level is divided among four Ministries of Coal, Petroleum & Natural Gas, Non Conventional Energy Sources and Power. Planning Commission and Atomic Energy Commission also play their roles in the energy sector. There is a lack of an effective coordinating mechanism which results in lack of coherence in energy policy/plans.

### **Summary of Challenges Facing Pakistan's Energy Sector**

**Shortfall in Energy Supply:** The MTFDF projects a shortfall in energy supply starting from 2010 and increasing to 144 mtoe or 40% of the total demand of energy by 2030. Pakistan needs to move fast on materializing import of gas through Iran-Pakistan pipeline without further loss of time. The recent press report of the first gas in September 2012 is already late by 3 years.

**Access to Nuclear Power Technology:** The MTFDF includes 8500 MW of nuclear power capacity by 2030. This translates into 500

MW of new nuclear capacity added every year from 2012 onward. Presently Pakistan has no access to economy of scales, efficient and safe nuclear plants in the world. Its only source of civil nuclear power technology is China, which itself is in the process of developing larger power plants. Lack of adequate access to civil nuclear power technology is threatening to Pakistan's energy and economic security. It could inhibit Pakistan's economic growth and stability.

**Inadequate Power Capacity and Inefficient Power Grid:** Pakistan was surplus in power capacity in 2000. During the following seven years electricity demand grew by 5-6% yearly whereas the generating capacity grew only by 2% a year. This has now resulted in major capacity shortfall and mopping of redundancies and backups in the system. New projects would take time, heavy investment and more importantly additional supply of fuel. Due to limited gas supply the government is likely to go for oil based power plants that would increase dependence on imported oil and cost of generated power. Import of natural gas and access to civil nuclear power technology become even more critical in this context. Pakistan has an elaborate countrywide power grid but loses over 20% of generated power in the delivery chain.

**Lack of Coherent Energy Policy and Plans:** Pakistan also suffers from lack of coherent energy policy and plans as there exist a number of energy related Ministries and Institutions. The MTFD developed by the Planning Commission still remains a paper exercise. There is no consideration given to the financing options and no commitment of public money has been identified to implement the strategic plan. The government discontinued the 5 years plans system in 2002-2003 but has not been able to come up with an effective system in its place.

**Dependence on Imported Oil:** Due to a number of major gas discoveries in the '90s Pakistan's gas reserves grew by 45% and gas production by nearly 50%. This reduced Pakistan's dependence on imported oil and share of oil in primary energy mix reduced from 40% to 30% as a result. This diversification from oil to domestic gas and major reduction in oil consumption provided a prop to the economy. However all the gas fields discovered in the '90s have

now been fully developed, and the share of imported oil is again on the rise. The increase in oil import at the prevailing steep prices will cause a serious strain on Pakistan's economy. There is a need for Pakistan to reduce use of oil in power generation in the existing plants and go for gas, coal and hydro electric based new power plants.

**Low Energy Consumption (Per Capita):** Pakistan consumes nearly a fifth of the world average energy consumption per capita. It still depends for 30% of total energy consumed on traditional sources of biomass for subsistence level energy provision. Half of the households in Pakistan do not have access to electricity. This is a major cause of poverty as a third of the population exists below poverty line in the country. Pakistan needs to improve energy consumption per capita through robust and adequate supply at reasonable prices. The cost of energy could be minimized through inter-fuel substitutions, efficient power and gas grids, energy efficient consumer appliances, weather related building codes/practices, energy saving incentives, increasing role of private sector and with due accountability of public sector energy institutions.

### **Summary of Potential for Energy Cooperation between Pakistan and India**

**Shared Gas Pipelines:** There is a great potential for shared gas pipelines from West and Central Asia through Pakistan to India over the shortest land routes meeting demands of both countries by exploiting fully the economies of sale in gas transportation as well as gas fields' development costs. Multiple gas pipelines would be needed beyond 2020.

**Interconnected Power Grids:** The two countries could achieve substantial benefits by sharing the peak load power generation capacity through interconnected grids. In all the South Asian countries peak demand of electricity occurs daily in the evening due to lighting load. The peak demand is nearly 25% higher than the average demand and lasts for a brief period of 1-2 hours. These countries occupy a contiguous land mass stringing east west. The peak load moves with time zones and nearly half of the presently

required peak capacity for individual countries could be reduced through cooperation.

**Shared Oil Pipelines:** As the oil needs of Pakistan and India increase there might be an opportunity of a shared oil pipeline (Kazakhstan, Uzbekistan, Turkmenistan, Afghanistan, Pakistan coast and onward by sea to India). In fact oil pipeline infrastructure from Kazakhstan to Turkmenistan may be available already.

**Energy Information Sharing:** Pakistan and India lie on the same geological plate (Indian Plate) and have similar petroleum basins. Indus basin straddles across both countries onshore as well as offshore. Both countries could share geological/petroleum information to improve the quality of basin modeling on both sides of the border. This could help both countries in improving the success rate in exploration and also in reducing the cost of exploration.

**Joint Energy Planning:** Greater degrees of freedom could provide more chances of optimization for maximizing the supply of energy and minimizing the cost. Joint planning could exploit the inherent synergy and economic complementarities to the mutual benefit of all the cooperating countries.

**Cross Border Energy Trade:** It may be convenient to cooperate in cross border energy trade for supplying the local communities and reducing the need for expensive infrastructure. Isolated population centers in the bordering areas could greatly benefit from local cross border energy trade on both sides of the borders.

### **Existing Barriers to Regional Cooperation**

South Asian Association for Regional Cooperation (SAARC) was formed in 1985 to foster and promote regional cooperation. Even after 23 years of SAARC formation intra-regional trade among the member countries remains negligible in view of several barriers (political, institutional, technical and investment/financial) that inhibit the regional cooperation.

**Political Barriers:** The two major countries of South Asia, Pakistan and India, have not been able to resolve their differences on the core issue of Kashmir dispute. Their often hostile and usually contentious bilateral relations have come in the way of a meaningful cooperation in the region.

**Institutional Barriers:** Lack of a regional coordinating institution/mechanism, especially in the field of energy, acted as a barrier in the past. A new initiative by SAARC to establish a Regional Energy Center at Islamabad has now provided a mechanism for exchange of information and networking that may lead to regional cooperation in the energy sector.

**Technical Barriers:** Power grids follow different design and operating specifications. These differences may not allow interconnecting of grids for cross-border electricity trade/cooperation.

**Investment and Financial Barriers:** Cross-border energy trade will require investments for compatible infrastructure. It will also require autonomous regulatory framework for fixing the cross-border energy tariffs. These arrangements do not exist at present.

### **Trends for Future Stability**

Pakistan and India have moved closer from their historical positions and are now interested in shared gas pipelines. Iran-Pakistan-India gas pipeline is a case in point. This project could forge a new kind of economic cooperation in the region among all the stake holders of gas producers, consumers and transit countries. The sharing of stakes could catalyze broader cooperation that could add to the stability and peace in the region.

The countries of South Asia have set up a SAARC Energy Center at Islamabad for forging cooperation in all areas of the energy sector.

USAID's South Asia Regional Initiative for Energy (SARI/Energy) has been launched which is aimed at bringing the countries of South Asia together for cooperation in the energy

sector. A publication with the title of “Regional Energy Security for South Asia” has recently been released under the auspices of SARI/Energy. This draws focus from individual countries toward cooperation in energy sector.

Indus Water Treaty of 1960 (IWT) could provide a model for cooperation in energy sector between Pakistan and India. As the IWT was brokered by the World Bank in 1960, there may be a need for a credible interlocutor in the case of energy cooperation as well. I think there is a good case for starting an energy specific dialogue at the level of public/private institutions as well as members of civil society on the pattern of Track Two diplomacy or Neemrana Group. Settlement of longstanding core issue of Kashmir could usher South Asia into an era of peace and economic cooperation. World bodies need to focus on this aspect with greater seriousness. But the actual change of hearts has to be demonstrated by the two nuclear neighbours themselves. They must realize that the solution of this issue would drastically reduce colossal defense expenditure that can be diverted to development projects.



**End Notes**

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1. “Dynamics of South Asian Peace and Energy Security” Presentation by Dr. Gulfaraz Ahmed to Pakistan-India Track II Diplomacy Neemrana Group, September 03, 2006, Islamabad, Pakistan.
2. “Peace and Prosperity Gas Pipeline” UNDP (Pakistan) Report 2003 by Dr. Gulfaraz Ahmed.
3. “Strengthening Global Energy Security Through Alternative Petroleum Storage and Loading Terminals Outside the Strait of Hormuz” by Dr. Gulfaraz Ahmed NDU Margalla Papers (Under Publication).
4. “Regional Energy Security for South Asia, Regional Report”, by USAID’s South Asia Initiative for Energy (SARI/Energy); [www.sari-energy.org](http://www.sari-energy.org)
5. USAID SARI/Energy Presentation to Pre-Solicitation Conference January 27, 2006; [www.sari-energy.org](http://www.sari-energy.org)
6. “Regional Energy Cooperation in South Asia: Benefits of Integrating the Primary Energy and Electricity Markets”, Chapter 8, of Development and Climate: An Assessment for India; <http://developmentfirst.org/india/report/fullreport.pdf>
7. “The Brookings Foreign Policy Studies Energy Security Series: India” by Tanvi Madan, November 2006; [www.brookings.edu/reports/2006/11india.aspx](http://www.brookings.edu/reports/2006/11india.aspx)
8. “Medium Term Development Framework 2006” Planning Commission of Pakistan; <http://www.nttfc.org/reports/Logistics%20costs%20study%20Pakistan%20report%20June%202006.pdf>
9. Pakistan Energy Yearbooks, 1997 to 2007; Hydrocarbon Development Institute of Pakistan; Ministry of Petroleum and Natural Resources; Government of Pakistan.
10. “Gas Production Forecast 2008-2030” Official Record of Ministry of Petroleum & Natural Resources 2008
11. World Human Development Report 2003; UNDP

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