



Neutrosophic Game Theoretic Approach to Indo-Pak Conflict over Jammu-Kashmir

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Abstract. The study deals with the enduring conflict between India and Pakistan over Jammu and Kashmir since 1947. The ongoing conflict is analyzed as an enduring rivalry; characterized by three major wars (1947-48), 1965, 1971, low intensity military conflict (Siachen), mini war at Kargil (1999), internal insurgency, cross border terrorism. We examine the progress and the status of the dispute, as well as the dynamics of the India Pakistan relationship by considering the influence of USA and China in crisis dynamics. We discuss the possible solutions offered by the various study groups and persons. Most of the studies were done in crisp environment. Pramanik and Roy (S. Pramanik and T.K. Roy, Game theoretic model to the

Jammu-Kashmir conflict between India and Pakistan. International Journal of Mathematical Archive (IJMA), 4(8) (2013), 162-170.) studied game theoretic model to Jammu and Kashmir conflict in crisp environment. In the present study we have extended the concept of the game theoretic model of the Jammu and Kashmir conflict in neutrosophic environment. We have explored the possibilities and developed arguments for an application of principle of neutrosophic game theory to understand properly of the Jammu and Kashmir conflict in terms of goals and strategy of either side. Standard 2×2 zero-sum game theoretic model used to identify an optimal solution.

Keywords: Conflict resolution, game theory, Jammu and Kashmir conflict, neutrosophic membership function, optimal solution saddle point, zero-sum game.

1 Introduction

The purpose of this study is to develop neutrosophic game theoretic model to India-Pakistan (Indo-Pak) crisis dynamics and contribute to the neutrosophic analysis of conflicts and their neutrosophic resolution. M. Intriligator [1] reviewed mathematical approaches to the study of conflict resolutions in crisp environment. He prepared a list of primary methodological thrusts as differential equations, decision and control theory, game and bargaining theory, uncertainty analysis, stability theory, action-reaction models and organization theory. Anandalingam and Apprey [2] proposed multilevel mathematical programming model in order to develop a conflict resolution theory based on the integration of non-cooperative game within a mathematical paradigm. They postulated conflict problem as a Stackelberg [3] optimization with leaders and followers. However, the model is suitable only for the normal version of information distribution [4] when the strategy of all lower-level players is completely known to the leader. Yakir Plessner [5] employed the game theoretic model to resolve the conflict between Israel and the Palestinians. Pramanik and Roy [6] studied game theoretic model to the J&K conflict between India and Pakistan in crisp environment. But the situation and relation between India and Pakistan are not static but dynamic and neutrosophic in nature. So new approach is required to deal with the conflict.

Our contribution to the literature is to discuss briefly the genesis of the conflict and apply neutrosophic game theory for conflict resolution.

Rest of the paper is organized in the following way. Section 2 presents some basics of neutrosophy and neutrosophic sets and their operations. Section 3 describes a brief history and the genesis of Jammu and Kashmir conflict. Section 4 is devoted to formulation neutrosophic game theoretic model to Jammu and Kashmir conflict between India and Pakistan. Section 5 presents concluding remarks.

2. Basics of neutrosophy and neutrosophic sets

In this section, we present some basic definitions of neutrosophy, and neutrosophic sets and their operations due to Smrandache [7] and Wang et al.[8].

Definition 1. Neutrosophy: A new branch of philosophy, introduced by Florentin Smarandache that presents the origin, nature, and scope of neutralities, as well as their interactions with different ideational spectra.

Neutrosophy is the basis of neutrosophic set, neutrosophic probability, and neutrosophic statistics.

Definition 2. Infinitesimal number: ε is said to be infinitesimal number if and only if for all positive integers n , $|\varepsilon| < 1/n$

Definition 3. Hyper-real number: Let $\varepsilon > 0$ be an infinitesimal number. The hyper-real number set is an

extension of the real number set, which includes classes of infinite numbers and classes of infinitesimal numbers.

Definition 4. Non-standard finite number: $1^+ = 1 + \varepsilon$, where “1” is its standard part and “ ε ” its non-standard part

Definition 5. Non-standard finite number: $0^- = 0 - \varepsilon$, and “0” is standard part and “ ε ” is its non-standard part.

Definition 6. A non-standard unit interval: A non-standard unit interval can be defined as $||-0^-, 1^+||$. Here 0^- is non-standard number infinitely small but less than 0 and 1^+ is non-standard number infinitely small but greater than 1.

Main Principle: Between an idea $\langle \psi \rangle$ and its opposite $\langle \text{Anti-}\psi \rangle$, there is a continuum-power spectrum of neutralities $\langle \text{Neut-}\psi \rangle$.

Fundamental Thesis: Any idea $\langle X \rangle$ is T% true, I% indeterminate, and F% false, where T, I, F belong to subset of nonstandard unit interval $||0^-, 1^+||$ and their sum is not restricted to 100%.

Definition 7. Let X be a space of points (objects) with generic element in X denoted by x . Then a neutrosophic set A in X is characterized by a truth membership function T_A , an indeterminacy membership function I_A and a falsity membership function F_A . The functions T_A , I_A and F_A are real standard or non-standard subsets of $]0^-, 1^+[$ i.e.

$$T_A : X \rightarrow]0^-, 1^+[; I_A : X \rightarrow]0^-, 1^+[; F_A : X \rightarrow]0^-, 1^+[$$

It should be noted that there is no restriction on the sum of $T_A(x)$, $I_A(x)$, $F_A(x)$ i.e. $0^- \leq T_A(x) + I_A(x) + F_A(x) \leq 3^+$.

Definition 8. The complement of a neutrosophic set A is denoted by A^c and is defined by

$$T_{A^c}(x) = \{1^+\} - T_A(x) ; I_{A^c}(x) = \{1^+\} - I_A(x) ;$$

$$F_{A^c}(x) = \{1^+\} - F_A(x)$$

Definition 9. A neutrosophic set A is contained in the other neutrosophic set B , $A \subseteq B$ if and only if the following result holds.

$$\inf T_A(x) \leq \inf T_B(x) , \sup T_A(x) \leq \sup T_B(x) \tag{1}$$

$$\inf I_A(x) \geq \inf I_B(x) , \sup I_A(x) \geq \sup I_B(x) \tag{2}$$

$$\inf F_A(x) \geq \inf F_B(x) , \sup F_A(x) \geq \sup F_B(x) \tag{3}$$

for all x in X .

Definition 10. Single-valued neutrosophic set (SVNS): Let X be a universal space of points (objects) with a generic element of X denoted by x . A single-valued neutrosophic set $\tilde{N} \subset X$ is characterized by a true membership function $T_{\tilde{N}}(x)$, a falsity membership function $F_{\tilde{N}}(x)$ and an indeterminacy function $I_{\tilde{N}}(x)$ with $T_{\tilde{N}}(x), I_{\tilde{N}}(x), F_{\tilde{N}}(x) \in [0, 1]$ for all x in X .

When X is continuous a SVNSs, \tilde{N} can be written as

$$\tilde{N} = \int_x \langle T_{\tilde{N}}(x), I_{\tilde{N}}(x), F_{\tilde{N}}(x) \rangle / x, \quad \forall x \in X.$$

and when X is discrete a SVNSs \tilde{N} can be written as

$$\tilde{N} = \sum_{i=1}^m \langle T_{\tilde{N}}(x), I_{\tilde{N}}(x), F_{\tilde{N}}(x) \rangle / x, \quad \forall x \in X.$$

SVNS is an instance of neutrosophic set that can be used in real life situations like decision making, scientific and engineering applications. In case of SVNS, the degree of the truth membership $T_{\tilde{N}}(x)$, the indeterminacy membership $I_{\tilde{N}}(x)$ and the falsity membership $F_{\tilde{N}}(x)$ values belong to $[0, 1]$.

It should be noted that for a SVNS \tilde{N} ,

$$0 \leq \sup T_{\tilde{N}}(x) + \sup I_{\tilde{N}}(x) + \sup F_{\tilde{N}}(x) \leq 3, \quad \forall x \in X. \tag{4}$$

and for a neutrosophic set, the following relation holds

$$0^- \leq \sup T_{\tilde{N}}(x) + \sup I_{\tilde{N}}(x) + \sup F_{\tilde{N}}(x) \leq 3^+, \quad \forall x \in X. \tag{5}$$

Definition 11. The complement of a neutrosophic set \tilde{N} is denoted by \tilde{N}^c and is defined by

$$T_{\tilde{N}^c}(x) = F_{\tilde{N}}(x) ; I_{\tilde{N}^c}(x) = 1 - I_{\tilde{N}}(x) ; F_{\tilde{N}^c}(x) = T_{\tilde{N}}(x)$$

Definition 12. A SVNS \tilde{N}_A is contained in the other

SVNS \tilde{N}_B , denoted as $\tilde{N}_A \subseteq \tilde{N}_B$, if and only if

$$T_{\tilde{N}_A}(x) \leq T_{\tilde{N}_B}(x) ; I_{\tilde{N}_A}(x) \geq I_{\tilde{N}_B}(x) ; F_{\tilde{N}_A}(x) \geq F_{\tilde{N}_B}(x)$$

$\forall x \in X$.

Definition 13. Two SVNSs \tilde{N}_A and \tilde{N}_B are equal, i.e.

$$\tilde{N}_A = \tilde{N}_B, \text{ if and only if } \tilde{N}_A \subseteq \tilde{N}_B \text{ and } \tilde{N}_A \supseteq \tilde{N}_B.$$

Definition 14. Union: The union of two SVNSs \tilde{N}_A and

\tilde{N}_B is a SVNS \tilde{N}_C , written as $\tilde{N}_C = \tilde{N}_A \cup \tilde{N}_B$. Its truth

membership, indeterminacy-membership and falsity membership functions are related as follows:

$$T_{\tilde{N}_C}(x) = \max(T_{\tilde{N}_A}(x), T_{\tilde{N}_B}(x)) ;$$

$$I_{\tilde{N}_C}(x) = \max(I_{\tilde{N}_A}(x), I_{\tilde{N}_B}(x)) ;$$

$$F_{\tilde{N}_C}(x) = \min(F_{\tilde{N}_A}(x), F_{\tilde{N}_B}(x)) \text{ for all } x \text{ in } X.$$

Definition 15. Intersection: The intersection of two SVNSs

\tilde{N}_A and \tilde{N}_B is a SVNS \tilde{N}_C , written as $\tilde{N}_C = \tilde{N}_A \cap \tilde{N}_B$,

whose truth membership, indeterminacy-membership and falsity membership functions are related as follows:

$$T_{\tilde{N}_C}(x) = \min(T_{\tilde{N}_A}(x), T_{\tilde{N}_B}(x)) ;$$

$$I_{\tilde{N}_C}(x) = \min(I_{\tilde{N}_A}(x), I_{\tilde{N}_B}(x)) ;$$

$$F_{\tilde{N}_C}(x) = \max(F_{\tilde{N}_A}(x), F_{\tilde{N}_B}(x)) \text{ for all } x \text{ in } X.$$

3. Brief history and the genesis of Jammu and Kashmir conflict

It is said that Kashmir is more beautiful than the heaven, and the benefactor of the supreme blessing and happiness. The account of Kashmir is found in the oldest extant book-“Nilamat Purana”. Kalhan, Kashmir’s greatest historian scholarly depicted the history of Kashmir starting just

before the great Mahabharata War. According to Kalhan, the Mauryan emperor Ashoka annexed Kashmir in 250 B.C. He embraced Buddhism after the Kalinga war. He made it a state religion. He built many Bihars, temples specially Shiva temple. According to Chinese traveler, Huen Tsang over five thousand Buddhist Monks settled down in Kashmir during the reign of Ashoka. After the fall of Maurya dynasty, it is believed that Kashmir for over two hundred years was ruled by Indo-Greek Kings before the start of "Turushka" (Kushan) rule in the state. Thus, the people of Kashmir came in contact with the Greeks. The reflection of which is found on the beautiful architectural and sculptural style of old Kashmiri temples, and the coinage of the later Kashmiri kings.

The zenith of Buddhist power in Kashmir was reached in the reign of king Kanishka. Influenced by Indian culture, Kanishka adopted Buddhism and made it the state religion. During his reign, it is believed that the fourth Buddhist Council was held at Kundalavana in Kashmir. It was enthusiastically attended by a large number of scholars, theoreticians, and commentators. During his reign, Buddhism propagated in Tibet, China and Central Asia. However, Buddhism was followed by a revival of Hinduism and Hindu rulers ruled Kashmir up to 1320.

Rinchan (1320-1323) ascended the throne on 6th October 1320. He was the first converted Islam ruler in the history of Kashmir. Shah Mir ascended the throne with the title of Sultan Shamsuddin (1339-1342) in 1339 A.D. and Shah-Mir dynasty (1339-1561) ruled the state for 222 years. Shah Mir dynasty is one of the most important in the annals of Kashmir, in as much as Islam was firmly established here. During Chak rule (1561-1586) Sunni Muslims and Hindus alike were persecuted.

Akbar, the Mughal Emperor annexed Kashmir in 1586. It is important to note that under the Mughal reign (1586-1752), people got slight relief and lived honorably. However, the Mughal used forced labor in their visits to Kashmir in terms of a huge retinue of unpaid laborers to carry their goods and other supplies for the journey.

Afghan rule (1752-1819) succeeded in maintaining their suzerainty over Kashmir for a span of sixty-seven years. The Afghans were highly unscrupulous in the employment of forced labor. The common Kashmirian people were tired of their ferocity, barbarity and persecution. It is true history of Kashmir that all sections of people suffered during Afghan rule but the principal victims of these cruel were the peasants. During this era all cruel and inhuman measures of Afghan rulers could not put an end the basic tradition of Kashmiri.

The reign of Sikh Power (1819-1846) in Kashmir lasted for only 27 years. It is to be noted that the Sikhs continued with the practice of forced labor in order to transport of goods and materials. According to Lawrence [9], "to all classes in Kashmir to see the downfall of the evil rule of Pathan, and to none was the relief greater than to the

peasants who had been cruelly fleeced by the rapacious sardars of Kabul. I do not mean to suggest that the Sikh rule was benign or good, but it was at any rate better than that of the Pathans."

3.1 Dogra rule (1846-1947)

Dogra dynasty played an important role in developing Jammu and Kashmir State.

3.1.1 Gulab Singh (1846-1857)

The State of Jammu was conferred on Gulab Singh with the title of Raja by Maharaja Ranjit Singh of Punjab in 1820. He annexed Ladakh in September 1842. Some parts of Gilgit and Baltistan were invaded before 1846. The State of Jammu and Kashmir (J&K) is founded through Amritsar treaty in 1846 between the East India Company and Raja Gulab Singh who buys Kashmir Valley from the East India Company for Rs. 7.5 million and annexes it to Jammu and Ladakh already under his rule. Thus the Dogra dynasty establishes in 1846. Gulab Singh conquered Muzaffarabad in 1854.

3.1.2 Ranbir Singh (1857-1885)

Ranbir Singh (1857-1885) ascended the throne after his father's death in 1857 A.D., who ruled from 1857 to 1885 A.D. Lord Northbrook's Government recommended for a political officer to reside permanently at the Maharaja's Court in September 26, 1873 A.D. A British Resident remained permanently at the court of Maharaja relating to the external relations of British India from 1873.

3.1.3 Maharaja Pratap Singh (1885-1925)

Maharaja Pratap Singh (1885-1925) ascended the throne after his father's death in 1885. During his rule, British power was deeply interested in Kashmir and through British Resident Maharaja Pratap Singh was kept under pressure. In September 1885 during the initial stage of Pratap Singh's rule, the British Government changed the status of the British officer Special Duty in Kashmir to that of a political Resident. Pratap Singh's Address in Durbar October 19, 1885 revealed that the position of political officer in Kashmir has been placed on the same footing with that of Residents in other Indian States in subordinate alliance with the Government. British Government of India disposed Maharaja in 1889. Maharaja was offered an allowance, which was ungenerously described as sufficient for dignity but not for extravagance, would be made to him. No specific period was set for this arrangement to come to an end. Colonel Nisbet, Resident of Kashmir became the virtual ruler because although the Council of minister would have full powers of administration, they would be expected to exercise those powers under the guidance of the British Resident. Without consulting with him, Council would not take any important decision and the Council would follow Resident's advice whenever it was offered.

In 1889, the British Government instituted Gilgit Agency under the direct rule of British political agent. Colonel Algeron Durand [10], the first British Agent in Gilgit

records the Russian influence for creation of Gilgit Agency in his Book, "The Making of a Frontier". He remarked in a statement "Why it has been asked should it be worth our while to interfere there whatever happened? The answer is of course Russia...Expensive as the Gilgit game might have been, it was worth the Candle." Viceroy Lord Curzon reinstated Maharaja Pratap Singh in power in 1905 A.D. The State Council is abolished in May 1906 A.D.

3.1.4 Hari Singh (1925-1947)

Hari Singh (1925-1947) ascended the throne after his grandfather, Pratap Singh's death in 1925. During his rule the agitation against the Dogra rule started mainly against the misrule, corrupt administration, autocratic rule, repression on the subjects at the slightest excuse and lack of administrative efficiency. Maharaja Hari ruthlessly crushed a mass uprising in 1931. Hari Singh constituted Grievances Enquiry Commission headed by B. J. Glancy on 12 November 1931 for a probe into the complaints of the people of Kashmir. In April 1932, the commission recommended its suggestions. Among these recommendations, the important one was the step to be taken for propagating education for Kashmiri Muslims. The Commission recommended to give payment [11] Kashmiri people for Government work. In the order dated 31 May 1932, Maharaja Hari Singh accepted the recommendation of the President of the Kashmir Constitutional Reforms Committee, B. J. Glancy and appointed a Franchise Committee to put forward tentative suggestion regarding the important question of the franchise and the composition of the assembly. In this background All Jammu and Kashmir Muslim Conference (AJKMC) was formed under the leadership of Sheikh Abdullah in 1932 in October in Srinagar. The conference held from 15 to 17 October 1932.

In 1934, the Muslim Conference demonstrated its secular view when it forwarded memorandum drafted by Ghulam Abbas to the Maharaja demanding early implementation of the report of Glancy Commission and specifically urged for a system of joint electorates in the State. In 1934, Maharaja introduced a Legislative Assembly. However 35 of its 75 members were to be nominated. 8 per cent of the population was allowed to cast vote. To become a voter literacy and property qualifications were specified. The Assembly enjoyed only consultative powers. Maharaja further reformed making the provision for Council of Ministers and a judicial and legislative branch of public administration in 1939. However, Maharaja enjoyed most of the decision powers under the new reforms.

On 26 March 1938 Sheik Abdullah iterated two important points: i) to put an end communalism by ceasing to think in terms of Muslims-non-Muslims when discussing political problems. ii) Universal suffrage on the basis of joint electorate. It is to be noted that the national demand issued in August 1938 was signed among others by Pandit Jia Lal

Kilam, Pandit Lal Saraf, Pandit Kasyap Bandhu. Under the leadership of Sheik Abdullah AJKMC felt the necessity of common platform to struggle against the rule of Maharaja. After series of discussions and debates, the working committee of AJKMC took the historic decision of rechristening to Jammu and Kashmir National Conference (or simply National Conference) on 24 June 1938. On 27 April 1939, National Conference came into being. Its secular credentials set a new pace for the politics of Jammu Kashmir. National Conference [12] consisted of many leaders of minority communities like Hindu, Sikh etc during 1940s.

In the history of India subcontinent, the Pakistan resolution demanding the creation of an independent state comprised of all regions in which Muslims are the majority is passed at Iqbal Park, Lahore on March 23, 1940 by Muslim League.

The secularization of Kashmir politics and redefinition of the goal helped immensely National Conference to come in close contact with the Indian National Congress. In 1942 'New Kashmir' manifesto was formulated under the leadership of Dr. N. N. Raina by a brilliant group of young communist operating within the National Conference who were mostly responsible for introducing the nationalist movement to the concept of socialist pattern of society based on equality, democracy and free from exploitation. It consists of two parts: a) the constitution of the state; b) the National Economic Plan. Under the sound leadership of Abdullah, National Conference led a powerful mass movement in order to find a new political and economic order in Kashmir and other parts of Jammu region. The National Conference started agitation against the Dogra rule in 1945. In the grave political situation, offering him all charges, Ram Chandra Kak was appointed as Prime Minister in order to bring the agitation in control. In May 1946 National Conference launched "Quit Kashmir" movement following the "Quit India Movement" in 1942 led by the Indian National Congress. Mohamad Ali Jinnah was not interested in the 'Quit Kashmir Movement'[13] rather blamed the movement as act of Gundas. In March 1946 Crisps Mission came to visit India. Sheikh Abdullah sent a telegram by demanding freedom of people of Kashmir on withdrawal of British power from India. Prime Minister of J&K Ram Chandra Kak declared emergency to crackdown the movement. Abdullah was arrested on 20 May 1946. The State Government employed a wave of arrests and a policy of repression throughout the State. The people protested strongly and several agitated Kashmiri people were killed and injured due to clash with armed forces of Maharaja. The Indian National Congress and the All India States peoples' Conference supported National Conference strongly. Sheik Abdullah was imprisoned for three years for antinational activities. National Conference was banned. In January 1947, National Conference boycotted elections because of

repression. Muslim Conference grabbed the opportunity and won 16 out of 21 Muslim seats.

3.2 Muslim Conference

Muslim Conference did not support the 'Quit Kashmir' agitation. Muslim Conference discouraged the people of Kashmir from joining the agitation in the same tune of Muslim League. On 30 May 1946, Chaudhury Gulam Abbas the President of Muslim Conference stated that the agitation had started at Congress leaders' behest in order to "restore the lost prestige of the Nationalist." The Muslim Conference adopts the Azad Kashmir Resolution on 26 July 1946 calling for the end of autocratic Dogra rule in the region and claiming the right to elect their own constituent assembly. He said that the primary task [14] was to restore the unity of the Muslim nation and there be "no other place for an honest and self-respecting Muslim but in his own organization." On 25 October 1946, State Government arrested and detained four top leaders of Muslim Conferences.

3.3 British Cabinet Mission

In March 1946, The British Cabinet Mission held conference about a week at Simla with four representatives, two each of the Congress and the Muslim Leagues and the conference broke down on the issue of Pakistan and parity in the proposed interim government. On 16 May 1946, the Cabinet Mission announced their own proposals, the essence of which was the creation of a Constituent Assembly to frame the Constitution of India, which was to be based on the principle that the Center would control only three subjects, viz., Defense, Foreign Affairs and Communications and the creation of three group of provinces—two of the areas claimed by Muslim League for Pakistan in the east and the west and the third of the rest of the subcontinent [15].

3.4 Interim Government announced

On 25 June 1946, the Congress Working Committee announced their rejection of the plan of Interim Government. On June 26, 1946, Lord Wavell announced that he would set up a temporary 'caretaker' Government of officials to carry on in the interim period.

In July 1946, the Muslim League withdrew its acceptance of the Cabinet Mission's plan and resolved that "now the time has come for the Muslim nation to resort to direct action to achieve Pakistan, to assert their just rights, to vindicate their honor and to get rid of the present British slavery and the contemplated future 'caste- Hindu domination'" at a meeting in Bombay.

Accepting the invitation from the Viceroy to constitute an interim Government, on 6 August 1946, Jawaharlal Nehru formed it, which consisted of six Hindus, including one Depressed Class member, three Muslims of whom two belonged neither to the Congress nor to the League, one

Sikh, one Christian and one Parsee. It started functioning on 2nd September 1946. The League joined the Interim Government in the last week of October 1946 but was not prepared to join the Constituent Assembly, which led every day a more and more difficult and delicate on account of the differences between the cabinet ministers of Congress and the Muslim League. On 26 November 1946, Mr. Atlee invited Lord Wavell and representatives of the Congress and the Muslim League to meet in London to attempt to resolve the deadlock. The discussions were held from 3 to 6 December 1946 but did not yield any agreed settlement. The first meeting of the Constituent Assembly of India was held in on 11 December 1946. The Muslim League boycotted it and it developed a stake in sabotaging the Assembly's work.

On 20 February 1947, Prime Minister Atlee declared that Britain would transfer power by June 1948, by which time the Congress and the Muslim League were supposed to resolve their differences. On 24 March Mountbatten was sworn in as Viceroy and Governor General of India in place of Wavell. After negotiations with the leaders of different political parties, Viceroy, Lord Mountbatten announced that long before June 1948, the Dominions of India and Pakistan would be created and that the question of Indian states would be dealt with in the light of the Cabinet Mission's memorandum [16] of 12 May 1946. To approve the Mountbatten plan accepted by British Cabinet, a conference between Mountbatten and representatives of the Congress and the Muslim League was held on 2 June 1947. On 3 June 1947 a White paper was issued which stated the detail procedure of the partition of India. Regarding the Princely States it declared that British policy towards Indian States contained in the Cabinet Mission's memorandum [17] of 12th May, 1946 remained unchanged.

3.5 Partition Plan accepted by Congress

On 14 June 1947, in a historic session of All India Congress Committee (AICC) in New Delhi, Pandit Ballabh Pant moved the resolution dealing with the Mountbatten plan for partition British India. Mahatma Gandhi intervened in the debate in the second day and expressed that he was always against the partition but situation had changed and appealed to support the resolution. On 15 June 1947, the resolution was passed with 29 votes in favor and 15 against.

Mr. Jinnah clearly expressed Muslim League view [18] on the question of Princely States on 17 June 1947 by saying "Constitutionally and legally the Indian states will be independent sovereign states on the termination of paramountcy and they will be free to decide for themselves and adopt any course they like; it is open to them to join the Hindustan Constitutional Assembly or decide to remain independent. In case they opt for independence they would enter into such agreements or relationships with Hindustan or Pakistan as they may choose".

3.6 Partition and riots

Calcutta, capital of Bengal witnessed a beginning of holocaust on an unprecedented scale on 16 August 1946, which was declared a public holiday by the Muslim League Government of Bengal. It was estimated that Jinnah's direct action [18] caused death of more than 5000 lives, and over 15000 people were injured, besides 100000 being rendered homeless. After a fortnight 560 people were killed in Bombay. After Calcutta, on October 1946, serious anti-Hindu riots erupted in Noakhali in East Bengal followed by massacred of Muslims in Bihar. The chain reaction of riots started in the Punjab causing large scale killings of Hindus, Sikhs, and Muslims shortly afterwards.

3.7 Development in Jammu and Kashmir

Based on two-nation theory, India was partitioned into Pakistan and India in August 14, 1947. The princely states were offered the right under the 'Indian Independent Act 1947' and 'Government of Indian Act 1935' [19] to accede either to India or Pakistan or remain independent. It seemed that Hari Singh, the then Maharaja of Jammu and Kashmir hoped to create independent Kingdom or autonomy from India and Pakistan. He did not accede to either of two successor dominions at the time of accession. All Jammu and Kashmir Rajya Hindu Sabha passed a resolution [20] expressing its faith in Maharaja Hari Singh and extended its "support to whatever he was doing or might do on the issue of accession" in 1947. On 15 June 1947, an important resolution [21] regarding the princely states saying the lapse of paramountcy does not lead to the independence of the princely states was adopted by AICC unanimously. Contrary to this, Mr. Jinnah clearly expressed the view [18] of Muslim League on the question of Princely States on 17 June 1947 by saying "Constitutionally and legally the Indian states will be independent sovereign states on the termination of paramountcy and they will be free to decide for themselves and adopt any course they like; it is open to them to join the Hindustan Constitutional Assembly or the Pakistan Constituent Assembly, or decide to remain independent. In the last case, they enter into such agreements or relationship with Hindusthan or Pakistan as they may choose".

On 19 July 1947, the working committee of Muslim Conference passed a modified resolution [22] in favor of independence, which respectfully and fervently appealed to the Maharaja to declare internal autonomy of the state and accede to Pakistan regarding to defense, communication and external affairs. Khurshid Ahmad, Jinnah's personal Secretary during his stay in Kashmir on the crucial days for the question of accession gave Maharaja assurance [23] that "Pakistan would not touch a hair of his head or take away a iota of his power". Before partition British Government restored the Gilgit area, an important strategic

region, hitherto administered by a British agency, to J&K without taking the verdict of the local people.

3.8 Standstill Agreement

Pakistan became independent on 14 August 1947. India and few princely states, which did not join either of India or Pakistan, became independent on 15 August 1947. In this way J&K attained the status of independent on 15 August 1947. On 15 August post offices in J&K hoisted the Pakistani flags. Maharaja Hari Singh signed a standstill agreement with Pakistan on 16 August 1947 with regard to State's postal services, railways, and communications and hoped to sign similar agreement with India with regard to external affairs, control of state forces, defense etc. India [23] did not show any interest in the acceptance of the offer of standstill agreement. On 18 August 1947 a controversy came into light when Sir Cyril Radcliffe awarded a portion of Muslim majority Gurudaspur District to India causing fundamental differences in J&K's geopolitical situation. The subcontinent experienced communal riots during these days. By this time, Muslim majority Poonch estate within the Jammu region experienced serious troubles with regard to some local demands like the rehabilitation of 60,000 demobilized soldiers of the British army belonging to the area. The agitation finally transformed into communal form having mixed with other issues. The state army refused to fire on the demonstrators with whom they had religious and ethnic ties. The agitation turned to the form of armed revolt because of mass desertion from army. The supply of arms and ammunition and other assistance from outside the border magnified the revolt. The Kashmir Socialist party passed a resolution on 18 September 1947 to join Pakistan and not India. The party impressed on Maharaja that without any further unnecessary delay he should make an announcement accordingly. It is to be noted here that a convention of Muslim Conference workers formally asked for accession to Pakistan on 22 September 1947. Maharaja Hari Singh released Sheikh Abdullah from prison along with some other National Conference workers on 29 September 1947 but he did not release the workers of Muslim Conference due to grave situation of the state. Pakistan termed Abdullah's release as a conspiracy because workers of Muslim Conference were not simultaneously released. By October, communal riots spread all over J&K. The mass infiltration backed by Pakistani army jeopardized the environment of the state. Pakistan violated the standstill agreement by stopping regular supply of food, salt, petrol and essential commodities from Pakistan. The communication system controlled by Pakistani Government did not render proper service.

On 21 October 1947, Pakistan decided to settle the future of Kashmir with the power of gun suspecting that Maharaja was likely to accede to India. Jinnah, the Governor Gen-

eral of Pakistan personally authorized a plan [25] to launch “a clandestine invasion by a force comprised of Pathan (Afghan) tribesmen, ex-servicemen and soldiers on leave”. It was witnessed that charges and counter charges were being made by both the government of J&K and Pakistan during the month of October and finally On 22 October 1947, 2000 tribesmen from Northwest Frontier Province (NWFP) of Pakistan and other Pakistani nationals fully armed with modern arms, under the command of trained generals, started invasion to capturing the state’s territory. The Muslims in the Western part of Kashmir established their own independent (Azad) Kashmir Government on 24 October 1947. The State forces were wiped out in fighting. The tribesmen resorted to “indiscriminate slaughter of both Hindus and Muslims”[26]. They reached within 15 miles from capital Srinagar. Under this great emergency of the situation, Maharaja sought Indian military assistance in his letter dated 26 October 1947 along with the ‘Instrument of Accession’ [27] to Mountbatten, the Governor General of India. Thereafter the Maharaja signed the instrument of accession, which the Governor General Mountbatten accepted on 27 October 1947 by adding that the question of accession [28] should be settled by a referendum. Indian forces [29] airlifted at Srinagar almost at the crucial moment, for, “a few minutes later the airfield might well have been in enemy hands”. Members of the National Conference provided logistical support for the Indian forces. Infuriated by Indian intervention, on 27 October 1947, Pakistani Governor General, Mohammed Ali Jinnah ordered Lt. General Sir Douglas Gracey, Chief of the Pakistani Army, to send Pakistani regular troops to Kashmir, but Field Marshall Auchinleck, the Supreme Commander of the transition period succeeded in persuading him to withdraw his orders. A message [30] was sent to the Governor General and the Prime Minister of India to go to Lahore for discussion regarding Kashmir.

3.9 Indo-Pak talks

On 1 November 1947, at a meeting of Governors General of India and Pakistan at Lahore, Mountbatten offered to resolve the J&K issue by holding referendum. Rejecting the Mountbatten formula, M.A. Jinnah remarked that a plebiscite was “redundant and undesirable”. H.V. Hodson [31] has recorded in his book, *The Great Divide*, that M.A. Jinnah “objected that with Indian troops present and Sheikh Abdullah in power the people would be frightened to vote for Pakistan”. Jinnah proposed a simultaneous withdrawal of all forces- the Indian troops and the invading forces. Here it is interesting to note that when he was asked how anyone could guarantee that the latter would also be withdrawn, Jinnah [30] replied “If you do this I will call the whole thing off”. In connection with the steps to ascertain the wishes of the people of J&K, Mountbatten was in favor of a plebiscite under the auspices of United Nations while M. L. Jinnah proposed that he and Mountbatten should

have plenary power to control and supervise the plebiscite. Ultimately, the first direct bilateral talks broke down.

On 1 January 1948, based on the advice of Mountbatten, India lodged a complaint with the Security Council invoking articles 35 of Chapter VI of the UN Charter to “recommend appropriate procedures or methods of adjustment” for the pacific settlement of disputes and not for “action” with respect to acts of aggression as provided for in Chapter VII of the Charter [32]. India reiterated her pledge of her conditional commitment to a plebiscite under international auspices once the aggressor was evicted. Pakistan contradicted the validity of the Maharaja’s accession to India [33], and urged the Security Council to appoint a commission for securing a cease-fire and ensuring withdrawal of outside forces, and conducting a plebiscite in order to determine the future of J&K.

3.10 Role of the United Nation Security Council (UNSC)

Both India and Pakistan denied implementing the UN resolutions [34-36] for a free and impartial plebiscite in order to put an end to the situation for the accession of J&K.

Having taken note of the developments in J&K, the United Nations Commission for India and Pakistan UNCIP submitted a draft resolution [36] consisting of three parts to the council on 13 August 1948.

Part I of the resolution comprised of instruction for a cease-fire.

Part II of the resolution dealt with the principle of a truce agreement which called for Pakistan to withdraw tribesmen, Pakistani nationals not normally resident therein who had entered the State of J&K for the purpose of fighting, to evacuate the territory occupied by Pakistan and after the notice of the implementation of the above stipulation by the UNCIP India was to withdraw the bulk of her forces in stages from J&K leaving minimum strength with the approval of the commission in order to ensure law, order and peace in the State.

Part III of the resolution appeared to be important as it clearly expressed that both the Government of India and the Government of Pakistan reaffirm their wish that the future status of the State of J&K shall be determined in accordance with the will of the people.

The second resolution [37] specified the basic principle of plebiscite was formally adopted on 5 January 1949 after acceptance of India and Pakistan on 23 and 25 December 1948 respectively.

An important development occurred when both India and Pakistan agreed to the cease-fire line in 1949. This enabled the UN to finally send a Military observer Group to supervise the line [38]. The ceasefire came into effect on 1 January 1949. The most important long- term outcome of the first Indo-Pak war was the creation of ceasefire line. Thus UNCIP succeeded in implementing the important provision of Part I of the resolution. In order to monitor to the

ceasefire line (CFL), the UNCIP sent a Monitoring Group for India and Pakistan (UNMGIP) to J&K on 24 January 1949 relying on its resolution of 13 August 1948. In Karachi on 27 July 1949, the military representatives of India and Pakistan, duly authorized, approved CFL and thus approved the presence of UNMGIP [39].

In March 1949, the conflicting attitudes came into light as India and Pakistan expressed their viewpoints before the truce subcommittee of the UNCIP. On 15 April 1949, UNCIP transmitted to the governments of India and Pakistan its own proposals [40], which were:

- i) to create a cease-fire line, eliminating all no man's lands and based on the factual position of the troops in January 1949.
- ii) to draw a phased program of withdrawal of Pakistani troops to be completed in seven weeks, and the withdrawal of all Pakistani nationals.
- iii) to ask Indian forces also to withdraw in accordance with a phased program after the withdrawal of tribesmen and Pakistani national and after the declaration of UNCIP's satisfaction regarding the troops withdrawal of Pakistan.
- iv) to release all prisoners of war within one month.
- v) to repeal all emergency laws.
- vi) to release all political prisoners.

Both India and Pakistan [41] could not accept the proposals because of their own interest.

The UNCIP proposed arbitration on the issues regarding the part II of the resolution in a letter to the two Governments on 26 August 1949 and named Fleet Admiral Chester Nimitz as the Arbitrator. Pakistan accepted the proposal on 7 September 1949 but India rejected this proposal of arbitration. The Czechoslovak representative of the UNCIP, Dr. Oldrich Chyle (Chyle took the post after resignation of Korbel) criticized the UNCIP's work [42]. According to him, the arbitration move was a pre-planned attempt on the part of the USA and UK to intervene in the dispute.

On 17 December 1949, the UNSC named its president General A. G. L. McNaughton of Canada as the Informal Mediator [43], instead of commission to negotiate a demilitarization plan in consultation with India and Pakistan. He submitted his proposal on 22 December 1949. Pakistan accepted the proposals, suggesting minor amendments while India suggested major amendments: one calling for the disbanding and disarming of Azad forces, and the other dealing with the return of the Northern Areas to India for purposes of defense and administration of J&K. Pakistan was unable to accept Indian amendments [44] as a clear rejection of the proposals. Pakistan agreed to simultaneous demilitarization but India rejected it on the grounds of the legal and moral aspects of the plan.

The UNSC adopted another resolution introduced by C. Blanco of Cuba on behalf of four powers Cuba, Norway, UK and USA on 14 March 1950, which called upon the

two nations, without prejudice to their rights or claims to prepare and execute within the stipulated period of five months for the demilitarization of J&K based on proposals of McNaughton and for self determination [45] through an impartial plebiscite. The resolution terminated the UNCIP and transferred their powers and responsibilities to a UN representative.

3.10.1 Dixon mediation

Sir Owen Dixon, UN Representative submitted his recommendations to the UN on 15 September 1950. He suggesting a unique proposal [46] limiting the plebiscite only to the Kashmir Valley claimed by both by Pakistan due to its Muslim majority and the waters of Jhelum. India and Pakistan rejected the plan.

UN representatives worked to negotiate for free and impartial plebiscite in J&K until 1953 but their efforts brought no fruit. The UN continued its efforts for a plebiscite [47], but all attempts of UN failed due to the conflicting and divergent attitude of the Governments of India and Pakistan towards the dispute and the cold war [18]. The fifth report of Dr. Frank P. Graham [48] suggested direct negotiations between India and Pakistan. Thus the UN attempts at solving the problem of J&K came to end which reflected the limitations of the UN.

The armies of India and Pakistan waged an inconclusive war (1947-48) for over a year in J&K. The Indian army occupied almost two third of J&K remaining 1/3 portion was under the control of Pakistan which is called Azad Kashmir or Pakistan occupied Kashmir (POK).

3.11 Indo-Pak negotiation (1962-1963)

India experienced a huge defeat in 1962 war against China. The J&K dispute became the subject of Indo-Pak negotiation in late 1962 but no agreement could be signed for resolution of J&K question despite six round talks between an Indian delegation headed by Swaran Singh and a Pakistani delegation headed by Z.A. Bhutto from 27 December 1962 and 16 May 1963.

3.12 Sino-Pak border agreement 1963

On 2 March 1963, the Sino-Pakistan Border Agreement was signed in Peking and they had agreed that after the settlement of the Kashmir dispute between Pakistan and India, the sovereign authority concerned would reopen negotiations with China on the boundary as described in Article. By this agreement Pakistan [49] succeeded in stabilizing Pakistan's position regarding Kashmir in the eyes of Chinese Government and compelling her "to reject unequivocally the contention that Kashmir belonged to India".

3.13 The Kutch conflict- a low intensity war

In 19 April 1965, Pakistani permanent representative [50] in UN made claims about 8960 square kilometers area of Rann. Pakistani claim to the Rann of Kutch was based on

the fact that the Rann was a lake and according to international law [51], the boundary line between India and Pakistan must be drawn through the middle of the Rann. On other hand India argued that the Rann of Kutch was a “marsh” land rather than a lake. India asked Pakistan to restore the status quo ante. Tikka Khan, in command of the 18 Infantry Division, did painstakingly prepare for the operations and succeeded in advancing inside Indian territories in strength, causing to the fall of the Indian forward post hastily positioned there. India and Pakistan fought a low intensity war. The important aspect of the conflict lies in the historic fact that both India and Pakistan accepted a ceasefire and arbitration on British intervention. On the other hand, India captured some Pakistani Posts in the Kargil area of Ladakh. The Kutch dispute [52] was referred to a tribunal comprising of three members, one nominated by India, another by Pakistan and a Chairman chosen by the UN Secretary General. After a long deliberation the tribunal awarded Pakistan 317 square miles out of 3500 square miles claimed by her. India left the occupied posts of Pakistan in Kargil.

3.14 Indo-Pak war in 1965

The Pakistani Government was greatly emboldened by presumably military success in the Rann of Kutch in 1965. In August 1965 infiltration had started in Jammu and Kashmir to wage what Zulfikar Ali Bhutto called a “war of liberation”. On 10 August 1965, Z. A. Bhutto [53] publicly declared his country’s full support to the people of Kashmir but denied his country’s involvement in the Kashmir trouble. On 1 September, 1965 Indian forces crossed the international border and sealed the borders of Kashmir. On 4 September, Malaysia moved a resolution co-sponsored by Bolivia, the Ivory Coast, Jordan, the Netherlands, and Uruguay proposing an immediate ceasefire in Kashmir without calling Pakistan as an aggressor in the UNSC [54]. But it did not succeed in stopping the fighting. Ayub Khan backed the infiltration with a full-fledged attack in the Chhamb sector by crossing the international border, leading to effective progress to reach Jaurian. On 5 September 1965, Indian forces launched three-pronged thrust in of West Pakistan in Lahore Sector and in Sialkot sector a day later. Following this development, Malaysian representative submitted another resolution [55] supported by Bolivia, the Ivory Coast, Jordan, the Netherlands, and Uruguay calling upon both the countries to cease hostilities and withdraw their troops to the positions held by 5 August 1965, which was passed unanimously on 5 September 1965. The goodwill mission to India and Pakistan by the U.N. Secretary General, U Thant did not succeed. Both countries were requested by U Thant to stop fighting without imposing any condition on each other [56]. India accepted unconditional ceasefire but President Ayub Khan [57] imposed certain pre-conditions: (i) Withdrawal of all forces of both India and Pakistan (ii) Induction of foreign forces, preferably Afro-Asian under UN auspicious, (iii)

Holding a Plebiscite in Kashmir within three months of the cease fire.

Armies of both the countries engaged in large - scale combat in a series of sharp and intense actions along the ceasefire line in J&K and the international border in Punjab, Rajasthan, and Gujarat by employing import weaponry system but outmoded war strategies. They reached to the point of exhaustion, battle fatigue. The representative of the Netherlands moved the draft resolution [58], which was accepted, by both India and Pakistan in the UNSC on 20 September 1965. It was adopted by ten votes to nil, with Jordan abstaining. On 20 September 1965, the super power USA concurred with USSR in the Security Council on calling ceasefire within 48 hours. Pakistan and India accepted the call [59] on 21 and 22 September 1965 respectively. The ceasefire, the UN enforced became effective at 03:30 hours of 23 September 1965. Both India and Pakistan lost nearly 3000 people each in the war. Economy of both the countries suffered a setback.

Although fighting ended inconclusive both India and Pakistan claimed victories,. China identified India as an aggressor and supported the Kashmiri’s right of self-determination.

3.15 Tashkent agreement 1966

The Tashkent Declaration was signed between Indian Prime Minister L. B. Shastri and Pakistani President after six days of hard bargaining on 10 January 1966. They agreed that all armed personnel of the two countries should be drawn not later than 25 February 1966 to the position they held prior to 5 August 1965, and both sides should observe the ceasefire terms on the ceasefire line. They affirmed to employ peaceful means to solve their conflicts. Neither side was allowed to enjoy the gains of war. Pakistan was not even mentioned as the aggressor nor did it admit having engineered the infiltration in J&K.

3.16 Indo-Pak war in 1971

In the general election held in Pakistan in 7 December 1970, the Awami League led by Mujibur Rehman secured majority in the national assembly by winning 158 seats out of 300 seats. He demanded complete autonomy for East Pakistan. The East Pakistanis formed Mukti Bahini (Liberation Force) and civil war erupted in East Pakistan. India supported the Movement. Pakistan used armed forces to curve the movement. The fighting forced 10 million East Pakistanis to flee in Indian territories. India accused the Government of Pakistan of committing brutal genocide in the East Pakistan. India asked Pakistan to negotiate with Rehman for a political settlement. On 3 December 1971, Pakistan launched attack on Indian airfields along the frontier of Punjab, Rajasthan, and J&K [60]. On the other hand, Pakistan alleged that Indian forces attacked on 21 November 1971 in the south- eastern sector of East Pakistan. India is the first country who recognized formally

the birth of Bangladesh [61] on 6 December 1971. The Indian Army along with the Mukti Bahini (Liberation Army) fought the Pakistani armed forces. The news of sending a naval task force from the US Seven Fleet [62] to the Bay of Bengal from the Indo-China theatre caught much attention. But the USSR [63] confirmed India that the Soviet powerful naval fleet would follow the Seven Fleet. On 15 December 1971 the Indian army reached the outskirts of Dacca. On 16 December 1971, 9000 Pakistani forces along with their commander General Niazi surrendered to the Joint Command of India and Bangladesh. India declared a unilateral ceasefire [64] effective from 20:00 hours on 17 December 1971 and Yahya Khan accepted it. Yahya Khan had to resign because of huge defeat in East Pakistan. He handed power to Z.A. Bhutto. Although India and Pakistan fought a third war over East Pakistan, J&K dispute was only a peripheral issue but vital one in the case of J&K. At time of ceasefire, India occupied 204.7 sq kms of territory of Pakistan administered Kashmir, 957.31 sq km of Punjab and 12198.84 sq kms of Kutch while Pakistan occupied 134.58 sq kms of territory of Indian administered J&K in the Chhamb sector, 175.87 sq kms in Punjab and 1.48 sq kms in Rajasthan [65].

3.17 Role of UN

The UN intervened to arrange cease-fires during the war 1971. USSR exercised her veto power several times in favor of India. The Secretary General [66] was authorized to appointment, if necessary, a special representative to help in the solution of humanitarian problem. The issue of Indo-Pak conflict came to an end on 25 December 1971 with the appointment by U Thant, the Secretary General, of V. W. Guicciardi, as Secretary General's special representative for humanitarian problems in India and Pakistan.

3.18 Simla agreement 1972

The Prime Minister of India and President of Pakistan had talks in Simla from 28 June 1972 to 2 July 1972 and signed the Simla Agreement [67] on 2 July, 1972. By signing the agreement, both India and Pakistan committed themselves to settling their differences through bilateral negotiations or by any other peaceful means mutually agreed upon between them. Hopefully, they also agreed that in "Jammu and Kashmir, the line of control (LOC) resulting from the cease-fire of December 17, 1971, shall be respected by both sides without prejudice to the recognized position of either side".

The Simla Agreement was ratified by both countries [68] and it came into force on 5 August 1972. To delineate the line of control General Bhagat and General Hamid Khan had to hold ten meetings between 10 August to 7 December 1972. On 11 December 1972, they [69] met at Suchetgarh and jointly signed 19 maps delineating the line of control from Chhamb to Turtuk, covering about 800

kilometers. Both the Governments approved the delineation [70] almost next day. On completion of adjustment in the line of control, India and Pakistan withdrew troops from the occupied territories in order to restore the status quo ante on the international border on 20 December 1972. Pakistan [71] has recognized Bangladesh in February 1974. The issue regarding prisoner of wars [72] closed with the repatriation of the last group along with Gen. Niazi at Wagah on 29 April 1974. East Pakistan crisis reflected that the two-nation theory failed miserably in the subcontinent.

3.19 The conflict at Siachen (1984 onwards)

The conflict between India & Pakistan over Siachen originated due to the non-demarcations on the western side of the map beyond a grid point known as NJ 9842. The CFL, which was established because of the first Indo-Pak war of 1947-48 and the intervention of the UN, runs along the international Indo-Pak border and then north and northeast until map grid-point NJ 9842, located near the Shyok River at the base of the Saltoro mountain range. Unfortunately, it was not delineated beyond the grid point known as NJ 9842 as far as the Chinese border but both countries agreed vaguely that the CFL extends to the terminal point NJ 9842, and "thence north to the Glaciers". After second Indo-Pak war in 1965, obeying the Tashkent Agreement both countries withdrew forces along the 1949 CFL. After third Indo-Pak war 1971, the Simla Agreement of 1972 created a new LOC based on December 1971 cease-fire. However, the Siachen Glacier region was left un-delineated where no hostilities occurred. The authorities of both countries showed no interest to clarify the position of the LOC beyond NJ 9842. Due to lack of strategic viewpoint and seriousness the LOC was poorly described as running from Nerlin (inclusive to India), Brilman (inclusive to Pakistan), up to Chorbat La in the Turtok sector. In April 1984, Indian army occupied key mountain Passes and established permanent posts at the Siachen heights. Indian troops brought control over two out of three passes on the Siachen, Sia La and Bilfond La, while the third pass, Gyong La remained under Pakistan's control. The Indian forces are permanently deployed all along the 110-km long Actual Ground Position Line (AGPL). Armies of both India and Pakistan fight in lethal 10-22000 foot altitude in Siachen Glacier. Pakistan retaliates in the world's highest war zone.

3.20 Kashmir insurgency in Indian administered Kashmir

The assembly elections in J&K on 23 March 1987 were partly manipulated and rigged which the National Conference-Congress coalition won a landslide victory. The opposition party Muslim United Front (MUF) called the victory as blatantly fraudulent and rigged. A large number young people of Kashmir were alienated by this perception. State Government of J&K witnessed various

demonstration and agitation between mid-1987 and mid-1989 based manifestation of an accumulated anger comprised of many components such as administrative (the curtail number of Offices that move to the winter capital Jammu), the regional autonomy, economic policy (increase of power tariffs), religious sentiments, civil liberties (custodian death), and anti-India demonstration of 14 and 15 August, 26 October (accession day) and 26 January. On 8 December 1989, the militants kidnapped Rubaiye Sayeed, daughter of Indian Home Minister Mufti Mohammed Sayeed. The prestige of Farooq Abdullah led State Government suffered serious setbacks for repression of any form of protest Farooq Abdullah's resignation with the appointment of Jagmohan as Governor for the second time on 19 January 1990, brought Central Government into direct confrontation with the various rebel groups. At 5 a. m. on 20 January 1990, Indian paramilitary forces cracked down on a part of Srinagar city and began the most intense house-to-house search and rounded up over three hundred people. Most of them, however, were later released and arrested persons complained to be beaten up or dragged out of their houses. People got frightened first, but discovering the courage of desperation, the people started pouring out into the street defying the curfew, to protest against the alleged excessive use of force in search operation in next day. The administration got completely unnerved and gave orders to fire at when most of the groups of demonstrators converged at Gau Kadal. The number of deaths [73, 74] is disputed; however, the press reported 35 dead. Then the implicit support for the separatists for independence transformed into explicit due to mainly the high-handed searches ordered by Jagmohan, the Governor of J&K. On 19 February 1990 Governor dissolved the State assembly and Governor rule was imposed. The Jagmohan regime [13] witnessed sadly the exodus of almost the entire small Kashmiri Pandit community from the valley and 20000 thousand Muslim had been forced to migrate. The State assembly election of 1990 resulted in Abdullah downfall following the outbreak of a Muslim uprising. During the 1990s, several new militant groups were formed, having radical Islamic views. The large numbers of Islamic Jihadis, who had fought in Afghanistan against the Soviet Union in the 1980s, joined the movement

Many umbrella groups were responsible for the uprising in J&K. Among them, the first umbrella group is tied to the Jammu and Kashmir Liberation Front (JKLF). They demanded independent Kashmir. The second group comprised of Muslim fundamentalists and has links with the fundamentalist Pakistan party, Jammait-I-Islam. No doubt the group has a pro-Pakistan Orientation. The third group is Jammu and Kashmir People's League that has a pro-Pakistan orientation. The groups demanded plebiscite so that people of J&K could exercise their right of self determination. India adopted a multiple prolonged approach to deal with the insurgency in J&K. In 1990, the then Governor Jagmohan announced the implementation of Armed Forces Special Powers Act of 1958 (AFSPA) for

J&K and J&K Disturbed Areas Act to put down the militancy. Indian security forces allegedly committed a series of human right abuses [75] in J&K. It is observed that the encounter between Indian security forces and the militants caused more than 50, 000 deaths [75] including many hundreds of innocent civilians. Kashmiri militants have been also accused of killing moderate Muslim leaders, Hindus, bombing passenger busses and railway bridges and public establishments. In September 1996, National Conference had won a landslide victory in J&K Assembly election, although the 30-disparate party coalition, known as All-Party Hurriyat Conference (APHC) did boycott the election. Indian authorities formed several Muslim counterinsurgency groups to combat the insurgency along with Indian security forces. Due to the acute failure of Indian authorities to address the socio-economic problems and ambition of autonomy to some extent of the people of J&K and Pakistan's active role in fostering cross border terrorism, the situation in J&K becomes more complex and volatile and neutrosophic in nature.

3.21 Nuclear rivalry between India and Pakistan

India had conducted her first nuclear device in 1974. In May 1998, India conducted several nuclear tests in the desert of Rajasthan. Pakistan got the opportunity to conduct nuclear test, and hopefully grabbed the opportunity and conducted six tests in Baluchistan in order to balancing nuclear power with India. The arm race between Indo-Pak caught international attention. The UNSC condemned both the countries for conducting nuclear tests and urged them to stop all nuclear weapons program. On 23 September 1998, new development occurred following at UN General Assembly session. Both India and Pakistan agreed to try to resolve the Kashmir question peacefully and to focus on trade and "people to people contact". Pakistan sent her cricket team in India as goodwill gesture on November 1998 after a decade absence. On the other hand, India agreed to buy sugar and powder from Pakistan. In February 1999, bus service between New Delhi to Lahore started. Accepting an invitation from Sharif, Vajpayee visited Lahore by bus. His visit to Pakistan is known as bus diplomacy. It drew much attention and at end of the summit they issued Lahore Declaration that was backed by Memorandum of Understanding (MOU) [76].

3.22 Kargil conflict in 1999

In May 1999, Pakistan-backed militants together with Pakistani regular forces crossed the LOC and infiltrated into India-held Kargil region of North Kashmir. The militants occupied covertly more than thirty well-fortified positions the most inhospitable frigidly cold ridges at an altitude of 16000 -18000 feet, in the Great Himalayan range facing Dras, Kargil, Batalik and the Mushko Valley sectors. India retaliated by launching air attacks known as 'Operation Vijay (victory) on 26 May 1999. India identified Pakistan as an aggressor that violated the LOC. As the battle turned

more intense, the Clinton administration intervened to help defuse the conflict. It was witnessed that on 15 June Clinton made separate telephonic conversations with both the Prime Ministers of India and Pakistan. He asked Sharif to withdraw infiltrators from across the LOC. He cordially appreciated Vajpayee for his display of restraint in the conflict. Pakistan was isolated from world community regarding the Kargil-issue, only Saudi Arabia and United Emirates supported Pakistan. On 4 July 1999, Sharif and Clinton held a three-hour meeting and issued a joint communiqué in which Sharif agreed to withdraw the intruders. On 11 July 1999, in accordance with the agreement the infiltrators started retreating from Kargil as India set 16 July, 1999 as the dead line for the total withdrawal. On 12 July 1999, Sharif defended his 4 July agreement with Mr. Clinton and defended his Kargil policy that designed to draw the international attention of the international community to Kashmir issue. In the war [77], India lost more than 400 forces. 670 intruders and 30 Pakistani regular forces were also killed excluding the injured.

3.23 Agra summit (14-16 July 2001)

Agra Summit was held between the Indian Prime Minister Atal Behari Vajpayee and Pakistan's President Pervez Musharraf in Agra, from July 14 to 16, 2001. The summit began amid high hopes of resolving various disputes between the two countries including complex J&K issue. Both sides remained inflexible on the core issue of J&K and ultimately the bilateral summit failed to produce any formal agreement.

3.24 The threat of war between India and Pakistan and the role of Bush administration

On 13 December 2001, five militants attacked Indian national parliament house causing the deaths of 13 people including five terrorists. India held Pakistan responsible for the incidence. India immediately reacted by deploying a sizeable force along the LOC in J&K. Pakistan followed suit, until both nations had aligned a vast array of troops and weapons against one another. Armies of both countries frequently exchanged of artillery fires. The mobilization of troops sparked worldwide fears of a deadly military conflict between India and Pakistan.

In order to defuse the growing tensions Bush Administration took initiatives and succeeded in getting both sides to make conciliatory move. On 12 January 2002, in his address to his nation, Musharraf committed Pakistan's "political, diplomatic and moral" support to the struggle of people of Kashmir. He went on to criticize the Pakistani militant Islamic groups for i) creating violent activities, ii) aggravating internal instability, iii) harboring sectarianism in Pakistan politics iv) creating war like situation against India. He banned two militant groups, the Lasker-e-Toiba and Jais-e- Mohammed. In the following weeks, 2,000 activists of the banned militant groups were arrested in Pakis-

tan. Musharraf regime closed down some of militants groups' offices and recruiting centers. India welcomed these measures cautiously and the tension was somewhat defused. On May 14, 2002, three militants disguised in Indian Army uniforms shot passengers indiscriminately on a public bus and then killed 40 people (mostly wives and children of army personnel) including eight bus passengers at Kaluchak of Jammu before militants were gunned down. India reacted by threatening to strike at the terrorist camps situated in POK and took tough stand declaring some measures: i) expelled the Ambassador of Pakistan to India, ii) withdrew her diplomatic personnel from Pakistan, iii) imposed ban on Pakistani commercial air flights from Indian air space, iv) mobilized 100000 Indian forces close to LOC.

On 22 May 2002, on his visit to the frontlines in J&K, Vajpayee called for a "decisive battle". Pakistani authority declared that it would defend Pakistani administered Kashmir by any cost. Musharraf mobilized 50,000 troops to the borders. On 27 May 2002, Musharraf [78] warned India by declaring, "if war is thrust upon us, we will respond with full might".

Even Pakistan threatened to use nuclear weapons against India. This threat drew pointed attention to the USA and UK. The British Foreign Secretary, Jack Straw and US Deputy of Secretary, Richard Armitage and Defense Secretary, Donald Ramsfeld rushed to both India and Pakistan in May-June 2002 in order to defuse tension. They were successful in their mission to defuse tension and succeeded in getting promise from Musharraf to stop cross-border infiltration into J&K. After witnessing a slowdown in infiltration, India tried to improve her relation with Pakistan by reestablishing diplomatic ties, recalling her naval ships to their Bombay base, and opening her airspace to Pakistani commercial flights.

3.25 Musharraf's proposals for J&K resolution

On 25 October 2004, while addressing an 'Iftar party', President Musharraf announced an important declaration regarding settlement of the J&K acceptable to Pakistan, India and people of J&K. He remarked that the solution would have to be met three steps:

- i) Both sides should identify the regions on both sides of LOC,
- ii) Demilitarize these regions,
- iii) Determine their status through independence or joint control or UN mandate.

He opined that Pakistanis demand for a plebiscite was impractical while India's offer for making LOC a permanent border was unacceptable. The Musharraf's announcements drew much attention but Indian Prime Minister M. Singh refused to comment describing them as "of the cut remarks".

President Musharraf [79] proposed four point solutions regarding the resolution of J&K disputes as follows:

- i) troops will be withdrawn from the region in a staggered manner
- ii) the border will remain unchanged, however people will be allowed to move freely in the region
- iii) self governance or autonomy but not independence
- iv) a joint management mechanism will be created with India, Pakistan and Kashmiri Representatives

On 5 December 2006, during an interview with NDTV President Musharraf opined that Pakistan is prepared to give up her claim on Kashmir, also ready to give up her old demand for a plebiscite and forget all UN resolution if India accepts the four-point resolution of Kashmir dispute offered by him. He remarked that Pakistan is absolutely against the independence of Kashmir so is India. He stated that for compromise solution both countries would have to give up their positions and step back.

On 31 December 2006, G. N. Azad, the Chief Minister of J&K stated that 'joint mechanism' is possible in the field of trade, water, tourism and culture, and this could lead the way for a resolution to the longstanding Kashmir problem.

On 8 January 2007, he further stated that the latest four point-solution offered by President Musharraf should not be put aside without discussing positively.

On 19 January 2007, following the meeting with Indian External Affairs Minister, Chief Minister, G. N. Azad of J&K said "The date for the composite dialogue has been fixed for 13-14 March 2007 and I am sure all outstanding issues and proposals floated from time to time by President Musharraf will be discussed." On the same day APHC leader Mirwaiz Umar Farooq told the BBC that the next three months would be crucial.

On 2 February 2007, President Musharraf said: "We cannot take people on board who believe in confrontation and who think that only militancy solves the problem". On 3 February 2007, Indian Prime Minister M. Singh welcomed President Musharraf's statement that militancy or violence cannot resolve the Kashmir issue. On 4 February 2007, Indian External Affairs Minister, Pranab Mukherjee commented on Musharraf's proposals: "It is good. Everybody should advise terrorists to give up violence and join the process of dialogue." The idea of four point resolution was purely personal that did not have the mandate. However, Musharraf had to resign from his post for internal problem. His endeavor to resolve the J&K problem failed due to no response from India.

3.26 Terror attack at Mumbai

On 26 November 2008, Mumbai, the capital of Maharashtra and financial capital of India witnessed deadly terror attacks. India adopted a tougher-than-usual stand against Pakistan in the wake of the Mumbai terror attack and demanded to hand over 20 terrorists including Pakistan-based

underworld Dawood Ibrahim and Jaish-e-Mohammad chief Maulana Masood Azhar staying in Pakistan. To defuse the tension between India and Pakistan, Secretary of State of the USA, Condoleezza Rice visited Indian subcontinent. Ultimately USA succeeded in defusing the tension.

3.27 Is China a third party in J&K conflict?

Indian stand on the question is contradictory, ambiguous and unclear and neutrosophic in nature. India strongly objected the border agreement between Pakistan and China signed in 1963 by which China gained 2700 square miles of the Pakistan occupied Kashmir. Based on the Simla Agreement 1972 between India and Pakistan, India strongly is of the opinion that J&K problem is a bilateral dispute. Third party involvement is not welcomed by India to resolve the issue. However, Pakistan wants that China would play a definite role to resolve the J&K conflict. China adopts a neutral role as seen in the Kargil conflict in 1999. So, depending upon Simla Agreement, Indian point of view and present status, J&K conflict is considered as a bilateral problem between India and Pakistan.

3.28 Internal development in Indian administered J&K

Special status was conferred on J&K under Article 370 of Indian Constitution [80]. Constituent Assembly was elected by J&K on 31 October, 1951. The accession of J&K to India was ratified by the State's Constituent Assembly in 1954. The Constituent Assembly also ratified the Maharaja's accession of 1947 in 17 November 1956. In 1956, the category of part B was abolished and J&K was included as one of the States of India under article 1. On January 26, 1957 Constituent Assembly dissolves itself. On 30 March 1965, article 249 of Indian Constitution extended to J&K whereby the Central Government at New Delhi could legislate on any matter enumerated in state list. Designation like Prime Minister and Sarder-i-Riyasat are replaced by Chief Minister and Governor respectively. In 1964, decision to extend Articles 356 and 357 of the Union Constitution of India to J&K announced. On 12 February 1975, Chief Minister Abdullah signed Kashmir Accord that affirmed its status as a constituent unit of the India and the State J&K will be governed by Article 370 of the Constitution of India.

3.29 Development of Pakistan administered Jammu and Kashmir

Azad Kashmir was established on 24 October 1947. The UNCIP resolution depicts the status of Azad Kashmir as neither a sovereign state nor a province of Pakistan, but rather a "local authority" with responsibility over the area assigned to it under the ceasefire agreement. The "local authority" or the provisional government of Azad Kashmir had handed over matters related to defense, foreign affairs, negotiations with the UNCIP and coordination of all affairs relating to Gilgit and Baltistan to Pakistan under the Karachi Agreement [81] of April 28, 1949.

Zulfiqar Ali Bhutto’s government virtually annexed the POK by promulgating the Azad Jammu and Kashmir Act of 1974. Azad Kashmir adopts Islam as the state religion vide Article 3. The constitution prohibits activities prejudicial or detrimental to the ideology of the State's accession to Pakistan (Article 7). It disqualifies non-Muslims from election to the Presidency and prescribed in the oath of office the pledge 'to remain loyal to the country and the cause of accession of the State of Jammu and Kashmir to Pakistan'. It provides two executive forums, namely the Azad Kashmir government in Muzaffarabad and the Azad Kashmir council in Islamabad. The Pakistan government can dismiss any elected government in Azad Kashmir irrespective of the support it may enjoy in the Azad Kashmir Legislative Assembly [82] by applying the Section 56 of the constitution., The Northern Areas have the status of a Federally Administered Area.

3.30 The Indo-Pak conflict over Jammu and Kashmir

The conflict was based on the neutrosophic explanation and understanding of the neutrosophic situation in India and Pakistan. From Pakistani point of view, she hoped J&K was going to accede to Pakistan as the majority of the population being Muslims. If Junagadh, despite its Muslim rulers’ accession to Pakistan, belonged to India because of its Hindu majority, then Kashmir surely belonged to Pakistan. Princely state Hyderabad became Independent on 15 August 1947 like J&K. But India invaded it because of Hindu majority. Pakistan regarded the Accession of J&K as a coerced attempt to force the hand of Maharaja. Popular outbursts took place but J&K had acceded to India, because the ruler was a Hindu. From Indian point of view, J&K had acceded to her. Armed Pakistani raiders having Pakistani complicity and support invaded some portion of J&K. Both the countries failed to implement the UN resolutions. The plebiscite has never been held. India viewed that that the time has changed. India strongly argues that legislative measures subsequently legitimized the question of accession. After Simla Agreement, J&K problem became bilateral issue and its solution should be based on Simla Agreement 1972.

4 Neutrosophic game theoretic model formulation of the Indo-Pak conflict over Jammu and Kashmir

Following the above discussion and based on Simla Agreement 1972 , game theoretic model is formulated. The problem is modeled as a standard two person (2x2) zero-sum game.

Table 1: Payoff matrix

		Pakistan	
		I	II
India	I	1	-1
	II	0	-1
	III	0	-1
	IV	1	0

Pakistan strategy vector:

- i) Full compliance with Simla Agreement 1972,
- ii) Partial or non-compliance with Simla agreement 1972

India’s strategy vector:

- i) Make territorial concessions,
- ii) Accept the third party mediation (USA),
- iii) Apply the strategy of all-out military campaign,
- iv) Continue fencing along the LOC (see Fig. 1).



Fig.1 Photograph of fence along LOC

The above payoff matrix has been constructed with reference to the row player i.e. India. In the process of formulating the payoff matrix, it is assumed that the combination (I, I) will hopefully resolve the conflict while the combination (IV, II) will basically imply a status quo with continuing conflict. If Pakistan can get India to either make territorial concessions (Muslims dominated Kashmir valley or other important strategic areas of J&K such as Kargil) or accept the third party mediation like USA without fully complying with the Simla Agreement i.e. strategy combinations (I, II) and (II, II), then it reflects that Pakistan will be benefited but India will be loser. If India accepts the third party mediation and Pakistan agrees to comply fully with the Simla Agreement, then though it potentially ends the conflict, there should be a political jeopardy in India as a result of lack of strategic and political consensus among the political parties and so the strategy combination (II, I) is not a favorable payoff for India. If India employs an all-out military campaign, a devastating war seems to occur as both the countries are capable of using nuclear powers i.e. strategy combination (III, I) would not produce a positive payoff for either side. If there occurs an unexpected and sudden change of mind set up for J&K within the Pakistani leaderships (from inside or outside pressure) and Pakistan chooses to fully abide by the Simla Agreement 1972 considering LOC as the permanent international border i.e. strategy combination (IV, I) will bring a potential end to the conflict as both countries may think that they will be loser

and winner at the same time (neutrosophically true) in the sense that they will not get the whole J&K but Pakistan can console her saying that she has gained one third of J&K while India may think she gained two third of J&K.

In the payoff matrix (see Table 1), all the elements of the first, second and third rows are less than or equal to the corresponding elements of the fourth row, therefore from the game theory [83] point of view, fourth row dominates the first three rows. On the other hand, every element of the first column is greater than the corresponding elements of the second column, therefore, first column is dominated by second column. It shows that the above game has a saddle point having the strategy combination (IV, II), which reflects that in their very attempt to out-bargain each other both countries actually end up continuing the conflict indefinitely! Thus the model offers an equilibrium solution.

In the subcontinent political arena, Pakistani leadership's best interest was to transform the conflict more complex and keep the conflict more alive with full strength to gain political support from inside and outside and ultimately compelled India to make territorial or other concessions. However, for international pressure mainly from USA, Pakistan had to state some overt declaration that negotiated settlement over J&K based on Simla Agreement 1972 is possible. However, Pakistan covertly continues her sincere help to separatist groups by means of monetary, logical, psychological and military equipments. By doing so Pakistan is now in deep trouble with various militant groups and Jihadi groups. She has to deal internal security problems caused by Pakistani Taliban groups. Under such volatile circumstances, it would be quite impossible for Pakistan to chalk out a distinct governing strategy to meet with counter strategy.

Both the countries, in general, played their games under international pressure. Although Pakistan signed Lahore declaration with India by the then Prime Minister Nawaj Sharif, Pakistani military boss Mr. Musharraf occupied some heights of Kargil in 1999 to derail the peace process and draw international attention to the J&K conflict. An important lesson of the Kargil conflict seems to be that no military expedition could be a success if it is pursued without paying serious attention to the totality of the scenarios having domestic, political, economic, geographical, international opinions and sensitivities. Another important of Kargil conflict seems that national community does not want to military solution relating to J&K problem. However, one positive aspect of the Lahore declaration reflects that both the countries are capable of transforming the game scenario an open one in the sense that the conflicting countries are capable of dynamically constructing and formulating objectives and strategies in the course of their peaceful, mutual interaction within a formally defined socio-political set up.

During the Agra summit in 2001, when probably President Musharraf was thinking to make the conflict very alive while offering the impression to the other side (India) that

they were wholeheartedly seeking strategies to put an end to the conflict. President Musharraf played very clever and diplomatic role by using the media very cautiously and cleverly to make the international community and his country understand that he tries his level best to reach a meaningful, decisive and effective agreement but fails due to Indian rigid position regarding J&K issue. He left Agra and thereby tried to obtain his acceptance to his own nation and international community. This immediately shows why such a negotiation would break down at early stage.

The government of India and Pakistan are dealing with militancy and terrorism in own land. But main issue remains the J&K conflict.

4.1 Case for applying neutrosophic game theory

It is experienced that none of the strategy vectors available to either side will remain temporarily stationary because crucial events come into light on the global political arena, in general, and the south Asian subcontinent in particular. Moreover, there is a broad variety of ambiguities about the motives behind Pakistan authority's primary goals about the driving force behind Pakistan authority's primary goal and the strategies it adopts to achieve that goal. Pakistan's principal ally USA is also a great factor. The influence of USA has a great impact on forming strategies. The terrorist activities by Pakistan backed terrorist groups are sometimes monitored by the wishes of USA. Although Pakistan has not hundred percent control over foreign mercenaries coming from different part of world namely, Saudi Arabia, Afghanistan, Chechnia, Sudan etc. Pakistan is constantly trying to bring India under pressure by harboring terrorist attacks on Indian ruled Kashmir and destabilizing the normalcy in the state in order to understand the international community that international intervention is required to resolve the J&K conflict. It is also difficult to state apart a true bargaining strategy from one just meant to be a political decay. In the horizon of continuous conflict, we believe and advocate an application of the conceptual framework of the neutrosophic game theory as a generalization of the dynamic fuzzy game paradigm.

In generalized terms, a well-specified dynamic game at a particular time t is a particular interaction between decision makers with well-defined rules and regulations and roles for the decision makers, which remain in place at time t but are free to change over time. However, it is likely that the decision makers may suffer from the role of ambiguity i.e. a typical situation where none of the decision makers are exactly sure what to expect from others or what the other decision makers expect from them. In the context of indo-Pak continuing conflict, for example, Pakistan leadership would probably not have been sure of its role when Mr. Musharraf met with Indian prime minister Atal Behari Vajpayee at the Agra summit to chalk out a peace agreement. Mr. Musharraf went to that summit under the international pressure or to prove himself to be an efficient

leader of Pakistan or against his free will and would have liked to avoid Agra if he could because he did not want to sign any final agreement on J&K which can be against common feeling of people of Pakistan. Mushauff demanded for declaration of J&K to be a disputed territory at least. Having no such capitulation forthcoming from India, Musharuff left Agra without signing any joint statement.

In this political context, Pakistani leadership's best interest was to keep the conflict alive with full strength ultimately compelled India to make territorial or other concession. However, for international pressure mainly from USA, Pakistan had to offer some overt declaration that negotiated settlement over Jammu and Kashmir based on Simla Agreement 1972 is possible. Pakistan covertly continues her sincere help separatist groups by means of monetary, logical, psychological and military equipments. Under such volatile circumstances, it would be quite impossible to chalk out a distinct governing strategy to meet with counter strategy.

However, both the countries, in general, played their games under international pressure. Although Pakistan signed Lahore declaration with India by the then Prime Minister Nawaj Sarif, Pakistani military boss Mr. Musharraf occupied some heights of Kargil in 1999 to derail the peace process. An important lesson of the Kargil conflict seems to be that no military expedition could be a success if it is pursued without paying to serious attention to the totality of the scenario having domestic, political, economic, geographical, international opinions and sensitivities. Another important of Kargil conflict seems that national community does not want to military solution relating to Kashmir problem. However, one positive aspect about Lahore declaration or Indo-Pak joint declaration indicates they transform the game scenario an open one in the sense that the conflicting parties are capable of dynamically constructing and formulating objectives and strategies in the course of their peaceful, mutual interaction within a formally defined socio-political set up.

Thus, the negotiation space may be represented as:

$$N_{\text{Pakistan}} \cap N_{\text{India}}.$$

According to the opinion of Burns and Rowzkowska [84] each players personal views constitute a deal. The fuzzy semantic space comprises of such deals i.e. personal views. Personal value judgments, acquired experiences and expectations about the possible best or worst outcomes from a negotiation are crucial to constitute such views. The fuzzy semantic space is a dynamical system and is free to modify according to the need and desire of the players and practical situations in the light of new information.

The semantic space however remains fuzzy owing to vagueness about the exact objectives and lack of precise understanding of the exact stand, which the opponent parties have from their viewpoints. That is why none of the

conflicting parties can effectively read and precisely understand each other's nature of expectations.

This was reflected in Agra summit when probably Musharraf (Pakistan) was thinking in terms of keeping the conflict alive while offering the impression to the other side (India) that they were wholeheartedly seeking strategies to put an end the conflict. Mr. Musharraf played very diplomatic role by using the media very cautiously and cleverly to make the international community and his country understand he tried his level best to reach a fruitful agreement but failed and left at midnight and thereby tried to obtain his acceptance to his own nation and international community. This immediately comes to light why such a negotiation would break down at early stage.

If the Indo-Pak conflict over Jammu and Kashmir is constituted as fuzzy dynamic fuzzy bargaining game, the players' fuzzy set judgment functions over expected outcomes can be formulated as follows according to the rules of well-developed fuzzy set theory due to Zadeh [85] For Pakistan, the fuzzy evaluative judgment function at time t , $\mu_{J(p,t)}$ (P , t) will be represented by fuzzy set membership function as follows:

$$\mu_{J(p,t)} = \left\langle \begin{array}{ll} \in(0.5,1), & \text{for } O_{\text{Worst}} < x < O_{\text{Best}} \\ 0.5, & \text{for } x = O_{\text{Worst}} \\ 0, & \text{for } x < O_{\text{Worst}} \end{array} \right\rangle$$

Here, the symbol O_{Best} indicates the best possible outcome that Pakistan would expect; which would probably the annexation of Jammu-Kashmir to Pakistan according to the two-nation theory of Muslim League. Similarly, O_{Worst} indicates probably the conversion of LOC as the permanent international borderline.

On the other hand, for India the fuzzy evaluative judgment function at time t , $J(I, t)$ will be represented by the fuzzy set membership function $\mu_{J(I,t)}$ as follows:

$$\mu_{J(I,t)} = \left\langle \begin{array}{ll} 1, & \text{for } y \geq \Theta_{\text{Best}} \\ \in(0.5,1), & \text{for } \Theta_{\text{Worst}} < y < \Theta_{\text{Best}} \\ 0.5, & \text{for } y = \Theta_{\text{Worst}} \\ 0, & \text{for } y \leq \Theta_{\text{Worst}} \end{array} \right\rangle$$

Here Θ_{Worst} indicates the worst possible negotiation outcome India could expect, which would be coincidence with the best-expected outcome for Pakistan.

It is to be noted that semantic space $N_{\text{Pakistan}} \cap N_{\text{India}}$ is more generally framed as a neutrosophic semantic space, which considers a three-way generalization of the fuzzy semantic space. Since neutrosophic semantic space comprises of neutral possibility, it cannot be defuzzified into two crisp zero-one states owing to the incorporation of an intervening state of "indeterminacy". Such

indeterminacy would be practically encountered due to the fact any mediated, two-way negotiation process is likely to become over catalyst by the subjective utility preferences of the mediator.

Let T, I, F represent real subsets of the real standard unit interval [0,1]. Statically, T, I, F are subsets while dynamically, in the context of a dynamic game, they may be considered as set-valued vector functions. If a logical proposition is said to be t % true in T, i % indeterminate in I and f % false in F, then T, I, F are considered as the neutrosophic components. According to Smarandache [7] neutrosophic probability is useful to events that are shrouded in a veil of indeterminacy like the actual implied volatile of long-term options. Bhattacharya et al.y applied the concept of neutrosophic probability in order to formulate neutrosophic game theoretic model [86] to Israel –Palestine conflict. It is worthy of mention that the proposed approach uses a subset-approximation for truth-values, indeterminacy and falsity-values. It is capable of providing a better approximation than classical probability to uncertain events.

Therefore, the neutrosophic evaluative function for Pakistan at time t, $J_N(P, t)$ will be represented by the neutrosophic set membership function $\mu_{J_N(P,t)}(x)$ as follows:

$$\mu_{J_N(P,t)}(x) = \left\langle \begin{array}{l} (.5, 1), \text{ for } O_{\text{Worst}} < x < O_{\text{Best}}, x \in T \\ .5, \text{ for } x = O_{\text{Worst}}, x \in T \\ 0, \text{ for } x < O_{\text{Worst}}, x \in T \end{array} \right\rangle$$

On the other hand, the neutrosophic evaluative judgment function for India at time t, $J_N(I, t)$ will be represented by the neutrosophic set membership function $\mu_{J_N(I,t)}(y)$ as follows:

$$\mu_{J_N(I,t)}(y) = \left\langle \begin{array}{l} 1, \text{ for } y \geq \Theta_{\text{Best}}, y \in F \\ \in (0.5, 1), \text{ for } \Theta_{\text{Worst}} < y < \Theta_{\text{Best}}, y \in F \\ 0.5, \text{ for } y = \Theta_{\text{Worst}}, y \in F \\ 0, \text{ for } y \leq \Theta_{\text{Worst}}, y \in F \end{array} \right\rangle$$

Relying on three-way classification of neutrosophic semantic space, it is t %true in sub-space that bilateral negotiation will produce a favourable outcome within the evaluative judgment space of the Pakistan while it is f % false in the sub-space F that the outcome will be favorable within the evaluative judgment space of the Pakistan. However, there is an i % indeterminacy in sub-space I whereby the nature of the outcome may be neither favorable nor unfavorable within the evaluative judgment space of either competitor.

5 Conclusion

We have discussed the crisis dynamics of the continuing Indo-Pak conflict over J&K. we have briefly examined the efforts made by various study groups and persons and

India and Pakistan in resolving the conflict and the reasons for their failure. We have looked the Indo-Pak relations and recent developments and their views on J&K situations. Alternative possible solutions are also considered. Most of the solutions are either impractical or unacceptable to India, Pakistan, and or the various militant groups. Pro Pakistani militant groups and Pakistan would opt for free and impartial plebiscite. Even some militant groups would oppose the plebiscite because the UNSC resolutions do not offer them the very option of independence. In the process of formulating the payoff matrix for game theory model, the combination (I, I) will hopefully resolve the conflict i.e. maintaining the status quo along the LOC with some border adjustments favorable to Pakistan. Otherwise, the the proposed model offers the solution wich state that both the countries will continue the conflict indefinitely. The application of game theoretic method to the ongoing Indo-Pak conflict over J&K is based on identifying and evaluating the best options that each side has and is trying to achieve chosen options. The Simla Agreement 1972 is used as an instance with Pakistan being left to choose between two mutually exclusive options.

The solution reflects the real facts that Pakistan does not want to ever agree to have full compliance with the Simla Agreement 1972, as she will see always herself worse off that way. Realizing that Pakistan will never actually comply with Simla Agreement 1972, India will find her best interest to continue the status quo with an ongoing conflict, as she will see herself ending up on the worse end of the bargaining if she chooses to apply any other strategy. It is experienced that none of the strategy vectors available to either side will remain temporally stationary due to action and reaction of militant groups and Indian security forces in J&K. Moreover, there exists a broad variety of ambiguities concerning primary goals of the two countries and the strategies they adopt to achieve those goals.

Due to the impact of globalization, people have to interact with people from other countries. In the days of cross-border strategic alliances and emphasis on various groups, it would really be tragic if other nations remain standstill or ignore the conflict. The government of India fails to solve its own problems of northeast states such as Nagaland, Assam, Mizoram, and Arunachal Pradesh. On the other hand, Pakistan is constantly facing with the myriad problems of democracy and absence of it. Pakistan fails to curb insurgencies in Balochistan, the largest province of Pakistan having resource of natural gas and mineral and sparsely populated. We have discussed the development of the Jammu and Kashmir conflict. We have examined the various efforts by Indo-Pak and other countries to resolve the grave conflict. The effect of nuclear power acquisition by both the countries, 9/11 terror attack on USA and USA and its allies invasion in Iraq. The most beneficiary party of Jammu and Kashmir conflict is the republic of China. It invaded about 38000 square kilometers territory from Indian ruled Jammu and Kashmir in 1962 war and later Pakistan ceded 5180 square

kilometers areas to Beijing under a 1963 pact. The ongoing conflict between and Pakistan reflects the fact that both the countries are incapable of solving J&K conflict and other core issues. At the international level, third party arrangements can be established with the participation of an intervening state, group of states, or international organizations in order to play a crucial role in helping to overcome a strategic impasse. The question remains whether India and Pakistan would accept third party mediation. Limits on international direct intervention in the J&K grave conflict have historically had to do with India's insistence that the 1972 Simla Agreement between India and Pakistan is sufficient to deal with the issue bilaterally. It is to noted that when well conceived and pragmatic, India has come to appreciate mediation by international third party specially USA mediation in Kargil crisis in 1999 and 2001-2002 mobilization crisis.

$\mu_{J_N(p,t)}(x)$ or $\mu_{J_N(l,t)}(y)$ would be interpreted as Pakistan's (or India's) degree of satisfaction with the negotiation based settlement. It is likely that Pakistan authority's ultimate objective is to annex J&K and if that is the case then of course there will always be an unbridgeable incongruence between $\mu_{J_N(p,t)}(x)$ and $\mu_{J_N(l,t)}(y)$ due to mutually inconsistent evaluative judgment spaces between India and Pakistan to the conflict. Therefore, for any form of negotiation in order to produce a positive result, the first and foremost requirement should be to make the evaluative judgment spaces consistent. On the other hand, if the evaluative judgment spaces are inconsistent, the negotiation space will generate into a null set at the very onset of the bargaining process, thereby pre-empting any equilibrium solution different from the status quo. Since these spaces are not crisp, according to Reiter [87] they are malleable to some extent. Therefore, even while retaining their core forms, subtle changes could be induced for making these spaces workably consistent. Then the goal of the mediator should be such that it will allow India and Pakistan to redefine their primary objectives without necessarily feeling that such redefinition itself reflects a concession. When this type of redefinition of primary objectives has been achieved, the evaluative judgment spaces generate a negotiation space that will not become null ab initio. However, it should be mentioned that there exists also an indeterminate aspect to any process of mediated bilateral dialogues between the two countries because of the catalyzation effect brought about the subjective utility preferences of the mediator.

We build on an earlier attempted justification of a game theoretic explanation of the Indo-Pak conflict over J&K by Pramanik and Roy [6] and go on to argue in favor of a neutrosophic adaptation of the standard 2x2 zero-sum game theoretic model in order to identify an optimal outcome. We hope that the concept of the interval neutrosophic set [88] can be used to formulate interval neutrosophic game theoretic model of the Indo-Pak conflict in more general way. From ancient period J&K

was a place of religious center and different people with their different faiths live together peacefully. But, people of J&K are at present neutrosophically divided in the question of independent of J&K. The disintegration of India based on two nation theory does not provide any good for the people of Indian subcontinent. So people of Indian subcontinent can neutrosophically hope that India and Pakistan will rethink their decision of partition based on vaguely defined two nation theory. Rather India and Pakistan can form a union of independent states by considering their origin, cultural heritage, common interest, blood relation. If East Germany and West Germany are able to get united, why not the subcontinent? According to neutrosophy nothing is impossible. So according to neutrosophy, the resolution of J&K is neutrosophically possible. The present paper provides the conceptual framework of neutrosophic game theoretic model of the complex J&K conflict hoping that neutrosophic linear programming will be able to solve the problem in near future.

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