

**NON-TRADITIONAL THREATS TO
CENTRAL ASIAN SECURITY, 1991-2001**

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DECLARATION

I declare that the dissertation entitled “NON-TRADITIONAL THREATS TO CENTRAL ASIAN SECURITY, 1991-2001” submitted by me for the award of degree of **Master of Philosophy** of Jawaharlal Nehru University is my own work. The dissertation has not been submitted for any other degree of this University or any other University.

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CERTIFICATE

We recommended that this dissertation be placed before the examiners for evaluation.

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To My Grandfather

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PREFACE

Security of a sovereign state is mostly relevant for its survival on the world stage. Security mostly translates into more than freedom from clear and present threats and ability to repel potential enemies. Security is basically related to survival of a state and having stability.

According to Barry Buzan, security is necessary for protecting the state from anarchy. In 1991 Buzan published the second edition of the text, "People, State and Fear" to account for the new post-Cold War reality. Significantly, he sought to expand the security agenda to incorporate not just military, but political, economic, societal and ecological concerns. Previously, during the Cold War security studies were composed mostly of works interested in military statecraft. If military force was not relevant to an issue, it was considered a non-security issue and was consigned to the category of low politics. According to Barry Buzan, individual security results from both state's domestic policy and its interaction with other states in international sphere. This claim is relevant to the Ole Waever's 'Hour glass' model of security, that explains, at the top and bottom of the 'hourglass,' there are wide areas of individual and international security but these must be filtered through the narrow neck of the state, represented by the centre of the hourglass. Therefore, while "People, State and Fear" sought to expand the critical range of security, this was compromised by its state-centric and positivist methodology.

Barry Buzan highlights the levels of security issues which pose a danger to the nation state.

- Military security which concerns with interplay of the armed offensive and defensive capability of states and state perception of each others intention.
- Organization stability of state and system of government as political security.
- Economic security concerns with finance and market, natural resources etc.
- Environmental security is based on human existence of a state.
- Social security is related to language, culture, religious, national identity and custom.

Theoretically, Tadjbaksh and Chenoy's security pyramid and Ronald Paris's security

matrix are also relevant to the study of both traditional and non-traditional threats to security. Non-traditional threats affect the security of independent states. Ethnic conflicts are created due to mass migration, forced displacement, the emergence of right wing political movements and racism etc. Instability of a state increases due to growth of criminal business, narco-trafficking, poverty, starvation, human trafficking and proliferation of small arms etc. According to Barry Buzan environmental degradation also fosters conflicts in many states. Due to degradation of environment, states face energy problems, depletion of natural resources, such as fuel and wood, various forms of pollution. Population problems like epidemic and poor health conditions and food problems are also created due to loss of fertile soil and water resources etc. Many conflicts are possible due to environmental degradation. So, environmental degradation is a major non-traditional threat to security system.

Another way non-traditional security threat is related to poverty and social exclusion. Poor and unemployed people are socially excluded in third world developing countries. They loose their social status and proper living conditions. There are little differences of the concept social exclusion between developing countries and developed countries. This concept is also applicable to Central Asian countries.

Traditional concept of security in international relation is based on military power and state. The traditional notion of security falls within the pattern of realist paradigm. After independence of Central Asian states, many scholarly works came out describing the security scenario of Central Asia in terms of 'Great Game' model. Like traditional concept of state-centric security these were no exception.

But non-traditional threats also affect the security of Central Asia. For example ethnic conflicts are created due to mass migration, forced displacement, the emergence of right-wing political movements and racism etc. are threats to security. Instability of Central Asia increases due to growth of criminal business, narco-trafficking, poverty, starvation, human trafficking and proliferation of small arms etc.

The Soviet disintegration in 1991 has changed the social, economic and political scenario of Central Asia. After disintegration of Soviet Union, the Central Asian states joined to form the Common Wealth of Independent States. Once the CIS settled the intermediate problems arising from disintegration, gradual calm descended on the region. The Central Asians despite having attained freedom looked for help and support at Russia. Whether it

was Islamic resurgence, civil war in Tajikistan, Islamic onslaughts in Ferghana Valley in Uzbekistan, the newly independent states of Central Asia continue to rely on Russia for security. Except for Turkmenistan, four states of Central Asia are members of the Collective Security Treaty Organization which was formed through a treaty in 1992.

The United States seeks the transformation of Central Asian republics into liberal democracies, adhering to market economy. America's military presence in the Central Asian region presents another alternative traditional security system. The US has agreements with Tajikistan and Kyrgyzstan for the use of their air fields for military operations. Even Turkmenistan which is a neutral country has permitted Americans over flights for military purposes. The Central Asian republics have supported the US in its war against terrorism and the American armed forces have been given access to Central Asian territories for this reason. Despite the Russian and American presence, non traditional threats to security in Central Asia pose serious challenges.

Environmental degradation, scarce water resources and inequitable distribution of resources among five states may generate a conflict like situation in future. Without proper management among two upstream countries Tajikistan and Kyrgyzstan and three downstream countries Turkmenistan, Kazakhstan and Uzbekistan, there are always conflict possibilities among these states. As a region, Central Asia is subject to a number of major environmental concerns, including the desiccation of the Aral Sea, the depletion and degradation of river and irrigation of waters, and the consequences of Soviet and Chinese nuclear weapon testing at Semipalatinsk (now known as Semey) and Lop Nor, respectively. However, riverine water, particularly when linked with irrigated land, is perhaps the only regional environmental issue that demonstrates a 'probable linkage between environmental degradation and the outbreak of violent civil or interstate conflict'. Environmental security, a highly contested concept, is usually applied to at least one of five spheres: (a) the environment as a cause and/ or object of conflict; (b) the environment used as an instrument of war; (c) environmental degradation resulting from military action; (d) the indirect influence of environmental degradation on security via development and welfare issues; and (e) environmental degradation and protection, distinct from its political and security implications.

Proliferation of small arms is creating a lot of problems in the security of Central

Asia. If we study country-wise proliferation of small arms, the hardest hit Central Asian state in this regard is Tajikistan. A mild arms race might be hard to distinguish from the process of arms maintenance. In such race, military expenditure could remain at a constant and moderate proportion of GNP, perhaps even declining on occasion. A high intensity race, by contrast, would look more like a mobilization for war, with military expenditure either rising as a proportion of GNP. Although arms races can be compared on this general basis, it is useful also to look deeper into the nature of the objectives and the nature of the weapons which underlie levels of intensity. Apart from supplies from Afghanistan, the armed conflict which started within Tajikistan itself in 1992, led to large scale use of weapons.

Drug Trafficking is a major threat to Central Asian security. It has been reported that radical militants want to create instability in this part of the world, so that it can facilitate transportation of drugs and narcotics from Afghanistan to Russia and Europe. During 1998 and 1999 it was reported that drug trafficking increased to the extent of 250 percent in Tajikistan. The Uzbek representative on UN drug programme also gave similar data. The Kyrgyz Interior Ministry reported 1,600 percent increase on illicit drug seizure between 1999 and 2000 including 800 percent increase in heroine alone.

After dissolution of the Soviet Union the vast majority of people in the Central Asian states suffered steep declines in their quality of life. In the new century, however, negative trends in poverty and health have been reversed in Central Asia, although the quality of life remains far below that of Western countries. According to a World Bank report, defining poverty as income levels of less than \$2.15 per day, the poverty rate in 2001 was 21 per cent in Kazakhstan, 70 per cent in Kyrgyzstan, 74 per cent in Tajikistan and 47 per cent in Uzbekistan.

It can be said that poverty and unemployment are the main causes of human trafficking which links with terrorism as well. Unemployed people join with various radical groups. Due to unemployment and poverty there are large migrant workers, whose illegal presence creates tension in society and between states of Central Asia. Thus poverty and deprivation can create conflicts in the Central Asian regions.

The decline of economic growth in Central Asia also creates conditions for the rise of radicalism as well as social unrest. A study conducted by UNDP in 2002 in southern Kyrgyzstan, underlined that poverty is disproportionately severe in the countryside and the

agricultural sector, which is the chief employer of rural populations of Central Asia. Water is a key security issue, particularly for Turkmenistan and Uzbekistan which have a high demand for irrigation water to support their over-leveraged agricultural industries. Although there is little prospect for a multilateral solution to water allocation in the region, the prospect for a “water war” are slim. Most conflicts over water have been local, with little or no ethnic dimension.

After independence of the Central Asian states, their transition to market economies resulted in severe economic hardship for most of the population. Official data on employment rates are available for some years only. Generally, the real unemployment rates are much higher than the registered unemployment rate in Tajikistan, which for example is officially around 3 per cent in 2003. A similarly low figure was reported for Kyrgyzstan for 2000 in unemployment rates. All these figures capture only the registered unemployed, while actual unemployment rates might have been over 10 per cent. Moreover, the problem of disguised unemployment has been much more serious as a very large number of people are only partially employed. Data on disguised unemployment rates are generally not available in Kyrgyzstan. In Kyrgyzstan the rate was reported to be 22 per cent in 1998.

Unemployment is high in the Ferghana valley, particularly among youth. It is estimated that 35 per cent of workforce in the Uzbekistan part of the valley is unemployed, including the majority of those under the age of twenty five. An unemployed and hungry youth is readily attracted to radical movements and ready to engage in criminal and violent activities. It has been reported that the unemployment problem has taken on an ethnic character. For example in Kyrgyzstan part of the valley it has been observed that the rate of unemployment is higher among Uzbeks than Kyrgyz residents.

A gap exists between the ethnic divisions and political boundaries in the Ferghana valley. For example, 700,000 ethnic Uzbeks live today in southern Kyrgyzstan, 300,000 ethnic Kyrgyz reside in Uzbekistan, and more than 1.4 million ethnic Uzbeks live in Tajikistan. The threat of inter ethnic tensions is more likely in southern Kyrgyzstan. The Batken incidents of terror attacks in 1999 clearly demonstrate the linkage between impoverishment and violence. The study found that 57.8 per cent of the total population was experiencing social tension; the reason to this was lack of any alternative means of livelihood and other problems.

From the above analysis, it is reasonable to argue that non-traditional threats to security in Central Asia are a critical aspect of security that needs to be thoroughly studied. This study is an attempt to understand various challenges to the security of Central Asian states and to understand as to what extent these are non traditional in nature. From 1991 to 2001, security of Central Asia has based on various issues relating to its stability.

Hypotheses

- The involvement of Russia and the U.S. militarily in Central Asia has minimised the traditional threats to the security of the regional states.
- However, non-traditional threats like environment and water related issues have kept inter-state tensions alive.
- Poverty and social exclusion in areas like Ferghana valley created non-traditional security challenges with the rise of extremism, arms, human and drug trafficking which are bigger threats to the stability of Central Asian states.

Objectives

- To study relevant ingredients of security in Central Asia.
- To focus on the security system in the region.
- To discuss the interest of external powers in Central Asia and their role in regional security.
- To highlight the impact of environmental degradation and water-related issues in Central Asia.
- To examine the root cause of terrorism by looking at its causal link with poverty and social exclusion.
- To discuss the effective role of state and government to meet non-traditional threats to security.

Methodology

In this research various theoretical frameworks have been applied. The research includes both primary and secondary resources. Primary sources cover various government reports including the UN reports. The secondary resources include different literatures including books, article etc.

This research work contains five chapters. Chapter-I is, **Non-Traditional Threats to Security: A Theoretical Framework**, in which both traditional and non-traditional security issues have been discussed according to the theoretical models of different scholars. In this chapter development of the concept of security and non-traditional security threats are presented. Attention is also drawn to the importance of both traditional and non traditional aspects of security.

Chapter-II, **Geo-Strategic Importance and Security of Central Asia**, which is related to the role of external powers in Central Asia. Here traditional and non-traditional security issues have been analysed from both geo-political and geo-strategical importance. This chapter focuses on cross-border issues and territorial integrity.

Chapter-III, **Environmental and Water-Sharing Issues in Central Asia**, reflects the impacts of environmental degradation after independence on Central Asian states. This chapter has provided the linkage of non-traditional threats with environmental security and water-sharing.

Chapter-IV is **Effects of Poverty and Social Exclusion on Security**, the main aspect of the research. Poverty and social exclusion is the root cause of conflicts in regional level of Central Asian states. These conflicts affect further the national level and international level. The chapter has pointed out that poverty is the real factor of instability of the state. Poverty is linked with Islamic extremism, terrorism, proliferation of small arms, and human and drug trafficking etc.

Chapter-V, the **Conclusion** sums up the findings of the research.

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Lastly, this is my short version about my life... I understand it as:

“The silence is beginning
this is not last
this is blast from the past
the past is now shining”!!

JNU, New Delhi
21-07-2009

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ABBREVIATIONS

ACOM	:	Atlantic Command
ADB	:	Asian Development Bank
AIDS	:	Acquired Immunodeficiency Syndrome
BVOs	:	Basin Management Authorities
CENTO	:	Central Treaty Organisation
CENTOCOM:		Central Command
CIS	:	Commonwealth of Independent States
FAO	:	Food and Agricultural Organisation of the United Nations
GDP	:	Gross Domestic Production
HIV	:	Human Immunodeficiency Virus
HTI	:	Hizbut Tahir Islami
ICAS	:	Inter-state Council on Problems of the Aral Sea Basin
ICG	:	International Crisis Group
ICWC	:	Inter-state Coordinating Water Commission
IFAS	:	International Fund for Aral Sea
ILO	:	International Labour Organisation
IMF	:	International Monetary Fund
IMU	:	Islamic Movement of Uzbekistan
IRP	:	Islamic Revival Party
ISDR	:	International Strategy on Disaster Reduction
NACC	:	North American Cooperation Council
NATO	:	North Atlantic Treaty Organisation
NEAP	:	National Environmental Action Plan
NGO	:	Non Governmental Organisation
ODIHR	:	Office for Democratic Institutions and Human Rights
ODS	:	Ozone-depleting Substances
OSCE	:	Organisation for Security and Cooperation in Europe
PfP	:	Partnership for Peace
SACLANT	:	Supreme Allied Commander Atlantic

SEATO	:	South East Asia Treaty Organisation
UN	:	United Nations
UNDP	:	United Nations Development Programme
UNECE	:	United Nations Economic Commission for Europe
UNEP	:	United Nations Environment Programme
UNFVDP	:	United Nations Ferghana Valley Development Programme
USA	:	United States of America
USAID	:	United States Agency for International Development
USDoE	:	US Department of Energy
UTO	:	United Tajik Opposition
WCED	:	World Commission on Environmental and Development
WHO	:	World Health Organisation

-x-

Map - 1

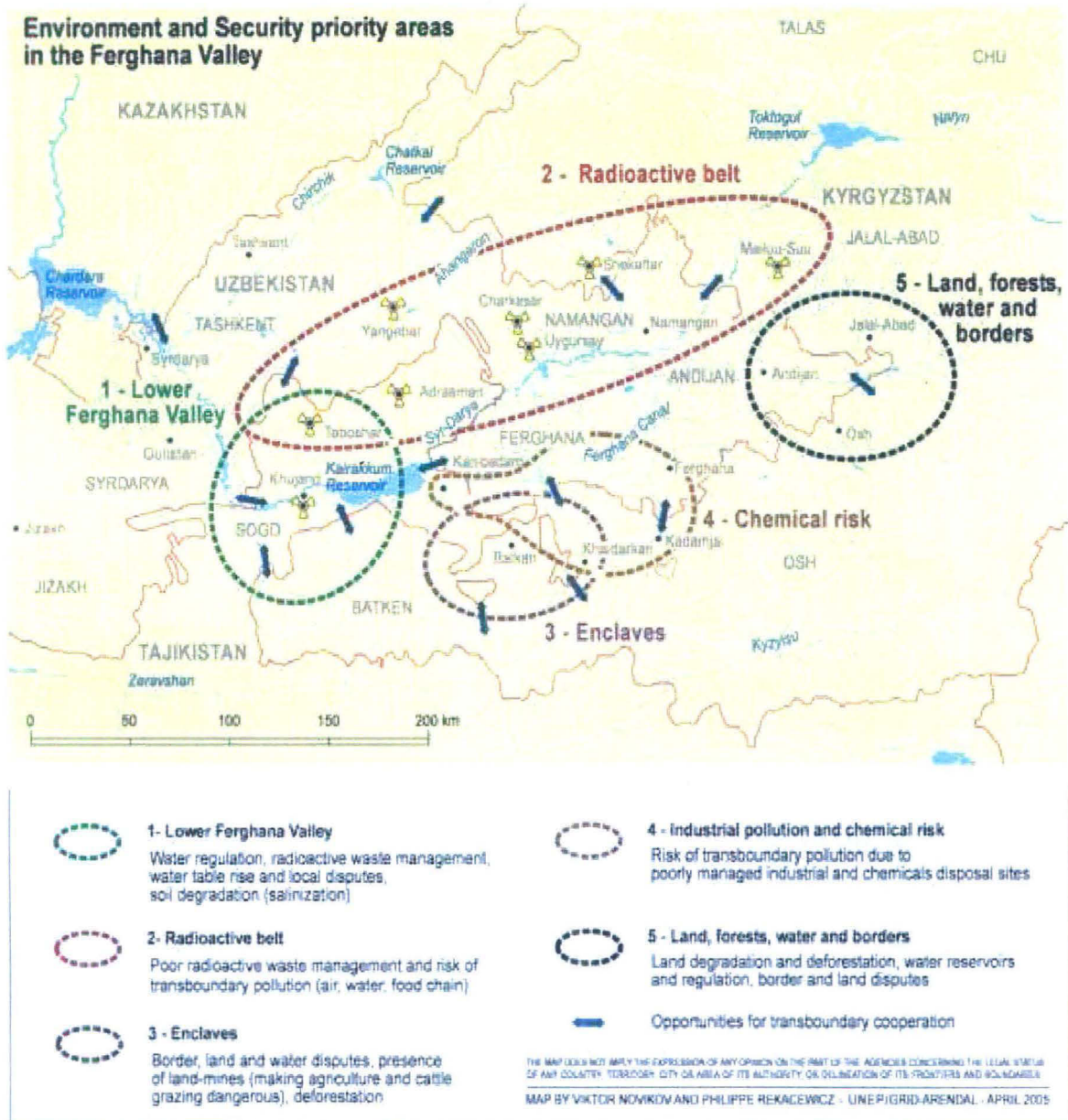
Map of Central Asia



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Source: Central Asia: Political Map of Central Asia, *Encyclopædia of Britannica*, (Online: web), accessed on 20 July 2009, URL: <http://www.britannica.com/EBchecked/topic-art/621059/64702/>.

Map – 2



Source: Environment and Security priority areas in the Ferghana Valley, *United Nations Environmental Programme (UNEP)*, (Online: web), accessed on 18 July 2009, URL: <http://maps.grida.no/go/graphic/environment-and-security-priority-areas-in-the-ferghana-valley>.

Chapter-1

NON-TRADITIONAL THREATS TO SECURITY: A THEORETICAL FRAMEWORK

NON-TRADITIONAL THREATS TO SECURITY: A THEORETICAL FRAMEWORK

'Security' is a concept of multidimensional nature which focuses on threat. It is not a new concept but it can be traced back to early periods. Security concept is not merely understanding but in its relevancy to survive, exist, stabilise, and save in recent times of crisis, conflicts, disturbances, instabilities and dangerous situations. Arnold Wolfers (1962:150) pointed to two sides of security concepts: "security, in an objective sense, measures the absence of threats to acquired values, in an subjective sense, the absence of fear that such values will be attacked". Robert Art (1993:820-22) wrote on subjective aspect: "to be secure is to be feeling free from threats, anxiety and danger. Security is therefore a state of mind in which an individual feels safe from harm by others" (Brauch 2003: 52).

Initially, security, (Latin: *securus* and *secura*) was referred by Cecero and Lukrez, as philosophical and psychological status of mind and it was used since 1st century as a key political context of 'Pax Romana (Brauch 2003: 52).' Security associated with many meanings that refer to frameworks and dimensions apply to individuals, issue areas, societal conventions and changing historical conditions and circumstances (ibid). Defining security means its relations with different conditions like threat, risk and vulnerability. Rasmussen defines threat as: "a specific danger which can be precisely identified and measured on the basis of capabilities an enemy has to release a hostile intent. Again threats are related to risk as both can be differentiated with each other. Unlike threats which occupy predominantly the present, risk transcend time and space. Risk is the modern approach to foresee and control the future consequences of human action". According to Edwald, "to calculate the risk is to master time, to discipline the future". Threats are finite because they emanate from specific actor with a limited amount of resources to support capabilities. Risks are infinite (Williams 2008: 57). Both threat and vulnerability, each potentially impact upon understanding security. A threat is identifiable and requires an understandable response; military force for example, has traditionally been sized to defend a state against external aggression, to protect

vital national interest, and enhance state security. A vulnerability is often only an indicator, often not clearly identifiable, often linked to a complex interdependence among related issues, and does not always suggest a correct or even adequate response. While disease, hunger, unemployment, crime, social conflict, political repression, and environmental hazards are at least somewhat related issues, in terms of security (Liotta 2003: 304).

Basically, object of security is focused to individuals, it then proposes to extend the notion of 'safety' to a condition beyond mere existence (survival) to life worth living, hence well being and dignity of human beings (Tadjbaksh and Chenoy 2007: 9). Security is related to individual as well as state. From the historical period to the present individual's security is dependent on that of the state. According to Barry Buzan 'the security of individual is inseparably entangled with that of the state (Buzan 1983: 21).

Development of the Concept 'Security'

The concept of security that emerged during the period of Machiavelli's text, *The Prince* (1513) was strongly equated with territorial defence. As with contemporary security discourse, however, behind the geo political rationale lies the real referent to be secured: not so much the delimited space *per se*, but rather the ruling security makers, their power from control of that space (Barnett 2001:25). Traditionally or historically, security has emphasized on 'national security' point of view. National security, is a particularly if no longer exclusively European concept, and is integrally associated with the maintenance of elite power (ibid). Treaty of Westphalia, 1648, was the significance of national security, which began the demise of the church as the highest authority and ushered in the age of sovereign political communities of the emergence of the territorially defined and militarily capable sovereign state as a law on to its own (ibid: 26).

After Westphalia, states engaged in a system of cooperation and conflict with few formal rules to guide behaviour. This system of relations between sovereign domains spread as the European powers expanded their claims to their colonies, and consolidated their control of these places. By the beginning of the First World War 1914, nearly all the land surface of the earth was divided into political divisions (ibid). The First World War was the landmark of expansion state's power. After 1918 the fear of the war was nurtured and strengthened by rapid and obvious increases in the destructiveness of the weapons. The First

World War inflicted a greater shock on European civilisation than any previous upheaval, threatening not only revolutions in the social structures of states but also in composition of state system (Buzan 1983:163).

By 1945 advances in military technology had undercut the idea of national defence in several ways. The domestic sanctity of the state could be neither protected nor preserved. Total mobilisation required massive and not necessarily making reversible, changes in social values, making war more an instrument of social transformation than of preservation (ibid: 164). After Second World War security paradigm shifted according to the impact of democracy, arbitration, disarmament and collective security. It is named as classical political realist theory of security (Barnett 2001: 26). But post Second World War was the period of resurgent realism which centred security in autonomy of the nation-state and emphasised the use of force as a means to resolve conflict between states (Baldwin 1997:5). Again Hans Morgenthau's *Politics Among Nations* was critical analysis of security in the context of realism. Morgenthau considered that security of the state was best achieved by the maximization of military power which in turn depended on national economic scale and territorial size, national self sufficiency in resources, and strong technological capacity. Through out Cold War period security was based on state-centric approach. It means neo-realism and classical realism are based on empowerment of military power as the cornerstone of national security. During this period John Hertz coined the Hobbesian term of a security dilemma which he referred to as the propensity of countries "to acquire more and more power to escape the impact of others", a tendency that has resulted in a vicious circle of mutual arms build up (Brauch 2003: 53). Other scholars like Shahrbanou Tadjaksh and Anuradha M. Chenoy have used what they call 'innovative international approach' to describe sources of insecurity, remedy the symptoms and prevent the recurrence of threats. Sources of insecurity comes not only from mutual competition among states for technology, economy, resources, border issue but also it is cleared that insecurity comes from state's failure to provide for people's security. According to traditional point of view, sovereignty and statehood are adequately secured by military defence of state interests and territory, while non-traditionalists include 'welfare beyond warfare' (Tadjbaksh and Chenoy 2007: 13).

Emergence of the Concept of Non-Traditional Threats

Until the 1970s, in the traditional notion of threat to security, state was the centre of security issue. After beginning of the 1970s, with the emergence of the concept of non-traditional threats to security, individual has become the centre of security discourse. In this period the Club of Rome Group produced a series of volumes on the “world problematique” in which individual is the focus of threat. It replies that there is a complex of problems troubling men of all nations: “poverty degradation of the environment; loss of faith in institution; uncontrolled urban spread; insecurity of employment; alienation of youth; rejection of traditional values; and inflation and other monetary and economic disruptions (Bajpayi 2003: 197)”. According to the report:

“Every person in the world faces a series of pressures and problems that require his attention and action. These problems affect him at many different levels. He may spend many of his time trying to find tomorrow’s food..... He may be concerned about personal power of the nation in which he lives. He may worry about a world war or a war next week with arrival clan in his neighbourhood” (ibid).

This report justifies the individual problem as the main issues of non-traditional nature. It also clarifies how individual will face more problematic, vulnerability, risk and threat in future.

Security concept in 1980s as it evolved is important in two ways: firstly, broadening of security is based on consideration of non-military security threats or non traditional threats such as environmental degradation, spread of disease, overpopulation, mass refugees, terrorism, and nuclear catastrophes. Buzan et. al. also used broadening of security in economic, social, environmental, political and military sectors. Secondly, deepening security considers the security of individuals and groups, rather than of states (Tadjbakhsh and Cheney 2007: 76). Broadening of the security discourse started with Brandt Commission’s Report. The intellectual response from the emerging international community came in the form of North-South Report by an Independent North/South Commission chaired by Will Brandt that stated: “Our report is based on what appears to be simplest common interest: that mankind wants to survive. This raises not only traditional question of peace and war, but also how to overcome world hunger, mass misery and alarming disparities between the living

conditions of rich and poor (Independent Commission on International Development Issues: Brandt Report, 1980: 13, *ibid*: 35).

Traditional or military security was not providing enough to the stability in the third world due to the impact of hunger and poverty. Independent Commission on Disarmament and Security chaired by Olaf Palme, considered that not only military ones is related to security but economic crisis and hunger were immediate challenge for survival (Independent Commission on Disarmament and Security Issues. *Common Security: A blue print for Survival*, 1982: 172). Specially, the problems of South took a new direction of security and development. At this time non military security gradually emerged (Tadjbakhsh and Chenoy 2007: 36). South Commission Report also gave more importance towards non traditional threats. The South Commission Report (1990), chaired by Julius Nyerere, argued in its report challenge to the South that insecurity stemmed from poverty, de-institutionalization, environmental degradation and deficit of democracy (South Commission 1990: 11). From above analysis Ullmann's (1983: 133) definition on national security threat is that: "an action or sequences of events that threatens drastically and over a relatively brief span of time to degrade the quality of life for the inhabitants of a state or to threaten significantly to narrow the range of policy choices available to the government of a state or to private non governmental entities (persons, groups, corporations) with in the state" (Brauch 2003: 194). At the 90th Nobel Jubilee Symposium, Crro Harlem Brundtland (1993: 189) also pointed to the new 'threats' to security:

"These may be caused by social unrest caused by poverty and inequality, by environmental degradation, by internal conflicts leading to new flows of refugees...The pressure on environment from rapidly growing world population will increase the likelihood of such conflict. Climate change, massive loss of species and biological diversity, depletion of fresh water resources and soil erosions are global trends that are not sustainable.....The most global and potentially the most serious, of all the issues facing us today is how we should deal with threats to the world's atmosphere".

National security was framed with in an East-West debate, while the North-South was a 'development' problem. After 1989, with the security focus to internal dynamics, civil wars, ethnic competition, natural resources, etc, security and development perspective, but from negative score card perspective, with the possibilities for winning and loosing together (Tadjbakhsh and Chenoy 2007:100). UNDP report clearly stated non traditional security

threat is linked with human security. The UNDP (1994: 22-46) shifted the reference of traditional security concept from the nation-state to the people, from external military threat to disease, hunger, unemployment crime, social conflict, political repression and environmental hazards” (Brauch 2003:57).

The non-traditional threats also highlighted by the end of 2005 when two documents came in to being one was the report from the UN High-level panel on Threats, Challenges and Change entitled '*A More Secure World: Our Shared Responsibility*', and the other was the reform agenda proposed by Koffi Annan in "*Towards All Freedom*". These documents highlighted the threats like poverty, denial of human rights, terrorism, radiological and biological weapons etc. *A More Secure World: Our Shared Responsibility*, released in December 2004, said:

“No State, no matter how powerful, can by its own efforts alone make itself invulnerable to today’s threats. And it can not be assumed that every State will always be able, or willing, to meet its responsibility to protect its own peoples and not to harm its neighbours. ... Differences of power, wealth and geography do determine what we perceive as the gravest threats to our survival and well-being. ... Without mutual recognition of threats there can be no collective security. ...What is needed is nothing less than a new consensus. ... The essence of that consensus is simple: we all share responsibility for each other’s security”.

The High-level Panel distinguished among six clusters of threats, ranging from economic and social threats (including poverty, infectious disease, and environmental degradation, inter-state and internal conflict, weapons of mass destruction, terrorism and trans-national organised crime). Thus, for the first time “environmental degradation” is listed among the threats confronting the UN that require preventive action “which addresses all these threats.” Development “helps combat the poverty, infectious disease, and environmental degradation that kill millions and threaten human security”. The report entitled '*In Larger Freedoms*' says, “While poverty and denial of human rights may not be said to cause civil war, terrorism or organized crime, they all increase the risk of instability and violence”.

The concepts of non-traditional threats have developed through various political agendas of international organisations. In this context UN has been taking important decisions for security of people through stability of states.

Difference between Traditional and Non-Traditional Threats

From the previous discussion traditional security threat is different from non traditional threat. Although former concept is a historical phenomenon and latter concept is a recent development; both can be differentiated from various points:

1. Traditional threat is related to military threat capable of undermining of security of sovereign state and its territorial integrity (Barnett 2001: 26). Non-traditional threat is focused on individual's security from social, political, and environmental point of view with in a state (Buzan 1983: 19).
2. Traditional security threats as the realist approach, in which Morgenthau considers that the security of the state by the maximisation of military power and making strong military capability (Barnett 2001: 26). But non traditional security is a modified version of classical realism as commonly identified as beginning with Waltz's *Man, the State and War* (1959) where stability of state depends upon people (ibid).
3. Traditionally, the concept of security has been interpreted narrowly as security of territory or as protection of national interest or as global security from the threat of nuclear holocaust (UNDP: 1994). On the opposite of state-centred security, non traditional security threat means people-centred approach. As the most relevant approach to security was developed with seven universal and independent components namely, economic, food, health, environmental, personal, community and political security (Tadjbaksh and Chenoy 2007: 24).
4. Traditional conception of security emphasizes territorial integrity and national independence as the primary values that need to be protected while human security as the non traditional security, pertains above all to the safety and well being of "all the people everywhere- in their homes, in their jobs, in their street, in their communities and in their environment" (Bajpayi 2001: 200).
5. Traditional types of security in international relation is based on military power and the state, and centred inside/ outside dichotomies of self and other, related to absolute and relative security (Eadie 2007: 644). Non traditional types follows to human well being, and by extension the risk of societal collapse, may well demand the redefined agenda (ibid).

6. Traditionally, the idea of the state, its institutions, and even its territory can all be threatened as much by the manipulation of ideas as by the wielding of military power (Buzan 1983: 65). According to non-traditional view, individual security is affected both positively and negatively by the state and that the grounds for disharmony between individual and national security represent a permanent contradiction (ibid: 33).
7. Traditionally, a state's security has been defined as protection against attempts to eradicate that state through use of force (Liotta in Brauch et al (eds) 2003: 322). But non-traditionally, security is related to environmental degradation, climate change, population growth etc. People's role in security issue is most important according to non traditional security point of view (ibid: 323).
8. Traditional notions of security have been deviated towards empowerment state and its constituent units. Non-traditional notions of security have been centred on the empowerment of people from various problems, conflicts and issues.
9. Traditional perception of security is the state's role in protecting its borders from external threats (Alkire 2005: 29). Non traditional threats are contemporary understanding of security that focuses on human security from internal threats (ibid).
10. Hard security has traditionally referred to the military defence of the state, seeing security issues in terms of the military balance as well as military strategy and tactics (Moustakis 2004: 141). Soft security refers to the non-military combat aspects of security. In other words it focuses on political, social and economic concerns, such as poverty and unemployment, population explosion and environmental degradation, resurgent nationalism and social tensions, uncontrolled migration and coerced displacement, and the proliferation of narcotics, crime and small arms (ibid).

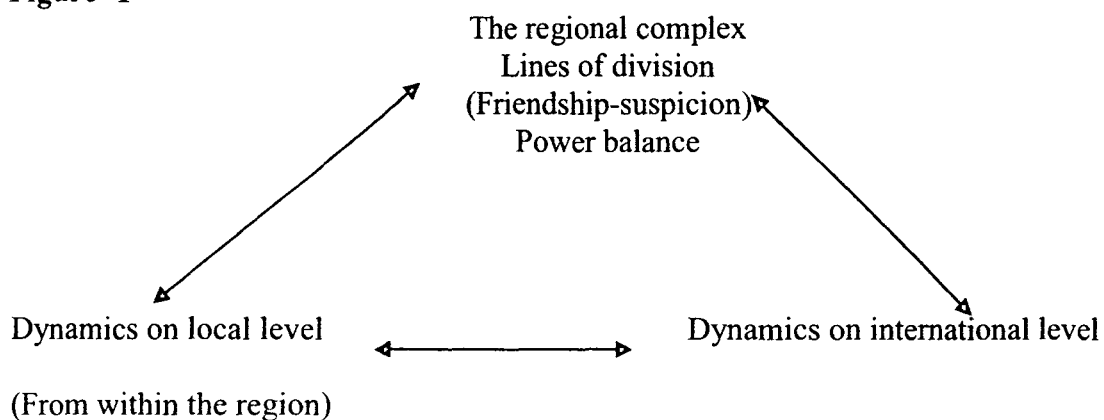
Relations between Traditional and Non-Traditional Threats

To some extent military power plays vital role in non traditional security threats. Traditional security threats are also related to non traditional threats. The importance of both traditional and non traditional security can be explained from four models of security.

1. ***The security complex***: Barry Buzan defines security as multidimensional perspectives like

economic, political, social, military and environmental security. All factors are interlinked. Political security concerns the stability of states and their system of government. Social security involves the language, culture, custom and national identity. Economic security requires for power through major economic factors, such as natural resources, finances and markets. Military security concerns the offensive and defensive capabilities of states and the states perception of others' intentions. Lastly, environmental security concerns the protection of the local and planetary biosphere (Buzan 1983: 5-8). Here political, social and environmental security types are most important to economic development as well as military empowerment. Traditional or military security is essential for environmental as well as social security. Traditional notions of security play the vital role in non traditional security issues.

Figure- 1



[The Security Complex model of Barry Buzan]

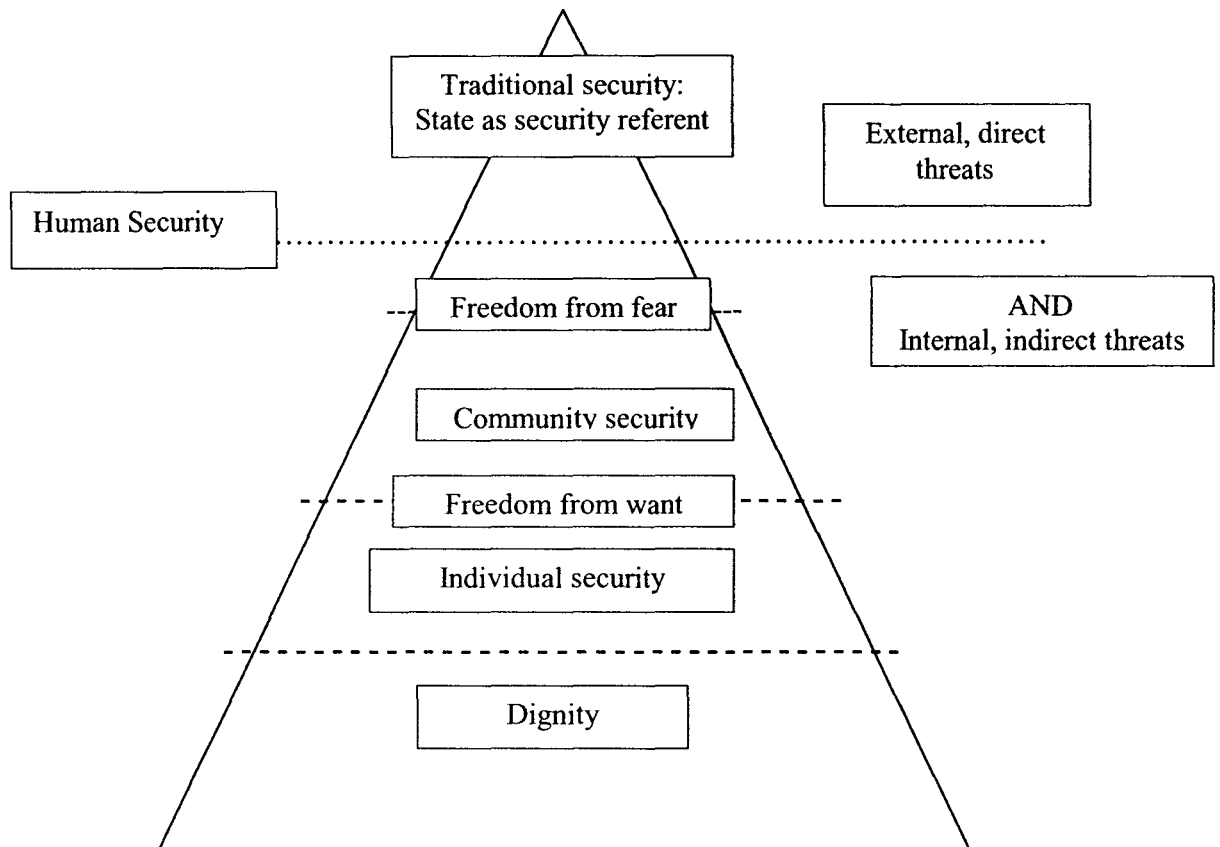
(Source: Allison, Roy and Lena Jonson 2001:9)

Buzan clearly comments that security of human collectivities involves three levels like individual, state and international. In discussing levels it can be suggested that “the micro level of great power impact on the system of local state relations and micro level of domestic affairs” (ibid).

2. The security pyramid: The figure as given below, the triangle represents one way of looking at human security as non traditional security threats in relational version of traditional security threats. “The apex corresponds to narrowest conceptions of security as state based and focused on exterior, direct threats. The first dotted line represents transition

from traditional security concepts to human security. Moving down, the definition; moving from a ‘freedom from fear’ emphasis towards the broadest conceptions which include ‘freedom from want and dignity’ (Tadjbaksh and Chenoy 2007: 56).

Figure-2

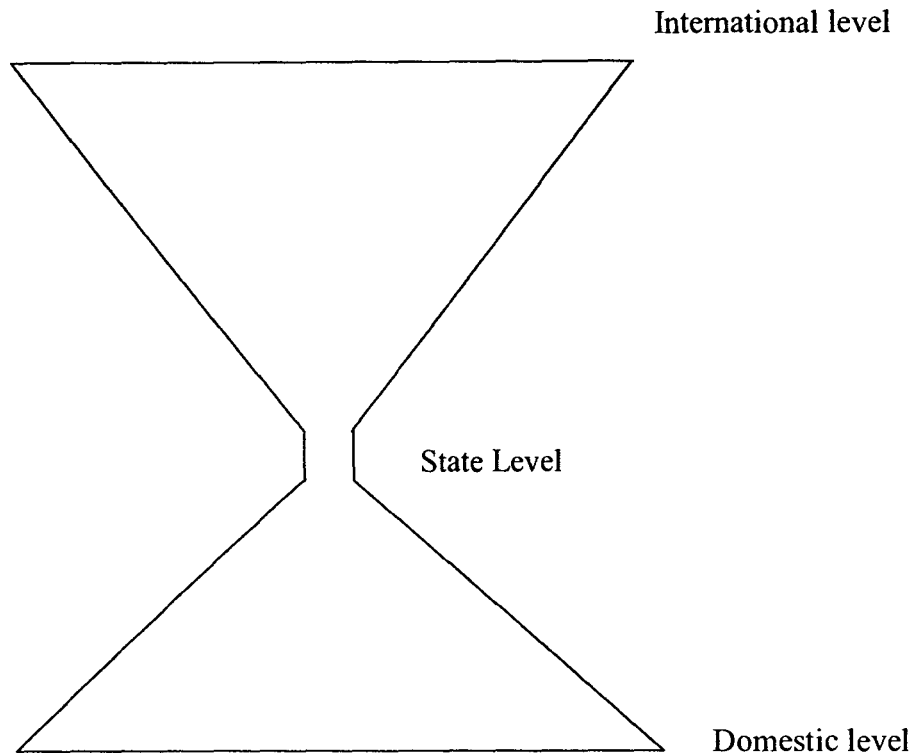


[The Security pyramid: Human security and traditional notions of security]
 (Source: Tadjbaksh and Chenoy 2007: 56.)

From the figure it is clear that traditional security threats considerations are thus justified only as a state-based means to individual security.

3. The security hour-glass: Waever, a key member of Copenhagen school, is critical of those attempting to redefine security in terms of the individual, state and international (Eadie 2007: 642). According to him, the idea of national security is related to both the individual and international level.

Figure-3



[Ole Waever's Hour-glass Model of Security]

(Source: Eadie 2007: 642)

From the above figure it can be seen that traditional security as state-centric is related to individual security as non traditional security. At the top and the bottom of hour-glass there are wide areas of individual and international security but these must be filtered through the narrow neck of the state, represented by the centre of hour-glass. Therefore, while *'People, States and Fear'* of Buzan sought to expand the critical range of security, this was arguably compromised by its state-centric and positivist methodology (ibid: 641).

4. The security matrix: Human security can be identified as a broad category of research on military or non-military to societies, groups and individuals. According to Roland Paris 'security studies of non-military studies in a two by two matrix with one axis that distinguishes studies concerned exclusively with military threats from studies of non-military security threats such as economic deprivation or environmental crisis. The other crisis

distinguishes studies that conceive of state as the appropriate unit of analysis for security studies from studies of security for societies, groups and individuals' (Alkire 2005: 25).

Figure- 4

Military	Military or Non-Military or Both
National Security (Conventional Realist Approach to Security Studies)	Redefining Security (e.g Environmental and Economy Security)
Intrastate Society (e.g., Civil War, Ethnic Conflict and Democide)	Human Security (e.g., Environmental and Economic Threats to the Survival of Societies, Groups and Individuals)

[Roland Paris's Matrix Model of Security]

(Source: Alkire 2005: 25)

This partition seems a sensible division that helps orient human security in relation to the traditional security studies as well as to the wider, 'comprehensive' 'common' and 'global' security agendas that are still state-focused (ibid).

Central Asian Security and Non-traditional Threats

Central Asia has been focused by various players after disintegration of Soviet Union in 1991. Five emerging or independent states like Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan have faced instability on security point of view. The strategic position and natural resources of the region have become sources of competition between a numbers of regional or global players. After collapse of Soviet Union the newly independent states of Central Asia like Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan,

Turkmenistan passed through a period of transition. The importance of Central Asia in world politics is mostly recognized from a strategic point of view. Huge amount of natural resources such as oil, gas, minerals etc. have attracted outside powers. Terrorism, border dispute, ethnic conflicts competition for energy and pipelines, the role of major powers like Russia, America and China, migration, environmental degradation etc. create instability and threaten security in Central Asia. Central Asia is emerging as a highly volatile area from security point of view. Central Asian Security includes both internal and external threats, which affects the stability of Central Asia (Jonson and Allison 2001:12). Within a decade of its independence, Central Asian security was facing more challenges from non-traditional threats than traditional threats. Non-traditional threats like crime, corruption, terrorism, drug and human trafficking, ethnic and civil strife jeopardize the security and independence of all the new states of Central Asia, although to varying the degrees. Border issues also another complicated situation in Central Asia. The borders were ill defined in mountainous areas and extremely convoluted in the Fergana valley, which is divided between Kyrgyzstan, Tajikistan and Uzbekistan and contains about one fifth of Central Asia's population. Caspian Sea borders also have not been fully agreed upon, mainly because of Iranian intransigence, but Russia and Kazakhstan have agreed on delineations to clear the way for exploiting their seabed oil resources (Roudik 2007:160).

Central Asian Security is primarily regulated by former Soviet Union's military forces. The rulers of new states of Central Asia have joined Russian-led Commonwealth of Independent States (CIS). They maintain close alignments with and continue to depend on the former metropolitan centre, represented by new Russian state. This approach was the result of their Soviet era socialisation and reflection of the reality of their close and multilayered integration with the Russian Federation a meshing which leaders sought to preserve in many key aspects. The fact that former Soviet military forces and installations were scattered throughout the CIS Central Asian states reinforced the perception that the establishment independent security and defence policies was a remote and unrealistic goal for Central Asian states (Jonson and Allison 2001: 1).

The relative Russian weakness should be compared with both the strength and capability of the Central Asian states themselves and with what outside powers are able to provide in the form of support and assistance in specific situations. Gradually Central Asian

States, through reducing their former dependence on Russia, began to assert distinct foreign policies and national security priorities. This has been reflected in the growing engagement in Central Asia of other regional powers- Turkey, Iran and China- as well as the United States and other Western states. The prospects of exploiting the rich oil and gas resources in the Caspian region have attracted not only Western but also Asian investors and governments (ibid: 3).

In the context of Central Asian Security, the above theoretical frameworks of security can be applied from Buzan's security complex, Waever's hourglass, Tadjbaksh and Cheney's pyramid model and Paris's matrix model. In these frameworks both traditional and non-traditional security threats would be discussed in this research.

The common heritage of the five Central Asian states as fully integrated part of the Soviet Union under the security umbrella of that state, contributes to the formation of independent Central Asia as a regional complex. The borders of the Central Asian states also work as cross border interactions with a wider Central Asia. Such interactions connect with the five sets of factors, which have been defined by Buzan, as these are related to Central Asian Security. Social security is related to ethnic, religious, linguistic relations in Central Asia. Likewise, economic factor is related to poverty issues, military security is to internal and external threats, political security to stability of state and government and environmental security is to conflict caused by water-related issues of Central Asia.

Ole Waever's hourglass model is also relevant in the context of Central Asian security at the domestic level of Central Asia; water-sharing issues affect the national security. At international level, Central Asian states have to make stability according to the domestic level because of external interference. Like civil war during 1992-1997 in Tajikistan, the risk of Central Asia turning into unstable region is quite real but that this is not inevitable. This dynamic of instability reflects the fact that these states are fragile and they are facing serious economic and political challenges, while at the same time they are trying to consolidate their statehood.

Pyramid model of security concept can be also applicable towards Central Asian security. In this model external threats and internal threats will be discussed in a balanced way. Traditional military based security cannot be eliminated due to threats of terrorism, drug and human trafficking etc. There must be discussion of traditional and non-traditional

security threats in the context of Central Asia.

Another model of security, that is the matrix model of security defined by Paris, is also applicable to Central Asian security. Military or non-military issues and impact of environmental degradation with various conflicts are interlinked with each other.

These four models of security framework are closely connected with Central Asian security. In short, Buzan's concept of security complex links with Ole Waever's hourglass model, Tadjbaksh and Chenoy's pyramid model and Paris's matrix model to provide a conceptual framework for a more objective analysis of the security threats from 1991-2001 in Central Asia and a more realistic prediction of its probable future developments based on critical analysis of the major trends.

-x-

Chapter-II

GEO-STRATEGIC IMPORTANCE AND SECURITY OF CENTRAL ASIA

GEO-STRATEGIC IMPORTANCE AND SECURITY OF CENTRAL ASIA

Central Asia, in first decade of its independence from 1991-2001, has become an emerging as well as geo-strategically important state at the international level. At its domestic level, there has been a trend towards instability from political, social, economic and environmental perspectives. Central Asia, a landlocked region in the heart of Asia, is unique because it was the counterpoint of British and Russian empires in 19th century and still has the same importance now, but among the other players. First decade of independence, Central Asia was not a stable region and some political crises were still unsolved here. This situation is created by some players which include trans-regional and regional players looking after their own interests. The interaction and competition among the players in the region have resulted in the present situation that created an undeveloped region, while potentially it has many importances from the geo-strategic point of view. From geographical point, Central Asia is a land situated in the heart of Asia which ends at the Caspian Sea in the west, borders China in the east, limits the watershed of the Ural-Irish rivers basin and Russian Southern plains in the north, and borders Iran and Afghanistan in the south. Geographic location still tends to determine the immediate priorities of a state and the greater it's military, economic, and political power, the greater the radius, beyond immediate neighbours, of that state's vital geopolitical interests, influence, and involvement (Brzezinski 1997: 38). Especially energy and security both factors determine the geo-strategic importance which are related to geography of the region. Role of major external powers like the US, China and Russia and their influence has to be evaluated from the perspective of traditional security of Central Asia.

Geo-Strategic and Geo-Political Importance of Central Asia

Geo-strategic importance of Central Asia can be discussed from two important aspects. Firstly, active geo-strategic players are the states that have the capacity and national will to

exercise power or influence beyond their borders in order to alter the existing geo-political state of affairs. Secondly, geo-political pivots are the states whose importance is derived from their sensitive location and from of their potentially vulnerable condition for the behaviour of geo-strategic players. Geo-political pivots are determined by their geography. In some cases, geo-political pivots may act as defensive shield for a vital state or even a region (ibid: 40-41).

Geographical location of Central Asia attracts major powers to spread their influence. Most of the 4 million square kilometre area of Central Asia consists of positive peculiarity from geo-strategic point of view, with almost all its territory coinciding with Mckinder's Heartland. Therefore, it has valuable condition for defence and attack operations. This territory was counter region for both marine geo-strategic realm (with the leadership of United States and its allies in NATO and its branches including SEATO and CENTO) and continental geo-strategic realm (with leadership of Soviet Union and its allies in Warsaw Pact). Nowadays also, the same thought with changed form and model which is derived from the collapse of Soviet Union, is going to settle in this region, which probably will be able to bring USA and Russia to ideologically and military clashes. The Central Asian Republics are located in the southernmost part of former Soviet Union. Approximately, one-third of the territory is located above 40 north geographical latitude (Amirahmadian 2006).

These republics are limited to Kopet Dagh mountain range in South, Tian Shan and Pamir mountains in East, which is difficult to pass and the only ways are high passes, and narrow gorges. From Kushka, that is the most far southern point of Central Asia, there is a narrow road to Afghanistan. Transit and transportation of goods and passengers between region and Afghanistan can be exchanged via this road. Marine routes of Caspian Sea facilitate the relations between Central Asian Republics with Caucasus, Iran and Russia and by Volga-Don waterway canal they can connect with free waters and many countries. In the north, vast Kazakh plain and lowlands and low-height mountains connect Central Asia via rail and road network with Russia. This territory located between two great Asian power (China) and Asian-European (Russia) and regional players such as Iran, Pakistan, and India influenced and affected it and play their roles. To enter this land-locked territory one should pass the territory of neighbouring countries. From southwards one should pass Iran or Afghanistan territory. In the current situation, to cross through mountainous Afghanistan is

impossible and the presence of expanded foreign troops hardly can be arranged and the local people can disturb them. Iran is opposed to the presence of foreign troops and protects infiltration through its territory. The reason for American presence in Afghanistan in east and Iraq in west of Iran (both occupied by USA), is to surround Iran and Russia to have access to heartland. From the other side, the territory of Central Asia in north is bordered with Russia (ibid).

Due to this reason, to enter the heart of Russia is possible only via Central Asia and this is why Russia is against the presence of any foreign and trans-regional power in the region. Access to this territory from eastward is available by passing China's western part (Xin Jiang Uighur Region). China will never allow any trans-regional power to enter in its critical, geopolitically very important western region and from there to Central Asian territory at all. The only passage to enter Central Asia by foreign powers is Caucasus in the west of region which will be available via Caspian Sea. This is why Caucasus region has got a gateway situation and the Caspian Sea itself can be changed to the gate of Central Asia (ibid).

Traditional Security Threats to Central Asia

This chapter will be directed towards traditional security threats which contain two types of analysis. One is related to military security with role of external powers like Russia and USA and second is related to territorial threat from neighbouring states like Afghanistan, Iran and China. After gaining independence and joining with CIS, Central Asia's traditional security depends mostly upon major powers. Another change is what is called the New Great Game after independence. Ethnic conflicts, border disputes, inter-state rivalry on natural resources and other various issues are taken as major threats to stability and territorial integrity of Central Asia.

The fall of Soviet Union changed the security system of Central Asia. The leaders of Central Asian Republics could not find a systematic way of protecting their states from possible external threats. The sudden loss of Soviet security arrangement left these leaders with almost no reliable and effective indigenous means to assure the security of their newly born states. They had virtually no military forces with which to preserve their sovereignty and territorial integrity. There was also certain degree of vulnerability on account of

economic and military weakness (Patnaik 2007: 206). Central Asia has faced instability from both internal and external sources. Internal threats in the form of territorial claims, disagreements over borders and the rise of regional hegemonic states provoking ethnic conflicts. Due to weakness of military security there was a rise of anti status quo groups in the entire region. In September 1992, there was great shock that originated in Tajik civil war and created fear among all Central Asian leaders (Peimani 1998: 67).

External forces have threatened to security of Central Asia. Lack of strong military power of Central Asia, the on going civil war in Afghanistan, Chinese and Russian threats etc. were major security challenges initially (ibid). The three Central Asian countries Turkmenistan, Uzbekistan and Tajikistan are adjacent to Afghanistan and security of Central Asia has been affected by the possibility of expansion of Afghan syndrome to the three Central Asian states. Instability in Afghanistan underlines the necessity of strong military power in Central Asia. China also another threat to the territorial integrity of Central Asia as it has strong military power and has been sharing borders with Kazakhstan, Kyrgyzstan and Tajikistan. But Russia has changed its attitude and it became guarantee of security rather than a threat and seeks to prevent the due to intervention of external powers in Central Asia. At the same time Russia has maximised its influence in whole Central Asian region. At the time of independence there were limited means available for self preservation of Central Asia. In this period, there were no sufficient numbers of trained professionals to create their own military forces. The region also lacked a strong military industry to satisfy its military needs. The existing industries were either irrelevant to their needs or heavily dependent on Russia for spare parts and raw materials (Allision 1993: 59).

Security and Role of External Powers

The fragmentation of Soviet Union into Russia and Central Asian Republics creates various unsolved territorial disputes, inter ethnic conflicts and fear towards external powers. In the time of turbulence of Central Asia competition started among major powers to fulfil their interest. The region's oil and gas resources attracted the super powers and the New Great Game plan started between USA and Russia. Due to active role of the two leading actors other external powers have not been able to have their influence Central Asia within the period of 1991-2001. Russia, China, Iran, Turkey and the USA have linked their national

interests to Central Asia. All are involved in Central Asia according to their economic and strategic objectives. But Russia and China have direct concerns about their national security. For China and Russia, which have long borders with Kazakhstan, the development and character of cross border relations on the local level is highly relevant. Russian officials view Turkish involvement in the Caucasus states as a geo-political challenge and are likely to consider the growth of Turkey's military links in Central Asia (Allison 2001: 17). However Russia's strategic importance in Central Asia is basically to focus on American influence.

For China the vulnerability of Xingjiang is becoming a primary security concern. China is also challenged by the spread of radical Islam in Xingjiang among the Muslim Turkic-speaking Uighurs. China has been engaged in maintaining regional stability amid threat of unrest in Xingjiang that has affected its policy in Central Asia. For this reason, China has agreed to confidence building measures and taken steps for military disengagement in the joint border region with Kazakhstan and Russia. China and Xingjiang have continued their relations with Kazakhstan and Kyrgyzstan for economic and trade development.

Iran's role in Central Asia is very important from geo-political point of view. Iran had played vital role in Tajikistan by providing inspiration to Islamic fundamentalism, encouraging and shaping religious revival, sponsoring mission and activity, distributing religious books, broadcasting Iranian television and radio programmes in Central Asia, training of Mullahs in Iranian madrasahs and opening of religious schools and Mosques. Iran is connected with the Islamic Revival Party (IRP) of Tajikistan (Patnaik 2005: 209). After few years of independence of Central Asia, Iran gave importance to Central Asia in the field of economic interest. Iran could also play significant role in the Caspian region as an energy transit state and consumer if the opposition of the USA to the regional engagement of Iran is withdrawn (Allision 2001:17).

Turkey has become a key transit state for projects to exploit Caspian energy along an East-West corridor (bypassing Russia and Iran). Turkey's status as a member of NATO has increased its weight in its partnership agreements with states in the Caspian Sea region. Turkey is linked with Central Asia in an agenda of bilateral military contracts through the Partnership for Peace (PfP) programme of NATO. The role of Turkey can't be minimised in the field of economic, political and military development of Central Asia. Turkey had

understood that US support for a large Turkish footprint in the region was motivated by Washington's fear of Iranian hegemonic ambitions in the region (Asopa 2003:39). Although Iran's advantage is primarily Turkey's disadvantage and ultimately disadvantage of the West, Central Asia wants to bypass Iranian route while planning export routes from the region to the international markets. The Western countries are averse to Iran as they view it as a terrorist country having fundamentalist designs on Central Asian regions (ibid).

Despite the role of external powers, Central Asia has made its own approach towards its security system. The Commonwealth of Independent States (CIS) was formed in December 1991. After independence, Central Asian states put their hope on CIS for security from external threats. The course of collective security was made complex by inclusion of Central Asians. At Tashkent the CIS Collective Security Treaty was signed by only four states of Central Asia excluding Turkmenistan during the CIS Summit in May 1992. Once the CIS settled the immediate problem of security gradually calm move down on the region.

In this period Central Asia was propelled by religious revivalism through their Islamic neighbours. The religious cultural influence of Saudi Arabia, Iran, Pakistan, and Turkey extended towards Central Asia. "It was expected that due to historical, cultural, and religious affinities and because of their own military and economic weakness; Central Asian States could be brought under their influence" (Patnaik 2005: 209). Security of Central Asia has to be considered from the point of the role of Russia in Tajik civil war in 1992. Religious extremism had created insecurity not only for Central Asia but also for Russia's Caucasus and Volga region. For this reason Russian troops have settled on Tajik-Afghan border and Tajikistan's territorial integrity could be preserved. So, due to threats many causes like Islamic revivalism and civil war in Tajikistan, the newly independent states of Central Asia-Transcaucasia-Caspian region came to consider Russia as their natural protector. About 40,000 Russian troops are deployed throughout Central Asia where they are functioning as border security force.

Instability in Afghanistan has affected Central Asia as both directly border each other. Threats from Afghanistan came in the shape of radical ideology, terrorism, growth of inter ethnic and interstate tension; drug trafficking and the weapon, potential military threat etc (Ashimbaev 2003: 9). In 1996, when Taliban came into power in Afghanistan, security of Central Asia changed in another direction. Cross-border terrorism became the major threat to

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Central Asia, China and Russia. After 1996 China looked towards regional stability and containing religious extremism. Border issues between China and Central Asia was resolved by the creation of Shanghai Five. In this period Iran actively participated in conflict resolution in Tajikistan. Russia also extended cooperation with Asian powers for preserving peace and stability in the region.

Since 2001, security of Central Asia became vital to US security interest due to the terrorist bombings in the US on 11 September 2001. The role of NATO became main security alternative for Central Asian States. The US presence in this region has also maximised the role of Russia. The US and the Russia have troops and military bases in Central Asia. Military support from these two super powers has created defensive means from external threats.

Role of Russia in Central Asia

Central Asia has been hanged by different threads of external powers with respect to their interests. Russia has since 1992 re-emerged as an active player in the Central Asian political scene. It has focused on a long term goal of economic, geo political and military interests in Central Asia (Ashimbaev 2003: 76). Strategically, Russia has played a counter role towards US-influence in Central Asia from 1991-2001. Before 1996 Russia's influence was limited and since then Russia continued to expand its vital role till 2001 (ibid). Russia returned to Central Asia for several reasons. Firstly, its absence in Central Asia will cause threats to security of its southern borders; secondly, its unipolar focus on natural resources and influence over Caspian sea; thirdly, the maintenance of the control over basic transport-communication ways and pipelines of the region has a great external political economic value for the Russian Federation; fourthly, to maintain responsibility for Russian minority; fifthly, to limit America's influence in the region; sixthly, to maintain security from cross-border terrorism; seventh, to challenge the Iran's role in the Caucasus and Central Asia; eighth, Russia wields significant clout in the region on account of geography, history, culture and politics (Sharma in Chenoy et al (eds) 2007: 95). As Caucasian-Central Asian states are vulnerable to competition over energy, Russia has considered Central Asia as the security and interest zone for its long-term engagement.

After 1991, Russia started the regional system of security. Russia's first objective was

stability through regional settings by mutual cooperation among CIS countries. In this connection, some members of the CIS signed the Treaty on Collective Security (CST) in May 1992 in Tashkent. This treaty was based on peace keeping measures, joint protection of borders, military presence and security from external threats. This was also made on traditional security perspective and it helped to stop the source of local tension and the hostilities in this region (Allison et al (eds) 2001: 99). The Tashkent Treaty didn't have the desired effect and military integration didn't follow. Most states were unwilling to integrate militarily. Turkmenistan never participated in CIS discussions on military issues and Uzbekistan soon stopped participating in expert meetings on military affairs (ibid). Russia actively intervened in Tajik Civil war in 1993. This event created military cooperation between Central Asian states and Russia. Turkmenistan was involved with this cooperation. Russia became guarantor of peace in region and Kazakhstan, Kyrgyzstan and Uzbekistan agreed with Russia for peace keeping troops. It had great impact upon security of Tajikistan by the involvement of Russia in Tajik civil war of 1992-1997.

Russia's active role, for maintaining peace, had started in 1994 as a mediator between Tajikistan government and United Tajik Opposition (UTO). In this period Tehran did not support Russia's participation in Tajikistan. Russia didn't act fully as third mediating party in October 1994 when the provisional agreement, on ceasefire on Tajik-Afghan border and inside the country, was signed. In this time Russia supported to Rahmonov's regime for political stability (Ashimbaev et al. 2003: 79).

Another event, Taliban movement in 1994, forced to focus on Central Asia for the maintenance of stability and security for the region. Central Asian region, Russia's main priority, became the focus of the regional system of security. Moscow's participation during the intra-Tajik settlement was very important for establishment of peace in Tajikistan. In 1996, by Russian efforts, the anti-Taliban alliance was formed.

In February-March of 1997, the seventh round of the intra-Tajik negotiations was held in Moscow. There the key document in the intra-Tajik settlement was adopted. From 1991-1998, Russia had played an active role in regional and to some extent Russia supported regional cooperation trends among Central Asian states for protecting them from external threats.

Russian leadership in the region gradually increased in the period from 1991 to 2001.

In this period Russia looked at other means of security through socio-economic development. Russia also approached development through mutual relationship among partners. Russia's foreign policy began to focus on Uzbekistan. Uzbekistan has significant economic resources and opportunities (cotton, metals, a strong etc.) which required both economic and military support of Russia. Russia considered that Uzbekistan was the key factor of regional security and influential force in Central Asian region because Uzbekistan could be a strong barrier against external influence on the states located on the perimeter.

Central Asia was again influenced by Russia's military-technical cooperation against IMU guerrillas. Groups of guerrillas of Islamic Movement of Uzbekistan under the leadership of Juma Namangani attacked the mountain areas of Kyrgyzstan from territory of Tajikistan. Guerrillas aspired to break in the Uzbek part of the Ferghana valley and to start there a revolt against I.Karimov's regime. Moscow, in turn, has chosen effective enough tactics of rapprochement with Uzbekistan on the basis of joint struggle and prevention of the general threat of Islamic extremism in Ferghana valley, on the territory of Russia and the Northern Caucasus. In May of 2000 Vladimir Putin had declared at a press conference that 'any threat to Uzbekistan is threat to Russia' (Ashimbaev: 2003). Again in August of 2000, IMU guerrillas attacked the territory of Uzbekistan in the Surkhandaria area. At the time Tashkent had rejected the idea of Russia about creation of collective regional armed forces. Uzbekistan focused on the Taliban as the main threat. The leadership of Uzbekistan had acted in December of 2000 against American and Russian plans of militarily engaging Afghanistan and proposed to all states of the CIS to enter into dialogue with Talibs. But that strategy had become a failure due to by the counter attacks by Northern Alliance against Taliban (ibid). This failure has caused the activation of Russian policy in the region.

Russian military delegation visited Tashkent in March 2001 and sanctioned military equipments to Uzbekistan. In June of that year the presidents of Russia, China, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan have signed documents on transformations of the Shanghai Five into Shanghai Cooperation Organisation (SCO) with the joining it Uzbekistan. This is significant for stability and unity since this regional grouping had both Russia and China.

From 1991 to 2001, it can be analysed that Russia played a significant role in Central Asia. Firstly Russia initially did not give important to Central Asia but gradually Russia got

involved in Central Asia from security and interest point of view. In the last phase of 2001 Russia fulfilled its objectives through trade relationship. Russia has managed its military power in Central Asia in the shape of security cooperation and promotes its geo-economic interest by mutual relations. Russia's involvement is not only of security benefits to Central Asia, it has also economically benefited Russia.

Role of USA in Central Asia

The US has been playing an important role in Central Asian security since the independence of Central Asia. The strategic role of USA is different from that of Russia. It can be said that USA has put its primacy on a dominant policy in this region. Samuel P. Huntington has rightly explained the US policy as:

‘A world without US primacy will be a world with more violence and disorder and less democracy and economic growth than a world where United States continues to more influence than any other country in shaping global affairs. The sustained international primacy of the United States is central to the welfare and security of Americans and to the future of freedom, democracy, opens economies and international order in the world’ (Brzezinski 1997: 31).

Eurasia is the chess board on which the struggle for global primacy continues to be played. America power is directed to manage its geo political interests in Eurasian Chess Board (ibid). From geo political and geo strategic importance, America has played a leading role in the region of Central Asia. During the period from 1991 to 2001 Central Asia has turned towards the influence of USA. From the period of 1991 USA has acted as a guarantor of security from several grounds till 2001 in Central Asia. The US aims and strategy, in Central Asia, have been set after disintegration of the USSR. From various angles like security, energy, natural resources, regional conflicts and power rivalry are the main issues of intervention of USA in this region. Brzezinski has stated that the US aim was to keep Russia out of Caucasian and Central Asian region, even aligning with its opponents (Kaushik 2007:76). Central Asian security has evolved according to the military presence of USA in this region. Specially, traditional threats to Central Asian security have been controlled by the US involvement. The role of USA in Central Asia has been managed with respect to various interests.

- First, the attraction for the US is the Caspian region for its natural resources;
- Second, for consolidating the US global leadership from a long term prospects;
- Third, the US aims to provide access to political and economic potential of the states of Central Asia with implementation of a policy of restraint of China and limit the influence of Iran which acts as opponents of US on a number of world and regional problems (Ashimbaev et al 2003: 93).
- Fourth, the policy of USA is related to minimise the power of Russia and China in Central Asian region and the presence of USA is linked with management of gas pipeline in developing Eurasian strategic transport unit.
- Fifth, for fulfilment of its interests, USA has provided military security to Central Asia.

America's military presence around the Central Asian region was increasing even before the independence of Central Asia. After 1991, the role of USA was limited in Central Asia and it tried to influence the region through promotion of human rights and liberal democracies and market economy. The US has also opposed the authoritarian autocratic leadership in Central Asia. After 2001, three thousand US troops arrived in Kyrgyzstan to supplement around 1500 soldiers already stationed in the neighbouring Uzbekistan.

America's moves in Central Asia and the Caucasus region include an all out effort to find alternative oil routes as well as explore the possibility of future expansion of North Atlantic Treaty Organisation. USA has played a leading role for making peace and provides military assistance in Central Asian regions. In 1994, except Tajikistan, all Central Asian states joined in the North Atlantic Treaty Organisation's Partnership for Peace programme. Later Tajikistan joined in 2002. Central Asian troops have participated in periodic military exercises in the United States since 1995, and US troops have participated in exercises in Central Asia since 1997 (Roudik 2007: 164).

The joint NATO-PfP has been holding military exercises since 1997 in the region. All Central Asia states have also joined NATO's North American Cooperation Council (NACC). Significant in this process was the formation in December 1995 of the Central Asian Battalion, set up with participation of troops from above two (PfP and NACC) and Uzbekistan; under NATO auspices and US CENTOCOM(Central Command) support, with a

mandate in peace-keeping and conflict management (Patnaik in Chenoy and Patnaik (eds) 2007:105-106).

The involvement of USA in Central Asia has improved there defence cooperation. The US military has successively undermined to Russian, Chinese and Iran's interests and US regional military involvement has grown towards the end of 2001. General John Sheehan, USMC, commander in chief of the US Atlantic Command (ACOM) and NATO's SACLANT (Supreme Allied Commander Atlantic), announced the USA's willingness to take part in regional peace support operations involving Central Asian forces under UN authorisation, further extending the US offer of security cooperation to those states (Blank in Allison and Jonson (eds) 2001:139).

The role of USA in Central Asia is a strong resistance to external threats. After 9/11 US has considered Central Asian security as very important to US as well as global security. Terrorist attack and Islamic radicalism are major threats to security of any state. So US policy in Central Asia has been concentrating on security and strategic interest.

China's Role in Central Asia

China has come to share several security concerns when Central Asia got independence in 1991. Its significant size, strong military power and fast growing economy make China a vital player in Central Asia. From geo-political angle China is bordering Kazakhstan, Kyrgyzstan, and Tajikistan. Its location has made it a bridge between East and West from political and cultural point of view. According to Guang Cheng Xing 'in the 21st century economic cooperation with in Eurasia will develop, and the Central Asian states are at the axis (Xing in Allison et al. (eds) 2001: 158). China's role in economic and political field will close towards stability and security in Central Asia. China also considers that Central Asia's natural resources will improve Chinese national interest. It gives high priority to the development of bilateral and cross border relations with Central Asian states. The stability and development of Xingjiang is another centre of objectives of Chinese foreign policy (ibid).

China's role in Central Asia has improved after 1991 independence due to several problems related to security challenges along China's Northern frontier provinces especially Xingxiang-Uighur region. China's involvement in Central Asia has contained with various

issues like ethnic issues, religious revivalism and border disputes (Patnaik 2005: 211).

China has found strategic importance of Central Asia due to several factors. First, China's attention towards nuclear threats emanating from Central Asia when Kazakhstan's president Nursultan Nazarbaev declared in early 1992 that his country has right to remain nuclear. Second, Russia's hegemony will affect the interest of China. Third, regional cooperation and security through regional organisation is essential for territorial integrity. Fourth, improvement of military and economic power will develop the strategic relationship between China and Central Asia.

As both China and Central Asia have considered common threats to each other, they have gradually developed their military cooperation. In 1993, a Chinese-Kazakh communique on the principles for bilateral contracts was signed. Again another joint communique was signed in 1995 for reduction of armaments and the increase of mutual trust in military affairs in the border region (Xing in Allison et al (eds.), 2001:154). On 27 April 1994, Sino-Kazakh border agreement was finalised on the principle of the delineation of the 1,700 Km long border. Border issue was very sensitive issue between Central Asia and China. For solution of these issues, both countries signed an agreement on 4 July 1999 that finally brought to an end their longstanding border disputes, through mutual understanding on the issue of China-Kyrgyzstan and China-Tajikistan border (Jiali 1999: 45). Before this agreement Shanghai Five in 1996 formed a regional border security forum and agreed to cut their armed forces along their common border and refrain from using force against each other (Patnaik 2005: 212). In April 1996 Shanghai Five agreement was signed on Mutual Military Confidence Measures which was first collective agreement between Russia, China and three Central Asian republics (ibid).

In April 1997, in Moscow, five countries signed an Agreement on Mutual Reductions of military forces in the border region. This was very important agreement for making peace in the border region and allowed use of defensive troops only. This agreement also included use weapons or threat to use them or seek to maintain military superiority and to reduce numbers of ground forces, air forces, air defence and border defence forces and the numbers of major weapons deployed to 100Km on either side of the border. The members also focused to define the size of forces remaining after the reduction and the manner and time table of this reduction to exchange relevant information on their forces deployed in the

border region; and to conduct regular verification of implementation of agreement. The agreement is valid until December 2020, but can be extended. The information exchanged on military forces on the border area will not be shared with third countries (Xing in Allison et al. (eds), 2001:160). This agreement was an important step to stabilise the region from conflict. The region has been pressurised by some common threats like separatism, terrorism, illegal arms trafficking and illegal drugs trade. For the eradication of common threats, there was another meeting held in Almaty in July 1998 between Chinese President Jiang Zemin, the president of Kazakhstan and Russian Prime Minister Yevgenii Primakov. They discussed on the strengthening of regional peace, stability and economic cooperation (ibid).

In September 1999, the Turkmen defence minister's visit in China was an important means of cooperation in the field of military training and use of equipment. In April 2000, China provided an aid of 1 million Yuan to Kazakhstan's armed forces during the visit of the Kazakh defence minister. China has improved military cooperation with Central Asia up to the period of 2001. China has enhanced its military ties with Uzbekistan which is under great pressure from Islamic militancy and extremism. China has provided Uzbekistan with sniper rifles as well as flack jackets. China has provided Kyrgyzstan assistance worth \$600000, to include tents and army gears and in June 2001 the Kyrgyz and Chinese defence ministers agreed to training of Kyrgyz soldiers at a training centre in Guangzhou in China (Patnaik 2005:214).

Military power of Central Asia has increased by 2001 and external threats could be challenged with the cooperation between China and Central Asia. Military cooperation also provided strength against international terrorism and religious extremism. Shanghai Cooperation Organisation has transformed itself into regional peace and security mechanism. The role of China has helped to maintain balance among major powers in the region.

Turkey's Role in Central Asia

Turkey's role in Central Asia has been accepted due its strategic location. Turkey quickly started to seek influence and was involved in Central Asia after disintegration of the Soviet Union. Ankara saw itself as a state between the West and East, as the representative of the western partners in the Central Asia (Ashimbaev et al 2003: 142). Turkey has played

important role in Central Asian security. Events in Central Asia do not pose an immediate threat to Turkey. Unlike China, Iran and Russia, it is very clear that Turkey is not involved with border disputes with any Central Asian state. "Turkey has concluded military-security-agreements with the Turkish states and is at the forefront of NATO activities relating to Central Asia. Moreover, Central Asia and Transcaucasus can't be completely separated, and events there have bearing on the bearing on Turkey's defence interests (Winrow in Allison et al 2001:199). Turkey's important goal in Central Asia is related to economic, energy as well as military and defence matters. Turkey has focused towards Russia's influence in its border region. For geo-political importance, Turkey has maintained its basic interest in the Caspian region and also due to its relations with the West. USA has declared that Turkey is not guided by extremely self interests but it is concerned with Central Asia for development of military power of these countries (Ashimbaev et al 2003:143).

Turkey's role in Central Asia is commonly related to religious radicalism and tribal and regional separatism. Turkey is actively involved with Central Asia in military and defence field. It is supporting the formation of modern, independent armies- that is, independent of Russia- in Turkic states (Winrow in Allison et al 2001:207). Important bilateral steps were taken between Turkey and Central Asia in the context of military security from 1991-2001.

Turkey and Central Asian states have exchanged military delegations in 1993. In March of that year General Dogan Gures, then chief of the Turkish General staff, toured Kyrgyzstan, Turkmenistan and Uzbekistan. Initially, bilateral agreements on military training were concluded. In August 1994 the Kazakh defence minister Sagadat Nurmagambetov stated that agreement signed with Turkey was only a preliminary one dealing primarily with cooperation in arms production. Again after two years Turkey and Kazakhstan signed a military industrial cooperation agreement and a protocol on military training (ibid: 208). Military powers of Central Asian states have developed with the support of Turkey after 1991.

In 1998 Turkmenistan sent over 1000 of its military personnel to study in Turkey. Turkey has played a key role in training a new officer corps. In April of 1998 Kyrgyz authorities and Turkish Prime Minister Mesut Yilmaz had signed with a joint declaration on security threats. From 1991 to 1998, Turkey has participated with Central Asia to meet non

traditional security threats like organised crime, arms smuggling, terrorism and separatism. However, Turkey is not extensively involved in arms production ventures with the Central Asian Turkic states. Its officials are seeking to expand Turkey's arms industry and therefore interested in licensed production deals involving third country sales.

Turkey's role in Central Asia is basically to counter threats from extremist groups of Islamic countries like Iran and Afghanistan. In this context it can be stated that 'the increased Islamic onslaughts against Central Asian region, the Kurdish insurgency and economic weakness at home inhibited Turkey from pursuing its "Pan Turkic" agenda in Central Asia' (Asopa 2003: 39).

Turkey's involvement has been based on 'new security complex' that involves the role played by Iran after Soviet disintegration. The 'new security complex' in Central Asia and Western Asia of non-Arab states, consisting of Iran, Afghanistan, and the Caucasian and Central Asian countries have interacted with Turkish and Iranian interests. Iran had historical and cultural ties with the region since ancient times. It shares Caspian Sea with Kazakhstan and has long border with Turkmenistan. Turkey's strategic significance in Central Asia is linked with economic interest as well as military security interest. Turkey's role is very important in the traditional and non traditional security context of Central Asia.

Iran's Role in Central Asia

Security of Central Asia has been based on 'new security complex' due to the role played by Iran after Soviet disintegration. Iran has been involved after Soviet disintegration. Iran's expansion is also challenged by the Arab states. Iranian deputy foreign minister for research and training, Abbas Maleki, stated: 'Following the collapse of the Soviet Union, the regional subsystem has completely changed. Because of its peculiar nature the Middle East Subsystem put Iran on the margin politically and culturally. This sub system was mainly Arab in nature. However, the new situation has resulted in the departure of Iran from Middle East Subsystem and its entrance into a new system, which includes the newly independent countries of Central Asia and the Caucasus (Peimani 1998: 80)'.

In the initial few years of disintegration of Soviet Union, Tehran's perception was that the threats are emanating from Central Asia and Iran also considered that Central Asian states are posing conventional threats to Iran. But actually, Iran is more powerful than Central

Asian states (Herzig in Allison et al. (eds) 2001: 184). As Turkmenistan is a neutral country, Iran now believes that there is no direct threat from Central Asia. Tehran has perceived that danger of the situation in Afghanistan could spread via Tajikistan to other parts of Central Asia. Iran has developed its strategic relationship with Central Asia to combat the effect of drug trade, the civil war and instability from Afghanistan (ibid). Iran has given its importance to security of Central Asia for development of its own national security. Iran has supported the empowerment of military power of Central Asia for regional peace and security. Iran has played active role in conflict resolution and mediation in Tajikistan. Iran became key supporter of the UN-backed mediation efforts and was instrumental in securing the acceptance of the Islamist-led United Tajik Opposition (UTO) to ceasefire in 1994. Eventually, Tajik president Rakhmonov visited Tehran in 1995 and the final peace accord was signed in 1997 (Patnaik 2005:219). Iran has raised its level of interest in Central Asia due to influence of the US in the region. The policy of Iran in Central Asia is determined with respect to its own national interests. First, the security of northern borders through maintenance of stability in the Central Asian states. Second, forming of mutual relation with the states within the framework of the common policy of an exit from international isolation. Third, necessity to maintain good mutual relation with Russia and Turkey. Big value is given by Tehran to cooperation with Russia to counter balance the USA and the West (Ashimbaev et al. 2003: 137).

In August 1998, Iran focused on Afghanistan when 10 Iranian diplomats and journalists were murdered in Afghanistan. Iran has shared interests with Central Asia in security matter. In October 1998 there was massive troop mobilisation and manoeuvres involving 70,000 Revolutionary Guards and 200,000 regular Iranian troops close to the Afghan border, but counsel of peace ultimately prevailed (Herzig in Allison et al (eds) 2001:186).

From 1991 to 2001, Iran has considered Central Asia as the belt of security for Iran. Within this period, Central Asian security comes to be related with Iran's interest. Iran and Central Asia both have improved their bilateral relationship in terms of military security. The military industrial complex of Kazakhstan and Uzbekistan has produced communication devices and aircrafts, such as mig 29 and IL-76 that could supply Iran with military hardware (Patnaik 2005: 218). Iran's role in Central Asia has to be considered according to both

traditional and non traditional security perspective.

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Chapter-III

ENVIRONMENTAL AND WATER- SHARING ISSUES IN CENTRAL ASIA

ENVIRONMENTAL AND WATER-SHARING ISSUES IN CENTRAL ASIA

Meaning of Environmental Security

Environmental security is a non-traditional security issues which is related to environmental degradation. The whole world has different types of lands, peoples and national resources with different types of social, political and economic conditions of people. Survival of human being is totally dependent on survival of environment. “Environmental security has emerged as a transnational idea, the core of which holds that environmental degradation and depletion, largely human- induced, pose fundamental threats to the physical security of individuals, groups, societies states, natural ecosystems and the international system” (Dabelko1996:2). Environmental security threat is closely linked with environmental conflict. The definition of environmental security is provided by Libizewski (1992) and Bachler (1998) in the context of environmental conflict and degradation as:

“Environmental conflicts manifest themselves as political, social, economic, ethnic, religious or territorial conflicts, over resources or any other types of conflict. They are traditional conflicts induced by environmental degradation. Environmental conflicts are characterized by the principal importance of degradation in one or more of the following fields: (a) Over-use of renewable resources (b) Over strain of the environment's sink capacity (pollution); (c) improvement of the space of living (Brauch 2003: 97).

The concept of security has become increasingly popular since the end of cold war. Environmental problems have become serious threats to human-existence. Environmental security threats have affected different parts of the world since the development of human civilization. John Barnett (2001:129) has defined environmental security the process of minimising environmental insecurity with humans as the major referent of security. With this definition, he “seeks to treat the underlying causes that create environmental degradation” (Brauch 2003:73). Environmental threats include many factors like natural variability, human induced stresses, the sensitivity and resilience of the ecosystem, the vulnerability of population, and the goals and capacities of response and management systems (ibid:

79). Security of environment means to save environment from vulnerability which is related to climate change impacts. This vulnerability results from 'poverty, exclusion, marginalization and inequalities in material consumption, and it is generated by "social, economic and political process" (Barnett 2001:132). The International Strategy on Disaster Reduction (ISDR, 24, 342, Brauch ch. 49) defined "vulnerability as a set of conditions and processes resulting from physical, social, economical, and environmental factors, which increase the susceptibility of a community to the impact of hazards" (Brauch 2003:77).

Environmental security connotes a sustainable development of environmental- ecologically factors also responsible for environmental security issues. The International Strategy on Disaster Reduction (ISDR) refers to the "very broad range of issues in the interacting social, economic and ecological aspects of sustainable development as it relates to disaster risk reduction. Several factors are also connected with environmental security issues: (a) the extent of natural resources depletion (b) the state of resources of degradation (c) loss of resilience of the ecological system (d) loss of bio-diversity (e) exposure to toxic and hazards pollutants (ibid).

Environmental security issue has been used to promote human value. The ISDR (2002) has launched a practical guide for "living with risks" based on a review of global disaster reduction initiatives. ISDR has defined risks as:

"The probability of harmful consequences, or expected loss of lives, people injured, property livelihoods, economic activity disrupted or environmental damage resulting from interactions between natural or human induced hazards and vulnerable or capable conditions" (ibid: 78).

Environmental related issues cover clash, conflict, scarcity and shortage of resources. At local level environmental degradation is created by disputes arising from human communities. Ethnic clash originates from environmental scarcity. This environmental scarcity affects economic productivity, people's livelihoods, elite groups and the ability of states to meet changing demands. Environmental threats induced from water scarcity create inter-state conflicts (ibid).

Environmental security not only covers economic, social and ecological concepts but it covers to political efforts. Environmental security refers to agenda setting by major reports of several commissions. It includes national policy formulations. The World Commission

report on environment and development (1987: 290-307) considered environmental problem 'both a cause and an effect of political tension and military conflict. Nations have often fought to assert or to resist control over raw materials, energy supplies, land river basins, sea passages, and the key environmental resources'. The Commission's report argues that several factors are connected with environmental stress, like poverty and insecurity such as inadequate development policies, adverse trends in the international economy, inequities in multi-racial and multi-ethnic societies and pressure of population growth etc. that are vital force to create environmental threats. Environmental security concept has been developed from the impacts of industrialization and militarization. Social clash or ethnic conflict has increased due to impact of military-industrial complex. The effects of militarization come not merely from warfare but also from the preparation for warfare and opportunity costs to society foreclosed by military expenditure (Barnett, 2001:19).

Environmental security concepts were induced from environmental degradation and environmentally induced conflicts, including expanding and migrating human populations, water, arable land and other resource, and environmental scarcities; ongoing militarization; globalization which brings people into closer proximity; and increasing recognition of injustice of Northern-induced underdevelopment of the South. The critical issue for the study of environmental security is whether and how environmental degradation triggers violent conflict (ibid).

Environmental security concept can be analyzed from two main important factors: (1) resources war (2) water wars. Natural Resources are limited and the competitions over natural resources are rapidly increasing. Environmental conflict is also due to another factor i.e. water wars. Gleick has explained that "there is long history suggesting that access to resources is a proximate cause of war" (Gleick 1990: 507). Again he argues that there are 'five clear connections' between environmental degradation and security; resources as strategic targets; resources as strategic tools; resources as inequities; and environmental services and conditions are roots to conflict (ibid : 508).

An environmental security concept relates to the livelihood conflict over water. Water wars signify the conflict which arises from mutual sharing of two or more countries according to river system. Naff (1992:25) defines 'water wars as in sum the strategic reality of water is that under circumstances of scarcity it becomes a highly symbolic, contagious,

aggregated, intense, salient, complicated, zero sum, power-and prestige- packed issue, highly prone to conflict and extremely difficult to resolve' (Barnnet: 2001:55). Environmental degradation is the main reason for growing conflict over water scarcity, and politicized water management system provides ground for unsolved conflicts (ibid).

Environmental security threats cover from regional to international level. These issues have been arising for past few years towards pointing to dangerous situations in future. Environmental security threat is a non-traditional threat which was highlighted in the final report of the NATO- COMs (1999: 84) pilot study on environment and security in an international context. It stated that 'non-Traditional threats to security such as economic decline, social and political instability, ethnic rivalries and territorial dispute, international terrorism, money laundering and drug trafficking and environmental stress are redefining the traditional mission of security organizations such as North Atlantic Treaty Organization. NATO has begun to address non-traditional threats to security in order to meet the looming domestic and international risks defining the security context in post-Cold War world" (Brauch 2003: 82). Environmental security threat is an emerging issue of third world countries and its importance needs to be discussed and for stability and making peace for the future.

Development of the Concept of Environmental Security

Environmental security threat is part of non-traditional security threats which emerged after 1970s. In past, specially, in world wars and post-cold war areas; various conflicts among nations and civil war within nations have created environmental security threats. Environmental security, was first used in human security context according to "Rome Groups" series on the world "problematique" and in this series, it has focused on 'environmental degradation' as major international security threat (Bajpayi 2003:197).

The Brandt Report (1980) noted that "a few threat to peace and survival of human community are greater than those posed by prospectus of cumulative and irreversible degradation of biosphere on which human life's depends." Further it stated, "Our survival depends not only on military balance, but on global cooperation to ensure sustainable development" (Myers 1996: 228-229). This report has clearly pointed towards economic, social and political stability in future. In 1987, Brundtland Commission argued that

environmental security is not limited within particular level, but it involves, locally, nationally, regionally as well as globally. There are no military solutions to 'environmental insecurity'. The World Commission on Environment and Development (1987) has suggested that environmental security is essential for protection of environmental resources (Brauch 2003:81). In this period Brudtland Commission (1987) also referred to two great threats: the first is that from nuclear exchange and the second is that from environmental ruin worldwide (Myers 1996). President Gorbachev, in his speech to the UN General Assembly in December 1998 stressed that "The relationship between man and environment has become menacing ...The threat from sky is no longer missiles but global warming" (ibid). Myers argued that "the principal threat to security and peace stems from environmental breakdown, plus the need for access to natural resourcesIf the oil wars have begun the water wars on the horizon". At the 90th Nobel Jubilee Symposium, Grottarlem Burndtland (1993: 189-194) also pointed to the new threats to security:

"These may be caused by social unrest caused by poverty and inequality, by environmental degradation, by internal conflicts leading to new flows of refugees ...The pressure on environment from a rapidly growing world population will increase the likelihood of such conflicts, climate change, desertification, deforestation, massive loss of species and biological diversity, depletion of freshwater resources and oil erosion are global trends that are not sustainableThe most global, and potentially the most serious of all the issues facing us today is how we should deal with the threats to world's atmosphere" (Brauch 2003: 75).

In 1992, senator Al Gore in his book 'Earth in Balance' referred to several environmental threats from local (tactical) to the global (strategic) level where he mentioned global warming and ozone depletion (ibid). In 1994, UNDP's Human Development Report suggests that environmental security is based on 'people-centred policies and threats to environmental security includes declining water availability, water pollution; declining arable land; deforestation, desertification; air pollution; and natural disaster" (Bajpayei 2003: 203).

From 1992 to 1999, NATO has supported several Advanced Research workshops on issues of environmental security and environmental conflict (Brauch 2003: 82), 'without protection of environment; security and peace can't be maintained'. UNEP's 15th Governing Council Session on May 1999 discussed how 'to develop the concept of environmental security and to determine when a situation or activity became a threat to security'. In 6-8 February, 2001, at an UNEP workshop which was held in Brussel it has decided to explore

the importance of military organisation in stratosphere, ozone protection and climate protection. Military representatives and civilian participants increased their commitment to phase out ozone-depleting substances (ODS), strengthen “military to military and “military to civilian” environmental cooperation and exchange crucial technical and policy information (ibid).

Environmental security has developed through various phases of research. Threats to environment affect the whole political, economic, social and security system of any state.

The Environment and National Security

Kaplan's ‘The coming Anarchy’, published in ‘The Atlantic Monthly’ in 1994, is an influential writing which considers environment as security threat to nation-state. His ‘premonition’ of the future includes ‘disease, overpopulation, unprovoked crime, and scarcity of resources, refugee migrations, the increasing erosion of nation-states and international borders, and empowerment of private armies, security firms and international drug cartels’ (Kaplan 1994: 44 and 46). Kaplan explains that environment is the national security threat of twenty-first century (Barnett 2001: 42). ‘The coming Anarchy’ of Kaplan is the logical conclusion of the crude interpretation of environmental degradation as a national security threat.

Environmental security threat might be considered as a national security threat with respect to some important points:

- First, the economic base that determines military capacity is itself underwritten by the natural environment. Economic base is formed by natural capital base to strengthen military and economic power against external aggression.
- Second, environmental degradation has a negative effect on national interest. It threatens individual and collective economic livelihoods by eroding the natural capital base of the economy; it affects health through contamination of water, air and food; it exposes humans to new health risks by disrupting ecological processes, it reduces the overall quality of life; and it exacerbates inequalities between people (Barnett 2001: 43).

- Third, the trans-boundary environmental problems challenge the primacy of the sovereign state in safeguarding territory, population and interest (Dabelko and Dabelko 1995: 9). Trans-boundary flows differ from traditional external security threats in that they are uncontrolled and most often unintended, in this respect they are ‘threats without enemies’ (Barnett 2001:44).
- Fourth, environmental degradation creates instability with the state.
- Fifth, US National Security Strategy (1998) states that ‘ the current international security environment presents a diverse set of threats to our enduring goals and hence to our security, including transnational threats such as terrorism, international crime, drug trafficking, uncontrolled refugee migrations and environmental damages which ‘threaten US interests, citizens and US homeland itself’ (Clinton 1998: 10).

Environmental security threats are very relevant issues for maintaining order and stability of Central Asia. Many scholars have focused on water related issues that are emerging from environmental degradation.

Environmental Degradation in Central Asia

Environmental problem has become a major threat to Central Asian security. Its geographical location and climate have created water sharing issues. Except Ferghana valley, the nature of conflicts is different from one state to other. Central Asia, encompassing the southern provinces of the former Soviet Union, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, is rich in natural resources, most still untapped. In Kyrgyzstan and Tajikistan, large quantities of water are stored in the mountain glaciers. Kazakhstan, Turkmenistan and Uzbekistan have huge and mostly unexplored oil and gas deposits. At the same time, almost half of the populations of these countries live in poverty and lack sufficient natural resources to sustain their livelihoods, while the countries' wealth is unevenly distributed. The region suffers from significant ecological disasters and the legacy of the past. Central Asia was the nuclear testing ground for the Soviet Union since the late 1940s. This has impacted upon human health and fragile ecosystems. To supply cotton crops to the Soviet Union, large-scale irrigation systems were built, contributing to the degradation of the Aral Sea and Caspian Sea (UNDP: 2003).

The consequences of command-administrative system, forced secularization, central economic planning and the establishment of artificial borders in the region include severe ecological degradation, forced migration of ethnic groups, and inter ethnic competition for land, water and other increasingly scarce resources. Environmental risks and social and economic development are intertwined, leading to the emergence of environmentally triggered or accelerated crises and tensions at the sub-state level. While there are common characteristics among these countries, their political and social geography is highly diverse (ibid).

Kazakhstan is located in the north of Central Asia and is its largest country, reaching from the Caspian Sea to China. It also shares common borders with Kyrgyzstan, the Russian Federation, Turkmenistan and Uzbekistan. With a total population of 14.8 million spread over more than 2.7 million square kilometres of territory, Kazakhstan is one of the most sparsely populated regions in the world. The ethnic origin of about half of this population is Kazakh. A strong Russian minority is located mainly in the north of the country and other ethnic minorities include Germans, Ukrainians and Uzbeks. Fortunately, tensions among these groups have been less frequent than in neighboring countries. Kazakhstan is richly endowed with oil, gas and mineral resources (ibid). Roughly the size of Western Europe, Kazakhstan's vast area encompasses a broad variety of landscapes and ecosystems. Its environmental problems are equally diverse and often specific to certain locations. The challenge for Kazakhstan's government rests in adopting a differentiated response to these problems while systematically addressing other difficult issues, such as rising mortality rates, slow political transformation and problems of law enforcement. Due to its economic strength, Kazakhstan plays a crucial role for stability in Central Asia. There is a strong link between such stability and the issues surrounding water quality monitoring and water sharing, both with neighbouring Uzbekistan and with upstream states.

The most urgent environmental concerns involving threats to human security in Kazakhstan are centred on water, radiation and waste. The Aral Sea represents a unique disaster with a sequence of devastating environmental and socio-economic effects, but the water supply and quality are of concern throughout Kazakhstan and are identified as priority areas by its National Environmental Action Plan for Sustainable Development (UNECE 2000a: 12). Radiation derives from large geological uranium deposits and waste from

uranium mining as well as the use of Kazakhstan for military nuclear testing by the Soviet Union. Industry also contributes substantially to pollution caused by improper waste treatment and management. As an Aral Sea state, Kazakhstan is one of the immediate victims of the environmental devastation and collapse of the Sea's eco-system, which derived from the shrinking of the Sea to almost half its original size due to a reduction in average annual discharge from reduction in average annual discharge 50 – 60 squire km before 1960 to only 5 squire km, if at all, in the 1990s (UNECE 2000a: 115). The reduction of water volume in the lake is the basis of a chain reaction leading to desertification, land salinisation and contamination, air pollution and a dramatic loss of bio-air pollution and a dramatic loss of biodiversity (UNDP 2003).

The immediate socio-economic effects of this disaster, such as unemployment, health problems and migration are already having profound impacts on local and regional patterns of life. The impacts of salt and dust storms carrying particles from the previous seabed are felt hundreds of kilo-metres around. The Aral Sea's Vozrozhdeniye Island history as biological and chemical test site adds a further risk to human health. Apart from environmental decline in the Aral Sea basin, water supply for agriculture and industry and drinking water quality standards constitute a challenge throughout the country. With the environmental deterioration of the Caspian and the Aral Sea, Kazakhstan remains heavily reliant on river water from other states. Ethnic tensions have also been fuelled by the question of water allocations around the Arasay reservoir, though last remaining border issues in this area between Uzbekistan and Kazakhstan were settled in September 2002 (ibid).

Kyrgyzstan is a land-locked and predominantly mountainous country with an area of 198,500 squire km, sharing common borders with China, Kazakhstan, Tajikistan and Uzbekistan. Natural resources are limited; however, the mountains store water in their glaciers, an important economic resource. The majority of the 4.8 million population lives away from the mountainous areas in peripheral and often remote areas of the country. The ethnic composition of the region is complex, with over 50 ethnic minorities, mainly Kyrgyz, Uzbek, Tajik and Russian. High environmental stress, fragile local ecosystems in remote areas, weak governance structures, population pressure, continuing poverty and ethnic tensions are potential sources of – mainly sub-state – tensions and conflict and threats to

regional stability. The southern part of the country has suffered most from the economic transformation in the past decade. Kyrgyzstan has experienced occasional tensions prior to and after independence, including the Osh-Uzgen riots. Earlier armed incursions from the Islamic Movement of Uzbekistan (IMU) (today's Islamic Party of Turkestan) in the south of Kyrgyzstan and increased recruitment by the Hizb-u-Tahrir (both fundamentalist Islamic organizations) have led the government to intensify efforts towards social and political stability and economic development (ibid).

The most significant environmental problems threatening human development and security in Kyrgyzstan are centred on irrigation for agriculture, and large-scale gold and uranium mining. This has led to the disruption of fragile ecosystems mainly in mountainous regions and cattle grazing areas, diminishing the livelihoods of the rural population in remote areas. Environmental stress in remote areas often entails migration and extreme poverty. Kyrgyzstan's possession of sufficient water supply, an otherwise rare resource in the region, comes hand in hand with a considerable responsibility for this resource. This responsibility has not yet been fully appreciated, as "for the time being there is no national strategy for the use of water resources or their protection" (UNECE 2000b: 78).

The question of efficient water management is of concern for the whole region, since most agricultural activity depends on irrigation. Not only Kyrgyzstan depends on water resources for agriculture, industry and hydro power generation. The downstream countries Uzbekistan, Kazakhstan and important parts of Tajikistan are reliant on the same sources. With the end of the Soviet Union, the previous system of allocation ceased to function, which led to the emergence of newly defined national interests and, ultimately, tensions over the allocation of water. As one consequence of such water conflicts, Uzbekistan withheld energy supplies for Kyrgyzstan. The mining of uranium, heavy metals and mercury and the storage of past mining wastes have also become key environmental problems. The National Environmental Action Plan (NEAP) for Kyrgyzstan (1995 – 1997) specifically highlights Mailii-Suu, where 13 dumps and 23 uranium mining tailings sites are located.

The NEAP presents this area "as an example of some of the major problems common at most mining and refining locations in the country" (UNECE 2000b: 53). At the same time the area presents particularly high risks due to its proximity to human settlements, underground reserves of natural gas and oil, and the "very high probabilities of various kind

of natural disaster such as earthquakes and landslides (ibid: 51). Environmental pollution by these dumps presents potential human health risks, for example by contaminating drinking water and arable soil. These risks are emphasized by Kyrgyzstan's location as an upstream country that feeds a large number of streams in Central Asia. Additional environmental pressure results from soil contamination from agricultural practices. Mainly in the remote mountainous areas, poverty and lack of income alternative force local communities to engage in intensive cattle grazing, which contribute to deforestation and the degradation of fragile natural habitats.

Tajikistan lies in the south-east of the Central Asian region, sharing borders with Afghanistan, China, Kyrgyzstan and Uzbekistan. With 93 percent of Tajikistan's 143,100 square km total area considered mountainous, more than half of its territory lies at a height of at least 3000m above sea level and includes some of Central Asia's highest peaks. Frequent earthquakes of varying degrees and natural disasters are reported. The 6.7 million population consists of a 67 percent Tajik majority with a strong Uzbek minority of 23 percent; 70 percent of rural areas. After independence in 1991, the country fell into a civil war lasting from 1992 to 1997 between old-guard regionally based ruling elites, disenfranchised regions, democratic liberal reformists, and Islamists who were loosely organized in a United Tajik Opposition. As a result, not only the economic, social and political transformation was slowed down but the country also suffered significant damage to the energy and agricultural infrastructure and the social security system. Frequent outbreaks of violence make Tajikistan a rather unstable country. Tajikistan is characterized by ongoing degradation of land resources and limited availability of clean water, a slowly stabilizing economy, enormous social problems and insufficient state capacity relying on external assistance. In contrast to some other Central Asian countries, scarce water resources are not a general concern due the mountainous profile of Tajikistan (UNDP 2003). However, there is a high susceptibility to natural disasters due to a very high dependency on hydropower and agricultural production.

The major environmental problems of Tajikistan are the impacts of natural disasters, increasing land degradation, and limited availability of clean drinking water, all of which are mutually reinforcing. The UNICEF (2000) Multiple Indicator Cluster Survey 2000 found that just 57 percent of the population has access to the safe drinking water (UNDP: 2003). In addition, the negative developments with regard to deforestation, desertification and the

deterioration of wildlife and protected areas, especially during the civil war, need mention. Among the natural disasters are on the one hand earthquakes, landslides, mudslides and flash floods, which were responsible for 200 people killed and damage estimated at several million US dollars in the second half of the 1990s and which affect Tajikistan each year (ADB 2000: x). On the other hand the country faces frequent droughts, which have negative impacts for hydropower and agricultural production. Since the population is concentrated in particularly vulnerable areas the negative impacts on people and their livelihoods are further increased. The government is largely unprepared for these events due to a reactive approach towards dealing with crises, as well as a lack of financial resources and investment in preventive activities that might reduce risks and social vulnerability (UNDP 2003).

The agricultural and industrial use of the mountainous land and lowland plains in the west of the country has led to land erosion and salinisation problems. The problem of land erosion is leading to a process of desertification especially in mountain regions. This affected about 60 percent of the irrigated lands at the turn of the century (ADB 2000: xi). Salinisation of land has become a widespread problem, caused partially by the high degree of mineralization of water used for irrigation and partially by poor irrigation practices. While only 7 percent of Tajikistan's territory is arable, agriculture nevertheless plays a key role for the economy. Additional contamination of land derives from uranium mining waste with negative health impacts. In some areas radiation levels exceeded safety standards up to tenfold. The mountainous profile of Tajikistan ensures that water quantity is not a concern in this country. But as an upstream country, Tajikistan has responsibilities towards lower level countries. Despite a generally high quality of water, drinking water standards are not always met, with poor sewage treatment and informal garbage dumps contaminating the water. Only 21 percent of treatment facilities operated satisfactorily in 1998 (ibid.). In addition, salinisation of land, use of pesticides and mining discharges has negative impacts on fresh water. The effects of the adverse environmental conditions are widely felt by the population: "Each of the major impact groups – human health, human welfare and environmental resources – are adversely affected by environmental degradation and depletion of natural resources," the Asian Development Bank states (ibid: 60). Waterborne diseases, such as typhoid, cholera and leptospirosis, increased tremendously in the 1990s. Outbreaks of

typhoid intensified in 1995 and 1996 when 6000 people died, which is more than 10 percent of the number of civil war victims (ibid.).

Another consequence of the water contamination is an increase of the morbidity of people. Despite international agencies providing chlorine in order to control typhoid, negative impacts could not be prevented. The government was not able to respond appropriately due to a lack of resources. The issue of water pollution has gained a trans-boundary dimension by becoming a point of contention between Tajikistan and Uzbekistan. Water quality is also an issue in other trans-boundary contexts (at the Syr Darya and Zeravshan rivers). Monitoring stations are essential to assess the extent of the problems. A regional Global Environment Facility-funded project is establishing 26 monitoring stations in the region – five of them in Tajikistan – at critical points to measure trans-boundary water pollution. The Governments are also making an effort to engage in constructive policy dialogue and exchanges among policy makers and scientists occur frequently (ibid). Another example of Tajik-Uzbek cooperation on trans-boundary environmental issues is the Tajik Aluminium Plant in Tursunzade (UNDP).

Turkmenistan lies in the south-east of Central Asia, to the west of the Caspian Sea. It reaches furthest south of all countries in Central Asia, bordering with Afghanistan, Iran, Kazakhstan and Uzbekistan. It has a total area of 488,100 square km. Turkmenistan possesses large reserves of natural gas and substantial deposits of oil. The country is characterized by aridity, incorporating the Kara-Kum desert, one of the largest sand deserts in the world. With 4.7 million inhabitants, Turkmenistan has the smallest and ethnically most homogeneous population of the Central Asian republics, with Turkmen representing the vast majority. It has been largely free of inter-ethnic hostilities, even though tribal allegiances are potential sources of tension (ibid). Turkmenistan is headed by the autocratic president Saparmurat Niyazov. The country is rather impoverished and has remained largely closed to the outside world since independence in 1991. Turkmenistan is characterized by limited water availability and water bodies polluted by agricultural and industrial effluent, a relatively closed and centralized economy, limited political rights and civil liberties and a lack of transparency and participatory elements in policy-making. The resource conflicts and ethnic tensions occurring in many other Central Asian states are not in evidence (ibid).

High economic growth and subsidies for basic commodities compensate demands of the poorer part of the population. Natural habitat transformation, bio diversity loss, soil erosion and salinization, use of rivers for irrigation and human activities, water and soil pollution by pesticides and the building of dams have all contributed to environmental degradation in recent years. The depletion of Turkmenistan's biodiversity is occurring in connection with human-induced desertification of oases and mountain landscapes. Environmental degradation is boosted in connection with dropping groundwater levels and water losses from the Kara-Kum canal due to increased irrigation for urban and industrial use (Ladonina 2001:19).

Overuse of fertilizers and pesticides for agricultural crops have led indirectly to health impacts upon the population. Domestic and industrial wastewater is discharged to the deserts, affecting ground water locally. Agricultural drainage water, which is discharged to rivers without control, has increased the levels of minerals, phenols, pesticides and other chemicals in water bodies. As a result, the rivers have reached dangerously high concentrations of salts and chemicals, especially in lower reaches. Drinking water quality is therefore a major problem in many regions of Turkmenistan (Ministry for Natural Resource Use and the Environment 1998). The local population in the Dashkhovuz province south of the Aral Sea has suffered from hepatitis and intestinal diseases due to polluted drinking water and the region has been declared by a presidential decree as an ecological disaster zone (UNDP 2003).

The water scarcity has an immediate influence on the natural environment and human living conditions and a secondary impact on agricultural productivity. Turkmenistan has experienced tensions with Uzbekistan over water allocations from one of the most important water sources in the region, the Amu Darya, flowing through the eastern part of the country. At the same time, this crucial water source has been regularly listed among the most polluted water bodies in Central Asia. The pollution penetrates adjacent land, where the river's water is used for agricultural irrigation, reducing the quantity and quality of food production. The combination of these issues poses considerable risks to the health and well-being of the population, which is necessarily concentrated around the available water sources. Cotton is at the heart of a system of political and social control that has remained unchanged since independence. Turkmenistan is the tenth largest cotton producer and 50 percent of its

irrigated land serves cotton production. The agricultural sector is almost completely dependent on water from the Amu Darya and its tributary rivers Murgab and Tedgen. As cotton is vital for foreign exchange and political patronage, the kind of reforms needed to reduce water use – particularly privatization of farming and realistic pricing of water to encourage conservation have never been initiated. Due to its reliance on agriculture Turkmenistan considers irrigation a key security issue (ICG 2002b: 2).

Uzbekistan is located at the heart of Central Asia, surrounded by Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan and sharing a common border with Afghanistan in the south. Its total area of more than 477,400 square km embraces landscapes ranging from steppe and desert in the west, to richer farmland along the country's three major rivers towards the mountainous region in the east. Uzbekistan holds a variety of resources, including natural gas and oil, gold and silver and has by far the largest population in Central Asia, counting roughly 25 million people. The majority of the population is ethnic Uzbek, though several substantial minorities, including Kazakhs, Karakalpakians, Tajiks and Turkmen, are part of this multi-ethnic state (UNDP 2003).

Uzbekistan's main environmental problems are centred on water and agriculture. Besides the Aral Sea, Uzbekistan struggles with water supply and contamination problems throughout the country and the whole region. The necessary water was tapped from rivers that feed the Aral Sea. This Soviet water management had a series of catastrophic environmental effects, which bear heavily on the region and most immediately affect the autonomous Republic of Karakalpakstan. They include environmental consequences, such as the reduction of the Aral Sea volume to less than half its size, the complete devastation of its ecology and the virtual extinction of fish. Desertification of vast areas, including the Amu Darya and Syr Darya deltas, "is changing the climate in the region" (UN ECE 2001: 64) and has reduced the Sea's vicinity to a lifeless desert. The environmental changes impact directly on the population. The loss of fish has virtually destroyed the previously important fishing sector in the region, leaving 60,000 people unemployed (ibid.).

Desertification and soil erosion cause winds to carry salt and dusts for hundreds of miles to be deposited over cultivated land and in human lungs. An additional threat to health is posed by Vozrozhdeniye Island's history as a test site of the Soviet Defence Ministry. The lack of employment and fear of health risks has led to migration from the Aral Sea region,

uprooting people and increasing population density in other areas of the country. Water quantity and quality are a key concern throughout Uzbekistan. In fact, “the majority of the country’s waterways are either moderately or heavily polluted” posing a considerable threat to human health and degrading irrigated land (ibid: 5). Pollution is mainly caused by agriculture, industry and human settlements. The allocation of crucial water supplies has led repeatedly to tensions between Uzbekistan and its downstream neighbours as well as upstream states, leading Uzbekistan to severely reduce its trade and from time to time close its borders (UNDP 2003).

Ferghana valley is main region of environmental crisis area which can affect the whole region of Central Asia. Ferghana valley overlaps three Central Asian countries – Kyrgyzstan, Tajikistan and Uzbekistan and also divided by seven enclaves. With the Aral Sea and Ferghana Valley, Uzbekistan is directly confronted with two major hot spots in Central Asia, posing significant threats to human development and regional stability. Environmental stress triggers social and economic decline and vice versa, resulting in political and social tensions or even open violent conflict, as in the Ferghana Valley. The supply and quality of water, ethnic tensions, weak capacities and slow economic and structural reforms accumulate to heighten security concerns (ibid).

Water-Sharing Issues in Central Asia

Water plays a key role in internal conflict of Central Asia. The issues are related to environmental degradation and inter-state tensions. Water related threats to Central Asian security have been increased rapidly after Soviet disintegration. The issues have also originated from Soviet period due to environmental degradation and this degradation includes the desiccation of the Aral sea, the depletion and degradation of river and irrigation waters and consequences of Soviet and Chinese nuclear testing at Semipalatinsk (now known as Semey) and Lop Nor (Horsman in Allison and Jonson (eds) 2001: 69). In Central Asia, the depletion and degradation of and competition over the renewable resource is the result of mismanagement and over utilisation (ibid). Water via the Aral Sea and more importantly the Amu Darya and Syr Darya rivers, acts as a cultural, economic, geographical and political core for Central Asia.

Water sharing issues have developed between the three downstream countries-Kazakhstan, Turkmenistan and Uzbekistan and the upstream nations-Kyrgyzstan, and Tajikistan. The downstream countries require more water for their growing agricultural sectors and rising populations, while the economic weaker upstream countries are trying to win more control over their resources. Tensions focus on the two main rivers of the region that both flow to the Aral Sea. The Syr Darya flows from Kyrgyzstan through Uzbekistan and Kazakhstan and Amu Darya flows from Tajikistan through Uzbekistan and Turkmenistan. Due to expansion of agriculture, the two rivers in Central Asia have become a focus for growing competition among the five republics (ICG 2001). Water sharing, in Central Asia, has become a biggest challenge to security among regional states. Water use has increased rapidly since the Central Asian states became independent in 1991. Tensions over water and energy have contributed to a generally uneasy political climate in Central Asia (ibid).

Central Asian water crisis presents non-traditional threats to regional stability. Water crisis is also linked with economic and political transition of Central Asia. This issue has become an unsolved problem. Previously, water and the irrigation systems were managed by a central agency, the Ministry of Land Reclamation and Water Resources, based in Moscow. While disagreements existed, there was a single and final arbiter-Moscow (Horsman in Allison and Jonson in (eds) (2001): 72). But after Soviet Disintegration it has become a difficult task to manage the mutual disagreements among five republics over management of water. Water is a key issue in the region due to necessity of economic development. Approximately, ninety percent of the water resources are concentrated in Kyrgyzstan and Tajikistan, while the main consumers--Uzbekistan and Kazakhstan--can supply only 14 percent and 45 percent, respectively, of their water needs. Uzbekistan alone consumes more than half the region's water resources. As a result Kyrgyzstan and Tajikistan control the water needed by Uzbekistan and Kazakhstan. The upstream states consider water as a commodity for trade and profit, especially since they are poorly endowed with other resources. Control over water is also important for them as they need it to generate much of their own power needs (Karaev 2005).

The issues over water management led to the initiative of five republics on the establishment of the Interstate Coordinating Water commission (ICWC), the subordinate

Amu Darya Basin Management Authorities (BVOs), the Interstate Council on Problems of the Aral Sea Basin (ICAS) and the International Fund for the Aral Sea (IFAS) under the Almaty Agreement in 1992. This initiative could not solve the water crisis because different types of demands of the republics have based on their own interests. During talks on water allocation in January 1996, Kyrgyzstan and Tajikistan proposed an expansion of their irrigated lands. Uzbekistan was able to force the former to retract its proposal, but not to change Tajikistan's plan for a 200,000-hectares. Previously, Tajikistan had also expressed an interest in withdrawing an additional 600million cubic meter per annum from upper reaches of the Zeravshan (Horsman in Allison and Jonson in (eds) 2001: 75). Kyrgyzstan had repeatedly flouted the ICWC's water release agreements, although there are some legitimate reasons for its actions. Kyrgyzstan threatened to cut off electricity and water supplies to Kazakhstan in late 1997 after the latter failed to honour energy transfers and pay outstanding debts. After similar problems, water supplies to Kazakhstan were terminated for 10 days in May 1998 (ibid).

Interdependent system of water management among the republics has created serious disputes from 1991 to 2001. In 1995, after Kyrgyzstan used water allocated for cotton for domestic energy production, an agreement was reached between Bishkek and Tashkent. Under this, Kyrgyzstan would maintain 'cotton optimal' policy, even though its winter water reserves were low. In return, Uzbekistan would provide electricity to its neighbor. Kyrgyzstan stated it would have preferred hard currency transactions for the reciprocal trade of water and electricity but had to accept a barter arrangement. During summer 1998 and winter 1999-2000 Tashkent cut gas deliveries to Kyrgyzstan because of Bishkek's mounting debts. In June 1997, Kyrgyzstan stated that it was planning to charge Kazakhstan and Uzbekistan for water. Kyrgyzstan which spends \$4 billion per annum to maintain its reservoirs doesn't believe that it has received equitable economic benefits from this framework. In July 1997, the localized Kazakh protests against Uzbekistani border guards reduced by 70% the flow of the Druzhba canal, which supplies 100,000 hectares in southern Kazakhstan. A tripartite dispute between Kazakhstan, Kyrgyzstan, and Uzbekistan emerged in July 2000. Southern Kazakhstan faced a serious water shortage after Bishkek cut supplies because of Kazakhstan's failure to meet agreed energy supplies, and Uzbekistan reportedly extracted more water than it was entitled to (ibid).

Water and energy disputes have already have had an impact on large numbers of people, particularly in sensitive areas like the Ferghana valley. In this area Uzbek's have endured winter floods a summer droughts due to Kyrgyzstan's release of dam water for electricity generation. The Kyrgyz in turn have shivered through winters when Uzbekistan failed to deliver gas due in exchange for irrigation water (ICG 2002). The Ferghana valley, the most fertile, densely populated area in the region, was divided among Kyrgyzstan, Uzbekistan, and Tajikistan. It has been turned into a major cotton-producing valley during Soviet rule. In those days, the production system ignored the republics' frontiers. For example, water reservoirs for the irrigation of cotton in Uzbekistan were constructed in Kyrgyzstan, Kyrgyz cotton was ginned in Uzbekistan and the route between them ran through Tajikistan. These arrangements have been disrupted since independence, effectively paralyzing the whole valley, causing widespread poverty and social discontent (Karaev 2005). The boundary lines are also to be considered as the sources of conflicts in the region of Central Asia.

Water disputes have not originated from a single factor. There have many factors like geographical, historical, political and environmental factors provide the conflicts.

ICG (2004) report identifies important reasons of tension among the Central Asian nations:

1. Regional water systems were closely woven together by Soviet design and management. Now they must be managed by five often fractious countries with little willingness to cooperate.
2. Central Asian economies are highly dependent on irrigation for much of their economic output. Irrigated crops provide the elites with the money and control of patronage that keep them in power.
3. Poor water management and massive over use has left the area vulnerable to droughts and the sort of catastrophic environmental damage already seen around the Aral Sea.
4. Central Asian countries are increasingly adopting "zero-sum" positions on resources and other issues while stepping up consumption at unsustainable rates.
5. The downstream countries are more powerful militarily and economically than the upstream countries, an imbalance that has been present in most water conflicts.

Water disputes have created rapid social change. On a local level, water disputes have been on the rise and have resulted in violence. There have been frequent tensions between Kyrgyz and Tajik villagers on the border between the two countries over access to contested water supplies. Disputes over resources risk provoking wider ethnic conflict as happened when land disputes led to inter-ethnic riots in Kyrgyzstan in 1990 that left hundreds dead.

Rising costs, poorly maintained water systems and privatisation of utilities will only add to strains in local water systems. Water affects the poorest sectors of societies, which end up paying the largest proportion of their income for the resources (ICG 2002).

Water sharing issues are very difficult task to manage. The issues have been increased after 1991. In future water related problems will be changed into a violent situation. Various tensions like drugs, Islamic extremism, ethnic-rivalries and border disputes are the result of water sharing issues (ICG 2001). Degradation of agricultural land and shortages of water also mean many young men have few economic opportunities, making them more likely to join militias or extremist groups (ibid).

Water sharing issue is a long term problem and thus requires long-term solution. Environmental degradation is creating irrigation problem due to shortage of water, drinking water problem, and floods and declining soil quality. It will affect from local level to national level. Water dispute, no doubt, is a serious threat to stability of Central Asian states. This issue can't be stopped but it can be minimised by initiative of states through mutual cooperation. Uzbekistan and Turkmenistan signed bilateral agreements in 1996 to divide water from the Amu Darya below Karshi in southern Uzbekistan equally. In 1998, agreement was reached among Kyrgyzstan, Uzbekistan and Kazakhstan. This was for a period of five years, with exact terms negotiated annually. In January 2000 Kyrgyzstan and Kazakhstan signed a deal on water use from the Chu and Talas Rivers in northern Kyrgyzstan. They are also negotiating to establish a consortium on the Syr Darya that would implement regional water and energy programmes (ICG 2002).

From 1991 to 2001, many agreements have been implemented poorly. So the conflict over water could not be controlled. For future perspective all the republics' need more engagement in water management that will serve their national interest as well as regional security.

Chapter-IV

EFFECTS OF POVERTY AND SOCIAL EXCLUSION ON SECURITY

EFFECTS OF POVERTY AND SOCIAL EXCLUSION ON SECURITY

Meaning and Implications of Poverty and Social Exclusion

Poverty and security both are concerned with stability and survival of state and interlinked with each other according various scholars. Poverty is not merely an issue of the people but it has been accepted as a major issue of state. In this context, Pauline Eadie suggests, “the research of poverty and security should aim meaningfully to understand the problems facing the poor and multifaceted role of the state and should seek to resist the less complex yet ultimately limiting attractions of quantitative modes of analysis” (Eadie, 2005: 39-43). Pauline has explained the importance of poverty in the context of security by the analysis of E.H Carr’s ‘The Twenty Years Crisis’ (1939), Polanyi’s ‘The Great Transformation’ (1944), Buzan’s ‘People, State And Fear’ (1983) and Ole weavers ‘Securitization’ and ‘Desecuritisation (1995). Polanyi and Weaver’s work treat poverty as a security issue and argue that the inclusion of poverty on the security agenda underlines the key role of the state (Eadie 2007: 638). By the same way, Waever argues that a major focus of security studies should be investigated how and why some issues make it into the security agenda and why some fail. If this idea is applied to the notion of poverty it can be tested a how far understanding of poverty as a security issue is dictated by threats to human well-being and how far this is dictated by elite agenda. Although the primary concern of the state is survival, this applies in terms of managing external and internal violent attacks, which may lead to domination and implosion, respectively (ibid). Poverty is a fundamental issue of any state that should be discussed and defined or measured in a universal way towards particular object.

Poverty is a very complex issue for both developing and developed countries of the world. Particularly, poverty can be discussed or defined from four approaches: the monetary approach, the capability approach, social exclusion as defining poverty and the participatory approach (Stewart et .al. 2007: 2).

The monetary approach to the identification and measurement of poverty is the most commonly used. It identifies poverty with a shortfall in consumption or income from some poverty line. The valuation of the different components of income or consumption is done at market price, which requires identification of relevant market and the imputation of monetary value for those items that are not valued through market (such as subsistence production and in principle, public goods) (Grosh and Glewwe 2000).

The capability approach to defining poverty is analyzed by Amartya Sen. According to Sen, development should be seen as the expansion of human capabilities, not the maximization of utility, or its proxy, money income (Sen 1985). In this frame work, poverty is defined as deprivation in the space of capabilities, or failure to achieve certain minimal or basic capabilities, where ‘basic capabilities’ are ‘the ability to satisfy certain crucially important functioning up to certain minimally adequate levels’ (Sen 1993: 41). The capability approach constitutes an alternative way of conceptualizing individual behavior, assessing well- being and identifying policy objectives. UNDP has used the concept of human poverty which was primarily derived from the capability approach. UNDP defined human poverty as ‘deprivation in three essential elements of human lifelongevity, knowledge and decent standard of living’ (UNDP 1997: 8).

Social exclusion is another means of defining and measurement of poverty. The EU (European Union) defines social exclusion as ‘a process through which individuals or groups are wholly or partially excluded from participation in the society in which they live’ (European Foundation 1995:4). Social exclusion also refers to ‘the state of exclusion from the normal activities of society, and is often a multi-dimensional nature including access to the welfare state, lack of employment, of housing and poor social relationships’ (Stewart 2007:75). Social exclusion and poverty, both the terms have been used by EU. A report of the EU defines in the following way: ‘throughout this report the terms poverty and social exclusion refer to when people are prevented from participating fully in economic, social and civil life and /or when their access to income and other resources (personal, family, social and cultural) is so inadequate as to exclude them from enjoying a standard of living and quality of life that is regarded as acceptable by the society in which they live. In such situations people are often unable to fully access their fundamental rights’ (European Commission 2001: 11).

Next, the practice of participatory poverty Assessment (PPA) evolved from participatory rural appraisal (PRA) defined as ‘a growing family of approaches and methods to enable local people to share, enhance and analysis their knowledge of life and conditions, to plan and to act’ (Chambers 1994 a: 57). Cornwall (2000) differentiates three types of participatory poverty assessments-(1) exercises intended to promote self-determination and empowerment (2) those primarily intended to increase the efficiency of programme.

The idea of seeing social exclusion in terms of poverty which can apply as deprivation in capability that means being excluded from the opportunity to be employed or to receive credit may lead to economic impoverishment that may, in turn, lead to other deprivation (Sen 2004:5). Social exclusion may be directly a part of capability poverty. Indeed, Adam Smith’s focus on the deprivation involved in not “being able to appear in public without shame” is a good example of capability deprivation that takes the form of social exclusion. Social exclusion can, thus, be constitutively a part of capability deprivation as well as instrumentally a cause of diverse capability failures. The case for seeing social exclusion as an approach to poverty is easy enough to establish within the general perspective of poverty as capability failure (ibid).

Form of the above analysis, it is clear that most of poor people could not develop their standard of livings due to lack of participation with (state-sponsoring) welfare programme.

Social Exclusion and Its Application to Developing Counties

The concept of social exclusion is seen as covering a remarkable wide range of social and economic problem. According to Noble Laureate Amartya Sen, in his ‘Social Exclusion’, the term originated from the practical context of identifying ‘the excluded’ in France, but this concept is more relevant to the developing countries. This concept focuses on the livelihood, secure permanent employment, earning, property, family and sociability, humanity, respect, fulfillment and understanding etc. (Sen 2004:3).

In the nineteenth century, modernization and industrialization resulted in a new type of poverty that affected the working class-overcrowding, squalor, poor sanitation, over work-all contributing to malnutrition, poor physical and mental health and occupation-related illness (Bhalla and Lapeyre 1999). In 1974, according to developed countries, the ‘social

excluded' included the mentally and physically handicapped, the aged and invalid, drug users delinquents and so on. But on the later, period of 1970s and 1980s, however, the term 'exclusion' was extended beyond the earlier French definition. In the addition to exclusion from the welfare state, the extended version took into account the rising unemployment in Europe and precariousness affecting those who formerly enjoyed secure jobs and associated social networks (ibid).

Nature of Social Exclusion

First, social exclusion is multidimensional in nature. It does not focus on a single issue. It links with long-term unemployment basically in case of youth. Taking a broader view of poverty, the nature of the deprivation of the unemployed includes loss of freedom as a result of joblessness (Sen 1994:15) Unemployment involves wasting of productive power. The people who are excluded they suffer from ill health, psychological harm, hopelessness, loss of human relation and motivational loss etc. (ibid).

Second, social exclusion is relational. This concept shifted the focus to social relationship. The vulnerability of an individual or household to 'social exclusion' is seen to depend not just on their own resources but also on the community resources that they can draw on (Stewart 2007:77).

Third, social exclusion essentially incorporates a relative element, in contrast to monetary poverty, which may be defined in absolute or relative terms. It involves the 'exclusion' of people form a particular society.

Fourth, social exclusion is dynamic in nature. It means people are considered 'excluded' not just because they do not have a current job or income, but also because they have few prospects of altering the situation, not only for themselves but also for their children. Thus, social exclusion may apply across generations for the future (Atkinson 1998: 199).

Fifth, social exclusion depends upon process. Poverty alleviation policies are based on the up-lift of targeted groups, rather than on rectifying the processes that have resulted in poverty (Stewart 2007:79).

Due to multidimensional nature of the concept of 'social exclusion', it cannot be examined or interpreted from a single aspect. Thus that social exclusion is applicable to

developing countries in a different sense than to developed countries. It is very complex phenomenon to analysis the particular issue.

The concept of social exclusion has gradually defused from North to South mainly through the efforts of United Nations agencies like the ILO, UNDP, UNESCO, UNRISD, WHO and UNHCS (Clert 1999). In developing countries the provision of income is the means of the social security. Those who are not capable of income they are losing their standard of living. According to Sen, crisis can-and-do- occur even in the most buoyantly growing economies, and there is real ground for assuring the continuity of unobstructed economic progress that many Asian countries took for granted (Sen 1994:26).

Social exclusion is also related to employment status in developing countries. Using employment status to classify individuals as 'socially excluded' is fraught with problems however, as the percentage of the population engaged in the organized sector is a minority (Stewart 2007:84). No doubt, poverty and social exclusion both are closely connected with each other. Temporary access to income or basic needs does not generally address the deeper problem of social exclusion. Poverty becomes a trap when vicious cycle undermines the efforts of the poor, in which conditions of poverty feed on themselves and create further conditions of poverty.

Poverty creates various threats to life. It is from hardship which is disproportionately experienced by the poor is the threat or even the fear of being a victim of crime. The highest levels of criminal activity and criminal threats are experienced amongst generally deprived group's living in deprived areas. The fear of crime has particular consequences for many of the most vulnerable groups in society (Alock 1947: 93-94). Most of the developing countries are suffering from poverty-related threats and this can be seen also from the experience of research works of which will be related to Central Asia.

Poverty in Central Asia

All the Central Asian countries have highly specialized, trade-dependent economies based largely on natural resources and agricultural production, which account for the bulk of their total exports. In foreign trade, the Central Asian countries were more oriented to inter-republic trade within the former Soviet Union. Trade as a percentage of GDP ranged from 130 per cent in Tajikistan in 2002 to 93 per cent in Kazakhstan.

Table-1**Economic Sectors (value-added % of GDP) b**

States	GDP per(current US\$)a	Agriculture	Industry	Manufacturing	Services	Trade (% GDP of)b
Kazakhstan	2001	9	39	16	53	93
Kyrgyzstan	350	39	26	11	35	82
Tajikistan	240	24	24	21	52	130
Turkmenistan	2266	...	...	...	...	...
Uzbekistan	341	35	22	9	44	72

a) 2003.

b) 2002.

(Source: IMF, World Economic Outlook Database September 2004, <<http://www.imf.org/external/pubs/ft/weo/2004/02/data/index.htm>>, 25 October 2009; and World Bank, World Development Indicators 2004, CD-ROM).

From table-1, it is clear that, the Central Asian sub region is richly endowed with agricultural, mineral and fuel resources. Reflecting these conditions, the agricultural, industrial and manufacturing sectors account for a sizable share of GDP. For example, agriculture accounts for over 20 per cent of GDP in Central Asian countries reflecting the naturally ideal conditions for agriculture.

Central Asian countries were among the main producers of electric power, some machine building, and heavy industry and building materials in the former Soviet Union. The services sector accounted for more than half of GDP in Kazakhstan and Tajikistan in 2002.

Absolute poverty was not considered a serious issue during the former Soviet Union period. Research documentation from the World Bank and IMF provides some indication of the levels of absolute poverty that prevailed in Central Asian countries prior to independence. The poverty estimates prepared for Central Asian countries for 1988 were based on national poverty lines, which were set around US\$ 2 (in purchasing power parity terms). The setting of the poverty line at a somewhat higher level was necessitated by the cooler climate of Central

Asian countries, requiring additional expenditure on heating, winter clothing and food. The results indicate that poverty levels were quite pronounced even in 1988.

Table-2

Percentage of the population below the national poverty line in selected countries, 1988-2002

States	1988	1995	1996	1997	1998	1999	2000	2001	2002
Kazakh- stan	...	...	34.6	43.0	43.4	34.5	31.8	28.4	24.2
Kyrgyz- stan	37.0	...	...	51.0	...	64.1	52.0	47.6	44.4
Tajiki- stan	59.0	...	...	...	...	83.0	...	...	...

(Sources: ESCAP, based on IMF and World Bank (2002), and country studies on Kazakhstan, Kyrgyzstan and Tajikistan prepared for national seminars on strengthening income and employment generation programme for poverty eradication in Central Asian and Caucasus countries held in the respective countries during April-May 2004).

In Tajikistan, the incidence of poverty stood at 59 per cent, followed by Kyrgyzstan (37 per cent). The incidence of poverty increased rapidly after the Central Asian countries gained independence and embarked on the process of transition to a market economy. During the second half of the 1990s, more work was carried out on estimation of poverty levels in these countries. Further estimates of poverty levels based on national poverty lines are reported in table-2. The incidence of poverty reached 43.4 per cent in Kazakhstan in 1998, 64.1 per cent in Kyrgyzstan in 1999 and 83 per cent in Tajikistan in 1999.

A number of factors contributed to the steep rise in poverty in Central Asian countries during most of the 1990s. Prominent among those were a severe contraction of GDP, galloping inflation, widespread unemployment and falling real wages and incomes.

Table -3

GDP growth, inflation and human development index in selected countries

States	Average annual GDP Growth rate		Average annual inflation rate		Human development index		
	1991-1996	1997-2003	1991-1996	1997-2003	1990	1995	2002
Kazakhstan	-7.6	6.4	894.1	9.6	0.781	0.738	0.766
Kyrgyzstan	-8.9	4.6	329.5	13.8	...	...	0.701
Tajikistan	-14.2	7.0	807.0	35.0	0.736	0.665	0.671
Turkmeni- stan	-8.5	13.6	1468.2	23.7	...	...	0.752
Uzbekistan	-2.9	3.7	536.0	29.5	0.728	0.712	0.709

(Sources: ESCAP, based on national sources; IMF, International Financial Statistics, vol. LVI, No. 12 (Washington, IMF, December 2003); ADB, Key Indicators of Developing Asian and Pacific Countries 2003 (Manila, ADB, 2003) and Asian Development Outlook 2003 Update (Manila, ADB, 2003); Economist Intelligence Unit, Country Reports and Country Forecasts, various issues (London, 2003 and 2004); web site of the CIS Inter-State Statistical Committee, <www.cisstat.com>, 4 February 2004; and UNDP, Human Development Report 2004, New York: Oxford University Press, 2004).

According to the table-3, gross domestic production fell on average by 2.9 per cent per annum in Uzbekistan during 1991-1996, thus dragging a large number of people into poverty. Real output in most countries in the region still remained below the 1989 level. For example, the GDP levels of Tajikistan in 2003 were 61 and 52 per cent lower than in 1989 respectively. Turkmenistan and Uzbekistan were the only two countries which managed to raise production in excess of their 1989 GDP levels in 2001-2002.

Gini coefficient (table-4) is also clearly suggests about level of poverty. Due to fall in income more inequality Central Asian states have faced serious economic challenges.

Income inequality in Central Asia, before and after the transition
(Gini coefficients for income per capita)

Table-4

Country	1987-1990	1996-1999
Kyrgyz Republic	0.31	0.47
Kazakhstan	0.30	0.35
Tajikistan	0.28	0.47
Turkmenistan	0.28	0.45

(Sources: World Bank (2000) Post-transition data is based on World Bank's calculations on the basis of representative national household surveys).

As noted above, in all former socialist societies income inequality became worse. The transition to a market economy was expected to increase income inequality within the countries of Central Asia. However, the observed deterioration in income distribution was very fast and, in some countries, the Gini coefficient doubled its value from the pre transition level.⁶ In Kyrgyzstan, for instance, the value of the Gini coefficient increased from 26.0 in 1988 to 53.1 in 1993 (Table-5). It came down to 40.5 in 1997 and the downward trend has continued since then.

Table-5

States	1988	1993	1995	1996	1997	1998	1999	2000	2001
Kazakhstan	25.7	32.7	...	35.3	...	...	...	...	31.3
Kyrgyzstan	26.0	53.1	...	...	40.5	36.0	34.6	30.3	29.0
Tajikistan	...	...	...	...	...	34.7	...	...	...
Turkmenistan	26.4	35.8	...	...	...	40.8	...	...	...
Uzbekistan	25.0	33.3	...	...	...	45.4	...	27.0	...

(Source: World Bank, Global Poverty Monitoring, web site, <<http://www.worldbank.org/research/povmonitor/>>, Accessed on 23 June 2009).

In Uzbekistan, the Gini coefficient was 25.0 in 1988 and 45.4 in 1998 but it went down to 27.0 in 2000. The increase in income inequality in Kazakhstan was relatively moderate but Turkmenistan saw the value of its Gini coefficient rise from 26.4 in 1988 to 40.8 in 1998. Despite various problems with the quality of distributional data, it can be concluded broadly that income distribution became much worse in most countries of Central Asia after 1990.

Socio-Economic Conditions of Central Asian States

Central Asia states have different economic growth rates according to their natural resources, economic policy etc. Kazakhstan has a comparatively strong economy in Central Asia. It is largely dependent on a narrow range of exports: mainly oil, gas and some industrial output (ADB 2002a:111). Growth of GDP reached 13.2 percent in 2001 compared to 9.8 percent in 2000, and inflation dropped to 8.5 percent (ibid.). Real GDP per capita (in PPP) increased by almost \$900 to \$5871 in 2000 compared to the previous year (UNICEF 2002). According to Swiss peace (2003a: 3)'s risk assessments "Kazakhstan is the only country in Central Asia whose growing economy is accompanied by a redistribution of wealth in the population" (UNDP 2003). Per capita income in 2001 rose by over 10 percent relative to 2000, which in real terms signified an average monthly wage increase of 9.5 percent (ADB 2002a: 111). The unemployment rate fell by 2.4 percent to 10.4 percent compared to 2000, with women and young adults remaining more affected than other groups. From World Bank (2001a) report, these developments fostered a drop by 3.8 percent in the proportion of people living below the minimum subsistence level of 4637 percentage or \$31 a month in 2001 compared to the previous year (UNDP 2003). Nevertheless, this group still constitutes more than a quarter of the population. Compared to other Central Asian states, Kazakhstan has some of the lowest levels of poverty (UNICEF 2002).

However, the positive economic trend has yet to have an impact on public health. The general health of the population is deteriorating and HIV and AIDS are spreading rapidly (ibid.). Life expectancy in Kazakhstan has decreased from 67.6 in 1997 to 64.6 in 2000 and is the lowest in Central Asia (ibid.). Despite this development, public expenditure on health amounted to only 1.9 percent of GDP in 2000, which even represents a decline by 0.2 percent from the previous year, despite economic growth (ibid.). Some of the social difficulties, such

as the prevalence of HIV and AIDS, are more evident in Kazakhstan since it is the only Central Asian country acknowledging that AIDS is a crisis threatening the entire country (Eurasianet 2003). The educational record of Kazakhstan is more promising, with an adult literacy rate of 98.5 percent in 1998 and a high primary school enrollment for both male and female students (UNICEF 2002). The government tolerates civil society and non-governmental organizations (NGOs) and their participation is regulated by the Law on NGOs (1996) (UNDP 2003).

Economic growth and increasing economic well-being cannot compensate for wider social problems, such as declining health standards and life expectancy, weak social security, corruption and the obstruction of opposition and free media. Social problems are intensified by the overall environmental degradation. The combination of unfavourable socio-economic conditions, high environmental stress and weak environmental policies and laws, together with social impacts of market liberalization and the continuing oppression of political freedom, can lead to distress and tensions.

Kyrgyzstan undertook economic and social reforms early after independence in 1991. Positive signs of macro-economic stabilization seem to continue. GDP rose by 5.3 percent in 2001, and the monthly rate of consumer price inflation dropped from 18.7 percent in 2000 to 6.9 percent in 2001 (ADB 2002a: 116). Annual GDP growth until 2004 is expected to remain at 4.5 percent, slightly lower than the 5 percent target of the National Poverty Reduction Strategy (ibid: 117). The value of the national currency has remained almost unchanged since 2000. GDP per capita (in PPP) grew from \$2250 in 1997 to \$2711 in 2000 (UNICEF 2002). According to Community Business Forum Kyrgyzstan (2003), growth prospects are constrained by the low level of diversification and the economy's reliance on volatile gold markets. Between January and September 2002, industrial output declined by 17.3 percent, basically induced by a decline of the mining sector. The country's largest gold mine in Kumtor alone accounts for roughly 9 percent of GDP (UNDP 2003).

Due to high income inequalities the generally positive macro-economic development has not yet led to an increase in the quality of life for most of the Kyrgyzstan's population. According to the World Bank (2001b), 48 percent of the total population lives below the national poverty line (ibid). The rural population is most affected with 56.4 percent living in poverty in 2001, this ratio reaching up to 81.4 percent in the districts of Batken, JalalAbad,

Talas and Naryn (ADB 2002b). The minimum wage is \$2 a day, and staggering hyperinflation in the early post-independence period wiped out the lifetime savings of most families. The cost of living increased by 17 percent in 2000 alone, and the social security system has largely collapsed. Even basic necessities such as gas and electricity have become increasingly out of reach for many families (ICG 2001: 14). A heavy burden of external debt and a weak banking sector threaten economic and political reform (UNDP 2003).

The Human Development Index remained stable over the last years of 1990s with a slight increase in 2000. But poverty and marginalized development opportunities particularly jeopardised stability in the south where isolation, border disputes, lack of investment, and ethnic differences remained critical. According to Asian Development Bank (ADB 2002a: 115) report, the unemployment in 2000 were at 7.5 percent, while the actual rate is considerably higher due to hidden unemployment, especially among younger people (ibid). Growing unemployment, rising costs and stagnant wages led to modest protests in 2000 and 2001 in Bishkek, Naryn, and Jalal-Abad (ICG 2001). Mass migration posed additional threats to security, with thousands leaving the impoverished southern regions because of the lack of fertile land, unemployment and poverty. Serious consequences are expected with regard to unresolved border disputes if settlements in border regions are abandoned and economically marginalized, while Uzbekistan is focusing investment in these border regions (Jumagulov 2003). Government-supplied social services, critical to maintaining public support for reform, are still inadequate. Public expenditure on health declined from 1992 to 1999 from 3.4 to 2.1 percent of GDP (UNICEF 2002).

Tajikistan is the poorest among the countries of the former Soviet Union and one of the poorest countries in the world. According to World Bank (2002) statistics 80 percent of the population lived under the poverty line in 2001 (UNDP 2003). There has been no noteworthy increase in GDP per capita (PPP) since 1997, which figured \$1152 in 2000 (UNDP 2002). The overall economic growth of the past years has not led to an improvement of the employment rate or the level of poverty. United Nations statistics indicate that the employment rate dropped continuously from 72 percent in 1990 to 54 percent in 2000 (UNICEF 2002). As a result, an estimated 200,000 people left the country in search of work in 2001, most to the Russian Federation, while local estimates even consider 1 million Tajik people to be seasonal labour migrants (ADB 2002a: 118).

Tajikistan is still recovering from the legacy of the civil war, which significantly impeded economic development. The 1997 peace agreement brought a turnaround in GDP and this trend accelerated in 2001, when GDP growth rose to 10 percent from 8.3 percent (ADB 2002a: 119). The inflation rate dropped below 10 percent in 2002, after being constantly between 30 and 40 percent from 1997 to 2001 (UNICEF 2002). These improvements of the overall macroeconomic conditions are attributed to a substantial increase in aluminium production and an expansion of agricultural production, despite continued drought conditions. The agricultural sector contributes around 20 percent to GDP and accounts for more than half of employment (ADB 2002a: 118). Hence the sector is a crucial factor for the overall development of the Tajik economy, not only in terms of privatization processes but also with respect to the provision of rural finance for non-cotton activities with the aim of diversifying agricultural production (UNDP 2003).

Tajikistan is rich in natural resources, namely minerals (gold, silver, and uranium), water and hydro power. It is the world's third largest producer of hydropower and 90 percent of the energy generating capacity of the country is hydroelectric, with the most important hydroelectric stations located on the Vakhsh (US DoE 2002). A major portion of this hydroelectric capacity is used in aluminium production, which consumes 40 percent of all the country's electricity and is the main export good. According to the US Department of Energy there is a greater hydroelectric power capacity in Tajikistan than in any other country in Central Asia. At present only 5 percent of this capacity is used (ibid.).

The Asian Development Bank sees the external debt repayments as the greatest danger to the economy. In 2001, 1.7 percent of GDP was scheduled for servicing external debt compared to 0.3 percent in 2000 (ADB 2002a: 119). In addition, annual GDP growth is expected to be less dynamic in 2002 and 2003. The economy remains highly dependent on foreign trade with cotton and aluminium responsible for more than 80 percent of export earnings (Ibid.). As in 2001, fluctuations in international prices could cause shifts in the terms of trade, impacting seriously on the overall economic performance of the country. In addition, the global oversupply of aluminium is likely to lead to a reduction of its price in the future. Additional risks arise from the further occurrence of droughts, causing a rise in wheat and power imports.

Agriculture remains a strong economic sector in Uzbekistan, accounting for 30 percent of GDP and 40 percent of employment (World Bank 2001e). Despite continuing drought conditions, cotton yields increased by nearly 10 percent in 2001 and growth in industrial output accelerated to 8.1 in 2001 from 5.8 percent in 2000 (ADB 2002a: 124). Real GDP per capita (PPP) stood at \$2,441 in 2000 and had increased by almost \$200 in each of the previous two years. While small-scale private activity led to a strengthening of the services sectors by 14.2 percent in 2001 (ibid.), Uzbekistan's economy remains highly state controlled, as the repressive import measures in response to a fall in commodity prices in neighbouring states have shown (Swisspeace2003b: 3). The cost of local consumer goods often puts them beyond reach for the population (ibid.), due to low incomes and a consumer price inflation rate of 26.6 percent in 2001 (ADB 2002a: 124).

According to official statistics, unemployment is 0.4 percent, "actual unemployment, however, is estimated to be much higher; and hidden unemployment in the rural sector has been rising" (ibid: 125). Lack of transparency, central steering mechanisms and slow economic reform efforts are making their mark on Uzbekistan's economic competitiveness. According to the World Bank, 29 percent of the population was below the national poverty line in 1999 (World Bank 2001e). At the same time, Uzbekistan invests more heavily in its social systems than most countries in Central Asia, with public health expenditure reaching 6.6 percent of GDP in 1999 (UNICEF 2002). The life expectancy of 69 years (2000 figures) is the highest in Central Asia (UNDP 2001). According to UNICEF data of 2000, Uzbekistan's health situation is remarkably good, though environmental causes and especially the 45 million metric tons of salty and contaminated dust spreading from the dried up Aral Sea seabed each year are considered to have a negative health impact (Medecins Sans Frontiers 2000).

Turkmenistan has faced economic decline. It has huge amount of natural gases and its economy depends upon its extensively irrigated agricultural system. After several years of economic decline after independence, the economy began to recover in the late 1990s when GDP grew by 7 percent due to increased agricultural production and renewed gas sales. Production of natural gas only represents half of its total production capacity and is planned to increase by 40 percent in 2002 (ADB 2002a: 123). Economic data varies considerably among sources. The inflation rate is below 20 percent. Monetary policy measures brought

down inflation from 23.5 percent in 1999 to 7.4 percent in 2000 (6 percent in the first half of 2001) (ibid: 122). Domestic statistics show annual GDP growth between 17 and 18 percent in recent years, based on increased gas sales and large public investment. Annual GDP growth is expected to reach 11 percent in 2002 and 2003, with the official target being 18 percent (ibid.).

However, economic growth masks the country's very limited reform progress since independence. The banking sector – mainly public sector banks remains underdeveloped. The economy is characterized by a dominant role of the state in the economy and its maintenance of an extensive system of regulations and controls over trade and industrial activity. Poor economic management is evident, with practically all sales of cotton and wheat regulated by the state. The export dependent economy is largely based on natural gas and cotton. The Russian Federation, Ukraine and the CIS are the recipient of 88 percent of Turkmenistan's natural gas exports. Exports grew in 2001 by 9 percent, due to increased demand, a new gas pipeline to Iran and re-sales through the Russian Federation to the CIS (ibid: 121). Industrial production (mainly gas and oil) increased by 27 percent. Cotton exports grew by 7 percent in 2001 (ibid.). The government embarked on structural agricultural reforms to increase grain production to self-sufficiency level, but success in this is not yet evident. Rural development is critical as rural regions account for 26 percent of GDP and are a source of livelihood to 54 percent of the population. GDP per capita (in PPP) grew from \$2109 in 1997 to \$3956 in 2000 (UNICEF 2002). Even with high levels of income inequality, poverty incidence is rather low according to domestic statistics. These indicate that only 1 percent of the total population lives below the relative poverty line (defined as the proportion of the population living on less than 50 percent of the country's average per capita income). The World Bank (2002a) also states that half the population lives on less than the minimum wage and poverty is increasing among the most vulnerable segments of the population (UNDP 2003).

On the other hand, poverty and marginal development opportunities, particularly in arid areas, have been offset by heavy subsidies for basic commodities (water, energy, bread). Nearly 80 percent of total annual public expenditure has been allocated to social and public services. No data is available on unemployment and the functioning of the social insurance system established by law in 1991. Widespread poverty, heavy foreign debt, and the

unwillingness of the government to adopt market-oriented reforms are major constraints to economic development in the near future. Widespread poverty will continue to influence both health status and the operations of the health care system. The infant mortality rate is high, with 74 deaths per 1000 live births (UNICEF 2002).

From the results of the 2000 Turkmenistan Demographic and Health Survey, 47 percent of women and 36 percent of children are anemic. The educational system has undergone major reforms and succeeded in raising the literacy rate to 99.6 percent. However, it has been seriously affected by the reduction of the number of compulsory school years from 10 to 9, which prevents students from being eligible for institutions of higher education in the rest of the former Soviet Union, as well as by cuts in the budget and the subsequent dismissal of some 10,000 school teachers in 2000. Moreover, curricula are undergoing an increasing ideologisation, with the *Ruhnama*, a moral and spiritual code officially written by the former President himself, playing a central role at all levels of the educational system. Population has grown by 2.5 percent annually with a comparatively high fertility rate of 33 births per 1000. The Human Development Index for Turkmenistan increased between 1996 and 2000 (UNDP 2000). However, this increase mainly resulted from GDP growth, without significant improvement of the economic or general living conditions (UNDP 2003).

Effects of Poverty and Social Exclusion and Non-traditional Threats

Environmental and economic pressure has directly affected the security and stability of Central Asia. Outbreaks of violence only occur at the sub-state level where the majority of the population lives in poverty (UNDP 2003: 29). Marginalization or uneven distribution of natural resources and large-scale environmental pollution is often combined with heavy economic burdens affecting the poorest communities in the Central Asian countries. These communities have limited income alternatives, and limited access to public health services and social safety nets. Environmentally triggered or heightened tensions ensue at the sub-state level and in already marginalized and remote areas. Here, scarce natural resources and their intensive use as a source of basic human survival and livelihoods, high levels of pollution (mainly water pollution), soil degradation and overpopulation are engendering major threats to human development and security (ibid).

Non-traditional threats like Islamic radicalism, ethnic conflicts, drug trafficking, human trafficking, proliferation of small arms and terrorism are major threats to Central Asian security. Most of the threats are interlinked with each other. Drug trafficking is linked with terrorism and Islamic radicalism. Ethnic conflict and drug trafficking is also linked with proliferation of small arms. The International community has increasingly defined secret transnational activities as 'new security threats'. However, this is partly because narcotics, arms, human trafficking and terrorism have often been considered together in a single 'threat package' (Jackson 2005: 46). The socio-political and economic conditions of Central Asia have motivated the people towards criminal activities and to earn the drug money. Central Asia as source and as a transit country for the trafficking of Afghan drugs to China, Russia, and European countries (Mohapatra 2007:158).

Some analysts have argued that drug is not the prime cause of conflict; it only prolongs the conflict situation as criminal and terrorist groups are motivated by huge profits accruing from the drug trade (Cornell 2005a: 759). It can be seen that poverty, unemployment and economic backwardness have created non-traditional threats to Central Asian security. The decline of economic growth provides a fertile ground to the growth of radicalism as well as other social unrest. In Southern Kyrgyzstan, the Batken incursion clearly demonstrates the linkages between impoverishment and violence. Due to lack of alternate means of livelihood, 57.8% of total population was experiencing social tension, according to the study conducted by UNDP (2002).

Islamic Radicalism

At beginning of 1990s Islamic political organisations and movements appeared in all the Central Asian states except Turkmenistan. The practice of Islam has been revived everywhere in Central Asia after the declining of communism but radical Islam has made the greatest inroads where traditions of Islamic learning were strongest (Olcott 2005: 28). After 1991, Central Asia has faced serious threat by radical Islamic groups. There is an alarming tendency to equate Islam with extremism just because a small group of young people are motivated by religion to engage in activities fomenting social unrest, and use religion to justify their terrorist activities (Tabyshalieva in Tongeren et al (eds) 2002: 481). Various Islamic groups, in 1990s, like in Uzbekistan the Islamic Party of Revival, Adolat and

Islamic Party of Turkestan were formed; in Kazakhstan the Alash Party of National Salvation; in Kyrgyzstan the Islamic Centre. But in Tajikistan the Local Party of Islamic Revival became one of most powerful forces (Malashenko in Allison and Jonson (eds) 2001: 52).

Central Asia's leaders perceived that radical or Islamic groups have become security threats to Central Asian stability after 1990s. Islamic Movement of Uzbekistan (IMU) developed out of local radical Muslim vigilante groups in Ferghana valley in the mid 1990s. The largest radical Islamic group is the Hizb-ut-Tahir al-Islami, or the Islamic Party of Liberation, which was formed in 1953 by Taqiuddin al Nabhanito to unite the Islamic community. It became active, in the region in mid-1990s, and its influence grew at the end of the decade (Olcott 2005: 29).

When the Taliban movement established a radical Islamic regime in neighbouring Afghanistan in 1996, the situation suddenly changed. 'It seems that the Central Asian elites did not believe in the possibility of the Taliban expanding to the north and invading Uzbekistan and Tajikistan, but feared rather that the success of radical Islam would produce euphoria among like minded people in Central Asia, in particular in the Ferghana valley, where an Islamic opposition by that time had already appeared and among the radicals of the UTO' (Malashenko in Allison and Jonson (eds) 2001: 54). The mass media more often articulated the 'serious fears' caused by the import of Wahhabism ideas which are characterised as 'most uncompromising branch of Islam' (ibid).

Many analysts tend to argue that Islamic militancy represent the most serious threat to stability in the region. There were two events in 1999 that created serious threat perception. First was the series of explosions in Tashkent in February 1999 and the second was the Islamist invasion in August 1999 of the Batken region in Kyrgyzstan, close to Tajikistan (Malashenko in Allison and Jonson (eds) 2001:55). Again in August 2000, fighters of the international Islamic Hizb-al-Takhrir al-Islamy (the Party of Islamic liberation, which has subsidiary in Uzbekistan) invaded the territory of Uzbekistan in the Surkhan Darya region (ibid).

Islamic radicalism has united the people in favour of stabilisation. Many believe that the social and economic crisis in the religion like Ferghana have attracted the people towards radicalism rather than fundamentalism (ibid). Others feel, however, that it is the harsh

repressive regimes of Central Asia and economic crisis in the region rather than Islamic Militancy that are the real cause of instability in the region (Slim in Tongeren et al (eds) 2002: 496). Furthermore, an International Crisis Group report argues that “the insurgency is a reflection of the economic hardships and discontent affecting a part of the population and the reaction to the severe crackdown on Islamic activities which has pitted observant but otherwise moderate Muslims against the state” (ICG 2001).

It can be considered that Islamic radicalism is related to economic condition of the people. Especially, unemployed youths of the Ferghana valley are attracted toward extremist groups. Drug cultivation, production and transportation have started to create a culture of consumption in the valley. The typical drug addicts in the valley are aged between thirteen and twenty two and is unemployed (Slim in Tongeren et al (eds) 2002: 498).

For survival, poor and unemployed people are attracted towards radicalism and are ready to engage in criminal and violent activities.

Proliferation of Small Arms

Instability in Central Asian states is related to both internal and external factors. Proliferation of small arms has come out from the dangerous situations like ethnic tensions, environmental degradation, armed conflict and cross-border terrorism. In a UNDIR research publication, Bobi Pirseyedi argued that the combination of latent tension and conflict and the easy availability of small arms in the region could have explosive consequences:

“The existence of a considerable infrastructure for illicit small arms trafficking in Central Asia suggests that a breakout of armed internal conflict in Uzbekistan, Kazakhstan, Turkmenistan or Kyrgyzstan would lead to immediate and massive shipments of small arms to the conflict region. However, given the proportions the proliferations of small arms has already assumed within these countries, it can be argued that the easy availability of small arms itself may become the decisive factor transforming political disagreements into full scale armed confrontation” (Pirseyedi 2002: 85-86).

The discourse on small arms in Central Asia has two key procedural features. One is the underlying expectation of danger, like political upheaval, the ethnic uprisings in the Ferghana valley and civil war in Tajikistan. The second feature is the ease with which assertions of trends in one country are transformed into the general statements for the region as a whole. To highlight this point Pirseyedi claims that ‘a breakout of armed internal conflict

in Uzbekistan or Kyrgyzstan would lead to immediate and massive shipments of small arms to the conflict region' (cited in Macfarlane and Torjesen 2005: 7).

Small arms trafficking are also related to external factors. Several publications claimed that there was Northern route of arms trafficking from Afghanistan to Russia and possible Europe. UNDIR similarly held that the weapons trade occurred in conjunction with the North bound drug trafficking (ibid).

Disintegration of the Soviet Union resulted in huge stockpiles of military hardware and nuclear materials being left in newly independent states with little, if any, ability to regulate them. This situation, combined with Central Asia's poor economies and porous borders, has drawn international attention to the risk that materials may be easily stolen, sold or transferred. Despite significant achievements in safeguarding arms, many in the international community continue to emphasise the potential of huge transnational threat emanating from the region (Jackson 2005: 42).

Analysts argue that the weapons throughout the post-Soviet Union has become increasingly criminalised and huge illegal revenues are attracting various types of mafia groups into the region. Meanwhile, some governments of Central Asia have been slow to act against any illegal experts; partly because of the significant profits they bring to official inside and out side the governments. The greatest concern is to the potential proliferation of nuclear, chemical and biological weapons within or transiting through the region. Therefore proliferation of small arms is threat to Central Asian security. Despite significant moves to secure weapons, poverty and lack of opportunities compounded by local and regional tensions, in the future, make illicit activities such as arms trafficking more attractive (ibid). Another fear is that trafficking may increase due to greater demand for weapons from terrorist and would be nuclear powers as well as from opposition groups within the region.

Drug Trafficking

Drug trafficking is a type of non-traditional threat that is affecting the security of state. Many western governments are interested particularly in the issue of drug trafficking. They consider the trafficking of narcotics via Central Asia to be a direct threat to the state the health of their citizens. The issue has been affecting the socio-political and economic conditions of Central Asian states since of their independence. Afghanistan is the main

source of narcotics. It is linked with criminal activities and terrorist groups in Central Asia. Due to civil war from 1992 to 1999, many Tajik regional warlords also encouraged the production of narcotics to reap huge financial benefits. Apart from the unstable political situation, regional and ethnic tensions and lack of effective internal governance also provided additional leverage for production and transportation of drugs in Tajikistan (Mohapatra 2007:160). The Gorno Badakshana region, Penjikent region, Zeravshan and Lenniaibad regions in Tajikistan produced large volumes of narcotics (Zviagelskaya 1999: 72).

Every republic of Central Asia has faced serious problems through drug trafficking. In 1991, the Tajik interior ministry seized a meager 10.9 kg of drugs, but in 1995 the amount of drugs hauled up by Tajik interior ministry, went up to 1,750 kg (ibid). During 1998-1999, it was reported that drug trafficking increased to the extent of 250 percent in Tajikistan (Mohapatra 2007). The Kyrgyz interior ministry reported a 1,600 percent increase in heroin alone. The interior ministry of Kazakhstan (2001), reported that during a period of nine months it seized 12 tonnes and 981 kg of various kinds of drugs, out of which 65.1 kg was heroin (Baibulov 2001: 6).

The international community stated that drug trafficking has a negative implication which affects the stability and development of Central Asian states. Like in Columbia, the narcotic trade may destabilize states and civil society, damaging long term economic development while compromising the rule of law. It is significant that the drug trade in Central Asia seems to be currently expanding, particularly in areas that are especially weak or in conflict with central governments, eg. Tajikistan, Southern Kyrgyzstan and parts of Xingjiang in China. These regional economies are being increasingly criminalised as a greater proportion of the economy is controlled by drug money (Jackson 2005: 41).

Drug trafficking is a major threat to Central Asian states. Islamic Movement of Uzbekistan (IMU) controls the northern section of the drug trafficking route from Afghanistan (Rashid 2002: 165). The whole of Central Asia is affected by drug trade due to the crime-terror nexus. The involvement of IMU with other terrorist groups through drug trade is the major challenge to stability of Central Asia (Makarenko 2002). The terrorist organisations like Hizbut Tahir Islami (HTI), are closely linked with drug trafficking for funding (Curtis 2002: 17). Most of the poor farmers are engaged in raising poppy crops for

their financial development. Local mafias also help to farmers in drug cultivation (Makarenko 2002).

Due to drug trafficking people are affected by various diseases like AIDS and tuberculosis. There has been increase in addiction to drugs in Central Asia. In Kazakhstan three quarters of those diagnosed with HIV are unemployed (World Bank 2005). There are evidences of the involvement of women and children involved in larger scale with drug trafficking in Central Asia. A study conducted by Silk Road Studies Programme on Eurasian narcotics noted that the involvement of women in this trade increased from 5 per cent to 12 per cent between 1999 and 2004. In 1999, 344 or 12.4 per cent of the total drug crime arrests involved women. Similarly in 1995, about 2,623 drug related crimes were reported in the country with the figure rising 3,106 in 2003. This may be due to poverty and lack of any alternative source of livelihood, the people are engaged in drug trafficking (Eurasian Insight 2004). Drug trafficking can't be minimised unless the people have a proper financial condition. Unemployment is the main factor of drug trafficking in the area.

Human Trafficking and Terrorism

Like arms and narco-trafficking, human trafficking has negative impact on security and stability of Central Asia. The trafficking in people primarily involves the violation of human rights and health (Jackson 2005: 43). Human trafficking also is part of the wider phenomena of illegal migration (From Central Asia and more generally from the former Soviet Union). Since 9/11, and the US-led involvement in nearby Afghanistan, the international community has perceived links between illegal migration and terrorism, and this has brought increased attention the issue of human trafficking in the region (Burns and Eadie 2004).

Human trafficking is main issue of human security which can be considered as a non-traditional threat. Human trafficking also is induced from social deprivation. Here deprivation affects woman more. It can be said that poverty and unemployment are the main causes of human trafficking which links with terrorism as well. The International Organisation for Migration estimates that transnational traffickers have sold several thousand women from Central Asia into sex trade. About 1000 woman and children were trafficked in the year 2000 from Tajikistan mainly to Middle East and the CIS states. Illegally trafficked Kyrgyz women have been sent to Germany, Russia, Turkey and United Arab Emirates. Until

recently both governments and societies in Central Asia preferred to ignore the issue. In the predominantly Muslim societies of the region, it is almost a taboo to openly discuss the issue of the trafficking of women for prostitution. Victims do not report their experience to the police for fear that conservative societies in the region will reject them. Because the Central Asian societies have difficulty accepting these women, the victims of trafficking may face more trauma if and when they return home. After the events of 11 September 2001, various types trafficking are linked with radical groups (Jackson 2005: 44).

However, terrorism is different from human trafficking although to some extent human trafficking is linked with terrorism. Terrorism is a direct threat to state. Radical groups have been involved with terrorist activities in the region of Central Asia. After the event of 9/11, the perception that various types of trafficking are broadly linked to 'terrorism' formed the basis of projects and actions designed to combat the allegedly directly inter linked threat (ibid).

Human trafficking and terrorism are both related to violation of human rights. Many terrorists are trafficking the people and forced them towards terrorist activities. Basically, unemployed, poor and deprived people are involved with terrorist activities and trafficking. From 1991 to 2001, this types of non-traditional threats have affected security of Central Asia.

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Chapter-V

CONCLUSION

CONCLUSION

Security of Central Asia has emerged in a multifaceted way from 1991 to 2001. From theoretical perspectives, security complex of Barry Buzan emphasises on three levels of security structure and these are the regional, national and international levels. These levels of security complex are connected with social, economic, political, environmental and military-security factors. These five factors in Central Asian states also depend on three levels of security complex. After Soviet disintegration, stability of Central Asian states is related to security in the context of external powers. External powers have supported the improvement of traditional military security. But the nontraditional security threats have created more instability. The traditional military security provided by external powers play a significant role to meet non-traditional threats like Islamic radicalism and terrorism. Both internal and external factors have challenged the security of Central Asia. In this matter theoretical frameworks like that of Tadjbaksh and Chenoy's security pyramid, Ole Waever's security hour-glass and Ronald Paris's security matrix are relevant to study Central Asian security. In practical sense, the scenario of Central Asia can be pictured through proper observation, investigation and presentation of problems and issues.

Geopolitical importance of Central Asia is primarily based on natural resources. The external powers have deviated towards this area for their long term influence. Economic development has depended on external powers for supplying of gas, oil and domestic products. Russia's hegemonic policy on Central Asia's geopolitics is challenged by US power in the region. Before independence of Central Asian states it was very difficult for the USA to its influence in the region. Soviet disintegration was a great event for external powers to directly intervene and expand their interests. The location of the states is the main cause of border disputes, Islamic extremism, cross-border terrorism, ethnic conflict and environmental issues. Central Asian states have emerged as an area of influence for neighbouring states like Afghanistan, China and Iran. Caspian Sea is also another reason of geopolitical importance of Central Asia.

The interest of external powers in the region is due to the geo-strategic importance of

region, where recently on 5th July 2009, violent street battles killed nearly 150 people and injured nearly thousand others in the deadliest ethnic unrest China's volatile western Xingjiang region.

Relations between Central Asian states and China must be built on a stable foundation. For stability between both countries, they have to achieve economic growth, to tackle the ethnic issue, to improve military cooperation and to check the penetration of the major powers and their influence in the region. Development and stability both are co-related with each other. Without stability of Central Asia there is no possibility of development and without development of Central Asia there is no stability.

Despite traditional threats Central Asia's instability is caused mainly by non-traditional threats like environmental degradation, ethnic conflicts, Islamic extremism, drug trafficking, proliferation of small arms, human trafficking and terrorism.

After Soviet disintegration, environmental degradation in Central Asia has affected political, economic, social, environmental and military security. The impacts of environmental degradation have created water sharing issues. Various conflicts in the region have been induced from water, border and natural resources. Water pollution, erosion of soil and land degradation through salinisation and radio toxic waste has become threats to human development. Environmental issues have maximised the ethnic conflict because most of the migrant workers have increased due to the failure of crops, poverty and unemployment. Although the impact of environmental degradation is less direct, but indirectly it becomes threat to security of the state.

Tensions among states of Central Asia are found basically on the two main rivers- Amu Darya and Syr Darya. According to ICG report tensions among Central Asian states have been rising due to from various reasons like lack of coherent water management; failure to abide by or adapt water quotas; non-implemented and untimely Barter agreements and payments; and uncertainty over future infrastructure plans. At local levels water sharing issues have been found to have higher probability of conflict because of socio-economic problems of people and unemployment among youths.

Water related conflicts in Ferghana valley is very high than other areas of Central Asia. Such conflicts are frequent between northern Tajikistan and southern Kyrgyzstan. Environmental degradation and water sharing issues are real threats. Most water reservoirs

Central Asia. The external powers like USA and Turkey have played important role in the region after Soviet disintegration. After the event of 9/11 USA has been more actively involved on the basis of 'war against terrorism'. As a result, external and regional players are the main factors of improvement of traditional security.

Traditional security of Central Asia is mostly essential for reduction of conflicts and threats. USA is the leading external power, which is determined to use economic power to integrate the Caucasus and Central Asian states into Western economic and security systems. The military power of USA has been projected in the region through UN or NATO's PfP programme. The role of USA has minimised the traditional threats but USA could not manage the internal disturbances in Central Asia.

Russia has expanded its power and influence to minimise the involvement of Western powers led by USA. In 1990s Russia failed to build a voluntary security community with the Central Asian states. Except Tajikistan and Kazakhstan other three Central Asian states were not interested for military cooperation with Russia. Russian military troops remained only in Tajikistan and Russian border guard troops in Tajikistan and Kazakhstan.

In 1999 and 2000, when Uzbek Islamists attacked in different areas, Uzbekistan continued military cooperation with Russia. Russia has managed and strengthened its security cooperation with Uzbekistan. Military power of Russia prevented the external threats to Central Asian state. Russia has helped in stability in the region. Within this period traditional threats were minimised due to the involvement of USA and Russian military power in Central Asia.

Iran and Turkey played supporting roles with both the super powers. Although these two states couldn't play vital role in military security but they have supported to Russia and USA with respect to their own interests.

China's role in Central Asia is very different from other international and regional players. National interest of China included natural resources of Central Asia and security interest in Xingjiang. Security of Central Asia is based on territorial integrity and it is clear that China's role in Central Asia is less than the role of USA and Russia. After Soviet disintegration China has focused on the Xingjiag region whose stability the Chinese feet is linked to the stability of Central Asia. Geopolitics is the main factor of security and interest for both Central Asia and China. China's attention has focused on the volatile Xinjiang

are season-regulated. Approximately 90 per cent of their water is for irrigation. Tajikistan and Kyrgyzstan are dependent on imported electricity from Uzbekistan and Turkmenistan. This dependence has created inter-state tensions among three countries.

Due to uncertainty of water resources or existence of natural resources like oil, gas and other minerals it can be pointed out that these are main factors of inter-state conflict. In this matter the state can play dynamic role for solution of water sharing issues and problems of environmental degradation. The state should focus on human security which is essential for stability. However, reports show that officially no connection between environmental stress and conflict is made by governmental institutions, parliamentarians, civil society groups or scientific community. Without proper implementation and cooperation of states these issues were neglected after independence.

Environmental protection is an essential for the Central Asian states and also for the world community. Huge amounts of natural resources will provide energy strength to the world market and its preservation is highly required. Since 1991, several major initiatives have been launched to resolve the water problems in Central Asia. The efforts by the Organisation for Security and Cooperation in Europe (OSCE), has decided important means on resolving water problems. The Global Environmental Facility (GEF) has been providing money for environmental projects in Central Asia with the help of World Bank. The international involvement in Central Asia on water management can create optimistic results. But without strong cooperation and active participation among Central Asian states water sharing issues and environmental degradation can not be controlled. Lack of willingness of the Central Asian states to cooperate has killed numerous regional initiatives. Demand of water and decline of water resources have aggravated crisis, conflicts and problems. Without proper implementation of environmental policy and water management policy there would be more instability and insecurity in Central Asia.

Nontraditional threats like Islamic radicalism, ethnic conflict, environmental degradation, proliferation of small arms, drug trafficking, terrorism and human trafficking are major threats to Central Asian security and stability. All threats are interlinked with each other and these are also present in every region of Central Asia. Ferghana valley is the most sensitive region with high profile of these threats. Central Asian security has been approached in the research from human security perspective. Primarily, instability affects the

individual and the individual is the root cause of instability of the state. The survival or stability of Central Asia can not be based on military security only. The fundamental thing is the human security through human development.

After 1991, all Central Asian states have faced serious economic decline and most of the people have not found proper living conditions. Unemployed youths and poor people find excluded from income and employment in government sectors. The government could not provide jobs to many people. Ferghana region for example is also challenged by economic security crisis. It has been observed that unemployed youths are engaged in various criminal activities and have also participated in radical Islamic movements. In most of the cases unemployment and poverty are main causes of crisis. Poverty also causes migration and migration causes ethnic conflict. Ethnic conflict is also related to small arms proliferation. In Central Asian countries poverty is the main factor of all threats. Poor people are socially excluded because they could not have basic living standards. As a result, they have reacted negatively towards government policies. For maintenance of their life, family and social status, people have engaged in radical activities. The radical groups provide financial support to the people. Such radical Islamic groups have links with terrorism which directly threatens Central Asian security.

Instability of Central Asian states is not dependent upon one level. But instability begins from individual level and it expands towards regional level and regional instability is connected with international level. Barry Buzan's security complex is relevant for Central Asian security. The security pyramid implies that the role of state should be based on individual security. This model justifies human security as the primary issue of state. Internal threats like Islamic radicalism, drug trafficking, human trafficking, environmental degradation etc. are threats to human security which threaten Central Asian. External threats like terrorism and border disputes in Xingjiang and other areas are direct threats to security. Ole Waever's hour-glass model of security should be considered from individual level to international level through state-centred security. Individual security depends upon the active role of the state. So that, the state can play important role in security. Finally, the security matrix is also linked with Central Asian security. In this model four divisions like national security, environmental and economic security, intra-state societies (e.g civil wars and ethnic conflicts) and human security (e.g environmental and economic threats to survival of

societies, groups and individuals) are major parts of security in the context of Central Asia. These four divisions on security are more relevant for the stability of the state. Stability of Central Asian states are essential from security point of view, which enables the state to manage such types of threats. Both traditional and nontraditional threats to Central Asian security are relevant issues. From 1991 to 2001, nontraditional threats have created more instability than traditional threats. These non-traditional threats could not be controlled by the state. Within this period traditional threats were managed by major powers like USA and Russia. But the major external powers could not have managed non traditional threats. These nontraditional threats have seriously affected the social, political, economic, environmental and military security. Most of Central Asian states have faced instability due to poverty and social exclusion and serious economic decline after Soviet disintegration.

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REFERENCES

REFERENCES

(* indicates a primary source)

- Acharya, Amitav (March 1995), *The Periphery As The Core: The Third World And Security Studies* Centre for International and Strategic Studies York University, YCISS Occasional Paper Number 28. Prepared for presentation at the conference *Strategies in Conflict: Critical Approaches to Security Studies*, convened by the Centre for International and Strategic Studies, York University, Toronto, 12-14 May 1994 with the support of the Cooperative Security Competitions Program
- *ADB (2000), *Environmental Profile of Tajikistan*. Manila, Bangkok: Asian Development Bank.
- *———. (2002a), *Asian Development Outlook 2002*. Bangkok: Asian Development Bank.
- *———. (2002b), *Country Strategy and Program Update (2003–05)*, Kyrgyz Republic. Bangkok: Asian Development Bank.
- Akire, Sabina (2005), “Concept of Human Security” in Lincolnchen et al. (eds), *Human Insecurity in a global world*, New Delhi: Viva Book Pvt Ltd.
- . (Sep. 2004), “A Vital Core that Must Be Treated with the Same Gravitas as Traditional Security Threats”, *Security Dialogue*, 35 (3): 359-360.
- Allison, Roy and Lena Jonson (eds) (2001), *Central Asian Security: The International Context*, Washington DC: Brooking Institution Press.
- Anderson, John (1997), *The International Politics of Central Asia*, Manchester: Manchester University press.
- *Annan, Kofi A. (2000), *Millenium Report: We the Peoples, The Role of the United Nations in the 21st Century*, New York: United Nations, at: <http://www.un.org/millennium/sg/report/>.
- Arif Hasan and Amenah Azam Ali (March 1993), *Environmental Repercussions of Development in Pakistan*, Karachi: OPP-RTI.
- Ashimbaev, M. et al. (2003), *New Challenges and New Geopolitics in Central Asia: After September 11*, Almaty: KazISS.
- Asma, Yaqoob (Autumn 2004), “International River Waters In South Asia: Source of Conflict or Cooperation?”, *Regional Studies*, Vol. XXII (4): 113.

Asopa, Sheel K. (2003), "Understanding the Dynamics of Central Asian Security Scenario," *Contemporary Central Asia*, Vol.Vii, (1-2): 15-22.

Atkinson, A.B. (1998), 'Social Exclusion, Poverty and Unemployment' in A.B. Atkinson and J. Hills (eds), *Exclusion, Employment and Opportunity*, STIERD, London School of Economics Discussion Paper Series, CASE 14.

Axworthy, Lloyd (Sep. 2004), "A New Scientific Field and Policy Lens", *Security Dialogue*, 35 (3): 348-349.

Ayoob, Mohammed (Winter, 1983-1984), "Security in the Third World: The Worm about to Turn?" *International Affairs*, Vol. 60 (1): 41-51.

*Baechler, G. (1998), *Why environmental transformation causes violence*, A synthesis. Environmental Change and Security Project Report, Issue 4, Spring 1998, 24-44.

Baibulaov, B. (2003), "Illegal Drug Trafficking as a Threat to National Security", *Central Asian Affairs*, no.1: 5-7.

Bajpai, Kanti (2003), "The Idea of Human Security", *International Studies*, 40 (3):195-228.

———. (Sep. 2004), "An Expression of Threats versus Capabilities Across Time and Space", *Security Dialogue*, 35 (3): 360-361.

Bannuazizi, Ali and Myron Weiner (eds.), (1994), *The New Geo-politics of Central Asia and its Borderlands*, London: I.B. Tauris and Co. Ltd.

Barnett, Jon (2001), *The Meaning of Environmental Security: Ecological Politics and Policy in the New Security Era*, London and New York: Zed Books Ltd.

Beckett, Margaret (June 2007), "The Case for Climate Security", *The Royal United Services Institute (RUSI)*, 152 (3).

Bellamy, Alex J. and McDonald, Matt (September 2002), "The Utility of Human Security: Which Humans? What Security. A Reply to Thomas and Tow", *Security Dialogue*, 33 (3): 373-378.

*Bensmann, Marcus (2002), *Gardens in the sand*, in: *Akzente special*. Global Environmental Policy: From Rio to Johannesburg, pp. 18 – 20.

- Bhalla, A.S and Laypeyre, Frederic (1999), *Poverty and Social Exclusion in Global World*, London: MacMillan Press Ltd.
- Blank, Stephen (2003), "The United States and Central Asian," *Journal of Internal Affairs*, 56 (2): 136.
- Bogardi, Janos (2004), "Hazards, risks and vulnerabilities in a changing environment: The unexpected onslaught on human security?" in: *Global Environmental Change*, 14, 4: 361-365.
- Booth, Ken (1991), "Security and Emancipation", *Review of International Studies*, vol. 17.
- Bouguerra, Mohamed Larbi (2006), *Water under Threat*, London: Alliance of Independent publishers, Zed Books.
- *Brandt Commission (1980), *North-South: A Program for Survival*, Report of the Independent Commission on International development Issues, Pan Books, New York.
- *Brauch Hans Günter (2002), *Climate Change, Environmental Stress and Conflict - AFES-PRESS*, Report for the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety", in: Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Ed.): *Climate Change and Conflict. Can climate change impacts increase conflict potentials? What is the relevance of this issue for the international process on climate change?* (: Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Berlin, 9-112; see at: http://www.bmu.de/english/download/files/clim_ges.pdf
- Brauch, Hans Günter (2003a), "Towards a Fourth Phase of Research on Human and Environmental Security and Peace: Conceptual Conclusions" in, Hans Günter Brauch et al. (ed.), *Security and Environment in the Mediterranean. Conceptualising Security and Environmental Conflicts*, Berlin-Heidelberg: Springer.
- . (2004), From a Hobbesian Security to a Grotian Survival Dilemma, 40th Anniversary Conference of IPRA, Peace and Conflict in a Time of Globalisation, Sopron, Hungary, 5-9 July 2004, [Online: web] Accessed on 2 July 2009, URL: at: http://www.afes-press.de/pdf/Sopron_Survival%20Dilemma.pdf.
- Brauch, Hans Günter et al. (2003), *Security and Environment in the Mediterranean: Conceptualising Security and Environmental Conflicts*, Berlin-Heidelberg: Springer.
- Brock, Lothar (1991), "Peace through Parks: The Environment on the Peace Research

- Agenda”, *Journal of Peace Research*, 28 (4): 407-423.
- Brock, Lothar (1992), “Security through defending the environment: an illusion?”, in Elise Boulding (ed.): *New Agendas for Peace Research: Conflict and Security Reexamined*, Boulder: Rienner.
- *Brundtland Commission (1987), *Our Common Future*, The World Commission on Environment and Development, Oxford University Press, Oxford – New York.
- Bryant, R.L. and S. Bailey (1997), *Third World Political Ecology*, London: Routledge.
- Brzezinski, Zbigniew (1997), *The Grand Chessboard*, New York: Basic Books.
- Buckley, C. (1997), “Suicide in Post Soviet Kazakhstan,” *Central Asian Survey*, 16 (3): 45-52.
- Bull, Hedley (1977), *The Anarchical Society. A Study of Order in World Politics*, New York: Columbia University Press – London: Macmillan.
- Buzan, Barry (1982), *People, States and Fear: The National Security Problem in International Relations*, New Delhi: Trasasia Publishers.
- . (1997), “Rethinking Security after the Cold War”, *Cooperation and Conflict*, 32: 5.
- . (Sep. 2004), “A Reductionist, Idealistic Notion that Adds Little Analytical Value”, *Security Dialogue*, vol. 35 (3): 369-370.
- Buzan, Barry et al. (1998), *Security. A New Framework for Analysis*, Boulder- London: Lynne Rienner.
- Chambers, R. and G. Conway (1992), *Sustainable rural livelihoods: Practical concepts for the 21st century*. IDS Discussion Paper 296. Brighton: IDS.
- Chouvey, Pierre Arnaud (2003), “Opiates Smuggling Routes from Afghanistan to Europe and Asia,” *Janes Intelligence Review*, 15(3): 32-35.
- Cleart, C. (1999), ‘Evaluating the Concept of Social Exclusion in Development Discourse’, *European Journal of Development Research*, 11 (2): 176-199.
- Cleary, laura Richards (1998), *Security System in Transition*, USA: Ashgate Publishing Company.
- Cléménçon, Raymond (December 2005), “Water Is Essential for Life”, *The Journal of Environment & Development*, Vol. 14 (4): 407-408.

Clinton, W. (1998), *A National Security Strategy for New Century*, Washington: White House.

*Community Business Forum, Kyrgyzstan (2003), Kumtor Operating Company, Available at: http://www.kyrgyzstan.cbf.org/Business/Kumtor_Operating_Company/kumtor_operating_company.html [Accessed on 13 June 2009].

Conca, Ken (1994a), "Rethinking the Ecology-Sovereignty Debate", *Millenium Journal of International Studies*, 23 (3): 701-711.

Cornell Svante, E (2005), "The Interaction of Narcotics and Conflict," *Journal of Peace Research*, 42(6): 571-560.

Cummings, Sally N. (ed.), (2002), *Power and Change in Central Asia*, London and New York: Routledge.

Dabelko, G.D. and D.D. Dabelko (1993), "Environmental security: Issues of concept and redefinition," Occasional Paper 1, Harison Program on the Future Global Agenda, 7.

*Dalby, Simon (2002), *Security and Ecology in the Age of Globalization*, in: Woodrow Wilson International Center for Scholars (Ed.): *Environmental Change & Security Project Report*, Issue No. 8 (Summer): 95-108.

Dannreuther, Ronald (2007), *International Security: The Contemporary Agenda*, Cambridge-UK, Polity Press.

Das, Pushpita (March 2007), "Environmental Degradation: Unearthing the Past for Future Longevity", *Strategic Analysis*, 31 (2).

David, Charles- Philippe and Gagne, Jean- Francois (Winter 2006-2007), "Natural Resources: A source of conflict?", *International Journal*, Volume LXII (1).

Deudney, D. (1991), Environment and security: Muddled thinking. *Bulletin of the Atomic Scientists* 47(3): 22-28. [Online: web] Accessed on 12 June 2009, URL: <http://www.bullatomsci.org/issues/1991/a91/a91deudney.html> on December 14, 2001.

Deudney, Daniel (1991) "The Case Against Linking Environmental Degradation and Security", *Millennium Journal of International Studies* Vol. 19 (3): 460-476.

Dixon Thomas Homer (summer 1994), "Environmental Scarcities and Violent Conflict: Evidence from Cases", *International Security* 19 (1): 5-40.

*Dixon, J. A., L. Talbot, and G. le Moigne (1989), *Dams and the Environment: Considerations in World Bank Projects*. Washington, DC: World Bank.

Dixon, Thomas F. (2000), *The Ingenuity Gap*, New York -Toronto: Alfred A. Knopf.

Dollard, John et al. (1939), *Frustration and Aggression*, New Haven: Yale University Press.

Dziedzic, Michael (1989), "The Transnational Drug Trade and Regional Security," *Survival*, 39(1): 433-455.

Eadie, Pauline (2007), "Poverty, Security and the Janus-faced State," *British Journal of Political Science and International Relations*, 9(3): 636-653.

Editorial (2009), "Unrest in Urumqi: Could Xingjiang be Developing into China's Kashmir" *The Times of India*, New Delhi, 8 July 2009.

*Edward Goldsmith and Nicholas Hildyard (1984), *The Social and Environmental Effects of Large Dams*, A Report to The European ecological Action Group (ECOROPA), Volume One: Overview, UK: Wadebridge Ecological Centre.

Ellingsen, Tanja (1998), "Beyond Environmental Security: Causal Pathways to Conflict", *Journal of Peace Research*, 35 (3): 299-317.

Engval, John (2006), "The State under Siege: The Drug Trade and Organised Crime in Tajikistan," *Europe-Asia Studies*, 58(6): 827-854.

Erimjarov, Asel B. (2001), "Afghan Drugs: Right now they are the main Threat," *The Times of Central Asian*, 29 December.

Eurasianet (2002a), "Kazakh, Uzbek presidents sign accord resolving border disputes" *Uzbekistan Daily Digest*, 10 September 2002. Available at: <http://www.eurasianet.org/resource/uzbekistan/hypermail/200209/0008.shtml>; [Accessed on 13 June 2009].

———. (2002b), "No disputed issues left between Kazakhstan, Uzbekistan, say presidents" *Kazakh Daily Digest*: 12 September 2002. Available at: <http://www.eurasianet.org/resource/kazakhstan/hypermail/200209/0017.shtml> [2 July 2009].

———. (2003), "Experts See Limited Progress in Kazakhstan's Aids Policy". 15 January 2003. Available at <http://www.eurasianet.org/departments/recaps/articles/eav011503.shtml> [13 June 2009].

*FAO (2000), *Global forest resources assessment 2000*, FAO Forestry Paper 140. Rome: Food and Agricultural Organization of the United Nations.

*Finlayson, C.M. and A.G. Spiers (2000), Global Review of Wetland Resources, in *World Resources 2000–2001*, World Resources Institute: Washington, DC.

Fluoride Action Network (2003), Tajik Aluminum Environmental Disaster in Central Asia. Available at: <http://www.fluoridealert.org/tajik.htm> [Accessed on 20th June 2009] .

Galtung, Johan (1982), *Environment, Development and Military Activity: Towards Alternative Security Doctrines*, Oslo: Norwegian University Press.

Gerlak, Andrea K. (December 2004), “The Global Environment Facility and Transboundary Water Resource Management: New Institutional Arrangements in the Danube River and Black Sea Region”, *Journal of Environment & Development*, Vol. 13 (4): 400-424.

Glaeser, Bernhard (2002), “The Changing Human-Nature Relationships (HNR) in the Context of Global Environmental Change”, in Peter Timmerman (ed.): *Encyclopedia of Global Environmental Change*, vol. 5: Social and Economic Dimensions of Global Environmental Change, Chichester: John Wiley, 11-24.

Gleditsch, N.P. (1998), “Armed conflict and the environment: A critique of the literature”, *Journal of Peace Research*, 35 (3): 381-400.

Gleick, P.H. (2000), Water Conflict Chronology: Environment and Security Water Conflict Chronology, Pacific Institute for Studies in Development, Environment, and Security. [Online: web] Accessed on 20 June 2009, URL: <http://www.worldwater.org/conflictIntro.htm> on August 12, 2002.

Global Security Org (2003), Vozrozhdeniye Island. Available at: <http://www.globalsecurity.org/wmd/world/russia/vozrozhdenly.htm> [Accessed on 20th June 2009].

Goran Hyden (1998), “Governance and Sustainable Development: Challenges and Opportunities”, Paper presented at a workshop on Sustainable Livelihoods and Development, jointly organised by the UNDP and the Centre for African Studies, University of Florida at Gainesville, 1-3 October 1998, [Online: web] Accessed on 4 June 2009, URL: <http://www.undp.org.sl/publication/goran.pdf>, p. 5.

*Goucha, Moufida; Cilliers, Jakkie (Eds.) (2001), *Peace, Human Security and Conflict Prevention in Africa*, Paris: UNESCO.

Greenwood, N. J. and J. M. B. Edeards (1990), *Human Environmental Age*, India, Ashish Publishing House.

Grosh, M.E. And P. Glewwe (2000), *Designing Household Survey Questionnaires for Developing countries Lessons from 15 years of living standards Measured Study*, Washington DC: World Bank.

Gulhati Niranjana D. (1973), *The Indus Waters Treaty: An Exercise in International Mediation*, New York: Allied Publishers.

Hampson, Fen Osler (Sep. 2004), "A Concept in Need of a Global Policy Response", *Security Dialogue*, vol. 35 (3): 349-350.

Haq, Mahbub (2000), *Reflections on Human Development*, New Delhi, Oxford University Press.

Heathershaw, John (2005), "The Paradox of Peace Building: Peril, Promise, and Small Arms in Tajikistan," *Central Asian Survey*, 24(3): 21-38.

Hjortaf, Ornas, A. and S. Lodgaard (1992), *The Environment and International Security*. Uppsala: Uppsala University Research Programme on Environmental Policy and Society.

Homer-Dixon, T. (1999b), "Thresholds of Turmoil: Environmental Scarcities and Violent Conflict", in D. Deudney and R. Matthew eds., *Contested Grounds: Security and Conflict in the New Environmental Politics*, Albany: State University of New York Press.

Homer-Dixon, T. and Blitt, J. eds. (1998), *Ecoviolence: Links Among Environment, Population, and Scarcity*, Lanham: Rowman & Littlefield Publishers.

Homer-Dixon, Thomas F. (1999), *Environment, Scarcity, and Violence*, Princeton, NJ: Princeton University Press.

———. (Fall 1991), "On the Threshold: Environmental Changes as Causes of Acute Conflict", *International Security*, 16 (2): 76-116.

———. (June 1996), "Strategies for Studying Causation in Complex Ecological-Political Systems", *Journal of Environment and Development*, 5 (2): 132-48.

———. (Summer 1994), "Environmental Scarcities and Violent Conflict: Evidence from Cases", *International Security*, 19 (1): 5-40.

**Human Development Report 2007/2008* accessed on 2nd July 2009 URL: <http://hdr.undp.org>

*Human Rights Watch (2002), *World Report 2002, Uzbekistan*, New York: Human Rights

Watch.

*Human Security Centre (2004), *Human Security Report 2004*, New York: Oxford University Press.

Huntington Samuel P. (1957), *The Soldier and the State: The Theory and politics of Civil-Military Relation*, Cambridge: Belknap Press.

———. (1968), *Political Order in Changing Societies*, New Haven: Yale University Press.

*ICG (2001), *Kyrgyzstan at Ten: Trouble in the “Island of Democracy”*, ICG Asia Report No. 22, 28 August 2001. Osh/Brussels: International Crisis Group.

*———. (2002a), *Central Asia – Water and Conflict*, ICG Asia Report No. 34, 30 May 2002. Osh/Brussels: International Crisis Group.

*———. (2002b), *Central Asia – Border Disputes and Conflict Potential*, ICG Asia Report No. 33, 4 April 2002 Osh/Brussels: International Crisis Group.

*IPCC (2001), *Climate Change 2001: Impacts, Adaptation and Vulnerability. Mitigation*,

Jackson, N (2005), “Trafficking in post Soviet Central Asia”, *Central Asian Survey*, 24(1:39-59)

Jiali, Ma (1999), “Central Asia: Geo-strategic Situation and Big Powers’ Policies”, *Contemporary Central Asia*, 3 (1):45.

*Jumagulov, Sultan (2003), *Kyrgyzstan: Migration Prompts Security Worries*. Reporting Central Asia No. 197, 8 April 2003. London: Institute for War and Peace Reporting.

Kaplan, R. (1994), ‘The Coming Anarchy’, *Atlantic Monthly*, 273 (2):44-76.

Karaev, Zainiddin (2005), “Water Diplomacy in Central Asia”, *The Middle East Review of International Affairs*, 9(1): 5.

Kausik Devendra (2000), “Regional Co-operation: The Central Asian Experience,” *Contemporary Central Asia*, IV (1-2): 32-42.

Kegley, Charles W., Jr. and Eugene R. Wittkopf (2004), *World Politics Trend and Transformation*, United States: Wadsworth.

Ken, Conca (2006), *Governing Water: Contentious Transnational Politics and Global Institution Building*, London: Cambridge, the MIT Press.

- Khazanov, Anatoly M. (1995), "The Ethnic Problems of Contemporary Kazakhstan," *Central Asian Survey*, 22(1):1-59.
- Krause, Keith (1998), "Theorizing Security, State Formation and the 'Third World' in the Post Cold-war World", *Review of International Studies*, vol. 24 (1).
- . (2004), "Is Human Security 'More than Just a Good idea'?", in BICC (ed.), *Promoting Security: But How and for Whom?*, Bonn: BICC, 43-46.
- . (Sep. 2004a), "The Key to a Powerful Agenda, if Properly Delimited", *Security Dialogue*, 35 (3): 367-368.
- . and Williams Michael C. (1996), "Broadening the Agenda of Security Studies: Politics and Methods", *Mershon International Studies Review*, vol. 40: 232.
- *Ladonina, Nina N., Dimitry A. Cherniakhovsky, Igor B. Akarov, and Victor F. Basevich (2001) *Managing Agricultural Resources for Biodiversity Conservation*, Case study of Russia and CIS countries, Study commissioned by Environment Liaison Center International, Final Draft.
- Leaning, Jennifer (Sep. 2004), "Psychosocial Well-Being over Time", *Security Dialogue*, 35 (3): 354-355.
- Lester, David (1999), "Suicide in Post-Soviet Central Asia," *Central Asian Survey*, 18(1): 121-124.
- *Levy, M. (1995), *Time for a third wave of environment and security scholarship?* In: Environmental Change and Security Project, Report no. 1, Woodrow Wilson Center, Washington D.C.
- Libiszewski, S. (1992), *What is an Environmental Conflict?* Environment and Conflicts Project (ENCOP), Occasional Paper No. 6. Zürich: Center for Security Studies and Conflict Research.
- Lipschutz, R. (1997), "Environmental Conflict and Environmental Determinism: The Relative Importance of Social and Natural Factors" in Gleditsch, N. (ed.) *Conflict and the Environment. NATO ASI Series*. Dordrecht: Kluwer Academic Publishers.
- Lipschutz, R. D. (1991), "One World or Many? Global Sustainable Economic Development in the 21st Century", *Bulletin of Peace Proposals*, 22 (2): 189-198.
- Lomborg, Bjørn (2001), *The Skeptical Environmentalist. Measuring the Real State of the World*, Cambridge – New York: Cambridge UP.

- Loucks, D. P. and J. S. Gladwell (1999), *Sustainability criteria for water resources systems*, Cambridge- Massachusetts, Cambridge University Press.
- Lubin, Nancy (2003), "Who is Watching the Watchdogs?" *Journal of Internal Affairs*, 56(2): 45-86.
- Mabee, Bryan (2003), "Security Studies and the 'Security State': Security Provision in Historical Context", *International Relations*, 17: 135–151.
- Macfarlane, S. Neil and Stina Torjesen (2005), "A Wash with Weapon? The case of Small Arms in Kyrgyzstan," *Central Asian Survey*, 24(1): 5-19.
- *Mack, Andrw (2002), *Report on the Feasibility of Creating an Humanitarian Policy and Conflict Research*, Program on Humanitarian Policy and Conflict Research, February 2002, Harvard University, Appendix 2, at: <http://www.hsph.harvard.edu/hpcr/FeasibilityReport.pdf>.
- Makarenko, Tamara (2000), "Crime, Terror, the Central Asian Drug Trade", *Caspian Brief*, no. 25, http://cornellcaspia.com/publications/pdf/25.0207CA_drugs.pdf. Accessed on 15 June 2009.
- Makarenko, Tamara (2004), "The Crime-Terror Continuum: Tracing the Interplay between Transnational Organised Crime and Terrorism," *Global Crime*, 6(1): 129-145.
- Malik, Hafeez (ed.) (1994), *Central Asia: Its Strategic Importance and Future Prospects*, New York:St. Martin Press.
- Mann, Michael (1988), The Autonomous Power of the State: its Origins, Mechanisms and Results, in *States, War and Capitalism*, pp.1–32, Oxford: Basil Blackwell.
- Mathews, Jessica Tuchman (Spring 1989), "Redefining Security", *Foreign Affairs*, 68 (2): 162-177.
- Mc Farlane, S. Neil (Sep. 2004), "A Useful Concept that Risk Losing Its Political Salience", *Security Dialogue*, 35 (3): 368-369.
- McCully, P (1996), *Silenced Rivers: The Ecology and Politics of Large Dams*, London: Zed Books.
- McSweeney, Bill (1996), "Identity and Security: Buzan and the Copenhagen School", *Review of International Studies*, vol. 22: 81-93.
- *Meadows, Donella et al. (1972), *The Limits to Growth A Report for the Club of Rome's Project on the Predicament of Mankind*, New York: Universe Books.

Medecins Sans Frontier (2000), Uzbekistan – Environmental Disaster on a Colossal Scale. Available at: [http://www.msf.org/content/page.cfm?articleid= 6589D208-DC2C-11D4-B2010060084A6370](http://www.msf.org/content/page.cfm?articleid=6589D208-DC2C-11D4-B2010060084A6370) [Accessed on 13 June 2009].

Midlarsky, Manus I. (1998), 'Democracy and the Environment: An Empirical Assessment', *Journal of Peace Research*, 35 (3): 341-361

———. (1998), "Democracy and the Environment: An Empirical Assessment", *Journal of Peace Research*, 35 (3): 341-361.

Mills, Greg (April 1997), "A 21st Century Security Agenda: The End of "Defence" as We Know it?", *Strategic Analysis*.

*Ministry for Natural Resource Use and Environment Protection of Turkmenistan (1998), *State of the Environment, Turkmenistan*, Ashgabad: Ministry for the Environment.

Mohapatra, Nalin Kumar (2007), "Political and Security Challenges in Central Asia: The Drug Trafficking Dimension", *International Studies*, 44 (2): 157-74.

Myers, N. and N.J. Myers (1996), *Ultimate Security: The Environmental Basis of Political Stability*. Washington: Island Press.

Myers, Norman (1994), *Ultimate Security. The Environmental Basis of Political Stability*, New York: W.W. Norton.

———. (May 1993), "The Question of Linkages in Environment and Development", *BioScience*, Vol. 43 (5): 302- 10.

Myers, Norman (Spring 1989), "Environment and Security", *Foreign Policy*, 74: 23-41.

Myers, Norman (spring, 1989), "Environmental Security: The Case of South Asia", *International Environmental Affairs*, 1 (2): 138-154.

Newman, Edward (August 2001), "Human Security and Constructivism", *International Studies Perspectives*, 2 (3): 239-251.

Ohlsson, L. (2000), *Livelihood Conflicts: Linking Poverty and Environment as Causes of Conflict*. Stockholm: Sida. Peace and Conflict Studies Program, University of Toronto (2003) *The Project on Environment, Population, and Security*, [Online: web] Accessed on 2 July 2009, URL: Viewed at <http://www.library.utoronto.ca/pcs/eps.htm>

Olcott, Martha Brill (2005), *Central Asia's Second Chance*, Washington, D.C.: Carnegie Endowment for International Peace.

Oliker, Olga and Thomas S. Szayna (eds.), (2003), *Fault lines of Conflict in Central Asia and South Caucasus*, Santa Monica: RAND.

*OSCE (2002), *Background document for the Ninth meeting of the Economic and Environmental Sub-Committee of the Permanent Council – Report of the OCEEA on follow up activities to the Tenth OSCE Economic Forum*, SEC.GAL/221/02, 11 December 2002.

*OSCE/ODIHR (1999), *The Republic of Kazakhstan Presidential Election*, Election Observer 10 January 1999. Assessment Mission. Warsaw: Organization for Security and Cooperation in Europe/Office for Democratic Institutions and Human Rights.

*———. (2000a), *Kyrgyz Republic Parliamentary Elections*, Election Observer, February 20 and March 12, 2000. Final Report. Warsaw: Organization for Security and Cooperation in Europe/Office for Democratic Institutions and Human Rights.

*———. (2000b), *Republic of Tajikistan Elections to Parliament – 27 February 2000*, Election Observer, Final Report. Warsaw: Organization for Security and Cooperation in Europe/Office for Democratic Institutions and Human Rights.

*———. (2000c), *Republic of Uzbekistan Election of Deputies to the OLIY MAJLIS (Parliament), 28 April 2000*, Election Observer, Limited Election Assessment Mission Final Report. Warsaw: Organization for Security and Cooperation in Europe/Office for Democratic Institutions and Human Rights.

*———. (2003), *Kyrgyz Republic Constitutional Referendum*, Political Assessment Report, 2 February 2003. Warsaw: Organization for Security and Cooperation in Europe/Office for Democratic Institutions and Human Rights.

Paris, Roland (2001), “Human Security: Paradigm Shift or Hot Air?”, *International Security*, 26 (2): 87-102.

———. (Sep. 2004), “Still an Inscrutable Concept”, *Security Dialogue*, 35 (3): 370-371.

*Parry, M.L., O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds), (2007), Cross-chapter case study. In: *Climate Change 2007: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge, UK, Cambridge University Press, pp. 843-868.

Pasha, Mustapha Kamal (1996), “Security as Hegemony”, *Alternatives*, vol. 21: 283- 302.

Patil, Reshma (2009), “Ethnic Riots in West China”, *Hindustan Times*, New Delhi, 7 July 2009.

Patnaik, Ajay (2002), "Central Asia and CIS Integration," *Contemporary Central Asia*, VI (3):1-13.

———. (2003), "The Spirit of Bandung: Security and Stability in Central Asia," *Contemporary Central Asia*, VII (3): 1-16.

———. (2003), *Nations, Minorities and States in Central Asia*, New Delhi: Anamika Publisher.

———. (2004), "Russian Minority in Central Asia," *World Focus*, 25 (3): 13-17.

———. (2005), 'Central Asia's Security: The Asian Dimension in R.R. Sharma (eds) *India Emerging Asia*, New Delhi: Sage Publications.

———. (2007), 'Conflict, Alliances and Stability in the CIS' in Anuradha M. Chenoy, and Ajay Patnaik (eds) *Common Wealth of Independent States: Energy, Security and Development*, New Delhi: KW Publishers Pvt Ltd.

Peimani, Hooman (1998), *Regional Security and the Future of Central Asia: The Competition of Iran, Turkey and Russia*, Westport, London: Praeger Publishes.

*Project Evaluation Mission Report, *Environmental Rehabilitation in North West Frontier Province and Punjab (ENRP)*, ALA/92/25, Halcrow Group Limited. Available online at <http://www.iucn.org/themes/eval/database/region/west-central-asia-and-northafrica/2004/env-rehabilitation-enrp-2004.pdf>

Quentin, Grafton R. and Knowles, Stephen (December 2004), "Social Capital and National Environmental Performance: A Cross-Sectional Analysis", *Journal of Environment & Development*, Vol. 13 (4): 336-370.

Radyuhin, Vladimir (2008), "Russia Returns to Afghanistan, on Request", *The Hindu*, New Delhi, 26 June 2008.

Ramchandra (2000), *Environmentalism: A Global History*, New Delhi: Oxford University Press.

Rashid, Ahmed (2000), *Taliban: Islam Oil and the New Great Game in Central Asia*, London: I.B.Tauris Publishers.

———. (2002), "Separatist Group in Uzbekistan Selling Drugs for Purchase of Arms," <http://www.eurasianet.org/resources/Uzbekistan/hypermail/200109/0009.html>.

- Rashid, Ahmed (2002), *Jihad: the Rise of Militant Islam in Central Asia*, Hyderabad: Orient Longman Ltd.
- Rasmussen, Mikkel Ved (2006), *The Risk Society at War: Terror, Technology and Strategy in the Twenty first Century*, Cambridge: Cambridge University Press.
- Rich, B. (1994), *Mortgaging the Earth: The World Bank, Environment, Impoverishment, and the Crisis of Development*, Boston: Beacon Press.
- Rothman, Franklin D. (December 2001), "A Comparative Study of Dam-Resistance Campaigns and Environmental Policy in Brazil", *Journal of Environment & Development*, Vol. 10 (4), 317-344.
- Roudik, Peter L. (2007), *The History of Central Asian Republics*, Westport, London: Green Wood Press.
- Rowlands, I. (Winter 1991), "The security challenges of global environmental change", *The Washington Quarterly*, p. 103.
- Rusizade, Alec (2004), "The Mystery of the Caspian Oil Boom," *Contemporary Review*, spring: 5-25.
- Saul B. Mendowirz, *On the Creation of a Just World Order* (ed.) (New York: Free Press, 1975); and Rajni Kothari, *Footsteps in the Future* (New York: Free Press, 1974).
- Schoberlein, John (ed.), (2002), Regional Introduction: A host of Preventive Conflict, in Paulvan Tongeren, Hans Van De Veen and Juuliette Verhoeven (eds.), *Searching for Peace in Europe and Eurasia*, London: Lynne Rienner Publisher.
- Segal, Gerald (1992), "China and Disintegration of Soviet Union", *Central Asian Survey*, 32(9).
- Sen Amartya (2004), *Social Exclusion*, New Delhi: Critical Quest.
- Shambaugh, G. And R. Mathew (1998), "Sex, Drugs and Heavy: Transnational Threats and National Vulnerability," *Security Dialogue*, 29(2): 163-175.
- Sheehan, Michael (2005), *International Security: An Analytical Survey*, Boulder: Lynne Rienner.
- Shelly, L.I. (1995), "Transnational Organised Crime: An Imminent Threat to Nation-state," *Journal of Internal Affairs*, 48(2): 463-489.
- Sing Mahavir, (ed.), (2004), *Challenges International Terrorism and Religious Extremism to Central Asia and South Asia*, New Delhi: Anamika.

- Sloan, G. and C. S. Gray (1999), *Why Geopolitics?*, in C. S. Gray and G. Sloan (eds.), *Geopolitics*, London: Frank Cass.
- Snyder, Jack (November/December 2004), "One world, rival theories", *Foreign Policy*, 145: 53-62.
- Snyder, Jed C (1995), *After Empire: Emerging Geopolitics of Central Asia*, Washington D.C: National Defence University Press.
- Spiker, P. (1997), "Exclusion," *Journal of Common Market Studies*, 35(1): 18-32.
- Stewart, Frances et al. (eds) (2007), *Defining Poverty in the Developing World*, New York: MacMillan.
- Suhrke, Astri (September 1999), "Human Security and the Interest of States", *Security Dialogue*, 30 (3): 265-276.
- Swisspeace (2003a), *FAST Early Warning Systems – Kazakhstan Quarterly Risk Assessment* (Accessed on 20th June 2009). Bern: Swisspeace.
- . (2003b), *FAST Early Warning Systems – Uzbekistan Quarterly Risk Assessment* (November 2002 to January 2003), Bern: Swisspeace.
- Tabyshalieva, Anara (1999), "The challenge of regional cooperation in central Asia: preventing ethnic conflict in the Ferghana Valley", United States Institute of Peace. Available at: <http://www.usip.org/pubs/peaceworks/pwks28.pdf>. Accessed on 5 June 2009.
- Tadjbakhah, S. and A. M. Chenoy (2007), *Human Security: Concepts and Implications*, London-New York: Routledge.
- Thakur, Ramesh (Sep. 2004), "A Political Worldview", *Security Dialogue*, 35 (3): 347-348.
- The Woodrow Wilson Center for International Scholars (2003), *Preventing the Next Wave of Conflict: Understanding Non-Traditional Threats to Global Stability*, [Online: web] Accessed on 18 June 2009, URL: at www.wilsoncenter.org/news/docs/nontradthreat.pdf
- Thomas, Nicholas and Tow, William T. (June 2002), "The Utility of Human Security: Sovereignty and Humanitarian Intervention", *Security Dialogue*, 33 (2): 177-192.
- . (September 2002a), "Gaining Security by Trashing the State", *Security Dialogue*, 33 (3): 379-382.
- Trisko, Jessica N. (2005), "Coping with the Islamist Threat: Analysing Repression in Kazakhstan, Kyrgyzstan and Uzbekistan," *Central Asian Survey*, 24(4): 373-389.

Ullman, Richard (Summer 1983), "Redefining Security", *International Security*, 8 (1): 129-153.

*UN (1997), *UN Resolution 52/169 M – International Cooperation and Coordination for the Human and Ecological Rehabilitation and Economic Development of the Semipalatinsk Region of Kazakhstan*, New York: United Nations.

*UN Millennium Development Goals (2000), United Nations, New York. at: <http://www.un.org/millenniumgoals/> (last accessed in 2nd July 2009).

*———. (1994), *Human Development Report 1994*, New York: Oxford University Press.

*———. (1996), *Tajikistan Human Development Report 1996*, United Nations Development Programme. Available at: <http://undp.org/rbec/nhdr/1996tajikistan/chapter 9.htm> [Accessed on 20th June 2009].

*———. (1997), *Human Development Report 1997*, New York: Oxford University Press,

*———. (1999), *Human Development Report 1999*, New York, Oxford: Oxford University Press.

*———. (2000), *Human Development Report 2000*, Human rights and human development, New York, Oxford: Oxford University Press.

*———. (2001), *Human Development Report 2001*, Making New Technologies Work For Human Development, New York, Oxford: Oxford University Press.

*———. (2002), *Human Development Report 2002*, Deepening Democracy in a Fragmented World, New York, Oxford: Oxford University Press.

*———. (2003), *Addressing Environmental Risk in Central Asia*, Bratislava: Slovak Republic, Available at; <http://www.undp.sk>.

*UNECE (2000a), *Environmental Performance Review of Kazakhstan*, Geneva: United Nations Economic Commission for Europe.

*———. (2000b), *Environmental Performance Review of Kyrgyzstan*, Geneva: United Nations Economic Commission for Europe.

*———. (2001), *Environmental Performance Review of Uzbekistan*, Geneva: United Nations Economic Commission for Europe.

*UNFVDP (2000), *United Nations Ferghana Valley Development Programme*, homepage, Available at: <http://www.ferghana.elcat.kg/> [Accessed on 20th June 2009].

- *UNICEF (2000), *Multiple Indicator Cluster Survey 2000*, New York: United Nations Children's Fund.
- *———. (2002), TransMONEE Database. Available at <http://www.unicef-icdc.org/documentation/transmonee.html> [Accessed on 20th June 2009].
- *United Nations (2004), *A more secure world: Our shared responsibility*, Report of the Secretary General's High-level Panel on Threats, Challenges and Change, New York: United Nations Department of Public Information for download at: <http://www.un.org/secureworld/>.
- *US DoE (2002), *An Energy Overview of the Republic of Tajikistan*, US Department of Energy, Available at: <http://www.fe.doe.gov/international/tajkover.html> [Accessed on 20th June 2009].
- *USAID (2003), *Country Profile Kyrgyzstan*, United States Agency for International Development, Washington: US Agency for International Development.
- Vssiliev, Alexi, (ed.), (2001), *Central Asia: Political and Economic Challenges in the Post-Soviet Era*, London: Saqui Book.
- Warner, M. (2001), *Complex Problems, Negotiated Solutions: Tools and Strategies for Reducing Conflict to Promote Sustainable Rural Livelihoods*, London: ITDG Publishing. [Online: web] Accessed on 12 june 2009, URL: http://www.odi.org.uk/annual_report/2001_2002/pdfs/AR2002_full.pdf.
- Watters, Kate (1999), *Environmental NGOs and the Development of Civil Society in Central Asia* in M. Holt Ruffin and Daniel Waugh (eds.): *Civil Society in Central Asia*. Seattle and London: Center for Civil Society International; pp. 85 –108.
- *WCED (1987), *Our Common Future. World Commission on Environment and Development*, Oxford/New York: Oxford University Press.
- Westing, Arthur H. (1980), *Warfare in a Fragile World: Military Impact on the Human Environment*, London; Philadelphia: Taylor & Francis.
- Wignaraja, Ponna (ed.) (1993), *New Social Movements in the South: Empowering the People*, New Delhi: Vistaar Publications.
- Williams, M.J (2008), "(In) security Studies, Reflexive Modernization and the Risk Society, Cooperation and on conflict" *Journal of Nordic International Studies Association*, 43(1): 57-79.
- Wilner, Alexandre S. (Winter 2006-2007), "The environment-conflict nexus", *International Journal*, Volume LXII (1).

Wirth, David (Spring 1989), "Climate Chaos", *Foreign Policy*, No.74.

Wong, Edward (2009), "Rumbles in the Empire: The Concept of Homeland is at the Heart of the Conflict in China's Xingjiang Region", *The Indian Express*, New Delhi, 14 July 2009.

*World Bank (2001b), *Kyrgyz Republic Country Brief*, Washington, D.C.: World Bank.

*———. (2001c), *Tajikistan Country Brief*, Washington, D.C.: World Bank.

*———. (2001d), *Turkmenistan Country Brief*, Washington, D.C.: World Bank.

*———. (2001e), *Uzbekistan Country Brief*, Washington, D.C.: World Bank.

*———. (2001a), *Kazakhstan Country Brief*, Washington, D.C.: World Bank.

Zhang, Yonjin and Rouben Azizian, (eds.), (1999), *Ethnic Changes Beyond Border*, London: Macmillan Press Ltd.

Zviagelskaya, Irina D. (1999), "The Tajik Conflict", *Sipri Year Book*, Oxford: Oxford University Press.

