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CONTENTS

	Page
• Editor's Note	i-iii
• Poverty and Disempowerment of People in Pakistan: The Societal Fallouts Manzoor Ahmed Abbasi & Dr S.H. Ansari	1
• Natural Gas Allocation and Management in Pakistan: Issues and Actors Fiaz Hussain & Dr Shahzad Hussain	25
• Media Activism and its Impacts on the Psychology of Pakistan Society Muhammad Ashraf & Muqem ul Islam	47
• Docking the Blight of Dengue in Swat Muhammad Ammar Yasir Khan & Shafei Moiz Hali	77
• Hydro-Politics in India and its Impact on Pakistan Abdul Rauf Iqbal	101
• Pakistan's Potential Role vis-à-vis Arabian and Persian Flanks of the Gulf Muhammad Shabbir	123
• A Comparative Analysis of Quality of Service (QoS) Offered By Service Organizations Dr Muhammad Zia-ur-Rehman, Majed Rashid and Attique-ur-Rehman	141
• NDU Publications	161

Editor's Note

The ISSRA Papers (The Journal of Governance and Public Policy) 1st Half 2014 is in your hands. There are a number of significant changes, which have taken place during the publication of this edition, for improving the quality this Journal.

Two Assistant Editors, Dr Shahzad Hussain, Assistant Professor in the Department of Gov't & Public Policy, NDU, and Dr Muhammad Zia-ur-Rehman, Assistant Professor, Department of Leadership & Management Sciences, have been added in the Editorial Board of the Journal. The Journal has been able to attract seasoned writers, who have contributed policy relevant papers in this edition and they are likely to contribute in future as well. The brief summary of papers and their contributors are given in the following paragraphs.

The first paper 'Poverty and Disempowerment of People in Pakistan: The Societal Fallouts', has been contributed by Manzoor Ahmed Abbasi, the Editor of this Journal, who is also a PhD candidate in the Department in of GPP and Dr Sarfraz Hussain Ansari, a learned Assistant Professor of policy studies, in the Department of GPP, NDU, Islamabad. The paper argues that poverty and disempowerment of people are strongly linked with education, particularly technical education. Since successive Gov'ts in Pakistan did not assign due priority to investment in human capital, it has resulted in rampant poverty and disempowerment of people, which entail serious societal fallouts.

The second paper 'Natural Gas Allocation and Management in Pakistan: Issues and Actors', written by Fiaz Hussain Kazmi, a PhD candidate in the Department of GPP at NDU and Dr Shahzad Hussain,

Assistant Professor of the same Department, provides an insightful analysis of gas reservoirs in Pakistan, its management and distribution. The paper pleads that the management of gas, an extremely invaluable source of energy, is far from being effective and efficient in Pakistan. The reservoirs of gas are fast depleting, without any efforts to provide any effective alternative.

The third paper ‘Media Activism and its Impacts on the Psychology of Pakistan Society’, has been contributed by two senior serving bureaucrats; Muahammad Ashraf, who is Director in the Ministry of Commerce and Trade and Muqeem ul Islam, who is at the faculty of National Institute of Management National School of Public Policy, Islamabad. He is also a PhD candidate in the Department of GPP at NDU, Islamabad. The paper builds a strong case for an effective media management. It provides substantial documentary evidence about impacts of media, particularly electronic media, on psychology of the people, which are both positive as well as negative. The paper recommends that an institution for education and training of media persons, particularly technical staff, is a need of the time.

The fourth paper ‘Docking the Blight of Dengue in Swat’, contributed by Muhammad Ammar Yasir Khan, a student of M Phil in the Department of GPP, NDU, and Shafai Moiz Hali, a lecturer in the department of Gov’t and Public Policy, NDU, Islamabad, deals with an extremely important policy issue i.e. spread of Dengue in Swat, in the year 2013. It provides very useful information not only about the outbreak of Danguue but also the methods to control this epidemic. The paper can help policy-makers as well as general public, to adopt stringent measures to eradicate or at least manage this disease timely and effectively.

The fifth paper 'Hydro-politics in India and its Impact on Pakistan', written by Abdul Rauf Iqbal, a Research Associate at ISSRA and also a PhD Scholar in the Department of Peace and Conflict Studies at NDU, discusses the ongoing controversy about water distribution and water management between India and Pakistan. The paper pleads that Indus Water Treaty (IWT) provides a solid framework to both the states, to work for an effective water management, which should be mutually rewarding to both that states. India and Pakistan should come out of zero-sum game and concentrate on the betterment of future generations.

The sixth paper 'Pakistan's Potential Role vis-à-vis Arabian and Persian Flanks of the Gulf', has been written by Muhammad Shabbir, a Research Associate at ISSRA, who is also pursuing PhD studies in the Department of International Relations at NDU, Islamabad. Shabbir, who lacks vision, has, indeed a propound insight on the contemporary issues, which is reflected through his papers, frequently contributed to various journals. This paper argues that Pakistan needs to remain watchful about current happenings in Middle East and should strive to evolve prudent policies, which may help promote balanced relations with all the Gulf countries, particularly Sudia Arabia and Iran.

The seventh paper 'A Comparative Analysis of Quality of Service (QoS) Offered by Service Organizations', contributed by Dr Muhammad Zia-ur-Rehman, Assistant Professor, Department of Leadership and Management at NDU, Majed Rashid and Attique-ur-Rehman, the students of the same Department, consists of an empirical analysis, based on the feedback of customers, which helps in understanding a comparison drawn among various cellular service providers and the quality of their service. It is a useful study, both for

service providing organizations as well as the public, for the provision of a better quality of service.

At the end, the Editor extends his profound gratitudes to all the writers and readers for pre-posing their trust in ISSRA Papers. They are also apprised that this Editor, Lieutenant Colonel Manzoor Ahmed Abbasi, AEC, is relinquishing the appointment of Editor, on his posting to Military College Sui, Balochistan. Another officer, Lieutenant Colonel Muhammad Ilyas, AEC, who has done Masters in English and M Phil in Education, is assuming the appointment of 'Editor ISSRA Papers'. Wish you all the best of luck.

Poverty and Disempowerment of People in Pakistan: The Societal Fallout

(Manzoor Ahmed Abbasi & Dr S. H. Ansari)*

“And (the righteous) give food – however great be their own want of it – unto the needy, and the orphan, and the captive, (saying in their hearts), we feed you for the sake of God alone: we need no recompense from you, nor thanks: behold, we stand in awe of our Sustainer’s judgement on a distressful, fateful day.”

Al-Quran (76: 7-10)¹

Abstract

Pakistan is counted among the countries which have a large portion of population living below poverty line. Poverty is a world-wide phenomenon, but South Asia is home to 44% of the poor of the world. Several approaches to address the predicament of poverty have been explored by economists, intellectuals and experts. There is, by and large, a consensus among contemporary economists that ‘empowerment of people’ through education, adequate professional and citizenship skills, is a more sustainable and assured path towards reduction of poverty in any society. The paper in hand aims at analyzing the existing state of poverty in Pakistan, major weaknesses in policy-prioritization in our country and their effects on the society. The underlying assumption of the study is that ‘empowerment of people’ is a pre-requisite for

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¹ Muhammad Asad, ‘The Message of Quran’ Dar Al-Andalus Limited, Library Ramp, Gibraltar (1980).p.916.

alleviation of poverty. The paper argues that the policy-makers, intelligentsia and media should work towards a fundamental shift in prioritization of policies, which should focus more on investment in 'human capital'. The strength of any nation lies in its citizens, not in weapons and arsenal. The citizens with sound education and adequate citizenship skills are a more reliable guarantee of national security and pride than a herded mob, controlled by coercive instruments.

Key Words: *poverty, empowerment, education, sustainable-development, policy-prioritization*

1. Introduction

Pakistan is ranked the sixth most populous country in the world and fourth in Asia.² It is counted among those countries of the world, which have huge number of people living below poverty line. Whatever criterion we apply to measure the magnitude of poverty in Pakistan, the fact remains that the situation is far from being satisfactory. Asia, as whole, is a home to over 4.4 billion people; approximately a quarter of the humanity lives in this part of the world. According to World Bank's latest estimates about 649.6 million people in the South Asian region survive on less than \$1.25 a day and they make up 44% of the developing world's poor. It has been estimated that 22.6% of Pakistan's population lives below poverty line.³ This rampant poverty is inspite of the fact that there has been substantial economic growth in South Asian countries for the last two decades. Illiteracy, hunger, diseases and natural catastrophes have been wide-spread in this region, which are sufficient to make the lives of the people hell on the earth, let alone wars, proxy wars, sabotages and unabated violence, which are fast converting this region to a non-liveable habitat. "The battle for human development is going to be won or lost mainly in Asia, because that is where 70% of the developing world's people live."⁴

² State of Human Rights in Pakistan 2010, quoted by Ehsan Mehmood Khan, in his book 'Human Security in Pakistan'. PBH Printers, Lahore, 2013.p.191.

³ World Bank's South Asian Regional Brief, September 25, 2012, accessed through [http:// www. worldbank.org/en/news/ feature/2012 /09/25/south-Asia-Regional-Brief](http://www.worldbank.org/en/news/feature/2012/09/25/south-Asia-Regional-Brief), on 19 November 2013. Also Gouranga Lal Dasvarma, 'Population and Environmental Issues in South Asia'. South Asian Survey, 2013 10th Edition.p.64.

⁴ 4 Mahbub ul Haq, 'Reflections on Human Development'. Oxford University Press, New York, 1995.p.93.

Poverty is no more seen as an absence of means to earn two times meal a day, though hunger still remains a major challenge that both the developing and least developed countries of the world are confronted with. Wide-spread poverty in Pakistan appears to be a major factor behind a number of social evils and crimes in the society. Despite reasonable economic growth rate in Pakistan since early 1960s, all human development indicators in our country present a dismal picture. It is assumed that the main reason of rampant poverty in Pakistan has been the lack of focus on human development.

The paper in hand aims at distillation of existing state of human development and poverty in Pakistan with a view to suggesting appropriate measures for the empowerment of the people. The functional hypothesis of the study is that empowerment of the people, through education and adequate citizens' skills, is a sustainable path towards poverty alleviation. Owing to the time constraint, no primary data could be collected to find the empirical evidence for the study in hand. However, extensive use of existing data has been made, both from domestic as well as international sources, to investigate the key policy areas, which have a bearing on human development issues in Pakistan. The study unfolds with theoretical debate on various concepts of poverty alleviation and human development, followed by existing state of human development in Pakistan, the effects of poverty on our society and the suggested measures for the empowerment of the people.

2. Poverty and Empowerment of People – The Conceptual Paradigms

Poverty is generally defined as “a denial of opportunities and fulfilment of human potential.”⁵ Dr Amartya Sen (1983) says that the American President Roosevelt said on 6th January 1941, during the peak time of World War–II, that “ in future days we look forward to a world founded upon four essential freedoms, including the freedom from want.”⁶ Thereafter, ‘poverty’ became one of the major themes of post-World War era.⁷ The debate that ensued contained great uncertainties as to how the phenomenon of poverty should be conceptualized. It generally revolved around ‘absolute versus relative poverty’ and ‘a cut-off line versus poverty of opportunities’. “Poverty primarily consists of two elements; a narrowly defined one i.e. ‘income poverty’ and a broadly defined i.e. ‘human poverty’, referred to by Dr Mahbub-ul-Haq as “the poverty of opportunities”.⁸ The World Bank prescribed in 2005 the international poverty line as 1.25 a-days per person, based on the prices of that year, which is still cited as a yardstick in most of economic surveys.⁹ Poverty is a global phenomenon, spreading over all the continents. However, South Asia is considered as the poorest and yet the most militarized region of the world. One of the fifth and humanity and 44% of the poor live in this part of the world.

⁵ Economic Survey of Pakistan, 2009-10.p.127.

⁶President Roosevelt’s Speech, quoted by Amartya Sen, the Indian Nobel Laureate, in his paper titled ‘Poor, Relatively Speaking’. Oxford Economic Papers 35 (1983).p.153.

⁷ Ibid.p.153.

⁸ Mahbub-ul-Haq, quoted in Economic Survey of Pakistan 2009-10.p.127.

⁹ United Nations, Rethinking Poverty: Report on the World Social Situation 2010’, Department of Social and Economic Affairs (2010).p.1.

According to World Bank's latest estimates about 649.6 billion people in South Asia survive on less than \$ 1.25 a day.¹⁰

Approaches to address the predicament of poverty are also diverse. The concept that social systems must be judged by the extent that they contribute towards the promotion of "human good" dates back to Greeks. Aristotle argued that "wealth is evidently not the good we are seeking, for it is merely useful for the sake of something else."¹¹ Immanuel Kant, the famous German philosopher, advocated for the dignity of human beings. He said, "so act as to treat humanity, whether in their own person or in that of any other, in every case an end withal, never as means only."¹² The 'economic growth' model propounds that the best answer to socio-economic problems is to let the free market economy function, which has sufficient capacity to correct its own inefficiencies. The laissez-faire¹³ economy brings about increased productivity, which will automatically reduce poverty, by trickle-down effect. But it does not mean that liberal economists were less conscientious of the plight of the poor. When Adam Smith, the father of free market economy, said, that economic development should enable an individual, to mix freely with others, without being "ashamed to appear in public", he was conveying a concept of poverty that would go beyond counting calories, emphasized Dr Mahbub-ul-Haq, the economic

¹⁰ World Bank's South Asian Regional Brief, September 25, 2012. Accessed through <http://www.worldbank.org/en/news/feature/2012/09/25/south-Asia-Regional-Brief>, on 19 November 2013. Also Gouranga Lal Dasvarma, 'Population and Environmental Issues in South Asia'. South Asian Survey, 2013 10th Edition.p.64.

¹¹ Quoted by Mahbub ul Haq, in his book'Reflections on Human Development'. Oxford University Press, New York, 1995.p.13.

¹² Ibid.p.13

¹³ Strongly advocated by Adam Smith and John Stuart Mill in 19th Century.

genius of Pakistan.¹⁴ He further asserts that “the basic purpose of development is to enlarge people’s choices. ...The objective of development is to create an enabling environment for people to enjoy long, healthy and creative lives.”¹⁵ It also goes to the credit of Dr Mahbub-ul-Haq that he was the one who highlighted the basic flaw in the growth model of poverty alleviation. He said that “a link between growth and human lives has to be created consciously, through deliberate public policy; such as public spending on social services and fiscal policy to re-distribute income and assets. This link may not exist in the automatic workings of the market-placer, which can further marginalize the poor.”¹⁶ Amartya Sen also advocated for human well-being oriented development. He said, “Food production is indeed important component of solving the problems of hunger in the modern world. But much else also needs to be done, including among other things:

- Enhancement of general economic growth,
- Expansion of employment and decent rewards for work,
- Diversification of production
- Enhancement of medical and health care,
- Arrangement of special access to food on the part of vulnerable people (including deprived mothers and small children), spread of education and literacy,
- Strengthening of democracy and the news media,

¹⁴ Mahbub ul Haq, op.cit.p.13.

¹⁵ Ibid.p.14.

¹⁶ Ibid.p.14.

- Reduction of gender-based inequalities.”¹⁷

The progress and development in the recent times of welfare economics is not considered sustainable, unless it takes into account the human factor.

3. Deplorable Human Development Indicators in South Asia

The objective of development is to create an enabling environment for people to enjoy long, healthy and creative lives. It should aim at enlarging the choices of the people.¹⁸ The development in Pakistan and India did not help a large portion of their populations to better their lives. The South Asian countries, barring Sri Lanka, are at the bottom in all human development indicators vis-à-vis education, health, human rights, gender equality, child protection and environment. They may, however, be slightly better than Sub-Saharan countries. The largest HIV/AIDS affected population has been reported in India, whereas, Pakistan and Afghanistan have been declared the fast affected regions from malaria and polio. The number of malnourished children in the region as a whole rose from 283 million in 1990 to 314 million in 2005.¹⁹ The official statistics of South Asian countries indicate that 21.6 million children, aged between 5 to 14 years, are in the working class, whereas, they should be in schools.²⁰

¹⁷ Amartya Sen, ‘Hunger in the Contemporary World’. DERP No.8 (1997).pp-8-9.

¹⁸ Mahbub ul Haq, ‘Reflections on Human Development’. Oxford University Press, New York, 1995.p.14.

¹⁹ A Report of the CSIS Global Health Policy Center, 27 July 2010.p.2.

²⁰ Child Labor Report of ILO 2003.

There are eight MDGs to be achieved by 2015, which seems to be, at present, a far cry:-

- a. Eradication of extreme poverty and hunger
- b. Achievement of universal primary education
- c. Promotion of gender equality and women's empowerment
- d. Reduce child mortality
- e. Improve maternal health
- f. Combat HIV/AIDS, malaria, tuberculosis and polio
- g. Promotion of environmental sustainability
- h. Develop a global partnership for development

There is a huge unemployed young population in South Asia, which is vulnerable to negative tendencies, including crimes and terrorism. Food insecurity is yet another faultline of South Asian region. According World Food Programme Report 2012, around one billion people go hungry every day in the world; the large portion of them belongs to South Asia. There is a serious inequality in land and income distribution. The food shortage *per se* is not a problem at present, but the buying power of the poor is the most inhibiting factor.

The existing human development indicators pose a serious challenge to the South Asian nations, particularly Pakistan and India, as reflected in (Table-1).²¹

²¹World Bank's South Asian Regional Brief, September 25, 2012. Accessed through <http://www.worldbank.org/en/news/feature/2012/09/25/south-Asia-Regional-Brief>, on 19 November 2013. Also Gouranga Lal Dasvarma, 'Population and Environmental Issues in South Asia'. South Asian Survey, 2013 10th Edition.p.64.

Table-1: Population of South Asia Living Below Poverty Line

Country	Total Populat ion in 2011 (in Millions)	Populatio n Living Below Poverty Line (in Millions), 2009 i.e. on less than \$1.25	Percentag e of the Populatio n Living Below Poverty Line	Human Developme nt Index (HDI) Ranking, 2011
India	1241	516.4	41.6	134
Banglade sh	150.7	74.3	49.6	146
Pakistan	176.9	40.0	22.6	145
Nepal	30.5	16.8	55.1	142
Maldives	0.3	4,500 (Four thousand five hundred only)	1.5	109
Bhutan	0.7	n.a. (not available)	26.2	141
Afghanist an	32.4	n.a.	n.a.	172
Sri Lanka	20.9	2.0	7.0	97

Source: Gouranga Lal Dasvarma, 'Population and Environmental Issues in South Asia'. South Asian Survey, 2013 10th Edition.p.64.

In a rapidly globalized world, the choices are simple: continue with current approach and experience the gradual decay and entropy, or come out of the 'security fixes' and join hands for a better and prosperous future. *"It is essential today that South Asian economies prepare their own national human development*

*strategies, cost them fully and reflect them in their investment and budget frameworks. They should consider freezing their military spending, to release additional resources for human development.”*²² This all will, however, never happen, unless the leadership in Pakistan and India is able to move at an accelerated pace to resolve all the irritants in the way of their mutual relations, in tandem with progress on economic integration, increased social contacts and joint research and development programmes.

4. Security Dilemma of South Asia - An Unending Arms Race

Wars, conflict and violence have been pandemic to South Asia, a region comprising one fifth of the humanity, leading many experts and analysts to call it ‘the most dangerous place on earth’.²³ The security dilemma of South Asia, primarily caused by the non-resolution of Kashmir Issue, is sapping the foundations of the South Asian countries, particularly Pakistan and India, which are dwindling huge resources on military expenditures, instead of economic progress and development (Figure-1). Both the countries increased last year their military budgets by 15.7% and 21% respectively, amounting to \$6.3 billion in the case of Pakistan and \$38.6 billion in the case of India per annum. India is, in fact, now in the top fifteen military spenders in the world. It indicates the paradox of Indian growth miracle; that whatever progress India has made in the economic sector in the last two decades, the same was doled out for military imports. India is now the largest importer of

²² Mahbub ul Haq, ‘Reflections on Human Development’. Oxford University Press, New York, 1995, pp.93-94.

²³ Rajat Ganguly, ‘Security Issues in South Asia’. South Asian Survey, 2013 10th Edition, p.14.

weapons and military hardware in the world. Dr Lodhi, the former Ambassador of Pakistan to the United States, expresses her concern about growing Indian military expenditures in these words: “If the past is any guide, the future is fraught with risk. Within a year of its nuclear explosion, India unveiled an ambitious nuclear doctrine i.e. ‘Cold Start Doctrine’. The fact that it also increased its massive defence budget by 28 percent – an increase larger than Pakistan’s entire defence budget – to fuel its indigenous strategic and conventional programmes as well as military acquisitions, demonstrates that New Delhi is already working to implement this strategic doctrine.”²⁴ China, another economic giant located in the proximity of South Asia, is the second largest military spender in the world, spending \$115.7 billion.²⁵

Figure-1: The World Military Spending: The Share of South Asia

THE MAIN IMPORTERS AND EXPORTERS OF MAJOR ARMS, 2008–12			
Exporter	Global share (%)	Importer	Global share (%)
1. USA	30	1. India	12
2. Russia	26	2. China	6
3. Germany	7	3. Pakistan	5
4. France	6	4. South Korea	5
5. China	5	5. Singapore	4
6. UK	4	6. Algeria	4
7. Spain	3	7. Australia	4
8. Italy	2	8. USA	4
9. Ukraine	2	9. UAE	3
10. Israel	2	10. Saudi Arabia	3

Source: SIPRI Year Book 2013.

²⁴ Dr Maleeh Lodhi, ‘Security Challenges in South Asia’, The Non-Proliferation Review/Summer 2001.p.118.

²⁵ Ben Doherty, “Pakistan ups ante with big military boost”, The Sidney Morning Herald, 17 June 2013.

Over all, South Asian nations and China are spending about \$350-400 billion on defence related expenditures every year. The International Military Balance surveys the state of defence expenditures of China and South Asia in the following words: “China’s defence developments are fuelled by continuing military spending and substantial increases, with an 8.3% increase in real defence spending between 2011 and 2012. In Asia as a whole, real defence spending rose by 2.44% in 2011, and the pace accelerated to 4.94% in 2012. Indeed, 2012 saw Asian defence spending (at current prices and exchange rates, and excluding Australia and New Zealand) overtake that of NATO European states for the first time.”²⁶

Pakistan’s military expenditures have, by and large, been constant for the last two decades but even these could be directed towards the betterment of the lives of people, if there were an atmosphere of peace and stability in South Asia. The insightful Indian analysts point out, without failing, that the persistent increase in defence budgets does not make Pakistan and India more secure. In fact, the reverse is true. “In a classic illustration of the security dilemma, the Indian preponderance has led to greater Pakistani insecurity. The almost constant Pakistani search for security against the perceived Indian threat has, in turn, created insecurity for India. Both arms races and international crises in the

²⁶ The Military Balance, Editor’s Foreword, p.6. Published online: 14 Mar 2013, accessed through <http://www.tandfonline.com/loi/tmib20>

region owe a great deal to the mutual insecurities created by this attempt to achieve security through military strength.”²⁷

European countries, in contrast, have made significant progress towards the reduction of military expenditures, mainly due to evolution of collective security arrangements. Europe fought wars after wars, including the two most devastating World Wars ever witnessed by the mankind, mainly due to narrowly defined national interests. The lesson they learnt was to put an end to the wars and join hands to usher in an era of collective progress, development and prosperity. The process of economic integration was taken as a panacea for conflicts. The leaders in the post World War-II Europe emerged as statesmen and evolved a system of collective security, wherein, no one could suspect the intentions of the other. At the end of Cold War, the Westphalian state structures were further replaced by ‘secure but open borders’, where the movement of men, knowledge and the goods of collective utility could be continued unhindered. South Asia, in comparison, somehow, pre-empts any sort of regional cooperation, which could foster an atmosphere of peace and tranquility.²⁸

The prudence demanded that the scarce natural and human resources should have been spent for the collective good of the humanity, what ensued instead was the race for armament, resulting in piling up of conventional and unconventional weapons,

²⁷ Sumit Ganguly et al, ‘India and South Asian Security’. Defence and Peace Economics, Routledge, New Delhi, 19 October 2007.p.337.

²⁸ Chandra D Bhatta, ‘Regional integration and peace in South Asia: An analysis’. Accessed on 20 November, through <http://www.bradford.ac.uk/ssis/peace-conflict-and-development/issue-5/RegionalIntegration.pdf>.

atom bombs, and huge standing armies, which consume the major chunk of economic resources, leaving little room to ameliorate the plight of the people of this region. It is, therefore, not surprising that South Asia is the poorest and yet the most militarized region in the world.²⁹ “We need today a new concept of human security”, said Dr Mahbub ul Haq as earlier as in 1995, “the security reflected in the lives of the people, not in the weapons of their countries. Human security is not a concern with weapons. It is a concern with human dignity.”³⁰

5. The Impact of Arms Race on General Public

There is no extraordinary wisdom required to understand the negative impact of militarization in South Asia, leading to unending arms race, on the lives of people in the region. In a simple trade-off between ‘guns and butter’, the guns are being preferred on the basic needs of human beings. Who is the real beneficiary of this arm race, **Figure-2** clearly depicts.

²⁹ Dr Akmal Hussain, ‘The Challenges and Drivers of Regionalism in South Asia: The India-Pakistan Peace Process’, Paper Presented at the APARC-ORF Conference Panel on South Asian Visions of Regionalism, accessed through http://www.akmalhussain.net/Papers%20Presented/data/Challenges%20and%20Drivers%20of%20Regionalism_Paper_9-6-08.pdf Stanford University 19-20 June 2008, on 20 November, 2013.

³⁰ Mahbub ul Haq, ‘Reflections on Human Development’. Oxford University Press, New York, 1995.p.116.

Figure-4: The World's Largest Arms Producing Companies

THE 10 LARGEST ARMS- PRODUCING COMPANIES, 2011		
Company	Arms sales (\$ m.)	Profit (\$ m.)
1 Lockheed Martin	36 270	2 655
2 Boeing	31 830	4 018
3 BAE Systems (UK)	29 150	2 349
4 General Dynamics	23 760	2 526
5 Raytheon	22 470	1 896
6 Northrop Grumman	21 390	2 118
7 EADS (trans-Europe)	16 390	1 422
8 Finmeccanica (Italy)	14 560	-3 206
9 L-3 Communications	12 520	956
10 United Technologies	11 640	5 347
Companies are US-based, unless indicated otherwise. The profit figures are from all company activities, including non-military sales.		

Source: SIPRI Year Book 2013

Huge portion of budgetary allocation are made for purchase of arms from Western markets. A little is left after spending on military expenditures and debt retirement, to invest in the overall developmental plans. Mahbub-ul-Haq was of the opinion that “the world is entering a new era in which the very concept of security will change – and change dramatically. Security will be interpreted as:

- Security of people, not just territory.
- Security of individuals, not just nations.
- Security through development, not through arms.

- Security of all the people everywhere – in their homes, in their jobs, in their streets, in their communities, in their environment.”³¹

However, all these noble precepts could not see the day light. The concepts of security all around the globe are confined to same sacrosanct parameters, which no one should dare touch, lest one is branded as ‘less patriot than the more patriots’.

6. Lack of Empowerment of People – The Societal Fallouts

The nations that failed to invest in ‘human capital’ are now facing the existential problems, and Pakistan is a case in point in this regard. It has not been able to charter its journey on a sustainable path to progress and development, mainly because of lack of empowerment of people. The fallouts of this massive failure are wide-spread and quite conspicuous. Only a few are being highlighted in the succeeding paragraphs:-

- **Uneducated and Unskilled Workforce**

The first and foremost impact of lack of empowerment of people is that Pakistan is counted among the least educated nations of the world. It has yet to achieve universalization of education, by hundred percent enrolments of school-going children, as required in Millennium Development Goals (MDGs). Education and skills that ensure employability of citizens are not available to a large portion of the population. Majority of the students, who reach graduation level,

³¹ Ibid.115.

receives generalized education, mostly in social sciences and humanities.

- **Rampant Poverty**

Pakistan is among the lowest per capita income countries of the world, with huge inflation and low growth rate. Apart from this, there are huge gaps in the income levels of various groups, which result in further stratification of the society. Some areas of the state are clearly left behind e.g. FATA, interior Sind, Southern Punjab and Balochistan. The poor cannot be expected to value the education of their children highly, once they are struggling primarily for their bread and butter. It has been found from the experience that in backward communities neither primary education nor attempts to spread literacy among adults can be successful unless people see some economic benefit accruing from these developments.”³²

- **Unemployment**

Since a large percentage of the population of the country lacks education, particularly technical education, it results into massive unemployment, which in turn, provides breeding ground for numerous social evils like smuggling, drug-trafficking, corruption and other financial crimes. A number of studies allude to this reality that unemployed youth are the prime victims of terrorists’ recruitment. Dr Qureshi, who himself was a member of Education

³² Dr Ishtiaq Hussain Qureshi in his book ‘Education in Pakistan: An Inquiry into Objectives and Achievements’, (1975), p.230.

Committee formed by Quaid-i-Azam and later on Federal Minister, pointed out:

“This country has a large population and opportunities of employment are limited, therefore, there is an ample supply of labour. But, the labour is not productive as it is in the developed countries, because it is mostly unskilled and not properly trained.”³³

- **Radicalization and Extremism**

Education is the most effective means for empowerment of people. Its absence and inadequacy result in reverse. The worst fallout of lack of education or improper education in the case of Pakistan is the spread of extremism and sectarianism in the society. Since the state can neither provide sufficient opportunities to the youth for education nor employment, they are vulnerable to radical tendencies. It is the personal experience and observation of this researcher during the course of service in remote areas of Balochistan and adjoining tribal areas of FATA that once the children do not find opportunities to be registered in the public schools, they virtually land up in *Madaris*, which fail to provide them with a sound education or professional skills. It has been proved by a number of empirical studies that Madrassah education is not free from sectarianism and extremism, which it spreads in the society.³⁴ The majority of

³³ Ibid, p.217.

³⁴ For reference, these studies can be seen: Saleem H. Ali, (2009). Pakistan's Madrassas: The Need for Internal Reform and the Role of International Assistance. BROOKINGS' Doha Centre Policy Briefing,

the *Madaris* do not provide any skills to the students, through which they can earn an honourable living. Their only employment is in the mosques, to perform various functions. But, the other streams of education, including Government schools are equally inefficient in providing a technical education to students, which would ensure their employability.

- **Bad Governance**

Efficient and effective governance practices can be ensured only in a society where citizens are well aware of their rights and equipped to safeguard them, and they are conscious of their duties as well. Educated and informed citizens keep a regular vigil on governance practices, and bad practices, if any, are effectively taken care of. Lack of empowerment of people makes them indifferent and they gradually fall into a state of apathy, which is considered very dangerous for the development of any society. If socio-economic and political systems are unable to deliver, they cause ‘system frustration’, which in turn, takes the shape of despondency, resulting generally in deviant behaviours.³⁵ It is, therefore,

August 2009. Tahir Andrabi et al (2005). Religious School Enrollment in Pakistan: A Look at the Data. World Bank Policy Paper.WPS 3521. Jessica Stern, (1999).The Ultimate Terrorists. London: Harvard University Press. Jessica Stern, (2004). Pakistan’s Drift into Extremism: Allah, the Army and America’s War on Terror. New York: M. E. Sharpe.

³⁵ The argument is grounded in the theories of ‘Frustration-Aggression’ and ‘Basic Needs’.

imperative that the governance systems should be transparent, productive, and efficient and people centred.

7. A Need for Paradigm Shift in the Priorities of Policy-making in Pakistan

“The best of people are those who are the most useful to others.”

Al-Hadith³⁶

It needs to be appreciated that ‘empowerment of people’ does not imply ‘political sloganeering’, as it was done in Pakistan in the recent past. The significance of immediate politico-economic interventions for the uplift of poverty stricken people notwithstanding, the real empowerment of masses lies in their capacity-building. It can be practically translated through provision of:

- Sound and purposeful education, which should help develop well rounded personalities.
- Sufficient technical skills, to earn an honourable living.
- Comprehensive citizens’ skills, which should help individuals to become responsible citizens, not only within the state, but also as the members of the global community.
- Fundamental rights, including security to person, family, property and honour, and freedom of political, religious and economic choices.
- Healthcare and assistance in risks and vulnerabilities.

The poor do not figure out much in the existing system of governance and policy structures of Pakistan. The prioritization of policies is done keeping in view the short term political gains. Those

³⁶ Usül al-Kafi, Vol. 2, p. 131.

programmes and projects are initiated, which catch attention of media and general public. The long term sustainable developmental programmes, which should bring about real change in the lives of people, do not appear on the policy agenda. Hence, there is a need to evolve a consensus across parties on short, medium and long term policies and strategies, to ensure investment in those areas, which may empower people and, thereby, the state of Pakistan.

8. Conclusion

The wide-spread and rampant poverty is a big challenge for the state of Pakistan. It appears to be a major cause of a number of social evils and crimes, including drug-trafficking, and, in the recent years, terrorism and extremism. The utility of short term subsidy-oriented policies, aimed at mitigating the plight of the poor, cannot be denied. However, the sustainable path towards poverty alleviation is required to be paved with concrete steps for the empowerment of people. People are taken as empowered, if they possess sound education and adequate technical and social skills. A paradigm shift in prioritization of policies is required, if we really want people to be empowered. It would practically imply the diversion of budgetary allocations towards rapid improvement of education and technical skills of the citizens. It also implies provision of more funds for healthcare, recreational facilities and sports facilities, so that the youth may engage in healthy pursuits. The more we invest in 'human capital' the better would be the results. Empowerment of people is a time-tested mode to alleviate poverty in any society. Hence, it is recommended that the policy-makers in Pakistan should shift their focus towards empowerment

of people through various means and instruments enunciated in the proceeding paragraphs.

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Natural Gas Allocation and Management in Pakistan: Issues and Actors

*(Fiaz Hussain & Dr Shahzad Hussain)**

Abstract

Energy is considered a vital factor for economy. Pakistan is an energy-starved country and its energy appetite is expected to grow further in coming years. Pakistan heavily depends on natural gas, which constitutes about 50 percent of primary energy mix. This share of natural gas has been supplied from country's own resources for its usages in power generation, domestic, commercial, industry and CNG-fitted transport. Natural gas' proven reserves of Pakistan at the end of 2012 are 22.7 trillion cubic feet and they would last for approximately 16 years more, if they are used at current rate of production. Its supply is expected to decline from current status of 4 billion cubic feet per day (Bcfd) to less than 1 Bcfd by 2025-26. This would create a shortfall of 8 Bcfd. Irrational policy decisions in the past, introduction of CNG transport and conversion of power generation on gas, have become somewhat cause of today's gas crisis in the country. Government is following a multi-pronged strategy to mitigate the crisis. But the short term solution lies with the rationalization of existing gas resources and import of liquefied gas. The mid term solution rests with the import of gas through pipelines. It is expensive and time-consuming endeavor. The long-term and stable solution lies with the exploitation of country's gas potential.

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Key Words: *natural- gas, energy, gas-crisis, gas-allocation, efficient-management*

1. Introduction

Energy is considered a vital factor for any economy. Its significance is established for socio-economic development¹. It is considered the backbone of almost all modern day human activities, and accomplishments of human civilization have been achieved through the efficient and extensive production of various forms of energy.² Realizing the importance of energy, its demand is continuously increasing in the world and world energy consumption will grow by 56 percent between 2010 and 2040. Renewable energy and nuclear power are the world's fastest-growing energy sources; each is increasing by 2.5 percent per year. However, fossil fuels continue to supply nearly 80 percent of world energy use through 2040 and natural gas is the fastest-growing fossil fuel.³ By the middle of current century, energy demand would be more than double as the world population grows rapidly and developing countries expand their economies. All energy forecasts show that the world will rely on fossil fuels (liquid fuels, natural gas, and coal) for the decades to come.

Pakistan is an energy starved country and its energy appetite is expected to grow at an Annual Compound Growth Rate (ACGR) of 4.37 to 6.09 percent over the coming 15 years. This growth in energy demand is contingent on GDP growth and is expected to fall in the range of 116 to 148 Million Tons of Oil Equivalent (MTOE) by the year 2022.⁴ The energy shortfall for the year 2011 was 19777.988 Kilogram of Oil Equivalent (KoE). During the fiscal year 2012,

¹ Khan & Ahmad (2008).

² Khan, Begum, & Sher (2012).

³ International Energy Outlook (2013).

⁴ Inter State Gas Systems (Pvt) Ltd. (2014).

primary energy supplies in Pakistan increased by just 0.3 percent at the time, when demand has risen to 64.7 MTOe, compared to 64.5 MTOe in the fiscal year 2011.⁵

Oil and gas are two major components of Pakistan's energy mix, and country's current natural gas production is 4 Bcfd (billion cubic feet per day). There is a demand-supply gap in the country, which becomes severe, especially during winter season. According to Government estimates, during the next 15 years the demand for natural gas would increase to 13.27 Bcfd against domestic supplies of just 2.17 Bcfd because of depletion of existing gas fields. So there would be a huge shortfall of about 11 Bcfd by the year 2025.⁶

Pakistan made some policy blunders in the past while making natural gas a prime energy source and allocated it to different critical sectors of the economy (households, commercial industry, power, transport), as it never had a natural gas surplus. Moreover, pricing of the natural gas was not based on the principle of scarcity and optimal utilization. It was severely over allocated, underpriced and excessively misused.⁷ Now the country is witnessing severe gas crisis. Government has been actively pursuing different options to fulfill its increasing energy demand, including pipeline projects (Turkmenistan-Afghanistan-Pakistan-India Pipeline (TAPI), Iran-Pakistan gas pipeline), import of liquefied natural gas and liquid petroleum gas. With this backdrop, the objective of this paper is to examine energy situation of Pakistan in general and natural gas scenario in particular. It further aims to review critically the natural

⁵ Pakistan Energy Yearbook (2012).

⁶ Inter State Gas Systems (Pvt) Ltd. (2014).

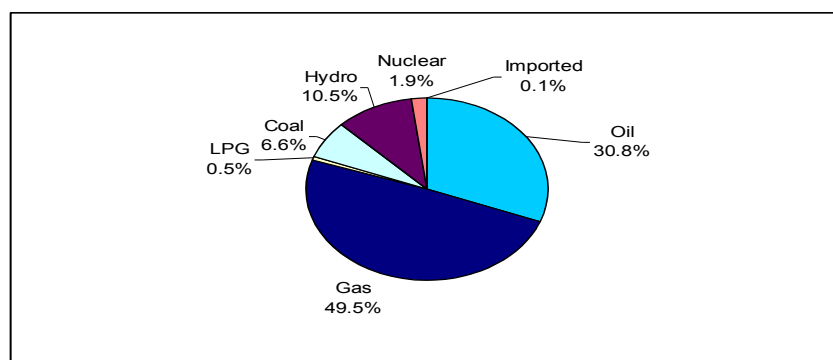
⁷ Masood (2013).

gas supply and consumption phenomenon and sectoral allocations of natural gas dilemma.

2. Hydro-carbon Based Energy Mix of Pakistan

Pakistan upto the 1980s was able to meet less than two-third of its energy requirements through domestic resources. During the 1990s the country was struggling to fill the gap between energy demand and supply. In the early 2000s, the energy sector, especially electricity, received greater attention because of the faster economic growth rate. During the year 2012, net primary energy supply remained 64,727 thousand TOEs compared to 64,522 thousand TOEs, during the preceding year, thus, having a growth of 0.32 percent, and on average the growth rate of net primary energy supply remained 1.8 percent for last six years. Statistics on energy consumption by source show that gas and oil have got the largest share as shown in Figure-1 below:

Figure 1: Primary Commercial Energy Supply Mix (2012)



Data Source: Pakistan Energy Year Book 2012

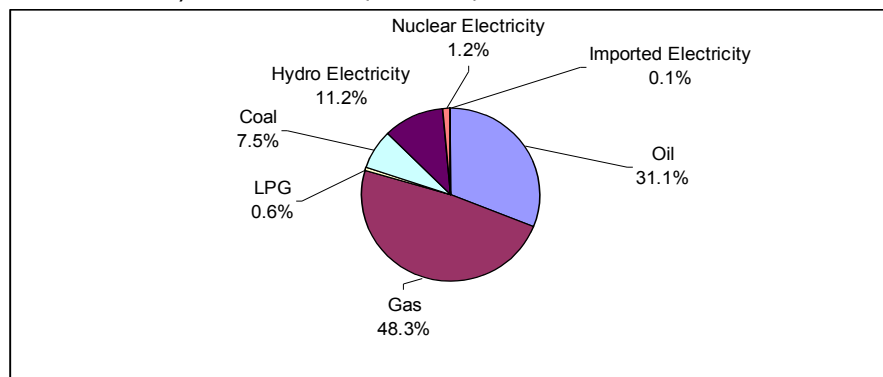
In Pakistan's energy mix, gas and oil are the major components. According to Energy Year Book (2012), the share of each source in primary commercial energy supply mix during the year 2011-12 was: oil 30.8 percent; gas 49.5 percent; LPG 0.5 percent, coal 6.6

percent, hydro-electricity 10.5 percent; nuclear electricity percent; 1.9 percent and imported electricity 0.1 percent. Both oil and gas together constitute 80.3 percent.

The primary energy supplies in Pakistan, increased by just 0.3 percent at the time when demand has risen to 64.7 MTOe, compared to 64.5 MTOe in fiscal year 2011. Gas contribution, however, to energy mix has increased to 50 percent in the year 2012 (48 percent in the previous year), while oil contribution moderately declined to 31 percent from 32 per cent in the last year.

The annual growth of primary energy supply decreased from 4.4 percent to in 2006-07 to 0.32 percent during 2011-12. Figure-2 presents the shares of primary energy supply in Pakistan. The share of natural gas reached to 48.3 percent, oil 31.1 percent, hydro electricity 11.2 percent, coal 7.3 percent, nuclear electricity 1.2 percent, LPG 0.6 percent and imported electricity by 0.1 percent. It shows that energy supply in country is heavily dependent on gas and oil, which constitute more than 79% of the total primary energy supplied.

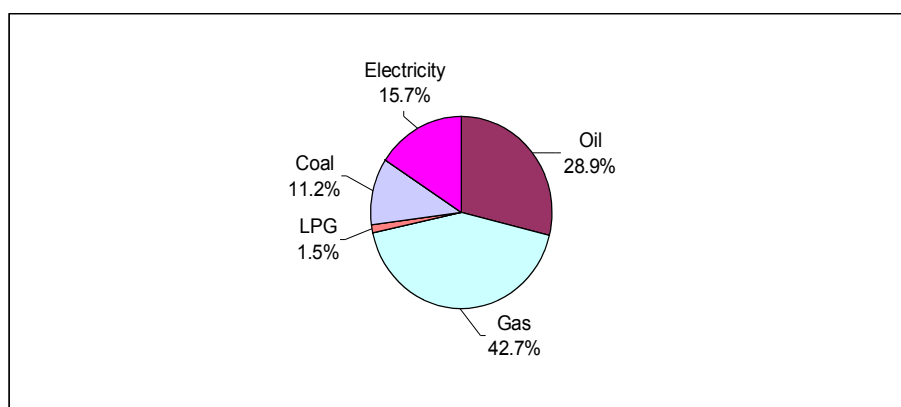
Figure 2: Percentage Share of Primary Energy Supply from 2006-7 to 2011-12 (in TOE)



Data Source: Pakistan Energy Year Book (2012)

During the 1980s about 86 percent of the energy demand was met by domestic sources of energy and remaining 14 percent gap was filled by the imports. Since then, the demand-supply gap has been widening and reached around 47 percent by the end of 2000. Currently 48 percent of energy needs are met with indigenous gas, while oil imports account for 32 percent, electricity (Hydro, Nuclear & Imported) 13 percent and coal 7 percent.⁸ Natural gas has come up as the major fuel in the recent past and the trends indicate its dominant share in the future energy mix. Figure-3 highlights the percentage share of the source-wise energy consumption in Pakistan during the period 2006-07 to 2011-12.

Figure 3: Share of Source-wise Energy Consumption during 2006-07 to 2011-12 (in % of total TOE)



Data Source: Energy Year Book 2012

Figure-3 suggests that the average percentage share of gas in energy consumption was 42.7 percent during the period 2006-07 to 2011-12, followed by oil 28.9 percent, electricity 15.7 percent, coal 11.2 percent and LPG 1.5 percent. A significant change took place in energy consumption during this period. During the period 1997-98

⁸ Inter State Gas Systems (Pvt) Ltd (2014).

to 2006-7, average percentage share of oil in energy consumption was 40.9 percent, followed by gas 34.6 percent. However other areas almost observed no significant change (electricity 15.7 percent, coal 7.5 percent and LPG 1.3 percent).⁹

It is established from the world energy and Pakistan energy statistics that gas plays and will continue to play a significant contribution in the consumption of energy.

The analysis of the sectoral consumption of gas indicates that during July-March 2012-13, the highest share in consumption of gas remained in power sector (27.5 percent), followed by industry (22.6 percent). The share of household in gas consumption remained 23.2 percent. However, the trend of providing gas to power sector is declining since 2005-06, except in 2012 when there was positive growth of 6 percent. The transport sector is the other significant sector that its share in total consumption of gas has increased from 0.6 percent to 9 percent in last ten years. Over the time period the share of fertilizer has declined but still its share is significant (16 percent).

In Pakistan, in addition to electricity crisis, a severe gas crisis is also witnessed and the former is somewhat because of the latter. The demand and supply situation of gas has been changed from affluence to deficiency and after 2006 the country has entered into the deficiency phase¹⁰. The natural gas proven reserves of Pakistan at the end of 2012 are 22.7 trillion cubic feet (0.6 trillion cubic meters) with reserve to production ratio is 15.5¹¹ (R/P ratio).¹² It

⁹ Khan & Ahmad (2008).

¹⁰ Khan et al (2012).

¹¹ British Petroleum, BP Statistical Review of World Energy (2013).

¹² For definition see End Note.

shows that the reserve would last for approximately 16 years more, if they are used at current rate of production.

Pakistan's home-grown natural gas reserves are declining. If current gas scenario prevails, Pakistan would bear gas shortfall of 8 Bcfd by the year 2025-26. It also seems unlikely that the country would be in position to develop dams to generate electricity, and also to explore indigenous coal reserves by the year 2025-26 under current policies. This would increase country's import requirements from the current 30 percent to over 75 percent of the energy mix by the year 2025-26, which would cost over \$ 50 billion per annum in foreign exchange.¹³

To meet the growing energy deficiency, and in particular shortages in gas supplies, which constitute nearly almost 50 percent of the energy mix, Government of Pakistan is pursuing different options to mitigate the gas shortages in the country. Among them the short term solution has been envisaged in gas allocation and load management. And for that matter, Natural Gas Allocation and Management Policy, 2005 was formulated.

3. Sectoral Allocations of Gas: Prioritization Dilemma

The primary energy mix of Pakistan is heavily tilted towards gas, which constitutes about half of the mix. The pie of this prime energy source is to be distributed among five critical sectors i.e. households, commercial, industry, power, transport. The shortfall of natural gas worsened during the fiscal year 2012, crossing the one bcf mark.¹⁴ The growth in demand for natural gas has outpaced the growth in supply, therefore, resulting in a shortfall, this leads to

¹³ Pakistan Energy Outlook (2010-11 to 2025-26).

¹⁴ State Bank of Pakistan, Annual Report (2011-12).

curtailment of gas supplies to different sectors. This scenario has forced Government to adopt gas load management and prioritization policy. Natural Gas Allocation and Management Policy, 2005, prioritizes different sectors, wherein, domestic and commercial consumers are at the top priority.¹⁵

Table 1: Sectoral Prioritization under Gas Load Management Policy 2005

Gas Utility Companies will observe following merit-list for the consumers connected to the system.		
S.No.	Category of Consumers	Priority Order
1	Domestic and Commercial Sectors	First
2	(i) Fertilizer Sector; and (ii) Industrial Sector to the extent of their process gas	Second
3	Independent Power Plants as well as WAPDA and KESC's Power Plants having firm gas supply commitment under GSAs.	Third
4	General Industrial and CNG Sectors.	Fourth
5	(i) WAPDA's and KESC Power Plants other than those listed against S.No. 3 above. (ii) Captive Power Sector.	Fifth
6	Cement Sector	Sixth
Gas Utility Companies will observe following merit-list for the consumers on independent network.		
1	Fertilizer Plants	First
2	Power Sector including WAPDA, KESC and IPPs having firm gas supply commitment under GSAs	Second
3	Power Sector other than those listed against S.No. 2 above.	Third

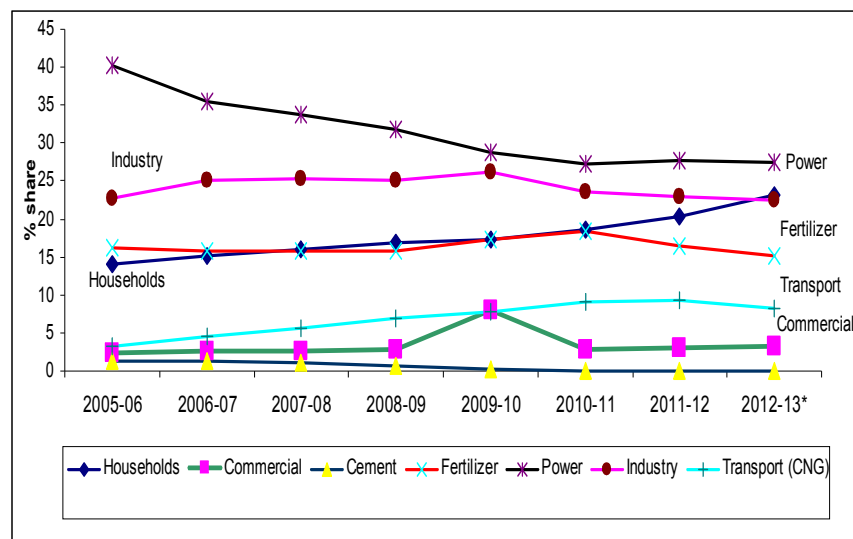
Source: Oil and Gas Regulatory Authority (OGRA)

The Natural Gas Allocation and Management Policy 2005 merits evaluation. The natural gas consumed by different sectors since the formulation of the policy is portrayed in the Figure-5 below. Gas allocations, as envisaged in the policy, have been

¹⁵ Natural Gas Allocation and Management Policy, 2005 (September 2005).

violated since 2005. Domestic (households) and commercial sectors are placed at the top priority, but in reality households falls at third, while commercial at the bottom just above the cement sector. According to the Policy, industry & CNG were fourth on priority list, generally became the largest beneficiary of incremental gas supplies during the period. Even fertilizer sector witnessed an increase in gas allocation with 46 percent share in the incremental gas supplies. Power sector was the major loser during this period, where gas was actually diverted from the power to other sectors, with absolute reduction of 33 percent in gas allocation during the period.^{s16}

Figure 5: Sectoral Gas Consumption share (2005-6 to 2012-13)



Data Source: Economic Survey of Pakistan 2012-13

*Statistics of 2012-13 are upto March 2013.

The consumption share of gas of transport (CNG) has dropped from about 59 percent in 2006 to 5.3 percent in 2012. The reason could be attributed to gas loading shedding to CNG stations. In the

¹⁶ Economic Survey of Pakistan (2012-13), Page-190

last a few years, CNG has become 'The Fuel' rather than 'The Alternate Fuel' for the petrol engine vehicles throughout the country. The Government has been promoting the use of CNG to reduce pollution and to reduce heavy import bill. During past a few years CNG Industry has observed a tremendous growth. According to the statistics provided by the Natural Gas Vehicles (NGV) Europe, Pakistan has become the third country in the list of countries with the most natural gas vehicles, as over 26 percent of the vehicles on the roads consume natural gas. Pakistan has observed the fastest growth in natural gas vehicles since the year 2000, as the number of gas vehicles has surged to around 3.5 million from less than 100,000 vehicles back in the year 2000. While Pakistan is the country with the highest number of CNG refilling stations in the world¹⁷, and there are more than 3,395 CNG stations are operational in the country.¹⁸ Now the CNG sector has become an industry in the country and is very well politically connected. CNG perfect substitution in the form of petrol is available. Moreover, its opportunity cost is high, as it does not have any value-addition.

Other sectors like fertilizers, industry and power sectors are value-added sectors. There are 10 fertilizer units, which are operational in Pakistan. Their total installed capacity is 6.9 million metric tons, while the annual urea demand of the country is 6.5 million metric tons. Despite surplus installed capacity, Pakistan needs to import urea fertilizer to cope with the local demand of agriculture sector, as sufficient gas supply is not available to them

¹⁷ Mirza (2012).

¹⁸ Pakistan State Oil (2013).

due to the ongoing energy crisis.¹⁹ The basic chemical that is used to produce nitrogenous fertilizer is 'Ammonia', which is obtained from hydrocarbon. And natural gas is considered to be the most efficient route for the production of ammonia. Coal and heavy oil can also be used to produce ammonia. But they are not efficient sources²⁰. Pakistan can become self-sufficient in urea production and save a huge amount of foreign exchange, if fertilizer plants are provided non-stop gas supply. With full capacity utilization, Pakistan could even export an extra urea and could earn foreign exchange.

On the other hand it is narrated that Pakistan could save an estimated amount of \$3 billion, if the government diverts gas being supplied to fertilizer sector to power sector, as the Pakistan's annual spending on the import of Furnace Oil stands at around \$7.5 billion and in case of suspending gas supply to fertilizer sector, the country would have to import urea annually at a cost of \$4.5 billion. Secondly, the diversion of 700 million cubic feet per day (MMCFD) gas to the power sector, currently being provided to fertilizer sector, would generate an additional 4,000 megawatts (MW) of electricity and an additional 1,500 MW of electricity could be generated, if gas to CNG stations were suspended. Pakistan's total power shortage during peak times in summer hovers at 5,500 to 7,000 MW daily, so there is an option available but the implementation of this option does not seem politically feasible.²¹ It is also not economically prudent, as it would shatter the investors' confidence and national exchequer would be deprived of annual tax revenues. Pakistan being

¹⁹ Rizvi (2014).

²⁰ GSE Systems (2014).

²¹ Azad (2014).

an agriculture country cannot undermine the significance of indigenous fertilizer industry.

Cement is also a value-added industry. It uses natural gas as a fuel, and alternatively it could use coal and petroleum. During the six years from 2006-07 to 2011-12, cement industry has shown massive decline, with -38.7% Annual Compound Growth Rate (ACGR), in the use of natural gas as fuel. The industry has been shifted to coal as a source of fuel. This would bring a sigh of relief for the Government.

Domestic sector demand uninterrupted supply of natural gas especially in winter and uninterrupted supply of electricity, especially in summer. Electricity load-shedding is linked with the power sector, which needs natural gas. Fertilizer and textile industries are the value-added industries. They contribute to economy of Pakistan. But they have been facing heat because of suspension in natural gas supply. Pakistan's power sector is heavily depended on gas. Reduction of gas has crippled its performance. Power sector was the major loser during the period 2006-2012, where gas was actually diverted from the power to other sectors with absolute reduction of 33 percent in gas allocation. Low gas supplies have been substituted by expensive oil imports.²² Pakistan's National Power Policy 2013 also outlines gas conservation for power generation, by reducing its utilization in CNG and Unaccounted For Gas (UFG) in particular and 10 percent gas diversion can generate 2,000 MW.²³

²² Economic Survey of Pakistan (2012-13).

²³ National Power Policy (2013).

These natural gas consumption sectors (commercial, domestic, industries, power sector, and transport) need to be managed and prioritized keeping in mind the larger and the long-term interests of the country. As public policies are the outcome of group struggle, these sectors fight to influence the policy-making. Therefore, it is the duty of the Government to manage already depleting resources prudently.

Apart from gas allocation and load management policy, Pakistan has been considering importing piped gas and LNG. Pakistan, an energy deficient country, cannot afford further delay in the import of natural gas. The contractual deadline for the completion of Iran-Pakistan gas pipeline project is December 2014. Iran has almost completed the pipeline work in its territory, but Pakistan has yet not started construction of 780 kilometers of the pipeline on its side. Delay in completion of the project could be attributed to several reasons. Pakistan is directly involved in the New Great Game²⁴, being partner of two important pipelines that will cross the country, the Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline and the Iran-Pakistan (IP) gas pipeline.²⁵ Other manifestations of politics could be US's economic sanction on Iran and Pakistan being a close ally of United States. Besides geopolitics, other-reasons which are highlighted are landed price of gas, financing of the construction of pipeline on Pakistan's side and transition of political government in Pakistan. The estimated price of imported gas from Iran would be \$14 per MMBTU and the project is labeled as

²⁴ For phrase explanation see End Notes.

²⁵ Abbas (2012).

‘economic death sentence’ to Pakistan.²⁶ But the pipeline project was also called as the Peace pipeline.²⁷ The same fate is witnessed by other gas pipeline project, TAPI gas pipeline, on pretext of geo-political, technological and security reasons. This is unfortunate on the part of policy-makers that they ignore the economic cost of not importing gas.

To mitigate the gas demand-supply gap, Government of Pakistan has framed LNG Policy 2011, which plans to import 400 MMCFD Re-gasified Liquefied Natural Gas (RLNG) through open competitive bidding and other 400 MMCFD under Fast Track LNG Import Project through a facilitator. The media has reported violations of Public Procurement Rules (2004) in bidding processes of LNG import projects. On reports, Supreme Court of Pakistan took a suo-moto notice of the violations and directed all concerned to stay the proceedings till the decision of the case.

To sum the discussion on sectoral share distribution, gas pipeline projects and import of LNG, the Government has been struggling to cope with ever-widening gap between demand and supply of natural gas. Prioritisation in the gas allocation share needs to be reconsidered. No perfect substitution of gas is available for households, fertilizers, industry and commercial sectors. CNG sector has perfect alternative of petrol and it has not been contributing any value addition to the economy. Price difference between CNG and petrol is the only incentive, which is promoting growth of this sector. Besides gas load management dilemma,

²⁶ Abbasi et al (2013).

²⁷ Abbas (2007).

Government has shown lukewarm action on import of pipeline gas and liquefied natural gas.

4. Conclusion and Policy Considerations

Energy is the lifeline of economy and its importance for the socio-economic development of any country has been proven and established. Now the national security paradigm is more compelling, in addition to military security, economic security, environment security and social security. Energy security depends on uninterrupted availability of energy with affordability. Pakistan is energy starved country, and its this deficiency is a hurdle in achieving development and prosperity.

Pakistan is facing an energy shortfall of 19777.988 (KOE). This shortfall may aggravate in future, if rational policy decisions with prudent use of energy resources are not taken immediately. Pakistan's energy supply mix comprises of gas, oil, hydro and nuclear. It is highly tilted towards natural gas, which constitutes 49.5 percent. This share of natural gas has been supplied from country's own resources for its usages in power generation, domestic, commercial, industry and CNG-fitted transport usage. The natural gas proven reserves of Pakistan at the end of 2012 are 22.7 trillion cubic feet, with reserve to production ratio is 15.5 (R/P ratio).²⁸ It shows that the current reserves would last for approximately 16 years more if they are used at current rate of production. Natural gas supply is expected to decline from current 4 bcfd to less than 1 bcfd by 2025-26. This would create a shortfall of 8 bcfd (over 50 million TOEs).²⁹

²⁸ BP Statistical Bulletin, 2013.

²⁹ Pakistan Energy Outlook (2010-11 to 2025-26).

Apart from other reasons, in the immediate past two key irrational policy decisions have become the cause of today's gas crisis in Pakistan. Historically, until 1990s, Pakistan's energy requirements were largely dependent on hydro-thermal sources, however, a policy shift occurred and this dependency was shifted from hydro-thermal to hydrocarbon, where natural gas was the prime energy source. Natural gas has been used a fuel for power generation and the sector on average since 2001 has got 35 percent share of natural gas. The power sector can switch back to oil, which is rather expensive mean of electricity generation. This would be heavy on the country's import bill, and most importantly has political consequences, as gas-generated electricity is cheaper in price, as compared to oil-based. Though oil costs more but importantly it can be imported. On the other hand, gas (piped or liquefied) import is an expensive and time consuming endeavor.

Irrational policy decision was the promotion of CNG sector. Pakistan is the leading CNG-fitted vehicles user in the world. The sector consumed 0.1 percent in 1997 and now it gets about 9 percent share of natural gas. The country witnessed an extraordinary growth in the sector, and the reason could be attributed to price differential and government's policy to promote more cleanly and environmental friendly energy usage, and to slash oil import bill. The ill-planning and future short-sightedness of policy planners has resulted into natural gas load-shedding in the country. Provision of gas to CNG sector at the cost of other value adding sectors has hampered the growth prospects of the country and also unrest among the populace. The closure of CNG stations, especially in winter season, strikes by commercial vehicles owners and grievances of domestic gas users have almost become a daily affair.

Government has now been considering phasing out CNG gradually and the policy options, banning of CNG use in private cars, availability of CNG only for 1000cc vehicles etc are consideration. But no concrete steps have been taken so far. The reasons could be attributed to powerful policy actors, against whom the Government seems helpless, and bad institutional governance on part of importing LNG.

Domestic gas users are hard-hit under gas shortage crisis. Though domestic sector is on the top priority list under gas load management policy, but the policy has been blatantly violated. Gas shortage has been badly affecting industry (for example fertilizer), which is like power sector a value added sector. Pakistan's fertilizer and petro-chemical industries have no perfect substitute to natural gas. Methane, the primary constituent of natural gas, is the raw material used in their manufacturing process. Cement industry's share is very small and further it is being shifted to coal, as it already uses 56 percent³⁰ of coal as a primary fuel.

Now the Government is in critical situation to mitigate the gas shortage crisis in Pakistan. The immediate and short-term solution lies in the rationalization of the current gas usage. The sectoral allocations of gas need prudent and rational reconsideration. Besides this, Government on short term needs to consider seriously and with proper planning the import of LNG as the gas pipeline projects, take considerable time in completion. The mid-term solution rests with the envisaged gas pipeline, projects especially Iran-Pakistan gas pipeline as Iran has already laid down pipeline on its territory. The long-term gas shortage solution is with the

³⁰ Economic Survey of Pakistan 2012-13.

exploration of indigenous gas resources, and the country can capitalize its own natural gas resource potential. For power generation relying on hydro-thermal will be preferred over hydrocarbon.

Government should adopt a multi-pronged strategy to tackle the energy crisis in the country. There is no single panacea to solve energy shortfall. Natural resources are prone to depletion and natural gas is a strategic commodity. Existing gas reservoirs would last for 16 years and if new reservoirs are not explored, the country's dependency on outside country sources will increase. This would put country's energy security at stake. The short term solution lies in the rationalization of existing gas resources and import of liquefied gas. But the long-term and stable solution rests with the exploitation of country's gas potential. The sectoral distribution of natural gas demands from government utilization of appropriate policy instruments (regulatory and economic). The manifestations of bureaucratic redtapism and 'go slow' policy need to be tackled with coercive measures.

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‘Media Activism and its Impacts on the Psychology of Pakistani Society’

(Muhammad Ashraf & Muqem ul Islam)*

Abstract

Pakistan has one of the most vibrant media landscapes in the region. Since liberalization in 2002, the number of media outlets in Pakistan has phenomenally increased. An increasing activism in the media has emerged along with the quantitative development of media outlets. On the one hand, this media revolution has played an important role in strengthening of democratic institutions in the country. On the other hand, like the activists of any social or political revolution, the media activists also have caused tremendous collateral damage to the society. The major cause of media activism is the overriding commercial interest of the capitalist media houses. It is energizing the rat race for ratings, which coupled with the acute capacity constraints of human resource in the media, is causing a misdirected activism that relegates professional ethics to commercialism. This activism manifests itself in sensationalism in reporting of events, superficial debates, blowing trivial matters out of proportion, insensitive exposure of tragic events, graphic presentation of gory scenes, intrusion into people’s privacy and non-professional live coverage of law enforcement operations.

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Media activism is exerting profound impact on the different aspect of life of Pakistani people, including their psychology. On the positive side, an activist media has contributed towards an increased rights consciousness amongst the people, an increasing tolerance for difference of opinion, an understanding of the dignity of human beings, a sense of public accountability and empowerment of masses to question the performance of ruling class. On the flip side, the media activism is having a profound negative impact on the psychology of people. The excessive portrayal of violence on the television screens affects the attitudes, perceptions and behaviours of children at an impressionable age. It is also impacting the psychology of the adults by increasing aggression and violence in the society at large. Besides, excessive exposure to violence is desensitizing the society and generating an apathy towards the victims of violence. The sensationalist depiction of crime is leading to the increased copycat crime. The disproportionate negativity in the media debates is resulting in a cynically negative society. The exaggerated description of social decay is demoralizing the public. It also affects the psychology of governance in the country, as the intellectual space in Pakistan is preoccupied with sensational subjects, whereas the serious issues of economic development and policy reform are relegated in governance agenda.

Keywords: *media-activism, psychology, journalism, PEMRA, television.*

Introduction

Pakistani media has undergone an unprecedented expansion since liberalization in 2002. Though the print media has also evolved, the revolutionary growth has been witnessed mainly in the electronic media and the relatively newer media type called social media. The liberalization has resulted not only in quantitative increase in the number of media outlets but also an increased media activism and penetration of media in several aspects of Pakistani life. The activist media is commended, at times, as the 'only hope' for Pakistan, due to its role in mobilizing people. At other times, the activist media is condemned as being unprofessional, and for transcending the boundaries of journalism by venturing into political engagement. The media activism is resulting in accountability and policy advocacy, but is also causing an unethical breach of individual privacy and sensationalism, which in turn, is adversely affecting the psychology of people in Pakistan.

Pakistani media landscape has witnessed a revolution during the last decade, which has ushered in an increasing activism in the media. Though the role of media is occasionally debated in the intellectual circles and the media itself, the debate has usually remained limited to value judgments of media on social empowerment and spreading sensationalism and negativity. There is no attempt at studying as to 'why' the media is becoming activist, 'how' this activism is manifesting itself and 'what' positive and negative impacts it has on the psychology of Pakistani people. Though some literature has been produced on the socio-political influences of media in Pakistan, there is hardly any research on the psychological influences of media on the Pakistani society. This paper is aimed at bridging this gap.

The scope of this paper is limited to a qualitative analysis of media activism and its impact on psychology of Pakistani people. Though the study briefly refers to print media and social media also, it primarily focuses on electronic media, which has witnessed phenomenal growth during the last decade and has increasingly become activist.

The study is significant in that media is one of the most powerful influences on the way the common man perceives, interprets, responds and interacts in a media rich Pakistani society. Appreciating how this influence affects the social values and individual behaviors is vital to any attempt at ridding the society of the current widespread violence, individual stresses and aggressive behaviors. By explaining the impact of media activism on the psychology of the people of Pakistan, this study underlines the predicament emanating from the phenomenal growth of an activist media. It is also hoped that it will generate further research on the subject.

This study relies on the literature published on the subject, both in Pakistan and abroad. There is a distinct trend discernable in both the types of literature. The literature published in Pakistan emphasizes mainly the social role of media and lack of objectivity in media coverage. The international literature on media activism mostly focuses on the theoretical dimensions of media activism and positive impact of media activism on policy advocacy. Both the types of literature do not analyze the impact of media activism on the psychology of people in general, and Pakistani society in particular.

A large part of Pakistani literature on the subject is focused on the socio-political influences of mass media – media’s role as an agent of change in re-shaping public opinion, influencing public perceptions and promoting or eroding the sense of national cohesion and unity. Though there is an analysis of the socio-political influences of media activism, there is hardly any research on its psychological impact on the Pakistani society.¹

The Pakistani sources, while highlighting the deleterious role of Pakistani media, stress the lack of professional ethics observed by the journalists. The essays and articles published in the print media lament the role of media anchors in diverting the attention of the public from the real issues to non-issues, sensationalizing the negative news, by blowing those out of proportion, suppressing the facts by exaggerating and misleading and advancing the political interests of the political groups by accepting bribes.²

The writers and researchers aligned with the liberal school of thought criticize the contribution of conservative media, especially the Urdu print media and news channels, in fomenting religious prejudices, promoting religious zeal and playing a “*dubious part in blurring the distinction between law and emotion in the public mind*”.³

¹Munawar Sabir, ‘Analysis of Mass Media: Influences On Socio-Political Perceptions and Stability in Pakistan,’ *Journal of Political Studies* 19, no. 1 (2012): 145.

²Shaukat Zafar, ‘Destructive Role of Media,’ *Daily Pakistan Observer*, 6 June 2013.

³ZainalAbedin, ‘Sale Value of Religious Zeal Blind Spot of Pakistan’s Media Activism,’ *South Asia Journal*, entry posted September 22, 2011, <http://southasiajournal.net/2011/09/sale-value-of-religious-zeal-blind-spot-of-pakistans-media-activism/> (accessed 13 November, 2013).

The literature produced by the civil society on the subject of media activism underscores the positive impact of media activism on human development and furthering the agenda of the civil society in policy advocacy. They appreciate the role of media activism in safeguarding the communities from the harmful effects of the policies on economics, trade and environment, which may, in turn, affect the living and livelihood of people.⁴

Like the Pakistani literature, the international literature on media activism produced by the civil society, appreciates the role of mass media as much as it furthers their respective agenda of social change and criticizes the activism as soon as it deviates from or advocates against the particular facets of agenda advocated by social activists. For instance, the report prepared by The International Council on Human Rights Policy (ICHRP) Geneva appreciates the space created by the media activism of Jang-Group and Hindustan Time for Pak-India peace but criticizes the dominant media for ‘demonizing the human rights activists’⁵.

There is also significant international literature available on the theoretical side of the media activism. Such theoretical literature mainly concerns the analysis of media activism and its linkages with other social and political theories. For instance, there is literature that views the Democratic Media Activism in the light of Social

⁴Journalists for Democracy and Human Rights, ‘Media Activism: Right Based Approach to Promote Development Issues,’ Journalists for Democracy and Human Rights.

<http://www.jdhr.org/publications/papers/Media%20activism-Promoting%20Development%20issues.pdf> (accessed 12 November, 2013).

⁵Anjali Monteiro and K.P. Jayasankar, ‘Conflict, Media and Human Rights in South Asia’, *Report from a Roundtable held in Kathmandu 20-21 November 2010*, by the International Council on Human Rights Policy, (Geneva:International Council on Human Rights Policy, 2011), 6.

Movement Theory and Resource Mobilization Theory. This research establishes a two-way link between the democratization of society and the democratization of media.⁶ However, this theoretical research also does not trace the linkage between the media activism and psychology.

Thus, there is hardly any literature published in Pakistan or abroad, which analyses the psychological impact of media activism, especially in the Pakistani context.

This paper tries to study how the media activism impacts the psychology of people in Pakistan. Accordingly, the method adopted is primarily analytical with a strong element of interpretation. There is also some quantitative component in the analysis, especially in the sections dealing with growth of media, public perceptions of media activism and impact of watching traumatic events on TV in causing Post Traumatic Stress Disorder (PTSD). The employment of both qualitative and quantitative methods, reinforce the narrative and help interpret the trends.

Media Activism

‘Media’ is defined as “*communication channels through which news, entertainment, education, data or promotional messages are disseminated*”.⁷ The traditional media includes the broadcasting and narrowcasting medium like television, radio, magazines, newspapers and billboards.

⁶William Carroll and Robert Hackett, ‘Democratic Media Activism through the Lens of Social Movement Theory,’ *Media, Culture and Society* 28, no. 1 (2006): 83-104.

⁷*Business Dictionary Online*, s.v. ‘Media,’ www.businessdictionary.com (accessed November 12, 2013).

‘Activism’ is referred to a more energetic, passionate, innovative, and committed action than the conventional or routine. Merriam Webster Dictionary defines activism as “a doctrine or practice that emphasizes direct vigorous action, especially in support of or opposition to one side of a controversial issue.”⁸

‘Media Activism’ is defined in Wikipedia as “a broad category of activism that utilizes media and communication technologies for social and political movements.”⁹ In Pakistan, the term ‘Media Activism’ is broadly used to denote the proactive, vigorous approach adopted by the mass media to mould public opinion, influence public perceptions and promote or erode certain social values. This connotation of the term comes closer to the concepts of stalking, sensationalism and prejudice adopted by the mass media in arrogating to itself the responsibility of steering the social transformation.

- **Media Landscape in Pakistan**

Pakistan has one of the most vibrant and diverse media landscapes in South Asia. The media, to a large extent, enjoys freedom of expression despite direct and indirect pressures from Government and other political stakeholders.¹⁰

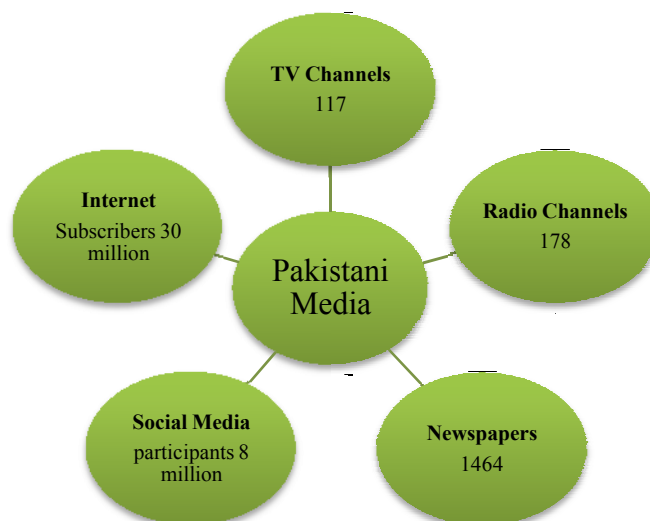
⁸Merriam Webster Online Dictionary, s.v. ‘Activism,’ <http://www.merriam-webster.com> (accessed November 12, 2013).

⁹Wikipedias.v. ‘Media Activism,’ <http://en.wikipedia.org/> (accessed November 12, 2013).

¹⁰International Media Support, *Media in Pakistan: Between Radicalization and Democratization in an Unfolding Conflict* (Copenhagen: International Media Support, 2009), 14, <http://www.i-m-s.dk/wp-content/uploads/2012/11/ims-media-pakistan-radicalisation-2009.pdf> (accessed December 14, 2013).

Around 117 television channels telecast entertainment programs, news & current affairs, educational programs, films, political talk shows and satire round the clock. The television channels have a combined viewership of 124 million.¹¹

Pakistani Media Landscape



Besides, 138 commercial and 40 non-commercial radio channels are licensed by PEMRA.¹²

Similarly, the print media in Pakistan is diverse with hundreds of newspapers from the large national Urdu dailies to the small local vernacular papers and the English newspapers mainly, targeting the

¹¹Gallup Pakistan, “Media and Television Audience Measurement Cyberletter,” Gallup Pakistan, <http://www.gallup.com.pk/News/cyberletter-updated1.pdf> (accessed 13 November, 2013).

¹²Pakistan Electronic Media Regulatory Authority, ‘FM Radio Broadcasting,’ Pakistan Electronic Media Regulatory Authority, http://www.pemra.gov.pk/pemra/index.php?option=com_content&view=article&id=5&Itemid=10 (accessed 13 November, 2013).

opinion makers, politicians, the business community, and the upper strata of society.¹³

Besides the mass media, there are 30 million Internet subscribers, out of whom 8 million are part of the social media networks. More than 80% of these 'Netizens' spend more than one hour on the social media networks every day.¹⁴

- **Media Activism in Pakistan**

Theoretically, media activism is value neutral. Employed constructively, the media activism plays a vital role in flow of information, being a mirror of the society, acting as a watch-dog and advancing the work of social justice movements.

In the recent history of Pakistan, the activist media has played an effective role in the success of the socio-political movements. In the movement for restoration of judiciary, the media activism was instrumental in rallying public support. For instance, in a run up to the Long March of 16th March 2009, Geo News carried out a series of public service message campaign for restoration of the judges. The campaign proved successful in mobilizing support for the movement, culminating in the restoration of judiciary.

¹³(International Media Support 2009)International Media Support, *Media in Pakistan: Between Radicalisation and Democratisation in an Unfolding Conflict* (Copenhagen: International Media Support, 2009), 14, <http://www.i-m-s.dk/wp-content/uploads/2012/11/ims-media-pakistan-radicalisation-2009.pdf> (accessed December 14, 2013).

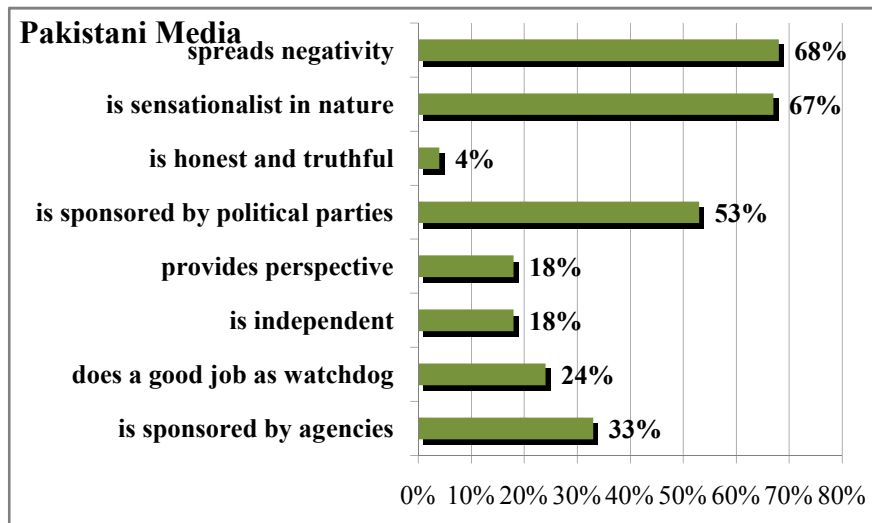
¹⁴Simon Kemp, comment on 'Social, Digital and Mobile in Pakistan,' We are social, comment posted January 16, 2013, <http://wearesocial.net/blog/2013/01/social-digital-mobile-pakistan/> (accessed 13 November, 2013).

Similarly, an activist media has been instrumental in increasing transparency and accountability by exposing corruption scams in the public sector.¹⁵ The media activism got a coupling effect from judicial activism as the judiciary took *suo-moto* action of several scams exposed by the activist media.

Despite exposing the mega corruption, with trails going to the top political leadership of the country and highlighting the dismal record of good governance of the political government, an activist media has been unequivocally advocating the continuation of democracy and discouraging the interference of non-political forces in the politics. Despite its positive contribution as a watch-dog, the media is blamed for sensationalism, irresponsibility, insensitivity and non-professionalism. In an online survey conducted by the Express Tribune, the results revealed that out of a sample of 1,025 Pakistanis and expatriates, 68% of respondents believed that Pakistani media spreads negativity; 67% felt that the media is sensationalist in nature and 53% thought that the media is partisan i.e. sponsored by political parties.¹⁶

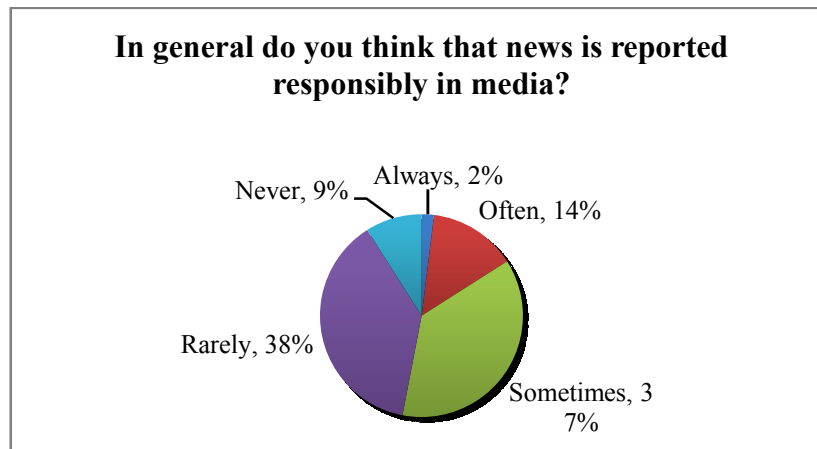
¹⁵Malik Hasnaat, 'SC Exposing Corruption of PPP Leaders Since March 2009,' *Daily Times*, 15 April, 2013.

¹⁶The Express Tribune, 'Pakistani Media is Partisan, Negative and Sensationalist,' *Express Tribune*, 9 April, 2012.



Source: The Express Tribune, April 9th, 2012

Only 2% of the respondents believed that news was always reported responsibly in Pakistan; 38% voted that news was ‘rarely’ reported responsibly in Pakistan and 9% thought that it was ‘never’ reported responsibly in Pakistan.¹⁷



Source: The Express Tribune, April 9th, 2012

¹⁷ Ibid.

The media activism is, therefore, viewed in the society as media's failure to fulfill its responsibility in remaining within the limits of legal, moral, cultural and ethical norms of the society¹⁸.

Media Activism in Pakistan– Causes and Manifestations

1. Causes of Activism in Pakistani Media

- **Commercialism**

The capitalist consideration is the main driving force behind the media activism. A large number of new entrants to the media market in Pakistan are purely business concerns, with the dual objectives of claiming the market share of the booming media market and acquiring the political and social influence through media. These media houses “*are just running a business and their aim is to maximize profits. They only show news or write news which would sell and would allow them to earn huge profits*”.¹⁹

The commercial considerations trigger off the rat race for ratings. Rating is not a trophy that media houses seek, simply for the sake of having it rather, it is the basic determinant of making money. “*The higher the ratings, the more subscription and advertising revenue, a media group is able to accumulate*.”²⁰

¹⁸Shamshad Ahmad, ‘Media Power and Responsibility’, *Daily The Nation*, 14 November, 2013.

¹⁹Atif Saeed, ‘Role of Media in Pakistan,’ Young Journalists, <http://www.youngjournalist.pk/pakistan/role-of-media-in-pakistan/#sthash.u8c2n9ky.XiAoqJHH.dpbs> (accessed 13 November, 2013).

²⁰Pakistan Media Watch, ‘Sensationalism and Ratings – Who Is Responsible?’ Pakistan Media Watch, <http://pakistanmediawatch.com/2011/12/25/sensationalism-and-ratings-who-is-responsible/> (accessed 13 November, 2013).

In a commercially competitive environment in the media market, commercial interests have become paramount and quality journalism has given way to sensationalism. In order to attract more viewership and consequently more commercials, the damage caused to society is relegated. *“When you make it as a product and sell it in market, then, all vendors will compete to get best selling products. It is more of business perspective that is followed to sell and to make money. Who cares about ethics, rules or CoC [Code of Conduct]. Reporters will try bring in anything that channel can sell”*.²¹

b. Social/Market Demand

If the activist media sells sensationalism, then, who is the buyer? It is the society. So, sensationalism at the cost of professionalism, frivolous news at the cost of analytical reporting, the coverage of scams at the cost of hardcore business, economic and financial news are, indeed, demand driven.

The news reporter enters into the rat race for breaking news, because the breaking news brings viewership to the channel. The news anchor kicks up controversy and triggers superficial cock-fight amongst the politicians in talk shows, because it increases rating of the programs. This demand driven production of media pieces has gone as far as the religious programs. *“During the holy month of Ramadan, channel owners and advertisers try to cash in on*

²¹J J Khan, comment on ‘Terrorism and the Role of Media,’ Pakistan Politics Discuss Forum, comment posted October 21, 2009, <http://pkpolitics.com/discuss/topic/terrorism-and-the-role-of-media> (accessed 13 November, 2013).

religious sentiment, by hiring celebrities to host ever more elaborate, though only marginally religious, shows”²² because such spicy coverage of the religious themes has a market amongst the audience.

“Op-ed pieces on the politics of Imran Khan – awash with meaningless words like ‘undercurrent’ and ‘middle-class narrative’ – are a dime a dozen in our newspapers. That’s because one, the writer doesn’t have to research the topic; and two, readers love to consume frivolous commentary on politics”.²³

Thus the activist media’s taste for sensationalism in the media is mainly demand driven instead of supply driven.

c. Human Resource Constraints

Since the promulgation of Pakistan Electronic Media Regulatory Authority Ordinance 2002, Pakistani electronic media has grown phenomenally and within a little more than a decade 117 television channels have obtained licenses. This phenomenal growth of television channels outpaced the development of human resource required to run these channels.

Since the print media houses owned the majority of earlier television channels, the journalists working in the print media were deputed to man the television channels. Many of those columnists

²²Huma Yusuf, ‘Conversion Ratings,’ *International New York Times*, 08 August, 2012.

²³KazimAlam, ‘Journalism and Sensationalism,’ The Express Tribune Blogs, entry posted December 23, 2011, <http://blogs.tribune.com.pk/story/9416/journalism-and-sensationalism/> (accessed 14 November, 2013).

and reporters became the television anchor-persons. The situation of human resource availability for another important electronic media professional field journalist for the television channels i.e. cameraman, was even more dismal. The television channels hurriedly hired the cameramen on the basis of technical skills, regardless of the professional training of covering the news. The graphic coverage of violence and ruthless intrusion into the privacy of crime victims are mainly due to this lack of professionalism.

In the absence of professionalism, covering 24 hours of the air time every day becomes a challenging job and the television channels resort to 'fillers'. *"Such coverage may provide oxygen to these media outlets for a while, but in the long run, it could create more problems, and can even endanger their own survival".*²⁴

2. Manifestations of Media Activism – Case Studies

Media activism in Pakistan is manifesting itself in the following manners:-

a. Sensational Reporting of Crime

The activist media in its zeal for breaking the news and being the first to report the details of an incident goes over board in sensationalism.

There are well-defined codes of ethics and established traditions across the world for reporting the victims of social crimes e.g. rape cases. Names and photographs of the victims or other particulars,

²⁴Amir Hamza Bangash, 'Electronic Media at Crossroads,' *Daily Times*, 06 May, 2013.

indicating their identity, must not be revealed²⁵; the victim and family who are already traumatized cannot be interviewed; the medical report of the victim cannot be discussed.²⁶ In a recent incident of rape of a minor girl in Lahore, soon her name was all over the media, her face displayed, her family interviewed and the minutest particulars of her whereabouts telecast. She will not be allowed to forget the trauma, even long after her physical scars have healed. This insensitive reporting is mainly because of the non-professionalism in the activist media.

b. Blowing Matters out of Proportion

Another manifestation of the activist media's lack of professionalism is its taste for frivolity and blowing things out of proportion. Similarly, the extensive media coverage of the preposterous claim of invention of a 'water car' by Asham inventor²⁷ caught the imagination of the entire Pakistani media for weeks. The iron-clad laws of physics, basic human intelligence and rationality were set aside to chase the spectacle by the talk-show anchors. The politicians jumped in to capitalize on the hype created by the mainstream media. The cataclysm of the fake invention demonstrated that Pakistani media badly lacked the professional capacity to analyze the matters before blowing any frivolity out of proportion.

²⁵TasneemAhmar, 'How the Media Should Cover Rape Cases,' *International New York Times*, 22 September, 2013.

²⁶Syed TalatHussain, 'Lahore Rape Case Aur Hamari Coverage,' Saach.tv, entry posted September 16, 2013, <http://www.saach.tv/2013/09/16/lahore-rape-case-aur-hamari-coverage/> (accessed 13 November, 2013).

²⁷ Agha Waqar Ahmad, an engineer who claimed that he could operate a car by using water as fuel.

c. Insensitive Exposure of Tragedies

The media activism and the race to be first manifests the most in the non-professionalism in coverage of tragedies by the Pakistani media. For instance in the wake of media coverage of Bhoja Air Crash on 20th April 2012, PEMRA had to issue a warning to the television channels against showing pictures of dead bodies and intruding into people's privacy. *"Reporters from different channels chased family members with microphones and cameras, capturing their grieving moments, not seeming to realize that this was a gross intrusion of their privacy".*²⁸ It appears as if a citizen's suffering is a business opportunity for the television channels to cash.

The rash and obscenely inappropriate reporting of the incident enraged the people and the social media was exploded with the public rage and everyone agreed that channels must give citizens the integrity and respect they deserve.²⁹ The Express Tribune conducted an online survey asking the participants if they approved or disapproved of how the media covered the Bhoja Air tragedy. A significant 77% of 1,247 participants disapproved it.³⁰

d. Live Coverage of Law Enforcement Operations

The desperation of the activist media to fill the airtime with sensationalism also manifests itself in the live coverage of law enforcement operations, severely compromising the operational

²⁸KiranNazish, 'Covering the Bhoja Air Crash,' *Express Tribune*, 21 April, 2012.

²⁹MehreenKasana, 'Bhoja Air Crash: Where Are Our Media Ethics?' *Express Tribune*, 24 April, 2012.

³⁰The Express Tribune, 'Bhoja Air Crash: Acceleration at Low Height Caused Mid-Air Explosion,' *Express Tribune*, 21 April, 2012.

requirements of law enforcement operations. The bullet-to-bullet coverage of Lal Masjid Operation, with a mounting pressure on the law enforcement agencies at the critical phase of operation and the live coverage of recent Sikandar saga in Blue Area, Islamabad, are the instances of media activism, transcending the limits of informing the public. In the Sikandar incident, despite repeated requests by the law enforcement agencies, intervention of the PEMRA and Ministry of Information, the media could not be persuaded to give a 15-minute break in the live coverage of the bizarre drama to enable the law enforcement authorities to conduct operation. *“Overtaking the role of police, while not giving it enough space to perform and later blaming them for their incompetence, pointless reports to keep the news running”*³¹, underscored the non-professionalism of the activist media. Again, in the online survey conducted by Express Tribune, 73% of the voters disapproved the media coverage of the incident.³²

Impact of Media Activism on Psychology of Pakistani Society

The media affects people's opinions, perceptions and priorities and activist media affects those actively. Media activism is exerting a profound impact on different aspects of life of people, including the psychology. It influences the way we relate our attitudes, values and beliefs about the world.³³ It shapes our behavior about issues,

³¹Farwa Zahra, 'Sikandar Wasn't the Real Blue Area Villain, It Was the Media,' *The Express Tribune*, 16 August, 2013.

³²Ibid.

³³Stuart Fischhoff, 'Media Psychology: A Personal Essay in Definition and Purview,' American Psychological Association, <http://www.apa.org/divisions/div46/Fischhoff%20Essay%20on%20Media%20Psychology.pdf> (accessed 13 November, 2013).

concepts and situations, affects the responses to social situations and plays a vital role in highlighting personality traits and attributes.

- **Positive Impact**

The media activism has both positive and negative influences on the public psychology. The positive contribution of the activist media, to the public psychology in Pakistan is towards generating the rights consciousness amongst masses.

The media activism has exerted a positive psychological influence in generating a better rights consciousness amongst the masses. There is a direct correlation between the rights consciousness and the exposure to media – the urban middle class having more exposure to the media has an increased rights consciousness. This influence can be corroborated from the following social developments in Pakistani society.

- **Democratic Thinking**

The role of activist media in fostering the democratic values, politically and psychologically is pivotal. There is growing distaste for dictatorship in the country amongst the masses and democratic traditions have started taking roots. The debates in the ubiquitous talk shows in electronic media, featuring the political leaders fundamentally differing with each on issues, policies, conduct and performance have been underscoring the importance of democratic pluralism and acceptance of divergent opinions.

- **Consciousness of Rights**

People are becoming more aware of the rights they possess that other citizens particularly the government should not abridge. For instance there is increased consciousness of rights amongst the women themselves and the society at large. The centuries old discriminatory traditions like *vani*, and crimes like rape and acid-attacks, political discrimination through denial of voting rights to women in certain parts of the country remain under strict and frequent scrutiny by the activist media.

- **Respect for Human Dignity**

The activist media is instrumental in increasing the respect for human dignity. One can argue on the pace of development, but the torture at police stations, schools and domestic violence are becoming increasingly unacceptable at social level. The telephone videos recorded by the common people, flashing across the media screens are testimony to the general public being increasingly conscious of human dignity.

- **Sense of Public Accountability**

The media activism has contributed towards generating a sense of public accountability and psychologically empowered the people to put the public performance and conduct under scrutiny. With its gate keeping function, the activist media offers an increasingly coherent platform for articulating public demand and providing greater scrutiny of the public policy.

- **Negative Impact**

The media activism, with its sensational reporting of crime and violence, blowing frivolous matters out of proportions, insensitive exposure of tragedies and live coverage of law enforcement operations has been exerting more negative than positive influence on the psychology of the society.

- a. Post Traumatic Stress Disorder (PTSD)**

In a survey conducted by the Department of Psychiatry, Pakistan Institute of Medical Sciences, Islamabad, it was revealed that out of 494 participants who reported watching TV for more than one hour per day for at least 5 days per week, 29.4% scored positive for PTSD and 47.6% for depression. The problem was more acute with those who had experienced a real-life trauma. Nearly half (45.3%) of those who had experienced real-life trauma and watched TV scored positive for PTSD.³⁴ Thus, watching television is affecting the mental health of the nation.

- b. Child Psychology**

Innumerable studies have revealed that violence in news and other television programs profoundly influences a child or adolescent's values, attitudes, perceptions and behaviours at a highly impressionable age.³⁵ It increases their fear of becoming

³⁴F Naeem et al., 'Can Watching Traumatic Events On Tv Cause Ptsd Symptoms? Evidence from Pakistan,' *ActaPsychiatricaScandinavica* 2, no. 1 (July 2012): 79-80.

³⁵Parents Television Council, 'TV Bloodbath: Violence On Prime Time Broadcast TV,' Parents Television Council,

victims, makes them less sensitive to violence and victims of violence, increases their craving for more violence in entertainment and in real life. Violence in media programs leads them to do criminal acts. Television teaches the young viewers, who have more difficulty distinguishing between real life and the synthetic world of television that violence is the accepted manner of solving the problems.³⁶ Thus, the gory scenes of violence portrayed by the activist media on television screens are developing aggressive attitudes and antisocial behaviors amongst the children.

c. Learnt Violence /Aggression

The studies have revealed that the impact of violence depicted on the television screens is not limited only to the children it also affects the adults. Empirical evidence suggests, “*Media violence increases the likelihood of aggressive and violent behavior in both immediate and long-term contexts*”.³⁷ Besides, studies reveal that the more real-life the violence is depicted, the greater is the probability that it will be learnt. Violence, murder, bloodshed and physical abuse, appearing in the Pakistani media impacts the thoughts and emotions of the people and causes increased anxiety, anti-social behavior and increased violence in the society. According to Dr Rizwan Taj, the Head of Psychiatry Department, Pakistan Institute of Medical Sciences, Islamabad, “*the portrayal of negativity on media leads to a feeling of frustration, which raises a*

<http://www.parentstv.org/ptc/publications/reports/stateindustryviolence/main.asp> (accessed 13 November, 2013).

³⁶Scott Herrington and Cindy Emmans, ‘Character Education and Media Literacy—finding Common Ground,’ *Technos*, 2002, 1-9.

³⁷Craig Anderson and Douglas Gentile, *Media Violence, Aggression, and Public Policy* (Malden: Blackwell, 2008), 281-300.

level of insecurity, which in turn, results in intolerance and aggression.”³⁸

d. Desensitization & Brutalization

Desensitization is another psychological impact on the people of Pakistan, due to excessive viewing of violence on the media. *“Desensitization is defined as the diminished emotional responsiveness to a negative or aversive stimulus after repeated exposure to it”.*³⁹ Psychological theories say that people tend to lose their ability to select non-aggressive actions in their daily life, if they watch frequent violent alternatives happening around them.

Militaries use desensitization and brutalization as techniques for training soldiers to kill. The activist media, with its graphic depiction of violence, blood, gory scenes of bomb blasts, has brought this desensitization and brutalisation to the society at large. The excessive exposure of violence on the television screens is increasing desensitization in the society and apathy towards the victims, of violence as there is a growing acceptance of violence as a way of life.

e. Copycat Crime

The sensationalist depiction of violence and crime on the activist Pakistani media is also leading to the replication of crime, commonly termed by psychologists as copycat crime. *“A copycat*

³⁸RizwanTaj, interviewed by author, Islamabad, Pakistan, December 11, 2013.

³⁹Wikipedias.v. ‘Desensitization,’ <http://en.wikipedia.org/> (accessed 13 November, 2013).

crime occurs when someone tries to imitate another criminal or style of crime".⁴⁰ The sensationalism and glorification of crimes by the activist media has a copycat effect. The instances of this copycat effect are the waves of gang rapes after the sensational coverage of the 'Mukhtaran Mai case' and the spate of child molestation cases immediately after the Lahore minor girl rape case. So, the media activism and its sensational publicity of violence and crime are resulting in the proliferation of copycat crime in the society.

f. Cynicism / Negativity

The activist media, in a bid to attract interest, has a strong tendency to exaggerate and negatively portray the neutral or even positive situations. There are innumerable instances of cameramen selectively covering the incidents, to exaggerate negative aspects and even coaxing the people to make negative statements in interviews, as only then the editorial team will select it for airing.

The studies have revealed that there exists a 'negativity bias' in our brains. One such study revealed that there was an increase in neural firing in the brain, when people were shown negative images compared to when they were shown positive images.⁴¹ It demonstrates that showing violence and negativity on screen has a multiplier effect on generation of negativity. It generates cynicism and a rampant belief in the conspiracy theories.

⁴⁰Richard Amaral, 'Copycat Crimes: Why Do They Happen?' Psychology for Growth, <http://www.psychologyforgrowth.com/copycat-crimes-why-do-they-happen/> (accessed 13 November, 2013).

⁴¹Mallory Meter and Jacob Minnaugh, "Be Afraid, America. Be Very Afraid: The Effect of Negative Media," Neuroanthropology, entry posted April 25, 2010, <http://neuroanthropology.net/2010/04/25/be-afraid-america-be-very-afraid-the-effect-of-negative-media/> (accessed 15 November, 2013).

g. Demoralization

The consistent negative portrayal of the social evils, crime, violence and terrorism, followed by the superficial analyses with sweeping negative statements about the Pakistani society– a society at the verge of collapse, an economy at the brink of insolvency, a complete institutional breakdown and compulsive malevolence of Pakistani character – deeply demoralize the society. The prevalent pessimism, feeble national pride and masochist self-criticism are the natural outcome of this rampant ‘Pakistan bashing’ at the activist Pakistani media. The exaggerated depiction of social failings in the activist media is inimical to the national self-confidence and individual morale.

h. Shallow Public Opinion

The coverage of events by the activist media and the debate on issues usually lacks depth. A large part of such coverage falls in the category of superficial narratives – a debate at the superficial layer, devoid of meaningful insight. The round-the-clock media coverage of issues in a volatile manner never results in a healthy public opinion, but always yields one-sided, superficial and fragile public opinion, which can be easily broken and transformed as needed. A sound and healthy public opinion is essential for a strong informed society.

The shallow treatment of subjects and sensationalism also causes the prejudicial thinking amongst the people. For instance, the sensationalist coverage of the rape incidents, in many instances, results in justifying the acts of rapists. The media coverage creates

the impression that the victim's behavior, character and dressing provoked the rape and that she asked for it.

- **Impact on Psychology of Governance**

The intellectual space in Pakistan, fuelled daily by the activist media, remains too pre-occupied with the shallow and sensational subjects, which affects the psychology of governance in the country. The serious issues of economic development, policy reform, private sector development, low ranking in global competitiveness and cost of doing business indicators, don't find space in the debate on the media. *“Media wants headline against the government, not fodder for reform. Consequently, all governments regardless of creed and origin have avoided serious governance/civil service reform.... No government has attempted to use public service delivery to underpin our governance approach.... Countries seeking development spend a far larger proportion of their public debate on crucial development issues than we do”*.⁴²

If the activist media does not pick up the issues, which require policy reform, it will never signal the policy-makers and politicians to reform nor will it create space for a debate on the issues that really matter.⁴³

⁴²Nadeem ul Haq, “The Media, Society and Development”, *Daily Times*, 27 December, 2011.

⁴³ Ibid.

Public Policy Recommendations

The explosive growth of electronic media, instead of an organic one, has resulted in myriad of socio-political and psychological issues, both in latitudinal and longitudinal ways.

Media activism has played a positive role in continuously supporting the socio-political movements, exposing corruption, emphasizing transparency and applying pressure for good governance in the country.

However, the rat race for ratings, energized by the commercial interests of the media houses, has led to misplaced activism, which relegates professional ethos and code of conduct to the overriding commercialism.

This activism takes many shapes and forms: (a) sensationalist reporting, (b) superficial debates, (c) trivializing the important issues and vice versa, (d) graphic coverage of gory scenes, and (e) breach of people's privacy.

Media activism impacts the psychology of people in negative and positive ways. On the upside, it has contributed towards a rights consciousness amongst the populace, an appreciation of the dignity of human life and a sense of empowerment of masses.

In order to bring sobriety and maturity in the media, the following steps need to be taken by the stakeholders – media houses, government, journalists associations and civil society:-

1. In order to have professional human resource for the media, a media institute needs to be set up through private public

partnership between the media houses and Government especially for the training of technical personnel in the electronic media – cameramen, editorial staff and reporters. The curriculum should focus on training the journalists for investigative and analytical journalism.

2. A lax code of conduct for the media already exists, which needs strengthening. In order to overcome the resistance by the media to any externally imposed code of conduct, PEMRA should engage with the media to develop its own code of conduct. The civil society and academia may be involved in the development of the code, to break the resistance of the media in this regard.
3. PEMRA should not abdicate its responsibility of media regulator, by being overawed by the powerful media houses. While any attempt at censorship of political content by PEMRA must be avoided, a strict adherence to the code of conduct needs to be ensured. PEMRA's internal professionalization would be essential before asserting any professional ethics on the media outlets.
4. A Media Ombudsman may be appointed on the models of Australia, Sweden and South Africa. The Ombudsman be mandated to represent the interests of the public by investigating the complaints of violation of public rights by the media. The complaints regarding the practices of the media can be reported by the general public to the Media Ombudsman, who will determine whether the actions of a media outlet are in line with good journalistic practices. This role can be assigned to the office of Federal Ombudsman, by establishing a special branch for media complaints.

5. The phenomenal growth of the social media has emerged as an effective counterpoise to the exercise of disproportionate power by the mass media. This power of social media needs to be institutionally harnessed by the civil society to become a watch-dog of the watchdog (mass media).

Conclusion

To conclude, there is a taste for drama amongst the masses and the media groups provide the same. It seems that the society gets what it wants. Just because the society gets, what it wants, does not mean that it gets what it needs. The lack of professionalism and a penchant for sensationalism, driven by amoral commercialism in the media is causing tremendous damage to the psychology of the Pakistani people. A comprehensive strategy to ensure the observance of media ethics through media monitoring and public discussions is needed to channelize the potential of the media for development of a healthy and informed society.

Docking the Blight of Dengue in Swat

(Muhammad Ammar Yasir Khan & Shafei Moiz Hali)*

Abstract

This article provides a comprehensive overview on the dengue outbreak (2013) in Swat along with the requisite guidelines for better management, prevention and control of the disease in the future. The underlying focus of this paper has been to lay down the relevant procedures which are in line with the Government's policies, World Health Organization (WHO) recommendations / regulations which should also enjoy world wide acceptance for dengue control. The article suggests measures for both vector control as well as the disease itself along with the strategies for future preparedness. The methodology provided here primarily revolves around an approach called Integrated Vector Management (IVM), which has been endorsed by WHO. Several studies in the world and Pakistan have shown that insecticides / chemicals have little impact on long term control of the dengue virus; therefore, the focus should remain on larvae source reduction (environment management), disease management and dengue awareness to reduce its impact in the disease hit locality.

Key words: *Swat, endemic, KPK, Aedes Aegypti, Dengue fever, outbreak.*

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Introduction

Dengue is the foremost public-health concern throughout tropical and sub-tropical regions of the world at this moment. The estimates from World Health Organization (WHO) suggest that more than half of the world population is exposed to this contagion. Currently, close to 75% of the global population, vulnerable to dengue, resides in the Asia-Pacific region.

Dengue is not only the source of widespread human suffering but also massive economic losses to the country. The epidemiology of the disease is complex in nature and patterns of disease transmission are influenced by multiple factors, which include weather and environmental changes, population dynamics, vector species composition, geographic distribution, vector growth rate, degree of immunity among local population and density, and time required for development of the virus in the vector (extrinsic incubation period). A better understanding of these contributing factors shall result in better identification of high risk areas, reduce response time and ultimately lead to the development of a better control mechanism.

It has been an emerging public health concern in Pakistan since registration of first case in 1994 (Chan et al., 1995). A huge dengue fever outbreak has been confronted in district Swat, Khyber Pakhtunkhwa, in the year 2013. Till recently, the Swat district was considered to be one of the less endemic areas of Pakistan; however, figures for the period from 7th August to 15th November, show that the total number of registered patients was more than 9,000. About 58 deaths were reported in the area since the epidemic started. The sudden and rapid outbreak of the pandemic compelled the district administration along with the provincial government, to concentrate

on controlling the disease and vector rather than working on future plans and public awareness.

Dengue in Pakistan

In Pakistan, first case of dengue was registered in 1994 and now it is spreading rapidly to all over the country, threatening the masses, due to prevailing bad socio-economic conditions and infrastructure. In first decade i.e. 1994 - 2004 only 699 dengue cases and 6 deaths were reported, while these numbers dramatically increased to 55,946 and 539 respectively between 2005 to 2011 (NIH, 2013).

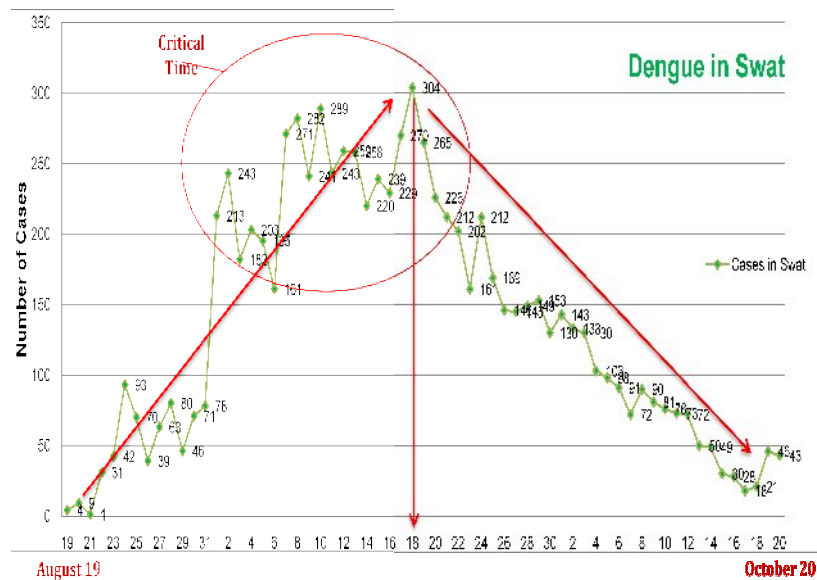
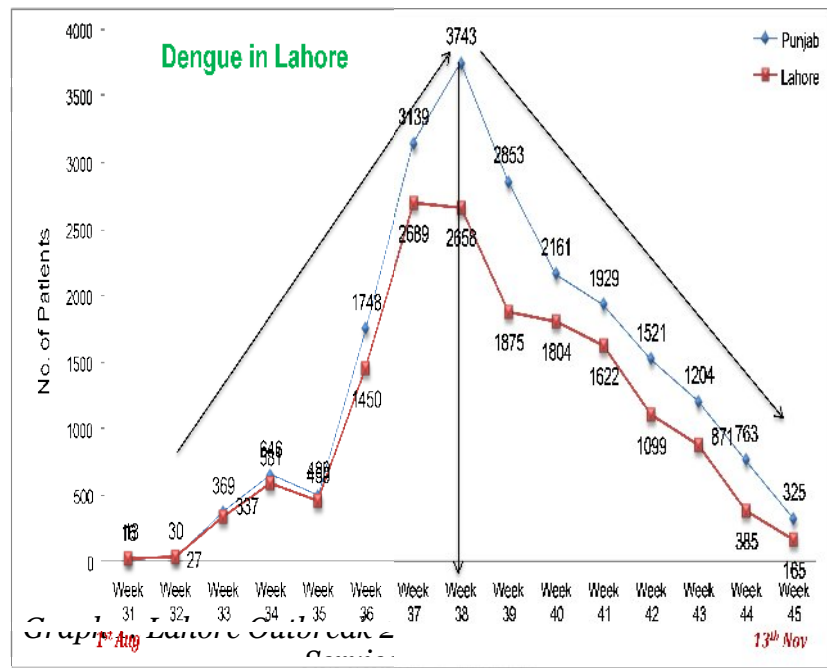
Karachi and Lahore are by far the most affected areas in the county. Population density, excessive availability of breeding sites and a favourable environment for vector growth in these two cities, have contributed to the growth of this epidemic. In 2013, however, large outbreaks were noticed in the areas of Khyber Pakhtunkhwa, including Swat, Shangla, Malakand and other adjacent areas.

Table-1: *Dengue fever cases 2006-2011 (WHO, 2013)*

Year	Suspected cases	Cases laboratory-confirmed	Deaths
2006	4961	1931	41
2007	2304	1226	18
2008	2792	2469	17
2009	1940	1085	13
2010	15901	11024	40
2011	252935	23252	361

The latest estimate of registered and confirmed cases in the province of Punjab is 2,600 (Nation, 2013). Sindh is 5,500 (Ahmed & Ansari, 2013); while KPK had witnessed the highest number of registered cases in 2013, with district Swat recoding over 9,000 cases (Tribune, 2013).

The dengue mosquito is believed to have entered in Pakistan through the used tyres (containing eggs of the dengue mosquito) that were imported into the Karachi sea-port from the US. However, it was also suggested that the virus may have come through travellers from abroad, who were infected with dengue virus. In most areas of Southeast Asia, *Aedes Aegypti* and *Ades Albopictus* are considered major vectors of dengue. These vectors have been closely associated with human residence and are identified as 'per domestic' as they prefer to breed in the clean water in domestic habitats. Both the species of dengue vector exhibited a significant increase in their population during the monsoon and post monsoon season (August to November). The data shows that during the time period spanning 2005-2011, around 95.53% of the cases were registered in this season and a rapid decrease was noticed afterwards (Mukhtar, 2013). Furthermore, it can be established, based on the data provided by WHO and Directorate General Health Services Punjab that highest number of patients recorded in Lahore (2011) and Swat (2013) were between week 37 and 38. There was an increasing trend before the said weeks and a decreasing trend after the said dates in both the outbreaks. The understanding of the disease patterns can also be helpful in planning the control measures and deploying resources accordingly.



District Swat

The outbreak originated in Swat in mid-August and has slowly but steadily spread to adjoining districts. Media reports suggest that the dengue epidemic in Swat was introduced through used tyres, purchased from Lahore, that functioned as larvae/vector carriers. More than 9,000 registered cases and 40 deaths were recorded officially, while unregistered cases/deaths were much higher. The level of outbreak can be considered as similar to that of Lahore in 2011, in which approximately 17,000 people got infected and more than 300 lost their lives.

Most of the dengue patients at the hospitals were aged 20-30. The male patients were twice as many as the females, something that can be attributed to the outdoor nature of their activities while local women stayed indoors. Government hospitals provided free of cost testing and diagnosis for dengue virus, on the other hand private hospitals and laboratories charged very high fees for this purpose. Local channels, radio stations and newspapers were used to make general public aware of the outbreak, dengue warning signs were also posted around town. Local government took awareness measures along with the control and prevention for dengue. Central Control Room was set up at DHO office to deal with dengue related issues, other measures included; distribution of spray machines, formation of dengue awareness teams and survey teams etc. Research conducted by WHO confirms that DEN 1, DEN 2, and DEN-3 were found in the patients of Swat outbreak (Online, 2013).

Identification of Outbreak

It is important to understand the level of an outbreak and risks attached to it. Following parameters can be used in the

outbreak identification based on the international practices for the outbreak identification, and designing the control measures:-

- Demographics
- Vector density
- Vector Growth
- Temperature and humidity
- Probability of transmission
- The rate of contacts in the host population
- Population density
- Health Infrastructure

Based on above factors, there can be four possible levels of outbreak;

Table-2: Levels of an Outbreak

1. Level of Ongoing Prevention		2. Level of Periodic Cases	
Status	Response	Status	Response
No local transmission of dengue.	Continue routine mosquito and disease surveillance plus community awareness and engagement activities.	There are few occasional cases on different periods of time but not on regular basis.	<ul style="list-style-type: none">▪ Immediate investigation to determine if cases are acquired outside the locality, locally acquired or the pathology result is a false positive.▪ Mapping of contact points if locally acquired.▪ Public engagement for better control.
3. Level of an Outbreak		4. Level of Multiple Dengue Outbreaks	
Status	Response	Status	Response
There is one or more locally acquired confirmed cases at the same time in an area	<ul style="list-style-type: none">▪ Rapid control and prevention measures at District and Provincial level.▪ Identification of substantial	There are multiple outbreaks at different local levels of a region or the size of an outbreak is such that the large area is	<ul style="list-style-type: none">▪ Control and prevention measures to be taken at Federal and Provincial level.▪ Active involvement of NDMA / PDMA.▪ Emergency should be declared.

	activity point of vector - active surveillance ▪ Active Disease Management ▪ An enhanced awareness program.	directly affected.	▪ Involvement of all sectors to combat dengue including community, NGOs, and other govt. departments etc.
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A correct zoning and identification of outbreak helps in adopting different strategies for different regions and sub-regions as per the level of risk. Furthermore, resources can be deployed accordingly to achieve effective results in most economical and timely manner. Health department of KPK and World Health Organization divided

Swat into five different regions, as per dengue registered cases in 2013. However, for the purpose of prevention and control in case of future outbreaks, Swat can be divided into four different emergency levels based on above criteria:-

Table-3: Population at risk

Total Population				Level of Risk			
Sr. No	Tehsil	No. of UCs	Population	Level - 1	Level - 2	Level - 3	Level - 4
1	Kalam	2	47,041	47,041	-	-	-
2	Barikot	3	112,450	112,450	-	-	-
3	Bahrain	6	142,885	-	142,885	-	-
4	Matta	13	381,206	-	163,370	217,836	-
5	Khawaza Khela	7	214,123	-	-	214,123	-
6	Charbagh	4	111,742	-	-	111,742	-
7	Babuzai	19	566,987	-	-	-	566,987
8	Kabal	11	330,211	-	-	-	330,211
Total		65	1,906,645	159,491	306,255	543,701	897,198

Table 4: Sub-regions of Swat based on level of outbreak

r. No.	Sub Region	Population	No. of UCs	Most Affected Areas	Reason of Outbreak
1	Kalam – Barikot (Level of Ongoing Prevention)	159,491	5	Nil	Low Temperature, low population density
2	Bahrain - North West Matta (Level of Periodic Cases)	306,255	12	Madyan /Bahrain	Frequent movement of masses to main towns
3	Khawaza Khela – Charbagh – South East Matta (Level of Outbreak)	543,701	18	Khawaza Khela, Galibagh Matta Kharari, Chuprial	Frequent movement of masses to main towns, high density of population, trade of old tyres, poor infrastructure
4	Kabal – Babuzai - (Level of Large Scale Outbreak)	897,198	30	Mingora, Qamber, Odigram, Islampur, Kanju	High Temperature, high population density, poor sanitation and sewerage system, trade of old tyres, poor infrastructure

Vector Surveillance and Control

Dengue can only be controlled through reduction of its vector growth and isolation of dengue patients; hence, a sound and practical vector surveillance program allows control efforts to be more efficient.

Vector Surveillance

Surveillance should be conducted on regular basis in the areas that are at high risk particularly in Babuzai and Kabal. These areas have more population and house index than the other areas of Swat. The purpose of surveillance activities should be to provide an early warning/alert to the responsible authorities for the possible

outbreak of dengue. Ideally, municipal authorities/health department should conduct the surveys of potential growth sites, as a regular routine. These programs should take place during the summer (monsoon), considering it to be a peak time for the mosquito breeding. Vector surveillance is further divided into two parts; (i) Larval surveillance, (ii) Mosquito surveillance;

- **Larval Surveillance**

Larval surveillance is used to identify the potential breeding sites of the vector. In low risk sub-regions like Kalam, Barikot and Bahrain, the purpose of this activity shall be to locate and map the areas that have the containers, where vector can have potential growth. However, in sub-regions, with moderate or high levels of risks like Charbagh, Matta, Khawaza Khela, Babuzai and Kabal, surveillance shall be done to take control measures and wipe out the breeding sites immediately. Different methods are used for vector surveillance, any difference is due to the type of container i.e. tyres, jars etc. Normally, tyres are sampled by using aquarium net and these are easily available as well. However, considering the small size of most containers, large bulb pipette or turkey baster can be used to take the samples. Larval survey kit can also be used to survey small pots. A vector control data-base should be maintained, having the details of building / areas address, type of the container in which larvae was found, density and date, etc.

It was confirmed in a survey conducted by the lady health workers, who visited 29,587 houses in Mingora, that the larvae were discovered in some 6,750 houses. Following is the detail of larvae found in different spots of Mingora:-

Table-5: Larvae found in different spots of Mingora

Rooftops water tanks	36%	Water containers used for pets	5.20%
Pitcher and other water containers	15.40%	Manholes	4.50%
Buckets	9.70%	Old tyres	3.20%
Flower pots	8.50%	Refrigerator drainage trays	3.10%
Drains	7.70%	Others	6.70%

- **Adult Mosquito Surveillance**

Adult mosquito surveillance should be conducted, once larval survey is complete, to have a clear picture of the vector population. Number of adult mosquito per house (male, female or both) provides the data for adult densities or the number of adult mosquito, collected per unit of time, can also be used as a measure, according to WHO.

Ovitrap (OT) should be used as primary surveillance method. These are helpful in an early detection and identification of new outbreak. These are used to estimate the number of female mosquitoes in an area through the number of eggs laid in OTs. These should be placed in the potential high population areas of vector i.e. houses, schools, parks like Fiza Ghat in Mingora and Kabal golf club in the monsoon and monitored for three months. This recorded information shall serve as a guide, to design an overall vector control strategy.

BGS traps should also be used to monitor adult vector in high risk areas for dengue transmission on trial basis. The BG-Sentinel™ is made in Germany and being used in many countries

successfully; although expensive than the OTs, but can be more effective in results. The BG-Lure (part of BGS recommended kit) contains a combination of different substances that match the human skin, lactic acid, ammonia, fatty acids (especially caproic acid), and CO₂ that is used to attract the vector towards the trap (Geier et al., 1999, Bosch et al., 2000).

Dengue Mosquito Control

Mosquito control activities can, if implemented efficiently and effectively, limit the risk level of dengue outbreak. Dengue control should also be done at two levels, i.e. larval control and adult mosquito control. It can be achieved through the use of lure and kill' trapping, and application of different insecticides. It is important to engage other stakeholders like NGOs, schools and other government departments, while taking control measures.

- **Larval Control**

Larval control consists of the removal and/or insecticide treatment of containers that are breeding or could potentially breed *Aedes Aegypti*. Following activities are included:-

- (1) Source Reduction / Environment Management**

The purpose of this measure should be to eliminate the breeding places for dengue vector. Most areas of Swat are facing water and sanitation issues, therefore, people try to store water as more as possible in different pots / water tanks. Such containers that can collect water in the houses should be covered, emptied, filled with sand or turned down to prevent water collection or destroyed, if required. Community should be informed for potential growth spots so that they can take the actions as well (Riaz et al., 2006).

An analysis of surveillance data from Mingora shows that by properly covering the water tanks and containers, 61% of the vector breeding sites can be reduced. A further 20% of spots can be controlled through a minor effort and awareness campaign. However, the remaining spots can be controlled through fogging, sprays of insecticide / chemicals. Tyres should be put in the shops after clearing any water inside. Movement of old tyres to other locations / cities should be restricted and only allowed after proper checking of water and covering. Drains and manholes should be cleaned by the municipal authority on regular basis and it is made sure that there is no stagnant water. An improved domestic water supply / sanitation system, environment management and standard water storage through strict actions on sale of water tanks / containers without tight lids, can result into reduction of most of the breeding spots without much hassle.

(2) Chemical Application

World Health Organization (2004) discourages the indiscriminate use of insecticides for prevention and control of dengue infection. One reason for discouragement of insecticides is the development of chemical resistance in the vector that can have adverse impact in the future. For emergency control in areas with moderate or high risk like Chahrabagh, Matta, Khawaza Khela, Kabal and Babuzai larvacides can be used for rapid and massive destruction of the vector growth sites.

Usually, larvacidal control is applied only to the domestic containers that are difficult to remove or cover. These can be significantly helpful in killing the adult mosquitoes as well, alongside wiping out current and expected larval outbreak in water containers. There should be a repeat treatment at fairly short cycles

i.e. from 7-10 days or 3-4 cycles per month to have most efficient larviciding results and it should be continued for the period of two months at least (NIH, 2013; Hanh et al., 2009). However, chemical treatment or application must be in consistence with label recommendations and WHO safety recommendations.

- **Adult Mosquito Control**

Spraying is used to kill the adult mosquitoes in times of emergency / outbreak. The two major types include thermal fogging and cold fogging. It can only be successful, when the droplets of the used insecticide remain in the air till the time dengue vector makes a direct contact with it. The major purpose of spraying is to achieve a fast and rapid decline in the population of vector and subsequently breaking off the virus transmission cycle.

It is not considered as an economical control measure for dengue; hence, it is mandatory to use it properly and in an emergency situation or highest levels of outbreak like in areas of Kabal, Babuzai and adjacent areas of Charbagh and Matta. Knowledge in the following areas would enable the administration to decide about the efficient and effective methodology to attain better results:-

- (1) Human population/demographic facts
- (2) Information about residential buildings, roads and infrastructure
- (3) Characteristic of vector and peak activity time of vector
- (4) Insecticides formulation
- (5) Spray methodology to be used
- (6) Funds and other resources available

Oil-based spray (thermal fogging) are expensive and not considered environment friendly thus it is not recommended to use

such fogging in Swat at large scale, however, it shall be used at places with high dengue activity/population. The health department should use the cold fogging machines (both shoulder mounted and vehicle mounted), in which the Delta Marthine shall be mixed with water and sprayed in the affected areas. Experiments conducted by Government of Punjab suggest that the cold fogging system is more effective, compared to the diesel-based fogging. It was also found that the diesel-based fogging is injurious for the upper respiratory system of human beings.

Disease Management

Disease management is as important as vector management in an emergency situation. This section provides insight into public health aspects of surveillance, confirmation and notification of dengue infected patients. Efficiency of diagnosis procedure is the key concern in Pakistan, timely diagnosis of the disease helps in controlling it through better measures. Disease management is a well coordinated and joint effort of the healthcare institutes, patients, and society at large. Community participation is mandatory, while managing a disease. It can also be done at two different levels i.e. disease surveillance and disease control.

Routine Disease Surveillance

Routine disease surveillance is the first defence against dengue, however, in Pakistan central data-base has not yet been effectively functioning. Central Control Room was set up at DHO office Swat, as per the instructions of DCO to control and coordinate all dengue related activities. In the future, it shall be made sure that all the doctors / relevant officers, treating cases of dengue fever or the suspected cases, should notify such cases immediately to the Dengue Coordinator at CCR. A central data-base should be

maintained that has all the information of a particular patient. This should be analyzed for the better management of disease and future planning. Central information system for dengue should be initially started at public healthcare facilities and later expanded to private sector as well.

Laboratory Diagnosis of Dengue

There are several types of tests to diagnose dengue. The illness duration measures the suitability of each test. Every test has its own effectiveness, when done at the right time. Alternatively, some tests are better in results at the early stages of dengue, while others are more effective in the later stages (Butt et al., 2008). Medical staff shall determine the appropriate tests for the patient, based on his / her condition and duration of the disease. Following tests shall be advised:-

- | | |
|--|-----------------------------|
| ▪ Real Time - Polymerase Chain Reaction RT-PCR | ▪ Immunoglobulin G - IgG |
| ▪ Nonstructural Protein-1 NS-1 | ▪ Immunoglobulin M – IgM |
| | ▪ Complete Blood Count – CB |

Levels of Disease Severity

Level of dengue infection should be properly measured to decide about accurate treatment. Primary types of dengue are well known i.e. Dengue Classic Fever and Dengue Hemorrhagic Fever (DF/DHF), however; these should be further classified on the basis of disease severity for better control. Following are the disease levels, symptoms and desired response for each level;

Table -5: Levels of Dengue Fever (Fridous, 2011)

Level	Symptoms	Response
DF	Fever with two or more of following Myalgia, Retro-orbital pain and Arthralgia	<ul style="list-style-type: none">• No need to admit in hospital. Panadol and• Paracetamol to be given.• Avoid antibiotics and• Aspirin.• Bed rest.
DHF-I	Above criteria for DF + positive tourniquet test and evidence of plasma leakage	<ul style="list-style-type: none">• Must be hospitalized.• Must be observed for symptoms of shock.• Need for Intravenous (IV) fluid therapy.
DHF-II	Signs in DHF-I + some evidence of spontaneous skin bleeding or other body organs (epistaxis, black tarry stools, bleeding from gums), abdominal pain	
DHF- III	Signs and symptoms in DHF - II + circulating failure (weak rapid pulse, pulse pressure <20 mm Hg or high diastolic pressure, hypotension with the presence of cold clammy skin and restlessness)	<ul style="list-style-type: none">• Must be hospitalized.• Monitoring of intravenous fluid therapy should be started.• Dextran 40 to be provided.• Give fresh whole blood in small volumes of 10 ml/kg/hour.
DHF – IV	Intense shock with undetectable blood pressure / pulse Haematocrit rise more than 20%.	

Emergency Preparedness

Outbreaks like dengue need serious attention from private / public sector to save future of Pakistan. The health indicators suggest that lack of planning, infrastructure, funds and preparedness for such outbreaks result in failure of control measures. Dengue is endemic in Pakistan and shall keep hitting in 3-4 year cycles as per its nature (Fridous, 2011). The Government has to prepare itself to control such an outbreak in limited time and utilizing resources that are available on immediate basis. Preparedness includes steps like formation of a Dengue Mobile Response Unit (DMRU), and changing behaviours through awareness campaign.

Dengue Mobile Response Unit (DMRU)

Growing number of dengue patients and lack of maintained infrastructure in the public sector has increased the demand for such a solution. Primary problem, being faced by the people, is limited or non availability of diagnosis facilities in most of the areas. Considering the current income trends, and time value, people are not able to afford high costs for going to other cities to get diagnosis and treatment. It shall enable people to have their diagnosis and proper treatment free of cost; it shall not only provide free of cost diagnosis but also save the travelling and living cost spent by the patients to go to other cities.

DMRU should be formed under Provincial Disaster Management Authority to provide quick response to the highly affected areas of the province. The purpose is to reduce the spread of disease, by providing immediate diagnosis facilities, so that the patients could be isolated. Secondly the unit shall obviate the load on doctors and laboratories with limited diagnosis facilities, hence,

district governments shall have shared burden. Thirdly the unit shall be able to keep the data-base of patients in the areas that normally remain unregistered and only serious cases are brought to hospital for more cost-effective and efficient requisite services.

Furthermore, DMRU shall help the government in providing the general awareness about dengue to the masses through counselling, workshops and distribution of pamphlets. The pilot project shall include five mobile vehicles, providing quality diagnosis facilities along with basic pharmacy in different sub-regions of district Swat. The staff for one vehicle shall include experienced laboratory attendant, one assistant and a driver. Initial scope of the Unit is limited to diagnosis and awareness services only and shall be enhanced to surveillance and other control activities upon its success. DMRU shall only be successful once it reaches the masses at union council level, for that reason service delivery shall be made through town routing. The detailed plan for Swat is given in the next section.

Detailed Routing Plan for Swat

It is evident from data gathered by WHO that tehsil Babuzai and Kabal are the most affected areas, while Tehsil Charbagh, Matta and Khawaza Khela are also open to risk. A fleet of five vehicles shall initially be allocated for Swat to provide the services to an approximate population of 550,000.

Table-6: Allocation of DMRUs

Sr. No .	Sub Region	DMRU Allocated	Service Areas	Population Covered
1	Kalam – Barikot	N/A	-	-
2	Bahrain – North West Matta	DMRU Madyan	Positioned at Civil Hospital Madyan, two visits a week to Bahrain BHU	78,000
3	Khawaza Khela – Charbagh – South East Matta	DMRU Khawaza Khela	Positioned at Civil Hospital Khawaza Khela, shall visit THQ Matta and BHU Charbagh every week	170,000
4	Kabal – Babuzai	DMRU Manyar, Babuzai	Positioned at Manyar BHU, shall be visiting BHU Qamber and Dispensary at Ghalegay for two days every week	114,000
		DMRU Islamapur, Babuzai	Positioned at BHU Islampur, provide services in Islampur and Chitwar	36,000
		DMRU Kabal	Positioned at THQ Kabal, shall provide services to areas of Kabal, Koza Abakhel, Ber Abakhel and Deolai	160,000

Awareness Campaign: A Tool for Changing Behaviours

Role of general public is very important for dengue vector's control programs at home level. Hence changing the behaviors of masses towards dengue becomes essential, while making any plans for eradicating this disease from Pakistan. Keeping in view the significant relationship between vector species and human residence, a comprehensive, systematic and aggressive health promotion campaign should be started in Swat. After such campaigns, the house owners and local community can help greatly in eliminating breeding sources of dengue mosquitoes.

Despite growing levels of knowledge and awareness about dengue and mosquitoes, many people are still not taking actions. It is not mandatory that a person with high level of education and information also behaves in a responsible manner; hence, to achieve a desired action, a desired behaviour is required. Unfortunately, most of the awareness campaigns are focused on increasing the information level or the knowledge base of the masses rather than changing their behaviours. Changing the human behaviour is a slow and lengthy process, but the end results are more effective and have long-term orientation. Therefore, it is important to design an awareness campaign that encompasses cultural values and local demographics, along with the intended message itself. It should be designed and implemented in a way that shall not only help in public awareness but also encourage their participation in controlling the disease. Awareness campaign shall include the following domains:-

- (1) Awareness through education system / dengue as part of curriculum.
- (2) Use of Media and print material.

- (3) Role of other government departments.
- (4) Role of political / religious leaders / mosques.
- (5) Involving NGOs.
- (6) Conducting rallies and a yearly dengue day.
- (7) Local / national celebrities as reference personalities.
- (8) Awareness during other events i.e. Swat Festival etc.
- (9) Awareness through mobile phones i.e. SMS service.
- (10) Using public transport for spreading the word.
- (11) Health workers and volunteers.
- (12) Arrangement of competitions for dengue control ideas, dengue control logos, etc.

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Hydro-Politics in India and its Impact on Pakistan

(Abdul Rauf Iqbal)*

Abstract

Water is a vital and indispensable resource for human activities and a key to socio-economic development. Due to numerous reasons, per capita water availability is declining and same is the case in South Asia. India, being the major country of South Asia in terms of territory, population and resources, is at the centre of water distribution. At the same time, it enjoys both upper and lower riparian status. With reference to Pakistan, India is the upper riparian country and every action of India impacts the hydrological flows in Pakistan. With the growing water demands, India is witnessing a new wave of hydro-politics in the name of Indus-II, which has serious implications for Pakistan. This paper pleads that Indus-II is not favourable to Pakistan and argues that options available in Indus Waters Treaty should be used to counter this new hydro-politics.

Key words: *ecology, hydro-politics, water- scarcity, deforestation, conflict-resolution*

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Introduction

The ecological insecurity of Indus River Basin contributes most to the huge fluctuations in the water supply. The quantum of water flowing in the Indus and its tributaries varies widely from year to year, depending on snowfall in the Himalayan and Karakoram ranges and rainfall in the catchment areas. Super floods occur approximately once every five years, which has raised the average flow to 140 MAF over the past 30 years. In the remaining four years, average water availability has been 135.60 MAF.¹ Besides, there is erratic monsoon pattern. Seasonal flow of waters not only in Chenab but Jhelum and Indus also has been depleting year after year, for reasons ranging from global warming to deforestation and shrinking of mountain glaciers feeding these rivers. This looming normative stress has led to a new wave of hydro-politics in India and many scholars have suggested new water sharing treaty i.e. Indus II. This debate has serious implications for Pakistan. In this premise, this paper aims at challenging the Indus-II debate and advocates that only the built-in methods of conflict resolution of the Indus Waters Treaty (IWT) can navigate peace in the region.

Looming Normative Stresses

The IWT was not based on any principle of law, when it divided the waters of the Indus between the parties. Indeed, the Treaty expressly stated that nothing contained in it was to be construed as in any way establishing a general principle of law or any precedent.

¹ Source: Estimated from data obtained from Government of Pakistan, Water and Power Development Authority, *Lahore*. Cited in Kaiser Bengali, 'Water Management under Constraints: The Need for a Paradigm Shift', in Michael Kugelman, Robert M. Hathaway, ed, *Running on Empty: Pakistan's Water Crisis*, Woodrow Wilson International Center for Scholars, 2009. Washington, D.C. www.wilsoncenter.org 47.

The lawyers for the parties disagreed strongly about the applicable principles of international law governing international water resources. There were conflicting principles put on the table, India invoked the principle of 'equitable utilization'- the favourite of International Law Association (ILA) while Pakistan stressed on 'no appreciable harm'- the favourite of International Law Commission (ILC).² In the absence of any consensus on principles of international water law, the Treaty was based on a political compromise, but having implications for the sustainable management of the basin. The division of the rivers gave the two countries an independent control and regulation of supplies within their own territories.

Indus-II Debate in India

The existing normative dimension of Indus water regime is coming under new pressures from the emerging norms in the area like 'benefit sharing' entering into the water discourse in India. The debate around Indus-II in India suggests re-negotiation of the treaty advocating 'benefit sharing' on the western rivers which will allow it exploit 'potential in the upper catchments of the three western rivers that are allocated to Pakistan but are under Indian control'.³ There are two viewpoints on Indus II debate in India, arguing benefit sharing within or outside the treaty. B. G. Verghese, refers to Article VII about 'Future Cooperation' and argues that

² Sardar Muhammad Tariq, "The Indus Waters Treaty and Emerging Water Management Issues in Pakistan", in *Problems and Politics of Water Sharing and Management in Pakistan*, (IPRI, 2007), 88.

³ B G Verghese, 'Political Fuss Over Indus-I', *The Tribune*, 24, 25 May, 2005
Political Fuss Over Indus-I <http://www.bgverghese.com/Indus.htm>

Indus II can be built on Indus I on the basis of 'benefit sharing' on the western rivers.

"The potential needs to be thoroughly surveyed and could thereafter be harnessed through joint investment, construction, management and control. Pakistan cannot continue to deny India its limited entitlements in the western rivers and also freeze all further development, if it wants to grasp, what could be a far larger prize by way of additional storage, flood moderation and hydro power which both could share".⁴

Ramaswamy R. Iyer on the other hand argues that existing Indus Treaty offers no scope for Indus-II as Verghese is advocating, because Indus I has divided the river system. He suggests India to seek 'water-sharing on the western rivers' in a new treaty on Indus. "If we want a new relationship between the two countries on the Indus a totally new treaty will have to be negotiated; it cannot grow out of the existing treaty; and questions will immediately arise about the co-existence of two divergent treaties".⁵

A recent IDSA Task Force Report '*Water Security for India: The External Dynamics*' also calls for modification of the treaty' so as to enhance India's rights to western rivers. It states: "With Pakistan, given some stringent provisions in the IWT that thwart India's plans of developing projects on the western rivers, 'a modification' of the provisions of the treaty should be called for. Whether this is done through re-negotiations or through establishing Indus-II Treaty,

⁴ Ibid.

⁵ Ramaswamy R. Iyer, 'Indus Treaty: A Different View', *Economic and Political Weekly*, Mumbai, Vol. 40. No. 29, 16-22 July 2005.

modifications of the provisions are crucial in case of western rivers”.⁶

The task force has also recommended a shift from ‘water sharing’ to ‘sharing benefit’ in the Indus basin.⁷ There is a possibility of improving the treaty, if the two governments want to do that. Article-XII of the treaty provides that its provision may be modified by a duly ratified treaty by the two governments. The big question mark is how co-riparian can find ways and means to accommodate each other’s emerging concerns.

Options within the Treaty: Effective Implementation of Article-VI

A number of steps can be taken to build trust and strengthen functioning of the treaty by effectively implementing Article-VI on exchange of data; expanding scope of Permanent Indus Water Commission (Article VIII) and judicious utilization of Article-IX on the settlement of ‘differences’ and ‘disputes’.

Trust Building through Timely Data Sharing

As a downstream country and being party to IWT Pakistan has right to know the gauge level and regular inflow and outflow figures from hydro projects in India. In fact, most of Pakistan-India current water conflict is rooted in trust gap caused by inadequacies and opacity in data sharing, regarding the flow data provided to Pakistan. Parties are still relying on outmoded data sharing mechanism that is unable to ensure transparent and real time water transactions between India and Pakistan. The distrust in sharing of flow data can be bridged by guaranteeing real time data sharing through installation of telemetry system. Telemetry has become

⁶ *Water Security for India: The External dynamics*, IDSA Task Force Report, September 2010. p. 10.

⁷Ibid. p. 16.

indispensable tool for water management applications on real time basis. Telemetry system is used globally as an effective real time monitoring mechanism for water quantity, quality, sediment flow, snow and ice melt, weather forecasting and meteorological data for improved decision-making.⁸ Timing of flows is also very crucial for Pakistan because agriculture in the Pakistani plains depends not only on how much water comes, but that it comes in critical periods during the planting season. In July 2010, in a meeting of Indus Water Commission, both sides agreed in principle to put in place a telemetry system on the Indus to record and transfer real-time data. If the proposed telemetry is properly installed and operated, either jointly or by a third party, this will help in restoring trust and minimize uncertainty and confusion over the flow of western rivers. The telemetry systems should include watershed forecasting and flood warning telemetry systems.

Transparency in Data Sharing

Transparency in data sharing regarding the construction of Indian projects on western rivers is critical in trust building. Pakistan's concerns are multiplied due to lack of timely and inadequate data sharing, which has greatly politicized the water issue and deepened distrust between the two countries. Delays and inadequate data supply to Pakistan by India on projects like Wullar Barrage, Baglihar, Dul-Hasti, Uri-II and Kishenganga, Chutak, Nimoo Bazgo hydroprojects has deepened Pakistan's apprehensions. Delayed and incomplete information and engineering details, constrains Pakistan's ability to review and

⁸ Dr M. S. Shafique, 'Telemetry system and confidence building', *Dawn*, 9 August 2010. <http://archives.dawn.com/archives/25250>

adjudge compatibility of India projects with design criteria provided for in the treaty.⁹ Further, provision of such information is essential for Pakistan to ensure that run-of-the-river plants are being operated in accordance with the treaty. Another related major concern for Islamabad is that Delhi does not stop work on a project, where technical parameters have become controversial between the two countries on the plea that it is not provided in the treaty. Under IWT, India requires communicating details of new projects six months before their commencement, diversion for storage and farm purposes from western rivers and providing details about ancillary projects.¹⁰ Former Indus Water Commissioner, Jamaat Ali Shah, has pointed out that “the provisions of the treaty imply that any objections must be resolved. If India goes on constructing and we go on objecting without resolution in a time bound manner, then, both the letter and spirit of the treaty are negated.”¹¹ If India supplies timely information on the design of its projects on the western rivers before starting work on them, it would remove Pakistan's apprehensions regarding their incompatibility with the treaty. Being a co-riparian it is also Pakistan's “right to be acquainted with civil works projects on eastern rivers in India”¹² which affects it as a downstream.

⁹ Indus Water Commission sources.

¹⁰ Sandeep Dikshit, ‘Pakistan for new measures to energize Indus Treaty, *The Hindu*, 13 March 2010.

¹¹ Khalid Hussain, Water, war and Peace: Indus Water Treaty under Threat –Part III”, http://www.amankiasha.com_cat.asp?catId=1&id=50

¹² Implementation of Indus Basin Treaty Stressed, *Daily Times* 23 February, 2010.

Expanding Mandate of Indus Water Commission

The functioning of the PIWC set up under Article VIII of the Treaty should be strengthened, by expanding its scope and mandate. The main task of the Commission is to maintain a co-operative arrangement for the implementation of the Treaty; promote co-operation between the parties in the development of the waters of the rivers; meet regularly to review implementation of the treaty; make every effort to settle promptly any question arising between the parties; and undertake tours of inspection of the rivers to ascertain facts.¹³ Although it has performed its supervisory role quite well, but its mandate is too limited that is putting strain on the very functioning of the institution. The role of PIWC needs to be in line with the current realities or else it will lose its relevance in implementing the Treaty.

There is need to expand role of the Commission regarding co-operation in harnessing and sustainable management of Indus waters. An Indus Water Consultative Group, comprising India, Pakistan and international water experts, can be formed to provide input on supply capacity of the Indus basin, taking into account the issues like climatic changes and environmental degradation. The group can conduct joint studies on the impact of climate change on Himalayan glaciers, joint watershed management and joint studies on environmental impact assessments of the hydro projects, especially on the lower riparian. It can also thrash out a joint watershed management strategy for the catchment areas of western rivers. India is also in favour of revitalizing the institution of Commission. There is a realization within the Commission that its

¹³ Article VIII of Indus Water Treaty.

role should be in consonance with emerging realities in the Indus basin or else it will lose its relevance. The meeting of the Commission, held in New Delhi in June 2010, has decided to strengthen the working of the commission by setting up a body to oversee it.¹⁴ There is also need to develop capacity of Pakistan chapter of Indus Water Commission in water diplomacy, water conflict resolution, water entitlements, legal and technical issues, so that Pakistan can defend its case soundly, based on varied expertise in the field.¹⁵ Expanded scope and mandate of the PIWC and a strong Pakistan Indus water Commission will help in defending Pakistan well in averting frequent recourse to the NE or Court of Arbitration.

Judicious Utilization of Article-IX

Article-IX of the Treaty specifies three tier dispute resolution mechanisms- bilateral level - Commission under Article-IX (1) and Two Governments-IX (3) & (4) as well through third party involvement Neutral Expert-IX (2) (a) and Court of Arbitration – IX (5). Since bilateral level is getting weaker due to new realities, the third party option is becoming more attractive. There is an urgent need to strengthen the bilateral strand, so that there is actual last resort recourse to the NE and CoA. This will not only save money but also create trust between the two countries over water issue.

¹⁴ “Is Commission effective in resolving the issues?, Pakistan, India to jointly inspect pollution of drains”, *Daily Times*, Islamabad, 24 July 2010.

¹⁵ *Indus Water Treaty and Managing Shared Water Resources for the Benefit of Basin States – Policy Issues and Options*, IUCN Pakistan, 2010. p.12.

Expanding Cooperation under Article-VII of IWT

The IWT is silent on many emerging threats to Indus basin that may include climate change, environmental degradation, management of shared aquifers and water quality. These can be addressed by utilizing so far unutilized Article-VII on future cooperation. Since these concerns were not present at the time of the signing of the Treaty, they could be covered by this provision. The water rationale demand that both countries broaden the scope of Article-VII to develop cooperation in trans boundary watershed management, declaring all glaciers protected area, sharing 'Environmental Impact Assessment' of hydro projects in the upstream of western rivers and maintaining trans boundary aquifers and ensuring ecological flows in the eastern rivers. Article-VII lays down the principles of 'future cooperation'. It states: "The two parties 'recognize that they have a common interest in the optimum development of the rivers' and 'they declare their intention' to cooperate by mutual agreement, to the fullest possible extent".¹⁶

Article-VI talks about installation of hydrologic and meteorological observation stations and some drainage or engineering works subjected to mutual agreement. There is a need to use Article-VII for sustainable trans boundary management of Indus basin. Article provides opportunity to meet the threats emerging from climate change in the Indus Basin, which was not factored in, when the Treaty was signed in 1960. Some of the cooperative steps are identified as under:-

¹⁶ Article VII of the Indus Water Treaty.

- **Study of the Behaviour of Himalayan Glaciers**

Glacial fluctuations and changes in precipitation patterns are expected to alter the hydrology of the river basin, hence, jeopardising hydro-power generation and agricultural production and consequently altering people's livelihoods.¹⁷ The study of the behaviour of Himalayan glaciers is a must, as they are considered quite vulnerable to adverse impact of climate change. Both sides need to form a group of experts to study behavior of glaciers whether advancing or decreasing. The largest challenges stem from inadequate information and monitoring, and limited scientific understanding of these high elevation glaciers. Conflicting behaviour of glaciers, such as retreating, advancing, and even surging, within small distances is posing difficult questions to the scientists.¹⁸ International Centre for Integrated Mountain Development (ICIMOD) based in Nepal has already taken a lead by organizing a workshop in July 2010 on 'climate and environmental change impacts on the cryosphere of the Indus basin and its implications for future water scenarios'. Scientists at the workshop included those from India, Pakistan, China and Afghanistan, who identified key gaps in knowledge about the Indus basin. They agreed to improve collaboration on scientific and technical research on the impacts of climate change on the cryosphere of the Indus basin. They also proposed a long-term Indus Basin Programme that can be implemented by local and international agencies with ICIMOD in a strong facilitating role. A combination of bilateral and multilateral

¹⁷ 'Experts agree to collaborate on Indus Basin Programme' 05 Jul 2010, Kathmandu, <http://www.icimod.org/?page=1217>

¹⁸ "Experts agree to collaborate on Indus Basin Programme" 05 Jul 2010, Kathmandu, <http://www.icimod.org/?page=1217>

approach, which includes China and Afghanistan that are not part of the Treaty, is absolutely necessary to respond to new climatic threats in the HKH region. This will also facilitate sharing of experiences to create an environment of ownership of scientific work among regional government institutions, engaged in sustainable water resource management in the Indus basin. Trans-boundary scientific coordination and collaboration in scientific and technical research is essential in order to obtain a holistic perspective of the existing and anticipated changes in the natural system of trans-boundary river basins like the Indus. Institutional cooperation is quite possible between the metrological departments of India, Pakistan, China, Nepal and Afghanistan that are important stakeholders in HKH region.

- **Glaciers Protection**

India-Pakistan urgently needs to declare all Himalayan glaciers as protected areas, as climate change and environmental degradation, aggravated by human activity is adversely affecting these ice reservoirs. Of particular importance is Siachen glacier, where continued presence of the armies, especially on the Indian side of the glacier has accelerated the melting of the glacier. Siachen is under threat of disappearance and must be demilitarized. Dialogue, on Siachen has moved slowly but is considered doable. A number of new ideas have come up under discussion in the ongoing composite dialogue which suggests turning it into a 'mountain of peace' or a 'zone of peace'. It simply requires political will to formalize them by settling the issue. This will end drain on the resources wasted; India spends about \$2 million a day while

Pakistan \$ 1 million per day to sustain troops on Siachen.¹⁹ This amount can easily be diverted to creation of Protection of Himalayan Glaciers Fund that can be spent on the sustainability of the HKH region. China and Afghanistan can join the fund and make their contribution.

- **Cooperation in Trans-boundary Watershed Management**

Environmental threats recognize no political or geographical borders, but no joint effort is being made in India, Pakistan to meet the challenges of environmental degradation in the Indus watershed and monitor the changing weather pattern. Being lower riparian, Pakistan has no access to the upper catchments of the western rivers allocated to it, as these lie in the Indian controlled territory. The changes in watershed condition and course of rivers demand better strategies for management.

Joint approach to watershed management is critical to maintain sustainable flow in the upstream region to control floods and soil erosion. The basin watershed area in both parts of Kashmir is facing deforestation and environmental degradation. India has been pursuing the idea of joint water management, while Pakistan has proposed joint watershed management, which is actually geared to augment supply in the system. This can be done through joint surveys and development of the upper basins of the western rivers that are facing threats and uncertainties emanating from gathering climate change. Cooperation in watershed management is deeply linked with the joint response to climatic threat to HKH glaciers.

¹⁹ “Pakistan and India urged to resolve Siachen dispute”, *Business Recorder*, 18 September 2009. See, http://sdpi.org/sdpiold/SDPI_in_the_press/media%20coverage%2009/media_coverage_sept_2009.html

This would not only benefit India and Pakistan in the Indus basin but would benefit India in Jamuna and Ganga river basins that originate from the same region. Article VII on “future Cooperation” can be used to enhance the sustainability of water in the Indus system in an optimal manner.

- **Sharing of Trans-boundary Environment Impact Assessment (TEIA)**

Hydro-power projects in the upstream of the Indus Basin Rivers have adverse trans-boundary environmental impacts on the downstream flows and flora and fauna which will be aggravated by climate change. The Treaty permitted India under strict conditions to construct run-of-the-river hydropower projects but was largely silent on sharing of transboundary environmental impact assessment on the downstream state. Being lower riparian and dependent on a single basin, Pakistan is extremely vulnerable to adverse environmental impacts. India should share Trans-boundary Environment Impact Assessment (TEIA) of various hydro-power projects being planned or built on the western rivers as well as the eastern rivers as. This can be done bilaterally or multilaterally. At the bilateral level cooperation is possible under Article-VII, by initiating joint commissioning of environmental studies, as proposed by Pakistan that can help in ensuring ecological sustainability of the Indus basin. At the multilateral level, there is emerging body of trans-boundary environmental laws that require upstream states to share the environmental impact of their projects with the lower riparian's. European and North American countries are adopting regional agreements that provide for trans-boundary

EIA. The Espoo (EIA) Convention²⁰ sets out the obligations of parties to assess the environmental impact of certain activities at an early stage of planning. It also lays down the general obligation of the States to notify and consult each other on all major projects under consideration that are likely to have significant adverse environmental impact across boundaries.²¹ Canada, Mexico and the US also have North American Agreement on Trans-boundary Environmental Impact Assessment.

There are various international treaties on management of international water-courses and climate change that call for national measures for the protection and ecologically sustainable management of trans-boundary surface and ground waters. These include Helsinki Rules on the uses of International Rivers (1966) UN Convention on Protection and Use of Trans-boundary Water-courses and International Lakes (1992), UN Convention on Non-Navigational Uses of International Water-courses (1997); United Nations Framework Convention on Climate Change (UNFCCC) 1997 can also be used to this effect. Article-5 of the UN Non-Navigational Uses of International Watercourses requires water courses nations to participate in the use, development and protection of an international water course in an equitable and reasonable manner. India and Pakistan are not party to the Convention. -

- **Ensure Ecological Flows in Eastern Rivers**

The flow of the three eastern rivers allocated to India has declined since the signing of IWT. The two eastern rivers Sutlej and

²⁰ The Convention was adopted in 1991 and entered into force in 1997. The Treaty has been ratified by forty countries from Europe and Central Asia as well as Canada and European Community.

²¹ "Introduction to Espoo Convention", United Nations Economic Commission for Europe (UNECE), <http://live.unece.org/env/eia/eia.html>

Ravi get flood water but during lean period there minimum flow is abysmal. Consequently, Pakistan is facing the problem of maintaining eastern rivers for flood years without water. Ecological flows are also important to maintain biodiversity and environment in Indus-Pakistan. Also important is the issue of minimum flows in eastern rivers for domestic purposes, especially in the low flow times. The low minimum flows during 1976-77 to 2009-10 touched very low minimum average of - 0.30 MAF- Ravi 0.29; Sutlej 0.01.²² India should ensure minimum ecological flows in eastern rivers so as to maintain the biodiversity and environment in Indus Pakistan. This can be addressed under Article-VII. This can be reinforced by various international water and environmental laws, mentioned above.

- **Addressing Trans-boundary Water Pollution**

The quality of water is as much important concern as the quantity of the Indus waters. The issue of pollution of the waters of the rivers and tributaries of the Indus system was taken up in Article-IV (9) of the Treaty. It stated that each party should ‘prevent’ ‘undue pollution of the water of the rivers’ and take measures to ensure that before any sewage or industrial waste is allowed to follow into the rivers, it will be treated.” Lately, the issue has been taken up in the meeting of Indus Waters Commission held in July 2010. Pakistan asked India to stop contamination of water in the Hadiara nallah that flows near Lahore and brings the industrial waste to Pakistan and pollutes the Ravi and Kasur drains. The issue of Baramulla waste polluting Jehlum River was also raised with India. New Delhi has agreed to conduct joint inspection to measure

²² Data provided by Indus River System Authority (IRSA), January 2011.

pollution levels in the Jehlum River, Hudaira drain and Kasur drain. Both sides have also agreed to conduct a joint survey to monitor river pollution.²³ International Water Laws, Helsinki Rules on the uses of International rivers (1966) in particular emphasizes on controlling pollution in the trans-boundary rivers. Both sides need to cooperate to maintain quality of water and should not dispose of its waste into watercourses on the Indus basin. Efforts should be made to invest in water quality conservation and waste water infrastructure.

- **Maintenance of Trans-boundary Aquifers**

Pakistan water table in Punjab, particularly in the bordering areas with India, has gone down alarmingly because of over extraction of ground water in Indian Punjab. The issue of ground water was not visualized in the Treaty, as there was not much reliance on it in the 1950s, which has increased massively in the last decade or so, the deep fresh aquifers are fast depleting. This warrants a comprehensive study of the current situation of trans-boundary aquifers, water table declines and quality degradation in the Indus basin, especially aquifer bordering the basin states.²⁴ Collaborative steps are also needed to employ artificial ground recharge (AGWR) techniques to improve the long term sustainability of deep aquifers. The issue can be taken up in the discussion of Indus Commission under Article-VII. There should be sharing of information and best practices for better management of ground water resource.

²³ “India agrees to site inspection of hydropower projects”, *The New*, 24 July 2010.

²⁴ See, *Beyond Indus Water Treaty: Ground Water and Environmental management –Policy issues and options*, IUCN, 2010.

- **Constructive Multi-Track Water Diplomacy**

Since India-Pakistan water issue is not only politicized but also internationalized, it would be important for Pakistan to make use of the emerging international water and environmental norms, principles and laws to protect its water rights in the Indus basin. There are number of international conventions on sustainable management of the shared basins that can be drawn upon in responding to new threats to the Indus basin.

Regional cooperation in addressing vulnerabilities emerging from climate change is quite possible. In the April 2010 Thimphu statement on climate change both countries have agreed to undertake the measures, which include: (i) to review the implementation of the Dhaka Declaration and the SAARC Action Plan on Climate Change and ensure its timely implementation; (ii) to establish an Inter-governmental Expert Group on Climate Change to develop clear policy direction and guidance for regional cooperation, as envisaged in the SAARC Plan of Action on Climate Change; study climate risks in the region and related socio-economic and environmental challenges; conservation of biodiversity and mountain ecology covering mountains in the region; and monitoring the monsoon pattern to assess vulnerability to climate change.²⁵

Pakistan should come out of a reactive mode and adopt a more proactive strategy to handle trans-boundary water issues with India. Pakistan has been quite ineffective in using the growing norms in international water and environment laws to its advantage or

²⁵ Thimphu Statement on Climate Change, Thimphu 28-29 April, 2010. <http://www.saarc.org/userfiles/thimphuStatementonClimateChange-29April2010.pdf>

support its case based on more scientific facts. In NE verdict in Baglihar, enough weightage is being given to impact of climate change and ‘new technical norms and new standards provided in the Treaty. This gives enough space to Pakistan to reinterpret the Treaty in the light of new threats to the Indus basin and look for solutions that address mutual vulnerabilities.

Further, there has been hardly any systematic analysis conducted by Pakistani experts in a scientific manner²⁶ and coordinated manner on the trans-boundary water issues with India. There is dire need to move away from the emotive discourse to a more informed and scientifically supported discourse that strengthens Pakistan’s case more logically. Pakistan also need to pursue multi-track water diplomacy for sustainable management of the Himalayan rivers’ basins, especially the Indus basin and use the platform of ICIMOD, SARRC, and many other social sector organizations like IUCN, WWF, Global Environment Facility (GEF) and UNEP to explore innovative areas of cooperation, within and outside the treaty.

It is also very important that Pakistan should seek international assistance to fix its fast deteriorating infrastructure. The Indus basin irrigation system (IBIS) is the largest contiguous irrigation network in the world, but it is crumbling due to a combination of age, deferred maintenance and neglect. The 2010 floods have exposed the weakness in the Pakistan’s water infrastructure. The country needs financial resources to sustain its huge irrigation system as well as build new reservoirs, as it has very low storage

²⁶ Indus Water Treaty and Managing Shared Water Resources for the Benefit of Basin States – Policy Issues and Options, IUCN Pakistan, 2010, P.11.

capacity. The World Bank, Asian Development Bank and the US can assist Pakistan in this regard.

Conclusion

Indus Water Treaty is considered a model of conflict resolution that withstood wars and volatile spells of Indo-Pak relations, is coming under normative and functional stress due to new climatic, demographic, developmental and environmental threats in the basin. The sustainable management of Indus waters resources is emerging as the biggest challenge to the riparian states. In this connection, various scholars have opined the idea of water wars between Pakistan and India. To avoid the future water wars, debate on Indus-II has already begun in India, but Pakistan's dilemma for re-interpreting IWT stems from inbuilt constraints stemming from its lower riparian status and the fractured character of the Indus basin. Growing water scarcity in India and Pakistan, the stress in the Indus basin and India's ambitious plans to exploit western rivers is going to increase strain on the functioning of the Indus water regime.

Cooperation in harnessing Indus waters is possible within the existing parameters of the Treaty by strengthening data sharing mechanisms under Article-VI and expanding the scope of Article-VII on future cooperation. Article-VII on the future cooperation of the Treaty largely remains unutilized. Not a single project has been undertaken under this clause. The trust gap in water relations need to be addressed at the political and diplomatic level, by depoliticizing water discourse in both countries. Practical steps should be taken to ensure communication of real time flow data by way of installation of telemetry system on the western rivers and India observing transparency in communicating information

regarding planned projects to Pakistan. Strengthening of the Indus water commission in terms of its mandate, scope and capacity will save Pakistan from frequent recourse to NE or court of arbitration.

Pakistan's Potential Role vis-à-vis Arabian and Persian Flanks of the Gulf

(Muhammad Shabbir)*

Abstract

In the Gulf region, the contention between the two flanks; Arabian and Persian is a result of their diverse historical experiences and civilizational differences. The two flanks, led by Saudi Arabia and Iran, have close relationship with Pakistan that at the popular level is viewed as the product of multiple factors: shared civilizational experience, faith system, common aspirations and interests, and therefore, hopes for a common destiny. All these factors converge to make a composite picture, therefore, tensions between the two flanks also impact Pakistan. Moreover, Pakistan's erstwhile strong position vis-à-vis Gulf region to play a constructive role has been impaired due to changing regional dynamics and Pakistan's internal weaknesses. In this backdrop, the paper aims to study and identify Pakistan's role and potential to decrease intra-Gulf contentions or transform their conflict for mutual economic and strategic benefits. The study recapitulates the history of Pakistan-Gulf relations and intra-Gulf divergences. While discussing Iran and Saudi Arab as key players, the paper provides contours of this rivalry and deliberates the questions: how intra-Gulf rivalry impacts Pakistan? and, what role can Pakistan play to bring the two flanks of the Gulf together? The

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paper also carries some foreign policy recommendations for Pakistan. The study concludes that though Pakistan has the potential to play a constructive role in defusing intra-Gulf tensions, but it cannot succeed in this endeavor, unless its domestic situation is improved.

Key Words: *Persian-Gulf, regional-dynamics, common-civilization, cooperation, transformation*

1. Introduction

Shared civilizational experience, faith system, geographic proximity, common aspirations and interests, and hopes for a common destiny are the factors that help define contours of the relationship between Gulf region and Pakistan. Within this region, the contention between the two flanks; Arabian and Persian is a result of their diverse historical experiences and civilizational differences. Pakistan's erstwhile strong position vis-à-vis Gulf region to play a constructive role, has been impaired due to changing regional dynamics and Pakistan's internal weaknesses. In this backdrop, the paper aims to study and identify Pakistan's role and potential to decrease intra-Gulf contentions or transform their conflict for mutual economic and strategic benefits.

The study argues that in the changing world order, Pakistan and Gulf region need to come out of their recent past and dependency upon super-powers. However, the efficacy for Pakistan to play a role with regard to this region has to be re-assessed. The study concludes that though Pakistan has the potential to play a constructive role in defusing intra-Gulf tensions, but it cannot succeed in this endeavor, unless its domestic situation is improved.

The study recapitulates the history of Pakistan Gulf relations and intra-Gulf divergences. While discussing Iran and Saudi Arab, as key players, the paper provides contours of this rivalry and deliberates the questions; how intra-Gulf rivalry impacts Pakistan? and, what role can Pakistan play to bring the two flanks of the gulf together? The paper also carries some foreign policy recommendations for Pakistan.

2. Three-way Matrix of Pakistan Gulf Relations: A Historical Recapitulation

Religious affinity, cultural ties and geographic proximity are the key terms that join Pakistan, Saudi Arabia and Iran in a three-way matrix. Despite Arabian-Persian tensions in the Gulf, Pakistan has held good relationship with both, because it is neither Arabian nor Persian and did not become a party to their internal conflicts. Therefore, to understand the present, it is pertinent to briefly recapitulate the strengths and weaknesses of the two and review their past, along with their relationship with Pakistan. This will provide a basis for concrete policy options.

The Persian side of the Gulf has Shia Iran, the world's third largest oil-rich country and custodian of Strait of Hormuz. On the Arabian flank of the Gulf contains Saudi Arabia, the birth place of Islam, whose monarchy (the Al-Saud family), espouses Sunni Islam and owns world's second largest oil reservoirs and is Iran's traditional rival, apart from its strategic location on the Persian Gulf and the Strait of Hormuz. Iran with a population of over 80 million is more than a match for Saudi Arabia, whose population is around 29 million. Additionally, Iran in the fields of education and technology is quite a bit ahead of Saudi Arabia. In the military domain, although Iran has dominance in numbers, but what Saudi Arabia lacks in numbers makes up with superior weaponry and US support.¹ Moreover, Iran has also suffered from US-led sanctions regime for more than three decades.

¹ "Military: Iran and Saudi Arabia compared", Nation Master. Accessed on 19 Sep 2014, from: <http://www.nationmaster.com/country-info/compare/Iran/Saudi-Arabia/Military>

The conflict between Persians and Arabs is not the product of the recent hegemonic ambitions of any state in the region, but has its roots in history that goes to the early period of Islam. However, in the twentieth century, official diplomatic relations between the two key players in the region, Iran and Saudi Arabia were established in 1928, when the Saud dynasty came to power, but the diplomatic exchanges began in mid-1960s.² From the 1960s till the Islamic Revolution, Iran-Saudi relationship was normal without Sunni-Shia divide, but the Arab-non-Arab friction dominated Middle Eastern politics; the division was between the Conservatives and Radicals. Both the dynasties (Pahlavi in Iran and Saud; in Saudi Arabia) cooperated over a number of domestic and international issues. Nonetheless, with the fall of the Shah, Iran-Saudi relations suffered severe set-backs because the Islamic Republic of Iran not only questioned the legitimacy of the Saudi regime, but also sought to change the status-quo.³ Saudi Arabia has been one of the major Arab competitors of Iran in the post-Revolutionary era. Among other things, it has been competing with Iran for leverage in Pakistan and Afghanistan.⁴

Over the years, Pakistan with a few hot and cold seasons, has succeeded to keep a balanced relationship between the two flanks of the Gulf. However, confronted by the world of realism, changing demands of national interests in response to domestic changes, and

² Reza Ekhtiari Amiri, Fakhreddin Soltani, "Iraqi Invasion of Kuwait as Turning Point in Iran-Saudi Relationship", *Journal of Politics and Law* 4.1 Mar-2011, pp-188-194.

³ Ariel Jaaner, "Saudi Arabia and Iran: the Struggle for Power and Influence in the Gulf", *International Affairs Review*, Vol. XX, No. 3, 2012, p.39.

⁴ Shireen T. Hunter, *Iran's Foreign Policy in the Post-Soviet Era: Resisting the New International Order*, Praeger Publishers, 2010, p.189.

transformations in their external environment questions the adequacy of the idealist prism in explaining Pakistan-Gulf ties.⁵ More than six and a half decade of bilateral ties have experienced gradual deterioration with every passing decade.

The relationship of Pakistan and Arabian Gulf has been multi-dimensional; significant Gulf assistance to Pakistani economy and Pakistani support to Arab dynasties in the military and security domains. Almost all military doctrines in the Gulf provide eloquent manifestations of Pakistan's profile in military terms and nuclear capability, which is consistently seen as a bulwark against any encroachment from the East to the Gulf.⁶ The Gulf States also host a large Pakistani workforce in the region, numbering more than three million. It is the second largest expatriate community after India and includes professionals, businessmen, skilled and semi-skilled laborers. Major concentrations are in Saudi Arabia (1.5 million) and U.A.E (1.25 million), while the others are spread over.⁷ Moreover, about sixty-one percent of Pakistan's remittances come from the Gulf region.⁸

Since independence, Iran has been a natural ally and model for Pakistan. Both had majority Muslim populations but remained secular, centralized, and Western-oriented in practice. Both countries granted the other most-favored nation status for trade purposes and the Iranian and Pakistani armies cooperated to

⁵ Muhammad Nawaz Khan, "Trilateral Summit: Hopes and Realities", Islamabad Policy Research Institute, 2013. Retrieved from: www.ipripak.org/pa/tshr.pdf.

⁶ Amb Arif Kamal, Pakistan's Interface with the GCC Region: A Perspective, Center for Pakistan and Gulf Cooperation, 2013.

⁷ Data retrieved from the Ministry of Foreign Affairs-Middle East Division.

⁸ Ibid.

suppress the rebel movement in Baluchistan.⁹ Nevertheless, due to the Iranian Islamic Revolution in 1979 and with the emergence of a Shia state that aimed at 'exporting Revolution', the situation was complicated. Consequently, Pakistan's ties with Iran did not remain as productive as they were before the Revolution. Among the many factors, the deterioration of Riyadh's ties with Tehran and the former's increasing strong relationship with Islamabad, played a significant role.¹⁰

It is worth noting that during the early decades of its existence, Pakistan was equally accepted in Arabian and Persian both flanks of the Gulf. It was due to this acceptance that Pakistan, during the lowest time in its history after having lost its Eastern Wing, was able to hold the second OIC summit in Lahore. Moreover, almost all of the GCC states depended heavily on Pakistan's assistance in raising their defense and security forces. The recent Arab spring and subsequent incidents and their basic motives have given a chance to Gulf countries to come further close to Pakistan. Pakistan through its military and bilateral cooperation has always tried to shield these countries from various external and internal threats. It has also been providing scientific and technological assistance to Gulf countries along with providing its trained manpower in various fields.¹¹

⁹ Shahram Chubin and Sepehr Zabin, "The Foreign Relations of Iran", (Berkeley: University of California Press, 1974), pp. 140-69.

¹⁰ M. Salman Khan, "Pakistan-Iran Relations: Dynamics, Challenges and Prospects. Unpublished Thesis, Department Of Political Science, University of Peshawar, 2013, pp. 17-29.

¹¹ Muhammad Shabbir, "Emerging Middle East: Interplay of the New Power Centers", ISSRA Papers, National Defence University Islamabad, Vol-5, Issue-I, 2013, p-17.

It was, however, the over-throw of Bhutto in 1977, the Islamization process of president Zia, the Islamic Revolution of Iran in February 1979, and the Soviet invasion of Afghanistan that made Saudi Arabia a critical player in Pakistan and Afghanistan.¹² Also, defence cooperation of Pakistan and Saudi Arabia includes training of Saudi pilots by the Pakistan Air Force and the deployment of Pakistani troops to Saudi Arabia to provide training. During Gulf crisis, upon Iraq's invasion of Kuwait in 1991, Pakistan sent thousands of troops to defend the Saudi Kingdom against possible Iraqi assault. This Saudi assistance later was to become the major cause of tensions between Iran and Pakistan.

3. Contours of Intra-Gulf Rivalry and Implications for Pakistan

Intra-Gulf rivalry is driven by competition for energy markets, the nuclear challenge, the Middle East or Persian Gulf, sectarian issue, territorial dispute and Afghanistan. Pakistan, on a number of subjects concerning Iran and Saudi Arabia, struggles to manage the balance in its ties with both Riyadh and Tehran. The zero-sum dynamics of Saudi-Iran relations impinge on their ties with the third country in the region.¹³ Since the peak of the Sunni-Shiite civil war in Iraq (2006-07), the geo-political rivalries in the Middle East have been acquiring an increasingly sectarian tone. With Iran firmly embedded among the Shiite Islamists in Lebanon

¹² Khalid Ahmad, *Sectarian War-Pakistan's Sunni-Shia Violence and its Links to the Middle East*, Karachi: Oxford University Press, 2011, pp.12-13.

¹³ Shahrbanou Tadjbakhsh, "The Persian Gulf and Afghanistan: Iran's and Saudi Arabia's Rivalry Projected", Peace Research Institute of Oslo, April 25, 2013. retrieved on 01 July 2014, from, [www.file.prio.no/.../Tadjbakhsh,%20S%20\(2013\)%20The%20Persian%20Gu](http://www.file.prio.no/.../Tadjbakhsh,%20S%20(2013)%20The%20Persian%20Gu).

and Iraq, Saudi Arabia poses as the protector of Sunnis. Never before has religious identity in the region been so polarized.

The territorial and maritime disputes between the two flanks of the Gulf include the islands of Abu Musa, Greater Tunb and Lesser Tunb, over which UAE puts a claim, but these islands are under the control of Iran. Iran contends that these islands were handed over to it by the British, acting on behalf of Sharjah and Ras al Khayma.¹⁴ In addition to that Iran's erection of a port on Abu Musa and its opening of two administrative offices there in 2008, increases GCC's worries. The GCC's fears stem from the fact that this will give Iran greater control of shipping traffic through the Strait of Hormuz.¹⁵

Iran and Saudi Arabia are also involved in a series of seemingly intractable disputes, which have the potential to destabilize the entire region: first, Iranian blister is primarily aimed at Israel, but Saudis believe that nuclear capability would give Iran a crucial strategic edge in the Persian Gulf. Saudi royals have privately egged on the US for military action against Iran. Second, Saudis have long accused Iran of fueling discontent among Shiite communities in Saudi Arabia and Bahrain, who are demanding equal political and cultural rights. Third, in Lebanon, while Iran backs Hezbollah, a Shiite party that commands the strongest armed force in Lebanon, Saudis support Lebanese Sunnis. This proxy battle is a major driver of instability in the country. Fourth, Saudi Arabia has frosty relations with Iraq's ruling Shiites, and has in the

¹⁴ Pirouz Mojtahed-Zadeh, "The Issue of the UAE Claims to Tunbs and Abu Musa vis-à-vis Arab-Iranian Relationships in the Persian Gulf", *Iranian Journal of International Affairs*, Vol. 8, No. 3, 1996, pp. 601-26.

¹⁵ "Iran's island offices condemned", *BBC News*, 3 September 2008. accessed on 20 Sep. 2014, from: <http://news.bbc.co.uk/2/hi/7596339.stm>

past been accused by Iraqi government of backing the Sunni Islamist rebels. Fifth, the regime of Bashar Al-Assad in Syria is Iran's key Arab ally, and a conduit for support that flows from Iran to Hezbollah via Damascus.

Afghanistan presents one of the most vivid examples, as Iran's rise as an interlocutor in mediations with the Taliban has included another complex dimension to the problem.¹⁶ Ironically, it is the US regional endeavors for the past decade or so, that have unintentionally led upto greater fruits for Iran. While US policy was to clip Iranian wings, the entities that caused threat to Iran have been vanquished. One, being Iraq's Baathist power, which vanished opening flood-gates of Iranian influence into Iraq and, second, being the Salfi-driven Taliban who were thrown out, neutralizing Afghanistan in as much as it posed a potential threat to Iran.

The Iranian confident posture towards Arabs is the outcome of the country's accumulated historical experience, enforced by coupling of the oil reserves with commanding position at the Sea Lines of Communication (SLOCs) and its continuous resilience towards US. Ingredients of Iranian mindset are central to understanding the country's defiance, its nuclear program and its interplay with regional and international stakeholders. The drivers of the Iranian confidence include: first, civilization continuity in Iranian socio-political make-up; second, as opposed to Arabs, Iran not being exposed to a long-term colonial occupation and the consequent fragmentation; third, 'martyrdom syndrome', deeply entrenched in the theological makeup of the Iranian society; fourth,

¹⁶ Bruce Koepke, *Iran's Policy on Afghanistan: the Evolution of Strategic Pragmatism*, SIPRI, Wider Central Asia Initiative Paper, 2013.

possession of oil and gas reservoirs; and fifth, geo-political disposition that gives Iran a commanding position on energy corridors.¹⁷

Additionally, the current, although interim, nuclear agreement between Iran and the P-5+1, conveys an implicit recognition of Iran as a regional power; implies acceptance of Iran's right to enrich uranium; and it opens up significant dimensions in the re-mapping of the region. The deal first of all puts a larger question mark on the set-up of regional balance of power. Therefore, not only Israel, but Saudi Arabia and the Arab allies of the US in the region have also been deeply unsettled. Their worry is that Washington might be willing now to accommodate Iran's regional interests in the Middle East at the cost of old allies. This is true because the post-Arab Spring turmoil in the region plunged US-Arab relations into a state of uncertainty, turning the autocratic regimes into unreliable partners. For South Asia, the deal adds a worth watching new dimension, of possible Iran-India-US realignment. This may also impact the post-2014 situation in Afghanistan, considering Iran's erstwhile ties with Northern Alliance as well as giving India more influence to impact Pakistan through Iran also.

4. Implications for Pakistan

The foregoing discussion sheds light on the complicated dynamics of intra-Gulf conflict. This conflict not only carries the potential for grater fragmentation and sectarian divisions in the region, but also holds direct socio-economic and security

¹⁷ Amb Arif Kamal, 'Iran in Regional and Global Perspective', 2012.

implications for Pakistan. These implications may be viewed with a seven-fold focus:

Firstly, while on the one hand Pakistan is supported by KSA through energy and economic means, on the other, it is geographically linked with Iran. Pakistan obtains about 61 percent of its remittances from the Middle East and maintains there a large number of its expatriates. Even if the Pakistani government's stress on the 'economic dimension of Pakistan's foreign policy'¹⁸ is accepted, the challenges seem difficult for the administration to confront.

Secondly, another key challenge for the current Pakistani Government, one which has the potential to become more frightening after the ISAF withdrawal from Afghanistan, is to balance its relations with both Saudi Arabia and Iran, without irritating one for the sake of the other. Riyadh, as Tajbaqsh argues, has the policy of containing Iran in Afghanistan since the soviet withdrawal in 1989, and most of its financial aid to Taliban groups till 2010 has been channeled through Pakistan.¹⁹ On the other hand, Iran's participation in the stabilizing process of Afghanistan is also essential. This situation of Afghanistan, becoming a play-ground for two states, will be detrimental to Pakistan's policy of stable, peaceful and friendly to all Afghanistan.

Thirdly, Iran-Pakistan-India gas pipeline (which is now Iran-Pakistan pipeline) is also an interesting subject. Attracting the interest of regional and international players, the pipeline invites

¹⁸ Maqbool Malik, "Nawaz Unveils Foreign Policy Roadmap", The Nations, June 7, 2013.

¹⁹ Shahrbanou Tadjbakhsh, "The Persian Gulf and Afghanistan". 2013, p.43.

fury from US and its allies, who expect Islamabad to dump the deal with Iran. The luke-warm response from Islamabad on the progress of IPI had frustrated Tehran till the recent past. Although Pakistan faces immense energy deficiency and the IPI is a natural answer to fulfill some of the energy requirements, the project suffers delays due to, among other reasons, international pressure. Pakistan must realize that not only has its energy deficiency been aggravated, but the delay in IPI project has cost Pakistan-Iran goodwill.²⁰

Fourthly, while diversification of energy suppliers may be explored with time, in the immediate terms Pakistan has no other energy sources. For instance, there is no doubt that the IPI is an undeniable fix to Pakistan's huge gas shortages, but still the current Government is irritating Iran with its attitude towards the pipeline. If in the worst case scenario for the future of the IPI, the pipeline with Iran is not constructed, or Iran or Pakistan revise the deal, Pakistan's energy crisis will reach the point of no return. This is due to the fact that Iran has the potential to destabilize Afghanistan, which will impair any possibility of importing the gas from Turkmenistan via Afghanistan. Thus, intra-Gulf tensions and clear support by Pakistan to either, hit directly to country's energy and economic supply-lines.

Fifthly, both Shia and Sunni communities living in Pakistan view the holiest shrines and sites in Iran, Iraq and KSA with respect and reverence. Saudi Arab is dominated by Sunni philosophy, while Iran is a declared Shia Islamic state. The infighting between the custodians of these also fuels the sectarian tensions in Pakistani

²⁰ "Iran, Pakistan and Saudi Arabia Makes a Difficult Triangle", Defence.pk, July 30, 2012. retrieved from, www.defence.pk on November 20, 2013.

society. Moreover, the situation in Middle East may also serve as role model to domestic sub-nationalists as well as religio-militant organizations which may give impetus to domestic terrorism.

Sixthly, Islamabad's neutrality on the Syrian question, regardless of the reasons, has prevented a possible dent in Pakistan-Iran ties that could have occurred after the recent developments in the Syrian crisis. Nevertheless, the impending draw-down of ISAF and NATO forces from Afghanistan, along with the reinvigorated debate over Pakistan-Saudi nuclear understanding, especially at the time when Washington-Riyadh relations are getting somewhat tense and US-Iran rapprochement is gaining ground, has put Pakistan once again at the crossroads between Saudi Arab and Iran.

Seventhly, it is true that Pakistan currently is faced with a multitude of internal and external challenges such as terrorism, weak economy, rickety political system, Taliban phenomena, frail institutions, image dilemma and regional and international politics. In view of the above, it cannot exert its influence in its foreign relations vis-à-vis Arabian and Persian flanks of the Gulf. Even two years after 1971 crisis, the most difficult time in its history, Pakistan was able to muster support to gather the Islamic world in Lahore. But today, that kind of influence has not only vanished, but also Pakistanis are seen with suspicion.

5. Intra-Gulf Relations: Ingredients of a Rapprochement and Role of Pakistan

The ingredients of a rapprochement between the two flanks of the Gulf are largely central to the desire of both countries to end the current conflict for mutual economic and strategic gains. In this context, example of EU model exists. If after five hundred years of infighting, EU nations can come to an understanding of mutual co-

existence for mutual gains, there is no reason that Arabian and Persian flanks of the Gulf cannot come to an understanding of sorts. Now there is an increasing realization that economic and security interests of 'regional stake-holders', rooted in the need for uninterrupted oil flow, are very much similar if not the same. A growing space is now available for assuming regional responsibility as the region awaits the first signals of diminishing uni-polarity.²¹ For starters, like EU, the two flanks can converge on minimum commonalities such as oil prices and oil supply.

Pakistan's strategic location in relation to the Middle East, Central Asia, China and India, coupled with its standing as only Muslim nuclear power, has added a significant dimension to its ties with the Gulf. From Gulf's perspective, Pakistan's military strength is appraised as a factor complementing the Gulf security system, as it is seen as a decisive factor in assuring the defense of the area.²²

In this context, Pakistan's ability to take up constructive roles in reducing trust deficit between the West and Iran and between the Arab and the Persian flanks of the Gulf will be enhanced in the post-GWOT phase. Moreover, due to extra-regional presence and terrorists elements, shared threat perception of Gulf region and Pakistan has been accentuated. If these two regions succeed in bringing down the existing tensions and agree to cooperate with each other, these threats can be countered through Pakistan's military profile and acquisition of nuclear power along with economic support from the Gulf side.

²¹ Arif Kamal, "Dynamics of Peace and Stability In the Middle East Arena: Identifying the Contemporary Challenges and Options For Response", Margalla Papers, 2009, p. 103.

²² Amb Arif Kamal, Pakistan's Interface with the GCC Region: A Perspective, Center for Pakistan and Gulf Cooperation, 2013.

Ethno-sectarian overlaps and religion-based posturing is one more ingredient in the topography of bilateral relations. Pakistan and Iran are Islamic Republics, while Iranians make an exclusive focus on Shia theology as a source of law. The varying emphasis does not ipso facto generate any conflict. For example, inter sectarian tensions had emerged in the wake of Iran-Iraq war and the funding from abroad that came in its wake. However, “the fact remains that despite Shia-Sunni divisions, Islamic identity remains an overriding factor in shaping the course of Muslims countries’ relationship, and the irritants unfold, as a phenomenon that is transient”.²³ Hopefully, greater economic activity in the broader intra-regional frame in the coming years will positively impact on all ethnic and sectarian irritants.

Economy is another sector, where the two regions can cooperate. GCC markets are already interwoven with Pakistani economy and human resources. However, as Pakistani PM and Iranian supreme leader stated during their last meeting that Pak-Iran economic ties never not satisfactory and needed to be enhanced.²⁴ Both countries need to reinvigorate Economic Cooperation Organization (ECO) as a platform for mutual economic gains.

6. The Way Forward for Pakistan

Pakistan has significant strategic interest in encouraging reconciliation between Saudi Arabia and Iran. It is a part of the region; it is not from far away. Pakistan should advocate the settlement of differences between the two brotherly countries. In

²³ Amb Arif Kamal, “Iran in Regional and Global Perspective”, 2012.

²⁴ "Level of economic ties between Iran and Pakistan not satisfactory: Leader", Tehran Times, 14 May 2014.

this context, a two-pronged approach will be required: first bring the own house in order; and second, carry the ladder to draw the two flanks of the Gulf closer. In view of this, following measures are recommended:

- Foreign policy is an extension of a country's domestic policy, therefore, without internal stability, Pakistan will not be able to pursue its foreign policy. For this, institution building and institutional strength will be the right course to follow. There is no reason that, if Pakistan is internally stabilized and reputedly, its economy is strengthened, it should not succeed in gaining its erstwhile position in the Muslim world.
- Pakistan should clearly devise a policy of discouraging the sectarian based strategy both at home front as well in bilateral relations with friendly states. In this context, it first needs to carve a national narrative to the effect and then educate the masses about it. Moreover, in the Middle East, Pakistan should at least make an effort aimed at toning down the situation between Iran and KSA, if not achieving a rapprochement and advocating peace and satiability.
- Boosting relations between Saudi Arabia and Iran can help bring peace and halt unrests in some regional countries and prevent spread of sectarian violence in the region. Iran should be motivated to expand relations with neighboring Muslim countries, particularly Saudi Arabia, should be priority in Iran's foreign policy.
- Pakistan and Gulf countries should focus more on regional approach to regional problems rather than looking towards international players. In this regard, the institutions such as GCC and ECO should be mobilized.

- In the upcoming regional situation, where US is going to withdraw from Afghanistan, Pak-Gulf strategic cooperation is much needed on priority bases. Saudi Arab can play a crucial role for prolific peace between Pakistan and Taliban due to its spiritual influence on Taliban and political influence in Pakistan.
- Pakistan's foreign policy elites also need to deliberate the interests versus ideologies in their discussions and bring a balance between the two, while formulating the foreign policy, particularly with Gulf States.
- Previously, Pakistan's foreign policy has been influenced by some international powers or incidents due to its domestic and regional compulsions. It is high time for Pakistan to ensure that the expansion of its relations with other countries will not be on the account of bilateral relations with other friendly States.

Conclusion

To sum-up, as in international relations, not friendships but interests are permanent, the above discussion leads one to a conclusion that for this whole region to progress, old contentions will have to be resolved. World's strategic environment is moving towards regionalism. Therefore, it is high time for the two flanks of the Gulf to come closer and Pakistan has a vital role to play in it. The current developments in the realm of Pakistan's foreign policy offer a litmus test of an eminent challenge for Islamabad's ability to balance its ties with Riyadh and Tehran. However, the commitment at home is significantly demanding, heavy and tiring. For a successful and sustainable role in the Gulf region that Pakistan aspires to attain could only be possible through strong internal dynamics.

A Comparative Analysis of Quality of Service (QoS) Offered by Service Organizations

(Dr Muhammad Zia-ur-Rehman, Majed Rashid and
Attique-ur-Rehman)*

Abstract

The service industry has been trying to offer quality service in the country, especially the Telecom industry in general, and the mobile sector in particular. There has been astonishing growth in terms of subscriber base and mobile tele-density in the last a few years, and because of this remarkable growth in the industry, it has become an interesting area of study. However, in the upcoming a few years, the market can reach to its saturation stage, where there can be a very little or no increase in the subscriber base. This situation can become the biggest challenge for the cellular operators. Only the operators, offering better quality of service to their customers, can be able to ensure profitability. A comparative analysis of cellular quality of service, with the help of some of the most important physical indicators, was performed in order to rank different mobile operators.

Key words: *quality of service, telecom industry, self-assessment, comparative analysis, profitability*

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Introduction

In service industry, among the most emerging and vibrant organizations happened to be the telecom organizations, especially the telecom industry has been building up the cellular networks that can be rated basing on the quality of service (QoS), offered to their customers. Customer service is a system of activities that comprise customer support systems, complaint processing, speed of complaint processing, ease of reporting complaint and friendliness when reporting complaint. Customer services are the opportunities for telecom service providers that are added to mobile network other than voice services, in which, contents are either self-produced by service provider or provided through strategic compliance with service provider. The improved customer services are the focal point of the telecom service providers for social as well as for economic reasons. From a social point of view, services should be available to the customers on reasonable terms. As far as economic factor is concerned, services should satisfy the needs of the customers. Customer satisfaction makes the customers loyal to one telecommunication service provider. Previous researchers have found that satisfaction of the customers can help the brands to build long and profitable relationships with their customers. Though it is costly to generate satisfied and loyal customers but that would prove profitable in a long run for a firm. Therefore, a firm should concentrate on the improvement of service quality and charge appropriate and fair price, in order to satisfy their customers, which would ultimately help the firm to retain its customers

Value added service is a popular term that is used in telecommunication industry for non-core services. However, it can be used in any service industry, for services available at little or no

cost, to promote their primary business. Growth of value added mobile services under different scenarios of industry evolution reveals, that deployment of new value-added mobile services has had mixed results in terms of adoption rates and revenue generation, despite the fact that mobile operators rely on such services for future growth, in view of saturated markets for the basic voice service.¹ Value added services help in product differentiation and, hence, are a major contributor towards the performance of cellular operators. The service work order consists of work order service lines, delivery lines and appointments that had to be taken for the work order. The key difference between the service work order and other value-added services is that the services associated with a service work order are usually supplied to the customer at the customer's location, while value-added services are usually performed at the warehouse or other assembly location. Although they differ in this way, many businesses treat provided services as a work order that can either be done by the seller or can be performed by a third party.

Indian Telecom Regulatory Institution (TRAI) conducted a survey of Mumbai metro on the basis of lot of customer complaints. It can be noticed that Churn management as a phenomenon existing in the service organizations especially the telecom organizations, and the Ufone and Telenor, are leading companies in this field.² The tendency for customers to switch from one

¹Arif sargana et. al., "PTA Annual Report 2004-05," Pakistan Communication Authority (PTA) : ISBN:969-8667-43-1 & 969-8667-44-X Emerald Insight, Retrieved on March 8,2007, <http://www.emeraldinsight.com>.

²"Indicators of Telecom Growth," *Telecom Regulatory Authority of India* (2005), http://www.trai.gov.in/StudyPapers_list_year.asp.

competing service provider to another is called *churn*. Churn management identifies valuable customers in your company, who are likely to churn and execute proactive as well as reactive actions to prevent them from churning.

The companies also made competitive strategies to capture more and more customers' response through providing a sort of competitive advantage to the end users through multiple SIMs. It has become necessary for the survival of the firms that they keep themselves ahead of the competitors, by continuously differentiating their service offerings. It was found that all the operators were not providing the adequate coverage and services in the area.³ This refers to the relatively exaggerated claims made by the companies regarding their customer base. Globalization of the world markets, technological advancements, and increased economic cooperation are compelling companies to be more sophisticated and savvy in their market efforts. With so many changes occurring in Pakistan telecom sector, including market expansion, the intensification of competition, and increasing sensitivity of the consumers, the issue of service quality has gained substantial consideration. There is growing proof that how customer's behavioral intentions are affected by their perception of service quality. Another major reason is the phenomenon of multiple SIMs in the use of one person.⁴ Managers are increasingly facing tremendous pressures to improve service quality, by every

³Jahanzeb, Sadia; Jabeen, Sidrah, "Churn Management in Telecom Industry of *Pakistan*", *The Journal of Database Marketing & Customer Strategy Management*, (2007), 14 (2), 120-129.

⁴Martin Garner (April 2007), *Multiple SIMs per user compared to market penetration*, <http://www.wirelessintelligence.com>.

means, so that not only existing customers remain loyal but also new customers become permanent customers.

The study, titled ‘Service Quality in a Cellular Telecommunications Company: a South African Experience’, deals with the measurement of service quality at cellular retail outlets in the South African environment.⁵ Fulfilling customer needs every time, on time, is the key to achieving the sustainable competitive advantage and service quality is a tool that companies use to meet its objective. While many companies recognize the need for higher service quality, unfortunately not all of them use service quality as a tool for bettering its performance and to attain competitive advantage. The operators were instructed to increase their number of cell sites and also to acquire additional spectrum. Both of these actions require additional Capex. Significant investment and efforts are required to raise barriers preventing imitation by competitors, would ensure sustainability of the competitive advantage. Even if the business has achieved the competitive advantage and gained higher profitability, competitors are quick to imitate their strategies or even enhance their initiatives. It can be concluded that to provide better QoS, additional Capex is the basic requirement.⁶ This can be concluded that offering better quality of services to the customers is a key towards retaining customers, which in turn, ensures the profitability of the operator.⁷

⁵Van der Wal R.W.E., et. al., “*Service Quality in a Cellular Telecommunications Company: a South African Experience*”, Managing Service Quality, 12 (2002): 323-335.

⁶“QoS of Cellular Mobile Services in Mumbai Metro Circle” (2005), Telecom Regulatory Authority of India.

⁷Muhammad Asif Khan., “An Empirical Assessment of Service Quality of Cellular Mobile Telephone Operators in Pakistan”, Asian social

Pakistan Telecommunication Authority (PTA), a regulating body, indicated that Pakistan has experienced more than 150% continuous growth rate for years 2003-04 to 2005-06. Mobile penetration has increased from 1.6% in 2003 to 58.2% in 2009; cellular tele-density has improved from 8.3% in 2005 to over 58.2 in 2009; the mobile phone subscribers have grown from .06 million in 1995 to over 98 million in 2009; and the number of cellular franchises have increased from 618 in 2003 to 1748 in 2009. Pakistan cell phone market has potential to grow.⁸ The World Economic Forum (2010) initiates report about Network Readiness Index based on the essential factors that highlights the factors facilitating ICT readiness. The report for 2010 ranked Pakistan at 87 positions out of 133 countries. Some of the important indicators of the network quality are mobile network usage, network quality perception (coverage, call connectivity, network availability, Voice quality, tariffs, and customer services), market leadership, network loyalty and network switching tendency. Primary data was collected to compare cellular operators of Pakistan on the basis of offered network quality. Presently, six operators are competing in cell phone market in Pakistan. Because of enormous potential of the market; the contribution it makes to the national exchequer, and the protection of customer rights, the study of perceived quality of service from customers' perspective becomes imperative. The

science, Vol.6 No.10
(2010):<http://ccsenet.org/journal/index.php/ass/article/view/6457/5911>

⁸World Economic Forum. (2010). The global information technology report 2009-2010. The Networked Readiness Index 2009-10 Rankings. [Online] Available: <http://www.weforum.org/documents/GITRIo/index.html> (May 15, 2010).

existing surveys of quality of service conducted by PTA primarily focus on technical aspects of quality, about which customer has no experience and detailed knowledge. PTA surveys are based on the quality of service parameters, which include network accessibility, service accessibility, access delay, voice quality, and short message service (PTA, 2009).

Theoretical Considerations

Cellular industry started in Pakistan in early 1990's. Like other 3rd world countries, mobile technology was a late entrant in Pakistan as the industry was much more matured in the US and Europe by that time. However, from there it has emerged manifold in an exponential way. Research topic is all about the current physical performance of the industry and its future shape. In order to achieve this target, quality of service being offered in other countries of interest including developed countries of the world and the some countries of South East Asia were observed. Customer satisfaction has been a subject of great interest, to organizations and researchers alike. The principal objective of organizations is to maximise profits and to minimise cost. Profit maximisation can be achieved through increase in sales with lesser costs. One of the factors that can help to increase sales is customer satisfaction, because satisfaction leads to customer loyalty.

The focus is on perception and expectation of service quality from the customer's perspective. Research reveals that delivering high quality service is closely linked to profits, cost savings, and market share in many industries. Customers are always aiming to get maximum satisfaction from the products or services that they buy. Winning in today's market place entails the need to build customer relationship and not just building the products; building

customer relationship means delivering superior value over competitors to the target customers. This research also explains the importance of customer feedback to improve the internal processes. On similar lines, primary data was collected to get the customer feedback for the services being offered by the current operators. Primary data was analyzed to find out the ways to improve customer perception.

Attributes of the market leadership were also determined as a result of this exercise. It is really essential for operators to ensure an acceptable level of network quality in order to secure their subscriber base and to ensure profitability. It is also a role of regulatory body to ensure an acceptable level of service, being offered by the mobile operators.

Research Methodology

The two telecommunication service providers selected for this study are Telenor and Ufone. Analysis reveals that subscribers' dissatisfaction with any dimension of price, voice quality and network coverage are the main reasons for customer churn at both Ufone and Telenor. Ufone has, however, adopted comparatively better churn management strategies than Telenor to retain its customers. These findings are really helpful for the cellular operators in order to improve their performance.

The methodology of this study includes some assumptions and values, which serve as rationale (underlying reasons) for efforts of research and standard criteria for the whole process. The basic purpose of this study was to measure important physical indicators of cellular industry of Pakistan.

Population

The population under study was the current cellular subscriber base in Pakistan. Since the size of population is in millions, the sample size was taken for 500 samples. Majority of these samples were taken from Rawalpindi and Islamabad. Random Stratified Sampling technique was used for the primary data collection. In order to realize the objectives of the study, a survey study was carried out. Two questionnaires were designed for gathering the required information as research instrument.

Data Analysis

The researcher analyzed the primary data obtained from cellular subscribers. This data was collected with the help of questionnaires, which were designed for this study. Two questionnaires were designed in order to get two different sets of information. Following tables give an insight about the collected primary data.

Table -1: Gender Description of the Respondents

	Questionnaire-1	Questionnaire-2	Total
Sample size	200	300	500
No of Male Respondents	179	295	474
No of Female Respondents	21	5	26
%age of Male Respondents	90%	98%	95%
%age of Female Respondents	11%	2%	5%

As is evident from the Table-1 that majority of the respondents were male i.e. 95% of the total sample size and only 5% were female. This percentage shows that majority of the work force comprises male employees.

Table -2: Education Qualification of the Respondents

	Questionnaire1	Questionnaire 2	Total
Sample size	200	300	500
Masters	82	5	87
Graduates	100	24	124
Intermediate	10	38	48
Matric	7	115	122
Under-Matric	1	106	107
No education	0	12	12
%age of Masters	40%	2%	21%
%age of Graduates	50%	8%	29%
% of Intermediates	5%	13%	9%
% of Matric	4%	38%	21%
% of Under Matric	1%	35%	18%
% of non-educated	0%	4%	2%

The results of the Table-2 provide an insight about the education qualification of the respondents. Qualification %age is different for both the questionnaires. This is because of the fact that Questionnaire-1 was designed for qualified respondents and Questionnaire-2 was designed for low income respondents, who mostly are less-educated. In totality, 21% of the respondents were Masters, 29% were Graduates, 21% were Matric and around 20% were less than Matric.

Following important physical indicators of QoS were determined as a result of this exercise of primary data collection.

Network Usage/Coverage

According to the primary data collected in Q2 2007, the %age of no of connections being used by the sample population is as under.

Table-3: Cellular Operators Percentage

Cellular Operator	Mobilink	Ufone	Warid	Telenor	Insta	Paktel	Total
Current Network Usage							805
Trend	343	180	135	126	6	15	
Current Network Usage							100%
Trend (%)	42.9%	22.5%	16.8%	14.9%	0.7%	1.8%	
Market Share claimed (PTA May 07)	42.4%	21.9%	16.9%	16.6%	0.5%	1.7%	100%
Difference	-0.5%	-0.6%	0.1%	+1.7%	-0.2%	-0.1%	0%

The researcher compared the primary data with the secondary data claimed by the operators (as reported by PTA indicators and is available on PTA web-site). It was found that there was a small variation in almost all the cases. This variation can be attributed to small size of sample and can be reduced with further increase in the sample size.

As far as the number of mobile connections actually in use is concerned, there is a huge variation in the numbers claimed by the operators' versus the actual in use. One reason is because of the SIMs, which are in circulation/distribution channel and are not reached to the end customer and end user hasn't yet started using these. This refers to the relatively exaggerated claims made by the companies regarding their customer base. Another major reason is the phenomenon of multiple SIMs in the use of one person. This phenomenon is not a local phenomenon and it is happening almost

everywhere around the globe. However, this phenomenon is much more significant in Pakistan as the mobile operators have given waiver to the new connection charges. If we re-calculate the market penetration (in terms of actual users) in Pakistan, using this approach, we come to a value quite lower.

Network Quality

As part of the primary data collection, input was sought regarding the quality of the service for different operators in the form of a table mentioned below. Each customer was asked to provide input about the different attributes of the quality of different networks based on his own personal experience. In case, a user didn't had a personal experience, he was asked to provide the input based on the feedback (word of mouth) he got from the other users, regarding the Quality of Service for a particular operator. On the basis of these inputs, QoS ranking of different mobile operators was done. A sample table with data filled in and the overall rating given is shown below:-

Table-4: Network Quality

Service	Mobilink	Ufone	Warid	Telenor	Instaphone	Paktel
Connectivity	X					
Coverage		X				
Network Availability/s tability			X			
Voice Quality				X		
Low Tariff/Call charges			X			
Customer Services	X					
Overall Rating	2/6	1/6	2/6	1/6	0	0

Since there were total 6 attributes, overall rating was given based on total number of ticks given to an operator divided by 6. Data for 200 customers was obtained. Since this was quite technical information, the data was collected in the form of a personal interview where the customer was first educated what did each field mean. The data was processed in order to get the final outcome, which is shown in the following table and graph:

Table-5: Network Quality

	Mobilink	Ufone	Warid	Telenor	Insta	Paktel	Total
Vote for Network Quality (No of Votes)	462	247	257	215	1	12	1193
Vote for Network Quality (%age of Votes)	39%	21%	22%	18%	0%	1%	100%

Seeing the results, it is obvious that Mobilink is on the top in terms of quality perception in the eyes of the customer. However, Ufone, Warid and Telenor are having almost equal weightage. This input can help operators in order to improve their network quality, which can ultimately help them in terms of increased customer retention and loyalty for their connections. It also indicates that both Paktel and Insta-phone are almost out of business, as they are not providing an acceptable level of Quality of Service (QoS), which is required to remain in the business.

Market Leadership Forecast

The interviewees were asked about their perception about the name of the operator, which they foresee to be the market leader in next 5 years time and why? This response was collected for a sample

of 200 people. Data was processed and the results are shown below in the form of a table and a graph:-

Table-6: Market Leadership Forecast

	Mobilink	Ufone	Warid	Telenor	Insta	Paktel	Total
Vote ranking for Market Leader (No of Respondents)	60	32	54	54	1	2	203
Vote ranking for Market Leader (%age of Respondents)	30%	16%	27%	27%	0%	1%	100%

As per the customer perception obtained through primary data, people are speaking very high about Mobilink. Telenor and Warid are equally ranked as 2nd favourite. Unfortunately, people have relatively bad perception about Ufone and it is ranked as 3rd. This gives operators a fruit for thought, why their networks are rated like this.

Discussions and Key Finding

In one of the questions, interviewees were asked about the reasons for their selection of a particular operator as a market leader. As a result of this question, the users provided their vision about the 'market leader'. This input has been summarized in the below-mentioned ten points:

- a. Better quality of service, connectivity, best indoor and outdoor coverage across the network, voice quality, network availability and stability
- b. Aggressive, fast and continuous expansion/enhancement in the network
- c. Sound financial position, being a multi-national

- d. Low, attractive Tariff Packages both for voice and SMS with no hidden charges
- e. Excellent, strong and innovative marketing/advertising
- f. New technology developments, new value added services, easy-load facility
- g. Having its own inter-city fibre-optic media backbone
- h. Having the best customer services, customer focused, error-free billing
- i. Professional, fair and honest management, process based organized approach
- j. Company having biggest network, customer base at the moment is most likely to remain the leader, as it is not easy to change the market dynamics quickly

This set of attributes can be taken as a general input by the operators. Any operator who is opting to these attributes will/can be the market leader. It is very clear from this input that having a huge financial and marketing muscle is not the only criterion, which ensures a company's success. The company has to be customer oriented, should understand both the apparent and hidden needs of the customer and should try to meet and exceed the customers' expectations in the shortest possible time.

Network Switching Tendency

Mobile users were inquired about their decision of moving to a new network in case they are not satisfied with the current operator and their front end number remains same. This is a new feature called Mobile Number Portability (MNP) and has recently been launched. The mobile users were first educated about this feature and then were asked about the name of the network

operator they would like to switch and reason(s) behind this move. The results obtained are shown in the table and graph below:

Table-7

	Mobilink	Ufone	Warid	Telenor	Insta	Paktel	Total
Vote ranking for willingness to switch to (No of Respondents)	5	13	43	30	0	1	92
Vote ranking for willingness to switch to (%age of Respondents)	5%	14%	47%	33%	0%	1%	100%

Root Causes of Switching Tendency

As per the mobile users' feedback, the reasons for this switching tendency have been summarized below:-

- a. Better quality of service (voice quality, connectivity, stability, coverage and availability)
- b. Better customer services, professional Aattitude, customer focus,
- c. More economical and innovative packages like 30 second or per second billing, low call and SMS rates
- d. Modern technology and value added services
- e. Good/error free billing system
- f. Good infrastructure
- g. Dissatisfaction with the current service provider/operator

These stimulants, which can cause a customer to switch from one operator to another, are very helpful for the operators to work on. They need to address these root-causes to stop or reduce churn.

Network Loyalty Tendency

As a part of primary data collection, the interviewees were asked whether they want to switch from the current operator to others or not. Some answered in 'YES' and the others in 'NO'. About 57% of the users said 'NO', as they were satisfied with the services of the current service provider. The data for these users was processed and is shown in the below- mentioned table and graph:-

Table-8

	Mobilink	Ufone	Warid	Telenor	Insta	Paktel	Total
Vote for network loyalty (No of Respondents)	60	38	20	11	0	1	130
Vote for network loyalty (%age of Respondents)	46.2%	29.2%	15.4%	8.5%	0.0%	0.8%	100%

The results show that the subscribers of Ufone are most satisfied and loyal to their operator. Mobilink was on 2nd, Warid on 3rd and Telenor on 4th rank in terms of network loyalty. This data is also quite helpful for the operators in order to do their self-analysis and take appropriate steps to improve their network loyalty. This can result in reducing churn and can ultimately help to maintain and improve their market share.

With the help of primary data, it became possible to know the customer perspective about the existing quality being offered by Cellular Network Service Providers/Operators. Customers ranked the mobile operators on the basis of the following 5 key indicators. The results are summarized in the table below:-

Table-9

Ranking of Operators	1st	2nd	3rd	4th	5th	6th
Network Usage	Mobilink	Ufone	Warid	Telenor	Insta	Paktel
Network Quality	Mobilink	Warid	Ufone	Telenor	Paktel	Insta
Market Leadership	Mobilink	Warid/ Telenor	Ufone	Paktel	Insta	
Network Switching Tendency	Warid	Telenor	Ufone	Mobilink		
Network Loyalty Tendency	Ufone	Mobilink	Warid	Telenor	Paktel	

From the above table we can conclude that Mobilink is superior to other networks in terms of Network Usage, Network Quality and Market Leadership in the eyes of the customers. Warid is the hot favourite of customers, who want to switch to other networks. Ufone is the one having most loyal customers who are satisfied and don't want to move to other operators.

Recommendations

In this research study, a comparative analysis of quality of service is done to measure the effectiveness of services in relation with customer's satisfaction and loyalty. This research can be used by the mobile operators, for improvement in their services which can lead towards occupying more market space and to obtain competitive advantage. Following recommendations are proffered:-

- a. We suggest that better voice quality of services, economic rates and better value added services are the core elements to attain customer loyalty.
- b. It is also proved that youth is going to be the favourite segment in the Telecom sector.

- c. We also concluded that more customers are concerned with network coverage, network quality and value added services i.e. SMS packages, Night Packages etc.
- d. Customer services (customer feedback), Advance technology, ease to use, proper billing methods are necessary for the satisfaction of the customers.

Conclusion

Such surveys are conducted to determine the true needs and thoughts of the customers and are very helpful for the mobile operators to improve their network services performance. Almost all the mobile operators must get such surveys conducted through independent third party contractors. Results of such surveys help to do the comparative analysis of the operators and to know the strengths and weaknesses, opportunities and threats, a company has in a competitive landscape.

*A Comparative Analysis of Quality of Service (QoS)
Offered by Service Organizations*

BOOK REVIEW

(Manzoor Ahmed Abbasi)*

Title of the Book : 'Reflections on Human Development'
Author's Name : Mahbub ul Haq
Publisher : Oxford University Press
Place of Publication : New York
Year of Publication : 1995

This book has been written by a legendary and renowned Pakistani economist Dr Mahbub ul Haq, who made remarkable contribution to the welfare economics at the global level. He is the one who pioneered the concept of Human Development Index, to assess the developmental levels of countries. He also endeavored to re-locate the concept of human security, which has a much broader canvass than the previous narrowly defined doctrines.

The focus of the book, as the writer himself reflects, is "on the emergence of human development as a major focus of economic thinking."¹ He argues that "only 30 years ago, it would have been heresy to challenge the economic growth school's tacit assumption that the purpose of development is to increase national income. Today, it is widely accepted that the real purpose of development is to enlarge people's choices in all fields - economic, political and cultural. Seeking increases in income is one of the many choices people make, but it is not the only."²

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¹ Mahbub ul Haq, 'Reflections on Human Development'. Oxford University Press, New York, 1995.p.9.

² Ibid.p.9

The book has been divided into two parts. Part-I, titled 'Towards a New Development Paradigm', reflects on the concept that people in most part of the world are missing in development-planning, therefore, there is need to shift towards human development paradigm. Consequently, a Human Development Report was prepared by the economists of World Bank, under the leadership of Mahbub ul Haq, which gave birth to 'Human Development Index (HDI)' and 'Political Freedom Index'. The focus thereafter shifted towards sustainable development, which is now prevalent all around the globe.³

Part-II of the book, titled 'Towards a New International Dialogue', reflects on extremely important issues, such as 'New Imperatives of Human Security', 'What happened to the peace dividend?', 'A New Framework of Development Cooperation' and six other relevant topics. A few excerpts of the book are shared with the readers to highlight the significance of this book. "The sad reality is that spending on education and health as a proportion of central government spending declined from 21% in 1972 to 9% in 1982 in low-income developing countries, while during the same period, the defence expenditures of all developing countries increased from \$7 billion to more \$100 billion. It is, therefore, pertinent to ask, when our children cry for milk in the middle of the night, shall we give them guns instead?"⁴ Reflecting on international debt-traps, the author quotes Tanzania's President Julius Nyerere, who said in a state of utter desperation, "must we starve our children to pay debts."⁵ Terrorism became the buzz-word since the

³ Ibid.p.9

⁴ Ibid.p.9

⁵ Ibid.p.9

incident of 9/11, but ironically there was hardly any worthwhile efforts to root out the causes of spread of terrorism in the world. Mahbub ul Haq alluded not only to this phenomenon as early as in early 1990s but also to other issues that confront humanity in the following words, “Every drug that quietly kills, every disease that silently travels, every form of pollution that roams the globe, every act of terrorism that destroys life senselessly - imagine for a moment that they all carried a national label of origin, much as traded goods do, and there will be a sudden shocked recognition that human security concerns are more global today than global trade.”⁶

Readers would find a number of assertions in this book about the plight that humanity finds itself in; emphatic assertions based on knowledge, experience and above all passions. This book, written in a simple but pithy language, is a good read for every conscientious citizen of the world and ‘a must read’ for graduate, post-graduate students and M Phil/PhD scholars.

⁶ Ibid.p.115

List of NDU Publications

1. Armed Forces War College History
2. Pakistan – India Wars 1965 & 1971
3. Selected Reading in Military History: Napoleonic Art of Warfare, Battles of Tannenberg & Masurian Lakes – 1914
4. Evolution of Military Thought
5. Post Workshop Report on Balochistan Situation, 2012
6. World War -1: The Western Front
7. ‘Kashmir: Looking Beyond the Peril’
8. NSP: Non-Kinetic Challenges to the State of Pakistan, 2012
9. Urdu Translation of Art of War by Sun Tzu
10. Evolving Dynamics of FATA: Reflections on Transformations
11. NDU Journal
12. Margalla Papers
13. ISSRA Papers