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Mawlana Amin Ahsan Islahi's Worldview: God, Universe and Man

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Abstract

Mawlana Amin Ahsan Islahi addresses questions about God, man and universe in the light of both reason and revelation as opposed to one or the other. He focuses on these questions from the point of view of divine will and human experiences. A representative of the Farahi School of thought in the Islamic hermeneutics in South Asia, which is not very popular among common Muslims, Islahi's views are an important part of the Islamic intellectual discourse. The distinguishing feature of the Farahi school of thought is their direct approach to the study of Quran based on the principle of *nazm* (discipline). Islahi successfully uses this approach in his study of the Quran and completes his exegesis, *Taddabur-i-Quran* in 1980. Unlike other exegesis this work is not subjugated to external authorities. Islahi uses Arabic language and literature to help him determine the meaning of the Quranic words and phrases, and are then subsequently explained in the light of the practices of the holy prophet Mohammad (PBUH). For Islahi the internal sources suffice to help readers comprehend and explain the holy texts.¹

Keywords: Islahi, Farahi, concept of man, concept of the universe, concept of God

Islahi (1904-1997)

Born in 1903 in Bamhor, UP, India, Islahi completed his religious education from Madrasat al Islahi, Saraimir, UP, India in 1922. Islahi studied the Quran under the tutelage of Hamiddudin Farahi (1863-1930) until 1925. He taught in his *alma mater* until he met Mawlana Mawdudi and joined his religious political party, Jama'at-i-Islami. Soon Islahi rose to the position second to Mawdudi in the party but left it in 1958 due to his differences with Mawdudi: Islahi supported the binding nature of *shura* over the amir while Mawdudi believed otherwise.² Islahi concentrated on writing his exegesis and trained some modern educated people in the study of Quran and religion till he died in 1997. His stay in the Jama'at-i-Islami and subsequent departure from it helped him think through alternative strategies for the resurgence of Islam and the Muslims in the modern times.³

Concept of God

Islahi sees the universe as a result of creation by its Creator, who is a unique entity in every conceivable way. The Creator stands apart from everything in the universe. He created everything; nothing created Him. Everything will decay and will end but the Creator was and will be forever. Man's physical and mental limitations do not allow

him to fully comprehend the nature and shape of the Creator. However, one can have some notion of the Creator by studying the universe and its wonders. Moreover, man can recognise God through His attributes observable in daily life. Islahi is of the opinion that the existence of God, the Creator, is the most evident reality in the cosmos and there is no need for further testimony. The rejection of such a reality cannot be the work of a sane mind. Those who oppose the existence of God should bring the evidence and not vice versa. Islahi bases his conception upon the belief that existence of God is part of human nature and that the world around man affirms his inherent knowledge in the existence of God. Islahi refutes the theory that initially human beings bowed before supernatural entities due to fear and that later on culminated in the existence of one supernatural power. According to Islahi, prior to the feelings of fear, enormous blessings were spread around human beings in many shapes which gave human beings the sense of the Benefactor; gratitude is the basis of bowing before God, not fear.⁴

Man's vulnerability drives him towards God in search of solace and relief. In times of peace and prosperity, however, man tends to forget God. Man is naive to think that good times will last forever. He is overwhelmed by the pleasures of the world and he disregards the laws set for him by his Creator. Why does man forget God at such a times? Islahi accredited it to the *jahul* (ignorance) of man. According to Islahi man falls prey to sentiments very easily despite his knowledge and forbearance.⁵

In Islahi's paradigm *afaaqi* (universal) and *anfusi* (the selves) and *tarikhi* (historical) evidence provides enough food for thought for all those who think constantly about themselves and their surroundings. In the universe, every thing is paired (*zooj*) with its opposite. Men and women are of opposite sex and it is not just inspite of that but because of that that they are attracted to each other. Together they form humanity; give birth to future generations; enter into the universe of family to nurture off springs; and lead them towards maturity. Light and dark, summer and winter etc, are each other's opposite; they bring harmony to the surroundings in which humanity lives. Islahi expands these contradictory but complementary forces in human beings to the whole universe and says that everything has been created and sustained in this manner.

Islahi rejects the notion that universe came into being by chance. He explains that if chance were responsible for its creation, keeping the opposing forces in control to maintain the universe will not be possible and that it cannot be the work of a chance happening. Islahi believes that the force that keeps the opposites of the universe in concord is God.⁶ According to Islahi God not only fulfilled the physical necessities of man, but also provided fascinating scenes, sweet songs etc. for the satisfaction of man's aesthetic sense. Moreover, man is entrusted with a deep feeling for beauty.⁷ Islahi attributes it not only to the divine intervention, but a special kind of providence.⁸ All this testifies to only one Mind behind this whole arrangement, which he finds in all the observable phenomena.⁹

Islahi substantiated his view regarding God with *anfusi* (the selves) arguments also. The breeding and rearing process of a child among human beings could not be ascribed to an unconscious occurrence. Humanity has been created from Adam and Eve. Individual human beings, family, tribe, and race have their peculiarities. Islahi attaches great importance to the difference in the stages of birth and rearing process between human beings and animals. Most of the animals are born capable to function as fully independent entities within a few hours or days after birth. On the other hand, humans take longer to take solid food and walk. Islahi concludes that such complex process is not possible without the existence of a supernatural entity that plans and supervises the whole process.

Islahi, unlike some mystics, considers God as an independent entity and not part of this universe. God is above all and His knowledge and wisdom have a hold over everything.¹⁰ According to *wahdatu-al-wajud* (pantheism), only the Ultimate Reality is self-sustaining; the rest of the things are merely different aspects, modifications or parts of it. Ibn-al-Arabi, the representative of such mystics among the Muslims, considers God identical with the universe. He thinks that the universe is a single unity, but there are many modes and aspects of it. In his words, 'He is the essence of things hidden, apparent, expressed and latent....There is nothing but totality. There is no split in existence.'¹¹ Islahi disagrees with the mystics who believe that physical observance of God is possible for special kind of human beings. Islahi considers it out of the domain of man to observe God physically in this world.

Concept of the Universe

Islahi does not support the theory that this universe is static from day one. He sees an evolutionary process in the universe. God first created the earth and then the sky that was in the form of a nebula. Then, He completed the creation of the universe, comprising seven earths and seven skies, in seven periods. According to Islahi each part carries its own laws. The creation of the universe, is an evolutionary process and not without purpose. God adopted this gradual process to stress that this universe has not been created without an objective. Moreover, He wants to facilitate human life on this earth. Islahi opposes the view that God is the Cause of the causes, who, after creating the universe does not interfere in its affairs. According to Islahi, everything that happens in this universe is by the will and with the knowledge of God. The will of God refers not to the determination of human conduct but indicating that human actions will be rewarded or punished according to certain standards already set.

According to Islahi, the purpose of the creation of the universe is to serve humanity. He sees each and every part of the universe contributing in one way or the other to the fulfilment of different kinds of necessities of human beings. Man is the *ashrafa ul makhluqat* (best of the creations). Nothing in this universe can be compared favourably to human beings. Man is the centre of all activities on this earth. After discovering some principles and laws of natural phenomenon, man is able to have power over the

celestial bodies. All this is due to man's superiority over other creatures and the use of the mental faculties entrusted to him by God.

Islahi does not envision a permanent survival for this universe. There will be a day when all human beings will be reborn. The day of resurrection is an inevitable part of this world. He fits it with his concept of the creation of each part as a pair and opposite. Similarly, the existence of this life necessitates a pair and that can only be life after death. Islahi considers the Doomsday as a mandatory result of the attributes of God as *Rehman* (Beneficent) and *Rahim* (Merciful).¹² He believes that good and bad times cannot be on equal footing. Life without the Day of Judgement for Islahis is like the theatre of the Roman emperors who conducted gladiatorial games.¹³ There must be a place and time where justice is ensured to each and every human being. Islahi substantiates his point from the history of those nations which have been provided divine guidance but who rejected it intentionally. As a result, they were destroyed by different catastrophes. Islahi narrates stories of 'Aad, Thamud, etc in his exegesis. He believes God punished them due to their rejection of the apostles/prophets even though those people did not have any reasons to reject the apostles/prophets. Islahi believes that the remains of those people are a lesson for others. He says that that such historical signs are for people with lesser intelligence. While for the learned the indications of God's existence and the results of going astray from His way are more subtle.¹⁴

Islahi holds legitimate the arguments of those who question the occurrence of the Day of Judgement that it is beyond human experience. However, due to the importance and fatal consequences of the non-belief on this Day, man should not treat it as an ordinary issue. First, all Holy Scriptures have predicted the occurrence of the Day. Second, if we reject the belief, we will fulfill only some of our worldly desires. However, accepting the belief ensures a permanent life for us. Sagacity demands the adoption of the second option, as in this case man will starve only some of his desires and in return will get a lot. As far as the fulfillment of wishes is concerned, Islahi asserted that the fulfillment of these worldly wishes could not be guaranteed even if man moves away from the way of God.¹⁵ According to Islahi, the main purpose of the Day of Judgement is not to punish the evildoers, but that it is a consequence of the Day. God is Absolute Good and created this world for good and for the same reason He fixed the Day of Judgement. If a person does not ascertain His reward by living according to the commands of God, he will be punished for his failure in getting His blessings on that Day.¹⁶

Concept of Man

The focus in the worldview of Islahi is man. Among the contemporary Muslim theologians, Islahi stands apart due to his emphasis on man, his thinking faculty, and his freedom of choice. Islahi always addresses human intellect. He has complete confidence in man to take right decisions in most cases. Along with intellect, intuition also guides man to a great extent in the right direction.

Islahi categorizes views of philosophers regarding man in three groups. The first group considers man an animal. The destiny of each animal is the destiny of man. Both man and animal have similarities in characteristics and if there is a difference, the same difference can also be found in any two kinds of animals. The second category considers man as part of a machine. Machine is of primary importance; part is secondary. Each and every part is playing its role and man, being part of this universe, has a role to play. The role of a part depends upon its place in the machine and thus has no independent entity. The third group considers man as the theme, subject, cause and object of the universe. In the words of Islahi, man is the bridegroom and the universe is the marriage procession. He agrees with the scientists who expect that soon through scientific knowledge, they will conquer the universe and will become its master.¹⁷

Islahi rejects arguments of those who hold man akin to animal. He differentiates between human being and animals. He says that animals are limited to their instincts, while human beings make spectacular progress both physically and mentally. He asks how animal can be on equal footing with man who measures the distances of stars from the earth while sitting in a room on the earth. The ultimate result of the acceptance of this view about man is negating any purpose for the creation of this universe. He disagrees that this universe has been created by a *khalandara* (entertainer) in order to satisfy his own wishes. And who but man can be the object of this entertainment.¹⁸

Islahi also rejects the theory wherein man is compared with part of machine and the overimportance of the machine (universe). The in-depth study of the universe shows that each part i.e. the sun, the moon, air, cloud, summer and winter, day and night serve man. If the universe is serving man then what is the purpose of man in this universe? Islahi concludes that man has to serve God.¹⁹

According to Islahi, this universe has been created for man and he strives to become the master of this universe. Man cannot conquer the universe unless he has a special status in this universe. He is fully aware of this special status. Mankind, according to Islahi, is *khalifah* (vicegerent) of God. Humankind has been created by God and before sending it to this world, He held a meeting of the spirits of the human beings and He took oath of allegiance of providence from them.

Man's eminence in understanding and his power to reason distinguishes him from the rest of the being and thus called *ashraf ul makhluqat*. Islahi's man has cognitive faculty as well as logical comprehension. He considers it the prime element of the rational soul. Without intellect, man is not more valuable than stones. This cognitive faculty is not in *juzyat* (parts) but in the *kuliyat* (whole) also, which distinguishes man from animals. The faculty of cognition of the *kuliyat* opens tremendous avenues of thinking, prudence and judiciousness. This leads to the creation of new ideas and opportunities for knowledge and education. With the same faculty, man can understand

the inner core of the visible world. He can grasp the reality of the Creator through the study of His creations. In the same way, he can conceive the likes and dislikes of the Creator.²⁰ Man utilises this faculty in physical and natural sciences and overcomes the physical forces so as to rule the natural world. He is able to discover the underlying principles and laws operating in the realm of natural sciences and benefits from it. The cognitive faculty is instinctive in man and starts from the very early stage of life. Some external factors can obstruct it, but it never ceases. Man struggles against all odds to gain knowledge. Islahi eulogizes all such people who render sacrifices in search of knowledge, and pays rich tributes to all such souls.

Majority of Muslims believe that trials of hardships are difficult but Islahi considers the trial in the times of comfort and opulence more difficult. It is hard to be thankful to his Creator in the time of hardships. However, it is harder to resist not misusing resources in times of plenty. Man is tested with riches. He has choice to use available means constructively or otherwise, either share with the less fortunate or satisfy his carnal greed and egoistic needs. Islahi believes that those who pass the trials of plenty are fewer.²¹ Islahi's man can rise to a place a little lower than God if he qualifies by crossing the hurdles placed before him. Man is required to go through many and multifaceted trials on this earth. If he succeeds, God will bestow upon him the highest place.²²

Islahi stresses human intellect and understanding more than other Muslim religious scholars in the contemporary Pakistan do. He believes that the thinking faculty opens not only new vistas in the physical world, but it also provides man basic guidance to find the hidden realities scattered around him. In Islahi's worldview all men of intellect ought to reach a conclusion similar to Islahi's but it is not so. He sees a basic flaw in the process of those who explore the universe. He gives the example of astronomers, archaeologists, anatomists who, Islahi believes, are not interested in the force behind the processes and natural phenomena. They focus on how the universe came into being; not who brought it into being. According to Islahi, this universe is open for investigation; man has to develop the ability to probe it. Islahi believes that the more man is able to examine the universe, the nearer he gets to the ultimate reality. The more he grasps this ultimate reality, the nearer he comes within the reach of his final destiny which is to become the master of the universe. Also, the more man sifts through the facts of this universe, the more he finds answers to question which enables him to comprehend these new findings of his existence.²³ Some scientists and experts reject the existence of God due to their failure to fulfill the responsibilities which they have to accept if they recognise the existence of God. Moreover, these people confine their research to themselves or to a very limited field. The compartmentalisation of all exploratory and research work does not allow for a whole and comprehensive picture of the universe to emerge. Man usually seeks *nafai aqil* (immediate gratification) which is why he cannot look beyond the visible world.

Human Nature: Absolute or Relative

One of the most important questions about human nature is whether it is fixed or shaped by external environment. Both views have enormous influence over the social and political thought and institutions. The first theory portrays society reflecting human nature. In this case, natural sciences particularly biological sciences took prominence in social and political understanding.²⁴ Darwin's theory of Natural Selection strengthens this theory even more. Herbert Spencer developed similar theory in the social sciences. His declaration, 'Survival of the Fittest' opened new endless struggle among human beings.²⁵ The second theory stresses the external social and environmental conditions. Instead of giving a permanent and unchanging place to human nature, it recognises the 'plasticity' of human nature. Islahi neither accepts these theories nor rejects them completely. He does not consider human beings similar to other biological beings. Human species have peculiar characteristics which cannot be explained in terms of other biological beings. According to Islahi, man shares only the instinctual part with animals. An animal always sticks to its instinct. Man is dynamic and can be moulded by his surroundings. Man is a social and moral being. Man, after birth, is influenced by parents, family, clan, school, college and the literature, which he studies. Whatever an individual faces in his life, its imprints can be observed on his personality. Islahi accepts that man is changeable.²⁶ However, he rejects the 'plasticity' theory. According to him, all human beings do not change with change in situation. An evil-minded person, despite spending time among good people might commit crimes.

Islahi is against the view that social experiences can erase differences between man and woman primarily imposed by biological dissimilarities. He thinks of man and woman as equal but different from each other.²⁷ He assigns different social roles to both. He is of the view that manipulating external conditions to bring uniformity in the behaviour and attitude of man and woman, will end in superficial, misleading and harmful consequences for the humanity.

Free Will and Determinism

The question of free will and pre-determination is always important in understanding the place of man in the universe and his relations with God. Two schools of thought, popularly known as *Mutazilites* and *Asharites*, address this issue in greater details than others. The first group claims that human beings have freedom to exercise their will. The second group considers that God has determined everything in human life. Islahi criticizes the first group. If their view is accepted then it will generate the concept of polytheism. Man would ascend to the status of another God. Islahi rejects the *Mutazilites'* notion that God gives all such freedom to man and thus cannot affect the Oneness of God. Islahi says that God never agreed to give freedom to an individual which He cannot revoke.²⁸ Islahi's man is independent in making choices and living according to the same. He is free but bound by the consequences of his choices. God has created man; not another god.²⁹ Man's freedom does not mean that he is free from God's will.

Islahi also criticizes *Asharites'* stance that God knows whatever man does and that He cannot act against His knowledge. Islahi says that if God knows the actions of a person, then He also knows that the person is acting on his own free will. Islahi gives much importance to man's actions rather than God's knowledge.³⁰

Asharites supported their views extensively with verses of the Quran. Islahi always tries to comprehend Quranic verses not disjointedly but in a coherent way. On the given subject, Islahi opines that whenever in the Quran the phrase 'will of God' is used, its meaning is that no body can prevent or change His will. It does not mean that it is out of bound of justice and *hikmat* (wisdom). According to Islahi, God is just and wise. No work of God is without justice and wisdom. Therefore, everything occurs in this world is on the basis of His laws framed for *hidayat* (guidance) and *dalalat* (going stray).³¹

The pro-determinism thinkers explain human actions in 'cause and effect' relationship. They consider man as a link in the chain of 'cause-effect' and thus he has no control over his actions. Islahi accepts the view that man is compelled in the chain of cause and effect. However, he emphasises that the primary cause does not overwhelm man's free will. Man is aware of good and evil. He can choose good; can avoid evil; and can prevent others from doing so.³² It is possible that man will not do good due to certain external factors and the same can happen in case of doing or not doing evil. In such circumstances, man's reward and punishment will be settled on the basis of his determination.³³ According to Islahi, Islam has given worth to action performed out of free will than action under compulsion.³⁴ Man possesses freedom on the ethical and moral questions because man has been made responsible for such choices. However man has limitations e.g. man has no control over the conditions he is born in, nor does he have a choice in his financial position.³⁵ He has to accept certain external factors in deciding destiny in these fields.

Man and Divine Guidance

Islahi has full confidence in the intellectual faculty of man to guide him in this life. But he also points out some of the shortcomings of man. Primarily derived from the Quran, Islahi's man can become *zalum* (oppressor) and *jahul* (ignorance). Both these terms refer to man's oppressive tendencies, despite his acquaintance with justice and faire play. Man falls prey to his sentiments, despite his knowledge and forbearance.³⁶ Quran indicated differences among human beings as a cause for deviating from the right path.³⁷ Thus, God provided guidance by sending prophets. He sent prophets to every nation. After Abraham, from Ishaq to Jesus the prophethood was confined in the house of Jacob i.e. Bani Israel. Muhammad is the last of the prophets. After Muhammad, Divine guidance is now restricted to the Quran and *Sunnah*. According to Islahi, the Quran has the exact words of God, while *Sunnah* is the authentic religious practices of the Holy Prophet. Human beings can get guidance from these sources for the rest of their lives.

Man's refusal to revelation or rejection of the prophets has certain consequences. These consequences became serious when the prophet is a *rasul* (messenger). Islahi divides prophets into two categories: a) *nabi* (prophet), who calls for acceptance of God's will in a general way. b) a *rasul* (messenger) is a prophet who gives all reasons for man to accept Divine law. He leaves no option for man to reject the Creator's message. If people refuse and reject the message of a *rasul*, God destroys and eliminates them from this earth. In fact, God sets up a mini Doomsday on earth to punish them after their deliberate rejection of His will. Islahi calls this law of *risalat*. According to this law, a *rasul* always becomes successful in his mission. Islahi derives and discovers this law lucidly. The law, if applied to existing teaching of Islam, would have far reaching consequences on the entire Muslim thought and practices. According to Islahi, after Muhammad (pbuh) no person or organisation can claim that the message of the prophet had been communicated to the people to such an extent that there remains no excuse for the addressees. Now God will not destroy a nation that it has rejected God's message. It is the collective morality of a nation which decides the future of a nation. According to Islahi, man's fate, in the hereafter, will be decided on the basis of the available means of guidance and capabilities of man.

Man and Rejection of Divine Guidance

In the worldview of Islahi, there is enough room for the people to accept divine guidance. However, for some people a stage may come when in spite of having command of their senses, they may not see, hear or understand the reality. They can use these faculties for gaining and achieving some worldly profits, or overcome the forces of nature, but they can fail to benefit from it spiritually. Islahi calls it the law of *khatm-i-qulub* (sealing of heart). It happens when man starts moving on the awful path of committing sins frequently and constantly. Every sin does not result in the sealing of heart. Sins which are committed due to stubbornness, self-aggrandisement and carnality and refusal to repent can result into the sealing of heart. Conscience warns man constantly, but he does not heed. Slowly and gradually man's heart becomes prone to acts of sin. Good does not find any reason to occupy his heart. Islahi considers the sealing of heart as God's punishment in this life.¹⁸

Conclusion

The question of God, universe and man acquired new meanings with the rise of modern sciences and communist ideology and activism in the 20th century. Neither the apologetic Muslim scholars nor those who reject modernity could convince religious zealots who at the same time do not want to disengage with the modern sciences. Islahi's views on these questions are an effort to present Islamic concept with a new scholastic consideration which started with Shibli and Farahi by the end of 19th century and the beginning of 20th century in South Asia. Islahi sticks to the Quranic propositions when it comes to the abstract concepts and avoids those aspects which are not in the domain of revelation for example the nature of God. For the existence of God, Islahi is not apologetic rather he is on the offensive mode against those who negate it. An evidence for the non-existence of God is needed rather than the other

way around. He finds the *Ansfusi*, *Afaqi*, and the law of the rise and fall of nations enunciated in the holy Quran quite sufficient for intellectual satisfaction. In the domain of factual concepts he is open to teleological consideration and does not hesitate to evaluate these concepts with human experiences as he did in the case of the Day of Judgement, divine guidance and its rejection by man. His views of the universe open new vistas for Muslim scientists in the sphere of natural science while the traditional scholars give no heed to such issues. The question of free will and determinism addressed by Islahi is an effort to simplify the issue for the common educated Muslim. In Islahi's opinion man occupies a prime position in the entire universe. His position is not secluded from objects but rather interactive with them in different capacities. His interaction, particularly with other species, necessitates taking decisions at every juncture of life. How far Islahi's views influence the Muslim philosophical discourse is to be seen in the days to come.

Notes

¹ A detailed study is conducted by Mustansir Mir in his doctoral dissertation, "Thematic and Structural Coherence in the *Quran*: A Study of Islahi's Concept of Nazm." Near Eastern Studies the University of Michigan, 1983, later on published as *Coherence in the Quran: A Study of Islahi's Concept of Nazm in Taddabur-i-Quran* (Indianapolis: American Trust Publications, 1986).

² The whole affair has been covered in a book Khalid Masud has compiled, i.e., *Maqalat-i-Islahi*, Vol I. (Lahore: Faran Foundation, 1991).

³ Many academic degrees have been awarded inside and outside Pakistan dealing with different aspects of Islahi's thought such as Mustansir Mir, "Thematic and Structural Coherence in the *Quran*: A Study of Islahi's Concept of Nazm." PhD. diss. Near Eastern Studies the University of Michigan, 1983; Hafiz Iftikhar Ahmad, "Shaikh Ameen Ahsan Islahi and his Methodology in his tafsir Tadabbur *Quran*." PhD thesis, Islamia University, Bahawalpur. 1996. Abdul Rauf, "Mawlana Amin Ahsan Islahi: A Study of Socio-Political Thought" PhD diss. NIPS, Quaid-i-Azam University, Islamabad, 2007; Akhtar Hussain Azmi, "The Contribution of Maulana Amin Ahsan Islahi in the Reconstruction of Islamic Disciplines: A Research Study (Urdu)," Ph D diss. University of the Punjab, Lahore, 2006; Mohammad Haroon Usmani's M.Phil thesis to Allama Iqbal Open University, Islamabad is now published under the title *Mawlana Amin Ahsan Islahi ki Nasri Khidmaat* (Lahore: Maghrabi Pakistan Urdu Academy, 2006); Herman Roborgh, A Critical Analysis of Amin Ahsan Islahi's Approach to Understanding the *Qur'an*, Ph.D diss. Aligarh Muslim University, India, 2006.

⁴ Mawlana Amin Ahsan Islahi, *Haqiqat-i-Din*. (Lahore: Markazi Anjuman Khudam-ul-*Quran*, 1980), pp. 151-52.

⁵ Mawlana Amin Ahsan Islahi, *Tadabbur-i- Quran* vol. 6, 6th ed. (Lahore: Faran Foundation, 1993), p. 281.

⁶ Islahi, *Haqiqat-i-Din*, p. 210.

- ⁷ Ibid., p.204.
- ⁸ Amin Ahsan Islahi, *Tadabbur-i-Quran*, vol. 8, 6th ed. (Lahore: Faran Foundation, 1994), p. 131.
- ⁹ Amin Ahsan Islahi, *Tadabbur-i-Quran*, vol. 5, 4th ed. (Lahore: Faran Foundation, 1992), p. 136.
- ¹⁰ Amin Ahsan Islahi, *Tadabbur-i- Quran* vol. 3, 4th ed. (Lahore: Faran Foundation, 1995), p. 120.
- ¹¹ Ibn-al-Arabi, *Futuhat*, cited by, S.A.Q. Husaini, *The Pantheistic Monism of Ibn-al-Arabi* (Lahore: Sh. Muhammed Ashraf, 1979), p. 185.
- ¹² Amin Ahsan Islahi, *Tadabbur-i- Qur'a#n*, vol. 1, 5th ed. (Lahore: Faran Foundation, 1993), p. 63.
- ¹³ Islahi, *Tadabbur-i- Quran*, vol. 5, p. 133.
- ¹⁴ Amin Ahsan Islahi, *Tadabbur-i- Quran*, vol. 9, 6th ed. (Lahore: Faran Foundation, 1994), p. 390.
- ¹⁵ Amin Ahsan Islahi, *Tadabbur-i-Quran*, vol. 7, 6th ed. (Lahore: Faran Foundation, 1992), p. 332.
- ¹⁶ Islahi, *Tadabbur-i-Quran*, vol. 6, p. 293.
- ¹⁷ Mawlana Amin Ahsan Islahi, *Falsafay kay Bunyadi Masail Quran Hakim ki Rushmi mayn* (Faran Foundation, Lahore, 1991), pp. 79-80.
- ¹⁸ Islahi, *Tadabbur-i-Quran* vol. 3, p. 120.
- ¹⁹ Islahi, *Falsafay kay Bunyadi Masail*, p.81.
- ²⁰ Mawlana Amin Ahsan Islahi, *Tazkiyah-i-Nafs* [1] (Faisalabad: Malik Sons Tajiran-i-Kutub, n.d.), pp. 39-40.
- ²¹ Islahi, *Tadabbur-i- Quran* vol. 5, pp. 50-51.
- ²² Amin Ahsan Islahi, "Murasala-o-Muzakara-Insan ka Imtihan awr Masuliyat", *Tadabur*, vol. 4 (1984), pp. 44-45.
- ²³ Islahi, *Tadabbur-i- Quran*, vol. 7, pp. 306-07.
- ²⁴ A newly branch of Bio-politics is primarily discussing the biological basis of politics.
- ²⁵ Liberalism of the 19th century and Fascism and Nazism of the 20th century can be attributed to this theory.
- ²⁶ Islahi, "Insani Fitrat ki Khususiyat", pp. 44-45.
- ²⁷ Amin Ahsan Islahi, *Islami Muasharh mayn 'Awrat ka Muqam* (Lahore: Faran Foundation, 1998), pp. 95-102.
- ²⁸ Islahi, *Falsafay ki Bunyadi Masayl*, p. 170.
- ²⁹ Ibid.
- ³⁰ Ibid., p. 171.
- ³¹ Islahi, *Tadabbur-i- Quran*, vol. 1, pp. 114-15.
- ³² Mehbub Subhani, "Didah Bina", *Tadabbur*, vol. 60 (April 1998), p.34.
- ³³ Islahi, *Falsafay kay Bunyadi Masayl*, pp.175-76.
- ³⁴ Islahi, *Tadabbur-i- Quran*, vol. 1, p. 517.
- ³⁵ Islahi, *Falsafay kay Bunyadi Masail*, p. 174.
- ³⁶ Islahi, *Tadabbur-i- Quran*, vol. 6, pp. 280-81.

³⁷ 2:213

³⁸ Islahi, *Tadabbur-i- Quran*, vol. 1, p. 63.

References

- Islahi, Amin Ahsan. (1994). *Tadabbur-i-Quran*. Vol. 8. 6th Ed. Lahore: Faran Foundation.
- (1992). *Tadabbur-i-Quran*. Vol. 5. 4th Ed., Lahore: Faran Foundation.
- (1995). *Tadabbur-i- Quran*. Vol. 3, 4th ed., Lahore: Faran Foundation.
- (1994). *Tadabbur-i- Quran*. Vol. 9, 6th ed. Lahore: Faran Foundation.
- (1992). *Tadabbur-i-Quran*. Vol. 7, 6th ed., Lahore: Faran Foundation.
- (1992). *Tadabbur-i-Quran*. Vol. 6, 6th ed. (Lahore: Faran Foundation.
- (1984). "Murasala-o-Muzakara-Insan ka Imtihan awr Masuliyat". *Tadabur*. Vol. 4.
- (1980). *Haqiqat-i-Din*, 2nd ed., Lahore: Markazi Anjuman-i-Khuddam-al- *Quran*.
- (1991). *Falsafay kay Bunyadi Masail Quran Hakim ki Rushni mayn*. N.P.
- (n.d.). *Tazkiyah-i-Nafs* [1], Faisalabad: Malik Sons Tajiran-i-Kutub.
- Islahi, Dr. Sharfuddin. (2002). *Zikar-i-Farhi*, Lahore: Dar ul Tazkir.
- Khan, Mawlana Wahiddudin. (n.d.). *Ta'bir ki Ghalat*. Lahore: Dar ul Tazkir.
- Mawdudi, Mawlana Sayyed Abul A'la. (1983). *Masala-i-Jabr-o-Qadr*. Lahore: Islamic Publications Limited.
- Masud, Khalid. (Comp.) (1991). *Maqalat-i-Islahi*, Vol. I., Lahore: Faran Foundation.
- Mir, Mustansir. (1983). "Thematic and Structural Coherence in the *Quran*: A Study of Islahi's Concept of Nazm", PhD dissertation, Near Eastern Studies the University of Michigan.
- Siddiqi, Mazheruddin. (1992). *Modern Reformist Thought in the Muslim World*, Islamabad: Islamic Research Institute.

**From Being to Becoming:
Acknowledging the Unacknowledged in American Archaeology**

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Gender never stands still; boundaries and categories are transient, identity contingent, knowledge incomplete....The gendered past is a land of permeable borders, ripe for exploration. (Gilchrist 1999: 149)

But,

Feminist archaeology has also shown us that to understand the past we could not simply "add women and stir;" that researching gender would require interrogating a great deal of received wisdom and might ultimately challenge some of our most cherished anthropological and ethnographic categories.

(Pyburn 2008: 115)

Abstract

This paper traces the historical development of feminist and gender biased research in American Archaeology. It examines the reasons for the need of such a research; the current trends being followed/not followed; research themes investigated by feminist scholars; and the future of feminist and gender research in archaeology. It also examines whether processual archaeology or scientific method is the touchstone. To determine that the paper analyzes Archaeology as a social science and studies the characteristics of processualism or scientific methods of investigation that male archaeologists follow. Although feminist archaeology is a post-processual trend or part of interpretive archaeology, the touchstone has been the scientific method. I also discuss some of the research themes taken up by feminist archaeologists, which include making women of the past visible, economic contributions, female spaces, rise of patriarchy etc., citation practices; who is quoting who and how often. The paper concludes with some suggestions for female archaeologists to hold on to the niche they have managed to achieve.

Keywords: Archaeology, gender, feminist archaeology, feminist methodology

Introduction: The Feminism/Gender Divide

In Archaeology and other disciplines feminism or feminist oriented studies are treated differently than in they are in gender studies. Feminism and feminist perspectives deal with women issues primarily due to the culturally accepted male superiority and the subsequent patriarchal institutions. Gender, on the other hand, is the social binary and opposite roles and expectations a culture assigns to men and women. Feminism and gender, especially in archaeology, are used interchangeably as most of the research in this area is done by women. This paper traces the historical development of feminist and gender biased research in archaeology, with particular reference to the research of

American and some British archaeologists. It also examines reasons for the need of such a research, the trends employed, research themes investigated by feminist scholars, and the future of feminist and gender research in archaeology. Moreover, this paper also shows that processual approach in archaeology remains a point of reference in one way or another although feminist scholars are highly critical of it. This is why it is important to explore the feminist debates in archaeology so we have a better view of the various notions about feminism and gender.

Gilpin (2000) believes that feminism is making inroads into archaeology. The terms "gender archaeology" and "archaeology of gender" are firmly established but American scholars rarely describe it as "feminist." She further says that gender research is not solely done by and about women; men have been involved from the beginning and increasingly raise questions about the fact that masculine identities were also multiple, varied, and interchanging in the past. As such, the archaeology of sexuality, including homosexuality, and the application of queer theory promise to be important topics. A point to be noted is that women, especially in archaeology, are concerned about the gender bias meted out to them by their male colleagues. Most female scholars and researchers focus on bringing out and changing the role of women in the discipline whether under the rubric of feminist or gender studies. But as mentioned above gender does not include women only; it has broader implications. Conkey and Spector (1984) explain that much of feminist research is concerned with gender and sexuality as cultural constructs and with the sources of processes and consequences of their construction and organization. The study of gender as a social and multifaceted phenomenon also includes gender role, gender identity, and gender ideology. *Gender roles* refer to the differential participation of men and women in social, economic, political, and religious institutions within a specific cultural setting. They describe what people do and what activities and behaviors are deemed appropriate for the gender category. *Gender identity* refers to an individual's own feeling of whether he or she is a woman or a man. *Gender ideology* refers to the meaning, in given social and cultural contexts, of *male*, *female*, *sex*, and *reproduction*.¹ Conkey and Spector thus explicate the broader meaning of gender and show how the category of gender is different from feminism.

Elsewhere Conkey and Gero (1997) further discuss the concept of gender: they explain gender from a theoretical perspective by proposing a framework of six viewpoints to explain gender as a multifaceted category. They begin by looking at gender, first, as a "sociobiological strategy," in which gender is the culturally mediated means by which both the general public and researchers conceive of two uniformly gendered classes of individuals, males and females, whose biological sexual characteristics are modeled as presumed universals, including the (male) ability to fertilize (multiple) eggs and the (female) ability to produce single ovulation events and to physically bear children, in addition to hormonal differences, lactation, menstruation, and biological strength. Second, they describe gender as "social construction," which in itself tends to be rather a fluid category as Conkey and Gero (1997) suggest that the meaning of social

construction has changed many times over the years from the initial liberal feminists' idea of masculinity and femininity, often taken as a given, to French feminists focus on psychoanalysis and politics (e.g. Irigaray, 1985) to the challenge of intersection of gender with race, class, and/or ethnicity (e.g. Collins 1989, Hooks 1984) to cultural feminists' (e.g. Butler 1990, Flax 1990) rejection of the stability of either sex or gender as categories, even socially constructed ones, or to Lorber's (1994) analysis of gender as an institution. Thus, Conkey and Gero (1997) believe that the challenge for archaeology is to investigate and analyze the "dialectic between human life as socially constructed and the very materiality of human life." Third, they see "gender as an evolutionary process" due to which the evolutionists believe that the widely observed male dominance in present day societies is normal and natural. Rather the appearance of patriarchy is linked to the emergence of the state, with its admission of hegemonic power relations and overt power differentials. Fourth, they perceive "gender as political economy," but various feminists within archaeology and outside of the discipline have mixed notions about looking at gender as a construct effected by the political and economic conditions. The fifth perspective to understand gender construction is to see "gender as agency." Conkey and Gero (1997) say, "Gendered subjects are produced, not born." That is some scholars consider gender as an "act." In other words, gender itself is taken to be produced by the goal-oriented actions and performances of individuals or groups. Finally, the concept of "gender as performance," arising from the work of Judith Butler (1988, 1990, 1993); the performativity view of gender dismisses gender as an essential quality or as any kind of entity that individuals can "have," and is replaced by a concept of gender as how people exhibit themselves in their actions and bodily decorations. As such it becomes apparent that feminism is used more as a socio-political term to refer to women who are interested in working with and for women issues. Whereas, gender primarily is understood as the societal role and behavior expected of women and men in a given social setting. However, now gender has many more possibilities and meanings in a social set up, particularly in the West. Therefore, to sum up the explanation on gender Greene (2002: 264) states:

Gender in archaeology...is an aspect of the postmodern concern with 'otherness'... An interest in gender is not equivalent to feminism, and does not seek to promote equality by ignoring genuine differences. At first the subject looked at masculine/feminine or male/female divisions by seeking gender as a cultural concept and sex as biologically determined, but anthropological and historical studies undermine the simple binary divide between men and women.

It is important to clarify the difference between feminism and gender. The positive side of this debate is that, whether we look at archeological sites and data from a purely feminist perspective or the gender lens i.e. looking beyond women issues like gay, lesbian, trans-issues etc., there is a need to look into the unacknowledged 'other.' Therefore, it is essential to understand when and how women ultimately made it to the discipline of archaeology as research scholars and the researched data! After all, it was

feminist movements that gradually paved the way for later gender-oriented inquiries. Besides, the socio-cultural patriarchal structures and institutions have been unjust to the vulnerable and the marginalized (of all sorts) alike.

Countering Patriarchy: A Historical Detour towards a Feminist Approach in Archaeology

Since long it was felt that archaeology was an extremely gender biased discipline academically and practically. Therefore, it was assumed that archaeology is a patriarchal discipline; it neither encourages female entry into the discipline nor favors female oriented research about past cultures. Conkey (2003), quoting Gero and then Moser, says:

The practice of archaeology has been dominated (Gero 1985, 1994), and much has been written about this with accompanying statistics to show how the "big digs" have been primarily male led—"the practicing field archaeologist who himself conquers the landscape, brings home the goodies, and takes his data raw!" (Gero 1985, 344)—and how males have received more funding for such excavation than have females (Moser 1996).

As Conkey shows the feminist critique regarding patriarchal dominance in the methods employed in archaeological field work, likewise Gilpin (2000) critiques the research themes and motifs. She says, "One of the first feminist critiques of traditional archaeology and biological anthropology was an attack on the 'man the hunter' model of evolution." As such, it is important to have an overview of the historical development of the feminist strain in archaeology with reference to archaeological evidence, interpretation, practice, employment and career opportunities.

Levine (1994) sketches a comprehensive historical development of the female participation in archaeology. She does not believe that women, as contributors, have entered archaeology only recently. Levine agrees that women have been absent from much of the literature in early American archaeology but they have been participants since the 1880s. She believes that initial studies reveal that women such as Mary Hemenway (1820-1894), in 1886, established the Hemenway Southwestern Archaeological Expedition. She provided a substantial endowment for travel costs, excavation, artifact curation, and publication of the research results. Zelia Nuttall (1857-1933) was a Meso-american archaeologist who contributed to the development of the discipline as an independent researcher. Matilda Coxe Stevenson (1849-1914) and Alice Fletcher (1838-1923) are chiefly known for their ethnographic work; both women made notable contributions to Americanist² archaeology. No doubt, all these women faced obstacles but they were still engaged with the discipline in one way or the other. However, Levine (1994) continues that these women were members of an all women organization, the Women's Anthropological Society of America (WAS). This organization was the result of membership rejection to Matilda Coxe Stevenson by the all-male Anthropological Society of Washington. The decision to deny her membership was based on sex and presumed lack of field experience. Besides,

prohibition of female membership in all-male societies marginalized women from the professional mainstream. As a result of this denial, women clearly devised strategies to counter male hegemony in the discipline. Levine (1994) points out that the first generation of women in Americanist archaeology was a small cohort but some were sufficiently affluent to pursue their chosen careers. He provides a long list of women who comprised the second generation women archaeologists. She says that these women were born in the early twentieth century and launched their careers in the inter-war years, the 1920s and 1930s. The inter-war years also witnessed female archaeologists securing academic positions for the first time. Once in academia, women faced overt gender-based status discrimination like being paid less than their male counterparts, infrequent promotions, and choice between career and personal lives. In order to hold on to their academic and professional careers women had to resort to various means by employing extraordinary efforts and performance, willingness to sacrifice traditional relationships for their careers, deliberately entering new fields of interest to avoid male competitors and developing special research skills etc. Besides, even those women who decided to opt for museum employment were not free from sexual discrimination both monetarily and physically. Nonetheless, the inter-war years paved the way for female archaeologists to enter the discipline while some of their male colleagues were busy on the war fronts. Levine (1994) finally suggests that the third generation of women in Americanist archaeology includes women who began their careers in the 1950s and 1960s. During the 1960s and 1970s, women continued to colonize unoccupied spaces as archaeology experienced further expansion. Because of their availability and qualifications, women colonized such niches rather rapidly but they still had to face gendered discrimination as the discipline was still predominantly occupied by male scholars and researchers.

According to Hendon (1994), in 1991 the Executive Committee (EC) of the Society for American Archaeology (SAA) decided to reactivate its Committee on the Status of Women in Archaeology (COSWA) in order to pursue issues relating to gender interests and to increase the SAA's membership. The aim of COSWA was to assist SAA to be able to develop programs and policy recommendations regarding gender equity in hiring, funding, and other areas. Wylie (1996) states that the first paper to systematically explore the relevance of feminist insights and approaches in and for archaeology was published in 1984 by Conkey and Spector, and the first collection of essays dedicated to reporting original work in the area is Gero and Conkey's (1991) *Engendering Archaeology: Women and Prehistory*.

Masculinely Scientific or Scientifically Masculine?

Archaeology in Europe and the United States has gone through some major paradigm shifts like Evolutionary Archaeology of the 1860s, to Culture-Historical Archaeology of the late nineteenth century, which was a response to the awareness of geographical variability in the archaeological record (Trigger 2007: 211). This was followed by Processual or New Archaeology, which resulted due to the "inadequacies" of culture-historical archaeology. Processual archaeology was followed by Postprocessual

Archaeology, which was an alternate to processual archaeology and had started developing in the 1970s and by 1985 Ian Hodder had labeled this new trend postprocessual archaeology, finally paving the way for Interpretative archaeologies. All the afore mentioned archaeological paradigm shifts are and were immensely different from one another; in fact the consequent shifts came about as reactions to their respective preceding models of inquiry. However, one trait was common to all, except the last paradigm of interpretative model—all of them largely ignored the role of women in the past and in the present times. That is, the role of women as the researched in prehistory and the role of women as the researcher in the present.

Since archaeology was already emerging as a men-only discipline the processual impetus added to the men-only archaeological research. Evolutionary archaeology was overtaken with rigor and pomp by New Archaeology or Processual archaeology. The New Archaeology was formally introduced by Lewis Binford's papers "Archaeology is Anthropology" (1962) and "Archaeological Systematics and the Study of Culture Process" (1965). The British expression of this was found in the works of Clarke (1968) and Renfrew (1972). The main approach of this method, unlike evolutionary archaeology, was to investigate the past with a scientifically explanatory approach to discover 'truth.' Binford (1962: 224) stresses, "As archaeologists, with the entire span of culture history as our 'laboratory,' we cannot afford to keep our theoretical heads buried in the sand." Rowlands (1982) elaborating on Processual archaeology says that it was claimed that archaeology should try to achieve the ideal of generalizing, comparative, positivist natural science—the ideal of hard, rigorous "science." Thus, archaeology will come forth as a politically correct discipline. Longacre (1970) suggests that interest in the scientific method/approach for research in (New) Archaeology is influenced by following methods and theories: proper roles of inductive and deductive methods, objectivity, hypothesis testing, nature, "real" significance of archaeological data and the need for "action archaeology" or archaeology oriented ethnography. Shanks and Tilley (1992:30) suggest that one of the major attributes of the new archaeology is the stress on 'theory' and theorizing. In fact, this addition of "theory" was the revolutionary aspect of new archaeology. In addition, changes that occurred as a result of new archaeology were the use of quantitative techniques and deductive methods in research. Shanks and Hodder (1995: 03) sum up the characteristics of new archaeology as follows:

- Archaeology conceived as anthropological science rather than allied with history.
- Explanation of the past valued over description.
- Explanation via the incorporation of particular observations of the material past into cross-cultural generalizations pertaining to (natural and social) process (hence the term 'processual').
- Explanation via explicit methodologies modeled on the hard sciences.
- An earlier interest in laws of human behavior has shifted to an interest in formation of processes of the archaeological record – regularities which will allow inferences about the processes to be made from material remains.

According to Trigger (2007: 397), Binford believes that cultures are not intrinsically homogeneous and all participants participate according to their age and sex roles, thus making cultural practices not only individually different but also highly complicated, making the cultural system a set of functionally interrelated roles. Binford (1965) says:

It is proposed that culture be viewed as a system composed of subsystems, and it is suggested that differences and similarities between different classes of archaeological remains reflect different subsystems and hence maybe expected to vary independently of each other in the normal operation of the system or during change in system. [And] culture is... not necessarily shared; it is participated in by men.

As such the scientific method and positivism, therefore, very aptly fit into the mission of the New Archaeology because Binford himself suggests that archaeological inquiry required scientific 'participation' and Longacre later suggests the need for 'action archaeology,' which interestingly and ironically imply that action and therefore active participation are accomplishments that can only be achieved by men—male researchers in archaeology were doing that already. Science or scientific approach, due to various cultural interpretations, is even nowadays considered a very masculine domain. Therefore, archaeology was emerging as a patriarchal discipline in terms of the researchers, the researched and the research content.

Archaeological work by feminist scholars is realized and noticed mainly in the 1980s. Although, thematically and content wise female archaeologists' main aim has been rather different than their male colleagues. Wylie (1997) says:

Critiques of sexism and androcentrism in archaeology fall into two broad categories that parallel analyses of other dimensions of archaeological practice (e.g., its nationalism, classicism, and, racism): "content" and "equity" critiques.

Apart from all institutional challenges, one of the challenges that female scholars and researchers face is to be academically at par with their male colleagues. In other words, it means that women archaeologists have to develop their own theories, perhaps, 'feminist archaeological theories.' But the challenge still remains the same: feminist scholars have to be, if not better, as good as their male counterparts in proving that feminist theories are equally scientific and plausible. As a result, Alcoff (1987) is of the opinion that the very existence of a category called social science creates a philosophical problem. She further elaborates that theories in feminist social science are not simply theories about women, but theories of a particular type about women (i.e., exhibiting consistently emancipatory implications for women's position in society). The problem is to see what method of theory choice is being used. Alcoff (1997) believes as women we need an explanation and justification of feminist social science as a research program while retaining our ability to evaluate better and worse theories advanced within this program according to some significant criteria. She adamantly argues that the values involved in feminist theory-choice are in a number of

ways, epistemically interesting ways, better than values involved in previous non-feminist or androcentric theory-choice.

In comparison to Alcoff (1997), Pyburn (2008) goes a step further in elaborating the feminist methodology and practice by incorporating the role of political awareness on part of the female archaeologist (cf. to Conkey and Gero's (1997) idea of "gender as political economy," afore mentioned in this paper). Pyburn (2008) emphatically states:

The empirically inclined feminism of the processual movement dealt a death blow to ahistorical generalizations about "mankind" by showing that essentialism is not benign and political awareness is a requirement rather than an impediment to scholarship. Study after study has shown that stereotypical assumptions about women, in the past are not just questionable, they are wrong.

It is worth noticing the irony of feminist practice in American archaeology which is perhaps a dialect of sorts—female researchers want to do away with the male methods and theory, especially the scientific approach but ironically the touchstone for their respective methods and theoretical paradigms spring from the processual framework. In other words, even the rejection of processual or scientific approach renders it a point of departure. Therefore, Pyburn (2008) shows this dialectical relationship between the rejections of the scientific approach and hopes to achieve a different feminist approach:

While steering past the Scylla of processual positivism and the Charybdis of postprocessual relativism, many archaeologists find themselves intellectually challenged by partisans from both camps.

As an observation, it appears that archaeological feminist research definitely wants to qualify as a social science to be at par with the work of their male colleagues or perhaps even more as a science just to prove themselves equal to their male counterparts.

Wylie (1996) also criticizes the traits of scientific approach as a framework for gender based research. She, quoting Binford, states while defending the conceptual and methodological commitments of scientific, processual approach Binford "has vilified internal variables" and "gender dynamics would be included among such variables in most analyses, [is] just an example of the sort of factor he considers explanatorily irrelevant and scientifically inaccessible." Therefore, Wylie (1996) also states:

I suggest the social and political (i.e. "external," non-cognitive) factors must play an important role in the emergence of interest in gender... if any general lesson is to be drawn from reflection on feminist practice is that politically engaged science is often much more rigorous, self-critical, and responsive to the facts than allegedly neutral science, for which nothing much is at stake.

In spite of the fact that earlier on Fotiadis (1994), a male colleague had criticized Wylie (1988) and claimed that Wylie (1988) did not adequately document the role she claims for politics. He said she has to *describe* ways in which the new factual claims about archaeological genders are isomorphic *not* with the political vision of their authors *but* with the hegemonic constructs to which they are opposed, the errors they replace. According to him Wylie has to identify some concrete marks that politics here and now—the errors, the fallacies, amidst which gender is discovered—have left on the shape of those new archaeological facts. Otherwise, her claims that present politics shape questions and answers about genders in the past will remain unconvincing. Therefore, Wylie (1996) later further elaborates the importance of the socio-political role in gender construction.

Where as Harding and Norberg (2005) are of the opinion that feminist methodology and epistemology are part of the postpositivist movement. Important tendencies in this work are also part of the field of critical studies, which prioritizes “studying up”—studying the powerful, their institutions, policies, and practices instead of focusing only on those whom the powerful govern. As a result, feminist researchers have insisted that research projects have practical implications for the improvement of women’s lives.

McGuire (2008), following Mohanty (2003) writes that feminism has the capability to transform society. Further quoting Maria Franklin, he agrees that, “the point of employing feminist theorizing in general is to produce scholarship that leads to social change.” This paves the way for us to examine some of the areas that female archaeologists have undertaken as fields to explore, study and analyze.

Feminist Archaeology: Themes and Analysis

The main proposition of feminist scholars in archaeology is to bring to surface the role of women in prehistory which, due to gender bias and patriarchal hegemony of the male researchers, is never properly cited in archaeological findings. In the late 60s and 70s it was believed that feminist/gender oriented discussions took into account other standpoints and sometimes just “added” women to the discourse.³ As such, feminist archaeologists like Conkey, Spector, Gero, Gilchrist, Hastorf, Wright, Wylie and others, through their various research projects, look at the role of women in prehistory by using space, mode of production and politically motivated gender division as a means to evaluate the importance of women in the past and recent times. According to the spirit of feminist thinking these scholars believe and show that as far as archaeological documentation of the role of women in prehistory is concerned, patriarchy, due to male scholarship, overrides and makes these prehistoric characters invisible in the pages of archaeological research. For example, Hastorf (1991) and Wright (1991) challenge the division of gendered labor and spheres by investigating the symbolic importance of food production and consumption and production of pottery for commercial purposes, respectively. In accordance, both arrive at the same

conclusion that food consumption and pottery production became male domains with the rise of state and thus patriarchal hegemony.

In a relatively recent work, Conkey (2003) states, due to feminist-inspired archaeology, there has been an increasing interest in visual representations (art, imagery, and iconography). Due to the broad range of feminist studies now, such inquiry often sheds light not just on women and females but also on masculinity, males and the varied ways in which engendering may have been enacted on ancient society. She continues that feminist approaches have also raised questions about very central concepts—technology, inequality, household, hunting, and even gender. Plus a feminist inquiry into the past has also shown that those (men) who were net makers and weavers also made figurines (Soffer, Adovasio, and Hyland 2000)—denying the idea that female figurines were only “Venuses” made for the male gaze or solely symbolizing female fertility.

Gilpin (2000) also alludes to Wylie, Conkey, and other senior scholars of feminist archaeology who concluded that one of the most highly valued contributions feminism has made to archaeology is the use of nonstandard media and writing styles to present results and interpretations. Lately, Pyburn (2008) writes, “By showing the number of hearths is not the same as the number of grinding stones, although both are part of the domestic tool kit.” However, Conkey and Gero (1997), quoting Wylie, believe, “feminist ideas, theory, or perspectives are only rarely cited as having motivated participants’ interest in gender as topic of research.”

With respect to citation practices, female scholars maybe cited less than male scholars in archaeology but the very fact that some scholars are studying the citation practices, to see gendered preferences, is in itself an achievement for feminist archaeologists. Hutson’s research, about female participation in writing and publishing, shows interest and acknowledgement (how-so-ever-little) of female contributions. Hutson (2002) asserts:

The citation is statement, active or passive, of what work an author judges to be valuable.... As reflections of value judgments, citations serve as a measure of structural inequalities, but may also act to reproduce or transform such structures.

Hutson (2002) bases his research on four journals from 1977-2000, 1989-1998, 1990-1998 and 1989-1998, respectively. He concludes slight but not significant differences in female verses male citations to occur in most recent issues of *American Antiquity*, *Ancient Mesoamerica*, and *Journal of Field Archaeology*. However, given the fact that women’s work in *Southeastern Archaeology* is under-represented compared to their levels of membership in the Southeastern Archaeological Conference; such disparities in citation practices require necessary steps in resolving equity issues. He believes that there are other variables that effect gendered citations, for example, gender segregation in research interests, personal networks, professional age of the citing author, and the

prestige of the citing author. However, the rate of citation of women is still significantly below the rate of publication by women, regardless of the gender of the citing author.

Conclusion: Future Line of Action

If we glance back at the initial participation of women in archaeology in 1880s and compare it to the present day it seems that American feminist archaeologists have come a long way. There is no doubt that even now the discipline is male dominated but comparatively speaking a number of women have stepped up and made their presence felt in the discipline. The only problem is that perhaps feminist archaeology to-date is being researched and practiced more by female scholars. It does not mean that men scholars are totally absent from the feminist scene but they are fewer in number and consequently male archaeologists dominate the discipline generally and primarily leave it to their female counterparts to take care of feminist and gender inquiries.

Giplin (2000) is of the opinion that although feminist ideas are entering the archaeological mainstream, concerns remain that they are being grafted onto discourse that remains androcentric. Although she concludes that feminist archaeologists have already ensured that women don't remain "people without history" or "those of little note" but they still struggle to do archaeology as feminists in a field that still rewards androcentrism in so many ways.

Similarly, Meskell (2002) also states that gender remained, and in some circles still remains, the preserve of women, rather than a more dialogic and holistic study of gendered relations, which considers men as gendered beings with a concomitant construction of sexed identity. Conkey (2003) recapitulates that one of the first concerns of feminist-inspired archaeology has been to make the women of the past visible, particularly once the archaeologists came to see the highly androcentric accounts of the human past that prevailed. From the mid 1980s and into the present, at least 80 percent of the literature that one might consider under the rubric of feminist archaeology in its broadest sense is literature about women, females, and recovering and "finding" women and gender relations. But she believes that feminism has "absolutely changed the archaeological study of gender and the gender archaeologists" as these concepts are now a part of most introductory text books, gender and feminist archaeology are topics in current encyclopedias of archaeology and social sciences, various books and publications. However, gender or feminist research is still relatively ghettoized: it is mostly women who "do" it. She believes that the research that is being produced is often untheorized; that is, "gender" is still often just another variable that has been added to an unreflexive, somewhat positivist approach. Many still proclaim we cannot possibly "see" gender and thus attention to the feminist practice of archaeology is only emerging.

Pyburn (2008) is also of the opinion that processual and then postprocessual archaeology both deepened our understanding of the past and improved our approaches

to it, but both upheld a traditional disciplinary hierarchy with somewhat narrow goals. A feminist perspective is calling forth a new sort of heterarchy in which a variety of goals and methods can contribute to archaeology. She explains that such methods emphasize on collaboration rather than competition and inclusiveness rather than the exclusionary practices common to an earlier age.

There is no doubt that archaeology even now is predominantly a male oriented discipline, although a number of female archaeologists have secured strong positions within the discipline. However, female archaeologists should continue to strive hard to retain their accomplished positions and remain at par with their male counterparts. As such, for future advancement of feminist archaeology and archaeologists, firstly, the current scholars in the field should work and publish their research as much as possible. Secondly, female archaeologists should continue working on feminist and gender issues but at the same time they should also try and broaden their horizons and seek to develop and generate interest in other approaches and frameworks currently popular in archaeology as well. Or they can, as some are doing or have done, attempt to develop a multi-theory approach to feminist and gender studies within archaeology. Thirdly, feminist archaeologists should try to develop feminist archaeological standpoints because Alcoff (1987) also says:

If we give up positivism and/or correspondence theory of truth, to what theory of meaning can we turn? Until the discussion on these questions begins, the discussions about feminism and social science, and feminism and science and even feminist theory generally will (continue to) be stalemated by question-begging and unclarity.

Fourthly, scholars like Wylie are an asset for archaeology but she tries to over-philosophize and theoretize feminist archaeological studies (e.g. see Wylie 1996). Wylie, like the French feminist theorists (Kristeva, Irigaray, Cixous etc.) seems to adopt a style which is initially difficult to grasp. And this raises questions: do feminist archaeologists or female archaeology scholars/researchers consciously adopt a relatively incomprehensible style to appear philosophical, scientific, linguistic experts? Or is this their way, like some other feminist theorists/scholars, of proving to be at par or even better than their male counterparts because most philosophers are or have been men and philosophical writings are never easy to decipher or grasp? In response to this observation, Sayers (2008) believes that Wylie is sort of the field's Philosopher-at-Large and so comes at all of her writing from that kind of standpoint. Philosophically trained people almost invariably write in very complicated fashion--but, usually out of necessity. Sayers thinks Wylie is doing just that. That would also explain why feminist philosophers outside of anthropology also write in such complex manners. So, part of it is explained in terms of how the profession philosophy in academia trains people to think and write, male or female. For the most part, academic philosophers have been predominantly men until more recent decades and that had to have some impact on the nature of language use in the discipline. And, as women going into the business world have to learn to write in business-speak, which is also rooted in male-dominated

history, women engaging in academic philosophy probably also have to learn a manner of writing and thinking that has its roots in male-oriented speech/writing patterns. Besides, Sayers (2008) is not convinced that complex writing and thick conceptualization is a masculinized manner of expression. On the contrary he believes masculinity is so often seen in simple, short, and ultimately clear and laconic prose and manners of speech.

Finally, the aim of female archaeologists in the field, in the class and/or in the museum should be to work and contribute to the development of feminist epistemology in particular and archaeological methods and theory in general. Conkey and Gero (1997) almost a decade ago suggested:

Feminist destinations are perhaps less important than the everyday pragmatic work moving the feminist vision along; the dignity achieved in struggling for something worthwhile maybe more important than any predetermined endpoint of a feminist world.

Therefore, at this point in time feminist scholars should not be particularly divided whether they are pursuing feminist studies or looking into gender issues at large because their aim should be to enrich archaeology with female contributions through scholarship, research and publication. It does not matter what female archaeologists choose to work on, feminist issues, gender issues and/or both; they should simply continue to work and publish to uphold the much sought after positions that they have managed to achieve in the field of archaeology.

Notes

¹ Italics original.

² "Americanist" is the expression originally used by Levine (1994).

³ Sayers, Daniel O. (2008). Class lecture Anth 634- Foundations of Archaeology. American University, Washington D.C. October 16, 2008.

References

- Alcoff, Linda. (1987). "Justifying Feminist Social Science." *Hypatia*. 2 (3): Pp. 107-127.
- Binford, Lewis R. (1962). "Archaeology as Anthropology." *American Antiquity*. 28 (2): Pp. 217-225.
- , (1965). "Archaeological Systematics and the Study of Culture Process." *American Antiquity*. 31 (2): Pp. 203-210
- Conkey, Margaret W. (2003). "Has Feminism Changed Archaeology?" *Signs* 28 (3): Pp. 867-880.

- Conkey, Margaret W. & Janet D. Spector. (1984). "Archaeology and the Study of Gender." *Advances in Archaeological Method and Theory*. Volume 7. Ed. Michael B. Schiffer. Academic Press, Virginia. Pp. 1- 29.
- Conkey, Margaret & Joan Gero. (1997). "Programme to Practice: Gender and Feminism in Archaeology." *Annual Review of Anthropology*. 26: Pp. 411-437
- Fotiadis, Michael. (1994). "What is Archaeology's "Mitigated Objectivism" Mitigated By? Comments on Wylie." *American Antiquity*. 59 (3): Pp. 545-555.
- Gilchrist, Roberta. (1999). "Coda: The Borders of Sex, Gender and Knowledge." *Gender and Archaeology: Contesting the Past*. Routledge, London.
- Gilpin, Kelly Hays (2000). "Feminist Scholarship in Archaeology." *The Annals of the American Academy on Political and Social Science*. 571: Pp. 89-106.
- Green, Kevin (2002). "Making Sense of the Past." *Archaeology: An Introduction*. 4th Edition. Routledge, London
- Hastorf, Christian A. (1991). "Gender, Space, and Food in Prehistory." *Engendering Archaeology: Women and Prehistory*. Eds. Joan M. Gero and Margaret W. Conkey. Blackwell, Oxford. Pp.132-159.
- Harding, Sandra & Kathryn Norberg (2005). "New Feminist Approaches to Social Science Methodologies: An Introduction." *Signs*. 30 (4): Pp. 2009-2015.
- Hendon, Julia A. (1994). "The Society for American Archaeology's Committee on the Status of Women: A Progress Report for 1991-1993." *Archaeological Papers of the American Anthropological Association*. 5(1): Pp. 195-197.
- Hutson, Scott R. (2002). "Gendered Citation Practices in American Antiquity and Other Archaeology Journals." *American Antiquity*. 67 (2): Pp. 331-342.
- Levine, Mary Ann. (1994). "Presenting the Past: A Review of Research on Women in Archaeology." *Archaeological Papers of the American Anthropological Association*. 5 (1): Pp. 23-36
- Longacre, William. (1970). "Current Thinking in American Archaeology." *Current Directions in Anthropology* 3 (3, part 2): Pp. 126-138.
- McGuire, Randall. (2008). "Praxis." *Archaeology as Political Action*. University of California Press, Berkeley. Pp. 51-97.
- Meskill, Lynn. (2002). "The Intersection of Identity and Politics in Archaeology." *Annual Review of Anthropology*. 31: Pp. 279-301.
- Pyburn, K. Anne. (2008). "Shaken, Not Stirred: The Revolution in Archaeology." *Archaeological Papers of the American Anthropological Association*. 18 (1): Pp. 115-124.
- Rowlands, M. J. (1982). "Processual Archaeology as Historical Science." *Theory and Explanation in Archaeology*. Eds. C. Renfrew, M.J. Rollins and B.A. Segraves Academic Press, New York. Pp. 155-174.
- Sayers, Daniel O. (2008). Class Lecture Anth 634- *Foundations of Archaeology*. American University, Washington, DC October 16, 2008.
- , (2008). Continuation of Class Discussion Anth 634- *Foundations of Archaeology*. American University, Washington D.C. through e-mail, October 25, 2008.

- Shanks, Michael & Christopher Tilley (1992). "Positivism and the New Archaeology." *Re-Constructing Archaeology Theory and Practice*. 2nd Edition. Routledge, London. Pp. 46-67.
- Trigger, Bruce G. 2007 [1996]. *A History of Archaeological Thought*. 2nd Edition. Cambridge University Press, New York.
- Wright, Rita P. (1991). "Women's Labour and Pottery Production in Prehistory." *Engendering Archaeology: Women and Prehistory*. Eds. Joan M. Gero & Margaret W. Conkey. Blackwell, Oxford. Pp. 194-223.
- Wylie, Alison (1988). Paper Presented at the Conference "Women and Production in Prehistory," South Carolina.
- , (1996). "The Interplay of Evidential Constraints and Political Interests: Recent Archaeological Research on Gender." *Contemporary Archaeology in Theory*. Eds. Robert Preucel & Ian Hodder. Blackwell Publishers, Oxford. Pp. 431-459.
- , (1997). "The Engendering of Archaeology: Refiguring Feminist Science Studies." *Orisis*, 2nd Series (Women, Gender and Science: New Distinctions). 12: Pp. 80-99.

A New Approach to Objective Type Examination with Statistical Validation

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Abstract

In examinations, particularly at intermediate and below level, the prime objective is to quantify knowledge and skills as precisely as possible in a limited time. There are sufficient evidences that the objective examinations provide more satisfactory results than the traditionally used essay type. In this study, we propose evaluation through multiple choice questions with at least one correct response. It is statistically verified that the suggested approach will perform much better in comparison. Keeping in view, the widely established fact that IQ tends to normality, means that the students of moderate abilities are found often while those of extreme low/high abilities are much lesser. In the suggested format of the objective type, it assigns average marks to the students with higher probability and students exists at the extremes of ability have low probability. Lower values of the coefficient of variation for the suggested format shows comparatively more consistency in the marking scheme.

Keywords: Test, Examination, Bernoulli and Binomial Distributions, Mean, Variance and Coefficient of variation ($C.V$)

Introduction

Over the years, interest in the mode of examination and evaluation are gaining momentum among the educationists and researchers. Their main concern is how to weigh the students' abilities and capabilities in more concise manner. Of course, one cannot undermine the importance of students ranking and the value it carry to the institution, parents and to the subject itself.

The subject of examination and evaluation occupies an important place in the field of education. It is necessary for parents and teachers to know from time to time how the pupils are progressing and what their attainments are at any particular stage. It is equally necessary for society to assure itself that the work entrusted to its schools is being carried out satisfactorily and that the children studying there are receiving the right type of education and attaining the expected standards. This sort of evaluation of the schooling is essential in the interests of all concerned-pupils, teachers, parents and the public. Examinations are the usual means adopted for this purpose (www.education.nic.in).

Marks have become an accepted and expected aspect of our culture, students come to realize very early in their education careers that they will be graded or marked depending on their performance in school, college and university etc. Parents of students realize that the marks received by the child may well affect their educational, occupational and financial status by opening or closing various opportunities. Parents know that children are compared with others through their marks. Thus marks have considerable meaning for both child and parents (Kubiszyb and Borich, 2003).

In an educational system, examination or test is a measurement tools in evaluation procedures. There are also other measurement tools shown in Figure-1 e.g. rating scale, ranking scales, sociometric scales and other (Rizvi, 1973).

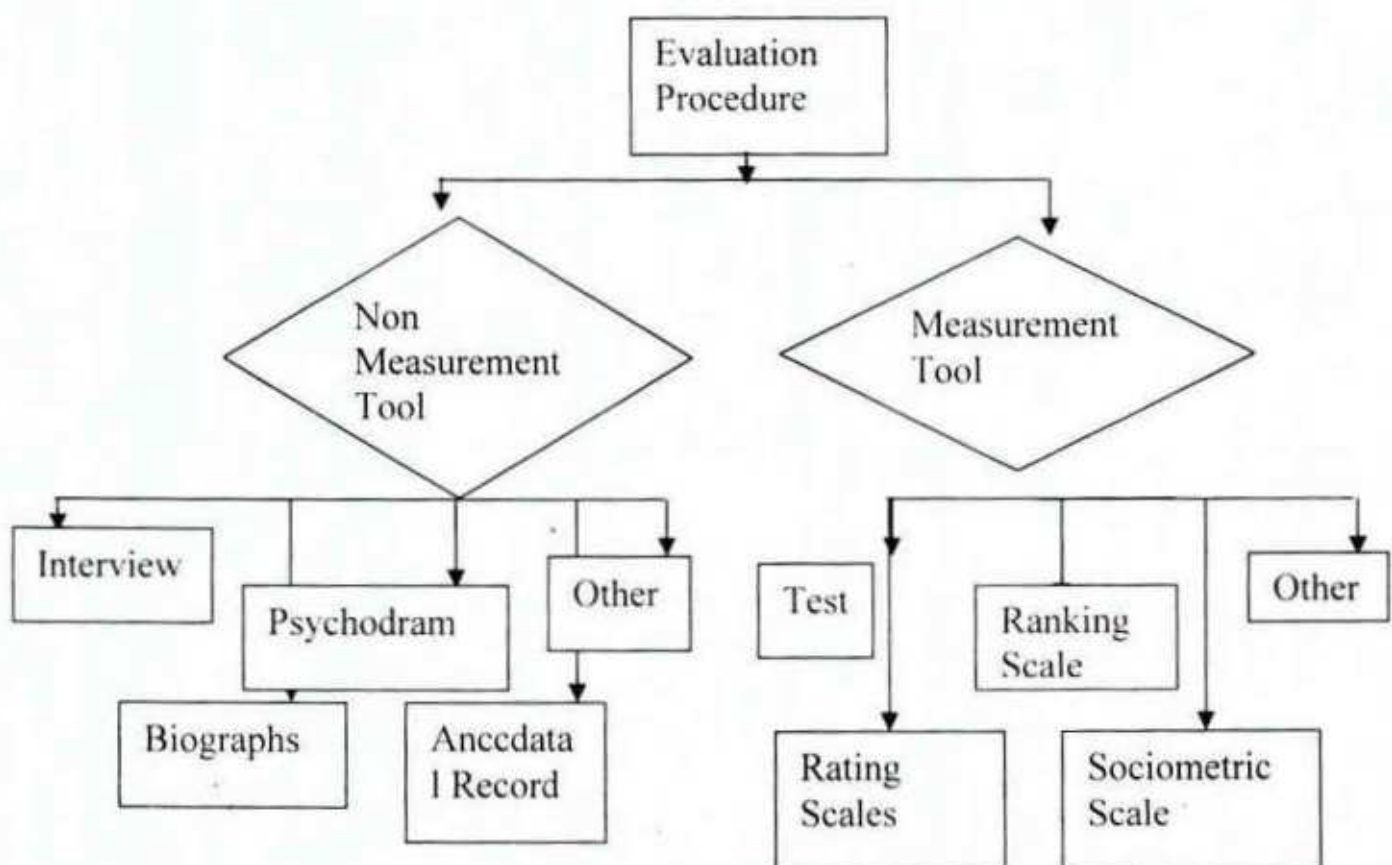


Figure-1: Classification of Evaluation Procedures

In this study, we are focusing on more generally used evaluation procedure called test or examination. In its broadest sense, a test is a systemic procedure for measuring a sample of students, behavior under specified condition. It consists of a number of questions to be answered, a series of problem to be performed by the examiner. The test can be classified into two broad categories namely ability and personality test. While personality test can be carried out in order to judge attitude, temperament,

interest and characters, on the other hand ability can be tested via achievement, aptitude and intelligence tests.

To focus on test, it is further classified in the following diagram.

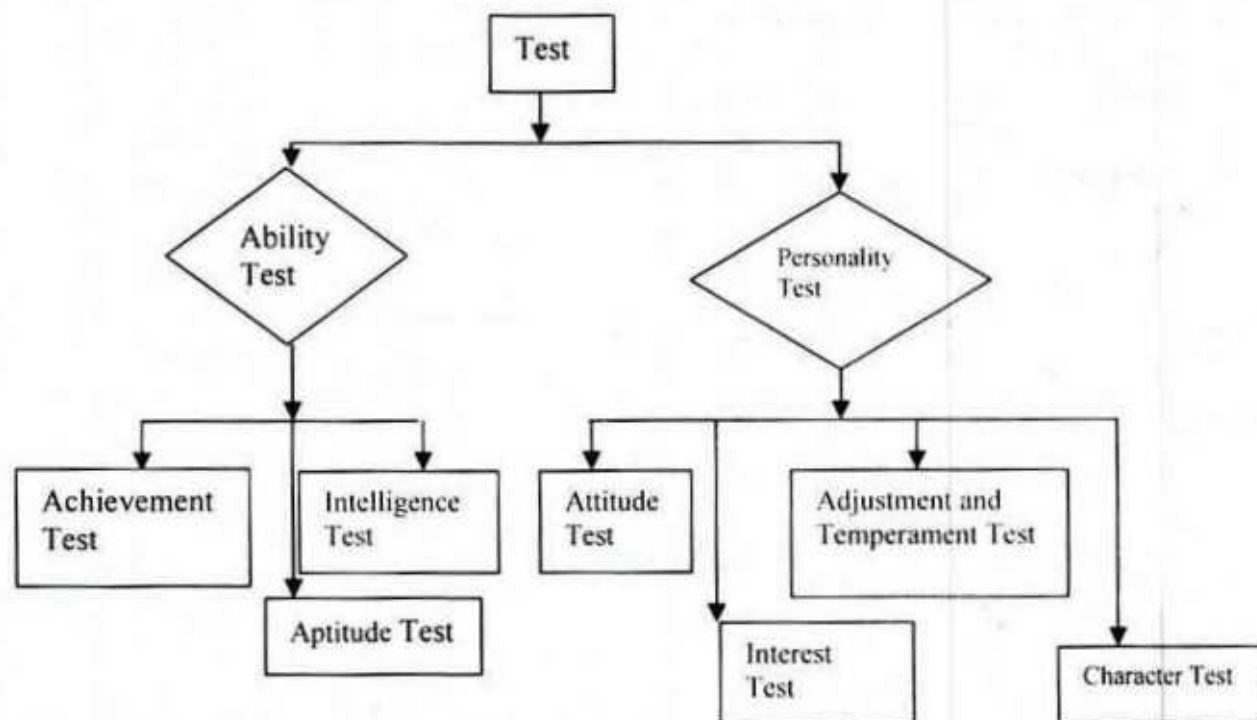


Figure-II: Classification of Test

The achievement test can further be classified in five different ways.

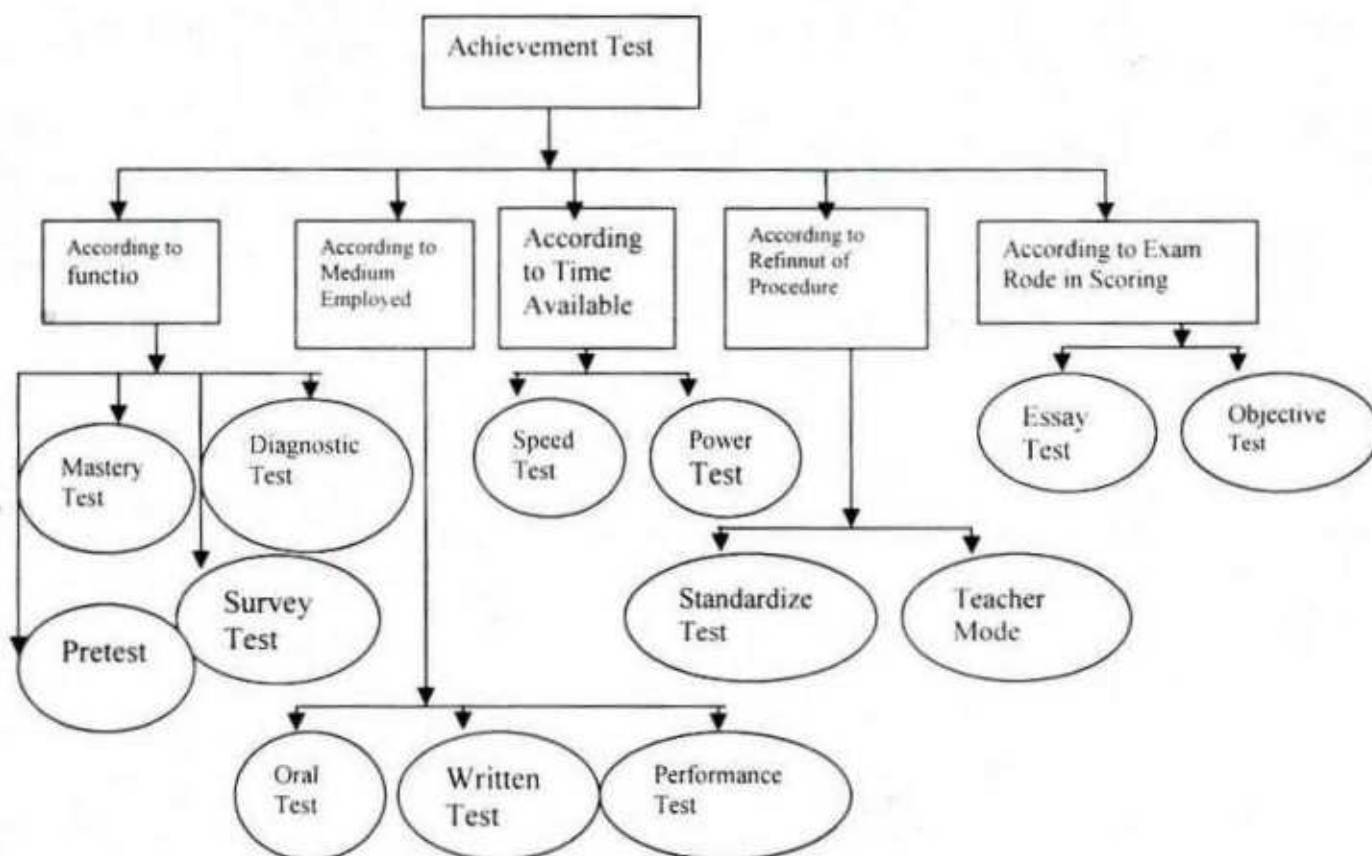


Figure-III: Classification of Achievement Test

Any examination is a dreadful experience for every student. But essay exams are even more petrifying, terrifying, and nerve-racking. Unlike an objective test, essay exams are not checking to see if you have learned certain pieces of information, they ask for your understanding of the main concepts, ideas, and theories of the course presented in a smoothly written form. Since essay exams are more demanding than the rest of exams you sit in your student's life, they call for greater preparation.

The test of the intellectual attainments of pupils, the validity and usefulness of the present pattern of examination has been widely questioned. The present system of examining by means of essay-type questions leaves so much scope for the subjectivity of examiner that it is least reliable. "In this connection, reference may be made to the findings of the Hartog Report on an Examination of Examinations which clearly proves the foibles of such a system. It may therefore be fairly inferred that as at present conducted, examination do not help us to evaluate correctly even the intellectual attainments of the pupils" (<http://education.nic.in>).

Many studies have been made on the value of written examinations. Mostly, these researchers agree that the old type of examinations do not measure achievement adequately. The reasons may be summarized as: i) marking of the paper is highly subjective ii) the examinations are usually so short that they do not measure

achievement in a course satisfactorily iii) the judgment of the instructor is influenced, consciously or unconsciously iv) the standard of grading is arbitrary, since the questions are not equally difficult and weighting by teachers is highly subjective v) the distinction between scores and grades is not recognized (Domitilla, R.N., 1934).

In comparison, the objective type examinations show greater uniformity in marking and more desirable results.

Conventional Methodology

The terms testing, examination, measurement, assessment and evaluation may seem similar and confusing. Educationists, however, have assigned specific meanings to each of these terms (www.etea.edu.pk/objective.htm).

Essay type examination and objective type examination are not contradictory to each other but they are not complementary to each other for evaluation purpose. An objective type examination is used for measuring lower objective of teaching where an essay type is used for higher teaching objective the objective type has the objectivity in scoring purpose and highly reliable and valid where essay type has poor reliability (Ravi Krishna and Bhaskara Raw, 2004).

When an examiner assigns marks to a script, there is 50% chance that his error is greater than 5% (=12.195%), which means a student who is awarded a raw mark of 41, the true mark may be either above 46 or below 36 in 50% of the case. That means there is a 50% chance of giving marks with more than 10 points gap to the same paper at different times or by different examiners.

In selection type test alternative response is external, susceptible to guessing. The student has a 50% chance of guessing correctly even without reading item, like, true false, matching item represent a popular and convenient testing format.

The multiple choice item is composed of the two part 1) The stem which present the problem and 2) A list of several possible answer or alternative from which an appropriate answer is selected the stem may be in the form of a question or an incomplete statement. The appropriate answer may be the only one that is correct; the alternatives, other than the keyed answer, are called distracter foils or decoys (Ravi Krishna and Bhaskara Raw, 2004).

In this paper, we are trying to gauge the possible variations in these distracters.

a) Question with Alternative response

A question with alternative response is rewarded by marks either 0 or 1, implies that a random variable X (marks) has a Bernoulli distribution (Moore et al. 2006) i.e. $X = 0, 1$

Case I: Either a statement is true or false etc.

So probability of correct response $p = 1/2$.

Similarly, probability of wrong response $q = 1/2$

$E(X)=1/2$, $V(X)=1/4$ and co-efficient of variation

$$C.V = \frac{S}{\bar{X}} \times 100 = \frac{\sqrt{1/4}}{1/2} \times 100 = \frac{1/2}{1/2} \times 100 = 1 \times 100 = 100$$

$C.V = 100$

In this case though the awards are more objective, but a higher chance of guessing is involved. There are one out of two outcomes for correct response and the probability of guessing a correct response is 0.5. As such the probability of getting full marks is 0.5 and zero marks is also 0.5 in a question. Further, the probability of guessing in whole paper of k questions i.e., $(0.5)^k$ does not tend to zero. The main drawback is that the marks award to a question is either 0 or full, the two extremes. As such a student is either at 0% or 100% ability. There is no chance for the average student having average marks.

b) Multiple Choice Questions

A question having ' m ' multiple choices when awarded marks either 0 or 1, implies that the marks is a random variable ' X ' which has a Bernoulli distribution i.e. $X=0,1$

So the probability of correct response $p=1/m$ and probability of wrong response $q=(m-1)/m$, which means the probability to guess the correct response is $1/m$ which seems to be reasonably smaller as compared to alternate or binary responses but the marking range is wider with a coefficient of variation as $(m-1)^{0.5}$

Case-II: Let's take five options with one correct response.

Probability of correct response is = $1/5$,

Probability of wrong response is = $4/5$.

$E(X)=1/5$, $V(X)=4/25$ and coefficient of variation

$$C.V = \frac{S}{\bar{X}} \times 100 = \frac{\sqrt{4/25}}{1/5} \times 100 = 2 \times 100 = 200$$

Though the chance of guessing a correct answer has been reduced in the multiple choice as compared to alternate choice however, the large coefficient of variation reduces the consistency. There are one out of four outcomes for correct response and the probability of guessing a correct response is 0.20. As such the probability of getting full marks only using guess is 0.20 and that of zero marks is 0.80 in a single question. Further, the probability of guessing in whole paper of k questions i.e. $(1/m)^k$ which tends to zero for large k . The main drawback again is that the marks award to a question is either 0 or 1, the two extremes. Which means students will either get maximum "1" or zero marks, and hence average tendency cannot be upheld.

Proposed Methodology

In this study, we propose multiple choice questions with at least one correct response. If a question has 'm' choices of which 'n' are correct, then the probability of correct response is n/m for each choice and each choice is considered to be a Bernoulli trial. The award to a question will be varying from 0 to m. i.e. Variable X has binomial distribution $X = 0, 1, 2, \dots, m$

$$f(x) = {}^m C_x p^x q^{m-x}; x=0, 1, 2, 3, \dots, m,$$

where $p = n/m$, $E(X) = mp$, $V(X) = mpq$ and the coefficient of variation,

$$C.V = (mpq)^{0.5}/mp$$

In the proposed method there will be higher frequency for average marks and lower frequency at the extremes marks (0 or m). There are one out of 2^m possible outcomes for correct response and the probability of guessing a correct response is $1/2^m$. The probability of guessing a completely incorrect response is also $1/2^m$. As such the probability of getting full marks or zero is considerably lower i.e. $1/2^m$.

The suggested methodology of evaluation leads to considerably different marking scheme. It is noticeable that the information conveyed to the student, is "select at least one correct", which means out of 5 options he may choose any number of correct options. The marking scheme is illustrated as Table-I.

Table-I: Students' Responses to a Question with five Options

Student # (I)	(II)	(III)	(IV)
(a)	(a) <input checked="" type="checkbox"/>	(a) <input checked="" type="checkbox"/>	(a) <input checked="" type="checkbox"/>
(b) <input checked="" type="checkbox"/>	(b)	(b) <input checked="" type="checkbox"/>	(b) <input checked="" type="checkbox"/>
(c)	(c)	(c)	(c) <input checked="" type="checkbox"/>
(d)	(d)	(d)	(d)
(e)	(e)	(e)	(e)

Suppose that a question contain 5 responses a, b, c, d, and e and only b is correct but the student is asked to choose at least one correct response. Consider the replies of the four students. The award scheme will be such that, student-I gets 5 marks, only one is correct which is marked, his/her decision about all the five options is correct, hence 100% i.e. five marks will be awarded.

Student II gets 3 marks, he/she is confused about (a) and (b) and his/her decision about (a) and (b) is incorrect, but the decision about (c), (d), and (e) is correct and consequently 3 marks will be awarded. Student III gets 4 marks, decision about (a) is incorrect the rest is ok, hence 4 marks will be awarded. Student IV gets 3, decision about (a) and (c) is incorrect, consequently losing two marks and 3 marks will be awarded to the students.

The utility of the proposed marking system is illustrated in different situations proper comparative statistics used is co-efficient of variation ($C.V$) which shows how the marking scheme is tending towards the average instead of awarding highest or lowest penalty.

Case: I (Unconditional Probability of correctness for an option)

Assume that we have five responses to a question having at least one correct response. Let p be the probability that an option is correct and q be the probability that an option is incorrect

Further assume that $p=1/2$, irrespective of how many are correct responses out of $m=5$

$$\text{Mean} = mp = 5/2 = 2.5$$

$$\text{Variance} = mpq = 5 \cdot 1/2 \cdot 1/2 = 5/4$$

$$\text{So coefficient of variation } C.V = \frac{S}{\bar{X}} \times 100 = 1/2 \times 100 = 50\%$$

In this case, the probability is unconditional and the $C.V$ is smaller implies that the guessing probability is minimized and also there is a higher chances for the average students who will get 2, 3 or 4 marks. The extreme marks have lower chances to be awarded.

Case: II (Conditional Probability of correctness for an option)

- i) Stated in the question to choose one correct out of 5 responses to multiple choice question.

Here we assume the probability of success in an option is conditional to number of correct responses i.e. $p=1/5$ be the probability that an option is correct and $q=4/5$ be the probability that an option is incorrect

$$\text{Mean} = mp = 5 \times 1/5 = 1 \text{ and } \text{Variance} = mpq = 5 \times 1/5 \times 4/5 = 4/5$$

So coefficient of variation

$$C.V = \frac{S}{\bar{X}} \times 100 = \frac{\sqrt{4/5}}{1} \times 100 = 0.894 \times 100 = 89.4\%$$

- ii) Assume two correct out of 5 responses to multiple choice question. Again to assume the probability of success conditional to number of correct responses i.e. $p=2/5$ be the probability that an option is correct and $q=3/5$ be the probability that an option is incorrect.

$$\text{Mean} = mp = 5 \cdot 2/5 = 2 \text{ and } \text{Variance} = mpq = 5 \cdot 2/5 \cdot 3/5 = 6/5$$

So coefficient of variation

$$C.V = \frac{S}{\bar{X}} \times 100 = \frac{\sqrt{6/5}}{2} \times 100 = 0.547 \times 100 = 54.7\%$$

- iii) Considered three correct out of 5 responses in multiple choice question. Here to assume the probability of success conditional to number of correct

responses then $p = 3/5$ be the probability that an option is correct and $q = 2/5$ be the probability that a response is incorrect

Mean $mp = 5 \cdot 3/5 = 3$ and Variance $= mpq = 5 \cdot 3/5 \cdot 2/5 = 6/5$

So coefficient of variation

$$C.V = \frac{S}{\bar{X}} \times 100 = \frac{\sqrt{6/5}}{3} \times 100 = 0.365 \times 100 = 36.5\%$$

- iv) Similarly, the case of four correct out of 5 responses to multiple choice question. Here to assume the probability of success conditional to number of correct responses then $p = 4/5$ be the probability that a response is correct and $q = 1/5$ be the probability that a response is incorrect

Mean $mp = 5 \cdot 4/5 = 4$

Variance $= mpq = 5 \cdot 4/5 \cdot 1/5 = 4/5$

So coefficient of variation

$$C.V = \frac{S}{\bar{X}} \times 100 = \frac{\sqrt{4/5}}{4} \times 100 = 0.223 \times 100 = 22.3\%$$

In all these case we see that in the proposed methodology the coefficient of variation is smaller than the conventional methodologies. Further the coefficient of variation decreases as the number of correct responses increases shows the consistency in the marks i.e greater tendency towards the average. Further the guessing probability is minimized and also there is a higher chance for the average students who will get 2, 3 or 4 marks out of 5 marks per question. The extreme marks have lower chances to be awarded.

Conclusion

The essay-type examination has its own value. It tests certain capacities which cannot be otherwise tested. But it should not be the only test for measuring the attainments of students. One of its greatest disadvantages is that it gives undue weight to the power of verbal expression in which wide range of differences exists from individual to individual. In order therefore, to reduce the element of subjectivity of the essay-type tests, objective tests of attainments should be widely introduced side by side.

There are different approaches to objective type tests, but in this study, we proposed an approach that is questions of multiple choices with at least one correct response. This approach assumes higher chances for the average marks, which is realistic that every society have a large number of average students and very few at extremes of ability. All other approaches, award marks to every student on the extreme and no one at average for a question. The proposed approach provides more consistent marking scheme as compared to its counterparts.

References

- Domitilla, R. N. (1934). "State Board Examinations: Objective Type and Essay Type Compared" *The American Journal of Nursing*. Pp. 587-591
- ETEA/NWFP/Pakistan. (2001). *Taxonomy of Educational Objectives, Book 1. Cognitive Domain*, Ed. Bloom, Longman Copyright (c) 2001-04.
- Kubiszyb, T and Borich, G (2003). *Educating Testing and Measurement, 7th Edition*, Willey/Jossey-Bass Education.
- Moore, McCabe & Craig. (2006), *Introduction to the Practice of Statistics*, W. H Freeman & Company.
- Najam A. A (2007). *What and Why of Objective Testing*. (in press), 47-B, The Mall, Peshawar
- Ravi Krishna, M and Bhaskara Raw, D (2004). *Examination System Discovery*. Publishing House New Delhi-110002.
- Rizvi, A (1973). *Classroom Testing in Theory and Practice*. Tower Book Agency Karachi- Pakistan.
- <http://education.nic.in/cd50years/q/3C/3U/3C3U0B01.htm>
- www.etea.edu.pk/objective.htm

Conflict, postwar reconstruction and corruption: institutionalised corruption by donors in afghanistan's reconstruction*

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Political corruption...is, indeed, a unique and highly complex thing; an institution, if you please, rather than a condition of society or a temper or tendency of any class of individuals.

Francis McGovern (1907, 266)

Abstract

Poverty, drugs and corruption are the three infamous problems in Afghan reconstruction process. Reform and growth in Afghanistan has not resulted in alleviation of these problems. Poverty in Afghanistan has become a persistent phenomenon and is compactly knitted into the fierce circle of corruption and illegal production and of trade drugs. Since two third of the donor assistance goes through non governmental sector in Afghanistan, therefore, responsibility of the donors to the rampant corruption cannot be ignored. This paper investigates the sources of corruption in Afghanistan and analyses the policies and practices of the donor countries and agencies.

Keywords: Poverty, Afghan reconstruction, drugs and corruption, donor countries and agencies, contractors

Theoretical Formation

The process of transition and reconstruction in Afghanistan will be elucidated by using Institutional theory. This theory stipulates that social components of a society constitute individuals exploiting resources, seeking rent for the deficient systems, opportunist who maximize their prosperity and wealth by using institutional restraints to their own limited selfish interest. Since these individuals maneuver within the given set of rules, nevertheless, they attempt to modify and change those rules to optimize

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their benefits. A key element of institutional theory is to vary institutional features, like laws rules and regulations, while keeping the behavioral postulates, for example, opportunism, selfish and wealth maximizing attitude of individuals' constant.

Methodology

The critical link between institutions and result is behavior which can be best guided by the institutional approach. Therefore, institutionalism which interprets institutions as "solutions to instability problem of collective choice processes" is used as methodological tool in this respect. Moreover an attempt would be made to present a new definition of corruption in Afghan context by explaining the process of donors' malpractices beyond the familiar notion that "Corruption is the abuse of power by a public official for private gain." Besides, suggestions would be offered to minimize the institutionalized corruption on part of the donors.

Introduction

The success of post-conflict agendas is faced by corruption, identified as being one of the major problems. The availability of high level of aid, in post-conflict environments offers astonishingly greater openings and relatively little castigatory perils for corrupt practices. As in the case of Afghanistan, availability of extraordinary donor aid for reconstruction and development presents bigger opportunities for corruption, which is now considered as one of the most critical challenge to the success for post-conflict frameworks.¹

Building good governance institutions that facilitate sustainable and equitable development is the core objective of post conflict reconstruction. Due to the presence of high corruption and poor governance, the deepening of accountability process is essential to control corruption. This task is central to all other activities as it strengthens the apt functioning of post-conflict institutions.²

Institutions and mechanisms that foster transparency and accountability reduce the opportunities for corruption. Unfortunately, post-conflict countries are weak in both respects. Media and civil society, whose activities often demand transparency, are often just as weak, if not more, as before the conflict. Due to the fragile governance settings and temptations for private boom strengthened by deficient restrictive mechanism for such illegal fortification, the stretch of corruption is practically assured. Since it is a high-gain and low-risk activity in post-conflict situations, sooner or later it will erode the very essence of peace arrangements and will ultimately lead to failure.³

The shocks of corruption as specifically as it relates to development apparatus, are multiple in natures. Firstly, experience suggests the corruption in such settings is inherent resulting in lesser donor zest and minimal levels of aid contrary to their capability as in case of Afghanistan. For example, per capita external assistance for the first two years of conflict was \$1,390 in Bosnia and \$814 in Kosovo but is only \$52 in Afghanistan.⁴ Estimates by various institutions suggested that for initial seven years of

Afghan reconstruction needed \$27.5 billion to take Afghanistan from its current dire levels of poverty, hunger and want to an annual per capita GDP of about \$500.⁵ However, the aid disbursed during the period was a fraction of the estimate. As the expectations are high by the recipients, and when they are not met due to insufficient donor support, it becomes a critical hindrance to delivery system as specified in peace deeds resulting in policy backfire followed by resumption of conflict.⁶

Secondly, the inadequate aid committed by the donors as in the case of Afghanistan is shrunk by corruption. The viscous circle of actual aid committed by the donors and disbursed by the corrupt relevant agencies continues, this further impedes the implementation of post conflict agendas. The poor implementation, though the reasons well known by the donors, results in providing a pretext to back out from their earlier commitments by decreasing the aid and investment.⁷ Research suggests that aid for the conflict countries leans to decrease towards the end of the first decade, partly due to deficient donor confidence in the effectiveness of their assistance leading to further inefficiencies encouraged by the corrupt practices. Corruption is thus considered to be the impetus that promotes poor service delivery system.⁸

Moreover, corruption stimulates a vicious cycle of mass poverty and public sector debt. This debt has been identified by many as "criminal debt" allegedly made available with the tacit understanding that they would be robbed from the public who will have to reimburse them without actually receiving them.⁹ Additionally, the relationship between corruption and conflict exists in the sense that collapse of governance is attributed to the breakdown caused by the corruption which leads to violence. Hence it is the alliance of voracity and misery that compels the conflict.¹⁰

Concept and Theory of Corruption

The predominant outlook of corruption within economics and political science currently is principal-agent model where corruption is explained as criminal behavior on behalf of some agents delegated to act on the behalf of some principals.¹¹ According to this view the criminal behavior of corruption could be made to disappear by fixing the incentive structure or the institutional setting.¹² Who is the agent and who is the principal in these models may differ, could either be rulers or bureaucracy assuming the role of principal or the agent.¹³ Even more frequent to have rulers model as agents, and citizens as principals, stressing institutional determinants of corruption such as electoral rules, democracy and other mechanisms of accountability.¹⁴ In spite of exactly how principal- agent relationship is modeled, it is emphasized that corruption could evaporate by setting up the incentive structure of the institutional setup within which it occurs.

Nevertheless, by representing corruption as an institution in itself, instead of some form of illicit behavior, both the causes and consequences of corruption appear in a differently. A submission to this perspective is seen as a regressive tax, which opens up for applying a set of theoretical models of distributional conflict to the study of

corruption in relation to economic inequality and democracy.¹⁵ According to Arvind Jain¹⁶ "to understand the conceptual and theoretical links between corruption and the functioning of society's economic and political institutions" is by far the most challenging task facing corruption researchers today. Conceiving of corruption as an institution highlights another dimension of social conflict produced by and reproducing corruption. Whereas the principal-agent model stresses a vertical dimension of conflict, between rulers and ruled or electors and elected, an institutional view of corruption instead stresses horizontal conflicts between different sectors of society which may benefit or loose from corruption.¹⁷

Corruption as an Institution

The causes and consequences of corruption will appear differently if it is regarded as an institution itself rather than some composition of illegal behavior. An institution may be defined as "the rules of the game", in North's¹⁸ sense, as opposed to the way actors are playing it. This definition is general enough to capture both formal institutions, such as legal contracts and written constitutions, and informal institutions, such as tacit agreements, social norms and codes of conduct.¹⁹ The view of corruption suggested here would more commonly relate to the informal realm, where corruption works as an informal system of asymmetric exchange within organizational hierarchies.

According to Karklin²⁰ "typology of corruption", at the lowest level are acts of "petty corruption", made up of exchanges made during everyday interactions between low-level public officials and citizens. At the next mid-level are interactions made inside the bureaucratic hierarchy, such as varieties of misappropriation and procurement rewards. At the highest level are connections are made in order to manipulate political institutions, such as discouragement of elections, humiliating the judicial process or the news media. What mechanisms hold these different forms of corrupt exchanges together? It is argued that an informal practice which regulates what behavior is expected or not in different interactions among public agencies.

Two types of models are discussed by Rose-Ackerman²¹ that may envisage the evolution of such interconnected practices within bureaucratic hierarchies, one bottom-up and one top-down. "Selectorate theory"²², manifests the top-bottom approach, where policy measures set by the top political leadership in order to reward their support coalitions with private goods²³ are taken as corruption in this model works as policy.

While the top-down outlook is important in understanding the incentives for political leaders to permit corruption (in other words, to work as non-benevolent "principals"), it holds a somewhat naively optimistic view of the extent to which top leaders may control corruption single-handedly. However, the implementation of policies imposed by state leaders is a key missing component.²⁴ On the contrary, the bottom-up approach, offers a more rational account of how intertwined the inducements for

corruption may eventually become at high and low levels in the state system. Model of Cadot illustrates this phenomenon,²⁵ in which higher-ranking officials cover up lower-level corruption in exchange for a share of the pie of bribes paid at lower levels; or in which each law enforcer supposed to punish corrupt acts may be corruptible but at the same time depend on another potentially corruptible law-enforcer higher up in the hierarchy.²⁶

Yet another significant peculiarity is that between "bribe collectors organized as a joint/centralized monopoly as opposed to independent/decentralized monopolies".²⁷ In the former case, the setting of bribes is coordinated within the state bureaucracy so as to maximize corrupt revenues, similar to the top-down approach. In the latter case, more analogous to the bottom-up view, different bribe collectors set bribes independently, the aggregate effect of which is to increase the general level of bribes but to decrease the total amount of corrupt revenues collected.

It is acknowledged that, there are obvious variations within the institutional approach to corruption, that is, between corruption as a formal vs. an informal institution, top-down vs. bottom-up views to understanding the evolvement of corruption as an institution, and a centralized vs. decentralized methods to maneuver. Beyond these dissimilarities, however, what these narrations make apparent is the *systemic* nature of most significant corruption tribulations,²⁸ or the degree to which corruption works through *networks* of exchanges.²⁹ The forces that unite these connections mutually into a set of "rules of the game" are however, in need of profound theoretical and empirical investigation.

Corrupt institutions of course comprise of people staging corrupt acts. For example, misuse of public office for private gain. Having said this, one might ask what difference it makes to treat corruption as an institution or as a form of behavior. Collier,³⁰ for example, uses an "institutional choice approach" to explain corruption, which suggests a view of corruption as an institution. Collier however *defines* corruption as a scrupulous type of individual behavior.

Apart from a minority of countries, most of them located in Western Europe and North America, corrupt behavior is not the exception to the rule; it is the rule. Moreover, this perspective might explain why the empirical evidence linking corruption to institutions of accountability has been so surprisingly weak and inconsistent. If corruption is not a problem of accountability, but generated by an informal social contract to which even some principals may agree, then the incentive structure of the agents is not the place to look for a "quick fix".³¹

Thirdly, this standpoint might elucidate the dilemma posed by Jain³² of why corruption persists despite its obviously harmful consequences for the economy and society. To answer the questions like corruption being historically a strong self-enforcing equilibrium?³³ Lui³⁴ and Andvig and Moene,³⁵ for example, take into account the

fundamental observation that both the profitability and costliness of corruption depend on its frequency: as more public officials become corrupt, it becomes more profitable to be corrupt at the same time as the costs for auditing corrupt officials increase.³⁶ Tirole³⁷ proposed another mechanism through collective repute: it is not in the interest of an individual to be honest if his or her group has a reputation for being dishonest, which means that early choices made by older members of an organization may be passed on to younger ones long after the former have gone. Acemoglu³⁸ finally, argues that the persistence of rent-seeking activities such as corruption may be explained by the allocation of talent through history between productive and unproductive activities. The more actors engage in bribe-collection from entrepreneurial firms, the less the returns will be from entrepreneurship, and the more talented people will move into the unproductive business of collecting bribes, and so on.

All these models share the perspective that corruption is not simply determined by a calculus weighing expected benefits over the costs and probability of punishment, since that calculus should change swiftly with the change of institutional environment. Corruption as an institution itself, however, should be sticky, by generating increasing returns to those with power to uphold the system.³⁹

Finally, a fourth reason to consider corruption as an institutional tool in itself relates to its consequences. The new intellectual accord on corruption holds that the old "grease the wheels" notion was faulty, in large part because it treated corrupt acts as isolated events, not as a systematic patterns of events with negative externalities that spread to other parts of a the system (see, in particular, Rose-Ackerman 1999, chap. 2). However, the principal-agent models of corruption as entirely unproductive or unimportant cannot be dismissed altogether. On the contrary, many of their main insights must be taken into account also in future modeling attempts. Besides, there is need to harmonize the principal-agent approach with one that emphasizes more elementary lines of conflict in society.

Determinants of Corruption

If corruption is considered an institution, what forces strengthen its resolution, and what may cause its consternation? One possible economic function performed by corruption is "acting as a regressive tax". It can be argued that the profits from corruption largely accrue to better-connected individuals in society, who of course frequently draw from the higher-income stratum.⁴⁰ Corruption may also result into tax evasion due to deficient tax administration, which again would excessively favor the well-connected and wealthy population groups.⁴¹ Medina and Stokes' model of machine politics, moreover, suggests that since poor voters are generally more dependent on the political monopolies that clientilistic systems thrives upon, patrons in these systems will generally transfer more to richer voters.⁴² Moreover, corruption in public service deliverance impairs the poor doubly over: by making low income users pay a larger share of their income than wealthier ones and by acting as a selective mechanism for admittance to basic services.⁴³ To the extent that individual-level

perceptions of the frequency of corruption may be interpreted as experience-based. Tverdova's⁴⁴ findings from mass surveys in 31 countries lend support to a similar view in that the rich people perceive corruption to be less widespread than the poor.

Corruption being regarded as regressive taxing; the primary societal conflict over corruption of course becomes one of income relocation. This opens up for application of a set of theoretical models of distributional conflicts to the study of corruption.⁴⁵ Three examples given here will be treating the institutional context as exogenous and seeing the two institutions of democracy and corruption as being jointly determined.

Firstly, consider the concept of asset specificity, or capital mobility: In order to avoid capital flight, the tax rate would be lower to the less prolific assets at home relative to abroad. As the movement of capital increases, then, the tax rates required to maintain assets from moving abroad necessarily have to decline.⁴⁶ As a result, institutionalized corruption working as a regressive tax should become a less important tool for the rich to compensate themselves for overdue tax rates. This method is consistent with at least two pieces of empirical evidence in the literature: that corruption decreases with increasing levels of socioeconomic up gradation and that corruption is higher in countries with persistent resource profusion.⁴⁷

Secondly, income inequality could be a long-run determinant of corruption, according to this same way of reasoning. It could be expected that corrupt societies would be more unequal if corruption works as a regressive tax. This conjecture also finds empirical support.⁴⁸ According to Alesina & Angeletos⁴⁹ a model with positive feedback in both directions would be considered. Corruption encourages inequality, or more particularly, an opinion of excessive inequality: results generated by providence and connections rather than by endeavor or ability. This in turn raises the demands for reorganization and an increase in the size of government, as in the classical Meltzer & Richard⁵⁰ setup, but then flows back into more corruption: bigger governments are supposed to increase the amount of corruption by increasing the private gains of rent seeking. However, the relationship between the size of government and the incidence of corruption appears to be negative.⁵¹

You & Khagram⁵² argued that unfairness should spawn corruption by raising redistributive pressures, to which the rich respond by using corruption to lower the tax rates and avoid the collection of taxes. The more convincing finding of You & Khagram is that discrimination primarily affects corruption under democracy, since in authoritarian systems the rich elite may simply repress the poor instead of accepting redistribution. On the contrary, subjugation is not a viable option in democracy. However, it may work as a refuge for the elites, thus releasing the burden of democracy to the elites. Ironically, then, corruption could be perpetuated through the democratic system itself despite being effective initially to help bring democracy.

Donors and Corruption in Afghanistan

According to Galtung⁵³ post war reconstruction is a period with a unique conjuncture of factors that provide particular openings for corruption. Transitional authorities are able to institute a form of legitimized blackmail in which corruption is deemed to be an acceptable price of the peace process. Bribery becomes "political money". It is also evident that post-war reconstruction provides an ideal setting for large-scale corruption.⁵⁴ Therefore, "Conflict starts to feed on corruption and corruption feeds on conflict".⁵⁵ Lorenzo differentiated the phenomenon into "petty corruption" and "big corruption". With petty corruption its workings need further study and analysis before measures can be developed to fight it. With big corruption the question of the political will and power to fight it remains. Afghanistan is in the grip of rampant corruption and 35 to 40 percent of international aid to the country is badly spent, hence creating wastes.⁵⁶

One of the crucial problems in Afghanistan is poverty. Only a limited number of Afghans, who work for foreign companies, earn sufficient wages. Those who are employed in public service earn on the average less than \$50 a month. Corruption is suffocating the very fragile Afghan administration. It has become extensive and evident to the point that even the president admits it but cannot prevent it. There are two reasons for corruption in Afghanistan. At the very low level, civil servants become corrupt because they cannot afford a living with \$40 or \$50 monthly salaries. In the higher stratum, simple money from drugs corrupts bureaucrats. For instance, to undermine the rule of law, rug traffickers are willing to pay huge amounts of money to corrupt political appointees. It is significant to consider that all previous governments in Afghanistan have fallen not because of their military weaknesses but because of social, economic and governance issues.⁵⁷

Spending imperative is considered to be an important factor affecting corruption risks in a post-war environment that perceived the post-war context as a 'state of exception'.⁵⁸ The often used criteria by donors to evaluate the quality of an agency and thereby determine if it will be funded, is its capacity to disburse funds quickly. This frequently leads to an approval of leakage, the twisting of rules and the awarding of contracts without any competitive or transparent solicitation. Some of these observations can be seen as corruption; others can be expressed as wastage. Given this urgency, the aid agencies will pay anything for the goods they want, and will omit procedures for the sake of time as they are under pressure to deliver. The utility of receipts as proof of a deal or that a particular sum of money has been spent on a particular item is pointless in Afghanistan. Besides, auditors have not been adequately verifying expenditures, for example by going back to the company or the person who produced the receipt to inquire about it. Moreover, the deficient legal environment does not encourage organizations to take any legal action against corrupt staff or partners or businesses that breach contracts or defraud them.

It has been detailed that Britain and the United States had secretly distributed huge sums of money to persuade Afghan warlords not to revolt against their country's new government. It has been reported that 'bin bags' full of US dollars have been flown into Afghanistan, sometimes on RAF planes, to be given to key regional power brokers who could cause trouble for Prime Minister Hamid Karzai's administration.⁵⁹

The governor of Kandahar, southern province of Afghanistan, Gul Agha Sherzai, a commander in the eastern province of Nangahar, Hazrat Ali, and several others have been 'bought off' with millions of dollars in deals brokered by US and British intelligence. Many of the commanders gaining from these deals have been involved in opium production, drug smuggling on a massive scale and widespread human-rights abuses.⁶⁰ Besides, the spending imperative was especially evident in the run-up to the 2004 Afghan elections and the need for the US in particular to present Afghanistan as a success story, especially in view of the ongoing conflict in Iraq.⁶¹

As examples of these, the report refers to the construction of the USAID-funded Kabul-to-Kandahar highway, a campaign promise by President Hamid Karzai before the 2004 elections. The road was built in approximately two years, but is already decomposed due to poor design, bad planning and poor-quality materials. Another example regarding the USAID's "Accelerating Success Initiative" under which US construction firm Louis Berger built and renovated 533 schools and clinics at a cost of \$226,000 each. The Afghan government could actually have carried out the work for \$50,000 per building. Several of these buildings were later damaged during the winter because of pitiable design quality.⁶² "Most of the post-war funding in Afghanistan has flowed through international NGOs, which have then subcontracted work to local organizations. This work is then sometimes subcontracted again. This leads to a long chain of upwards accountability that is hard to monitor and offers many opportunities for corruption."⁶³

Given that the figure of registered NGOs increased 10 times in just four years, it continues, "Afghan law has no room for not-for-profit charitable organizations, and the local NGOs receiving funding contracts to do this work consider private companies no different than standard profit-making businesses, and different from non-operational 'social' organizations (which are registered with the Ministry of Justice). "Most of them are in fact private for-profit contractors doing business with aid officials, such as building contractors. Others are businesses planned specifically to profit from aid contracts. Rests are not-for-profit charities set up to execute aid work, more in keeping with the typical understanding of 'NGO.' Still others have been corrupt 'briefcase' NGOs organized particularly to defraud aid agencies and donors. Corruption, exploitation and extravagant spending by NGOs have created a very negative opinion of their work in Afghanistan, both locally and internationally."⁶⁴

The report by Savage *et al* observes that there is now widespread bitterness against the NGOs amongst Afghans. Being aware that huge sums of aid have been given over, the

broad mass of the population have seen no improvement in their circumstances but can't help but note the vastly higher standards of living amongst NGO staff. Much trade and business is controlled by cartels led by 'former' warlords who still effectively run the governance of the province. According to Delesgues, the institutions dealing with corruption that already exist in Afghanistan are not well articulated and are often inefficient." Hussmann also consents by noting that the government's anti-corruption agency, established in 2004, has not received much political, technical or financial support. "It is ambiguous whether it is a lack of capacity, a lack of priority, or a lack of political will," she says. "Probably some mixture of all three"⁶⁵

In the same context the former U.S. ambassador to the United Nations Richard Holbrooke said that "While I don't want to sound alarmist, I think there is going to be a tipping point unless we are able to stabilize (southern Afghanistan, especially), unless we are able to get on with" building the economy, rule of law and government institutions. According to him the U.S funded endeavor to train the Afghan police has produced a force that was corrupt and incompetent. He further noted that "the U.S. training program (for the police) under DynCorp is an appalling joke ... a complete shambles," he said. He referred to Falls Church, Va.-based DynCorp International Inc. a major source of security and defense services in Afghanistan, Iraq and other trouble spots.⁶⁶

The former finance minister of Karzai, Ashraf Ghani, alleged that "More than 90% of the more than \$1bn that was spent on about 400 UN projects in Afghanistan in 2002 was a waste of money".⁶⁷ The reconstruction of the road between Kandahar and the capital Kabul, which the government estimated would cost \$35m was another case of money being wasted. It was ultimately built by USAID and ended up costing more than \$190m.⁶⁸ Illustrations from other war torn economies suggest that "where waste is widespread, corruption is not far away" and also in a system where corruption is contained, waste is likely to be reasonably contained as well".⁶⁹

Corruption is an indication of fundamental economic, political, and institutional causes. Tackling corruption effectively means tackling these underlying causes. The main emphasis must be put on prevention--that is, on reforming economic policies, institutions, and incentives. Attempts to improve enforcement of anticorruption legislation using the police, ethics offices, or special watchdog agencies within government will not bear fruit otherwise.⁷⁰

Concluding Remarks

Corruption is considered as an endogenous variable feature of governance in aid recipient countries. Whereas, the findings of the paper suggests the corruption is an internal problem within emergency aid; that is, misuse by the relief organizations themselves or by employees within the structures of the organizations. If legitimate running costs of local partner organizations are not recognized by foreign donors, this

encourages the development of corrupt structures within the partner organizations similar to structures in government. Although donor agencies are formally concerned about corruption undermining policy implementation and aid effectiveness; yet they frequently serve to weaken the very governance institutions that should protect public resources against misuse. The aid agencies facilitate corruption to varying degrees. In the most severe cases, aid officials conspire with recipients in deals varying from petty to grand corruption.

Since foreign occupancy, corruption is the only institution that thrived in Afghanistan. There is much boast about a few schools, a substandard highway and a puppet presidency and parliament by the donors, whereas none of the development, governance and democracy indicators show any significant change. Afghans are poorer and insecure now as compared to Taliban era, warlords are ever more powerful in their illicit trade and insurgencies, opium production is at highest historical level and president has not been able to establish the writ of the government. The government has nothing to offer economically: no exports of any significance, certainly no consumer market in which to make and sell brand products, and no attractiveness as an export platform for manufactures.

Donor aid in Afghanistan is akin to corporate industry rather than emergency assistance. It has become a profitable business for both the donor and recipient partners. There is little likely hood that UN agencies would be able to even minimize let alone to eliminate institutionalized corruption by donors in Afghanistan. Beside, with the passage of time the donor fatigue syndrome will overtake the development assistance.

There is also a pressing need for more openness and accountability among institutions that claim to be addressing the consequences and causes of conflict. Besides, aid agencies have no formal mandate to address political 'corruption' among aid recipients, including cronyism with the private sector and the use of state and private sector resources for political as opposed to personal ends. Aid flows can strengthen the position of incumbent elites to pursue their political agendas

Aid cannot be viewed in isolation from the wider foreign policy objectives of donor governments. They need to coordinate towards common policy objectives in Afghanistan, as attempts to use aid incentives and disincentives to influence policies in Afghanistan have not been effective. In order to achieve any level of success in Afghanistan it is critical that notions of "Phantom aid"; "American experts" and "tied" funds should be avoided, in order to give Afghan people the feeling that aid is meant for them and not 'foreigners'. Moreover, assistance should be provided through indigenous agencies and aid workers rather than imported ones. Lastly it is vital on part of the donor agencies to correct their institutions (of corruption) other wise, institutions will correct them in the long run.

Notes

¹ The reportage on allegations and perceptions of corruption in Iraq, and to a lesser extent Afghanistan, are growing, i.e. "Corruption Charge Deals Fresh Blow to Iraq Handover," *Sunday Telegraph*, November 23, 2003; "The Struggle for Iraq: Rebuilding: Iraqis Say U.S. Occupation Authority Misspends Millions in Its Awarding of Contracts," *New York Times*, October 3, 2003; "Pattern of Corruption," Paul Krugman, *New York Times*, July 15, 2003; etc.

² Emil Bolongaita, January (2005). "Controlling Corruption In Post-Conflict Countries". Kroc Institute Occasional Paper #26:OP:2 <http://kroc.nd.edu/publications/publications2005.shtml>

³ Ibid.

⁴ Rohde David (2003). "U.S. Said to Plan Bigger Afghan Role, Stepping Up Aid." *The New York Times*. <http://www.nytimes.com/2003/08/25/international/asia/25AFGH.html>

⁵ DW-WORLD.DE. "Afghanistan Conference Ends with Focus on Drugs, Security." April 2004 http://www.dw-world.de/popups/popup_printcontent/0..1158273.00.html

⁶ Emil Bolongaita, (January 2005). "Controlling Corruption In Post-Conflict Countries". Kroc Institute Occasional Paper #26:OP:2 <http://kroc.nd.edu/publications/publications2005.shtml>

⁷ Collier Paul and Anke Hoeffler, "Aid, Policy and Growth in Post-Conflict Societies," Working Paper, World Bank, May 13, 2002.

⁸ Ibid.

⁹ Criminal Debt," Written statement by Jeffrey A. Winters, Hearing before the Committee on Foreign Relations, United States Senate, One Hundred Eighth Congress, Second Session, May 13, 2004. See also "Criminal Debt," Jeffrey A. Winters, in *Reinventing the World Bank*, eds. Jonathan R. Pincus and Jeffrey A. Winters, Ithaca and London: Cornell University Press, 2002.

¹⁰ Emil Bolongaita, January 2005. "Controlling Corruption In Post-Conflict Countries". Kroc Institute Occasional Paper #26:OP:2 <http://kroc.nd.edu/publications/publications2005.shtml>

¹¹ Susan Rose Ackerman, 1978. *Corruption: A Study in Political Economy*. New York: Academic Press.

¹² Jan Teorell, (November 2007). "Corruption as an Institution: Rethinking the Nature and Origins of the Grabbing Hand". QoG Working Paper Series 2007:5

¹³ Gary Becker, and George Stigler. 1974. "Law Enforcement, Malfeasance, and Compensation of Enforcers." *The Journal of legal Studies* 3:1-19.

¹⁴ Persson Torsten, and Guido Tabellini. (2000). *Political Economics: Explaining Economic Policy*. Cambridge: The MIT Press. Alicia Adserà, Carles Boix, and Mark Payne. (2003). "Are You Being Served? Political Accountability and Quality of Government". *The Journal of Law, Economics, & Organization* 19 (2):445-490. Besley Timothy. 2006. "Principled Agents?" *The Political Economy of Good Government*. Oxford: Oxford University Press.

¹⁵ Jan Teorell, (November 2007). "Corruption as an Institution: Rethinking the Nature and Origins of the Grabbing Hand". QoG Working Paper Series 2007:5

- ¹⁶ Arvind Jain, (2001). Corruption: A Review, *Journal of Economic Surveys* 15(1): 71-121.
- ¹⁷ Jan Teorell, (November 2007). "Corruption as an Institution: Rethinking the Nature and Origins of the Grabbing Hand". QoG Working Paper Series 2007:5
- ¹⁸ Douglass North, (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- ¹⁹ Jack Knight, (1992). *Institutions and Social Conflict*. Cambridge: Cambridge University Press.
- ²⁰ Rasma Karklins, M. E. Sharpe, (2005). "The System Made Me Do It: Corruption in Post-Communist Societies". <http://www.tol.cz/look/TOL/article.tpl?IdLanguage=1&IdPublication=4&NrIssue=135&NrSection=2&NrArticle=15017&search=search&SearchKeywords=Karklins&SearchMode=on&SearchLevel=0>
- ²¹ Susan Rose Ackerman, (1999). *Corruption and Government: Causes, Consequences, and Reform*. Cambridge: Cambridge University Press. Pp 82-84
- ²² Bruce Mesquita Bueno de, Alastair Smith, Randolph Siverson and James Morrow. (2003). *The Logic of Political Survival*. Cambridge & London: The MIT Press.
- ²³ Ibid: 102-103
- ²⁴ Ibid. 74
- ²⁵ Cadot Olivier (1987). "Corruption as a Gamble." *Journal of Public Economics* 33: 223-244.
- ²⁶ Kaushik Basu, , Sudipto Bhattacharaya, and Ajit Mishra. 1992. "Notes on bribery and the control of corruption." *Journal of Public Economics* 48: 349-359.
- ²⁷ Andrei Schleifer, and Robert Vishny. (1993). "Corruption." *The Quarterly Journal of Economics* 108(3): 599-617.
- ²⁸ Michael Johnston, (2005). *Syndromes of Corruption: Wealth, Power, and Democracy*. Cambridge: Cambridge University press.
- ²⁹ Donatella Porta Della, and Alberto Vannucci. (1999). *Corrupt Exchanges: Actors, Resources, and Mechanisms of Political Corruption*. New York: Aldine de Gruyter.
- ³⁰ Michael Collier, (2002). "Explaining corruption: An institutional choice approach." *Crime, Law & Social Change* 38: 1-32.
- ³¹ Jan Teorell, (November 2007). "Corruption as an Institution: Rethinking the Nature and Origins of the Grabbing Hand". QoG Working Paper Series 2007:5
- ³² Jain (2001: 71-121)
- ³³ Aidt Toke, (2003). "Economic Analysis of Corruption: A Survey." *The Economic Journal* 113 (November):F632-F652.
- ³⁴ Lui Francis, (1986). "A Dynamic Model of Corruption Deterrence." *Journal of Public Economics* 31: 215-236.
- ³⁵ Andvig Jens, and Karl Ove Moene. (1990). "How Corruption May Corrupt". *Journal of Economic Behavior* 13: 63-76.
- ³⁶ Raaj Sah, (2005). "Large and Persistent Differences in Corruption across Countries and Regions." Unpublished manuscript, University of Chicago.
- ³⁷ Jean Tirole. (1996). "A Theory of Collective Reputations (with applications to the persistence of corruption and to firm quality)." *Review of Economic Studies* 63: 1-22.

³⁸ Daron Acemoglu, (1995). "Reward structures and the allocation of talent." *European Economic Review* 39: 17–33.

³⁹ Paul Pierson, (2004). *Politics in Time: History, Institutions, and Social Analysis*. Princeton: Princeton University Press.

⁴⁰ Tanzi Vito, (1998). "Corruption Around the World: Causes, Consequences, Scope, and Cures". *IMF Staff Papers* 45(4): 559–94.

⁴¹ Sanjeev Gupta, Hamid Davoodi, and Rosa Alonso-Terme, (2002). "Does corruption affect income inequality and poverty?", *Economics of Governance* 3: 23–45.

http://www.dw-world.de/popups/popup_printcontent/0,,1158273,00.html

⁴² Luis Fernando Medina, and Susan Stokes, (2007). "Monopoly and monitoring: an approach to political clientilism", in Kitschelt, H. and S. Wilkinson, eds. *Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition*. Cambridge: Cambridge University Press

⁴³ Daniel Kaufmann, Judit Montoriol-Garriga, and Francesca Recanatini, (2005). "How does bribery affect public service delivery? Micro-evidence from service users and public officials in Peru." Paper presented to the Conference "The Quality of Government", Göteborg university, November 17–19, 2005

⁴⁴ Yuliya Tverdova, (2007). "How widespread is corruption?" A Cross-National Study, Paper prepared for presentation to the 2007 Annual Meeting of the American Political Science Association, August 30–September 2, 2007.

⁴⁵ Jack Knight, (1992). *Institutions and Social Conflict*. Cambridge: Cambridge University Press.

⁴⁶ Charles Boix, (2003). *Democracy and Redistribution*. Cambridge: Cambridge University Press.

⁴⁷ Alberto Ales, and Rafael Di Tella, (1999). Rents, Competition, and Corruption. *The American Economic Review* 89(4): 982–993. Also see Leite, Carlos and Jens Weidmann, 1999. Does Mather Nature Corrupt? Natural Resources, Corruption, and Economic Growth, *IMF Working Paper* 99/85. Also see Treisman, Daniel, 2000. The Causes of Corruption: A Cross-national Study. *Journal of Public Economics* 76:399–457.

⁴⁸ Sanjeev Gupta, Hamid Davoodi, and Rosa Alonso-Terme, (2002). "Does corruption affect income inequality and poverty?", *Economics of Governance* 3: 23–45.

http://www.dw-world.de/popups/popup_printcontent/0,,1158273,00.html

See Rothstein, Bo and Eric Uslaner, (2006). All for all: Equality, Corruption, and Social Trust, *World Politics* 58: 41–72. Also see Olken, Benjamin, (2006). Corruption and the costs of redistribution: Micro evidence from Indonesia, *Journal of Public Economics* 90(4–5): 853–870.

⁴⁹ Alberto Alesina, and George-Marios Angeletos, (2005). Corruption, inequality, and fairness, *Journal of Monetary Economics* 52: 1227–1244.

⁵⁰ Allan Meltzer, and Scott Richard (1981). "A Rational Theory of the Size of Government." *Journal of Political Economy* 89(5): 914–927.

⁵¹ Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, (1999). The Quality of Government. *Journal of Law, Economics and Organization* 15 (1):222–79. See Xin, Xiaohui and Thomas Rudel, (2004). The Context for Political Corruption: A Cross-National Analysis. *Social Science Quarterly* 85(2): 294–309. Also see

John Gerring, and Strom C. Thacker. 2005. Do Neoliberal Policies Deter Political Corruption? *International Organization* 59: 233–254.

⁵² Jong-sung You, and Sanjeev Khagram. (2005). "A Comparative Study of Inequality and Corruption", *American Sociological Review* 20: 136–57.

⁵³ Fredrik Galtung. (2003). "Introduction: The Corruption Dimension of Post – War Reconstruction", In Daniel Large ed. *Corruption in Post War Reconstruction*. UNDP.

⁵⁴ Daniel Large 2003. "Corruption in Post War Reconstruction." UNDP. 2003

⁵⁵ Sultan Barakat. (2003). "Foreword." In Daniel Large ed. *Corruption in Post War Reconstruction*. UNDP. 2003

⁵⁶ Caroline Wadhams. (March 26, 2007). "Afghanistan Needs Oversight: Establishing a Special Inspector General for Reconstruction." Center for American Progress <http://www.americanprogress.org/newsletters/ns/2007/03.28.07.html>

⁵⁷ Caroline Wadhams. (March 26, 2007). "Afghanistan Needs Oversight: Establishing a Special Inspector General for Reconstruction." Center for American Progress <http://www.americanprogress.org/newsletters/ns/2007/03.28.07.html>

⁵⁸ Fredrik Galtung. (2003). "Introduction: The Corruption Dimension of Post – War Reconstruction", In Daniel Large ed. *Corruption in Post War Reconstruction*. UNDP.

⁵⁹ Jason Burke, and Peter Beaumont Sunday (July 21, 2002). *The Observer*. <http://www.guardian.co.uk/world/2002/jul/21/afghanistan.peterbeaumont>

⁶⁰ Ibid

⁶¹ Harvey Thompson, (20 September 2007). "Report shows Afghanistan mired in corruption". *wsws.Org*. <http://www.wsws.org/articles/2007/sep2007/afgh-s20.shtml>

⁶² Ibid

⁶³ Ibid

⁶⁴ Kevin Savage, Lorenzo Delesgues, Ellen Martin and Gul Pacha Ulfat. (July 2007). "Corruption perceptions and risks in humanitarian assistance: an Afghanistan case study." HPG Working Paper <http://www.odi.org.uk/hpg/papers/WPcorruptionafghanistan.pdf>⁶⁴

⁶⁵ Amber Poroznuk. (March 18, 2007). "Anti-corruption in Afghanistan -- a view from the ground". *Transparency International* <http://www.ariana.com/ariana/eariana.nsf/allArticles/A83CE8B8E6CA191C872572A400399127?OpenDocument>

⁶⁶ Lekic: 2007

⁶⁷ Toby Poston, "Millions of dollars worth of aid money is being wasted". BBC NEWS, February 26, 2006

⁶⁸ BBC NEWS, February 26, 2006. "90% of Afghanistan's \$1bn aid money is wasted." <http://www.care2.com/c2c/groups/disc.html?gpp=4174&pst=393957&archival=>

⁶⁹ Fredrik Galtung, 2003. "Introduction: The Corruption Dimension of Post – War Reconstruction", In Daniel Large ed. *Corruption in Post War Reconstruction*. UNDP.

⁷⁰ Cheryl W. Gray and Daniel Kaufmann. March 1998. "Corruption and Development." Finance and Development. "http://www.worldbank.org/fandd/english/0398/articles/020398.htm"

References

- Acemoglu, Daron. (1995). "Reward structures and the allocation of talent." *European Economic Review* 39: Pp. 17-33.
- Ackerman, Susan Rose. (1978). *Corruption: A Study in Political Economy*. New York: Academic Press.
- , (1999). *Corruption and Government: Causes, Consequences, and Reform*. Cambridge: Cambridge University Press. Pp 82-84
- Adserà, Alicia., Boix, Carles. & Payne, Mark. (2003). "Are You Being Served? Political Accountability and Quality of Government". *The Journal of Law, Economics, & Organization* 19 (2): Pp. 445-490.
- Barakat, Sultan. (2003). "Foreword." In Daniel Large Ed. *Corruption in Post War Reconstruction*. UNDP, 2003.
- BBC NEWS, February 26, 2006. "90% of Afghanistan's \$1bn aid money is wasted." <http://www.care2.com/c2c/groups/disc.html?gpp=4174&pst=393957&archive1=>
- Becker, Gary. & Stigler, George. (1974). "Law Enforcement, Malfeasance, and Compensation of Enforcers." *The Journal of legal Studies* 3: Pp. 1-19.
- Besley, Timothy. (2006). "Principled Agents?" *The Political Economy of Good Government*. Oxford: Oxford University Press.
- Boix, Carles. (2003). *Democracy and Redistribution*. Cambridge: Cambridge University Press.
- Bolongaita, Emil. (2005, January). "Controlling Corruption in Post-conflict Countries". Kroc Institute Occasional Paper #26: OP: 2 <http://kroc.nd.edu/publications/publications2005.shtml>
- Burke, Jason. & Beaumont, Peter *The Observer*. Sunday July 21, 2002. <http://www.guardian.co.uk/world/2002/jul/21/afghanistan.peterbeaumont>
- Cadot, Olivier. (1987). "Corruption as a Gamble." *Journal of Public Economics* 33: Pp. 223-244.
- Collier, Michael. (2002). "Explaining corruption: An institutional choice approach." *Crime, Law & Social Change* 38: Pp. 1-32.
- Collier, Paul & Hoeffler, Anke. (2002, May 13). "Aid, Policy and Growth in Post-Conflict Societies," *Working Paper*, World Bank.
- Criminal Debt," Written statement by Jeffrey A. Winters, Hearing before the Committee on Foreign Relations, United States Senate, One Hundred Eighth Congress, Second Session, May 13, 2004.
- Francis, Lui. (1986). "A Dynamic Model of Corruption Deterrence." *Journal of Public Economics* 31: Pp. 215-236.
- Friedrich Ebert Stiftung. "The Fight against Corruption and the Limits of the Afghan State." <http://www.fes.org.af/>
- Galtung, Fredrik. (2003). "Introduction: The Corruption Dimension of Post-War Reconstruction." Daniel Large (Ed). *Corruption in Post War Reconstruction*. UNDP.

- Gray, Cheryl W. & Kaufmann, Daniel. (1998, March). "Corruption and Development." Finance and Development. <http://www.worldbank.org/fandd/english/0398/articles/020398.htm>
- Gupta, Sanjeev., Davoodi, Hamid., & Alonso-Terme, Rosa. (2002). "Does Corruption Affect Income Inequality and Poverty?" *Economics of Governance* 3: Pp. 23–45. http://www.dw-world.de/popups/popup_printcontent/0,,1158273.00.html
- Andvig, Jens. & Ove Moene, Karl. (1990). "How Corruption May Corrupt", *Journal of Economic Behavior* 13: Pp. 63–76.
- Johnston, Michael. (2005). *Syndromes of Corruption: Wealth, Power, and Democracy*. Cambridge: Cambridge University press.
- Karklins, Rasma. & M. E. Sharpe, 2005. "The System Made Me Do It: Corruption in Post-Communist Societies". <http://www.tol.cz/look/TOL/article.tpl?IdLanguage=1&IdPublication=4&NrIssue=135&NrSection=2&NrArticle=15017&search=search&SearchKeywords=Karklins&SearchMode=on&SearchLevel=0>
- Kaufmann, Daniel, Montoriol-Garriga, Judit., & Recanatini, Francesca. (2005). "How Does Bribery Affect Public Service Delivery? Micro-evidence from Service Users and Public Officials in Peru." Paper Presented to the Conference "The Quality of Government", Göteborg University, November 17–19, 2005.
- Kaushik, Bas. Bhattacharaya, Sudipto. & Mishra, Ajit. (1992). "Notes on Bribery and the Control of Corruption." *Journal of Public Economics* 48: Pp. 349–359.
- Klitgaard, Robert. (1988). *Controlling Corruption*. Berkeley: University of California Press.
- Knight, Jack. (1992). *Institutions and Social Conflict*. Cambridge: Cambridge University Press.
- Large, Daniel. (2003). *Corruption in Post War Reconstruction*. UNDP.
- Medina, Luis Fernando, & Stokes, Susan. (2007). "Monopoly and Monitoring: an Approach to Political Clientilism." Kitschelt, H. & Wilkinson, S. (Eds). *Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition*. Cambridge: Cambridge University Press.
- Meltzer, Allan. & Scott, Richard (1981). "A Rational Theory of the Size of Government." *Journal of Political Economy*. 89 (5): Pp. 914–927.
- Mesquita Bueno de, Bruce, Alastair Smith, Randolph Siverson and James Morrow. 2003. *The Logic of Political Survival*. Cambridge & London: The MIT Press.
- Mir, Haroun. (Apr 18, 2007). "Afghanistan in a downward spiral." *South Asia*. http://www.atimes.com/atimes/South_Asia/ID18Df02.html
- Pierson, Paul. (2004). *Politics in Time: History, Institutions, and Social Analysis*. Princeton: Princeton University Press.
- Poroznuk, Amber. March 18, 2007. "Anti-corruption in Afghanistan -- a view from the ground". *Transparency International* <http://www.e->

- ariana.com/ariana/eariana.nsf/allArticles/A83CE8B8E6CA191C872572A400399127?OpenDocument
- Donatella, Porta della & Vannucci, Alberto. (1999). *Corrupt Exchanges: Actors, Resources, and Mechanisms of Political Corruption*. New York: Aldine de Gruyter.
- Poston, Toby. "Millions of dollars worth of aid money is being wasted". *BBC NEWS*. February 26, 2006
- Rohde, David . (2003). "U.S. Said to Plan Bigger Afghan Role. Stepping Up Aid." *The New York Times*.
<http://www.nytimes.com/2003/08/25/international/asia/25AFGH.html>
- Raaj, Sah. (2005). "Large and Persistent Differences in Corruption across Countries and Regions." Unpublished manuscript, University of Chicago.
- Savage, Kevin, Delesgues, Lorenzo, Martin, Ellen & Ulfat Gul Pacha. (July 2007). "Corruption Perceptions and Risks in Humanitarian Assistance: an Afghanistan Case study." HPG Working Paper
<http://www.odi.org.uk/hpg/papers/WPcorruptionafghanistan.pdf>
- Schleifer, Andrei, & Vishny, Robert. (1993). "Corruption." *The Quarterly Journal of Economics* 108(3): Pp. 599-617.
- Lekic, Slobodan. "Afghan's Karzai Faltering." *The Associated Press*, April 28, 2007
- Teorell, Jan. (2007, November). "Corruption as an Institution: Rethinking the Nature and Origins of the Grabbing Hand". *QoG Working Paper Series* 2007:5
- Persson, Torsten. & Tabellini, Guido. (2000). *Political Economics: Explaining Economic Policy*. Cambridge: The MIT Press.
- Harvey, Thompson. (2007, Sept 20). "Report Shows Afghanistan Mired in Corruption". *wsws.Org*. <http://www.wsws.org/articles/2007/sep2007/afgh-s20.shtml>
- Tirole, Jean. 1996. "A Theory of Collective Reputations (with Applications to the Persistence of Corruption and to Firm Quality)." *Review of Economic Studies* 63: Pp. 1-22.
- Toke, Aidt. (2003, November). "Economic Analysis of Corruption: A Survey." *The Economic Journal* 113: Pp. F632-F652.
- Yuliya, Tverdova. (2007, Aug 30-Sept). "How Widespread is Corruption?" A Cross-national Study: Paper Prepared for Presentation to the 2007 Annual Meeting of the American Political Science Association.
- Tanzi, Vito. (1998). "Corruption around the World: Causes, Consequences, Scope, and Cures". *IMF Staff Papers*. 45 (4): Pp. 559-94.
- Wadhams Caroline. March 26, 2007. "Afghanistan Needs Oversight: Establishing a Special Inspector General for Reconstruction." Center for American Progress
<http://www.americanprogress.org/newsletters/ns/2007/03.28.07.html>
- You, Jong-sung. & Khagram, Sanjeev. (2005). "A Comparative Study of Inequality and Corruption." *American Sociological Review* 20: Pp. 136-57.

**Economic Significance of Non-Timber Forest Products as a Sustainable Source of Rural Livelihoods:
A Micro Level Analysis in Mountainous Areas of Ayubia National Park**

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Abstract

Human societies derive many essential goods from natural ecosystems, including seafood, game animals, fodder, fuel wood, timber, and pharmaceutical products. These goods represent important and familiar parts of the economy. Non-timber forest products (NTFPs) are an important forest resource in Pakistan, with the potential to make a significant economic contribution to small, resource-based communities. Non-timber forest products include all the human-exploited uses of plant and fungal species of the forest, other than timber, pulpwood, shakes or other wood products. The commercial harvest of NTFPs from forest lands is a significant economic activity in Pakistan and in some areas it is important to rural economic development. This study is based on a sample of 209 households in three selected villages of District Abbottabad. The data were collected using a pre-tested interview schedule in spring 2008. This study investigates the role of common property resources as a source of sustainable rural income in Ayubia National Park. No study has ever been conducted in Pakistan on the role of NTFPs collected from the forests in ANP area. This study was conducted to examine the extent of dependency of households on NTFPs as family income; the relative contribution of NTFPs in annual family income; category wise variation of NTFP collection among households, if any; the type of NTFP collected by villagers; and trend of NTFP collection for sale, etc. The study finds that family size and family type contributed positively to NTFPs income and labour employment, landholdings and agricultural income and cost of technology contributing negatively to NTFPs dependence.

Key Words: Non-timber forest products, Common property resources, Sustainable livelihood, National Parks, Pakistan.

JEL Classification: N500, Q000, Q010, Q200, Q320, Q500.

I. Introduction

Human societies derive many essential goods from natural ecosystems, including seafood, game animals, fodder, fuel wood, timber, and pharmaceutical products. These goods represent important and familiar parts of the economy. What has been less appreciated until recently is that natural ecosystems also perform fundamental life-support services without which human civilizations would cease to thrive. These include the purification of air and water, detoxification and decomposition of wastes, regulation of climate, regeneration of soil fertility, and production and maintenance of biodiversity, from which key ingredients of our agricultural, pharmaceutical, and industrial enterprises are derived. This array of services is generated by a complex interplay of natural cycles powered by solar energy and operating across a wide range of space and time scales. The process of waste disposal, for example, involves the life cycles of bacteria as well as the planet-wide cycles of major chemical elements such as carbon and nitrogen. Such processes are worth many trillions of dollars annually. Yet because most of these benefits are not traded in economic markets, they carry no price tags that could alert society to changes in their supply or deterioration of underlying ecological systems that generate them. Because threats to these systems are increasing, there is a critical need for identification and monitoring of ecosystem services both locally and globally, and for the incorporation of their value into decision-making processes (Tiwari, nd).

According to Holdren and Ehrlich (1974) and Ehrlich and Ehrlich (1981) historically, the nature and value of Earth's life support systems have largely been ignored until their disruption or loss highlighted their importance. For example, deforestation has belatedly revealed the critical role forests serve in regulating the water cycle -- in particular, in mitigating floods, droughts, the erosive forces of wind and rain, and silting of dams and irrigation canals. Today, escalating impacts of human activities on forests, wetlands, and other natural ecosystems imperil the delivery of such services. The primary threats are land use changes that cause losses in biodiversity as well as disruption of carbon, nitrogen, and other biogeochemical cycles; human-caused invasions of exotic species; releases of toxic substances; possible rapid climate change; and depletion of stratospheric ozone. Based on scientific evidences, it can be inferred that many of the human activities that modify or destroy natural ecosystems may cause deterioration of ecological services whose enormous long term value is sacrificed for the miniscule short-term economic benefits society gains from those activities. Our current understanding of ecosystem services reveals that:

- (i) Ecosystem services operate on such a grand scale and in such intricate and little-explored ways that most could not be replaced by technology.
- (ii) Human activities are already impairing the flow of ecosystem services on a large scale.
- (iii) If current trends continue, humanity will dramatically alter virtually all of Earth's remaining natural ecosystems within a few decades.
- (iv) Considered globally, very large numbers of species and populations are required to sustain ecosystem services.

- (v) Land use and development policies should strive to achieve a balance between sustaining vital ecosystem services and pursuing the worthy short-term goals of economic development.
- (vi) The functioning of many ecosystems could be restored if appropriate actions are taken up in time.

Forest ecosystems are also of pivotal importance to human beings in many respects. There is a very close relationship between forests and poverty as majority of the people living close to or inside forests depends on forests for their livelihood. People don't only extract timber products but also non-timber forest products from forests. Generally speaking, the term "Forest product" implies wood and wood-based products, but there are equally important non-wood products that are procured from the forest. These include all botanical and other natural products extracted from the forest other than timber. Non-timber forest products (NTFPs) are components of the forest system that exist in nature and are generally not cultivated. They are non-timber, but can be made of wood (Adepoju and Salau, 2007).

NTFPs are plants or plant parts that have perceived economic or consumption value sufficient to encourage their collection and removal from the forest. That is, they are those items harvested or removed from the forest lands for private use or for resale (excluding, saw timber, pole timber, natural gas, oil, sand, gravel, and shale and building stone). It can also be referred to as all the resources/products that may be extracted from forest ecosystem and are utilized within the household or are marketed or have social, cultural or religious significance (FAO, 1990). These include plants and plant materials used for food, fuel, storage and fodder, medicine, cottage and wrapping materials, biochemical, as well as animals, birds, reptiles and fishes, for food and feather. NTFPs which are harvested from within and on the edges of natural and disturbed forest, may be all or part of living or dead plants, lichens, fungi, or other forest organisms. It therefore, represents a diversity of potential products sought after by a wide variety of people on a continuum of scales and intensities.

Unlike timber-based products, NTFPs came from a large variety of plant parts and are formed into a diverse set of products: leaves & twigs that may be component of decorative arrangements, food items such as fruits, fungi and juices, wood carved or woven into pieces of art or utilitarian objects and roots, leaves and bark processed into herbal remedies or medicines. Like timber, NTFPs may further be processed into consumer oriented products. NTFPs are found in a wide variety of outlets e.g. health food store, pharmacy, etc unlike timber-based products. People have benefited from those plants for many generations. In some cases, NTFPs contribute significantly to local and regional economies (Adepoju and Salau, 2007).

Non-timber forest products (NTFPs) are an important forest resource in Pakistan, with the potential to make a significant economic contribution to small, resource-based communities. Non-timber forest products include all the human-exploited uses of plant

and fungal species of the forest, other than timber, pulpwood, shakes or other wood products (FPB, 2004). The commercial harvest of NTFPs from forest lands is a significant economic activity in Pakistan and in some areas it is important to rural economic development.

Forest constitutes about only 4.8% of the total area of Pakistan and forest resources directly contribute to 80% of livelihood of people living in extreme poverty in the country. Notable NTFPs¹ in Pakistan include morels, honey, fruits and nuts, vegetable, condiments and spices, mazri palm, silk cocoon, and many others. Latif, Shinwari and Shaheen (nd) have reported 17 species of mushrooms in their study which showed that about 34% of local people are dependent on NTFPs for income generation from these products. Local people rely on their indigenous knowledge for collection, processing, packing, drying, marketing and consumption of various NTFPs². Like other developing countries of the world, in Pakistan's forests, many plant species other than trees are used for personal, social, traditional or commercial purposes. Numerous species of plants and fungi are harvested including wild edible mushrooms, floral and greenery products and medicinal products, wild berries and fruit, herb and vegetable products and miscellaneous products such as honey. However, Alarming rates of deforestation, increased awareness of the multiple products and services provided by forests, and new commitments to address rural poverty, have converged in efforts to link conservation and development through the commercial development of forest products. Non-timber forest products (NTFPs) in particular have a high profile in this, based on a perception that that they are more accessible to rural populations, and especially to the rural poor (Belcher, Ruiz-Perez, and Achdiawan, 2003; Saxena, 2003), and that their exploitation is more benign than timber harvesting (Myers 1988). Moreover, there is an assumption, often implicit, that making forests more valuable to local users can encourage forest conservation (Plotkin and Famolare 1992; Evans 1993). The Forest Stewardship Council, for example, says: "Harvest of NTFPs usually has lower impacts on the forest ecosystem than timber harvesting, can provide an array of social and economic benefits, particularly to community operations, and can therefore be an important component of forest ecosystem management." (Belcher, Ruiz-Perez, and Achdiawan, 2003).

This study investigates the role of common property resources³ (CPRs) as a source of sustainable rural income in Ayubia National Park (ANP). No such study has ever been conducted in Pakistan on the role of NTFPs collected from the forests in ANP area. This study was conducted to examine: i) the extent of dependency of households on NTFPs as family income; ii) the relative contribution of NTFPs in annual family income; iii) the determinants of NTFPs income; iv) type of NTFP collected by villagers peoples and v) perceptions of sample respondents about NTFP collection. Section II outlines classification of NTFPs. Section III discusses the conceptual and econometric models used for this study. Section IV highlights universe, sample and data collection methods used for this study. Section V provides analytical results.

Finally, section VI concludes the study with a brief discussion and implications for further research.

II. Classification of NTFPs

The number of products available from **NTFP** is considered to be staggering. The United Nations and Food & Agricultural Organization claimed that at least 150 non-wood products are found in international markets. Classifying these products into like categories is an important first step of understanding the NTFPs industry. NTFPs can be broadly classified into edibles and non-edibles. The former include edible plants & animals, honey, oils, fish, spices etc while non-edible products include grasses, ornamental plants, oil for cosmetic use, medicinal products etc.

These two classes can further be divided into four general categories:

1. **Edibles** such as mushroom, the most well known and documented edible forest products and many other food products gathered from the forest. Since most of these products are not traded widely and are usually collected and consumed by the harvesters themselves, it is difficult to assess their economic magnitudes. These products include ferns, berries or other fruits, nuts, ramps (wild onions), herbs and spices.

2. **Medicinal and dietary supplements**: This includes plant based products that are processed into medicines. Beginning in the late eighteenth century, over 100 plant species indigenous to the U.S were commonly accepted for their medicinal properties. The majority are wild harvested and traded as botanical products (Foster 1995).

3. **Floral products**: It includes pine boughs, grapevines, ferns, and other plant products used for decorative applications. These unique forest products may appear in floral arrangements, dried flower decorations, and ornaments. common example include products made from pine boughs, grape vines, moss, ferns, flowers, cone, mistle toe and holly (Hammett and Chamberlain, 1998).

4. **Specialty wood products** include handicrafts, carving and turnings, musical instrument containers (basket), special furniture pieces as well as utensils. In general, specialty wood products are considered non traditional if they are produced directly from trees and not from lumber or timber purchased from mills. In other words, the tree may not need to be cut down to produce these items.

III. The Conceptual and Econometric Models

The Conceptual Model

We assume that a representative household performs a dual function of a rational consumer that maximizes satisfaction as well as that of a neoclassical firm that aims at maximization of profit. Thus, following Hanemann (1999) the household has preferences for various market purchased consumption goods whose consumption is denoted by the vector x , as well as non-market environmental amenities denoted by q . Depending upon the context these may be a single amenity, in which case q is a scalar, or several amenities, in which case q is a vector. The household takes q as given—in effect it is a composite public good to the household. By contrast, the household can

freely vary the consumption of the private market goods, x . The preferences of the representative household are represented by a utility function $u(x, q)^4$ which is continuous and non-decreasing in its arguments and strictly quasi-concave in x .

The household faces a budget constraint based on its disposable income m , the prices of the market commodities, denoted by vector p and cost of NTFPs, denoted by vector w . Given its budget constraint, the household chooses its consumption by solving its constrained utility maximization problem

$$\text{Max } u(x, q) \text{ subject to } \sum p_i x_i + \sum w_j q_j \leq m \quad (1)$$

taking q as given. This yields a set of ordinary demand functions, $x_i = h^i(p, q, m)$, $i = 1, \dots, N$ and an indirect utility function, $v(p, q, m) \equiv u[h(p, q, m), q]$, which has the conventional properties with respect to (p, q) . Alternatively speaking, if x is taken as given, then this yields set of ordinary demand functions for NTFPs, $q_i = g^i(w, x, m)$, $i = 1, \dots, N$ and an indirect utility function, $v(w, x, m) \equiv u[g(w, x, m), x]$, which has the conventional properties with respect to (w, x) .

Since q is extracted from forests for meeting various household requirements, household members spends time on harvesting or extracting such products. Thus, the household also spends owned or purchased inputs in collecting q from the forest. The theoretical model, therefore, for understanding the household production decisions is based on profit function approach.

We, therefore, further assume that the representative household functions as a neoclassical firm that controls the transformation of inputs (resources it owns or purchases) into outputs or products (valued products that it consumes and/or sells) and earns profit (the difference between what it receives in revenue and what it spends on inputs). The household can do so under a given production technology which is a description of the sets of outputs that can be produced by a given set of inputs using a given method of production process (Hallam, 2007). Thus, the household maximizes the profits or net returns as follows:

$$\max \pi = \max \left[\sum_{j=1}^m p_j y_j - \sum_{i=1}^n w_i x_i \right], \text{ such that } (x, y) \in T \quad (2)$$

where p_j is now the price of j^{th} output (y_j) of NTFPs, w_i is the price of the i^{th} input (x_i) the household uses in collecting NTFPs and T represents the technology set. The problem can also be written as

$$\max \pi = \max \left[\sum_{j=1}^m p_j y_j - \sum_{i=1}^n w_i x_i \right], \text{ such that } (x) \in V(y) \quad (3a)$$

$$\max \pi = \max \left[\sum_{j=1}^m p_j y_j - \sum_{i=1}^n w_i x_i \right], \text{ such that } (y) \in P(x) \quad (3b)$$

where the technology is represented by $V(y)$, the input requirement set, or $P(x)$, the output set. If we carry out the maximization in equation 1 or equation 3, we obtain a vector of optimal outputs and a vector of optimal inputs such that y is producible given x and profits cannot be increased. We denote these optimal input and output choices as $y(p, w)$ and $x(p, w)$, where it is implicit that y and x are vectors.

If we substitute the optimal input demand in equation 1, we obtain the profit function of the following form.

$$\max \pi(p, w) = \max \left[\sum_{i=1}^m p_i y_i(p, w) - \sum_{i=1}^n w_i x_i(p, w) \right] \quad (4)$$

Notice that π is a function of p and w and not x or y . The optimal x and the optimal y have already been chosen. The function tells us what profit will be (assuming the household is maximizing profits) given a set of output and input prices. As mentioned earlier and following Adhikari (2002) household's profit maximizing behaviour is constrained by the production technology. Fuel wood, tree fodder, cut grass and leaf litter production technology is given by a continuous quasi-concave production function that describes collection of forest products from common property forests, ANP, in this study. Representative household maximize profit by collecting (harvesting) various products from community forest by employing variable inputs, x (like labour, tools etc.). Forest product collection is also conditioned on vector of fixed socio-economic characteristics, z , (i.e., land and livestock holding, ethnicity, gender, educational level, institutional constraints, including forest stock and access condition, leadership quality of household head, etc.) which drive the biomass need of user households. Production function for households engaging in gathering and collection activities can be written as

$$y = f(x; z) \quad (5)$$

The representative household chooses the optimal level of input x and output y to maximize profits from collection and gathering activities. The input-demand and output supply functions can be given as follows. The supply and demand functions show the relation between output supply and input demand and the prices (both input and output) and the quantities of fixed factors.

$$x = x(p, w; z) \quad (6)$$

$$y = y(p, w; z) \quad (7)$$

This indicated that the optimal level of inputs and outputs are a function of output price, input price and fixed factors of production used in forest product collection. Substituting (6) and (7) in profit function, we get the new profit function.

$$\max \pi(p, w, z) = \max \left[\sum_{i=1}^m p_i y_i(p, w, z) - \sum_{i=1}^n w_i x_i(p, w, z) \right] \quad (8)$$

Differentiating this profit function with respect to output and input price, we can get the following first order conditions that give rise to the output supply and factor demand function.

$$\delta\pi/\delta p_i(p, w, z) = y_i \quad (9)$$

$$\delta\pi/\delta w_i(p, w, z) = -x_i \quad (10)$$

As we have seen, profits are not only affected by input and output price but also socio-economic position of households (fixed factors) by its affects on demand and level of dependency on the commons. Demand of forest products is indeed a function of increasing wealth (land, livestock etc.), which, in turn, is a driving force in exploiting NTFPs from the ANP. The econometric model in subsequent section analyses the determinants of household level benefits from such NTFPs.

The Econometric Model

The study made use of primary data consisting 209 households based on a stratified two stage sampling technique. The households' dependency on forests and the factors influencing NTFPs collection was estimated using Logit model. Logit model is generally used to predict the effect of changes in independent variables on probability of response to a group or category (Aldrich and Forrest, 1984; Maddala, 1983). In the present study, it is employed to capture the probability of a particular household would indulge in the collection of NTFPs. This model was chosen because of its ability to deal with a dichotomous dependent variable and a well-established theoretical background.⁵

The logit⁶ model based on the logistic probability is specified as

$$P_i = E(Y = 1|X_i) = F(Z_i) = F(\alpha + \beta_i \sum_{i=1}^n X_i) = \frac{1}{1 + e^{-Z_i}} \quad (11)$$

Where $Z_i = \alpha + \beta_i \sum_{i=1}^n X_i + \varepsilon_i$ (the cumulative logistic density function) (12)

$$P_i = \frac{e^{Z_i}}{1 + e^{Z_i}} \text{ and } (1 - P_i) = \frac{1}{1 + e^{Z_i}} \quad (13)$$

$$\text{Odd ratio is given by } \frac{P_i}{1 - P_i} = e^{Z_i} \quad (14)$$

Taking a natural logarithm of eq. (14) we obtain

$$Z_i = \ln\left(\frac{P_i}{1 - P_i}\right) = \alpha + \beta \sum_{i=1}^n X_i + \varepsilon_i = L_i \quad (15)$$

Where

P_i = the probability that $Y_i = 1$, that a randomly chosen household collects NTFPs,

$1 - P_i$ is the probability that $Y_i = 0$, that a randomly chosen household will not go for NTFPs collection.

β_i = coefficient of explanatory variables to be estimated. The unknown parameters β_i are usually estimated by maximum likelihood.

X_i = explanatory variables which include household labour, land holding, livestock holding, education, gender, leadership quality, fuel wood price, distance between forest and house, forest condition, institutional constraints, etc.

e = base of natural logarithm,

ε_i = the stochastic error term,

$\ln\left(\frac{P_i}{1-P_i}\right) = L_i$ (also called logit) is the log odds ratio of the probability that a

household will go for collection of NTFPs to the probability that it will not.. It is linear in both independent variables and parameters. This will be estimated by the method of maximum likelihood estimator (MLE).

IV. Universe and Sample of the Study

The study was conducted in the District Abbottabad because this is very close to Ayubia National Park. Although there are a larger number of villages in Abbottabad district, this study is based on 3 purposively selected villages. These villages, namely, Makol Bala, Nagribala and Kasala constitute the area of this study. These are the villages where some NGOs (SRSP, SUNGI, etc) have introduced most of its activities related to Natural Resource Management.

In order to select sample for study a list of households was obtained from the office of the SRSP and 50% of the households were selected by following simple random sampling method. The detail of total and sample households is given in Table 1.

Table 1. Total and Sample Households in the Study Area

Name of Village	Total Households	Sample Households
Makol Bala	140	70
Kasala	128	64
Nagribala	150	75
All	418	209

The data for this study were collected through a household level survey in the study area in Spring 2008. A pre-tested interview schedule was used for data collection. Data were collected through face-to-face interview from the respondents in the study area. The data collected for this study were analyzed using statistical package for social sciences (SPSS).

IV. Results and Discussion

Socio-Economic Profile of Sample Households

People of sample households in the study area have significant interaction with forest vegetation as they have been deriving most of their basic

requirements such as food, fodder, fuel, fruit and fiber from the forest. Extraction, processing and marketing of NTFPs are still a major source of employment and income to majority of these households. Table 2 presents the socio-economic characteristics of sample households. The averages household size was 6.5 members of which about 2 were each adult males, adult females and children, respectively. Adult literacy was 20% and the total literacy of the sample households was only 47%. The people of the area lack permanent assets as their main occupation was food gathering from the forests and collection of NTFPs. Among all (209 households) 55 percent were landless, 25 percent marginal farmers and 20 percent were small farmers. The average size of the land was only 0.8 acres because of the mountainous nature of the area. The people did not have other assets except livestock holding. Majority of them live in *kacha* houses built out of locally available material and they lack water, power and sanitation.

Table 2. Socio-economic Characteristics of the Sample Households

S.No.	Socio-economic Characteristics	Per Household
1	Household Size	6.5
A	Number of adult males	2.3
B	Number of adult females	2.2
C	Number of children	2.0
2	Landholding Size (Acres)	0.8
3	Livestock Holding Size	
A	Cattle	1.7
B	Poultry	7.8
C	Goat and Sheep	6.5
D	Donkey	0.9
4	Literacy (%)	Average
A	Adult Literacy	20
B	Total Literacy	47
5	Status of Land Ownership (%)	
A	Landless	55
B	Marginal Farmers	25
C	Small Farmers	20

Note: Marginal farmers are those who own upto 5 kanals of land and small farmers are those having more than 5 kanals of land.

How Do Households Allocate Labour for NTFPs?

This section analyses how a household allocates its labour for NTFPs collection in the study area. The study has investigated such allocation in four areas: firewood, tree fodder, grass fodder and leaf litter collection. Table 3 shows that households in Makol Bala on average allocated a total of 125, 18, 175, and 315 hours annually for fuel

wood, tree fodder, leaf litter and grass fodder collection, respectively. Similarly sample households in Nagribala on average allocated 150, 32, 680, and 790 hours annually in collection of these products. This shows that the forest products i.e. tree and grass fodder and leaf litter are highly wealth sensitive. It appears that households with larger endowments (Makol Bala) extract more intermediate forest products than poorer households (Nagri Bala) in the study area. This finding is in agreement with Adhikari (2003) which also shows that richer households extract more NTFPs from forest than poor households.

Table 3 Sample Households Allocation of Labour for NTFPs (Hour/Year)

Activities	N	Mean	Standard Dev.
Mako Bala (Low Income Households)	70		
Fuel wood collection		125	106
Fodder collection		18	45
Leaf litter collection		175	123
Grass collection		315	245
Kasala (Middle Income Households)	64		
Fuel wood collection		132	121
Fodder collection		22	65
Leaf litter collection		365	570
Grass collection		656	983
Nagri Bala (High Income Households)	75		
Fuel wood collection		150	137
Fodder collection		32	87
Leaf litter collection		680	879
Grass collection		790	923

Source: Survey

Employment and Income

The major sources of employment and income included agriculture, NTFPs collection and wage income. The composition of employment and income is presented in Table 4. The data show that table indicates that the overall employment level per household was to the extent of 343 man days per annum. Among various sources the NTFPs collection constituted the major source of employment as it provided 42.3 percent of the total employment followed by wage earning 31.5 percent and agriculture (26.2 percent). On the basis of landholding, the comparison showed that 355 man days of employment were generated on small farm households, followed by marginal households (300) and landless households (295). The sample households did not only collected NTFPs for own consumption but also for selling to earn cash income. This is why NTFPs contributed most of the total employment to the sample households in the area. Regarding income, the sample households on the average obtained Rs. 13,942 per annum. The NTFPs provided 43 percent to total household income. The wage income and agriculture contributed about 37 percent and 20 percent,

respectively to total income. Average annual household income was Rs. 15,088/-, Rs. 14,900/-, and Rs. 11840/- for small farmers, marginal farmers and landless.

The above analysis indicates the importance of NTFPs in rural livelihoods of the people of the area. NTFPs play an important role in rural economy of the area in terms of income earning and employment generation. However, the average household income shows that these people live on income below the poverty line and a serious effort is needed enhance the income of the these poor and marginal households.

Table 4. Composition of Annual Employment and Income of Sample Households by Landholding

Source	Landless		Marginal		Small		All	
	Empl	Income	Empl	Income	Empl	Income	Empl	Income
Agri.	0.00 0	- -	65 (21.6)	2450 (16.4)	125 (35.2)	3250 (21.5)	90 (26.2)	2850 (20.4)
NTFPs	150 (50.8)	5615 (47.4)	130 (43.3)	6560 (44.0)	150 (42.3)	6780 (44.9)	145 (42.3)	6000 (43.0)
Wage	140 (49.2)	6225 (52.6)	105 (35)	5890 (39.5)	80 (22.5)	5058 (33.5)	108 (31.5)	5092 (36.5)
All	295 (100)	11840 (100)	300 (100)	14900 (100)	355 (100)	15088 (100)	343 (100)	13942 (100)

Notes: Figure in the parentheses indicate percentage to column total

Marginal holdings-households with land holding upto 5 kanals.

Small holdings -households with land holdings more than 5 kanals.

Employment in mandays per annum per households.

Incomes in rupees per annum.

Factors Determining Households' Dependence on NTFPs

The sample households collect the NTFPs inside the Ayubia National Park area. It is important to know what explains dependence of households in NTFPs collection for their livelihood. In order to understand the importance of NTFPs as an economic activity among sample households, a multiple linear regression with income from NTFPs as a dependent variable and family type, family size, days of employment, size landholding and agricultural income as independent variables was estimated by following ordinary least square (OLS) method. The estimated equation is given as follows:

$$Y_i = 45.12 + 3.23X_1^* + 3.10X_2^{**} + 0.33X_3 - 1.847X_4^* - 0.046X_5$$

(1.69) (2.43) (2.906) (1.54) (-2.55) (-1.65)

$$R^2=0.48$$

(Figures in the parentheses are the t-ratios of the estimates)

Where,

- Y_1 = Income from NTFPs
 X_1 = Family type assuming value of 1 if joint family and 0 for nuclear family.
 X_2 = Household size i.e. No. of members in the family
 X_3 = Number of mandays employed
 X_4 = Land holdings (kanals)
 X_5 = Annual income from agriculture (Rs. per annum)

The analysis shows that only three variables including family type, family size and possession of land holdings had an impact on the collection of NTFPs by the sample households and in turn the income derived from it. The joint family system of living and the large family size has contributed positively towards NTFPs income earned by sample households, whereas landholdings and greater opportunities for wage employment had negative impact on household income from NTFPs. These results are similar to that reported by Amacher *et al.* (1993), Gunatilake (1998), Heltberg (2001), Adhikari (2003),

In addition, Logit model was also used to investigate the probability of a particular sample household going for collecting NTFPs with a given set of socio economic background. The results of the logit analysis are given in Table 5. Based on the average socio-economic characteristics of the sample households, the average probability that a household would collect NTFPs was estimated. This was done by substituting the average values of the variables into the Logit function and calculating the probabilities from the estimated value of the Logit function so obtained. The average function so obtained was 0.60 indicating that the average household in the study area would go for NTFPs collection was 60 percent. This is because of lower non-NTFPs incomes that they are deriving from other sources such as wage employment, and agriculture. Joint family systems and large family size would increase the probability of collection of NTFPs by the household. Thus, the results of Logit analysis were generally similar to OLS analysis indicating that family size and family type contributed positively to NTFPs income and labour employment, landholdings and agricultural income and cost of technology contributing negatively to NTFPs dependence.

Table 5. Effects of Socio-economic Characteristics on the Probability of being Dependent on NTFPs (Results of Logit Regression)

Independent Variable	Coefficient
Constant	2.65 (0.25)
Family Type (joint/Nuclear)	0.16 (4.1)***
Household Size (No.)	0.13 (3.2)***
Labour time spent (days)	-0.01 (-2.3)
Size of Land Holding (Acres)	-0.45 (-2.13)**
Annual Income from Agriculture (Rs. Per annum)	-0.006 (-3.5)***
Gender (Male =1, 0 otherwise)	0.003 (1.4)
Distance from Forests	-0.09 (-2.6)**
Education of household members (No. of school years)	0.02 (2.10)**
Technology (cost of tools used in NTFPs collection)	-0.05 (-2.3)***
Log (L)	237
Sample Size	209
Per cent correct predicted	0.76 %

Note: The numbers in parentheses are the ratio of the coefficients to the estimates of their asymptotic standard errors. *, **, and *** show significance level of 10, 5 and 1 percent, respectively.

V. Conclusions and Policy Recommendations

NTFPs are of pivotal importance for rural livelihood of communities living in mountainous areas of northern Pakistan. NTFPs accounts for a significant portion of household income and livelihood. But harvesting of NTFPs is currently not done in line with the sustainable development. Local communities need to be educated on the sustainable use of NTFPs so that overexploitation of these and other natural resources may be minimized if not completely eliminated.

The study concludes that wage earning/employment, ownership of land, and income received from farming and other agricultural related sources reduce significantly the probability of sample households involved in collecting NTFPs from the park area. Since, there are no alternative sources of income for these communities their dependence on NTFPs is exclusively for their survival and not due to commercial gains from NTFPs. There is a dire need to take measures for providing some sort of alternative sources including trainings, microfinance and credit facilities so that they could initiate income generating activities. This will reduce pressure on fragile natural resources and forests.

It is suggested that village organizations including women participation may be formed to train and mobilize local communities to use NTFPs and even other forest products on sustainable basis.

The present study is a preliminary effort and further research is needed in this area on a wider scale. This may be of much value for other researchers, stock holders, students, policy makers and politicians.

References

- Adepoju, A. A. & Salau, A. S. (2007). Economic Valuation of Non-Timber Forest Products (NTFPs). Munich Personal RePEc Archive (MPRA) Paper No. 2689. www.mpra.ub.uni-muenchen.de/2689/.
- Adhikari, B. (2002). Property Rights and Natural Resource: Socio-economic Heterogeneity and Distributional Implications of Common Property Resource Management in Nepal. Paper presented at the Beijer Institute's Advanced Workshop on "Property Rights Structures and Environmental Resource Management." May, 28-30, Durban, South Africa.
- Adhikari, B. (2003). What Determines Household Dependency on Community Forests? Empirical Evidence from Nepal. Paper Presented at the XII World Forestry Congress, Quebec City, Canada.
- Alberini, A. (1995). Efficiency vs. Bias of Willingness-to-estimate Bivariate and Internal-Data Models. *Journal of Environmental Economics and Management* 29: Pp. 169-80.
- Alberini, A., et al. (1997). Modeling Responsive Incentive effects in Dichotomous Choice Contingent Valuation Data. *Land Economics* 73: Pp. 309-24.
- Aldrich, J. H. & Forrest, D. N. (1984). "Linear Probability, Logit and Probit Models", *Sage University Paper Series on Quantitative Applications in the Social Science*. 07-45, Sage Publishers, London, U.K.
- Amacher, G., W. Hyde & B. Joshee (1993). Joint Production and Consumption in Traditional Households: Fuel Wood and Crop Residues in Two Districts in Nepal. *Journal of Development Studies* 30 (1): Pp. 206-225.
- Bann, Camille (1998). The Economic Valuation of Tropical Forest Land Use Option: A Manual for Researchers. Economy and Environment Program for Southeast Asia, Singapore.
- Belcher, B., Ruiz-Perez, M. & Achdiawan, R. (2003). Global Patterns and Trends in NTFP Development. Paper presented at the International Conference on Rural Livelihoods, Forests and Biodiversity, 19-23 May, Bonn, Germany.
- Ehrlich, P. R. & Ehrlich, A. H. (1981). *Extinction*. Ballantine, New York.
- Evans, M. I. (1993). Conservation by commercialization. In: Hladik, C.M., Hladik, A., Linares, O.F., Pagezy, H., Semple, A. and Hadley, M. (Editors). *Tropical Forests, People and Food: Biocultural Interactions and Applications to Development*. MAB Series vol. 13. UNESCO, Paris and Parthenon Publishing Group, Carnforth, UK. Pp.815-822.
- Food & Agricultural Organization of the United Nations FAO (1990). The Major Significance of Minor Forest Product. The Local Use and Value of Forest in the West African Humid Forest Zone. Community Forestry Note 6. Rome..

- Forests Practices Board FPB (2004). Integrating Non-Timber Forest Products into Forest Planning and Practices in British Columbia. Special Repot. The Centre for the Non-Timber Resources at Royal Roads University (CNTR).
- Foster, Steven (1995): *Forest Pharmacy: Medicinal Plants in American Forest*. Forest History Society. Durham NC.
- Government of Pakistan (2000) *Economic Survey of Pakistan*. Ministry of Finance, Economic Adviser's Wing, Islamabad.
- Gunatilake, H., (1998). 'The Role of Rural Development in Protecting Tropical Rainforests: Evidence from Sri Lanka.' *Journal of Environmental Management* 53: Pp. 273-292.
- Hallam, Arne (2007). Econ 501: Microeconomics (Lecture Notes online). <http://www.econ.iastate.edu/classes/econ501/Hallam/index.html>
- Hammett, A. L. & Chamberlain, J. L. (1998). "Sustainable Use of Non-Traditional Forest Product: Alternative Forest Based Income Opportunities." In S. K. Jonathan (ed). *Natural Resources Income Opportunities on Private Land Conference*. April 5-7th 1998. Hagerstown, Maryland. Pp: 141-147.
- Hanemann, W. M. (1999). The Economic Theory of WTP and WTA. In: Ian J. Bateman and Kenneth G. Willis (eds) *Valuing Environmental Preferences: Theory and Practice of the Contingent Valuation Method in the US, EU, and Developing Countries*. New York: Oxford University Press.
- Heltberg, R., (2001). "Determinants and Impact of Local Institutions for Common Resource Management." *Environment and Development Economics* 6: Pp. 183-208.
- Holdren, J. P. & Ehrlich, P. R. (1974). "Human Population and the Global Environment." *American Scientist* 62: Pp. 282-292.
- Kannien, B. J. (1995). Bias in Discrete Response Contingent Valuation. *Journal of Environmental Economics and Management* 22: Pp. 57-70.
- Latif, A., Shinwari, Z. K., Hussain, J. & Murtaza, S. (2006). NTFPS: An alternative to Forest Logging in Minadam and Sultanar Valley Swat Non Timber Forest Products: An Alternative to Forest Logging in Minadam and Sultanar Valley Swat. *Lyonia: a journal of ecology and application*, 11, No. 2. <http://www.lyonia.org/downloadPDF.php?pdfID=303.485.1>.
- Maddala, G. S. (1983). *Limited-Dependent and Qualitative Variables in Econometrics*. New York: Cambridge University Press.
- Maler, K-G. (1974). *Environmental Economics: A Theoretical Inquiry*, published for Resources for the Future by John Hopkins University Press, Baltimore.
- Myers, N. 1988. Tropical forests: much more than stocks of wood. *Journal of Tropical Ecology*, 4: Pp. 209-221.
- Plotkin, M. & Famolare, L. (Editors). 1992. *Sustainable Harvest and Marketing of Rain Forest Products*. Conservation International-Island Press, Washington, DC. Pp. xiii-xv.
- Saxena, N. C. (2003). *Livelihood Diversification and Non-Timber Forest Products in Orissa: Wider Lessons on the Scope for Policy Change?* ODI Working Paper No. 223. London, U.K.; Overseas Development Institute.

Tiwari, B. K. (nd). Marketable and Non-Marketable Environmental Goods and Services. Centre for Environmental Studies, North-Eastern Hill University, <http://www.freewebs.com/envir/tiwari.htm>

Appendix-A: NTFPs in Northern Pakistan

S. No.	Botanical Name	Local Name	Part Used	Used for
1	<i>Aconitum violaceum</i>	Zaharmora	Rhizome	Rheumatism and arthritis.
2	<i>Acorus calamus</i>	Sakha Waja	Rhizome	Cough, remedy for flatulence, colic and diarrhea and also against snake bites
3	<i>Adiantum venustum</i>	Sumbal	Leaves	Sexual disability, fever, backache and used as blood purifier
4	<i>Aesculus indica</i>	Jawaz	Fruit, Oil	Fruits are used as anathematic and given to horses in colic.
5	<i>Ajuga bracteosa</i>	Boti	Whole Plant	Throat sore treatment and purifying blood, used in epilepsy act as coolant
6	<i>Artemisia brevifolia</i>	Terkha	Shoots	Antispasmodic and stomach-ache
7	<i>Arisaema flavum</i>	Marjarey	Rhizome	-
8	<i>Atropa acuminata</i>	Bargak	Plant	Pains and rheumatism as poultice
9	<i>Berberis lycium</i>	Kowarey	-	Jaundice, sore mouth, stomach problems
10	<i>Bergenia ciliata</i>	Gat Panra	Rhizome	anti-diabetics and expectorant
11	<i>Bistorta mpilexicaulis</i>	Tarwa Panara	Rhizome	Rheumatism and gout
12	<i>Caltha alba</i>	Makan Path	Floral shoot	Laxative
13	<i>Corydalis stewartii</i>	Mamera	Floral shoot	Eye drops for curing eye diseases
14	<i>Dioscorea deltoidea</i>	Qanris	Rhizome	Used for treatment of jaundice and ulcers
15	<i>Dryopteris jaxtaposta</i>	Kowanjeey	Whole Frond	Enhance digestion
16	<i>Feoniculum vulgare</i>	Kaga Velaney	Fruit	Used for curing urinary, dried fruits are used as carminative and laxative
17	<i>Fumaria indica</i>	Papra	Whole plant	Used for jaundice, also used as blood purifier and coolant

18	<i>Hedera nepalensis</i>	Prewatei	Stem and leaves	Anti-diabetics, blood purifier
19	<i>Hypericum perforatum</i>	Shin chey	Stem and leaves	Used as diuretic and its tea is stimulant and analgesic
20	<i>Indigofera heterantha</i>	Ghorejey	Root, leaves	For scabies, leaves are used for stomach problems
21	<i>Isodon rugosus</i>	Spirkey	Stem and leaves	Remedy for toothache
22	<i>Juglans regia</i>	Ghuz	Fruit, bark	General body tonic, bark is used for cleaning teethes and antiseptic
23	<i>Mentha longifolia</i>	Velaney	Shoots	Used in diarrhea in children and prevention of vomiting. Also used in dyspepsia
24	<i>Mentha spicata</i>	Podina	Leaves and stem	Used as carminative and refrigerant also used as Carminative
25	<i>Paeonia emodi</i>	Mamekh	Rhizome	Backache and general weakness
26	<i>Primula denticulate</i>	Mamera	Flower	Eye irritant
27	<i>Podophyllum emodii</i>	Kakora	Rhizome	Used to control jaundice and other liver disease
28	<i>Polygonatum verticilatum</i>	Noor-e-alam	Rhizome	Used for treatment of joint pain
29	<i>Rheum australe</i>	Chotial	Roots, Rhizome and leaves	Purgative, astringent, alexiterix, emmenagogue, diuretic and act as blood purifier
30	<i>Skimmia laureola</i>	Nazar Panra	Leaves Tea made from the leaves	dyspepsia, smoke is considered as antiseptic
31	<i>Solanum nigrum</i>	Kamachoo	Leaves and fruit	Treat eczema, fruits edible and are used in fever
32	<i>Taxus buccata</i>	Banerya	Bark	Emmenagogue and antispasmodic
33	<i>Valeriana jatamansi</i>	Mushk-e-Bala	Rhizome	Unknown local uses
34	<i>Viola odorata</i>	Banafsha	Flower	throat sore and carminative agent

Source: Latif et al. (2006)

Notes

¹ A list of NTFPs is given in appendix-A.

² Non-timber forest products (NTFPs) refer to a wide array of economic or subsistence materials that come from forests, excluding timber. Similar terms include "non wood," "minor," "secondary," and "special" or "specialty" forest products. About 6000 species of higher plants are noted in various forms (Shinwari, 2002). About 400 (7.8%) of these are endemic to Pakistan representing 149 genera and 41 families. The share of forestry in country's economy is 456 millions in 1999-00 (Govt. of Pakistan, 2000).

³ Common property resource, alternatively termed common-pool resource, is a particular type of good consisting of a natural or human-made resource system, the size or characteristics of which makes it costly, but not impossible, to exclude potential beneficiaries from obtaining benefits from its use. Common pool resources face problems of congestion or overuse, because they are subtractable. Examples of common-pool resources include irrigation systems, fishing grounds, pastures, and forests. A pasture, for instance, allows for a certain amount of grazing occurring each year without the core resource being harmed. In case of excessive grazing, however, the pasture may become more prone to erosion and eventually yield less benefit to its users. Their core resource being vulnerable, common-pool resources are generally subject to the problems of congestion, overuse, pollution, and potential destruction unless harvesting or use limits is devised and enforced.

⁴ The elements of q are viewed as goods and multiple amenities rather than bads. In this study q stands for non-timber forest products that household collects from forests.

⁵ For more detailed discussion, see Alberini (1995); Kannien (1995) and Alberini et al. (1997).

⁶ There might be distinction in the application of probit and logit models in dealing with qualitative variable cases. Probit is thought to better suit the experimental data while logit might be more appropriate for the survey data (Bann, 1998).

Institutionalization of Participatory Development in Pakistan: a Case Study of a Local Government and NGO Partnership-based Project

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Abstract

This paper explores the success of a project implemented by the local government of North West Frontier Province, Pakistan, and a participatory-based NGO. It focuses on understanding whether the project was carried out exactly in line with the participatory development theory as it is theorized. This project was a part of the overall policy trend in Pakistan to make participatory development an integral part of local government in particular and other public institutions in general. Thus, to present a holistic picture of the ground reality to the readers, the paper sequentially delineates the institutionalization of participatory development, philosophy of the project, methodology and the study's results.

Key Words: Participation, Participatory development, Local government, Community organization Pakistan

Introduction

Participatory development (PD) has consumed tremendous ink in the present day development literature (Constantino-David, 1982). It is believed to be a departure from the earlier development approaches/theories that envisaged economic development the only mechanism leading to development (Ali, 2005). It is an extremely different paradigm that contradicts the earlier development paradigm and asserts in the importance of people's participation in development (Mohan and Stokke, 2000; see Eversole, 2003). It holds that the local people better know their problems and possess the potential to plan development activities and sustain them within their own indigenous resources (Guijt and Shah, 1998). In short, it is a human-centred approach and initiates development from the grass roots level (Chamber, 1994; Fraser and Lepofsky, 2004; Keough, 1998). Owing to its perceived attractiveness and its equality-oriented development approach, it has become a central issue/goal among development agencies for almost the last two decades (see Guijt and Shah, 1998). International donors, in particular, have incorporated it as an essential condition for the aid recipient countries. To employ it, non-governmental organizations (NGOs) have been viewed by the international donors as effective channels that have the capacity to reach the grass roots level and empower local people to determine their own path (Smith, 1987; Wils, 1995).

In addition to the NGOs, the current development literature has reflected the integration of 'participation' or 'participatory development' into the public institutions as a feasible strategy towards sustainable development. The integration of participation into the public institutions has mainly surfaced in the 'good governance' theory, which places more importance on participation, transparency, acceptability, predictability etc (Seldadyo, Nugroho and Hann, 2007; Veron et al., 2006). The idea behind good governance (henceforth used interchangeably with governance) is that the aid recipient countries in particular are required to integrate participation and the other features of good governance in the public institutions so that the development becomes reflective of the actual needs of the local people; the public officials are downwardly accountable; the gap between the government and governed is bridged and the local people maintain the development activities (Mahmood, 2007). Hence, to follow the political pre-conditions, the aid recipient countries have made certain changes in their policies to ensure that 'participation' is practically implemented and the local people hold power to determine their future actions. Like other countries, Pakistan too has introduced certain changes into its institutions to implement participatory development. These include, besides other initiatives, a decentralized local government system under the notion of 'the devolution plan' introduced through the Local Government Ordinance 2001 to empower the local people, ensure bottom-up development; reach the poorest of the poor (both men and women) and relegate public officials to mere development facilitators (Government of Pakistan, n.d.). To understand the success of the decentralized system or, in other words, local government in implementing participatory development, this paper investigates its application in a development project, namely, 'Rural water supply and sanitation' (RWSSP) run by the local government of North West Frontier Province (NWFP) and a participatory-based NGO, namely, Sarhad Rural Support Programme (SRSP) in partnership. However, before presenting the overall structure of the project and analysis of the findings, a succinct picture of the overall background of the institutionalization of participatory development, decentralization and Pakistan's reflection of PD in the local government system is given below. This is intended to remind readers of the overall trend of PD permeation into the current development discourse on good governance and its realization in viable development. By presenting the recent move towards institutionalization of PD it provides a framework for understanding the gap between PD's theory and practice.

Institutionalization of Participatory Development

The institutionalization of participatory development or, in other words, incorporation of participation into the public sector gained impetus after the donor agencies, particularly the World Bank, realized the failure of the foreign aid provided to the aid recipient countries. The donor agencies blamed this failure on incompetence, corruption and lack of accountability in states' structure (Cambodia, n.d.). In other words, the failure of their development policies was due to the absence of 'governance reforms'. To encourage sustainable development, the donor agencies required the aid

recipient states to follow the governance agenda as a pre-condition for aid. They required them to evolve productive and answerable public sector management, citizen participation in government, 'liberalization of trade, open elections and free media' (Batterbury and Fernando, 2006: 1854). Thus, good governance gives prominent significance to the concept of participation and considers it as a panacea for bad governance. The centrality of participation can be realized from a definition of good governance put forward by UNDP (1997) which states that:

Governance comprises the complex mechanisms, processes and institutions through which citizens and groups articulate their interests, mediate their differences and exercise their legal rights and obligations. Good governance is, among other things, participatory transparent and accountable. It is also effective and equitable. And it promotes the rule of law. Good governance ensures that political, social and economic priorities are based on broad consensus in society and that the voices of the poorest and most vulnerable are heard in decision-making over the allocation of development resources (UNDP, 1997, cited by Sibbel, 2005: 6).

This explanation not only reflects a holistic picture of governance but also highlights the importance of participation which, according to Rhodes (1997), is the central element of governance. Governance promotes participation of ordinary people and NGOs in the decision-making process to make states' policies responsive to and reflective of the ground realities. It is based on belief in the capacity and potential of the common people and on understanding that empowering local people to identify and plan their own development activities would not only develop the sense of ownership but also reduce economic pressure on the government's exchequer (Sibbel, 2005). More simply, governance reflects a belief 'in the incentives to engage local communities in the decisions affecting them' (Bifulco and Centemeri, 2008: 211). To promote participation or, in other words, good governance, decentralization, besides other strategies, is considered as the effective mechanism that devolves power to the grass roots level (Bardhan, 2002; Burki, Perry and Dillinger, 1999).

Decentralization and Participatory Development

Decentralization is ubiquitous and is found in fields such as the provision of services, development programmes, health and education (Bardhan, 2002; Liu, Song and Tao, 2006). Its pervasive use is due to its perceived benefits, such as devolving powers to the grass roots level and empowering the locals to gain control over their development activities; and ensuring transparency and downward accountability of the government (Burki, Perry and Dillinger, 1999; Escobar-Lemmon, 2003; Hadiz, 2004). However, it is important here to clarify that decentralization is a complex issue possessing different dimensions and susceptible to different interpretations (see Ali, 1987; Bardhan, 2002). However, for the purpose of this paper it is:

The devolution of central state assets and powers to local or private decision-making bodies: representative local government, local administrative branches

of central government, non-state organizations (NGOs, co-operatives, associations, etc) or private individuals and corporations (Ribot, 1999: 27).

This definition reflects, besides other features, the importance of the local representative governments, NGOs, community organizations, in short, the civil society, as an effective mechanism to ensure people's participation at all levels and make governments' policies reflective of the ground reality (Kjosavik and Shanmugaratnam, 2006; Hadiz, 2004). Hence, this paper associates decentralization with the locally elected representative governments and assumes that a country is not decentralized unless it has a locally elected local government. Local government works close to the local people and works in the light of their preferences (Escobar-Lemmon, 2003). It comprises participatory institutions, controlled by the local people themselves (Ali, 1987; Karl et al., 2002; see Mowbray, 2000; Sellers and Lidstrom, 2007). The reason for this locally-owned structure and downward accountability is due to elected representatives, responsible to their constituencies (see Fenwick and Elcock, 2005; Barry; Honour and Palnitkar, 2004). Thus, following the distinctive merits of local government, it has adopted by different countries to devolve power to the grassroots communities and evolve good governance (Mohapatra and Hung, n.d.). The participatory nature of these institutions has further been reinforced by the recent move by donor agencies to institutionalize participatory development into their structure and development activities (Ali, 1987; Doornbos, 2001; Doornbos, 2003). Various development activities and projects have so far been implemented through the local governments to ensure sustainability of the development activities and local ownership. Similar to the efforts initiated by other countries in this respect, Pakistan too, besides other reforms, introduced a local government system. The following description provides a brief picture of Pakistan's initiatives with regard to the institutionalization of participatory development in the public sectors and the structure of the local government system. Its purpose is to reflect the interest of the government of Pakistan in participatory development and likewise develop a clear picture of its vision with regard to participatory development.

Pakistan's Vision of Local Government

The government of Pakistan established the National Reconstruction Bureau (NRB) in 1999 to reform the existing structure of the government and restructure it in accordance with the theory of good governance. To control corruption and make the overall institutions accountable, NRB introduced a system of representative local government to make the government responsible at district, provincial and federal levels. In addition, it introduced reforms in the judicial system, the political system and the public services (Mahmood, 2007). Furthermore, the government focused on ensuring affordable and accessible health and education services, freedom of the media and a transparent economy. It still continues to introduce reforms in other areas such as revenue administration, e-governance etc (Government of Pakistan, n.d.).

As far as the introduction of representative government is concerned, the government of Pakistan, as described above, introduced this system under the notion of 'the devolution plan' through the Local Government Ordinance 2001 (Government of Pakistan, n.d.). The vision of the devolution plan is to increase the efficiency of the public sectors and make them accountable to the general masses. Its central focus is to reach the grass roots level and involve the non-elected citizens in the development process through the citizen community boards (CCBs) or other local community organizations (COs). The purpose of CCBs or other local community organizations, according to the devolution plan, is to ensure participatory development and bottom-up planning so as to deliver the services in an empowered way. Following CCBs' reflection and importance in the devolution plan, their number increased to 10,500 and still continues to grow. They pay a 20 percent share from their own resources (community based savings) to the overall fund. The plan encourages the NGOs to develop the capacity of the local government to improve service delivery. To promote the local government service delivery system and ensure community empowerment, the Devolution Trust for Community Empowerment has developed networking with the Rural Support Programme Network (RSPN). Further to the emphasis on CCBs or other community organizations as a strategy for empowering the local people to plan and monitor their development activities, the devolution plan introduced a elected local government structure at union council level, Tehsil (a subunit in a district) council level and District council level. These councils are headed by *Nazims*¹ and *Naib² Nazims*. The local government has sole control over financial, administrative, health, education and development matters (Government of Pakistan, n.d.; Mahmood, 2007). Thus to transform the vision of 'devolution plan' into reality and incorporate PD's theory into the local government, the 'Rural water supply and sanitation' project was launched in line with PD's theory. How the project is presented and the strategy ostensibly to be practised in the field are reviewed below. The following description of the project is intended not only to develop a clear picture of its documented philosophy but also to help in the later analysis.

Rural Water Supply and Sanitation Project (RWSSP): a Review

Initially this project was intended to start in 1998, but due to certain political crises it was delayed until 2002-3. It is funded by the government of NWFP, the beneficiary communities and the Department for International Development (DfID), UK. The share of DfID is greater than the half of the total fund. The project provides safe water and sanitation services (hand pumps, spring-gravity, drains/street pavement, demonstration latrines etc) to the rural areas of the province by carrying out a participatory approach. It is based on the assumption that the earlier development projects at the local government level failed mainly because they were non-participatory. To ensure the sustainability of the projects and evolve the concept of ownership among the local people (both men and women), the Sarhad Rural Support Programme (SRSP)- a participatory NGO- works as a partner with the local government, i.e., Tehsil Municipal Administration (TMA) by providing technical skill to its staff members. SRSP works along with the TMA staff and builds their capacity

by providing training in social mobilization, participatory development, hygiene promotion, financial management etc. To reform the structure of the local government, i.e., the TMA, SRSP staff train some staff members (including men and women) in each and every TMA in social mobilization so that they may be oriented in undertaking participatory approaches independently after the project comes to an end. As far as the implementation mechanism of the project is concerned, according to the relevant documents, it employs a completely participatory approach. It ensures gender equality and carries out a bottom-up approach by reaching the poorest of poor. Extreme efforts, it is claimed, are made at each stage of the project cycle to ensure the concept of ownership among the local people.

In the first place, the villages or areas are identified on the basis of actual need. Further, the SRSP and TMA staff visit the areas and inform the local people about the project and other requirements. In the first meeting the local elected councillors, particularly the women, are encouraged to participate because they represent these people and are more interested to develop their areas. Participatory rural appraisal tools are used at this stage to ensure that the marginalized people participate in the decisions. In this meeting the members of already existing CCBs or community organizations (CO), elected councillors and the general community are encouraged to participate. In case no CCB or CO exists in the area, the formation of new COs of both men and women is encouraged. A standard process is followed in the identification and formation of the COs and extreme care is taken that the decisions come from the poorest of the poor and fulfil the criteria for the award of a scheme. After the COs are formed and schemes are identified, the scheme selection committee, comprising the *Naib Tehsil Nazim*, Tehsil Municipal officer, two officers from the RWSSP etc review the applications for the schemes and award the schemes on the basis of the set criteria and availability of funds. After that the members of COs or CCBs are involved in the planning, monitoring and evaluation of the projects and are trained in the operation and maintenance of the schemes. They give 20 percent of the total cost, in the form of cash or labour. The fund for the schemes is given to the presidents and secretaries of the organizations through the *Nazims* of the respective union councils. The project's strategy is to follow a participatory development philosophy and empower the marginalized people to think about their development and plan schemes in the light of their local knowledge and resources. Furthermore, the partnership between the SRSP and local government is intended not only to make the government staff cognizant of the participatory development approach but also to create the sense of accountability and transparency in the local government structure (Government of NWFP, 2004). This is how the project is presented. The following section describes the way this investigation of the actual implementation was carried out.

Methodology

This study was carried out in *Peshawar*³ and *Nowshera*⁴ districts. Deep insight was needed to identify the real picture of how the project was carried out in practice in these two districts and who determined the decisions. Thus, to unravel the practice, the

researcher employed ethnographic technique. The purpose of using this technique was to understand the issue in a natural setting and develop a more holistic view of the problem (see Punch, 1998). Ethnographic research is also appreciated for being inclusive as it takes on board different tools such as first-hand observation and participation to discover the social world and allows the researcher to participate in the groups investigated in a non-sensitive way (Hammersley, 1992). Indeed, Hammersley and Atkinson (1995: 1-2) regard it 'as the most basic form of social research.... [It] involves the ethnographer participating, overtly or covertly, in people's daily lives for an extended period of time, watching what happens, listening to what is said, asking questions – in fact, collecting whatever data are available to throw light on the issues that are the focus of the research'. Thus, as an ethnographer the researcher stayed in the field for quite a long time and collected first hand information. Staying in the field exposed the researcher to the true picture of how the project was carried out and how participatory development was implemented. In addition to the observation and taking necessary field notes, the researcher carried out both individual and focus group interviews. The reason for employing both individual and focus group interviews and observation was to maintain cross checks on the data collected from each tool and also fill the possible gaps left in the information (ibid.; Fontana and Frey, 1994). The reason for employing interview was to provide enough time for the interviewees to explain their situation (see Cavan, 2003) and help in understanding the reality (Holstein and Gubrium, 2003). Both individual and focus group interviews are praised in research literature for their comparative merits over other data collection tools (see Fielding, 1993; Punch, 1998). As Fontana and Frey (1994: 365), commenting upon the merits of focus group interview remark, '... the [focus] group interview... [is] inexpensive, data rich, flexible, stimulating to respondents, recall aiding, and cumulative and elaborative, over and above individual responses'.

As the project was conducted by both the local government and SRSP, therefore, data was collected from the related staff of SRSP and local government, the local elected members and the members of COs and CCBs. Theoretically the project (see further details below) also encouraged women's organizations but due to cultural constraints and strict *Purda* (veiling), observations they were in practice unable to be interviewed by a strange man. However, to fill this gap, data were collected on the researcher's behalf by a female staff in the field. Twenty-five interviews (including individual and focus group) were conducted and, in addition, field notes were taken to enrich the information. Employing such different tools provided a clear picture of how the project was actually carried out.

Results and Discussion

The above project-related description reveals the way the project is explained in the project's documents and idealized by the concerned staff members and the institutionalization of PD while the following presents the on-the-ground facts. The facts reflect quite an opposite picture of the documented theory. The staff members of the SRSP and the concerned local government were at first hesitant to describe the real

picture, but staying in the field and regular interaction with them exposed me to the real story. In practice, most of the organizations of both men and women existed in name only and were highlighted on the papers as a pre-condition for award of schemes and donors' satisfaction. They had no real existence because the union councils' *Nazims* or *Naib Nazims* alone decided where work would be done and whose names would be included in the organizations. The Tehsil *Nazim* was the central figure to decide where to work and which union councils' *Nazims* would be allotted the schemes. The Tehsil *Nazim*, being the most important person and belonging to a particular political party, distributed the schemes on the basis of party politics and not on the basis of needs. Those not belonging to his political party were refused any water supply or sanitation scheme. A social mobilizer from the government side admitted this fact, commenting:

When the needy people or those not belonging to Tehsil *Nazim* do not get a project, they complain but are helpless to do anything.

When the same issue was discussed with SRSP staff, they held that 'SRSP plays only a support role and, hence, can not pressurize the Tehsil *Nazim* because he has got the administrative and financial authority and thus ignoring him means failure of the project'. On the other hand, the Tehsil *Nazim* denied the allegations and explained that 'it is 'merit' that holds'. It was he who released the cheques for the schemes and allotted schemes to his own union councils' *Nazim*. Almost the same situation is reflected by Simanowitz (1997) in a water supply and sanitation project in South Africa. The said project was theoretically supposed to be in line with the participatory development ideals but in practice it was exclusively controlled by the elected elites for their vested interests. Almost the same findings have also been reflected by Botes and Rensburg (2000) in a project in South Africa, where the elites interposed themselves between the project staff and local beneficiaries and controlled the project activities. Social mobilization is normally considered as an integral part of participatory development (Brocklesby and Fisher, 2003; Pandey and Misnikov, 2001). However, it was practically observed nowhere and the schemes were distributed among the union council *Nazims* before the process of social mobilization was carried out. This system also prevailed in the project theory, which the SRSP's project director mentioned as 'putting the cart before the horse'. Generally, decentralization or, in other words, the role of elected local governments, as explained above, is appreciated in participatory development related literature as a remedy for reducing corruption; making central government accountable and devolving powers to the local people (Bardhan and Mookherjee, 2006). However, here the practice shows an opposite picture. This situation seems not to be limited to Pakistan, but prevails in many developing countries. Veron et al. (2006), analysing decentralization in Old Malda and Debra, found that it was not bureaucracy or higher level government but the local councillors or political leaders (political entrepreneurs) who resisted the mobilization process and held control over everything.

Community Involvement in the Project Cycle

Similar to the above findings with regard to the formation of community organizations and scheme distribution, the local community was almost totally ignored in the project cycle. The members of community organizations held that the *Nazims* did everything and they felt obliged to them. Similar to the Tehsil *Nazim*, the local union councils' *Nazims* also practised favouritism and nepotism. They formed the organizations by including fake names for the schemes. Sometimes they had their own relatives as the presidents and secretaries- as they were legally required to cash the cheques- and allotted them the schemes. They were only concerned with pleasing their own people and earning the money for themselves. As a social mobilizer while explaining the role of local *Nazim* in RWSSP opined that

95 percent of union council *Nazims* have become contractors. They complete projects on their own without any monitoring by anyone because they are our officers and we are their subordinates and how can we dare to ask them anything? They mostly do little work and show more and thus distribute the remaining fund among the presidents and secretaries (being their own people) and also take their own share.

The Cheques were released in the name of the presidents and secretaries but they were issued through the *Nazims* and thus even the presidents and secretaries could not do anything on their own. The schemes were identified by the *Nazims* and although the planning was done by the SRSP and government engineers, they did what the *Nazims* wanted them to do. Likewise, until the completion, the schemes were solely controlled by *Nazims* and the local non-elected community was totally disempowered. In addition to the *Nazims*' exclusive monopoly, the engineers and the account officers in the local government claimed 12% and 10% commission. SRSP staff were helpless to put any pressure on them because the funds were channelled through the local government and they had no say except their involvement in social mobilization. Similar to the non-involvement of men's organizations in the schemes, the women members existed in name only and were unaware of anything. This finding is almost similar to the findings of a study concluded by Ali (2005) in a development project in Pakistan wherein women's inclusion in the development activities was given lip-service. The number of women organizations in the RWSS project was supposed to be half that of the men's organizations, but in practice they were made only to work as a channel and inform women of the operation of schemes—in the case of hand pumps—and provide health education. The rationale for this was that women arrange and use water and take care of the babies and, hence, they need to be trained in such areas only. Most of the SRSP women staff members explained that women did not know anything about the projects completed and believed that 'it is not we but our men might know about the schemes probably. All this reflects that the processes of social mobilization, participation and participatory development are altogether ignored in this project and it remains mere an idea. In short, participatory development remains mere rhetoric if local elites (here, the *Nazims*) dominate the decisions (Yenshu, 1998).

Conclusions

It follows from the above that the local government system - it referring particularly to the elected representatives- in Pakistan is yet not oriented to implementing participatory development. Its policies and structure privileges the elected representatives to the extent that they feel no accountability, of the kind assumed in the governance agenda- to the grass roots level. The theory of institutionalization of PD or neo-institutionalist approach celebrates participation with lofty expectations but ignores the cultural elements and power structure that manipulate activities mainly for their own benefits. The project strategy concentrates unprecedented powers in the hands of elected representatives and relegates the NGO to mere facilitators. This policy not only confers unbridled powers on the representatives as compared to the NGO but also helps in reinforcing the prevalent power relations. In addition, it treats women as a dependent gender and affords them no chance of participating in the decisions. The weakness link in this project is its strategy of putting social mobilization after scheme identification. Policy makers, academics, practitioners and others concerned need to understand the major issues paralyzing the theory of good governance, and to take into account such facts and restructure development projects in a more feasible way.

Notes

¹ In Urdu language *Nazim* refers to a 'manager' managing different activities and here it refers to the elected head managing/running the activities of his respective constituency.

² In Urdu language *Naib* refers to 'assistant' helping the *Nazim* in carrying out the activities/tasks in the respective area.

³ *Peshawar* district is the capital of North West Frontier Province (NWFP).

⁴ *Nowshera* district borders *Peshawar* district to the East.

References

- Ali, J. (2005). *A Critique of Participatory Development in Pakistan*. PhD Dissertation, University of Hull, UK, (Department of Criminology and Sociological Studies).
- Ali, M. M. S. (1987). "Decentralization for Development: Experiment in Local Government Administration in Bangladesh," *Asian Survey*, 27, (7): Pp. 787-799.
- Bardhan, P. (2002). "Decentralization of Governance and Development." *Journal of Economic Perspective*, 16, (4): Pp. 185-205.
- Bardhan, P. & Mookherjee, D. (2006). "Corruption and Decentralization of Infrastructure Delivery in Developing Countries." *Economic Journal*, 116. Pp. 107-133.

- Barry, J., Honour, T. & Palnitkar, S. (2004). "Social Movement, Action and Change: The Influence of Women's Movements on City Government in Mumbai and London." *Gender, Work and Organization*. 11. (2): Pp. 143-162.
- Batterbury, S. P. J. & Fernando, J. L. (2006). "Rescaling Governance and the Impacts of Political and Environmental Decentralization: An Introduction." *World Development*. 34. (11): Pp. 1851-1863.
- Bifulco, L. & Centemeri, L. (2008). "Governance and Participation in Local Welfare: The Case of the Italian Piani di Zona." *Social Policy and Administration*. 42. (3): Pp. 211-227.
- Botes, L. & Rensburg, D. V. (2000). "Community Participation in Development: Nine Plagues and Twelve Commandments." *Community Development Journal*. 35. (1): Pp. 41-58.
- Brocklesby, M. A. & Fisher, E. (2003). "Community Development in Sustainable Livelihoods Approaches- An Introduction." *Community Development Journal*. 38. (3): Pp. 185-198.
- Burki, S. J., Perry, G. E. & Dillinger, W. R. (1999). *Beyond the Centre: Decentralizing the State*. Washington D.C.: World Bank.
- Cavan, R. S. (2003). "Interviewing for Life-History Material." in Fielding, N. (Ed.). *Interviewing*. London: Sage Publications. Pp. 19-32.
- Chambers, R. (1994). "The Origins and Practice of Participatory Rural Appraisal." *World Development*. 22. (7): Pp. 953-969.
- Constantino-David, K. (1982). "Issues in Community Organization." *Community Development Journal*. 17. (3): Pp. 190-201.
- Doornbos, M. (2001). "Good Governance: The Rise and Decline of the Policy Metaphor." *Journal of Development Studies*. 37. (1): Pp. 93-108.
- Doornbos, M. (2003). "Good Governance: The Metamorphosis of a Policy Metaphor." *Journal of International Affairs*. 51. (1): Pp. 3-17.
- Escobar-Lemmon, M. (2003). "Political Support for Decentralization: An Analysis of the Colombian and Venezuelan Legislatures." *American Journal of Political Science*. 47. (4): Pp. 683-697.
- Eversole, R. (2003). "Managing the Pitfalls of Participatory Development: Some Insight From Australia." *World Development*. 31. (5): Pp. 781-795.
- Fenwick, J. & Elcock, H. (2005). "New Development: The Elected Mayor and Local Leadership." *Public Money and Management*. 25. (1): Pp. 61-66.
- Fielding, N. & Thomas, H. (1993). "Qualitative Interviewing." 2nd ed. in Gilbert, N. Ed. *Researching Social Life*. London: Sage Publications. Pp. 123-144.
- Fontana, A. & Frey, J. H. (1994). "Interviewing: The Art of Science." in Denzin, N. K. & Lincoln, Y. S. (Eds.). *Handbook of Qualitative Research*. London: Sage Publications. Pp. 361-376.
- Fraser, J. & Lepofsky, J. (2004). "The Uses of Knowledge in Neighbourhood Revitalization." *Community Development Journal*. 39. (1): Pp. 4-12.
- Government of Cambodia (n.d.). "The Rise of Governance, Council for Administrative Reform." Available: www.car.gov.kh/epsch/riseofgovernmenten.asp-56k

- Government of NWFP (2004). "NWFP Rural Water Supply and Sanitation Project (RWSSP)." Revised PC-1. Pakistan: NWFP Local Government, Elections and Rural Department (LGE&RDD).
- Government of Pakistan (n.d.). "Medium Term Development Framework 2005-10: Good Governance." Pakistan: Planning Commission of Pakistan. Available: www.pakistan.gov.pk/.../planninganddevelopment-ministry/mtdf/17-Good%20Governance/17-Good%20Governance.pdf
- Guijt, I. & Shah, M. K. (1998). *The Myth of Community: Gender Issues in Participatory Development*. London: Intermediate Technology Publications.
- Hadiz, V. R. (2004). "Decentralization and Democracy in Indonesia: A Critique of Neo-Institutionalist Perspectives." *Development and Change*. 35. (4): Pp. 697-718.
- Hammersley, M. (1992). *What's Wrong With Ethnography?*. London: Routledge.
- Hammersley, M. & Atkinson, P. (1995). *Ethnography: Principles in Practice*. 2nd ed. London: Routledge.
- Holstein, J. A. & Gubrium, J. F. (2003). "Inside Interviewing: New Lenses, New Concerns." in Holstein, J. A. & Gubrium, J. F. Eds. *Inside Interviewing: New Lenses, New Concerns*. London: Sage Publications. Pp. 3-30.
- Karl, M., Potters, J., Colatei, D. & Dohrn, S. (2002). "Participatory Policy Reform From a Sustainable Livelihoods Perspective: Review of Concepts and Practical Experiences, Livelihood Support Programme." Working Paper Number 3, August. United Nations: Food and Agriculture Organization.
- Keough, N. (1998). Participatory Development Principles and Practice: Reflections of a Western Development Worker." *Community Development Journal*. 33. (3): Pp. 187-196.
- Kjosavik, D. J. & Shanmugaratnam, N. (2006). Between Decentralized Planning and Neo-Liberal: Challenges for the Survival of the Indigenous People of Kerala, India." *Social Policy & Administration*. 40. (6): Pp. 632-651.
- Liu, M., Song, B. & Tao, R. (2006). Perspective on Local Governance Reform in China." *China & World Economy*. 14. (2): Pp. 16-31.
- Mahmood, S. (2007). *Good Governance Reform Agenda in Pakistan: Current Challenges*. New York: Nova Science Publishers.
- Mohan, G. & Stokke, K. (2000). "Participatory Development and Empowerment: The Dangers of Localism." *Third World Quarterly*. 21. (2): Pp. 247-268.
- Mohapatra, A. K. & Hung, S. (n.d.). "Putting Women in Their Place?." Issue 9. Participation in Indian local governance. Brighton: Institute of Development Studies. Available: <http://www.bridge.ids.ac.uk/dgb9.html#top>.
- Yenshu, E. (1998) "The Evaluation of Attitudes Towards Grassroots Initiatives in Cameroon." *Community Development Journal*. 33. (1): Pp. 41-48.
- Mowbray, M. (2000). "Community Development and Local Government: An Australian Response to Globalization and Economic Fundamentalism." *Community Development Journal*. 35. (3): Pp. 215-223.

- Pandey, K. & Misnikov, Y. (2001). "Decentralization and Community Development." *Mountain Research and Development*. 21. (3): Pp. 226-230.
- Punch, K. F. (1998). *Introduction to Social Research: Quantitative and Qualitative Approaches*. London: Sage Publications.
- Rhodes, R. A. W. (1997). *Understanding Governance: Policy Networks, Governance, Reflexivity and Accountability*. Buckingham: Open University Press.
- Ribot, J. C. (1999). "Decentralization, Participation and Accountability in Sahelian Forestry: Legal Instruments of Political-Administrative Control." *Africa*. 69. (1): Pp. 23-65.
- Seldadyo, H., Nugroho, E. P. & Hann, J. D. (2007). "Governance and Growth Revisited." *Kyklos*. 60. (2): Pp. 279-290.
- Sellers, J. M. & Lidstrom, A. (2007). "Decentralization, Local Government, and the Welfare State." *Governance*. 20. (4): Pp. 609-632.
- Sibbel, L. (2005). *Good Governance and Indigenous Peoples in Asia*. Report. London: Minority Rights Group International.
- Simanowitz, A. (1997). "Community Participation/Community-Driven." *Water and Sanitation for All, Partnerships and Innovations, Proceedings 23rd WEDC Conference*. Durban, 1997. South Africa: WEDC.
- Smith, B. H. (1987). "An Agenda of Future Tasks for International and Indigenous NGOs: Views From the North." *World Development*. 15. (suppl): Pp. 87-93.
- UNDP, United Nations Development Programme (1997). *Governance for Sustainable Human Development*, UNDP Policy Document, January. New York: UNDP.
- Veron, R., Williams, G., Corbridge, S. and Srivastava, M. (2006). "Decentralized Corruption or Corrupt Decentralization? Community Monitoring of Poverty-Alleviation Schemes in Eastern India." *World Development*. 34. (11): Pp. 1922-1941.
- Wils, F. (1995). "Scaling-up, Mainstreaming and Accountability: The Challenge for NGOs." in Edwards, M. and Hulme, D. Eds. *Non-governmental Organizations, Performance, Accountability: Beyond the Magic Bullet*. London: Earthscan Publications. Pp. 67-79.

Population Projections of Pakistan Using Traditional and Time Series Models

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Abstract

The major innovative of this study is to project the population of Pakistan for vision 2030. Different Population growth and time series models have been used to project the population of Pakistan. The projected population by traditional growth model (Modified exponential model) is close to the projection by time series ARIMA (1, 2, 0) model. The MAPE of these models are 1.0578% and 0.485797% respectively. The projection by ARIMA (1, 2, 0) is more close to the projected population of Pakistan by at least four other bureaus i.e. Population Reference Bureau (2007), United States Census Bureau (2008), Pakistan Reality (2008) & Population of Pakistan (2008). These organizations predicted that the population of Pakistan in the year 2025 will be approximately 229 million. This projection may be helpful for the future planning of the country and facilitate the projects of the Government and Non Government Organizations.

Keywords: Population census, Projections, Traditional growth models and ARIMA.

Introduction

Population of any country plays a significant role in the planning as well as the decision making for the socio economic and demographic development. Now-a-days, the major issue of the developing countries like Pakistan, is the tremendous growth in population. According to National Institute of Population Studies [NIPS] (2006), Pakistan was ranked 14th among the most populous countries of the world with population of 33 million in 1950 whereas, it was ranked 6th populous country of the world with population of 156.26 million in 2006. Moreover, it would be the 5th populous country of the world in 2050 with population of 295 million (PRB, 2007). The only reason is the high growth rate of population of Pakistan as compared to the other countries of the world. Although the growth rate of Pakistan has decreased from 2.69% to 1.86% during 1998 to 2006 respectively. Even then the size of the population of Pakistan is very large. According to the population growth rate (2008), there are 156 countries out of 229 in the world that have less growth rate as compared to Pakistan. The reality is that Pakistan witnessed a very high growth rate in its early decades after gaining independence. The population of Pakistan drastically increased from 34 million to 158 million during 1951 to 2007. The growth rate of population of Pakistan must be decreased in order to control the population of our country as compared to the other countries of the world. The reduction in growth rate is indispensable to maintain

a balance between the population and the available resources of the country. So far, five population censuses have been conducted. In 1951, the first census was held which recorded a population of 34 million while the 2nd second census reported 43 million population thus exhibiting an average annual growth rate of 2.45% (Anonymous 1967).

The 3rd population census was delayed by one year till 1972 because of India-Pakistan war. In this census, Population was reported 65 million and 52.31% increase had been observed as compared to that of 1961 population census of Pakistan with an average annual growth rate of 3.67%. This was the highest growth rate in the history of Pakistan. It became the main cause of the drastic increase in population especially during the second census (Anonymous, 1972).

The 4th population census was held in 1981 and population was reported 84 million with an average annual growth rate of 3.06% (Anonymous, 1984). The 5th Population census was delayed by 7 years and held in 1998 because of the volatile and disturbing political issues of province Sind. Population and growth rate of this census were 132 million and 2.69% respectively (Anonymous, 2001). The above mentioned figures indicate that up-to March 1998; the population of Pakistan was quadrupled from the year 1951 to 1998. NIPS (2006) reported 156.26 million population and 1.86% growth rate of Pakistan respectively. Iqbal (2007) also reported 158 million and 1.83%, the population and annual average growth rate of Pakistan respectively. Relationship between Literacy, Education and Demographic (2009) advocated the relationship between women's education level and population growth. The Educated women have less number of children than the uneducated women. An extra year of schooling reduces female fertility by as much as 5 to 10 percent. Education, particularly of girls and women, helps to control excessive population growth by promoting the concepts of family planning, collective health and well-being. An educated family makes informed choices with respect to having a child as well as for maintaining the health of the whole family. With the passage of time, the literacy rate is being increased especially in the females and to some extent; the fertility also depends on them. Nobody can deny this fact that there is a negative relationship between education and the growth rate especially the female education. Most of the educated community prefers small family size. That is why; the growth rate of population is decreased as compared to the past. Looking at the current trend of the growth rate, it is expected that in future the growth rate will either decrease or at least remain the same. If the current growth trend continues, the population will grow with same age and sex distribution. Due to such drastic increase in the population of Pakistan and limited available resources of the country and infeasible future planning and management policies, all the past Governments of Pakistan had been in trouble since its independence. That is why, since 1947, Pakistan could never have managed its future planning properly. Consequently, the citizens of Pakistan have been deprived of the basic necessities of life e.g., quality water, food, health, education, employment, electricity, gas, transportation and manufacturing goods etc. It is only because of the irregular conduct

of population census and inadequate forecasting of the population of Pakistan. It is observed that without regular census and adequate forecasting of the population, the solution of population problems as well as the stability of the elected democratic Governments of Pakistan is impossible. Moreover, Pakistan can neither stand in the row of the developed countries during the 21st century nor take the right decisions about its current and future planning.

The only key to success is the optimum forecasting of the population of Pakistan in order to take right decisions regarding future planning and to honour the commitments at the national and the international levels. A large number of national and international scientists and agencies projected the population of Pakistan and its territories for different years. NIPS (2006) projected the population of Pakistan for different years which are 161.86 million, 175.65 million, 189.42 million and 202.11 million for the years 2010, 2015, 2020, 2025 respectively. These Figures are less than the estimates reported by all other national as well as international agencies. According to the World Population Prospects [WPP] (2006), the population of Pakistan will be 173.351 million, 190.659 million, 208.315 million and 224.956 million for the years 2010, 2015, 2020 and 2025 respectively. Jan, Ishfaq & Shuhrat (2007) projected the population of NWFP province of Pakistan by Modified Exponential model and reported that it would be 61.12 million in 2053 whereas, it was 21 million in 2008. It would be about 2.75 times more than the population of 2008. Such a tremendous increase in only 45 years is an alarming bell for the scientists as well as for the Government of Pakistan.

The choice of a parsimonious model depends on the nature and population trend, the model may be the linear and nonlinear including the first and higher degree regression models, simple exponential and Modified Exponential, Gompertz and Logistic growth models. Using such models, population of different countries is projected by different scientists (Shryock & Seigel, 1973; Agrawal, 2000; Jan, et al. 2007). Srinivasan (1998) used the component method to project the Population. According to one school of thought, the forecasting with respect to vision 2030 in human population is preferable as the growth rate of population does not remain constant for too long a period ahead. Beauregard (1990) revealed that forecasting for 2 to 4 years is assumed to be short term and for more years a long term forecasting. This study aims to project the population of Pakistan for the next 25 years from 2007 to 2032 using some traditional growth models and time series models.

Methodology

The data set for this study is spread over the 57 years from 1951 to 2007 with regular interval of one year. Most of the data is taken from (Kemal, Irfan & Mahmood, 2003; Iqbal, 2007) and population census reports of Pakistan (Anonymous, 1967, 1972, 1984, 2001). Goodness of fit of the models is assessed on the basis of Mean Absolute Percentage Error (MAPE). All statistical analyses are done using the computer

software Minitb-14 and SPSS-16. The Population is projected on the yearly basis from 2008 to 2032. The Mathematical forms of used models are as under:

Logistic Growth curve: The curve is of the form

$$Y = \frac{1}{\frac{1}{U} + A B^t}$$

Where Y is the response variable, A and B are the parameters of logistic model (SPSS-16, 2007). This curve is not recommended for too long a period forecasting and the population that is decreasing (Shryock et al., 1973).

Gompertz Curve: The logistic curve closely resembles the half normal curve whereas the Gompertz curve is not normal but a skewed one. The curve is of the form

$$Y = K A B^t$$

The Gompertz curve is exactly the same as that of the Modified exponential curve except that it is the increase in the logarithms of the y values which are decreased by a constant proportion (Shryock et al., 1973).

Modified Exponential Curve: The form of the modified exponential curve is

$$Y = K + A B^t$$

Which yields an ascending asymptotic curve, the value of B lies between 0 and 1 whereas A assumes the negative values (Shryock et al., 1973).

Exponential Growth Model: Exponential growth model can be characterized by a constant percentage increase in the value of population over time

$$Y = P_0 e^{Bt}$$

Where P_0 equals the initial population of Pakistan at time $t = 0$, B is the percentage rate of growth and t is the time measured in the appropriate unit of one or five years and e is the base of the natural system of logarithms (Shryock et al., 1973).

Autoregressive Integrated Moving Average (ARIMA): Verbeek (2005) gave the following general form of ARMA (p, q) model

$$Y_t = \delta + \phi_1 Y_{t-1} + \phi_2 Y_{t-2} + \dots + \phi_p Y_{t-p} + \varepsilon_t + \theta_1 \varepsilon_{t-1} + \theta_2 \varepsilon_{t-2} + \dots + \theta_q \varepsilon_{t-q}$$

ARIMA (p, q) is the combination of autoregressive and moving average specification which consists of AR part of order p and MA part of order q . Where Y_t is the population at time t and is treated as response variable, Y_{t-1} is the population at lagged one and so on whereas ε_t is a white noise process at time t and ε_{t-1} the residual at lag one.

Goodness of fit criteria

Mean Absolute Percentage Error (MAPE)

It is an evaluation statistics which is used to assess the goodness of fit of different models in national and sub national population projections. This statistics is expressed in percentage. The concept of MAPE seems to be very simple but is of great importance in selecting a parsimonious model than the other statistics e.g. Coefficient of relative variation (CRV) and mean error (ME). A model with smaller MAPE is preferred to the other models.

The Mathematical form of the MAPE is as under

$$MAPE = \frac{1}{n} \sum_{t=1}^n \left| \frac{Y_t - \hat{Y}_t}{Y_t} \right| * 100$$

Where Y_t , \hat{Y}_t , and n are the actual, fitted and number of observation of the (dependent variable) population respectively?

Results and Discussion

The reported and projected population by traditional and time series models are given in Table 1 for the years 2012, 2017, 2022, 2027, 2032. Box Cox transformation was applied to the data for the stationary purposes which gave the value of $\lambda = 0.2207341$ along with its interval $(-0.4051015, 0.8465697)$. Since the interval contains the value zero it recommended that the log transformation is appropriate choice to make our series stationary before differencing of the series for the application of ARIMA models (Box & Jenkins, 1976).

The fitted population for the year 2007 is 162.23 million and 158.08 million using Modified exponential and ARIMA (1, 2, 0) models respectively. These estimates are not only close to each other but also close (NIPS, 2006; Iqbal, 2007) and also less than the other three traditional models given in the Table 1. Similarly, the projected population for the year 2027 is 250.68 million and 230.68 million by Modified exponential model and ARIMA (1, 2, 0) respectively. The projected population by Modified exponential growth model is higher than the projected population by ARIMA (1, 2, 0) model. If the current growth rate continues, the projected population would also be approximately 250 million using compound growth model as that of the Modified exponential model. Consequently, the population would be doubled during the next 37 years. On the other hand, NIPS (2006) reported 1.86% growth rate of Pakistan which is about 83% lower than the growth rate 2.69% of 1998. Although the growth rate is decreased, still it is very high as compared to many other countries of the world. The decrease in growth rate might be due to the increase in the female literacy rate. In future, it seems that there may be more decrease in the growth rate because of the increased literacy rate. The projected population by logistic model is 364.16 million which is more than double as compared to the population of 2007 during the next 25 years. It might be the overestimation of the population. It indicates that the growth rate in future will be greater than 3, which seems to be impossible and contradictory to the real situation. The logic behind this fact is that in 1998 census, the

Government of Pakistan's expectations about growth rate was around 3% but after the computation, it was announced 2.69% which was far more than (NIPS, 2006). If the current population growth rate continues, the projected population by ARIMA (1, 2, 0) might be 254 million in 2032. It seems too much increase in population that is unaffordable for a third world country like Pakistan. This figure is also inconsistent with the other researcher's projections. The projection by ARIMA (1, 2, 0) is satisfactory up to 2027. The real challenge is to decrease the growth rate or to limit the population size and to increase our resources to fulfil the ever increasing needs of our population in future. The decrease in growth rate is an easiest route to limit the population and this target might be achieved by only increasing the literacy rate in the female chunk of the population.

The Mean Absolute Percentage errors are also given in Table 1. MAPE for ARIMA (1, 2, 0) is 0.49% which is minimum whereas MAPE (4.28%) is maximum for Logistic model. The remaining MAPEs are between these limits. On the basis of this selection criterion, ARIMA model can be preferred to the other growth models for population projection of Pakistan. Jan, et al. (2007) used seven traditional growth models to project the population of NWFP province of Pakistan from 2003 to 2053. Jan, et al. (2007) reported 61.12 million population of NWFP province of Pakistan in 2053 and recommended the Modified exponential growth model. The reason might be the trend differences between the population of Pakistan and its province NWFP. Jan also used the same evaluation statistics for goodness of fit of the model. Figure 1 presents the trend of the reported population of Pakistan during the years 1972-2007. The line graph does not show any clear cut clue about the linear or quadratic trend of the population but it seems to be a nonlinear trend of the population of Pakistan. Moreover, univariate time series model may also be tried to project the population of Pakistan.

Figure 2 compares the projected population of Pakistan obtained by different models. The projected population trend by the Modified exponential growth and ARIMA (1, 2, 0) models are approximately close to each other whereas the trend of other three traditional models are internally close to each other but different from the Modified exponential growth and ARIMA (1, 2, 0) models.

Figure 3 shows the trend of only reported and projected population using ARIMA model. The fitted population of Pakistan during the first 57 years is exactly the same as that of the original population. Figure 4, 5, 6, 7, and 8 present the residual plots of logistic, Modified Exponential, Gompertz, and Exponential growth models as well as ARIMA respectively. The residual plots 4, 5, 6, and 7 almost have the same pattern but all are different from Figure 9. If we analyse the residual plot of ARIMA, most of the residuals move around one. The residuals plot of ARIMA is approximately random. Fitting of such models in social sciences is an art not a mathematical science. That is why, sometime the robust estimates in time series data are acceptable according to their national circumstances.

Conclusion and Recommendations

The projected population for the years 2032 with logistic, Gompertz, Exponential, Modified exponential and ARIMA model is 364.16 million, 356.46 million 341.93 million, 277.98 million and 254.09 million respectively. The projection by exponential method is slightly less than the Gompertz and the logistic but higher than the Modified exponential model. The Modified exponential growth model projected the population 277.97 million and 250.68 million for the years 2032 and 2027 respectively which is the least one, as compared to the other three traditional models. On the other hand, The ARIMA (1, 2, 0) projected 230.68 million population for the years 2027 which is more close to the other national and international scientist's forecast (NIPS, 2006; WPP, 2006).

Logistic model has 4.28% MAPE, which is highest among all the five models whereas the ARIMA (1, 2, 0) has 0.49% MAPE which is minimum. MAPE of other models are between these two limits. So the ARIMA (1, 2, 0) might be declared the parsimonious model. According to the parsimonious model ARIMA (1, 2, 0), there will be 74.29% increase in the Population of Pakistan till 2027 as compared to the 1998 population census and 45.74% increase in the population of Pakistan as compared to (Iqbal, 2007).

The government of Pakistan and NGOs should start a mass-scale advertising campaign to highlight the significance of the female education. The private and the government educational institutions of the less developed cities, villages as well as the remote and for flung areas of our country must fall within the most targeted zones. In this way, the rustic population may also be involved positively in this awareness drive. The education of IT and science and technology must be given priority in order to utilize the maximum potentials of our youth. It is the need of modern era. Since the private educational institutes are out of reach of common man, subsidized education must be provided to everyone at government educational institutes.

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References

- Agrawal, U.D. (2000). *Population projections and their accuracy*. Delhi: B.R. Publication Corporation.
- Box, G.E.P. and Jenkins, G.M. (1976). *Time series analysis, forecasting and control*. San Francisco: Holden-Day.
- Beauregard, R.A. (Ed.). 1990. *Community analysis and planning techniques*. Maryland: Rowman & Littlefield.
- Census Organization (1967). Projections of population of Pakistan 1961 to 1981. (Census Bulletin No.7). Ministry of home & Kashmir affairs. Home Affairs Division, Islamabad. Government of Pakistan.
- Iqbal, Z. (2007, December 29). Pakistan: The housing market thrives as more Pakistan capital returns homes. *Dawn*, P.1.
- Jan, B., Ishfaq A. & Shuhrat S. (2007). Selecting of mathematical model for projections of NWFP population. *The Journal of Humanities and Social Sciences*. XV (2), 69-78.
- Kemal, A.R., Irfan, M., & Mahmood, N. (Eds.). (2003). *Population of Pakistan: An analysis of 1998 population and housing census*. Islamabad, Pakistan Institute of Development Economics.
- Minitab (2008). MINITAB 14. State College, PA
- National Institute of Population Studies (2006). Population growth and its implications. Islamabad. Government of Pakistan.
- Population census organization (1972). Statistical report of Pakistan: Population census of Pakistan 1972. Statistics Division, Islamabad. Government of Pakistan.
- Population Census Organization (1984). 1981 Census Report of Pakistan, Statistics Division. Islamabad. Government of Pakistan.
- Population Census Organization (2001). 1998 Census Report of Pakistan, Statistics Division. Islamabad. Government of Pakistan.
- Population Reference Bureau (2007). Retrieved September 10, 2008, from http://www.prb.org/Datafinder/Geography/Summary.aspx?region=145®ion_type=2.
- Pakistan Reality (2008). *Projection of population of Pakistan*. Retrieved September 10, 2008, from <http://www.pakreality.com/>
- Population of Pakistan (2008). *Population projection of Pakistan*. Retrieved September 12, 2008, from <http://www.pakistans.com/pakistan/population/>
- Pakistan Population growth rate (2008). *Pakistan Population growth rate*. Retrieved April 3, 2009, from <http://indexmundi.com/g/r.aspx?c=pk&v=24>
- Relationship between Literacy, Education and Demographic (2009). *Basic Education*. Retrieved April 3, 2009, from <http://www2.unescobkk.org/elib/publications/TrainingManual/>
- Shryock, H.S., Seigel, J.S., & Associates (1973). *The methods and materials of demography*. U.S. Bureau of the Census. Washington, DC: Government Printing Office.

- Srinivasan, K. (1998). *Basic demographic techniques and applications*. Delhi: Sage Publications.
- SPSS 16 (2007). Chicago, IL: SPSS, Inc.
- United States Census Bureau (2008). International data base. Retrieved September 16, 2008, from <http://www.census.gov/ipc/www/idb/country/pkportal.html>
- Verbeek, M. (2005). *A guide to modern econometrics* (2nd ed.). England: John Wiley & Sons.
- World Population Prospects (2006). *The revision 2006, Population division of the department of economic and social affairs of the United Nations Secretariat*. Retrieved September 20, 2008, from <http://esa.un.org/unpp>.

Table 1: Population projection of Pakistan using different growth models

Year	Actual population (in millions)	Projected Population (in millions)				
		Logistic	Gompertz	Exponential Growth	Modified Expo. Growth	ARIMA (1,2,0)
1972	65.31	62.02	63.75	62.80	64.87	63.10
1977	74.64	71.88	72.90	72.33	75.45	74.68
1982	87.29	83.30	83.50	83.30	86.99	87.35
1987	100.82	96.54	95.80	95.94	99.56	100.89
1992	114.94	111.89	110.09	110.49	113.26	115.03
1997	129.39	129.67	126.73	127.24	128.20	129.48
2002	144.80	150.28	146.13	146.54	144.48	144.86
2007	158.28	174.17	168.80	168.77	162.23	158.08
2012		201.86	195.32	194.37	181.57	173.65
2017		233.94	226.40	223.85	202.66	190.70
2022		271.13	262.91	257.80	225.63	209.64
2027		314.22	305.85	296.90	250.68	230.68
2032		364.17	356.46	341.93	277.98	254.09
Statistical Evaluation Techniques (Beauregard,1990)						
Mean Absolute % Error (MAPE)		4.28 %	3.48 %	3.71 %	1.06 %	0.49 %
Coefficient of Relative variation (CRV)		12.2891	13.3784	17.5473	14.6356	

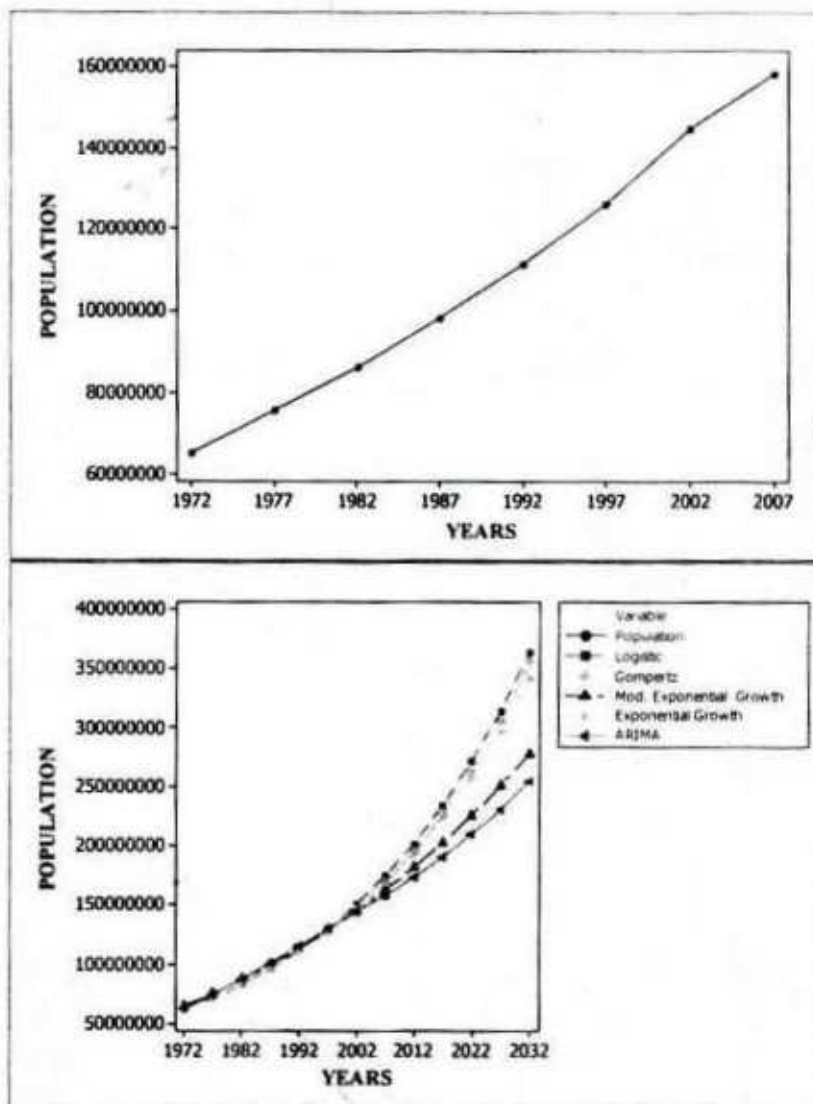
Figure 1: Population trend of Pakistan during the years (1972- 2007)**Figure 2: Projected Population by different models (1972-2032)**

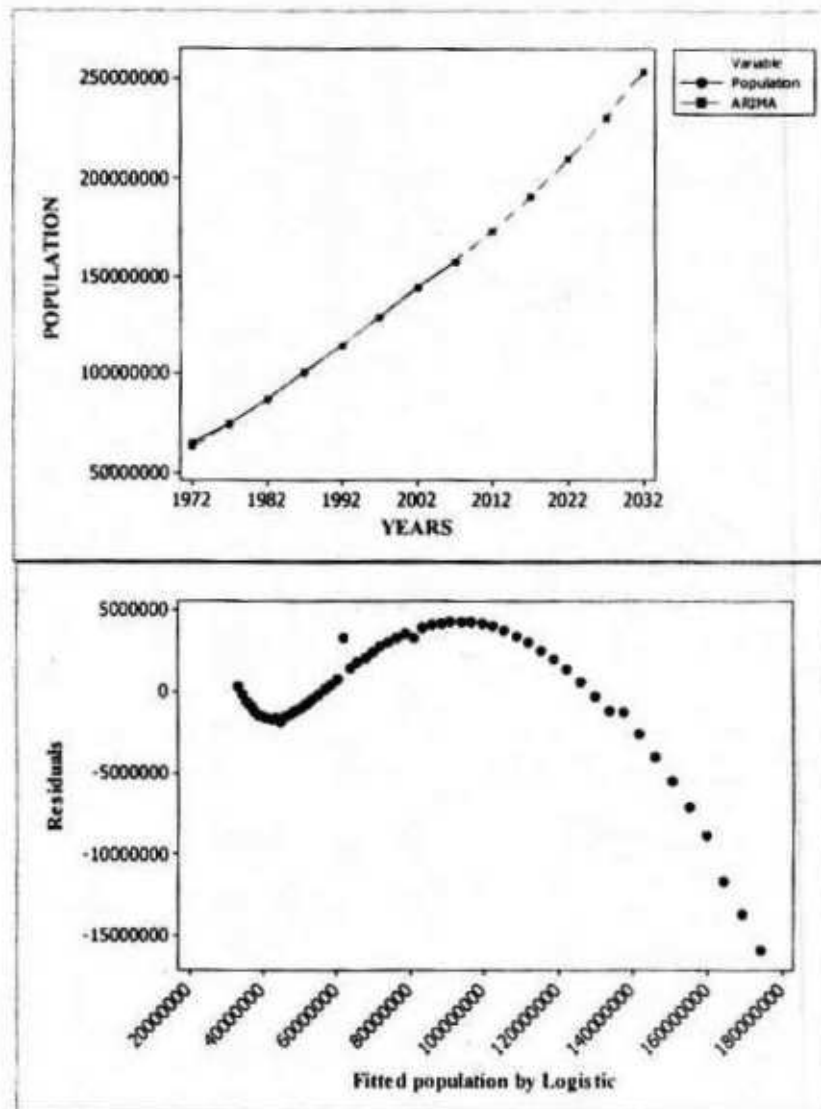
Figure 3: Projected Population trend by ARIMA (1972-2032)**Figure 4: Residual plot of Logistic growth model**

Figure 5: Residual plot of Modified Exponential growth model
Figure 6: Residual plot of Gompertz growth model

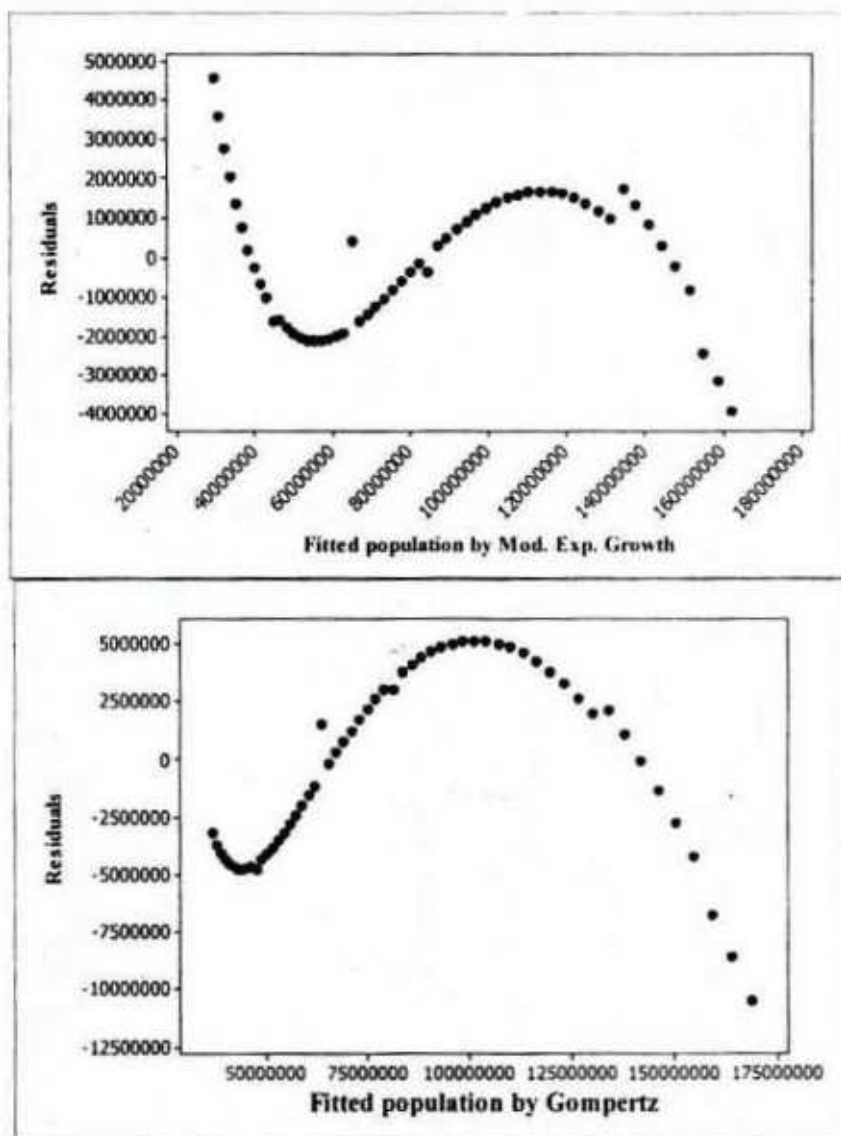
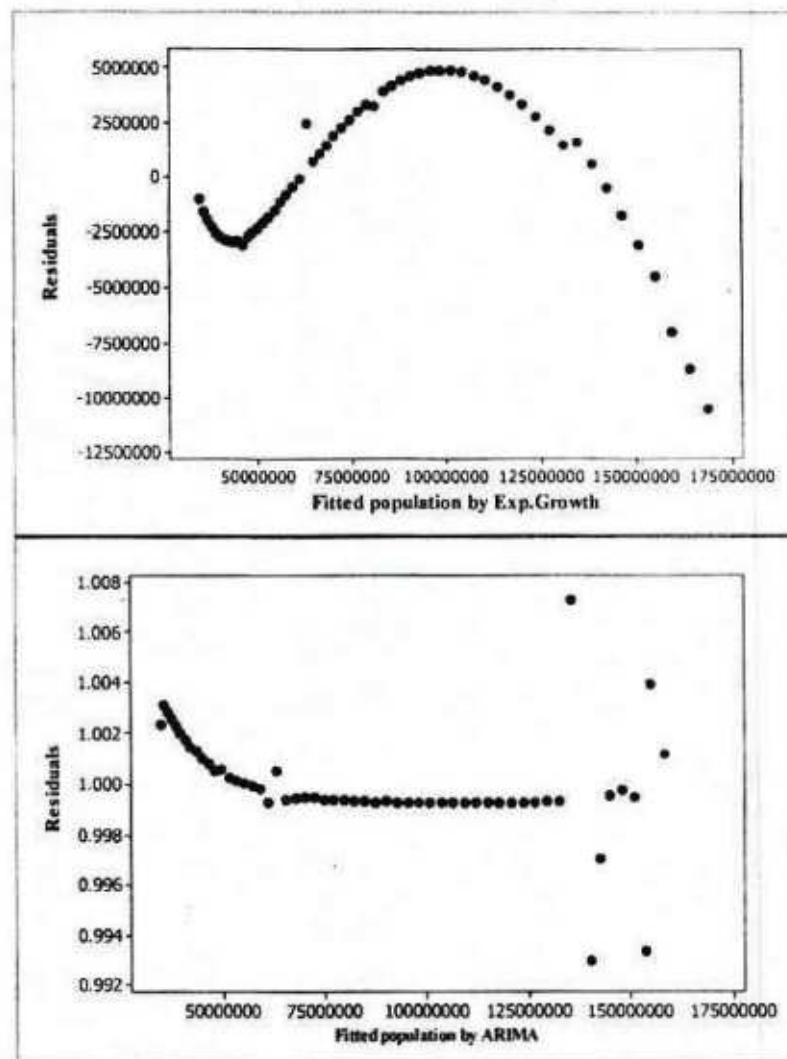


Figure 7: Residual plot of Exponential growth model**Figure 8: Residual plot of ARIMA (1, 2, 0) model**

Gojri is one of the Indo-Aryan languages in the region that exhibits serial verb construction. Though their use is very limited, their syntactic structure may be worthy of interest. There is a commonly prevailing notion that serial verbs are a type of complex predicates which are found in many South Asian languages, including Gojri. For example, Jayaseelan (2004:69-70) considers the following examples as the representative of serial verb constructions.

3. a. nii oru pustakam koNDU-war-uu
 you a book take-come-IMP
 'You bring a book.'
- b. naan oru kattu ezhuti-(y)iTT-uNDu
 I a letter write-put-be(Pres.)
 'I have written a letter.'

Jayaseelan claims that aspectual meanings, which are expressed by the auxiliary in English, are expressed by SVs in these languages. However, it is a different case in the Gojri structure. In Gojri, Hindi, Urdu and Punjabi, aspectual meanings are generally generated with complex predicates, a common formation in Indo-Aryan languages. I will discuss the differences between the SVCs and complex predicates in the subsequent sections and show that serial verbs differ from complex predicates in many respects.

The study of serial verb construction became popular in the late 80s. However, the research targeted only a couple of languages including Yoruba and Khmer.¹ Recently, Baker (2002) has initiated such studies with the comparative study of serial verbs in polysynthetic languages.

Serial verb constructions consist of two or more verbs that occur in a sequence, without any intervention in between them. Interestingly, Gojri is a language that can also accommodate more than two verbs in serial verb formations. Consider the following examples:

4. a. kaloo-nε seb chillii kutārii khaayo
 kaloo-ERG apple-NOM peel-SVI cut-SVI eat-PF.M
 'Kaloo peeled the apple, cut it (in pieces) and finally ate it.'
- b. kaloo-nε seb kutārii khaayo
 kaloo-ERG apple-NOM cut-SVI eat-PF.M
 'Kaloo cut the apple (in pieces) and ate it.'

Example (4a) shows that there are more than two serial verbs involved in the example while (4b) simply shows two serial verbs in it. It is important to mention here that the non-final serial verbs in a Gojri sentence has an 'invariant' form and always take serial verb inflection that I represent as SVI in gloss.² Another crucial point that needs to be clarified here is that traditional grammarians consider these forms as 'conjunctive particles' in many South Asian languages. This is not true at least in Gojri. Like many

other languages of the regions, Gojri has an identical conjunctive particle, *ge*, that serves the required meanings. Compare the following examples.

5. a. kaloo-nε seb kutəri khaayo
kaloo-ERG apple-NOM cut-SVI eat-PF.M
'Kaloo cut the apple (in pieces) and ate it.
- b. kaloo-nε seb kutər-ge khaayo
kaloo-ERG apple-NOM cut-CNP eat-PF.M
'Having cut the apple, Kaloo ate it.

Following the definition of the SVC proposed by Collins (1997:462) that says 'a serial verb construction is a succession of verbs and their complements (if any) with one subject and one tense value that are not separated by any overt marker of coordination or subordination', I claim that SV phenomenon does exist in Gojri. The above given examples satisfy the basic criteria set for these constructions. In other words, the Gojri serial verbs show one tense value that is marked on the last verb. Moreover, they do not allow any marker of coordination or subordination in the structure. It means that Gojri is distinct from other languages such as Urdu and Punjabi for displaying such constructions.

II. Serial Verbs vs Complex Predicates

Unfortunately, there has been no agreed definition available for serial verbs constructions. The variations which are cross-linguistically seen are the basic reason for not having a well unified definition. Different arguments have been presented by linguists in support of their assumptions. For example, Bhatia (1993) considers a compound verb as a serial verb in Punjabi. Often these terms (serial verbs, compound verbs, complex predicates) seem to be used interchangeably. Before proceeding further, it will be helpful to make a distinction between the complex predicates and serial verbs in Gojri. Thereafter, I will discuss serial verbs in detail to prove their individual identity and status. See the following examples for illustration:

6. a. *Serial verb construction*
kaloo-nε seb chillii khayō
kaloo-ERG apple-NOM peel.SVI eat-PF.M
'Kaloo peeled the apple and ate it.'
- b. *Complex predicate*
Kaloo-nε seb chil diyo
kaloo-ERG apple-NOM peel give-PF.M
'Kaloo peeled the apple (for someone else).'

The above examples illustrate the difference between the serial verb construction and complex predicates in Gojri. In (6a), the Gojri SVC indicates that there are two sub-events involved in the structure to describe a full event, and both the sub-event were

described by two separate serial verbs which come together in a sequence. It means that two different events have their own individuality in the course of action. However, (6b) describes just one action because the second verb in the sequence is a light verb that does not express its full meaning but contributes some aspectual meanings of 'completiveness' and beneficiary meaning to the meanings of V_1 in the sentence. It simply indicates that the agent performed the action for someone else. Butt (1995, 1997) and Akhtar (2000) argue that light verbs in complex predicates are the bleached forms of verbs and therefore lose some of their semantic content. However, they can be used as main verbs with their usual lexical meanings. The only preferred position for the main verb in complex predicates is V_1 . In the Gojri complex predicates, it is the V_2 that generally shows agreement and the main verb V_1 appears either in root or infinitive form. I will discuss this in detail in the later sections. On the other hand, in the Gojri SVCs, the non-final serial verbs display invariant frozen form that does not have any concern with the tense; however like the complex predicates, it is the last verb that agrees with the highest nominative argument in gender and number.

III. Salient Features of Serial Verbs

Durie (1993) argues that all co-occurring verbs in serial constructions bear the tense and agreement morphology. On the other hand, Muysken and Veenstra (1995) have summed up the characteristics of serial verb constructions in the following way:

- i. they should have only one subject
- ii. they should have at most one expressed direct object
- iii. there should be one specification for tense/aspect either described by the first verb, second verb or the last verb in the sequence
- iv. only one possible negator
- v. no intervening coordinating conjunction or subordinating conjunction
- vi. no intervening pause is possible

A close analysis of Gojri serial verb constructions reveals that Gojri is not an exception in this regard. This proves that there is a general phenomenon that exists cross-linguistically in serial verb formations. However, some variations regarding the placement of negation and adverbs in structures can be marked from language to language. The following sections will show different features of Gojri serial verb constructions.

III.1 Agreement

The final verb in Gojri always agrees with the nominative case (Sharma, 1982). Serial verb constructions in Gojri follow the general pattern of the language. So far as tense/aspect is concerned, it is always the last verb in the construction that agrees with the highest nominative argument in the structure. In the case of gender, it is quite distinct in Gojri serial verb constructions that the verb preceding the final verb bears serial verb inflection and it is again the final serial verb that agrees with the argument in gender. Similarly, it is also a distinct feature of the final serial verb in the structure

that it shows agreement in number as the non-final verbs have frozen forms. Consider the following examples:

7. a. *gədrīā-nə* *sentre* *chaaii* *səTe*
 girl.PL.F-ERG orange.PL.M-NOM lift.SVI throw-
 PF.PL.M
 'Girls picked up the oranges and threw them away.'
- b. *gədre-nə* *kətab* *chaaii* *səTii*
 boy.SG.M-ERG book.SG.F-NOM lift.SVI throw-PF.SG.F
 'The boy picked up the book and threw it away.'

The final verb in Gojri never agrees with any other case except the nominative one. Therefore the nominative case must possess the same number and gender agreement. Example (7a) shows that the final serial verb in the structure agrees with the highest nominative *sentre* 'oranges' that is plural in number and masculine in gender. The subject *gədrīā* 'girls' does not agree with the final verb because of gender marking difference. Similarly, *kətab* 'book', the object of (7b) is singular in number and the verb that agrees with it also exhibits the same number and gender. Moreover, the verb and the object bear feminine inflections.

III.2 Case Marking

In Gojri, the final serial verb shows its ability to case mark the subject. The nominative and ergative case marking on the subject are sensitive to this distinction in the past/perfective form of transitive verbs. In all other forms, the subject invariably bears the nominative case. For instance, the serial verbs which are transitive always require the subject to be in the ergative case. In contrast to this, intransitive verbs, which generally appear in the final position of such constructions, are only compatible with subjects bearing nominative case. The following examples illustrate this:

8. a. *us-nə* *ka* *kəppii* *bədyo*
 s/he-ERG grass.3.SG.M-NOM cut.SVI tie-PF
 'S/he cut the grass and tied it up.'
- b. *wa* *ka* *kəppii* *geii*
 she-NOM grass.3.SG.M-NOM cut.SVI go-PF
 'She cut the grass and went away.'

In (8a), when the serial construction involves the transitive verb *bəd* 'tie' as the final serial verb, the subject obligatorily requires the ergative case i.e. *-nə*. Contrary to this (8b), the final serial verb *gaa* 'go' is intransitive, which requires that the subject to be in the nominative case. These examples demonstrate clearly that there is a strict correlation between the class of verbs and the case marking on the subject in the perfective form. The violation of this correlation results in the ungrammaticality as shown in the following sentences:

9. a. *wo ka kappii badyo
 he.M-NOM grass.3.SG.M.-NOM cut tie-PF
 'He cut the grass and tied it up.'
- b. *wa-ne ka kappii geii
 she.F-ERG grass.3.SG.M.-NOM cut go-PF
 'She cut the grass and went away.'

The above ungrammatical structures are due to the violation of the co-occurrence parameter in serial verb construction in Gojri; (9a) is not grammatical, because the nominative subject *wo* 'he' and the transitive serial verb *bād* 'tie' are not compatible; therefore, the possibility of case marking is ruled out. Similarly, (9b) is an ill-formed serial structure, because the final intransitive serial verb *jaa* 'go' appears with the ergative subject *wa* 'she', which violates the co-occurrence restriction.

III.3 Tense/Aspect

Durie (1993) argues that all the co-occurring verbs in a serial verb construction, bear tense/aspect and agreement morphology. However, the case is slightly interesting in Gojri. It is quite important to note that the serial verb(s) preceding the final verb in Gojri serial formation always take(s) a frozen past form of the verb, and the final verb agrees with the highest nominative argument of the sentence. As mentioned above, these non-final verbs in serial structures have nothing to do with agreement. It is only the final verb that has to reflect all this. So, the final verb bears the agreement morphology. Interestingly, a complex predicate also shares a single marking of tense and aspect, as the first verb (main verb) in the structure appears in its stem form, which is different from the frozen forms of the serial verbs. See the following examples for illustration:

10. a. kiren-ne koof chaaii sət̪yo
 kiren-ERG cup.M-NOM lift.SVI throw-PF.M
 'Kiren picked up the cup and threw it away.'
- b. kaloo-ne katab chaaii sət̪ii
 kaloo-ERG book.F-NOM lift.SVI throw-PF.F
 'Kaloo picked up the book and threw it away.'
11. a. kaloo katab le geyo
 kaloo.M-NOM book.F-NOM take go-PF.M
 'Kaloo took the book away.'
- b. kiren katab le geii
 kiren.F-NOM book.F-NOM take go-PF.F
 'Kiren picked up the book away.'

The above examples illustrate the point very clearly. Example (10) shows that the serial verb preceding the final verb does not play any role in tense/ aspect agreement in any such formation. Similarly, (11) exhibits the same phenomenon for the aspectual complex predicates in Gojri. However, contrary to the serial verb constructions, the

main verb in complex predicates either appears in the root or infinitive form or does not bear any inflection.

However, serial constructions and complex predicates differ from each other in many other ways. One of the most important differences is with respect to their arguments. In an aspectual complex predicate, the Theme argument is generally the direct object in transitive constructions and the subject in intransitive ones. Akhtar (2000) argues that an essential property of an aspectual complex predicate is that it 'concentrates' on the new location, physical or abstract, of the theme. In contrast, in a serial construction, a new location of the object is not necessarily implied. However, sometimes ambiguity arises because the clause can either be interpreted as involving the external argument undergoing a change of place or the internal argument undergoing some change of place or state. This point is illustrated in the sentences given in (12):

12. a. wa caa piii geii
 she-NOM tea.3.SG.F.NOM drink.SVI go-PF.F
 'She took tea and went away'.
 b. wa TuGRo pakaii geii
 she-NOM food.3.SG.M-NOM cook.SVI go-PF.F
 'She cooked food and went away.'
 c. wa TuGRo paka geii
 she-NOM food.3.SG.M-NOM cook go-PF.F
 'She cooked food.'

Taken as a serial construction, (12a) essentially means that the external argument has undergone a change of place. There involves two actions in the sentence: drinking and going away. Similarly, (12b) describes two actions: cooking and going away, when taken as a serial construction. If the same sentence is converted into an aspectual complex, as shown in (12c), the main verb takes the root form and the structure describes that the subject finished her job of cooking food.

IV. Argument Sharing

According to Baker (1989:516) and Collins (1993:93), it is one of the major characteristics of serial verb constructions that the serial verbs share internal as well as external arguments. This phenomenon is commonly known as Argument Sharing in syntax. Collins argues that verbs (V_1 and V_2) must share an internal argument in serial verb construction. He quotes the following examples from the Eve language to illustrate different patterns of argument sharing:

13. a. me a nu u (Collins 1993:34)
 I cooked thing ate
 'I cooked something and ate it.'
 b. kofi ts ati-e fo yao
 kofi took stick-def hit yao
 'Kofi took the stick and hit Yao with it.'

Being an SVO language, it seems that V_2 in serial verb construction misses an object in Eve. From the English gloss, it is clear that V_2 has an internal argument that it shares with V_1 . Collins argues that in (13a), *nu* 'thing' is an obvious object that is shared by both the serial verbs. The instrument of V_2 in (13b) is the object of V_1 , whereas the theme of V_2 in (13c) is considered as the direct object of V_1 . Consider the following examples from Gojri:

14. a. kiren-nε looter pakaii wertyo
 kiren-ERG curry-NOM cook.SVI serve-PF
 'Kiren cooked the curry and served it.'
- b. kaloo-nε kiren-nāsoTii chaaii kuTTyo
 kaloo-ERG kiren-DAT stick pick.SVI beat-PF
 'Kaloo picked up a stick and beat Kiren with it.'
- c. kaloo-nε piilo mǎllii maaryo
 kaloo-ERG ant-NOM grind.SVI kill-PF.M
 'Kaloo killed the ant by grinding it.'

Unlike Eve, the Gojri example (14a) illustrates that the internal argument is overtly shared by both the serial verbs as it is not sandwiched between them. However, the instrument of V_2 in (14b) is considered as the direct object of V_1 which is a parallel phenomenon that exists in Eve. It refers to the fact that there exist some similarities as well as differences in SVCs across the languages.

V. Insertion of Conjunction

Johnson (2002:40) argues that in a serial verb construction, there should be no intervening conjunction either subordinating or coordinating between the verbs. It may be concluded from this argument that any other grammatical category can intervene in such formations. Finney (2004) quotes an example from Krio serial verb constructions to illustrate the fact:³

15. a. tek nεf kut di bred
 I take knife cut the bread
 'I cut the bread with knife.'

The above example from Krio shows that the object in serial verb constructions can be placed in between the two serial verbs. This phenomenon is also very common in many other languages which have been studied for their serial verb constructions. Gojri is distinct from these languages for the reason that it never allows objects to intervene in such formations. Consider the following examples:

16. a. us-nε katab caaii pəRii mukkaai
 he-ERG book-NOM pick.SVI read.SVI finish-PF
 'He finished reading the book in one go.'
- b. *us-nε caaii katab pəRii mukkaai

	he-ERG	pick.SVI	book-NOM	read.SVI	finish-PF
	'He finished reading the book in one go.'				
c.	*us-nε	caaii	pəRii	kətab	mukkaii
	he-ERG	pick.SVI	read.SVI	book-NOM	finish-PF

'He finished reading the book in one go.'

Though three serial verbs are involved in the above example, the preceding object cannot intervene at any position in serial verb formation. Example (16a) can simply be explained that the subject of the sentence first picked up the book then he started reading it and finally left the book when he finished the whole version. Examples (16b) and (16c) are ungrammatical because an object cannot be inserted in the serial verb combinations.

VI. Are SVCs Embedding Structures?

Quite interestingly, neither SVCs nor complex predicate structures permit any embedding structures. They are mono-clausal in nature and share a single tense /aspect. Gojri behaves like Korean in this regard. Lee (1992), Suh (2000) and Choi (2003) report the same phenomenon for Korean V-V formations. Choi (2003) quotes the following example for illustration:

17. a. amwudo [sakwa-lul an kkaka(*-ess)] mek-ess-ta
 nobody [apple-ACC NEG peel(*-PST)] eat-PST
 'Nobody peeled an apple and ate it.'
- b. *Chelswu-nun [amwudo sakwa-lul kkaka-ess-ta-ko] an mit-ess-ta
 Chelswu-TOP [nobody apple-ACC peel-PST.DC.KO]NEG believe-
 PST-DC
 'Chelswu believed that nobody peeled an apple.'

Note that NPIs *amwudo* 'nobody' and *na*, the negative marker collectively mean 'nobody' and are yoked together in one clause. If they are separated across the clausal boundaries, the sentences become ungrammatical as shown in (17b). Choi argues that the clause-boundedness of NPIs in Korean serial V-V structures confirm that the above example is not bi-clausal. Consider the following examples from Gojri:

18. a. kaloo-nε ka kəppii bədyo
 kaloo-ERG grass-NOM cut-PF tie-PF.M
 'Kaloo cut the grass and tied it up.'
- b. kisi-nε-vi ka ni kəppii bədyo
 nobody-ERG-EMPH grass-NOM NEG cut.SVI tie-PF.M
 'Nobody cut the grass and tied it up.'
- c. kisi-nε-vi ka kəppii [ni bədyo]
 nobody-ERG-EMPH grass-NOM cut.SVI [NEG tie-PF]

'After being cut, nobody tied the grass up.'

It is clear from the above examples that SVCs in Gojri also display mono-clausal nature. These constructions cannot be split in different clauses in any way. These examples also show that the negation marker has its variant scope in Gojri SVCs structures. If the negation marker precedes the first serial verb in Gojri, it extends its scope to both the serial verbs as shown in (18b). It means nobody either cut grass or tied it up. However, as shown in (18c), if the negation marker follows the second serial verb, the scope is limited to the second verb only. Choi (2003) presents Korean SVCs examples, which illustrate that either the negation marker or the adverb can only be placed before the first serial verb, else it would generate ambiguity in the meanings. Gojri has an edge over Korean in this regard, because these types of ambiguities can be easily resolved by variant positions of negation marker or adverbs. Consider the following Korean examples by Choi (2003):

19. a. Chelswu-ka sakwa-lul ppali kkaka (*ppali) mek-ess-ta
 Chelswu-NOM apple-ACC quickly peel (quickly) eat-PST-DC
 'Chelswu quickly [peeled the apple and ate it].' or
 'Chelswu quickly [peeled the apple] and ate it.'
- b. Chelswu-ka sakwa-lul an kkaka (*an) mek-ess-ta
 Chelswu-NOM apple-ACC NEG peel (NEG) eat-PST-DC
 'Chelswu [did not peel the apple and eat it].' or
 'Chelswu [did eat the apple but did not peel it].'

Similarly, in Gojri the serial verbs may be separated from each other by an adverb without hampering the mono-clausality of the structure. Consider the following examples:

20. a. kaloo-nε ka kəppii bədyo
 kaloo-ERG grass-NOM cut.SVI tie-PF.M
 'Kaloo cut the grass and tied it up.'
- b. kaloo-nε ka tawli tawli kəppii bədyo
 kaloo-ERG grass-NOM quickly cut.SVI tie-PF.M
 'Kaloo cut and tied the grass quickly.'
- c. kaloo-nε ka kəppii tawli tawli bədyo
 kaloo-ERG grass-NOM cut.SVI quickly tie-PF.M
 'Kaloo cut the grass and tied it quickly.'

Unlike the negation marker, if the adverb comes before the first verb, it yields two meanings. It simply means that the scope of adverb can be extended to either both the serial verbs or just the first verb only. So (20b) can be interpreted as either Kaloo may have carried out both actions quickly or he may have only cut the grass quickly and later tied it up slowly. Contrary to this, if the adverb precedes the second verb, its scope is limited to the second verb only. Interestingly, if either the negation marker or

the adverb is placed after the second verb, it will result in the ungrammaticality of the sentence. Consider the examples:

21. a. *kaloo-nε ka kəppii bədyo
 tawli tawli
 kaloo-ERG grass-NOM cut.SVI tie-PF.M
 quickly
 'Kaloo cut the grass and tied it quickly.'
- b. *kisi-nε-vi ka kəppii bədyo niə/ni
 nobody-ERG-EMPH grass-NOM cut.SVI tie-PF.M NEG
 'Nobody cut the grass and tied it up.'

Contrary to SVCs, complex predicates in Gojri do not allow any intervention in V_1V_2 structure. If some other item is inserted in between them, the structure will be ungrammatical. See the following examples:

22. a. kaloo-nε ka kəp diyo
 kaloo-ERG grass-NOM cut give-PF.M
 'Kaloo cut the grass (for someone else).'
- b. kaloo-nε ka ni kəp diyo
 kaloo-ERG grass-NOM NEG cut give-PF.M
 'Kaloo did not cut the grass.'
- c. *kaloo-nε ka kəp niə diyo
 kaloo-ERG grass-NOM cut NEG give-PF.M
 'Kaloo did not cut the grass.'
23. a. kaloo-nε ka tawli tawli kəp diyo
 kaloo-ERG grass-NOM quickly cut give-PF.M
 'Kaloo cut the grass quickly.'
- b. *kaloo-nε ka kəp tawli tawli diyo
 kaloo-ERG grass-NOM cut quickly give-PF.M
 'Kaloo cut the grass quickly.'

Unlike Korean *nun* 'also', and Hindi/Urdu *bhii* 'also', Gojri does not allow emphatic marker *vi/bi* 'also' to intercept the serial verb formation or complex predicate structure. Any attempt in this regard will not be a valid structure in Gojri. Consider the following examples:

24. a. kaloo-nε ka kəppii bədyo

- | | | | | | | |
|----|--|---|-----------|---------|----------|----------|
| | | kaloo-ERG | grass-NOM | cut.SVI | tie-PF.M | |
| | | 'Kaloo cut the grass and tied it up.' | | | | |
| b. | | kaloo-nε | ka | bi/vi | kəppii | bədyo |
| | | kaloo-ERG | grass-NOM | also | cut.SVI | tie-PF.M |
| | | 'Kaloo also cut and tied the grass.' | | | | |
| c. | | *kaloo-nε | ka | kəppii | vi/bi | bədyo |
| | | kaloo-ERG | grass-NOM | cut.SVI | also | tie-PF.M |
| | | 'Kaloo also cut the grass and tied it.' | | | | |
-
- | | | | | | | |
|-----|----|--|-----------|-------|-----------|-----------|
| 25. | a. | kaloo-nε | ka | kəp | diyo | |
| | | kaloo-ERG | grass-NOM | cut | give-PF.M | |
| | | 'Kaloo cut the grass (for someone else).' | | | | |
| | b. | kaloo-nε | ka | vi/bi | kəp | diyo |
| | | kaloo-ERG | grass-NOM | also | cut | give-PF.M |
| | | 'Kaloo cut the grass also(for someone else).' | | | | |
| | c. | *kaloo-nε | ka | kəp | vi/bi | diyo |
| | | kaloo-ERG | grass-NOM | cut | also | give-PF.M |
| | | 'Kaloo cut the grass also (for someone else).' | | | | |

Examples (24) and (25) illustrate that any attempt to insert emphatic marker in either serial verb construction or complex predicate VV formation results in ill-formed structures. The emphatic marker can only precede the first verb in both the sequences. In serial verb constructions, it emphasises both the serial verbs. However, in complex predicate its scope is limited to the first verb only. It is natural because the first verb in complex predicate describes the event while the second verb adds some aspectual or semantic meanings to the first verb. So it can be concluded from the above examples that emphatic marker behaves differently in Gojri from those of Korean, Urdu or Hindi. It is also clear from the above discussion that Gojri displays a different syntactic behaviour of emphatic marker from the negation marker or adverbs.

VII. Conclusion

Summing up the whole discussion, it can be concluded that the Gojri serial verb construction has its own individuality in different complex verb formations. They are different from complex predicates as they describe two separate events. They also show other grammatical differences which make them distinct from complex predicates. Contrary to Jayaseelan (2004) and Lee (1992), it is confirmed from the Gojri data that serial verb constructions are not a type of complex predicates. Argument structure is another test that draws a line between different structures. Butt (1995) and Pandharipande (1989, 1990) point out that the distinction between serial and complex predicate constructions is not very easy to draw. However, it is clear from the discussion that serialisation and complex predicate formation belong to two different domains.

Notes

¹ Yoruba is the official Language of Nigeria and mainly spoken in West African territories while Khmer is the second most widely spoken Austro-Asiatic language and is the official language of Cambodia.

² Jayaseelan has used the term 'frozen' form for these non-final serial verbs for Malayalam.

³ Krio is a lingua franca language and is widely spoken in Sierra Leone. The vocabulary of Krio is primarily derived from English Language while its sound system, grammar and sentence structure is heavily influenced by African languages.

References

- Akhtar, R.N. (2000). *Aspectual Complex Predicates in Punjabi*. Ph.D Dissertation. University of Essex, Colchester.
- Baker, M. (1989). Object Sharing and projection in serial verb constructions. *Linguistic Enquiry*. (20): Pp. 513-553
- Baker, M. (2002). On zero agreement and polysynthesis, ms. Rutgers University.
- Bhatia, T. K (1993). 'Punjabi: A cognitive-descriptive grammar'. Routledge. London and New York.
- Butt, M. (1995). *The Structure of Complex Predicates in Urdu*. Stanford: Centre for the Study of Language and Information.
- Butt, M. (1997). Complex Predicates in Urdu, In Alsina, A., Bresnan, J. and Sells, P. (Eds). *Complex Predicates*, Stanford. CSLI Publications.
- Choi, S. (2003). *Serial verbs and adjunction*, the 1st CamLing Proceedings. Cambridge University Press.
- Collins, C. (1993). Topics in Ewe Syntax. Ph.D. Dissertation. MIT. Cambridge, MA.
- Collins, C. 1997. Argument sharing in serial verb construction. *Linguistic Inquiry* (28): Pp. 461-497
- Durie, M. (1997). "Grammatical Structures in Verb Serialisation." In *Complex Predicates*. (Ed). Alex Alsina, Joan Bresnan and Peter Sells. Pp. 289-354. Stanford: CSLI Publications.
- Finney, M. (2004). "Substratal Influence on the Morphosyntactic Properties on Krio." *Linguistic Discovery*. 2 (2): Pp. 58-81.
- Johnson, S. (2002). *Revisiting the Structure of Serial Verb-construction*. Michigan State University.
- Muysken, P. & Veenstra, T. (1995). "Serial Verbs." In Muysken, P. & Smith, N. (Eds). *Pidgin and Creoles: An Introduction*. Philadelphia: Benjamins.
- Lee, S. (1992). *The Syntax and Semantics of Serial Verb construction*. Ph.D. Thesis. University of Washington, Seattle.
- Pandharipande, R. (1989). 'Split Properties of Compound Verbs in Marathi'. Paper presented at the Eleventh South Asian Languages Analysis Roundable, University of Wisconsin, Madison.

- Pandharipande, R. (1990). 'Serial Verb Construction in Marathi'. In Zwicky, A. & Joseph, B. (Eds.) "When Verbs Collide: Papers from the 1990 Ohio State Mini-conference on Serial Verbs." Pp. 178-199.
- Sharma, J. C. 1982. *Gojri Grammar*. Maysore: Central Institute of Indian Languages.
- Suh, Y. (2000). *A Study of Auxiliary Construction and Verb Serialisation in Korean*. PhD Thesis, University of Washington, Seattle.

Challenges of Afghan Refugee Repatriation (2002-2005): Success or Failure?¹

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"Everyone has the right to leave any country, including his own, and to return to his country."¹

Abstract

Afghanistan, which produced the largest caseload of refugees during the early 1980s, also witnessed one of the largest repatriation movements in the year 2002 with more than 1.8 million refugees and some 600,000 IDPs returning voluntarily to re-establish their lives. Afghanistan's Ministry of Refugees and Repatriation (MoRR), UNHCR and its partners facilitated the voluntary return operation and provided initial reintegration support. The Presidential Decree on the Dignified Return of Refugees, issued in June 2002, by the government of Afghanistan serves as the main legal framework, to ensure that the basic rights of returnees are recognized and that the voluntary character of return is respected.² Steps toward compliance with this Decree and support to the Afghan Government to promote protection through monitoring of returnees' basic rights were initiated in accordance with the provisions of the Bonn Agreement in December 2001.

Keywords: Afghanistan, refugees, repatriation, basic rights of returnees

Any repatriation movement has its accomplishments and obstacles. As repatriation itself is one of the durable solutions to refugee problem therefore, whenever it takes place, it is an achievement in itself. However, it is a complicated process and has to go through several obstacles before returnees begin a normal life. Repatriation is highlighted to be the most desirable solution for refugees, but going back to one's own country is not easy.

There seems to be a wide gap between reality and rhetoric, ideally repatriation is fully voluntary, fully informed and takes place only once conditions that give rise to the

¹ This paper was originally prepared for the conference on *The Challenge of Rebuilding Afghanistan 2005* organized by Program on Peace Studies and Conflict Resolution; Department of International Relations, University of Karachi and Hanss Seidel Foundation, Islamabad.

refugees flight no longer exist. In reality things are much harder and complicated for refugees returning home.³ When a repatriation operation takes place refugees recover their citizenship and the inherent rights and responsibilities attached to that status. This recovering of the relation with the country of origin does not take place automatically but gradually. To accurately observe a repatriation process and how that recovering occur it is necessary to distinguish two levels of analysis, legal and social. The legal recognition of returnees as citizens once they return is automatic.⁴ At the social level the situation is not as automatic as crossing borders but it also implies the recovery of the sense of trust sufficiently to be part of the social and political dynamics that build the society in the country of origin. Because it is a human process, the re-establishment of relationships at a societal level is gradual by nature. This 'sense of going back' includes different notions such as going back to a country, going to a community, going back to a family, going to a land.

The concrete content of this going back is thus shaped by external and internal factors present in every returnee as an individual and as a group. Some of these many factors are: the characteristics of the conflict and its impact outside as well as inside the country, the length of refuge, the personal and collective motivations in the forced displacement movement, the international interests and politics present in the process and the socio-economic situation of the populations inside and outside the borders. These factors shape the expectations and motivations that refugees have in relation to their return. They are normally developed during the time of exile and they are reflected in the attitudes, beliefs, behavior, expectations and frustrations that returnees, individually and socially, display upon return.

Issues related to personal security and protections in connection with repatriation are crucial factors in the decision of the refugees to repatriate. In addition, it is important to know that they will have housing upon arrival. The possibility of a safe income is another important consideration. Many of the refugees continue to have problems supporting themselves and their 'families' long time after they return. It is equally important to be able to return to a network of family and/or friends. This can make the transition easier. The refugees who consider returning are also concerned about how they will be received by their neighbors and family, about their children's transition from the school system of the host country to that of their home country, as well as travel arrangements, public support systems and other rights they may be entitled to when returning. The need for information varies from person to person, depending upon where the refugees want to re-settle geographically.⁵

The issue of 'voluntariness' is central to refugee repatriation. Refugees should not be compelled to return to their countries of origin, nor should they be prevented from returning. Voluntary repatriation means that, after reviewing all available information about conditions in their country of origin, refugees decide freely to return. People usually decide to return when there is no longer any risk of persecution in their country

of origin. Others may decide to return for political or family reasons even though the situation in their country of origin has not changed.⁶

Background

The refugee flow began as a trickle in April 1978, reaching a peak during the first half of 1981 when an estimated 4,700 crossed the Pakistan border daily. The flow ebbed and surged in response to Soviet offenses, so that by the fall of 1989, the number of Afghan refugees was estimated at 3.2 million in Pakistan, 2.2 million in Iran,⁷ and several hundred thousands resettled in scattered communities throughout the world. Afghans represented the largest single concentration of refugees in the world on whom an estimated \$1million a day was expended in 1988.

Movement along the Pak-Afghan and Iran-Afghan border has been there even before the Communist coup in Afghanistan. It should not be confused with the crossing of refugees into Pakistan and Iran. Both Afghans and Pakistanis have moved back and forth across the Durand Line; they have lived with their family on one side and pursued employment on the other. These people were equally at home on both sides.⁸ This movement across the Pak-Afghan boundary never made headlines, as it was something normal and causing no interruption in the lives on both sides of the border. However, the position of the Afghan nationals who crossed the border after 1978 has been different. As it was a massive influx, unlike the prior movements, policy makers and officials in Pakistan approached it as refugee issue. As the Afghans had fled their country due to political persecution and the Soviet invasion, the movement could no longer be considered as natural movement across the border.

There has been a substantial amount of trade and migration back and forth across the border between Afghanistan and Iran. Traditionally, impoverished Afghanistan was a source of migrant labour for Iran, especially during oil-boom years of the early 1970s. It is estimated that there were anywhere from 600,000 to 1 million Afghan workers residing in Iran at the time of the communist coup in April 1978. In 1989, the government of Islamic Republic of Iran estimated around 2.35million Afghans within its borders. Most were workingmen, unlike in Pakistan.⁹

Refugees who arrived in Pakistan were mostly ethnic Pushtuns while in Iran received mostly ethnic Tajiks, Uzbeks and Hazaras. The refugees who left during the 1980s were almost exclusively from the rural areas. This was particularly so on the Pakistan side. Those leaving for Iran included people from Heart city as well as from rural areas in the west and north.¹⁰ In addition, a relatively small population of professionals left Kabul because of purges within the ranks of Peoples Democratic Party of Afghanistan (PDPA) and because of the ongoing state of conflict. Most Afghans in Iran are well integrated into the local economy; they provide casual labor for the agricultural and building construction sectors, and semi-skilled labor for certain trades like roofing and leather tanning. Most major urban areas have thriving Afghan settlements, with their

own small businesses, markets mosques and schools. Afghans filled much of the labor deficit mobilized for military service.¹¹

Neither Pakistan nor Iran accorded Afghans the status of refugees on the basis of the 1951 Convention and its 1967 Protocol. Although Iran was signatory to both documents, it chose to give Afghans the status of *muhajirin* (people who seek exile for religious reasons). They were thereby denied rights under the Convention and left dependent on whatever benefits might be given to them on the basis of hospitality. To date, Pakistan has signed neither the Convention nor its Protocol, being unwilling to find itself committed to the local integration of those qualifying as refugees under international law. Like Iran it has always regarded its hospitality to Afghans as a religious and humanitarian duty, and not as a legal obligation.¹² In comparison with many asylum countries, Pakistan has been very liberal as it has allowed Afghan refugees unhindered freedom of movement within the country, where they can work, conduct business and attend school.

These were the Cold War years; the international refugee regime was such that most of the refugees around the world were encouraged to stay in the host countries. Repatriation was not given priority at that time; reintegration and resettlement were considered the most durable solutions for refugees during that period. This concept prevailed in the West, but it slowly began to cross the frontiers of the West and Third World countries hosting refugees began to adopt similar policies. Pakistan and Iran were no exceptions. Afghan refugees were not only welcomed in these countries but also in the West.

Until the mid 1980's, Iran received modest international assistance for supporting refugees. This reflected the deep mistrust between foreign institutions and Tehran during the early years of the Islamic revolution. At that time, Tehran insisted on self-reliance and having control over its internal affairs, and its also held misgivings about the impartiality of international organizations.¹³ Unlike Iran,¹⁴ the international assistance which began to pour into Pakistan for the Afghan refugees and mujahideen helped General Zia-ul-Haq to stabilize his military regime, neutralize his domestic opponents and assume a central position in regional power politics. What motivated Washington to support the Afghan resistance was its strategic interest in preventing the Soviet Union from further expanding its political and military influence to the South-West Asian region.¹⁵

Because of cultural and religious affinities, Afghans have generally been welcomed in Iran, much as they have been in Pakistan. During the Soviet occupation of Afghanistan, and the establishment of the U.S-Pakistan strategic alliance in the 1980s, Iran's policies vis-à-vis its Afghan refugee population were largely a factor of its opposition to super power encroachment, as well as its aspirations to be the vanguard of Islamic revolution in the region.¹⁶

In spite of Tehran's longstanding patronage of Afghan refugees, their continuing presence in Iran has produced some serious domestic tensions. In rural and semi-rural areas, in particular, Afghans and their livestock have had a fairly significant environmental and economic impact, placing considerable strain on rural infrastructure, pastures and rangelands, water and food supplies, and health and education services. This has led to rising negative sentiments on the part of the general public, which increasingly blames the Afghans for rising prices, increased crime, and social problems such as drug smuggling and prostitution. In 1991, Tehran still perceived an interest in maintaining its liberal refugee policies, although reports indicated that the government had tightened its restrictions on movement within the country, and many unregistered refugees were detained and deported.¹⁷

The Afghan crisis created serious security, economic and social problems for Pakistan too. The wide-scale encampment of the refugees on Pakistan soil made it easy for the mujahideen to camp among them. This raised fears on Pakistan's part that the Soviets may retaliate mujahideen raids in Afghanistan, and, in doing so, violate Pakistan's border with impunity. The threat to domestic security could not be ruled out either given the precarious nature of Pakistan's political system, which already had separatist elements.

In Afghanistan, the monumental change of Soviet withdrawal, however, did not bring peace. The civil war continued, the mujahideen continued their jihad against Dr. Najibullah. Therefore, the expected repatriation after the Soviet withdrawal did not take place.

Afghan Repatriation in 1990s

The decade of 1990s was known as the 'decade of repatriation,' as repatriation became a major concern of the host countries, encouraging refugees to return to their homeland in safety and with dignity. The policies of both Iran and Pakistan started changing too. They were now having second thoughts about the extent of their obligations towards *muhajirin*, the great majority of whom they now saw as economic migrants or "economic refugees."¹⁸

In July 1990 UNHCR started an assisted repatriation program in Pakistan later extended to Iran. The long awaited fall of the Najibullah regime in 1992 triggered a surge in repatriation. His stepping down and the transfer of power to a variety of mujahideen led coalitions in the provincial centres of Afghanistan led to an enormous movement of people into Afghanistan. The resistance parties now themselves in power had to pull the refugees back home as Pakistan pushed them back. Pakistan found the field open to implement its own agenda. General Zia, in an interview given in July 1988 to the noted American scholar, Selig Herison, had asserted: "We have earned the right to have a very friendly regime there. We took risks as a frontline state, and we won't permit it to be like it was before with Indian and Soviet influence there and claim on our territory."¹⁹ Assisted repatriation from Pakistan continued throughout the

1990s, but at a much-reduced level from that of 1992. More than 300,000 individuals were estimated to have returned in 1993. However, more than 200,000 repatriated unassisted, so the number of assisted returns hovered around the 100,000 mark.²⁰

Meanwhile, the Iranian government signed a three-year repatriation agreement with government of Afghanistan and with the UNHCR in 1992, and actively encouraged return, issued temporary registration cards for those who wished to repatriate. By the end of 1993, about 600,000 returned from Iran, over 300,000 of them under the assisted repatriation programme.²¹

While massive returns took place in the year 1992; however, these returns did not solve the problem for either Pakistan or Iran, as both countries received new influxes. Civil war continued unabated. Repatriation continued at a brisk pace in 1993, but leveled off during the rest of 1990s, due to the instability in the country. The flow backs to Pakistan and Iran reflected the volatile situation in the country and the vulnerability of those refugees who had already decided to go back to Afghanistan. Security had not taken roots, neighboring countries still meddled in the affairs of the war torn country, therefore, repatriation had to fail and reverse, depending on the fluctuating situation. The UNHCR had adopted the encashment policy to motivate the refugees to repatriate, but the flawed policy failed in the face of undertaking a gigantic task of making millions return.

The 'encashment strategy' provided monetary incentives to Afghans for return. When Afghans first came to Pakistan, they were issued ration cards, which entitled them to certain benefits as refugees. These ration cards were to be handed over, at the time of repatriation in order to receive the repatriation grant. UNHCR overlooked a major flaw in its encashment strategy adopted during the 1992 repatriation programme. UNHCR could not monitor the actual return through the encashed ration cards. The UNHCR staff had the statistics for the number of rations cards encashed, but the equation with returnees could not be ascertained with surety.

Moreover, UNHCR did not have enough funds to carry out the encashment program either. Returnees felt the crunch, as they were already facing economic problems. The home country was not in a position to immediately reach out and help them reintegrate.

The fresh arrivals to Pakistan and Iran in post 1992 period were an indicator, that the two countries still faced a grave refugee problem and had to adopt new strategies to repatriate the refugees. The refugees who arrived in 1990s were largely educated urban families fleeing because the economy had broken down and, education for girls was not available and that provided for boys was poor. Arriving in Pakistan with high hopes, the new refugees found the situation as bad, if not as bad as it was in Afghanistan. Immigration to third countries was all but closed.

Less publicized, but equally disruptive, was the displacement of internal populations, from war affected rural areas to cities and from bombed out cities, to rural areas. UNHCR, ICRC and NGO-assisted camps were established in and around Jalalabad in the east, at Pul-I-Khumri, Mazar-I-Sharif and Kunduz in the north, and in Herat in the west. Other IDPs survived on the goodwill and support system of local rural communities. This stretched the resources of towns and rural areas throughout the country, especially south and north of Kabul and in the Hazarajat.

Following the Taliban takeover of Jalalabad and Kabul in September in 1996, the flow of returnees decreased dramatically – on some days none crossed the border- while the number of families crossing into Pakistan once again rose, despite the fact that they were officially discouraged from entering and that only minimum emergency assistance was available. By the end of 1996 total repatriation reached 3.84 million. Quick Impact Projects (QIPs) assisted many returnees. Designed to encourage repatriation and facilitate refugees when they returned, the QIPs provided assistance for a limited period to support improvements in shelter, health and sanitation, education, repaired roads and irrigation systems and offered skills training related to income generation. Many Afghan NGOs also sought to support the sustainable return of refugees and IDPs by strengthening livelihood security, improving economic opportunities, providing basic social safety nets and restoring the environment.

At the beginning of 1997, there were still around 1.2 million Afghan refugees living in refugee villages who lived in the urban centres particularly in Peshawar, Quetta and Karachi. During 1997 some 10,315 families representing 70,123 individuals crossed Pakistan's NWFP border.²² The Iranian government on the other hand refused to register new arrivals from Afghanistan, and the police stepped up their random questioning of Afghans in the street. In periodic waves, both those who had documentation and those who did not were taken to detention centres and then deported once a critical mass had been assembled. In 1998 about 90,000 and in 1999 around 100,000 Afghans were deported after such round-ups in the eastern provinces and in urban centres. One of the most frequent complaints made by government officials about Afghans in Iran was that they were taking jobs, away from the local people because of the low wage rates they were prepared to accept.²³

Until 1992, refugee status was granted on a *prima facie* basis to all Afghans arriving in Iran. Thereafter, all new arrivals were not granted the same (residence rights), thus creating a large group of Afghans considered by the Iranian authorities to be illegal aliens. The majority of Afghans working in Iran do so illegally.²⁴ Pakistan took a similar step in 1998, when it no longer considered Afghans as *prima facie* refugees, which created hurdles for those who wanted to cross the border and seek refuge in Pakistan. Only those with proper documents were entertained. This was used as a push factor by Pakistan and some of the refugees did return to their country, under the new circumstances.

The outflow of Afghans who sought safety and work in Iran in the period 1994-2001, were not granted refugee status. As a result, all non-official movement across the border in these years appeared as illegal labour migration.²⁵ Hostility toward Afghan refugees reached a new high in late 1998 and early 1999, when mobs attacked, and in some cases killed, Afghan refugees, and demanded their deportation. Iran deported about 100,000 Afghans in 1999, many of whom were summarily repatriated after round-ups in the eastern provinces and urban centres. In April 2000, the Iranian government and UNHCR began a joint repatriation programme for Afghan refugees. The "Joint Programme" represented an attempt by UNHCR to introduce order and refugee status screening to a process that had become increasingly arbitrary and coercive. Under this program, Afghans in Iran, regardless of current status or time of arrival, were invited to come forward either to benefit from an assistance package or to repatriate voluntarily or to present their claims for the need for protection from return.²⁶

During the Taliban regime, with which the Iranian government had an antagonistic relationship, Tehran did not press for repatriation, citing economic and security concerns. With the fall of the Taliban, it started adjusting its refugee policy in line with the post-Taliban developments within Afghanistan. At the core of this adjustment was a demand that the refugees return to their country of origin. In late 2001, repatriation resumed once again, although not as rapidly as for Afghans in Pakistan. UNHCR determined that the spontaneous returns were voluntary. However, USCR considered them as involuntary returns resulting from the mass round-ups that occurred prior to the joint repatriation exercise and the deportations during the UNHCR-Iranian joint exercise. USCR evaluated that repatriates from Iran said that they had been coerced into returning.²⁷

In 1999, Pakistan's growing frustration with the seemingly endless conflict in Afghanistan and with its growing refugee population led to increased harassment of Afghan refugees. Police in Pakistan's major cities stopped undocumented Afghans and deported many. In June 1999, police demolished the stalls of a number of Afghan traders at a market in Peshawar and assaulted the traders and their Afghan customers. Later that year, local authorities in Baluchistan pushed back across the border 300 Afghan asylum seekers and forced thousands of Afghan refugees who had been living in Quetta to move to camps.²⁸ 92,000 returned from Pakistan in 1999. In the year 2000, the number of UNHCR assisted returns from Pakistan and Iran was close to double the number compared to previous years with some 75,000 Afghans assisted to return from Pakistan and some 130,000 from Iran under a Joint Programme for the voluntary repatriation of Afghans from Iran.²⁹

Critics of the repatriation program charged that drought and conflict-ridden Afghanistan was not prepared to integrate returnees and they would become destitute and internally displaced, and, ultimately return to Iran and Pakistan with less certain status than when they left. In mid-2000, one of the key critics, Medicines Sans

Frontieres, a key non-governmental partner in the repatriation program that had conducted medical screening of returnees, withdrew from the program.³⁰

In early 2001, the government of NWFP, with the acquiescence of the national government, embarked on a policy of mass refoulement. On Jan 23, 2001 the governor of NWFP issued an order authorizing the police to detain and deport any Afghan not holding a valid Afghan passport and Pakistani visa, including both new arrivals and old refugees. The governor reportedly instructed each police station in Peshawar to deport a minimum of five to ten Afghan men daily.³¹

Pakistan was changing its policy toward Afghans. It now openly said it had had enough, something it had not uttered in the past two decades. It was not ready to welcome new refugees, as turmoil still continued in Afghanistan. Pakistan's actual policy shift occurred in the wake of September 2001, but the attitude of the government had started changing before the terrorist attacks took place. Between 2000 and early 2001, the largest influx of Afghan refugees in several years an estimated 170,000 new arrivals crossed into Pakistan. As the influx developed Pakistani officials feared that the ongoing conflict in Afghanistan and the effects of the worst drought to hit that country in 30 years might result in a much larger number of Afghans heading to Pakistan than actually arrived. That fear was exacerbated by Pakistan's concerns about its faltering economy, resentment toward the international community for its diminished interest in and assistance to Afghan refugees in recent years, increasingly negative attitudes towards Afghan refugees among local people and the media, and the appointment of Ifikhar Hussain Shah as governor of NWFP who has been dubbed to have anti-refugee sentiments. The combination of these factors resulted in what a UN refugee official called an 'irreversible and qualitative' change in Pakistani government attitude, policy and action toward Afghan refugees.³²

2002 Repatriation: Achievements and Obstacles

In Jan 2002, UNHCR issue a draft planning document for the "Return and Reintegration of Afghan Refugees and Internally Displaced People" over a three year period, in which it estimated that there were 2.2 million Afghan refugees then living in Pakistan and 1.5 million in Iran. It was envisaged that during the course of 2002 and with the assistance of UNHCR, 400,000 refugees would return from Pakistan, and that the same number would return from Iran. Approximately the same numbers were expected to return in 2003 and 2004.³³

Afghanistan, Pakistan and the UNHCR reached an agreement in principle on a legal framework governing the return of Afghan refugees. It for the first time established a formal process for the resolving the issue. Under the agreement (signed in October 2002 and approved by the governments in March 2003), UNHCR would continue to assist the voluntary repatriation of Afghan refugees from Pakistan for three more years. It is designed to support a gradual organized return that is sustainable.³⁴ After the three

years, Afghans remaining in Pakistan would undergo screening to identify those who might be in need of protection.

A joint Agreement was signed in April 2002 with Iran that provided legal framework for the voluntary return of refugees. The agreement covered only the registered Afghans living in Iran; consequently around 40,000 non-registered Afghan citizens were deported in 2002.³⁵

Reasons for return were often cited as the improved social, economic, security and human rights conditions in Afghanistan. The change in political security environment provided opportunities not seen for the past 23 years. The presence of International Security Assistance Force (ISAF) and many international actors in Kabul provided a level of security and economic opportunity that contributed to relative stability in the capital.

Many refugees began returning to Afghanistan from Pakistan and Iran, and some from other countries. Some of the returnees were keen to reconstruct their lives and their country. Others were returning because they did not have any viable alternative of doing so, given the inadequacies of protection in their countries of asylum and transit. Some remained in asylum procedures, the processing of their claims having in some cases been frozen, pending an assessment of changed conditions, and others are being asked to comment on the suggestions that it may now be safe for them to return to Afghanistan. Some were unable to find durable protection in those countries and for others there were concerns that they return because they were unable to await the processing of their claims while being held in indefinite and arbitrary detention.³⁶

Politically, Afghan government had to prove its credibility not only to the international community but its own nation too. It needed the support and backing of its own population, and it knew that if refugees did not return it would be discredited. It therefore, had to make positive overtures to the displaced people in order to make them return to their homeland. The Ministry of Refugees and Repatriation (MoRR) was set up and it allowed UNHCR to play a leading role in the repatriation process. The presence of the ISAF on the Afghan soil, was also used by the government to attract returnees. It was signaled to refugees that security and peace were fast returning to Afghanistan, because of the peacekeepers and commitments of the international community to assist Afghanistan in reconstruction and reintegration of the displaced population. These developments soon led to a massive repatriation in the year 2002.

UNHCR's objective was to make repatriation a success story, which in turn would enhance credibility of the institution. It saw that the environment had become conducive and therefore, it should initiate a plan for repatriation. When the plan was announced at the beginning of the year 2002, many observers believed that the hosts and UNHCR estimates were too high. Assisted repatriation began from Pakistan on 1 March and from Iran on 6 April. By the end of August, the number of returnees from

Pakistan had already exceeded the planning figure by more than 300 percent and the repatriation operation was judged "an overwhelming success" on 6 October, the office of UNHCR's Chief of Mission in Kabul announced that 1.5 million had been assisted to return from Pakistan and 222,000 from Iran. The total number of assisted cross border returnees (including nearly 10,000 from Tajikistan) was 1.7 million. The international system staffed and budgeted and prepared for targeted level, was not ready to assist the huge flow. In a repatriation and assistance operation UNHCR budgeted more than \$142 million.³⁷ UNHCR's budget was stretched by the extraordinary interest in return, forcing the agency to make cutbacks in some programmes and to focus its aid in four priority areas: protection, travel, assistance/returnee packages, shelter and water. The agency halved the number of shelter kits it planned to distribute to needy Afghan families from 97,000 to 50,000.³⁸

Despite the fact of returning Afghans was double than the number anticipated, the operation was considered "amazingly successful."³⁹ Ron Redmond, spokesman of the UNHCR said, "considering the state of Afghanistan's infrastructure and the security problems that still affect many areas, this is an astonishing number."⁴⁰ The return rate declined toward the winter months with weekly returns of about 2000 during December.

Compared with recent assisted repatriation exercises elsewhere in the world, the figures for Afghan refugees were truly impressive. Two of UNHCR's largest repatriation exercises during the 1990s were in Cambodia and Mozambique. In 1992 and 1993, 360,000 to 370,000 Cambodians returned home over a period of 12 months, mostly from camps on the Thai-Cambodian border, in an operation that was described at the time as "one of the largest and most complex operations ever undertaken by UNHCR." In the largest repatriation exercise ever organized in Africa, 1.7 million Mozambicans returned from six neighboring countries over a period of four years (1992-96). The relatively smooth return of so many people to Afghanistan just over six months in 2002, was considered as a tribute to the professionalism and dedicated hard work, under very difficult conditions, of hundreds of UNHCR and NGO staff, both national and international.⁴¹ And yet, "overwhelming success," as it was certainly from the point of view of numbers and logistics, it could be argued that this judgment was as premature as the return movement itself.

For those returning from Pakistan, the cash grant, which was intended to cover transport costs, was originally set at US \$100 per family (US \$20 per individual family member, with a ceiling of five members per family.) This made recycling particularly profitable for those in NWFP and Baluchistan, where most Afghan refugees are concentrated, who had to travel relatively short distances to pick up their cash grants and assistance packages in Jalalabad, Kabul or Kandahar. According to one calculation, a family of five making the return trip from Islamabad to Jalalabad or Kabul could make a profit of Rs 3360 (approximately US \$56) per trip, which is about what a daily laborer in Pakistan can earn in a month.⁴²

Pakistan closed down certain camps and cooperated with the UNHCR in assisting repatriation. The Voluntary Repatriation Programme led to closing down of the sprawling Nasir Bagh camp in the suburbs of Peshawar city. Housing more than 80,000 individuals and established in early 1980s, Nasir Bagh Camp was formally closed in May 2002. The infamous Jalozai Camp⁴³ near Peshawar too was dismantled. In case of Jalozai, the refugees were relocated to other camps before repatriation started.

There are mobile teams of UNHCR and Society for Human Rights and Prisoners Aid (SHARP, a partner NGO in repatriation), carry out verifications on spot. These teams visit the homes of intending returnees, who request them to accompany them to their homes. The members of the family are questioned and the team must be convinced that the family is really returning and is not composed of recyclers- people who have already received aid but are now back in Pakistan and Iran for a second payment.⁴⁴

Pakistan allowed the UNHCR to set Voluntary Repatriation Centres, hereafter (VRCs). Refugees requesting repatriation assistance under the Afghan government and UNHCR facilitated programme are verified at VRCs established both in Pakistan and Iran. In order to prevent possible abuse of the repatriation assistance, UNHCR workers carefully screen refugees during interviews at the agency's registration centres. This rigid verification is carried out to make sure that only genuine returnees are registered and entitled to basic necessities. Once registered, the refugees are given a voucher they can then turn over to one of the 32 distribution points being set up in each Afghan province, where they receive up to \$100 per family to cover their transportation costs and other basic necessities. Registration documents serve as ID papers in Afghanistan.⁴⁵

The difficulty was compounded by the unexpectedly large numbers of people passing through the VRCs and encashment centres during the peak months of return. For example, at the Mohmnadara encashment centre, near Jalalabad, more than 58,000 families were processed during March, April and May- an average of more than 600 families, or 3000 individuals, per day. The staff was under great pressure during these months to work quickly, so that the returnees, especially children, did not have to stand for long periods in the sun. It was therefore impossible to engage in time-consuming verification procedures. Verification guidelines issued to the teams by UNHCR's Jalalabad office attempted to introduce some objectivity into what was essentially a subjective exercise of identifying "artificial" families and ascertaining the "genuine" nature of an individual's intention to return. The guidelines included instructions to separate out family members for questioning and then to check the consistency of their replies and to ask families to identify their luggage on the trucks so that it could be checked against the "luggage cards" filled out by staff at the Takht Baig VRC near Peshawar. Inevitably, the methods used were not only largely subjective, but also highly labour intensive and, presumably, expensive.⁴⁶

UN refugee agency staff inside Afghanistan scrutinizes returnees prior to handing over assistance to better ensure that their repatriation is permanent. This showed an improvement in the UNHCR's strategy in dealing with repatriation. In place of the previous system that saw returnees collect travel assistance and grant of \$100 per family since June 1, 2002, the UNHCR established a graduated system under which Afghans going back to Nangarhar and other eastern provinces now receive \$10 per individual. Those heading to central Afghanistan get \$20 while those returning to northern provinces receive \$30 per person.⁴⁷

Pakistan does not want recyclers, as it would not lead to shedding the refugee burden. Moreover, it would be earning the criticism of Afghanistan and international community for welcoming refugees, whom they now think should be in their own country rather than in Pakistan. Therefore, officially, it keeps its border with Afghanistan closed for new refugees as well as recyclers. It wants one-way movement – Afghans going back to their country and not coming back. However, the problem of recycling persists despite strategies adopted by Pakistan, Iran and UNHCR.

"Dealing with the problem ...is not easy, for there is no sure way of identifying a recycler. An average caseworker who fills in 50 forms a day, six days a week cannot possibly remember all the faces he has seen. He has little to go on but his instincts and memory. And a recycler will often send different family members - a husband, a wife, and a son - to the VRC each time, thereby making recognition even more difficult. Every now and then, of course, a caseworker will spot someone he knows he has seen before, but for the greater part, the matter is one of suspicion and uncertainty."⁴⁸

During the end of August 2002, 67,375 families (around 400,000 individuals) applying for repatriation assistance at VRCs in Pakistan had been rejected. This represented about 20 percent of the total. Not all of these would have been rejected as recyclers, but the following observation from UNHCR's Pakistan office suggested that many of them probably were.⁴⁹

It was even more difficult to know the number of those entered the repatriation programme with the intention of re-establishing themselves in Afghanistan (and who should not, therefore, be considered recyclers) but who found conditions so difficult in their home areas that they returned to Pakistan before the winter.⁵⁰ The actual number of Afghan refugees settled in Pakistan has never been clearly established. It is impossible to obtain precise figures. Published and unpublished totals can only be described as 'intelligent estimates,' the main reason for which is that the refugee population is large extremely mobile, dispersed over large tracts of land, and often located inaccessible areas.

Admitting the recycling of Afghan, Rudd Lubbers at the beginning of repatriation programme said we have to be more serious towards checking the Afghans returning to

Pakistan. The UNHCR is cautiously checking the refugees so that those coming back should not apply for assistance again. However, he said the government of Pakistan should also be active to check the problem.⁵¹ But with no birth certificates or others records to examine, sorting the bogus from the real is difficult and it involves indirect checks like talking to neighbors, comparing the histories narrated by family members and if their luggage contains kitchen equipment.

However, there was fear that mistakes had been made in refusing assistance to legitimate refugees. This problem has been taken note of and UNHCR feels that it will not be repeating similar mistakes. "Last year (2002) we tried our best. But sometimes we were too busy and some staff did not get enough training, says Nawal Atme, a member of the Swedish Refugee Board seconded to UNHCR. "This year we will have no excuse." Staff is being given a month long intensive training to identify and verify genuine returnees. Some of the staff is made to play the role of would – be returnees to test the skills of workers undergoing training. "We have fake families and all kinds of case – complicated cases that repatriation staff always encounter," says Atme. "Its more than detecting those not entitled to assistance – they must understand that not all refugees are cheaters and recyclers," she added, referring to people seeking assistance more than once.⁵²

In Iran, the official figure for assisted returns from March to early October 2002 was significantly less than that of Pakistan. One reason could be that recyclers did not inflate the figure for Iran. Recycling appears to have been much less prevalent among returnees from Iran than from Pakistan. This could have been partly because of the relatively greater distances traveled by returnees from Iran and partly because the Iranian border is, in general, more heavily policed than the Pakistani border. But it could also have been because of the way the assistance package was organized for returnees from Iran an, in particular, because of the relatively small size of the cash grant they received. Travel in Iran to the Afghan border was organized by UNHCR. Once arrived in Afghanistan, returnees were provided with free transport (initially by the International Organisation of Migration) to the capital city of their home province, where they received a cash grant of US \$10 per person, which was intended to cover at least part of the cost of onward transportation. Families (but not single men, who constituted a much higher proportion of returnees from Iran than from Pakistan) were provided with a "family return package" of food and non-food items, including (for a family of 4 – 8 members) 150 kg. of wheat.⁵³ Considering that most returnees from Iran had to travel long distances on both sides of the border (from Tehran to Kabul, for example) it is clear that assistance package, and particularly the cash grant , provided little incentive for the would – be recycler.

Another factor that discouraged recycling from Iran was that it normally took a month to obtain a voluntary repatriation form (VRF), which had to be applied for in the refugee's area of residence. This contrasted with practice in Pakistan, where a family

could turn up at a VRC, in a vehicle already packed with belongings, ready to set off for Afghanistan, and obtain a VRF literally there and then.⁵⁴

There is something paradoxical, then, about the role of cash grants in assisted repatriation - a role that has been developed uniquely in repatriation programme for Afghan refugees since the early 1990s. The paradox is that while the cash grants system provides the most straightforward and efficient means of counting returnees that has yet been devised, the resulting figures are not an accurate record of those who have actually repatriated. The same was true of the encashment programme of the early 1990s.⁵⁵

To prevent Afghan recyclers from getting repatriation assistance, Iris Technology was first setup at the VRC in Peshawar in October 2002. This technology was predicted to have the effect of "ultimately eliminating recyclers. This move was obviously motivated by the best intentions, notably that of enabling staff to "concentrate on persons of concern, and devote more time to assisting vulnerable individuals."⁵⁶

The Iris test was welcomed by UNHCR staff, as a non - subjective check for refugees receiving traveling assistance to repatriate. But it still must be supplemented by the judgment of the staff, both to detect potential abuse, such as repeated returns by children under 12 who cannot be iris tested, and to ensure protection of vulnerable refugees.⁵⁷ The Iris technology has its critics too. While on one hand it helps the UNHCR to aid only those who actually intend to repatriate and discourage bogus return, on the other, it has been considered as an effective weapon used to control and prevent recyclers, thereby restricting them to cross the border back even if they face problems in their home country upon return.⁵⁸

Refugees, who opted to return in 2002, had to face difficulties. While UNHCR voiced satisfaction with the return of massive numbers, but expressed concern that more must be done to ensure their successful repatriation. "I would say Afghanistan has been very good on repatriation, but there is till the security point," said Lubbers. "There are valuable efforts and a good beginning on reintegration, but it is still too weak."⁵⁹

Lubbers admitted that a major challenge to UNHCR's effort to help Afghans repatriate has been security incidents in some parts of the country that has forced people to flee, particularly ethnic Pushtun communities living in northern parts of Afghanistan. The security problem has impeded repatriation and even caused new displacement. "It is essential that there should be an improvement in the security situation," he said.⁶⁰ Persecution of ethnic minorities is less widespread, but is likely to continue for a long time in rural areas, and areas under the control of various ethnic factions and warlords. Sometimes security problems are related to old scores and rivalries between warlords and their people.

The question of security is key to successful repatriation, but it is a fallacy to assume that there would be "a more secure Afghanistan by seeing less Afghans going home. No, it's the other way round. The process is a peace building process itself."⁶¹ Security drives the refugees back home. But to bring security to a country like Afghanistan which has been ripped by years of instability and civil war, is not only difficult but next to impossible in the immediate run. It will take years till the remnants of the war are completely removed from the society.

Kabul is relatively secure, because of the presence of ISAF. Large numbers of returnees are therefore, going to Kabul, partly because of lack of security in other parts of the country. It means that return to those places is not generally viable. In Kabul, the shortage of housing and inadequate infrastructure has caused concern about the spread of disease and the provision of basic services.⁶²

Returning refugees are having trouble finding places to live, especially in Kabul, where there is a severe housing crisis. In the country many refugees are arriving to find their houses burnt or bombed. The majority of people who left this country left as rural people, but in Pakistan they became urbanized. Of the estimated 1.7 million refugees that returned in the year 2002, around one third chose to resettle in Kabul and the surrounding provinces. These include many people who have never lived in Kabul but who came because they perceived better economic and security conditions. About 3,000 refugee families are living either in tents or abandoned government buildings in Kabul, according to Mohammed Hafiz Nadim, spokesman for the Ministry of Refugees and Repatriation.⁶³ Harsh winters have made things worse for returnees.

Basic infrastructure in the country needs to be rebuilt and restored to make return for refugees more attractive. For example, only 13% of Afghanistan's road infrastructure was paved in 1991, most of which has been further destroyed due to hostilities among various factions⁶⁴. The telephone and telegraph network that linked major towns hardly function. Educational facilities have also been severely affected by years of conflict. Great attention is needed in these sectors, as they play an important role in attracting refugees home.

It is essential that return is sustainable in order to break cycle of displacement. Although the international community, including UNHCR, cannot and should not obstruct the individual decision of a refugee or refugee family to return, it is incumbent on those engaged in facilitating repatriation that refugees are fully informed about the lack of sustainability of the current situation, as a consequence both of the instability of the situation and diminishing absorption capacity.

Some 4.5 billion dollars of aid was pledged at a conference on Afghan reconstruction in Tokyo early 2002. But donor nations have been reluctant to produce the money while fears over the country's stability persist. Total stability would not return to Afghanistan until aid is delivered and refugees have come home. "People think that

UNHCR has cash reserves, that is not the case. We have to live from day to day, so we have really got to have money from the international donors," said Rudd Lubbers. Sometimes the aid has gone to bogus returnees; these bogus claimants have used the border as a 'revolving door' to secure money several times. More than one hundred families who repatriated to Afghanistan have re-migrated to Pakistan because of lack of jobs, security and shelter.⁶⁵

From the repatriation process, it is obvious that return is more emphasized than the sustainability of refugees in their homeland. Return is important to both home and host country, but the latter is always apprehensive of the flow back in case sustainability is not given priority. Sustainable return happens when returnee's physical and material security is assured and when a constructive relationship between returnees, civil society and the state is consolidated. The Afghan government has not emerged strong enough to exert control beyond the capital. It has yet to bring security to the country and build up the infrastructure, to absorb and sustain the returnees. The economy has to be revived to provide not only to maintain official expenditure but also to provide jobs to those who desperately need employment. When the government is still dependent upon the international community for funds and ISAF for security, it cannot be expected that life for returnees is better off than in the host countries. Unless returnees are ensured political, economic and social security, their reintegration is a big question mark. If repatriation is to be successful, then the numbers crossing the border is not the only important factor, their sustainability and integration is equally important.

While repatriation of large numbers became success story for UNHCR's achievement during the years 2002-2004, yet it brought into question whether the organization fulfilled its duty by repatriating refugees in conditions of safety and dignity. The fact that UNHCR continues to facilitate and not promote voluntary repatriation to Afghanistan is significant that in doing so it acknowledges that the situation in Afghanistan is neither objectively safe for returnees, nor in its estimation most of the returns are likely to be durable. The numbers assumed importance over durability of repatriation. It has used the Iris technology to detect recyclers. This proved to be of great utility to prevent recyclers from getting assistance the second time. However, UNHCR has not been able to devise any strategy to prevent recycling of those who do not go through the verification process or the Iris detecting technology again.

UNHCR's initial strategy of phased repatriation also failed, because the number of returnees far surpassed the initial figures estimated to return in the year 2002. This exposed it, as it had not assessed the euphoria amongst Afghans. UNHCR's budget was soon stretched by the extraordinary interest in return. It had to make cutbacks in some programs, which showed short sightedness on the part of the organization. The return of such a great number has left Afghanistan with complex problems of accommodating and feeding a large impoverished population. The expectations of

returnees are turning into disappointment, which indirectly impact on the decision of the remaining refugees in Pakistan and Iran.

UNHCR should make adequate arrangements for the protection and safety of its own staff in carrying out repatriation and rehabilitation activities. It may involve the Afghan government and locals in providing them the necessary protection. Attacks on UNHCR workers in Afghanistan, have led to temporary suspension of its activities in the areas, where they operate. When it closes down its office, returnees feel more vulnerable and question the credibility of the organization, which promise them security and protection.

Conclusion

There is a great deal of uncertainty about the future direction of Afghanistan. While repatriation has taken place amidst insecurity and economic instability, the government needs to take emergency steps to reintegrate the returnees and prevent the flight of its population to neighboring countries. The hopes of returnees should not turn into disappointment otherwise the Afghan government will lose its credibility and trust amongst its own population.

Furthermore, the Afghan government has to broaden its support amongst its own population to establish its credibility; otherwise it will remain weak and incapable of rebuilding the war-devastated country. The longer the Afghan government takes to rely on foreign elements for security, situation would not improve. Gradually it has to reduce its support on them and increasingly involve Afghans to defend the country against internal threats to security. The government has to expedite developing its national army to control and prevent the activities of various militias in the country. Warlordism and extremist elements still threaten the fragile peace. The government has to take serious measures to disarm and reduce the role of warlords otherwise peace will remain an elusive objective.

Mine clearance is essential for farming and making the land safe for living. Thousands of mines are still strewn in various parts of Afghanistan. Unless removed, agricultural activities are not going to start, in turn making the lives of returnees more miserable.

The Afghan government therefore, has to adopt a balanced and integrated approach to make repatriation durable and sustainable. The essential confidence and will of the people to overcome the present difficulties and face challenges need to come from within, rather than strategies worked out on foreign lands to rebuild and reconstruct Afghanistan. This paper was originally prepared for the conference on *The Challenge of Rebuilding Afghanistan 2005* organized by Program on Peace Studies and Conflict Resolution; Department of International Relations, University of Karachi and Hanss Seidel Foundation, Islamabad.

Notes

¹ Article 13(2) of the Universal Declaration of Human Rights (1948) UN General Assembly Resolution No.217 A. 10th December 1948

² "UNHCR Returnee Monitoring Report Afghanistan Repatriation. Jan-March 2002." www.relief.int.
July 22, 2003

³ Hiram A Ruiz, "Repatriation: Tackling Protection and Assistance Concerns," in *World Refugee Survey*. US Committee for Refugees (USCR) Washington. 1993.p.21

⁴ UNHCR. *Handbook on Voluntary Repatriation : International Protection*. Geneva 1996 p.6

⁵ *Protection of Refugees: A Field Guide for NGOs*, produced jointly by UNHCR and its NGO Partners. UN.1990.

⁶ Ibid.

⁷ The Iranian government took formal responsibility for the refugee population and - in sharp contrast to Pakistan - allowed foreign NGOs, international organizations and UNHCR only a marginal role. Although it received large number of refugees, Iran was generally considered a supportive country. Refugees were not required to settle in camps, but could live where they found work. They also had access to health care, basic education and subsidized food on the same terms as Iranian citizens. However, there were considerable restrictions on physical movement, and government permits were required for travel within the country. *Afghan Refugees in Iran: From Refugee Emergency to Migration Management* in a policy brief written by Arne Strande and Astri Suhrke and Kristian Berg Harpviken. Chr. Michelsen Institute, Bergen and the International Peace Research Institute, Oslo. 16 June 2004

⁸ Ghulam Umar, "The Refugee Problem: An Overview." *Pakistan Horizon*. Quarterly. VolXXXVIII. No.1. 1985. Pakistan Institute of International Affairs. Karachi. Pakistan. p.25

⁹ Refugee Policy Group. *Afghanistan: Trends and Prospects for Refugee Repatriation*. Washington D.C. April 1992.

¹⁰ David Turton, and Peter Marsden. *Taking Refugees for a Ride? : The Politics of Refugee Return to Afghanistan*. Afghanistan Research and Evaluation Unit. Kabul. December 2002 p.11

¹¹ Ibid. p.10

¹² Ibid. p.14

¹³ Ibid. 11

¹⁴ Although UNHCR ultimately obtained some funds for Afghan refugees in Iran , the disparity in expenditures between Pakistan and Iran remained substantial throughout the 1980s and 1990s. Between 1979 and 1997, UNHCR spent more than US\$1billion on Afghan refugees in Pakistan, but only US \$150 on those in Iran. See *Taking Refugees for a Ride? : The Politics of Refugee Return to Afghanistan*. Afghanistan.p.11

¹⁵ Rasul Baksh Rais, *War Without Winners: Afghanistan's Uncertain Transition after the Cold War*. Oxford University Press. Karachi. 1997. pp.236-238

¹⁶ Refugee Policy Group. *Afghanistan: Trends and Prospects for Refugee Repatriation*. April 1992. p.11

- ¹⁷ Ibid.
- ¹⁸ *Taking Refugees for a Ride? : The Politics of Refugee Return to Afghanistan.*
p.11
- ¹⁹ . K Warikoo, (ed). *The Afghanistan Crisis: Issues and Perspectives.* Bhavan Books and Prints. New Delhi.2002 Preface of the book . xvii
- ²⁰ *Taking Refugees for a Ride?: The Politics of Refugee Return to Afghanistan.*
p.13
- ²¹ Ibid. p.12
- ²² UNHCR. *Briefing Note on Assistance to Afghan Refugees in NWFP, Pakistan.* Peshawar. August 1998
- ²³ *Taking Refugees for a Ride?: The Politics of Refugee Return to Afghanistan.*
p.15
- ²⁴ Ibid.
- ²⁵ Arne Strande, Astri Suhrke and Kristian Berg Harpviken. *Afghan Refugees in Iran: From Refugee Emergency to Migration Management.* A policy brief written by. Chr. Michelssen Institute, Bergen and the International Peace Research Institute, Oslo. Norway 16 June 2004
- ²⁶ USCR. *Pakistan: Afghan Refugees Shunned and Scorned.* September 2001 p.21
- ²⁷ Ibid. p.22
- ²⁸ Refugee Studies Centre. "September 11th: Has Anything Changed?" *Forced Migration Review*; No. 13, June 2002 UK. p.10
- ²⁹ UNHCR. *Return of Refugees from Neighboring Countries.* December 2000.p.8
- ³⁰ Ibid.
- ³¹ *Afghan Refugees Shunned and Scorned .p.29*
- ³² USCR interview with UNHCR representative Hasim Uktan, Islamabad, June 2001. Also see USCR-*Pakistan :Afghan Refugees Shunned and Scorned.* P.5
- ³³ UNHCR. "Afghanistan Humanitarian Update." No.67. January 3,2003
- ³⁴ UNHCR. "Afghanistan Tripartite Agreement with Pakistan." *News Stories.* March 18, 2003
- ³⁵ UNHCR. "Returnee Monitoring Report Afghanistan Repatriation. Jan-March 2002." www.relief.int. July 22, 2003
- ³⁶ See statement of Minister for Immigration, Multicultural and Indigenous Affairs, Australia, "Afghan Nationals Voluntary Return Home," Media Release, MPS 67/2002, 22nd July 2002
- ³⁷ UNHCR. "UNHCR Trims Aid Programmes as Record Numbers Return to Afghanistan." *News Stories*, July 23,2002
- ³⁸ Ibid.
- ³⁹ UNHCR. "Afghan Repatriation is Top 2002 Event." www.unhcr.ch December 30, 2002
- ⁴⁰ *The News International.* September 4, 2002
- ⁴¹ . *Taking Refugees for a Ride?: The Politics of Refugee Return to Afghanistan* p 20
- ⁴² Ibid

⁴³ Jalozai became a refuge for desperate Afghans fleeing civil war and drought beginning in late 2000 when they could find no other place to settle. The unofficial Jalozai site was a precarious haven where they endured tremendous hardship. Many succumbed to the winter cold and stifling heat waves of 2001 as they lacked suitable shelter and sanitation. Conditions at Jalozai deteriorated further following the post-11 September refugee influx. Seeking to avert a humanitarian crisis, UNHCR and the Pakistan government reached an agreement to relocate Jalozai's undocumented refugees to new sites where full assistance and protection could be provided.

⁴⁴ Ibid

⁴⁵ UNHCR. *News Stories*. March 15, 2002

⁴⁶ Ibid.

⁴⁷ *The News International*. June 27, 2002

⁴⁸ *Taking Refugees for a Ride?: The Politics of Refugee Return to Afghanistan*. p

21

⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ *The News International*. April 19, 2002

⁵² UNHCR. "UNHCR Gears Up for 2003 Afghan Repatriation." *News Stories*.

February 24, 2003

⁵³ *Taking Refugees for a Ride?: The Politics of Refugee Return to Afghanistan*. p

23

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ Ibid. p.25

⁵⁷ UNHCR. "UNHCR Gears Up for 2003 Afghan Repatriation." *News Stories*.

February 24, 2003

⁵⁸ *Taking Refugees for a Ride?: The Politics of Refugee Return to Afghanistan*. p

25

⁵⁹ UNHCR. "Lubbers Happy with Returns, but Worried About Reintegration."

News Stories. August 28, 2002

⁶⁰ Ibid

⁶¹ Ibid

⁶² Brian, Macquarrie. "Stream of Refugees Swells Squalid Kabul." *The Boston*

Globe. May 1, 2002

⁶³ *The News International*. January 25, 2005

⁶⁴ See Asian Development Bank's *News Release* No. 052/02. April 9, 2002

⁶⁵ UNHCR. Repatriating Afghan Refugees Remigrate." *News Stories*. September

13, 2002.

References

Article 13(2) of the Universal Declaration of Human Rights (1948) UN General Assembly Resolution No.217 A. 10th December 1948.

- "UNHCR Returnee Monitoring Report Afghanistan Repatriation. Jan-March 2002." www.relief.int. July 22, 2003
- Ruiz, Hiram A. (1993). "Repatriation: Tackling Protection and Assistance Concerns." *World Refugee Survey*. US Committee for Refugees (USCR) Washington.
- UNHCR. (1996). *Handbook on Voluntary Repatriation : International Protection*. Geneva.
- Protection of Refugees: A Field Guide for NGOs* (1990). Produced Jointly by UNHCR and its NGO Partners.
- Umar, Ghulam. (1985). "The Refugee Problem: An Overview." *Pakistan Horizon*. Quarterly. VolXXXVIII. No.1. 1985. Pakistan Institute of International Affairs. Karachi. Pakistan.
- Refugee Policy Group (1992). *Afghanistan: Trends and Prospects for Refugee Repatriation*. Washington DC.
- Turton, David. & Marsden, Peter. (2002). *Taking Refugees for a Ride? : The Politics of Refugee Return to Afghanistan*. Afghanistan Research and Evaluation Unit. Kabul.
- Rais, Rasul Baksh. (1997). *War Without Winners: Afghanistan's Uncertain Transition after the Cold War*. Karachi: Oxford University Press.
- Refugee Policy Group. (1992, April). *Afghanistan: Trends and Prospects for Refugee Repatriation*. Washington D.C.
- Warikoo, K. (Ed). (2002). *The Afghanistan Crisis: Issues and Perspectives*. New Delhi: Bhavan Books and Prints.
- UNHCR. (1998, August). *Briefing Note on Assistance to Afghan Refugees in NWFP, Pakistan*. Peshawar.
- Strande, Arne., Suhrke, Astri., & Harpviken, Kristian Berg. (2004, June 16). *Afghan Refugees in Iran: From Refugee Emergency to Migration Management*. Chr. Michelssen Institute, Bergen and the International Peace Research Institute, Oslo. Norway.
- USCR (2001). *Pakistan: Afghan Refugees Shunned and Scorned*.
- Refugee Studies Centre. (2002). "September 11th: Has Anything Changed?" *Forced Migration Review*; No. 13, UK.
- UNHCR (2000). *Return of Refugees from Neighboring Countries*.
- UNHCR. (2003, January) "Afghanistan Humanitarian Update." No.67.
- UNHCR. (2002, December) "Afghan Repatriation is Top 2002 Event." www.unhcr.ch
- The News International*. June 27,2002.
- The News International*. April 19, 2002.
- Macquarrie, Brian. "Stream of Refugees Swells Squalid Kabul." *The Boston Globe*. May 1, 2002
- The News International*. January 25,2005
- Asian Development Bank's News Release No. 052/02, April 9, 2002

Status, Dimensions, Issues and Options for Food Security in Pakistan

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Abstract

The paper describes dimensions of food security in Pakistan and discusses different aspects and issues of food availability, access to food and sustainability of food supplies in Pakistan. The paper investigates the status and pattern of growth in production, area and yield of food crops including wheat, rice and maize, and animal products such as milk and meat. The paper also presents per capita wheat, rice and maize, milk and meat production in Pakistan. The paper relates food production with different factors of food security starting from production to distribution and ability for utilization of food.

Keywords: Food Security; Dimensions; Growth; Food Index; CPI

Introduction

Food security has been a major issue in Pakistan. The recent shortage of wheat and flour and price hike of food items created a crises type situation in the country causing food insecurity and hunger among the people. Food security is generally defined on the basis of food availability in the country. The concept of food security emerged in the mid 1970s at the time of global food crisis. The focus, at that time, was on supply side issues, which is availability and volume/price stability. Over the past thirty years, there has been considerable reconstruction of the official thinking on food security resulting shift to demand side. During 1974, global concern was availability and stability in food supplies, which expanded to include access by the vulnerable groups to avail supplies in 1983. The aspect of sustainability and continuous supply of food was recognized in 1998 and the decade of 90s appreciated the issues related to food safety, nutritional balance and food preference. Thus, definition of food security on the basis of food availability does not necessarily mean that people of the country have food security, as it is not only an old definition but its incomplete as well (Riaz, 2009). Food Security is a flexible multi-faceted concept as evidenced by the numerous attempts to define it. In this backdrop, World Food Summit (FAO, 1996) defined it as "Food Security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life". Food security assures access for every person to enough nutritious food to sustain an active and healthy life, including: food availability (adequate food supply); food access (people can get to food); and appropriate food use (the body's absorption of essential nutrients). Food insecurity is a condition of uncertain

availability of or ability to acquire safe, nutritious food in a socially acceptable way. This means that food insecurity exists when people do not have physical or economic access to food as defined above. It shows that fighting hunger is not just about supplying countries in need with food or the money to buy food, but also ensuring that hungry people have access to this food and can use it to nourish their bodies. As such, researchers, policymakers and advocates think of hunger and food security in terms of food availability, access and use. Further, Millennium Development Goals have promised to halve the poverty and hunger by the year 2015.

The Four Dimensions of Food Security

Food security in the country has national and household dimensions. Effective supply and demand and equitable distribution of food are preconditions to secure food at these levels. The dimensions of food security include availability, access, stability and safe and health utilization of food. The availability means production, imports, stocks and food aid. Access means both physical and economic access where levels of poverty, purchasing power, marketing and transport infrastructure and food distribution matter. Stability describes supplies and access, which is affected by weather, price fluctuations, natural and human-induced disasters. Safe and healthy food utilization considers factors including care and feeding, food safety and quality, access to clean water, health and sanitation.

Considering the multidimensional and broader definition of food security, the objective of this paper is to investigate the status and pattern of growth in production, area, and yield of wheat, rice, maize and other food crops in Pakistan. The paper also presents per capita wheat, rice, maize and other crops production in Pakistan. Further, the paper also explores different issues in ensuring food security to the populace of the country. The rest of the paper is organized as follows. The next section describes methodology followed by a section on results and discussion. Finally, the last section summarizes the results and draws conclusion.

Materials and Methods

The materials and methods for this research paper included time series data and review of literature on different dimensions of food security. Qualitative and quantitative analysis of data and literature has been performed for this paper. The availability of food is analyzed through status and pattern of growth of food crops while the access issues are addressed by combination of information on poverty, food inflation and vulnerability of people while sustainability aspect is addressed by discussing some issues of disasters, environmental degradation and water scarcity. The data and model for estimation of growth is defined in the next section.

Data

Data used in this study for assessment of availability, are annual production, area and yield of wheat, rice, maize and other food crops in Pakistan from 1990-91 to 2003-04 published in Government of Pakistan (1998 and 2005). The data of overall food crops

production from the same data sources has also been used to estimate historical growth of food crops.

Calibration of Historical Growth

Growth rate in production, area and yield of wheat, rice and maize is calibrated using following model:

$$X_{t+1} = (1+g) X_t$$

where X_t is the amount of variable in year t and g is its growth rate. Recursive substitution of the above equation yields the following solution:

$$X_T = (1+g)^T X_0$$

$$g = (X_T/X_0)^{1/T} - 1$$

where 0 is initial year and T is the final year.

RESULTS AND DISCUSSION

Food Security Scenario of Pakistan

Daily average availability of calories per person is lower by 10% and 26% relative to the average in developing and developed countries respectively (UNDP, 2009). Pakistan is trying to maintain 2,350 cal/person/day since 1990s from a level of 1,754 cal/person/day in 1961. Proportion of population below minimum level of dietary energy consumption, (%) below 2350 calories per day of food intake (Food poverty line), was 25 percent in 1990-91 which increased to 30 percent in 2001-02, while the prevalence of underweight children under 5 years of age was 40 in 1990-91 which increased to 41.5 percent in 2001-02 (UNDP, 2009). In Pakistan, around half of the caloric needs are met through cereals only. Wheat and rice are the staple food crops, and shortfalls in production adversely affect both food security and national economy.

Food availability in Pakistan: A context

Food availability depends on both domestic food production and imports. Although the Government of Pakistan made a commitment to achieve WFS goals, the food balance sheet reported by Government itself shows no progress in the seven years from 1996/97 to 2003/04. The per capita availability of the main staple food, wheat, which accounts for 53 percent of caloric intake, declined from 130.85 kilograms per capita annually in 1996/97 to 116.31 kilograms in 2002/03. Though it has increased to 127 kilograms per capita in 2006 but still it is less from the level of 1996/97. Per capita per day caloric level in Pakistan is less than the recommended allowance of 2550 kcal/day (Government of Pakistan, 2005).

Improvement in nutrition has been negligible between the First National Nutrition Survey (NNS) in 1985-87 and the Second NNS conducted in 2001-02 (NNS, 1987 and 2002). The Government attributes this to the unavailability of health facilities, but it may also be due to the problems of distribution of, and access to food among the

rural poor. The prevalence of malnutrition, which is high in mothers and children, is a serious concern and has not shown improvement over 15 years. The main causes are inadequate food intake and poor health status that are influenced by poverty and lack of access to food, feeding practices and large family size (Government of Pakistan, 2004).

Present Status and Pattern of Growth in Pakistan

The area under food Crops in Pakistan has grown from 11687 thousand hectares in 1986-87 to 12567 thousand hectares in 2003-04. During the same period, area under cash crops has grown from 3713 thousand hectares to 4291, and pulses marked a negative growth as the acreage reduced from 1522 thousand hectares to 1447 hectares. The area under oilseeds has grown from 441 thousand hectares to 698 thousand hectares and total area increased from 17363 thousand hectares to 19003 hectares during the same period. The production from food crops have also grown from 17261 thousand tonnes in 1986-87 to 26854 thousand tonnes in 2003-04, and the production cash crops have significantly grown from 31897 thousand tonnes to 63946 thousand tonnes during the same period. The area as well as production of pulses has decreased in Pakistan during the said period (Government of Pakistan, 1987 and 2005). Table 1 presents the further details of area, production and yield of food crops in Pakistan.

Table 1. Crop Area and Production in Pakistan during 1986-87 and 2003-04

Crops	1986-87	2003-04
	Area 000 Hect.	
Food Crops	11687.00	12567.00
Cash Crops	3713.00	4291.00
Pulses	1522.00	1447.00
Edible Oilseeds	441.00	698.00
Total Cropped Area	17363.00	19003.00
	Production in 000 Tonnes	
Food Crops	17216.00	26854.00
Cash Crops	31897.00	63946.00
Pulses	791.00	871.00
Edible Oilseeds	2981.00	4155.00
	Yield Per Ha Tonnes	
Food Crops	1.47	2.14
Cash Crops	8.59	14.90
Pulses	0.52	0.60
Edible Oilseeds	6.76	5.95
Total Cropped Area, Production and Yields		
Total Area 000 Hec	17363.00	19003.00

Total Production 000 Tonnes	52885.00	95826.00
Overall Average Yield /hec	3.05	5.04

Source: GoP 1987 and 2005, and author's calculations, 2009.

Pattern of Growth of Food Crops

Table 2 presents the annual percentage growth estimates of food crops in Pakistan and its provinces from the years 1986-87 to 2003-04. The growth rates show a slight growth of wheat, rice, maize and bajra in Pakistan, whereas, the growth sorghum and barley are negative. Annual percentage growth of wheat, rice and maize production was respectively 2.88 percent, 1.95 percent and 3.19 percent in Pakistan. The annual percentage growth in terms of area as well as production of wheat, rice and maize was negative in Sindh during the said period while the yields of wheat have slightly grown in Sindh. Further, the production of bajra, sorghum and barley has also been negative in NWFP and Balochistan. The growth rates across crops and locations suggest a kind of dependence on one province, Punjab, and one crop that is wheat. This kind of dependence may result a risk to food security as the progressive thought considers diversification of base for any sector as a risk-reducing factor.

Table 2. Annual Percentage Growth of Food Crops Production during 1986-87 to 2003- 04

Crops	Pakistan	Punjab	Sindh	NWFP	Balochistan
<i>Wheat</i>					
Area	0.377	0.68	- 0.96	- 0.46	0.88
Production	2.88	3.77	-0.10	0.39	1.55
Yield	2.50	3.07	0.86	0.85	0.66
<i>Rice</i>					
Area	1.03	2.15	-1.56	-0.79	2.85
Production	1.95	3.75	-0.45	0.59	2.28
<i>Maize</i>					
Area	0.87	1.25	-4.65	0.75	-0.22
Production	3.19	4.88	-4.44	1.77	1.55
<i>Bajra</i>					
Area	0.34	1.53	-1.04	-6.91	0.0
Production	0.95	1.55	0.07	-6.33	0.0
<i>Sorghum</i>					
Area	-0.09	0.26	0.55	-5.93	-2.66
Production	0.06	0.40	0.59	-5.24	-1.67
<i>Barley</i>					
Area	-338	-2.82	-5.01	-5.23	2.18

Production	-1.85	-1.19	-6.00	-3.86	3.61
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The above table shows that different food crops have experienced different type of growth rates in different province. We know that different parts of the country particularly desert and mountainous areas, arid areas and areas with out irrigation are vulnerable in terms of food security. Wheat, which is a major source of food in Pakistan and all the districts of NWFP, are deficient in wheat production, whereas, 21 districts of Balochistan, 7 districts of Punjab and 4 districts of Sindh are also deficient in wheat production (Aslam and Asim, 2008). This means that wheat is transported from wheat surplus districts to wheat deficient districts. The details of district-wise food availability scenario are presented in table –3.

Table 3. District-wise Food Availability Scenario

Food Zone	Punjab	Sindh	NWFP	Baluchistan	N.As AJK	FATA	Total
Extreme Deficit	3	2	17	12	4	7	52
High Deficit	1	1	3	5	-	-	10
Low Deficit	3	1	3	4	1	-	12
Sufficient	6	2	1	3	-	-	12
Surplus	21	11	-	2	-	-	34
Total	24	17	24	26	5	7	120

Source: (SDPI, 2003) and (WFP), 2004

Per Capita Food Availability in Pakistan

Although per capita availability of food items are based on average and it cannot suggest equity in access but the per capita availability is encouraging. Further, the per capita food availability in relative terms are much lower and far below from other countries. We have noted in the above sections that food production has not increased in a good fashion as it is lower from the rate of population growth, therefore, the increase in per capita must be because of imports of these items. This is a short-term solution but a country whose major sector of economy is agriculture cannot depend on imports for meeting its food requirements.

Table 4. Per Capita Food Availability in Pakistan

Crop	Unit	2002	2003	2004	2005	2006	2007
Wheat	Kg	114.7	112.0	116.3	115.8	123.2	127
Rice	Kg	13.9	17.2	16.8	17.6	10.0	16.6
Other Grains	Kg	11.1	11.1	11.6	11.5	17	16
Pulses	Kg	7.02	5.8	8	6.8	7.9	7.2
Milk	Liters	83.1	83.8	85.9	85.9	90.3	94.2
Meat	Kg	21.3	21.3	21.5	21.0	21.8	23.3
Eggs	Dozen	4.5	4.5	4.6	4.6	4.8	5.0

Source: Pakistan Economic Survey, 2008.

Food Inflation

Food inflation was estimated as 7 percent in 2006 as against 12 percent in 2005 (Government of Pakistan, 2006). Referring the above estimations, it can be suggested that food inflation in 2008 touched a level of fifty percent as it is evidenced in the following table where taking 2001 as base year, the food inflation in 2005 is about 12 percent as Food Price Index is 112 which grew to the level of 1669.5 in 2008. According to the survey report of World Food Program (2008), the number of food insecure people had increased by 28 percent. Riaz (2009) has suggested that people at risk of becoming food insecure is 77 million in Pakistan which earlier was 60 million but the recent food inflation has put 17 million additional people under risk of becoming food insecure. This means that almost half of the population in Pakistan is under food insecurity. Pakistan's 71.2 million poor citizens (44.4 percent of total population) need substantial support in their efforts to cope with the worsening food crises (Mazhar, 2008). Table 5 further shows that food inflation is higher when compared to other consumer items which in result will not only indirectly contribute in food insecurity in the country but may effect the employment and other businesses.

Table 5. Food Price Index and Consumer Price Index

Year	1996	2001	2005	2008
Food Price Index (2000-01=100)	82.9	100	111.7	169.5
CPI (2000-01=100)	75.2	100	106.7	155.7

Source: Data from Pakistan Economic Survey (different Issues)

Factors Affecting Food Security

Access to Land

Land as a productive resource is considered as a main driver of poverty or prosperity. IFAD (2001) in its report on rural poverty concluded land as major factor in rural poverty. Those who have no access on land were poor in Asia and Africa. Anwar *et al.* (2009) in their paper on landless and rural poverty concluded that poverty in rural areas is substantially higher than urban areas. They also concluded that poverty is strongly correlated with lack of assets particularly land in Pakistan. Thus, equity is a major issue of concern related to food security. In Pakistan inequity in land holdings

and income is relatively high. There is also a wide variation in income, human development as well as overall development across regions and provinces.

Access to irrigation water

In Pakistan, irrigated agriculture significantly contributes to produce food items. Food security in an economy and country dominated by agriculture demands the fundamental issues affecting the productivity of irrigated agriculture. The population is increasing in the country and agricultural growth is slower when compared to population growth. Presently 83 percent of available water is used for irrigation, which is expected to decrease to a level of 69 percent by 2025 (Mari *et al.*, 2005). Further, the distribution of water among tail and head areas is also inequitable. The inequitable distribution and water scarcity may pose a serious threat to food security in the country.

Resource degradation

Resource degradation is seriously affecting the food security particularly of those who depend on natural resources. For example, the urban wastewater and sewerage including industrial waste is added in fresh water sources across the country which is not only hazard for human health but it is polluting ground water aquifers. World Bank (2006) estimated the economic losses from the reduced yields due to soil erosion in Pakistan as around Rs. 15 billion per annum or 0.25 percent of GDP. The losses from forest and rangelands degradation in Pakistan are additional. Resource degradation losses are mostly by Sindh and Balochistan. The degradation of fresh water bodies and Indus Delta have put around 1.5 million fisher folk under the threat of food insecurity.

Low Agricultural Productivity

Agricultural productivity has also been low for different crops in Pakistan. Shah, Ali and Khan (1994), estimated technical efficiency of wheat, maize and sugarcane in NWFP and concluded that farmers were not fully exploiting the technology and there were inter and intra crop variations. They concluded that there was a chance to improve the yields by 12 percent. Mari, Memon and Lohano (2007) concluded that the technical efficiency of onion, tomato and chillies ranged between 40 to 70 percent.

Food Security and Rights Perspective

The right of food is guaranteed in the constitutions of 22 countries in the world while 17 countries in the world have national legislation on right to food. UN convention on Economic, Cultural and Social Rights also recognize the right to food and well being of people. Article 38 of the constitution of Islamic Republic of Pakistan underscores the need of social and economic well being of Pakistani citizens. Giving importance to agriculture for sustenance of people particularly poor is kind of food security insurance. Ending gender disparity and decent work and wages are also considered as right to food. Further, the rights regime takes availability and access to food by victims of disasters and external shocks or internally displaced people in to account under rights based approaches of development.

Conclusion

The above analysis suggest that the majority of people in Pakistan are vulnerable and food insecure. Vulnerability refers to the full range of factors that place people at risk of becoming food insecure and reportedly 77 million people in Pakistan are food insecure. The degree of vulnerability is determined by exposure to risk factors and existing coping mechanisms. Those who would be vulnerable under any circumstances are due to disability, illness, age or some other characteristics, or those whose resource endowment is inadequate to provide sufficient income from any available source and those whose characteristics and resources render them potentially vulnerable within the context of social and economic shocks. Climate changes may cause desertification, soil degradation and water logging and salinity, which are expected to increase the vulnerability of people.

Further, it is concluded that availability, access and sustainable supplies of food in Pakistan are major issues. The solution to these could be efficient, sustainable and diversified agriculture with appropriate adaptation and mitigation strategies for climatic change effects. Need for issue based scientific research and better coordination among institutions for appropriate decision-making and technology of transfer are also highlighted. To cope with climate change in Pakistan, it is necessary to identify integrated adaptation and mitigation strategies and options for range of agro ecosystems so as to enable a favorable policy environment in the country for effective policy and practices. Some specific options were identified as sustainable and land and forest management, restoration and rehabilitation of Indus Delta and ecosystems, changing varieties, research on high yielding varieties, efficient water use, adjustment of crops with whether variations, environment friendly control methods of insects and pests and better use of weather forecasts for minimizations of risks in crop productions. The options of promoting small-scale indigenous methods, systems and modes of production for local level and community level food security systems may improve the status of country in terms of food security.

References

- Anwar, T., S. K., Qureshi and H. Ali, 2004. Landless and Rural Poverty in Pakistan. *The Pakistan Development Review*, 43: PP 854-874.
- Aslam, M. and M., Asim, 2008. Understanding Climate Change to Ensure Food Security: An Appropriate Approach. Proceedings of Eleventh Sustainable Development Conference, Sustainable Policy Development Institute, Islamabad.
- FAO, 1996. Rome Declaration on World Food Security and World Food Summit Plan of Action, World Food Summit, 13-17 November 1996, Rome, Italy.
- IFAD, 2001. Rural Poverty Report. International. International Fund for Agricultural Development, Rome, Italy.

- Mari, F. M., H. D. Lonao and Y. Memon, 2005. Managing Irrigation Water for Food Security in Pakistan. Paper Published in Proceedings of The First International Symposium on Sustainable Agriculture for Subtropical Regions. Chinese Academy of Sciences.
- Mari, F. M., R. A. Memon and H. Lohano, 2007. Measuring Technical Efficiency of Onion, Tomato and Chilies Production in Sindh, Pakistan. *The Pakistan Development Review*.
- Masood, M.A., and Javed A, 2004. Wheat Production Forecast Model for Pakistan. *Pakistan Journal of Agricultural Economics*, 5 (1): 69-82.
- Mazhar, T, 2008. Towards Ending Hunger in Pakistan: Policy Proposals and Recommendations. Hunger Free, ActionAid Pakistan
- Government of Pakistan, 2006. *Pakistan Economic Survey 2005-06*. Finance Division, Economic Advisor's Wing, Islamabad.
- Government of Pakistan, 2005. *Agricultural Statistics of Pakistan 2003-04*. Ministry of Food Agriculture and Livestock (Economic Wing), Islamabad.
- Government of Pakistan, 2003. *National Nutrition Survey of Pakistan 2001-02*. Federal Bureau of Statistics, Pakistan
- Government of Pakistan, 1998. *Economic Survey 1997-98*. Finance Division, Economic Advisor's Wing, Islamabad.
- Government of Pakistan, 1993. *Agricultural Statistics of Pakistan 1991-92*. Ministry of Food Agriculture and Livestock (Economic Wing), Islamabad.
- Riaz, A. Khan, 2009. Food Security: Concepts and Perspectives. Presentation to the LEAD-Pakistan, Cohort-13, Islamabad
- SDPI, 2003. Food Insecurity in Rural Pakistan 2003. Sustainable Development Policy Institute, Islamabad, Pakistan.
- Shah, M. K., F. Ali and H. Khan, 1994. Technical Efficiency of Major Crops in the North West Frontier of Pakistan. *Sarhad J. of Agric.* 10(6): 613-621
- UNDP, 2002. Targets and Achievements of MDGs by Pakistan. Accessed on January 2009 at <http://www.undp.org.pk/goal-1-eradicate-extreme-poverty-and-hunger.html>
- World Bank, 2006. Pakistan Strategic Country Environment Assessment. South Asia Environment and Social Unit, World Bank.
- World Food Program, 2009. Food Crises and Food Insecurity. World Food Program, Pakistan, Islamabad.

Dual Colonialism in *A House for Mr Biswas*

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Abstract

In the twentieth and twenty-first centuries, brand advertising has been acknowledged as a powerful tool of manipulation. It has become a colonizing power by the western world. This paper aims to trace a double form of colonization in V. S. Naipaul's *A House for Mr Biswas*, where the protagonist faces not only the effects of a literal colonization, but an additional colonization by the brands he uses. These brands hold a promise for a successful and happier life that he chases without success.

Keywords: Naipaul, *A House for Mr Biswas*, colonization, brands

In an article in *California News & World Report*, Robert Picard writes,

The 19th century was the century of external colonization. Western powers gobbled up the countries of the world to gain access to their raw materials. The 20th century has seen the development of a new form of colonialism- an internal colonialism. Children whose minds have been brain washed by images of Barbie dolls and colored cereals have been colonized as effectively-if not more effectively- as the subjugated peoples of the nineteenth century. Just because this colonization is less visible does not mean that it is less insidious. When the mind of a people is enslaved, the country is enslaved.¹

It has taken us a century to confront the reality of the threat that advertising can pose to human freedom. This fear of internal colonization by brand power has been addressed relatively recently, and then only after its negative effect on the minds of western children was brought under scrutiny by psychologists. But the effect of advertising on the already colonized peoples had been the cause of a bigger threat to freedom quite earlier on, without much notice. During the early twentieth century, the colonized world was facing a double impact of colonial culture, the second one may have been a greater latent danger than the literal colonization that had battered their sense of identity in the first place. This second onslaught was western brand advertising in the colonies.

Mr. Biswas is the victim of western advertising, and most of the dissatisfactions in his life arise not so much from his inability to procure a house of his own, but a sense of not living up to the expectations of what he is told should be achieved.

His hopes do not 'house' well within his situation, neither does his body react the way it should to all the western medication it is subjected to. His stomach is still painful

despite treating it with the recommended doses of *Beecham's stomach powder*, *Sloane's Liniment* does nothing much to cure backaches, and *Dodd's Kidney Pills* are only a means for him to make his piss run a fashionable blue amongst his peers.

Ironically, Mr Biswas' first job is as a sign painter. He paints advertisements and slogans that make empty promises and exaggerated claims. He lives in the world of a hyper-reality. Much later, as a newspaper columnist, his salary may have risen, but he is still writing headlines that make ordinary happenings extraordinary through a play of words. As a result, he is always waiting for similar 'amazing scenes' to be 'witnessed' by him as the ones he reports on a daily basis. But nothing amazing really happens to him. Or at least not the kind he wishes for. He only gets sacked, and is left with a free subscription of the daily *Trinidad Sentinel* to mock him for the rest of his life, of which incidentally, there is not much left.

His story does not go much further than having four children. We are repeatedly amused yet saddened by the pathos of his story that never reaches an end:

ESCAPE

By M. Biswas

At the age of thirty-three, when he was already the father of four children...

Here he often stopped. Sometimes he went on to the end of the page; sometimes, but rarely, he typed frenziedly for page after page. Sometimes his hero had a Hindi name; then he was short and unattractive and poor, and surrounded by ugliness, which was anatomized in bitter detail. Sometimes his hero had a Western name; he was then faceless, but tall and broad shouldered; he was a reporter and moved in a world derived from the novels Mr Biswas had read and the films he had seen. None of these stories was finished, and their theme was always the same. The hero, trapped into marriage, burdened with a family, his youth gone, meets a young girl. She is slim, almost thin, and dressed in white. She is fresh, tender, unknissed; and she is unable to bear children. Beyond the meeting the stories never went.²

Caught in a colonial viewpoint, Mr Biswas sees his identity as an Indian non-worthy. His Indian hero can only be ugly and short and poor. The tragedy is that the alternative 'worthy' ideal is out of the grasp of his imagination. That leaves him faceless. While the Indian hero shows submission to a western stereotype, the faceless hero reflects a complete loss of identity. The title of his story only duplicates the irony since there is no 'escape' from his situation.

The physical ailments of Mr Biswas also echo the psychological breaking down of a man. From his extreme stomach pains to periods of melancholia; from biting nails to his teeth breaking off piece by piece, he is a crumbling man, outwardly and inwardly. In periods of deep depression, he thinks that 'he no longer expected to wake up one

morning and find himself whole again' (p.284). His loss of self, a spark of regret, and the resulting lack of hope can be seen in passages like these:

Then, biting his nails one evening, he broke off a piece of tooth. He took the piece out of his mouth and placed it on his palm. It was yellow and quite dead, quite unimportant: he could hardly recognize it as a part of a tooth: if it were dropped on the ground it would never be found: a part of himself that would never grow again. He thought he would keep it. Then he walked to the window and threw it out. (p.282)

Mr Biswas' only defense against failure is the trust he has in western brand names promising success, comfort, and beauty. The novel is littered with them. Mohun Biswas sleeps on a *Slumberking* mattress that promises a good night's sleep, but suffers from sleeplessness.³ He insists that his son drink *Ovaltine* because it will give him a better chance than others who do not drink *Ovaltine*, to pass his examination. He is advised to take a full course of *Sanatogen* tonic by Ajodha, guaranteed to strengthen any weak body system. We are told that 'bottles of Maclean's Brand Stomach Powder became as much a part of Shama's purchases as bags of rice or flour' (p.189).

The women of Hanuman House have regular discussions about standard brand medication and physical ailments with an almost boastful air, as if the only thing that their men are capable of producing, are illnesses:

Friendly sisters exchanged stories of their husband's disabilities, the names of illnesses and remedies forcing such discussions to be in English.

'He got one backache these days.'

'You must use hartshorn. He did have backache too. He try Dodd's Kidney Pills and Beecham's and Carter's Little Liver Pills and a hundred and one other little pills. But hartshorn did cure him.'

'He don't like hartshorn. He prefer Sloane's Liniment and Canadian Healing Oil'.

'And *he* don't like Sloane's Liniment.' (p.107)

It is not surprising that these brands of 'kidney' and 'liver' pills were expected to work for backaches. Tracing the advertisement slogans and claims of these products reveals that these actually promised miracle cures for all common ailments. An article on the history of Beecham's Pills reports that 'Beecham was aware of the power of advertising from the earliest days...[and] also knew the value of testimonials for his products...By 1875, 17 years after opening of the first factory, he had started to export to Africa and Australia... Even in 1909 the pills were still promoted as a cure-all'.⁴ By Thomas Beecham's own admission, "It is possible by plausible advertisements, set forth in an attractive style, to temporarily arrest the attention of a certain number of readers, and induce them to purchase a particular item." This consumer manipulation had a double impact in a colonial setting. It made the expectation of common masses higher. If the brand was advertised in English, the belief that it would bring about a

miracle was doubled in the eyes of the colonized. Beecham Pills promised to 'cure constipation, headache, dizziness or swimming in the head, wind, pain, and spasms of the stomach, pains in the back, restlessness, insomnia, indigestion, want of appetite, fullness after meals, vomiting, sickness of the stomach, bilious or liver complaints, sick headaches, cold chills, flushing of heat, lowness of spirits, and all nervous affections, scurvy and scorbutic affections, pimples and blotches on the skin, bad legs, ulcers, wounds, maladies of indiscretion, kidney and urinary disorders, and menstrual derangements'⁵, then they were trusted to do just that, and more. Dodd's Kidney Pills also claimed similar definitive cures for most ailments and 'were good not just for the kidneys, but for leg pain, back pain, headache, rheumatism and "bladder troubles"'.⁶

Similarly, the brand motto for *Ovaltine*, 'the vitamin-fortified food beverage' read 'For Healthy, Happy lives'.⁷ Exports of *Ovaltine* began to Australia, then India, South Africa and other parts of the British Empire in 1919-20. The promise of a happy and healthy life is irresistible for someone in Mr Biswas' position. His psychological emptiness manifests itself as a hollow feeling in his stomach:

There was a hole in his stomach. He wanted to climb mountains, to exhaust himself, to walk and walk and never return to the house, to the empty tent, the dead fire-holes, the disarrayed furniture. He left the wharves with Anand and they walked aimlessly through the city. They stopped at a café and Mr Biswas bought Anand ice cream in a cup and a Coca Cola. (p.382)

Mr Biswas' own stomach is always 'full and heavy, but unsatisfied' (p.143). Whenever he is aware of the 'hole' in his own stomach, he compensates for it by trying to fill his son's stomach with ice cream and Coca Cola, another brand promising happiness. To the children of Hanuman House 'real' ice cream was 'in cardboard cups...not home-made' (p.352). It is ironic that home-made is not good enough, while commercial ice cream is 'superior'.

The ailments and puzzlement of Mr Biswas' soul, however, he tries to heal with books which he thinks offer the only way out of his useless existence. He 'improves' himself and tries to convince himself that he is different because he reads western literature and philosophy. It comforts him to think that reading will raise him from his dissatisfaction to a happier state. But his reading is an act of pathetic desperation. He reads '*Meditations* of Marcus Aurelius', keeps an unread Collins Clear-Type Shakespeare in his essential collection, and judges himself by the moral standards of Samuel Smiles, the Scottish writer and reformer:

He didn't feel a small man, but the clothes which hung so despairingly from the nail on the mud wall were definitely the clothes of a small man, comic, make-believe clothes.

He wondered what Samuel Smiles would have thought of him.(p.162)

It's no wonder that after such an examination he falls into what is called 'the Samuel Smiles depression' (p.165). He never quite lives up to the western ideal. Therefore, he is not good enough. He quotes often from *Bell's Standard Elocutionist*, which is his bible, almost as if he is warding off evil. These books are an anchor for a lost soul and Mr Biswas carries them around in a cardboard box as his priceless possessions wherever he goes. The books define his identity when he himself is in doubt about who he should be.

The whole novel is a series of expectations that are never realized. Reality falls short of them. All aspirations are based in the wishes bred into a colonized culture. All painted signs show expectations; all advertisements are promises; all newspaper headlines are exaggerations. Mr Biswas lives in a hyperreality. All he can do is wait. We are told that 'he never ceased to worry. He no longer simply lived. He had begun to wait...for the world to yield its sweetness and romance. He deferred all his pleasure in life until that day' (p.79-80). But the day never comes. The book ends showing 'Mr Biswas, lying in pants and vest on the Slumberking bed in the room which contained most of the possessions he had gathered for forty-one years' where he 'continued to read the *Meditations* of Marcus Aurelius' till he is dead. (p.6)

Notes

¹ Robert Picard, 'A New Form of Colonialism: Commodification of Children' in *California News & World Report*, June 12, 2004. Website: <http://www.californiannews.com>

² V. S. Naipaul, *A House for Mr Biswas* (London: Picador, 2002), pp.362-3. All subsequent references to page numbers given in parentheses within the article are taken from this edition.

³ There are repeated pointed references to the Slumberking bed on pp.6,7,20,530.

⁴ Stuart Anderson and Peter Homan, "'Best for me, best for you"- a history of Beecham's Pills 1842-1998', *The Pharmaceutical Journal* (Vol 269), 21-28 December 2002, pp.922-923.

⁵ Stuart Anderson and Peter Homan, p.923.

⁶ <http://thevirtualdimemuseum.blogspot.com>

⁷ <http://www.ovaltine.co.uk/en/images/1950s.jpg>

References

Anderson, Stuart and Peter Homan, (21/28 December 2002). "'Best for me, best for you"- a history of Beecham's Pills 1842-1998'. *The Pharmaceutical Journal*. Vol.269.

Naipaul, V S. (2002). *A House for Mr Biswas*. London: Picador.

Picard, Robert. (June 12, 2004). 'A New Form of Colonialism: Commodification of Children'. *California News & World Report*.

Websites:<http://www.californiannews.com>

<http://www.thevirtualdimemuseum.blogspot.com>

<http://www.ovaltine.co.uk/en/images/1950s.jpg>

A Survey of IT Skills of the Teaching Staff at the University of Peshawar

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Abstract

This study was designed to examine the extent, gap, diversity and problems of teachers regarding usage of Information Technology (IT) at different levels in the University of Peshawar and its constituent colleges. The data was collected from 148 teachers working at different levels in the university departments and colleges through a semi structured questionnaire. The data revealed a general deficiency in basic computer skills among the teaching community and found that one out of five respondents were unfamiliar with basic computer skills like MS Word, whilst four out of five had no skills to use a statistical package for analysis. The data also showed a big gap between university departments and college level teachers regarding the provision of facilities and skills. Besides, those faculties who have computer and internet facilities in their offices were most critical about the internet service, viruses and power interruption in addition to faulty computers, printers and internet connections. It is concluded that the level of computer and IT skills in the teaching community at the university need considerable improvement with special emphasis on the college level teachers. To address these issues, reasonable facilities and a sound strategy for training could further promote IT use in the teaching community.

Keywords: Teachers's use of information technology, computer skills, viruses and power interruption.

I. Introduction

Information Technology is radically affecting almost all aspects of our lives. Access to information and the capacity for processing and utilizing information have become the determining forces of our survival in the fast changing globalize world. With the advancements in computer and telecommunication technology, traditional methods of

working are giving way to computer mediated operations. Internet has opened the floodgates of valuable information and unlimited opportunities to those who have the capacity to understand the spirit of the emerging era and the required where-withal to adapt to it. That is why IT literacy is considered critical element for empowerment and education, the foundation for it (Zoheir, 2007).

Virtual offices, e-banking, e-marketing, e-learning and e-conferencing are gaining popularity while revolutionary changes are taking place in the entire socio-economic processes like agriculture, industry, education, health, national security and management etc. due to the diffusion of information technology (Collins and Takacs, 1993; Zoheir, 2007; Dewtt and Jones, 2001; McCombs, 2000).

Since 1970s there has been a progressive increase in the use of computers as a teaching resource (Williams and Harkin, 1999; Leidner and Jarvenpaa, 1993). More evidently the advent of the internet along with various other electronic and digital resources has been especially contributing to the promotion of knowledge and enhancement of education both in terms of quality and quantity. According to Alavi and Leidner (2001), various education institutions have been investing heavily in this sector to enhance the skills and knowledge of their personnel. A new market of IT based learning solutions has emerged with increased research on technology mediated teaching and learning; however it still lags behind development and practice in other sectors.

Access to electronic-libraries, proceedings of conferences / seminars / workshops, distant education, virtual classrooms, online courses/lectures, online interviews /discussions, blogging and chatting are a few among a range of opportunities available to most of the people for improving their knowledge and skills. The utilization of these and such other resources however depends on the availability of required technological resources and the skills and motivation of the learners.

The present study was designed, (i) to examine the use of information technology by the teachers, (ii) to assess the extent of diversity at different levels, and (iii) point out the problems whilst using IT facilities at the University of Peshawar and its constituent colleges.

II. Material and Method

Data were collected in a cross-sectional prospective survey on IT skills of the faculty members from all teaching departments and constituent colleges (Islamia College Peshawar, Jinnah College for Women and College of Home Economics) of the University of Peshawar during May-June 2008, along with their demographic factors (e.g. age, gender, area of residence, present qualification and designation), access to IT facilities, and problems associated with IT usage.

For the sake of simplification, the basic IT skills were grouped into eight categories that were thought to be important for a university teacher to be acquainted with in addition to their specific skills in their fields of specialization. These categories are: (1) Word Processing, (2) Email etc. (3) Browsing and downloading, (4) Power Point, (5) Multimedia, (6) Excel, (7) SPSS, and (8) any other IT skills in addition to those mentioned in the questionnaire.

In addition, information regarding IT facilities in their offices and homes, use of internet, common problems associated with the use of IT, and training required for the teachers were also recorded.

The data comprising questionnaire responses collected from 148 teaching staff. The data obtained thus was analyzed using univariate methods (crude odds ratios) to identify the significant factors associated with IT skills (Allison, 1999; Kleinbaum, 1994), using SPSS version 15 (Field, 2003). Chi-square test was used for the significance of the factors and odds ratios, to check the intensity of the relation (Machado and Hill, 2003).

III. Results

The results show that the overall IT literacy in the sample studied was found to be nearly 86%. From demographic perspective, age, residence, qualification, institution and teaching level were significantly associated with IT literacy, whereas gender, domicile and designation found to be non-significant.

Table 1: Status of IT Skills in Relation to Various Demographic Factors

Factors		Status of IT skills		OR
		No 20(14.2%)	Yes 121(85.8%)	
Age of the teacher	>40 years	11(23.9)	35(70.1)	3.00*
	<=40 years	9(9.5)	86(90.5)	
Accommodation	On campus	13(21.0)	49(79.0)	2.60*
	Off campus	8(9.3)	78(90.7)	
Qualification	MA/MSc	17(19.3)	71(8.7)	3.35*
	MPhil/PhD	4(6.7)	56(93.3)	
Colleges vs Uni. Departments	Colleges	19(21.8)	68(78.2)	8.24**
	Uni. Departments	2(3.3)	59(96.7)	
Islamia College vs All other	Islamia College	11(31.4)	24(68.6)	4.72**
	All other	10(8.8)	103(91.2)	
Islamia College vs Uni. departments	Islamia College	11(31.4)	24(68.6)	13.80**
	Uni. Departments	2(3.2)	60(96.8)	
Jinnah College for Women vs Uni. Departments	Jinnah College	8(25)	24(75)	10.00**
	Uni. Departments	2(3.2)	60(96.8)	

*(p<0.05); **(p<0.01) and OR stands for odds ratios.

The IT illiteracy was significantly higher for the faculty members, i.e. (i) age above 40 years (OR=3.0, $p<0.05$), (ii) residential status on campus (OR=2.6, $p<0.04$), (iii) MA/MSc compared to MPhil/PhD (OR=3.35, $p<0.05$), (iv) ICP and JCW compared to Uni. departments (OR=13.7, 10.0, $p<0.01$ respectively), and (v) colleges against Uni. department's teachers (OR=8.23, $p<0.01$) (Table 1).

However, there is a wide variation in the structure of IT skills. The ratios of respondents deficient in word processing were found to be 18.9%, email 25.7%, internet browsing and downloading 26.4%, Power Point 43.2%, multimedia 50%, excel 51% and SPSS 82.4%, respectively (Table 2).

The status of IT skills was further investigated in relation to the level of teaching (Uni. departments versus colleges). It was found that, the IT skills are significantly lower in the colleges compared to teachers working in the Uni. departments. The college teachers had significantly lower skills of using (i) MS word (OR=7.8, $p<0.01$), (ii) email (OR=9.14, $p<0.01$), (iii) internet browsing and downloading (OR=9.6, $P<0.01$), (iv) Power Point (OR=3.5, $p<0.01$), (v) multimedia (OR=4.5, $p<0.01$) and (vi) SPSS (OR=3.35, $p<0.01$) than the Uni. departments teachers (Table 2).

The issue associated with computer facility, access to internet, uses and problems in the work place were also assessed. The odds of non-availability of IT facilities for college teachers were more than 12 times higher compared to Uni. departments teachers (OR=12.4, $p<0.01$) (Table 2). The data also showed that 24% of the college teachers having computer had no access to internet in their offices against 100% for university teachers.

Majority of the teaching faculty recorded their complaints about the problems in Main Server including slow speed of internet (61%), viruses (21.6%) and power interruption (15%). The remaining 2.5% highlighted the problems regarding unauthorized software, faulty computers and printers or/and internet connections etc. in their offices. However, for enhancing the capacity of the teachers, majority of the respondents recommended the need for training in IT skills particularly in SPSS, Excel, multimedia and specific subject related packages.

Table 2: Status of IT Skills in Relation to Colleges and Departments

Factors/skills		Colleges vs Departments			OR
		Colleges n(%)	Uni. department n(%)	Total n(%)	
Overall IT skills	No	19(21.8)	2(3.3)	21(14.2)	8.24**
	Yes	68(78.2)	59(96.7)	127(85.8)	
Word processing	No	25(28.7)	3(4.9)	28(18.9)	7.80**
	Yes	62(31.3)	58(95.1)	120(81.1)	
Email and chatting	No	34(39.1)	4(6.6)	38(25.7)	9.14**
	Yes	53(60.9)	97(93.4)	110(74.3)	
Browsing and downloading	No	35(40.2)	4(6.6)	39(26.4)	9.60**
	Yes	52(59.8)	57(93.4)	109(73.6)	
Power Point	No	48(55.2)	16(26.2)	64(43.2)	3.50**
	Yes	39(44.8)	45(73.8)	84(56.8)	
Use of multimedia	No	56(65.1)	18(29.5)	74(50.3)	4.46**
	Yes	30(34.9)	43(70.5)	73(49.7)	
MS Excel	No	48(55.2)	27(44.3)	75(50.7)	1.55
	Yes	39(44.8)	34(55.7)	73(49.3)	
SPSS	No	78(89.7)	44(72.1)	122(82.4)	3.35**
	Yes	9(10.3)	17(27.9)	26(17.6)	
Access to IT facilities	No	50(57.5)	6(9.8)	56(37.8)	12.40**
	Yes	37(42.5)	55(90.2)	92(62.2)	

**($p < 0.01$), and OR stands for Odds Ratios.

IV. Discussion

This study was designed to assess the level of IT and problems associated with it in the Uni. departments and colleges at the University of Peshawar. The response to fill and return the questionnaire to the researchers was contrary to the expectations. A total of 500 questionnaires were distributed, out of which only 148 were returned, which indicates the indifference of education professionals towards research so critical for the improvement of their area of interest. However, the data reveals much about the state of affairs in the field of computer and IT usages at different levels in the University of Peshawar. The details of the findings regarding the status of different skills (i.e. SPSS,

Excel, Power Point, multimedia, email, internet, downloading and MS Word) are as follows:

SPSS is known to be one of the most commonly used statistical packages for research and analysis in almost all disciplines. However, less than one in five respondents are familiar with this important package, which shows the limited capacity for research in the population under consideration. Similarly, MS Excel is also one of the most popular and effective package used for data management in a variety of context ranging from individual to institutional usages. Still more than half of our respondents are lacking the skills to use this package. It is important to note that, there is also realization among the teaching community about the importance of analytical and data management tools. That is why; majority of the respondents highlighted the need for training in this sector.

Power Point and multimedia are important teaching aids, which bring efficiency and clarity in the dissemination of knowledge and information. The uses of these facilities have become very common in class rooms and lecture theatres in any distinguished educational institutions. These skills (Power Point and use of multimedia) are also lacking in the population under study. According to the data 43% and 51% of the sample are unable to use Power Point and multimedia, respectively. Investment in this area will certainly improve the quality of teaching and speed of learning.

In today's world the major chunk of knowledge comes from internet resources. However, the data reveals that one quarter of the respondents are unable to get benefit of the internet resources. This restricts useful interaction with other people and adequate access to up-to-date literature, which is prerequisite for research and development.

Amazingly, M.S Word which is one of the basic IT skills, and being taught at the primary level in many school systems, but one in five of our respondents reported that they don't have the required skills. This is especially irritating because one cannot expect that renowned seats of learning could survive by remaining so indifferent to the fast changing technological environment.

The study also reveals glaring disparities in skills between the two categories of teachers (University and college level) on the campus. The deficiency in basic skills like MS Word, email, internet and downloading is about 8 times higher in the colleges than the university level teachers; whilst, that of Power Point, multimedia and SPSS is more than 3 times in the colleges than the departments at the University of Peshawar.

Some of the factors responsible for the gap in skills between university and college teachers are perceived to be due to limited availability of computers, little access to internet facilities, nature of job demand and individuals' interest in information technology. For example, the availability of computer facility to the university teachers

was 12 time higher than the college teachers. Similarly, only 24% of the college teachers had access to computer facility as compared to 100% in the departments. In addition, it could be argued, that job demands and the work environment are also responsible for this gap. In the case of university level teachers, the research requirements and reasonable teaching workload enable them to get maximum benefit from the available IT facilities, whereas, the nature, load and environment of work of the college teachers leave them little space and time to avail computer and Information Technology facilities.

V. Conclusion

The use of Information Technology has become a part of the academic culture through out the world. Now-a-days, teachers need to be acquainted with the latest teaching aids and Information technology-the highway to knowledge and tremendous information resources. The study reveals that, most of the teachers were deficient in different IT skills so critical to their professional competence. A wide gap between the university departments and college level teachers was observed. It is therefore, necessary to address this important deficiency if the university has to survive as a viable learning institution in the highly competitive and technology intensive environment. The availability of reasonable facilities to all the teaching community in general and college teachers in particular with training packages in different skills and technologies will be helpful in enhancing their proficiency. Detail studies are recommended for needs assessment and devising strategies for building the capacity of the teaching staff along with putting in place a reward system for encouraging them to take maximum benefit of the IT and audio visual aids in the class room.

References

- Alavi, M., Leidner, D.E. (2001). Research Commentary: Technology Mediated Learning-A call for greater depth and Breadth of research, *Information system research*, 12(1): Pp. 1-10.
- Allison, P.D. (1999). Multiple Regression: A Primer. Pine Forge Press, London.
- Collins, K.L.K., Takacs, S.N. (1993). Information Technology and the Teaching Role of the College Librarian, *The Reference Library*, 18(39):41-51.
- Dewett, T., Jones, G.R. (2001). The Role of Information Technology in the Organization: A Review, Model, and Assessment, *Journal of Management*, 27(3):313-346.
- Field A. (2003). Discovering Statistics Using SPSS for Windows. Sage Publications, London.
- Kleinbaum, D.G. (1994). Logistic Regression: A Self-Learning Text. Springer-Verlag, Newyork, London.
- Leidner, D.E., Jarvenpaa, S.L. (1993). The information age confronts education: Case studies on electronic class rooms, *Information Systems Reserch*, 4(1): Pp. 24-54.

- Machado, C.J., Hill, K. (2003). Early Infant Morbidity in the City of Sao Paulo, Brazil. *Popul Health Metr.* Oct;28;1(1):7.
- McCombs, B.L. (2000). Assessing the Role of Educational Technology in the Teaching and Learning Process: A Learner-Centered Perspective. [http://www.ed.gov/Technology/techconf/2000/mccombs_paper.]
- Williams, C., Harkin, P. (1999). Mulimedia computer-based learning: a developing role in teaching, CPD and patient care, *Advances in psychiatric treatment*, (5): Pp. 390-4.
- Zoheir, E. (2007). Information Technology Literacy: Impact on Teaching and Learning, *Educational Technology & Society*, 10(3): Pp. 175-91.

**Corporate Governance and Financing Choices of Firms:
A Panel Data Analysis of Pakistani Firms**

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Abstract

This paper investigates a relationship between the corporate governance indicators and financing choices of Pakistani firms. There are numerous corporate governance indicators however the study considers board size, board composition and CEO duality, using these three variables the firms financing choices are studied following Anthony Kyereboah-Coleman & Nicholas Biekpe (2006). A panel data analysis using Random Effects Generalized Least Square Regression framework is carried out for 18 non-financial listed Pakistani firms for the period 2001-2004. The investigation focuses on how corporate boards of manufacturing firms make short and long term debt financing decisions. The study finds that more profitable firms are not likely to use leverage as a financing choice. When firms grow old they tend to borrow more and thus they become more levered. An interesting finding in the study is that when a CEO doubles as a Chairman on a board, such boards have a tendency to borrow more and thus becoming more levered. OLS findings recommend that the financing strategy of a firm is partly determined by how a firm is operating and how efficiently it is utilizing its physical resources in reaping returns. Fixed Effect Model is fitted to increase the predictability level of regression estimates and control the problem of autocorrelation. The fitting Fixed Effect Models showed that neither corporate governance indicators nor the assumed control variables have any significance on leverage as a financing choice of a firm.

Keywords: Corporate governance, financing choices, Random Effects Generalized Least Square Regression, Fixed Effect Model

I. Introduction

According to Sheifer & Vishny (1997) a traditional definition of corporate governance is that "Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment". A similar definition of La Porta et al. (2000) states that corporate governance is "a set of mechanisms through which outsider investors protect themselves against expropriation by insiders" Corporate governance is assumed to protect organizations from adopting options that are less profitable and more costly. The fundamental goal of corporate governance is thus serving primarily the economic interests of shareholders while protecting the stakes of other stakeholders. Corporate scandals around the world have

made contemporary governments, regulators and boards more vigilant in attempting to solve governance issues through the effective use of boards. Corporate boards are at the crossroads of not only protecting the economic, social, cultural and environmental interests of stakeholders but also to lead a strategic path towards the sustainability of such interests. Companies borrow and take advantage of leverage due to the simple fact that debt is inexpensive. The financing options range from short term to long term and the governors of a firm engage in activities that have far reaching implications on decisions involving liquidity, risk and growth. The past two decades have witnessed corporate scandals involving boards, directors, managers, and others around the world. In developing countries the need is not only to understand the factors that play a role in attaining leverage and making use of it, but especially the role of corporate governance needs to be explored since a board is supposed to be the center of gravity both for equity and debt holders. Equity holders would like their wealth to be safely and gradually increased where debt holders anticipate that firms would not become insolvent and would repay them their loans with interest. Debt holders expect that shareholders would not be allowed to capitalize at their expense in the case of overinvestment and underinvestment by their managers. They would be correct to expect that managers being agents of shareholders would not take riskier than average projects to create a moral hazard problem for them. Such issues demand a more active participation of a corporate board that could protect outsiders from insiders. All companies during their life have financing needs; boards have to be instrumental and active in a clever design of capital structure by knowing more and exploring all options and thus making optimal decisions. Firm theory needs to be investigated for further understanding of the issue. Due to the endless efforts of Securities and Exchange Commission of Pakistan and Institute of Chartered Accountants of Pakistan the Code of Corporate Governance was introduced in 2002. Most of the listed companies are legally bound to comply with the provisions of the Code. There is abundant literature on the determinants of capital structure. Miller & Modigliani (1958) believed that firm value does not depend on the capital structure of a firm by assuming absence of taxes, bankruptcy costs, and transaction costs. The trade-off theory presents a view that taxes, costs of financial distress, and agency costs are the main factors that direct firms to an optimal leverage. Jensen & Meckling (1976) were of the view that managers of a firm have a tendency of moral hazard incentives by taking on more debt and investing in risky projects. This theory generates the debate of free cash flow hypothesis and the problems of overinvestment and underinvestment. Ross (1977) describes the information asymmetry to explain the capital structure of firms in the signaling effects theory. According to this theory managers truly know about the income capacity and generation and when they employ debt it sends a signal to external partners that firm is stable in incomes and could afford debts in terms of interest payments. This would suggest that higher debt works as an indicator of firms' earning stability. Pecking order theory is an extension of the findings of Myers and Majluf (1984) that suggests reliance on internally produced funds initially for financing new projects. In the case on non-availability of such funds firms could issue debts or finally could think of issuing equity.

The topic is well-researched from the view of the determinants of capital structure however protection of the economic benefits of both insiders and outsiders would suggest looking at employing leverage from a governance point of view. This could be beneficial developing countries like Pakistan where there is a rising interest in the design of more effective corporate governance. The rest of the study is organized as follows; Section 2 provides the literature review, Section 3 postulates the hypotheses, Section 4 discusses the methodology, Section 5 details the analytical framework, Section 6 inserts the findings and finally Section 7 summarizes the conclusions.

II. Literature Review

Schauten & Blom (2006) examined the relationship between the quality of corporate governance and cost of debt where the study was based on the idea that debt holders consider firm's corporate governance whenever they estimate its default risk. The study used Deminor Rating for the year 2000 as a proxy for the quality of corporate governance performance of 300 largest European firms and subdivided the corporate governance quality in four categories – namely rights and duties of shareholders, range of takeover defences, disclosure on corporate governance; and board structure and functioning. This study included yields of 77 bonds issued in year 2001 as a proxy for cost of debt. The study infers that debt holders mainly assess the quality of corporate governance for establishing risk profiles of firms. Their conclusions are interesting as they report that corporate governance is negatively related to cost of debt i.e. for firms with strong corporate governance the cost of debt is lower compared to firms with poor corporate governance. They conclude that good corporate governance is beneficial for both debt and equity holders.

Piot & Missonier-Piera (2007) report after studying non-financial listed French companies over the years 1999 to 2001, that corporate governance quality has a significant reducing effect on the cost of debt, whereas the audit quality does not. They have evidenced an inverse relationship between ex-post cost of debt with the proportion of independent directors on board, the existence of a compensation committee composed of non-executive directors on the board and the presence of institutional shareholders with more than 5% of ownership. The study also documents that the type of debt financing matters in an attempt to minimize borrowing costs.

Firms with weak shareholder rights actually use more debt finance and have higher leverage ratios, this lesson is learnt from a study conducted by John & Litov (2006). Using Gompers et al. (2003) governance index the study shows that entrenched managers choose conservative investment policies and thus trade-off expected bankruptcy costs with tax shields of debt at higher leverage levels. The study adds evidence that firms with weak shareholder rights have lower bond yields when issuing debt, enjoy higher credit ratings, and have a higher propensity to engage in conglomerate mergers.

For a hypothesis that stronger boards force the firm to hold more debt and more short term debt Harford et. al (2007) add that director's powers are positively associated with leverage and negatively associated with the use of long-term debt. Their findings suggest that director power vis-à-vis the CEO is more important than measures of board effectiveness and incentive alignment. In another interesting study Kyereboah-Coleman & Biekpe (2006) took 47 listed firms on the Nairobi Stock Exchange for a panel data covering the five year period 1999-2003. They used board size, board composition and CEO duality impact on financing decisions of firms, using Random Effects Generalized Least Square Regression framework the study provides evidence that firms with larger board sized employ more debt irrespective of the maturity period and independence of a board negatively and significantly correlates with short-term debts. The study adds that if CEO doubles as chairman of the board, less debt is employed. A simple inference is evidenced that governance structure of a firm affects its financing choices.

In a study for Indian corporate sector Kumar examined the relationship between firm's capital and ownership structure by using a time series data of listed companies from 1994 to 2000. The findings include that debt structure and corporate governance are non-linearly related. It is also inserted that firms with a weak arrangement of corporate governance, volatile shareholding pattern tend to have a higher debt level and firms with higher foreign ownership or with low institutional ownership tend to have lower debt level. A similar finding is reported by Black S.B. et. al (2005), after constructing a corporate governance index for 515 Korean companies based on a 2001 Korea Stock Exchange Survey the researchers could not find strong evidence to relate profitability with good corporate governance. However, their study concludes that better governed firms enjoy lower cost of capital.

Chong B.S. (2006) examined the financing structures of firms with corporate governance problems associated with the divergence in the controlling shareholder's voting and cash-flow rights and found that firms with severe governance problems use significantly more bank debt, have a higher proportion of short-term debt, and utilize more trade credit. Chong has capitalized on Claessens et al. (2000) which contains a sample of 2980 firms located in Hong Kong, Japan, Singapore, Korea, Taiwan, Indonesia, Malaysia, Philippines, and Thailand. This study has suggested that bank debt, short-term debt, and trade credits have comparative advantages over other risky capital in managing corporate governance problems.

III. Hypotheses

H₀₁: Firms with larger board sizes employ less leverage

H₀₂: Board independence has a negative relationship with short term leverage and a positive relationship with long term debt and total leverage

H₀₃: Increasing agency costs due to a chief executive officer doubling as chairman leads to a lower leverage ratio

IV. Methodology

The methodology in this paper follows kyereboah-coleman & Biekpe (2006) and uses the same variables in the panel regression analysis. The formal OLS and Fixed Effect Models are used for testing the dependence of leverage on the main explanatory variables of board size, board composition and the duality of chief executive officer as chairman of the board. A firm's debt ratio is treated as leverage and is computed as total debt/total assets. Leverage is divided in short term & long term and its dependence is tested again using the earlier mentioned corporate governance variables. A chief executive officer doubling as a chairman of the board of the company is treated as a dummy where it is 1 when a CEO doubles as a chairman and 0 otherwise. The panel regression OLS and Fixed Effect models include return on assets, earnings variability, net total assets, firm age and firm growth rate as control variables. These variables are defined as follows;

Firm profitability is measured by return on assets and it is computed as net operating profit after taxes divided by total assets (ROA), firm risk is measured as earnings variability (EV) and is computed as a difference between current year earnings less the preceding year earnings, firm size is measured as net total assets (NTA) = Total assets – Total liabilities, firm age is measured as the number of years of operation since incorporation (FA), firm growth rate (opportunities) is measured as the annual rate of change in turnover i.e. $[\text{Sales Turnover}_t - \text{Sales Turnover}_{t-1}] / \text{Sales Turnover}_{t-1}$ (FGR)

V. Analytical Framework

Estimation of a panel regression model like the one considered in this study would require certain assumptions to be made about the error terms and independent variables. Theoretically some classical assumptions considered in such an estimation framework include that intercept and slope coefficients are constant across time and space, the slope coefficients are constant but intercept varies over individuals, the slope coefficients are constant but the intercept varies over individuals and time, the intercept and slope coefficients vary over individuals or the intercept and slope coefficients vary over individuals and time. Gujarati (2003) discusses each of these assumptions in broader detail and hints at estimating a model that is both statistically viable and logical. The following statistical reason is made in light of the same theoretical context that Gujarati suggests.

The simple model that could be fitted to our panel data takes the form;

$$Y_{it} = \beta_1 + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 X_{6it} + \beta_7 X_{7it} + \beta_8 X_{8it} + \beta_9 X_{9it} + u_{it} \quad (6.1)$$

$i = 1, 2, 3, \dots, 18$ (There are 18 firms in this study)

$t = 1, 2, 3, 4$ (Four years as period of study)

Y_{it} = Leverage, short term leverage, long term leverage, X_2 = Board Size, X_3 = Board Composition, X_4 = CEO Duality, X_5 = Return on assets, X_6 = Earnings variability, X_7 = Net total assets, X_8 = Firm Age, X_9 = Firm growth rate

The assumptions relating to the intercept and slope coefficients over time and space would determine the relative predictability of the panel regression model. When all coefficients are constant across time and firms then a simple OLS could serve the purpose. A more careful handling includes a look at Durbin-Watson statistic for the possible presence of autocorrelation, however an abnormal value of this statistic could be due to specification errors. The possibility of multicollinearity is another threat to such a simple OLS. Therefore, the assumption of intercept and slope coefficients could be restricted by fitting a Least Square Dummy Variable (LSDV) Regression Model that assumes that the slope coefficients are constant for the selected firms but the intercept varies across individual firms. Traditionally this model is termed the Fixed Effects Model (FEM). Model 6.1 could be now drafted as;

$$Y_{it} = \beta_{1i} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 X_{6it} + \beta_7 X_{7it} + \beta_8 X_{8it} + \beta_9 X_{9it} + u_{it} \quad (6.2)$$

The subscript i on the intercept term suggests that the intercepts of the sampled 18 firms may be different. This intercept is supposed to be time invariant. Allowing the intercept to vary between companies would require the creation of differential intercept dummies avoiding the dummy variable trap. If we are to fit a fixed effect model then we would have to create seventeen dummy variables for eighteen companies to avoid perfect collinearity. Model 6.2 could now be formulated as a covariance model (LSDVM);

$$Y_{it} = \alpha_1 + \alpha_2 D_{2i} + \alpha_3 D_{3i} + \dots + \alpha_{17} D_{17i} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 X_{6it} + \beta_7 X_{7it} + \beta_8 X_{8it} + \beta_9 X_{9it} + u_{it} \quad (6.3)$$

The question at this point would be which model is a better fit. We could judge this by looking at the value of R^2 , the Durbin-Watson statistic and statistical significance of estimated coefficients.

Model 6.3 could be adjusted for time effects since time could bring a number of changes in technology, regulation, taxation, conflicts etc. Usually when the number of firms is large and the number of time series data is small and if the cross-sectional units in the sample are regarded as random drawings, then an Error Components Model (ECM) or Random Effects Model (REM) could be fitted on the panel data. This model takes the form;

$$Y_{it} = \beta_1 + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 X_{6it} + \beta_7 X_{7it} + \beta_8 X_{8it} + \beta_9 X_{9it} + w_{it} \quad (6.4)$$

Where $w_{it} = u_{it} + \epsilon_t$

Theoretical literature proposes the use of Hausman test in order to decide between fitting a Fixed Effect or Random Effect Model. On the basis of the discussed theory we could think of modeling the following OLS and Fixed Effect Model.

Ordinary Least Square Panel Regression Model

Leverage = $f(\text{CGV}, \text{ROA}, \text{EV}, \text{NTA}, \text{FA}, \text{FGR})$

Short Term Leverage = $f(\text{CGV}, \text{ROA}, \text{EV}, \text{NTA}, \text{FA}, \text{FGR})$

Long Term Leverage = $f(\text{CGV}, \text{ROA}, \text{EV}, \text{NTA}, \text{FA}, \text{FGR})$

Where CGV denotes Board Size or Board Composition or CEO duality

Least Square Dummy Variable Regression Model

Leverage = $f(D1, D2, \dots, D17, \text{CGV}, \text{ROA}, \text{EV}, \text{NTA}, \text{FA}, \text{FGR})$

Short Term Leverage = $f(D1, D2, \dots, D17, \text{CGV}, \text{ROA}, \text{EV}, \text{NTA}, \text{FA}, \text{FGR})$

Long Term Leverage = $f(D1, D2, \dots, D17, \text{CGV}, \text{ROA}, \text{EV}, \text{NTA}, \text{FA}, \text{FGR})$

Where CGV denotes Board Size or Board Composition or CEO duality

D denotes dummy variables where $D = 1$ if it relates to the concerned firm and $D = 0$ for all other remaining firms

VI. Findings

Table 6.1 presents summary of selected corporate governance variables along with the ones included as control variables in the model. The average board size ranges between 7 & 15 and is 8.54 with a board independence average measure of only 0.7. This suggests that only a fraction of independent directors seem visible on the boards of companies making debt decisions. There is a bigger variation within companies on directors' independence. A small fraction of firms show chief executives serving as chairmen of the boards. Firm performance suggests on the average that firms are adding some value on assets however there are weak players with negative return on assets. The average firm age is 29 years with positive earnings variability and net total assets. Other summary details from Table 6.1 reveal firm growth rate has an average of 0.13 with a range from -17 to 8. Earnings variability recorded a value of -25639.8 with an average of 1661.8. The sample shows an average net total asset of 9297.2 with a huge standard deviation of 28648.93, this exhibits a high variation and it could be observed that it largely is determined within. An enquiry is made in the inter relationships between variables. As theory suggests a model with negligible correlations amongst independent variables is more desirable. Regression models could be more informative when the explanatory variables have significant correlations with the response variable. For this purpose correlation matrices are computed in this study. These calculations could end or generate further debate on the issue of multicollinearity in regression modeling. Not only multicollinearity but the issue of autocorrelation and hetroskedasticity along with model specification would be attempted and examined in the study. Since our response variable is leverage i.e. categorized as short term and long term therefore three correlation matrices are determined. Table 6.2 presents correlation between leverage, board size, board composition, chief executive dual position holding, return on assets, earnings variability, net total assets, firm age and firm growth rate. Table 6.3 & 6.4 present correlations of the same explanatory variables with short term leverage and long term leverage.

Table 6.2, 6.3, and 6.4 show a few significant relationships that attract attention. Leverage in all its manifestations though it be short term or long term has a significant positive correlation with CEO duality a significant negative correlation with return on assets and a significant positive correlation with firm age. This should suggest that more leverage (short or long term) is exercised by boards having one person sharing the dual position of a chairman and chief executive officer of a firm. The significant negative correlation of leverage (short or long) with return on assets suggests that firms that produce higher returns on their assets or in other words that are more profitable are less likely to go for leverage as a financing option. The positive correlation with firm age implies that as firms get older they are more likely to use both short term and/or long term leverage as a financing choice.

These are interesting findings but there are some alarming results too like returns on assets also has a significant negative correlation with CEO duality, earnings variability has a significant positive correlation with board size, net total assets are positively correlated (significantly) to board size and earnings variability. Firm age has a significant negative correlation with board size, net total assets and a significant positive correlation with CEO duality. The relationships amongst explanatory variables portray the potential problem of multicollinearity in our model setting. While building the model formal diagnostic of multicollinearity is to be computed.

Regression analysis is carried out next and leverage, short term leverage and long term leverage are regressed against the explanatory variables board size, board composition, CEO duality by taking return on assets, earnings variability, net total assets, firm age, and firm growth rate as control variables. Formal OLS is fitted for the three response variables by fitting three separate models. Each regression model takes one core corporate governance variable to observe its significance. Table 6.5 shows that board size, board composition, and CEO duality are insignificant whereas return on assets is a highly significant variable. This should suggest that leverage is avoided by firms that are highly profitable. The expected negative sign of the coefficient emphasizes that with increasing profits firms tend to decrease borrowing and therefore are less levered. Almost similar findings are visible from Table 6.6 & 6.7 however another significant variable that emerges from these two tables is firm age; coefficient with a negative sign. This suggests that firms that grow old they tend to borrow less. These findings are limited in the sense that there is visible autocorrelation since Durbin-Watson statistic is low and the models are poorly fitted as is visible from the low values of R^2 . While fitting OLS the assumption taken is that the slope is constant for the panel data. Multicollinearity remained low from observed statistics of Variance Inflation Factor, Eigenvalues, and Condition Index in OLS. A Variance Inflation Factor greater than 2 is considered problematic with the values of tolerance close to zero. Condition index greater than 30 creates serious problems of multicollinearity in fitting an OLS, the highest value recorded in the study remained below 20 portraying no serious threat of multicollinearity. However autocorrelation and poor fitting are to be addressed by refining the panel regression model.

For this purpose dummy variables are created for the panel by turning our attention to the time and firm effect. Since time is taken on a limited scale therefore firm effect is considered. With the creation of dummies in our panel regression model each firm would have its unique intercept while coefficients are not allowed to change from firm to firm. Avoiding the dummy trap we create seventeen dummies since there are eighteen firms. This refines the model for the problem of autocorrelation and loose fitting. Table 6.8, 6.9 & 6.10 illustrate that neither of the core corporate governance variables nor control variables are significant. The tables demonstrate a more trustworthy statistical fitting with higher R^2 values and Durbin-Watson statistic close to 2. Model significance remained the same as in OLS with the findings from F statistic. It makes more statistical sense to use OLS or Fixed Effect Model for estimating leverage than simple guessing; however the higher R^2 and autocorrelation setting suggests using the latter.

VII. Conclusion

The study focused on studying any relationship between corporate governance and using leverage as a financing choice. Relevant literature and theory was explored and a generalized least square regression framework was established to test the significance of the corporate governance variables. Leverage was found to have a significant positive correlation with CEO duality a significant negative correlation with return on assets and a significant positive correlation with firm age. This demonstrates that more short or long term leverage is employed by those boards that have one person occupying two positions; chairman and chief executive officer of a firm. A significant negative correlation of leverage with return on assets proposes that those firms who better use their assets in generating returns are less likely to go for leverage as a financing option. The positive correlation with firm age implies that as firms get older they are more likely to use both short term and/or long term leverage as a financing choice. For testing the economic significance of corporate governance variables an OLS and Fixed Effect Model is used. OLS findings suggest that return on assets is a significant variable in determination of leverage and it resulted in the expected negative sign. On this basis it could be argued that the financing strategy of a firm is partly determined by how a firm is operating and how much efficiently it is utilizing its physical resources. If firms are more profitable they would borrow less and keeping them lowly levered. Firm age is another significant factor in determination of the leverage for both short and long term. Low R^2 and Durbin Watson statistic dictated in relaxing the assumptions of restricted model and establishing an unrestricted model by relaxing the assumption of a single intercept for the entire panel of firms. Therefore, a Fixed Effect Model was fitted for the corporate governance variables along with the control variables. This increased R^2 and managed the problem of autocorrelation. The fitting showed that neither corporate governance indicators nor the assumed control variables had any significance on using leverage as a financing choice. The data used in the study suffers from a limitation of inadequate sample for the manufacturing sector. By increasing the number of firms and the length of panel further studies could be devised that could result in more sound findings.

References

- Chong, Beng Soon, (August 2006). "The Financing Structures of Firms with Poor Corporate Governance". Available at SSRN: <http://ssrn.com/abstract=818864>
- Gujrati, N. D. (2003) 'Basic Econometrics', Fourth ed. International Edition, Chapter 16 (Section 16.3 pp. 640-651)
- Harford et. al., 'Corporate Boards and the Leverage and Debt Maturity Choices' Electronic copy of this paper is available at: <http://ssrn.com/abstract=891300>
- Jensen, Michael C., and William H. Meckling (1976) Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure. *Journal of Financial Economics* 3, 305-360.
- John, Kose and Litov, Lubomir P., (January 20, 2008) "Corporate Governance and Financing Policy: New Evidence". AFA 2006 Boston Meetings Available at SSRN: <http://ssrn.com/abstract=637341>
- Kumar, Jayesh, "Debt vs. Equity: Role of Corporate Governance" . 8th Capital Markets Conference, Indian Institute of Capital Markets Paper Available at SSRN: <http://ssrn.com/abstract=592521>
- Kyereboah-Coleman & Biekpe, (December 2006). 'Corporate governance and financing choices of firms: a panel data analysis', *South African Journal of Economics* Vol. 74:4
- La Porta, R., Lopez-De-Silanes, F., Shleifer, A. (2000): Investor Protection and Corporate Governance, *Journal of Financial Economics*, Vol. 58, No. 1-2, pp. 3-27.
- Modigliani, F., and M. H. Miller (1958) The Cost of Capital, Corporation Finance and the Theory of Investment. *American Economic Review* 48, 261- 297.
- Myers, S., and N. Majluf (1984) Corporate Financing and Investment Decisions When Firms Have Information Investors Do Not Have. *Journal of Financial Economics* 13, 187-222.
- Piot, Charles and Missonier-Piera, Franck, (March 2007). "Corporate Governance, Audit Quality and the Cost of Debt Financing of French Listed Companies" . Available at SSRN: <http://ssrn.com/abstract=960681>
- Ross, S. A. (1977) The Determination of Financial Structure: The Incentive Signalling Approach. *Bell Journal of Economics* 23-40.
- Schauten, Marc and Blom, Jasper, (September 2006). "Corporate Governance and the Cost of Debt". Available at SSRN: <http://ssrn.com/abstract=933615>
- Shleifer, A., Vishny, R. W. (1997): A Survey of Corporate Governance, *The Journal of Finance*, Vol. LII, No. 2, June 1997,

Table 6.1 Statistical Summary of Variables

Variable		Mean	Std. Dev.	Min	Max	Obs
Board Size	Overall	8.54	2.142	7	15	N = 72
	Between		0.053	8.5	8.611	n = 18
	Within		2.156	7	14.5	T = 4
Board Composition	Overall	0.702	0.813	0.125	7.3	N = 72
	Between		0.198	0.588	0.997	n = 18
	Within		0.425	0.286	2.227	T = 4
CEO Duality	Overall	0.17	0.375	0	1	N = 72
	Between		0	0.167	0.167	n = 18
	Within		0.354	0	1	T = 4
Return on Assets	Overall	1.026	0.995	-2.557	3.638	N = 72
	Between		0.126	0.877	1.164	n = 18
	Within		0.839	-1.182	2.173	T = 4
Short Term Leverage	Overall	0.697	1.203	0	7.098	N = 72
	Between		0.081	0.584	0.756	n = 18
	Within		1.126	0	4.809	T = 4
Long Term Leverage	Overall	0.1	0.153	0	1	N = 72
	Between		0.014	0.088	0.123	n = 18
	Within		0.131	0	0.497	T = 4
Leverage	Overall	0.802	1.224	0	7.103	N = 72
	Between		0.087	0.687	0.879	n = 18
	Within		1.150	0	4.924	T = 4
Firm Age	Overall	29.22	15.474	7	57	N = 72
	Between		1.291	27.722	30.722	n = 18
	Within		15.770	8.5	55.5	T = 4
Firm Growth Rate	Overall	0.13	2.472	-17	8	N = 72
	Between		0.635	-0.708	0.678	n = 18
	Within		0.196	-0.425	0.449	T = 4
Earnings Variability	Overall	1661.8	9106.314	-25639.8	60886.100	N = 72

[illegible]

Table 6.4 Correlation matrix (N = 72)

		STLEV	BS	BC	CEOD	ROA	EV	NTA	FA	FGR
LTLEV	Pearson Correlation	1								
	Sig. (2-tailed)									
BS	Pearson Correlation	-0.06	1							
	Sig. (2-tailed)	0.615								
BC	Pearson Correlation	0.076	0.117	1						
	Sig. (2-tailed)	0.526	0.326							
CEOD	Pearson Correlation	0.101	-0.061	-0.067	1					
	Sig. (2-tailed)	0.398	0.609	0.576						
ROA	Pearson Correlation	-.391(**)	0.153	-0.047	-.442(**)	1				
	Sig. (2-tailed)	0.001	0.2	0.696	0					
EV	Pearson Correlation	-0.118	.335(**)	0.016	-0.082	0.183	1			
	Sig. (2-tailed)	0.325	0.004	0.894	0.495	0.123				
NTA	Pearson Correlation	-0.153	.723(**)	0.079	-0.119	0.213	.511(**)	1		
	Sig. (2-tailed)	0.199	0	0.512	0.32	0.072	0			
FA	Pearson Correlation	-.293(*)	-.297(*)	0.063	.517(**)	-0.088	-0.117	-.326(**)	1	
	Sig. (2-tailed)	0.012	0.011	0.598	0	0.461	0.329	0.005		
FGR	Pearson Correlation	-0.009	-0.002	0.008	-0.015	-0.007	0.004	-0.012	-0.048	1
	Sig. (2-tailed)	0.937	0.985	0.945	0.901	0.955	0.972	0.918	0.689	
**	Correlation is significant at the 0.01 level (2-tailed).									
*	Correlation is significant at the 0.05 level (2-tailed).									

Table 6.5: Ordinary Least Square (OLS) Regression Model

Dependent Variable: Leverage						
	Model 1		Model 2		Model 3	
	Coefficients	t-value	Coefficients	t-value	Coefficients	t-value
Return on Assets	-0.57	-5.853 (0.000)	-.567	-5.777 (0.000)	-0.504	-4.542 (0.000)
Earnings Variability	0.04	0.363 (0.718)	0.036	0.320 (0.750)	0.038	0.341 (0.734)
Net Total Assets	-0.090	-0.583 (0.562)	0.006	0.051 (0.959)	-0.012	-0.102 (0.919)
Firm Age	0.271	2.677 (0.009)	0.257	2.526 (0.014)	0.179	1.484 (0.143)
Firm Growth Rate	-0.001	-0.15 (0.988)	-0.002	-0.016 (0.987)	-0.002	-0.025 (0.980)
Board Size	0.141	1.109 (0.312)				
Board Composition			0.042	0.44 (0.661)		
CEO Duality					0.156	1.231 (0.223)
R ²	0.416		0.409		0.42	
Durbin-Watson	1.123		1.164		1.134	
Model Significance (F-test)		7.727 (0.000)		7.49 (0.000)		7.861 (0.000)

Table 6.6: Ordinary Least Square (OLS) Regression Model

Dependent Variable: Short Term Leverage						
	Model 1		Model 2		Model 3	
	Coefficients	t-value	Coefficients	t-value	Coefficients	t-value
Return on Assets	-0.531	-5.37 (0.000)	-.529	-5.306 (0.000)	-0.475	-4.202 (0.000)
Earnings Variability	0.039	0.346 (0.73)	0.034	0.303 (0.763)	0.036	0.321 (0.749)
Net Total Assets	-0.060	-0.382 (0.704)	0.034	0.286 (0.776)	0.018	0.15 (0.881)
Firm Age	0.325	2.677 (0.009)	0.313	3.031 (0.003)	0.246	2.003 (0.049)
Firm Growth Rate	-0.001	3.169 (0.002)	0.003	0.030 (0.976)	0.002	0.022 (0.982)
Board Size	0.136	0.97 (0.335)				
Board Composition			0.03	0.309 (0.758)		
CEO Duality					0.133	1.032 (0.306)
R ²	0.398		0.391		0.4	
Durbin-Watson	1.096		1.133		1.107	
Model Significance (F-test)		7.714 (0.000)		6.943 (0.000)		7.208 (0.000)

Table 6.7: Ordinary Least Square (OLS) Regression Model

<i>Dependent Variable: Long Term Leverage</i>						
	<i>Model 1</i>		<i>Model 2</i>		<i>Model 3</i>	
	<i>Coefficients</i>	<i>t-value</i>	<i>Coefficients</i>	<i>t-value</i>	<i>Coefficients</i>	<i>t-value</i>
<i>Return on Assets</i>	-0.385	-3.6 (0.000)	-.378	-3.556(0.001)	-0.299	-2.489(0.015)
<i>Earnings Variability</i>	0.015	0.124 (0.902)	0.016	0.133 (0.894)	0.017	0.142 (0.888)
<i>Net Total Assets</i>	-0.248	-1.471 (0.146)	-0.222	-1.726 (0.089)	-0.238	-1.859 (0.067)
<i>Firm Age</i>	-0.391	-3.531 (0.001)	-.405	-3.678 (0.000)	-0.501	-3.834 (0.000)
<i>Firm Growth Rate</i>	-0.034	-0.325 (0.746)	-0.035	-0.339 (0.735)	-0.036	-0.347 (0.730)
<i>Board Size</i>	0.056	0.373 (0.711)				
<i>Board Composition</i>			0.101	0.971 (0.335)		
<i>CEO Duality</i>					0.201	1.462 (0.149)
<i>R²</i>	0.298		0.307		0.319	
<i>Durbin-Watson</i>	1.232		1.222		1.238	
<i>Model Significance (F-test)</i>		4.604 (0.000)		4.795 (0.000)		5.078 (0.000)