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Abstract

This paper attempts to study the association between armed ethnic conflict and its economic, socio-political and policy determinants through an econometric analysis in the seven northeast Indian states, namely, Arunachal Pradesh, Assam, Meghalaya, Mizoram, Manipur, Nagaland and Tripura over a span of 27 years (1990-2016). Through a pooled Probit and a system Generalised Method of Moments (GMM) exercise, along with a historical review of insurgent movements in these states, the paper concludes that previous levels of conflict, low levels of NSDP, high Debt-GSDP ratio, diverse ethnolinguistic identities, economic discrimination among ethnicities, depleting forest cover and certain counter-insurgency measures such as the Armed Forces (Special Powers) Act, 1958 have had an adverse bearing on the peace and political stability and have contributed to higher probability of ethnic conflict in this region.

Keywords: Economic Development, Ethnic Conflict, Civil War, Secession Movements, Ethnic Divisions, North East India

JEL codes: O10, D74, F63, P16

1. Background

The North Eastern region of India comprises of eight states, namely, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim. Stretching from the eastern Himalayas in the north till Bangladesh to its south and Myanmar to its east, it covers nearly 8 per cent of the total geographical area of the country. A narrow corridor between Bangladesh and Bhutan offers the only rail and road connectivity between the region and the rest of India from its west. Around 52 per cent of its total geographical area is covered by dense forests and about two-thirds of the region's topography consists of hilly terrain. The region, categorised as a biodiversity hotspot, receives the highest amount of rainfall in the country and is endowed with rich natural resources, large and small river systems that crisscross its fertile valleys.

The region has been adversely affected by separatist insurgencies, ethnic clashes, mass agitations, genocides, secession movements and counterinsurgency operations since the independence of India in 1947 until date. It is generally agreed among theoreticians that the relative underdevelopment and the uneven growth experienced in North East Indian states is an important research question that remains to be studied more carefully (Hirschman, 1978; Bhattacharjee, 1989 et al.). Others identify this relative underdevelopment as one of the main reasons for the violent conflict the region has seen over the past seven decades and similarly, how the conflict that the region has seen may have been detrimental to its prospects of economic growth (Mohapatra, 2002; Ghani & Iyer, 2010; Das et al. 2015). Interestingly, over the years under study, a few states in the region have experienced both violent conflict and economic growth together. Manipur is another exception with high levels of human development attainments and incidences of ethnic or insurgent conflicts. Assam, however, has been one of the worst performers, both in terms of socio-economic achievements and conflict resolution. Academic literature and newspaper reports hitherto mention identity crises, ethnonationalism, xenophobia, legal and illegal migration, scarcity of land and resources, state failure, faulty framing of policies (of both colonial and post-colonial governments) and poor delivery of public goods (resulting in unequal distribution of public services across various ethnic groups), as some of the major drivers of conflict in the North East Indian states.

Various insurgent outfits have been indulging in armed conflict for over 70 years, in many parts of the North East Indian states on these grounds. There have also been various episodes of clashes between ethnic groups. History is witness to the fact that the violent nature of the conflict in India's North East has socio-political and cultural roots. The turmoil has to do with ethnic political aspirations, control of power and the effort to protect local territories and resources, as much as, with demands for autonomy and secession by various ethnic groups in North East India. (Shimray, 2004; Thomas et al. 2005). If not, it has to do with the perennial neglect and faulty policies of the government of these states and at the centre (Savyasaachi, 1998; Baruah, 2003).

Another important factor, which many scholars have pointed out, was that the cultural and ethnic boundaries were ignored while carving out the state boundaries at the time of the state formation process, leaving minority ethnic groups unhappy and with a feeling of being betrayed. For example, while 14 states based on ethnolinguistic lines were created in India during the states' reorganisation in 1956, the entire North East India, including the two princely states of Tripura and Manipur, were integrated into Assam. Further, the Naga demand for a separate state was ignored. This created resentment among the non-Assamese ethnic groups, especially those living in the secluded hilly areas of the region. It added fuel to the on-going demands for autonomy or secession through anti-government rebellions and armed insurgent conflicts (Chaube, 1973; Guha, 1977; Choudhury, 2002; Inoue, 2005).

Historically, the region has remained secluded from mainland India. The fact that only 2 per cent of its geographical boundary is shared with India, while 98 per cent is shared with countries like China, Myanmar, Bangladesh, Nepal and Bhutan adds to this isolation and makes the region difficult to administer. Further, most parts of the North East Indian hills had remained relatively unadministered and were classified as *Backward Tracts* and subsequently, *excluded* or *partially excluded areas*[2] by the British administration during their reign in India.

A year before Assam became a separate province (carved out from Bengal); a line system was introduced through the Bengal Eastern Frontier Regulation of 1873 to restrict the entry of

[2]Excluded areas included Northeast Frontier district, Naga Hills district, Lushai Hills district, and North Cachar Hills. Partially excluded areas included Garo Hills District, Khasi and Jaintia Hills district (except Shillong) and Mikir Hills district.

outsiders into the hill areas of Assam[3]. Under this regulation, special permission from the administration was required by non-officials to enter the areas beyond this line. This was done with an aim to protect the indigenous population in the hills of Assam by restricting outsiders' entry, business and land-related transactions between tribes and non-tribal traders. The Government of India Act, 1919 termed these areas beyond the *inner line* as '*Backward Tracts'*. Subsequently, the government of India Act, 1935 bifurcated the *Backward Tracts* into *excluded* and *partially excluded areas*. The *excluded areas* were to be directly administered by the Governor-General and were beyond the system of representation in the Legislature (which meant that the State Governments had no jurisdiction over them). *Partially excluded areas*, on the other hand, were given provisions for limited representation and limited authority in the law-making processes at the provincial Legislature (Reid 1944; Chaube, 1973; Choudhury, 2002).

While the British saw these policies as an attempt to safeguard the customs, culture and the traditional self-governing institutions of these tribal societies (through which they wanted to *indirectly* rule these areas), this exclusion, many scholars have argued, may have played a part in distancing the hill tribes of the North East India from the people of the plains (Chaube, 1973; Guha, 1977; Choudhury, 2002). While these colonial policies intruded on the 'tribal' space, the British rulers were able to decipher the fact that complete intrusion would be difficult and *'expensive'* (Choudhury, 2002). These policies also affected the nation-building process after India's independence from the British and made it difficult for the idea of Indian nationalism to find a place in the imagination of the people from the region. Later, while drafting the Sixth Schedule of the Indian Constitution in 1950 too, the influence of these policies stayed with its drafters. Scholars maintain, like the British, the first Indian government of independent India too, while aiming to safeguard the rights and interest of the indigenous ethnic groups in the region, may have ended up adding to the isolation and creating a feeling of separateness among them (Choudhury, 2002; Savyasaachi, 2008).

The other major factor that contributed to the antagonism and conflict in the region was the mass in-migration of both Bengali Hindus and Muslims since the 1930s in search of better economic opportunity from East Bengal before the partition of India (and later, from East

[3] Apart from the kingdoms of Tripura and Manipur, rest of the North East India was within Assam when it became a separate province in 1874 under the British administration. Sikkim was a separate Himalayan kingdom and was not part of British India. It was integrated into the Indian union in 1975.

Pakistan after partition and from Bangladesh after the country was created in 1971). This generated competition for jobs and over ownership of land and natural resources between the indigenous population of the region and the migrants. The inflow affected the ethnic as well as the electoral demography of the region and thus, angered the indigenous population (Hazarika, 1995; Inoue, 2005; Bhaumik, 2007).

After Independence, various indigenous ethnic movements with demands for autonomy and separate statehood saw Nagaland, Manipur, Tripura, Meghalaya, Mizoram and Arunachal Pradesh separate from the erstwhile greater Assam. However, minority ethnic groups within these seven states later exerted their identity more powerfully and this led to the formation of various autonomous district councils across these states. Creation of these states on the lines of dominant linguistic identity, in a region that is extremely multi-ethnic in nature, excluded the minority ethnic groups within each state; though it may have fulfilled some aspirations of the dominant ethnic group/groups. Many such movements led by these minority ethnic groups with new demands for autonomy and statehood in these states continue to exist till date (Hazarika, 1995; Inoue, 2005).

Over the last seven decades since India's independence, the region faced acute issues related to economic underdevelopment, like poverty and unemployment; as well as administrative issues like failure of the state and governance (Hirschman, 1978; Bhattacharjee, 1989; Mohapatra, 2002). Rampant corruption and natural resource monopolies among tribal communities also emerged (Baruah, 2003). Since the 1980s, nasty electoral politics and fight for power among the tribal elites saw the basic issues of the region remain unaddressed year after year (Hussain, 2003; Lacina, 2009). Insurgent groups began to get involved in criminal activities like drug trafficking, kidnapping and mass scale extortion (Hazarika, 1995). While issues such low economic growth, high public debt, educated unemployment and unstable governments plagued these states, manufacturing and services sector remained miniscule. Private investment, the little that came in, was inadequate. The lack of private investors can be largely attributed to the concerns of extortion and insecurity, and lack of basic infrastructure. (Planning Commission Report, 1981). The region saw a reduction in industrial growth over the years due to persistent armed conflicts (Das et al., 2015). Further, years of insurgency in the region contributed to the degradation of an already weak infrastructure as railway tracks and highways were often blown up, and vehicles and trains carrying goods were attacked by insurgents. Extortion from owners of tea gardens and blowing up of oil pipelines by

insurgents also appear to have contributed to economic problems in the region. Such issues gave rise to social tension and demotivated investors and industrialists from setting up of new businesses and industries, resulting in low levels of economic development in the region (Bhattacharjee & Nayak, 2013). Further, most development activities, such as, building of roads, bridges and other infrastructure carried out by the Indian government in the region were, for years, largely with an aim to boost the strategic security situation. This further contributed to the unplanned infrastructure the region has witnessed and created resentment among the local people against the policies of the Indian nation state (Das, 2002). Central government grants and transfers, provided in huge volumes, did not yield the desired results, because of corruption and malfunctioning or lack of proper implementing institutions. Amid the political and economic turmoil, ethnic violence and separatist insurgency movements continued to take more lives in the region.

Given this background, this article makes an attempt to identify the economic determinants of ethnic conflict in the North East Indian states. The study is limited to seven state, viz., Arunachal Pradesh, Assam, Meghalaya, Mizoram, Manipur, Nagaland and Tripura. Sikkim is excluded from the analysis as it can be considered as an outlier, largely because it is a relatively peaceful state and has not witnessed any insurgent activity until date. It attempts to probe into the determinants of macro socio-economic and political causes of violent conflict in general through Econometric analysis. This paper attempts to trace the causes of intra state wars using macroeconomic, public finance, political indices and socioeconomic dependent variables. The study considers socio-economic data for the period of 1990 to 2016 for the econometric analysis.

The following section provides a brief timeline of events that led to the inception of violent conflict in the North East Indian states under consideration. Section 3 lays out a brief survey of existing literature on the determinants of violent conflict in general. In Section 4, we discuss the methodology adopted for the econometric analysis. The last two sections detail the empirical results and broad conclusions derived from the analysis.

2. The Inception of Violent Movements across North East Indian States: a timeline

Just around the time, India gained independence from the British, armed communist rebellions in Tripura and Naga secession movement in Naga Hills of Assam marked the start of the violent conflicts in the late 1940s and early '50s. A decade later separatist groups began to engage in violent conflict in Mizo hills of Assam and in Tripura. The decade of 1960 also so Manipur burning and many lives were lost across the North East Indian region. Many of these insurgencies and ethnic clashes continue to take lives to this day. We present below the specific events that led to the inception and expansion of insurgency and ethnic conflict in the states under study.

a) The Naga Rebellion

While the British entered Assam in 1826, the Naga Hills of undivided Assam became part of British India in 1881. The Nagas were fierce fighters who preferred self-rule and the British faced some of the toughest resistance from the Nagas during their rule. The Naga hills were classified as lightly administered or "excluded areas" by the British administration and there was very little interaction with the Indian mainland. (Hazarika, 1995)

A day before Indian independence, the Naga National Council (NNC), led by Angami Zapu Phizo, declared Nagaland an independent state on August 14, 1947. The NNC aimed at establishing *a sovereign Naga state.* Initially, they had tried to negotiate with the Indian government about their demands of self-rule. However, understanding that the Indian government would not be ready to meet their demands, the NNC created the Naga Army to wage a guerrilla war against the Indian administration. For almost 15 years, they continued to participate in violent conflict until they faced splits and surrenders, and were forced to sign the Shillong Accord in 1975. Though Nagaland was carved out of Assam as a separate state in 1962, NNC continued its armed struggle towards independence from the Indian nation-state till 1975.

The National Socialist Council of Nagaland (NSCN) was formed in 1980 and it continued its armed rebellion for the next three decades with an aim to establish a sovereign state of *Nagalim* or greater Nagaland.

b) Famine in the Mizo Hills

A famine caused by rat infestation during a bamboo flowering season (*Mautam*) in Mizo Hills of Assam in the early 1960s planted the seeds for an armed Mizo rebellion against the Indian state. Thousands of Mizos joined the Mizo National Famine Front (MNFF) to aid the sufferers during the famine that caused mass hunger and starvation. The Assam administration completely failed to control the situation and ignored the warnings of Mizo leaders.

Given the sloppy response from the Indian and Assamese administration and the lack of adequate relief assistance, under the leadership of Laldenga, the MNFF became a platform for rebellion against the Indian state, and the insurgent group Mizo National Front (MNF) emerged out of it. The Mizo National Front recruited a large number of youths and trained them. In 1966, through "Operation Jericho", they seized nine towns in the Mizo Hills and captured significant institutions including the government treasury in Aizawl and army bases in Champhai and Lunglei districts. The Indian army had to fight for several months to regain full control over the Mizo hills. The central government led by Indira Gandhi was taken aback and New Delhi responded by bombing Aizawl with incendiary bombs. This incident weakened MNF. Subsequently, the MNF signed a peace accord with India in 1986. Mizoram was carved out of Assam in 1987. MNF is now a democratic regional party in Mizoram.

c) The Lost Population of Tripura

The kingdom of Tripura merged with the Indian state in 1949. The region saw armed communist rebellions involving the indigenous tribes in the late 1940s and early '50s which faded over the subsequent years. However, resentment among the indigenous tribes of Tripura over the continuous influx of Bengali refugees from East Pakistan and later Bangladesh (after 1971) remained. The migration and resettlements of the Bengalis reduced the indigenous population to a minority in their own state during the next few decades. This set the stage for armed rebellion and insurgency in the state. In 1967 a group of Reang youths came together to

create an insurgent outfit called Tripura Tribal Sengkrak Force. They established links with Mizo National Front to start an insurgency, but it faded with the creation of Bangladesh. The loss of Pakistan's grip over East Pakistan (Bangladesh) in the 1971 war may have played a role. (Hazarika, 1995; Bhaumik, 2007)

Though Tripura became a full-fledged state from a union territory in 1972, A new separatist group called Tribal National Volunteers (TNV) was formed in 1978 which engaged in violent attacks on the Bengalis and the security forces. It operated for the next 10 years before it signed an accord with Tripura state and the Indian government in 1988. After that, two new groups All Tripura Tiger Force (ATTF) and National Liberation Front of Tripura (NLFT) were formed in the 1990s to continue armed insurgency against the Bengalis and other mainland settlers in Tripura.

d) When Imphal Burned

The British annexed the kingdom of Manipur following a brief Anglo Manipur war of 1891. It was a princely state under British rule. Manipur became a part of the Indian union on 15th October 1949 following an infamous treaty, that the then king of Manipur was forced to sign by Indian authorities (T Haokip, 2012).

The forceful merger of the princely state with the Indian union had left deep scars among the Meiteis. The insurgency in Manipur broke out around mid-1960 when angry Meitei youth, dissatisfied by central and state governments' apathy, formed United National Liberation Front (UNLF) in 1964 with an aim to form a sovereign Manipur state Kangeleipak (ancient name of Manipur). During the latter half of the 1970s, other insurgent groups like People's Liberation Army (PLA), People's Revolutionary Party of Kangleipak (PREPAK,) and Kangleipak Communist Party (KCP) were formed. They started raging violent resistance against the Indian Nation state. Manipur was granted a full-fledged state status in 1972. However, the cycle of violence continued.

Around the same time, National Socialist Council of Nagaland (NSCN) in the neighbouring state of Nagaland was gaining grounds. They started operating in Manipur, as their demands

for the sovereign homeland *Nagalim* conflicted with that of the insurgent groups like UNLF and other Meitei outfits seeking a sovereign Kangeleipak. NSCN's plan included several parts of hilly districts in Manipur. This gave rise to increased instances of violence in the region among both these groups, and the Indian army.

The government responded by imposing the Armed Forces (Special Powers) Act, 1958 or the AFSPA on the state in the year 1980, which continues to be in place today.

Other insurgent groups in Manipur include those representing the Kukis, and Zomis (or Paites). Like in the other North East Indian states, the Indian intelligence and the army worked with these smaller groups to create splits within the formidable groups like UNLP and PLA. New groups like Kanglei Yawol Kanna Lup (KYKL) were formed in the 1990s through the merger of factions from KCP, UNLP and PRERAK. Though many of them are still operational, most of these insurgent outfits' positions have been considerably weakened with the loss of troops, splits and surrenders over the years.

e) Death comes to Assam Valley

Since the independence of India from the British, Assam saw consistent violence between different communities. The *Bongal Kheda* campaign (Hindu and Muslim Bengalis out) in undivided Assam during the 1960s and the subsequent peak of Assamese nationalism in 1980s set the plot for armed conflict in areas that now belong to the present day state of divided Assam. Assam witnessed mass agitations against legal and illegal migrants from East Pakistan since the independence of India and later, from Bangladesh after the creation of the country in 1971. The xenophobia slowly degenerated into ethnic riots against Muslims of Bengali origin. The worst reported was when more than 2000 Bengali Muslims were killed in Nellie and Chaulkhowa Chapori in 1983. All Assam Students Union (AASU) and few other Assamese radical groups led the Assam agitation (1979-1985). In 1985, after six years of turmoil and chaos, the AASU signed an agreement (Assam Accord) with the Indian government in 1985.

The United Liberation Front of Assam (ULFA), founded in 1979, believed that the fight for a sovereign Assam needed to be much more violent. They were unhappy with the terms of the

Assam Accord and were not in alignment with the methods adopted by the mainstream leaders of the Assam Movement. Soon, ULFA became one of the most feared militant insurgent groups that North East India had ever known. They had become so powerful during the late 1980s that they were running parallel governments in Assam and had gained much support from the rural population in various parts of Assam (Hazarika, 1995).

Military operations by the Indian Army against ULFA started in the 1990s and are continuing until date. The Indian Army launched counter-insurgency operations (BAJRANG and RHINO) in the 1990s. ULFA since have been considerably weakened with the loss of fighters and leaders and surrenders over the years. ULFA was unwilling to sign an agreement with New Delhi unlike its counterpart insurgent groups from other North East Indian states. However, Arabinda Rajkhowa faction of ULFA signed a 'Suspension of Operation' agreement with New Delhi eventually in 2011. ULFA-Independent, the Paresh Baruah faction split from ULFA in 2011 and continues to operate to this day.

In Bodoland areas of the state, the All Bodo Students Union (ABSU) was active during the 1980s. Under the leadership of Upendra Brahma, ABSU became one of the strongest voices for the Bodos. But since his death, much more violent groups like the Bodo Liberation Tigers Force (BLTF) and the National Democratic Front of Bodoland (NDFB) began to operate in the 1990s.

Assam continues to host the highest number of ethnolinguistic communities in the northeast even after three states were carved out of it. However, since the partition of India, the Assamese ruling class also attempted to impose the Assamese culture over other ethnicities living in Assam and to co-opt smaller tribes. This, coupled up with a complete failure of administration fuelled armed revolutions in the hills of Assam which today are known as Nagaland, Mizoram and Meghalaya. In Lower Assam, the state government's decision to impose Assamese language as the official language was vehemently opposed by the Bengalis from Barak valley through mass agitations that saw 11 people shot by the state police on 19 May 1961. In Dima Hasao and Bodoland areas too, tribes who had supported the Assamese during the Assam movement felt betrayed as the Assam Accord 1985 was concerned only with the 'Assamese' and did not provide the others with any rights to protect their rights and identity. (Hazarika, 1995) The emergence of right-wing politics since the 1990s in Assam and across North East India further complicated matters in the region. Hindu Assamese and Hindu

Bengalis in the state are seen as right-wing vote banks, which have led to deepening of polarisation along religious lines against the Muslims in the state. The recent controversy surrounding the National Register of Citizens is a consequence of the chain of events that shaped Assam since the partition of India. The situation in the state remains precarious even today with the highest number of incidence of conflicts and the highest number of deaths occurring in the state.

f) Clouds over Meghalaya and Arunachal

Meghalaya and Arunachal were both used as satellite bases or often, as preferred routes by insurgent outfits like ULFA and NSCN to reach their international bases in Bangladesh and Myanmar.

Like in Assam, the insurgency in Meghalaya also started as a movement against the *dkhars* (outsiders). The Hynniewtrep Achik Liberation Council (HALC) was formed in the early 1990s to protect the rights of the main three indigenous groups, the Khasis, Jaintias and the Garos. A split in the HALC in 1992 led to the formation of the Hynniewtrep National Liberation Council (HNLC), which aimed at protecting the rights of Khasis and Jaintias. The Garos separated and created their own insurgent group Achik National Volunteers Council (ANVC). Counterinsurgency operation weakened both these groups over time. Meghalaya also saw episodes of cruel ethnic cleansing of non-Khasi and non-Jaintia population in the state fueled and led by groups like Khasi Students Union (KSU) and HNLC that took many lives. In recent times the most violent insurgent group that Meghalaya has seen is in Garo Hills. Garo National Liberation Army (GNLA) was formed in 2009. The outfit operated for a few years until its position weakened due to the death of their leaders and mass surrenders.

Arunachal Pradesh also saw some indigenous ethnic movements for a brief period during the early 2000s. The insurgent outfit Arunachal Dragon Force (ADF) aimed at protecting the rights of the Tai-Khamtis and has had close links with two of the major factions of NSCN. Besides, both ULFA and NSCN have hideouts and basecamps in Arunachal Pradesh.

Meghalaya became a separate state in 1972, while Arunachal Pradesh became a full-fledged state from a union territory in 1987. While the degree of insurgency in these two states was less as compared to the rest of the states in the region, for our current study it is important to

consider them as several encounters against insurgent outfits like ULFA and NSCN were also conducted in these two states. In addition, Meghalaya has seen numerous episodes of mass riots and ethnic cleansing against Nepalis, Marwaris and Bengalis for at least the last five decades.

The historical background gives us an understanding that the reasons for the outbreak of a conflict may be contextual and may vary from state to state, depending on various causes and situations. However, is there a way to generalise and see what major factors may explain these sort of violent conflicts among the various ethnicities in India's northeast? In the following section, we look at the literature to study the main drivers that may *cause* violent ethnic conflict.

3. Violent Conflict and its Determinants: a survey of the literature

Violent conflict is a multi-causal and multi-dimensional concept and can result from a mix of several factors. Various types of conflicts have broken out within and between nation-states for centuries, and before that, among and within monarchies. Over the last 70 years or so, however, intrastate wars have increasingly become a common phenomenon across the world. While there have been just 22 interstate conflicts around the world since the late 1940s, the same period has witnessed 240 intrastate conflicts with more than 25 battle-related deaths per year (Lacin and Gleditsch 2005; Ray and Esteban, 2017). Since the Second World War, there has been a steady rise in the incidence of intrastate conflicts around the world and the deaths caused by these conflicts. From the 1960s, almost one-third of the nations around the world have experienced intrastate conflicts with more than 1,000 battle deaths in a year (Blattman and Miguel, 2010). Broadly classified, the typology of intrastate conflict may include genocides, revolutions or rebellions against the state, civil wars and secessionist wars, among others (Besançon, 2005). The number of countries caught up with intrastate conflicts saw a steady rise until the mid-1990s and since, has seen a marginal decline. The number of new civil or intrastate wars too has declined during this period (Hegre, 2004). The total number of intrastate conflict since the late 1940s is more than 10 times the number of interstate conflicts and have killed up to 5 to 10 million people (Ray and Esteban, 2017; Gleditsch et al., 2002). To add to this number, there are non-combatant civilian deaths, indirect deaths due to hunger,

illness, and malnutrition caused by war, and deaths that were caused by forced displacement due to the occurrence of these civil wars and lack of proper rehabilitation for the refugees.

Markusen and Kopf (1995); Chesterman (2001); Fearon and Laitin (2003); Gurr (1993, 2000); Harff (2003) among others have also noted that ethnic conflicts and other intrastate wars have become more common and have taken more lives as compared to full-fledged interstate wars in the last 70 years or so. This fact highlights the grievousness of the issue surrounding civil or intrastate wars and demands attention to look more closely at the causes of these types of conflicts that are particularly intrastate in nature.

It is usually believed that economies that have seen past wars, as well as continued low levels of income and human development, those with large populations and have 'capturable natural resources' are prone to violent conflict. (Collier & Hoeffler 1998, Fearon & Laitin 2003a, Hoeffler A., 2012). However, Ray and Esteban (2017) argue that whether the probability of an outbreak of conflicts is negatively related to economic growth depends on the type of growth an economy experiences and how uneven the growth is. Uneven growth can cause two types of changes in economies- firstly, where the incidence of conflict increases because of the very nature of the growth; and secondly, if economic growth raises the opportunity cost of engaging in conflict, thereby reducing its incidence. For example, Tadjoeddin and Murshed (2007) through their analysis found that there exists an inverted U shaped relationship between violence and levels of education and income of a country. When income and educational levels are in transition from low to high, a country is more likely to face the risk of intrastate violence.

Another strand of literature dealing with ethnic conflicts looks at the spatial spread of violence. Lake and Rothchild (1998), for example, focus on the process that leads to the spread of ethnic violence in a region. They introduce the two concepts of diffusion and escalation. According to Lake and Rothchild, (1998) *diffusion* refers to the process of how the conflict in one region may increase the likelihood of conflict in another region. *Escalation* one the other hand means spread of conflict through new actors. Similar ideas could be found in Fearon's (1998) concepts of *chain reactions* and *demonstration effects*. Fearon's idea of *chain reactions* is one in which 'ethnic wars cause refugees, who de-stabilize a new place, causing more war and more refugees and so on.' *Demonstration*, which is closely related to the idea of

diffusion, means that people 'in region A may simply observe increased conflict in region B' thus, giving rise to a high risk of ethnic violence in region A.

3.1 Conflicts and Democratisation

Mansfield and Snyder (2007) through their empirical analysis find that matured democracies are less war-prone as compared to the countries that are in transition towards democracy. Havard Hegre et al. (2001) confirm Mansfield and Snyder's findings through their study to conclude that there exists an inverted U shaped relationship between the extent of democracy and probability of civil war in a country. According to Hegre (2001), while mature democracies may be able to contain intrastate tensions between communities democratically through inclusion; autocracies, on the other hand, do so by repressing dissent and settling conflicts through force and violence. Regimes that are in between a matured democracy and an absolute autocracy are more likely to face civil wars as compared to those that may be classified to lie in the extremes of the spectrum on either side. Lars-Erik Cederman et al. (2010) too, find a similar curvilinear relationship like that of Hegre (2001) between civil wars, and autocratisation to democratisation axis, but conclude that the effects of democratisation on civil wars are swifter compared to the time required for the mobilisation process for violence under democratisation.

Narang and Nelson (2009), however, oppose these views to conclude that empirical data does not support the finding that younger democracies or *'incomplete democratizers'* with weak institutions are likely to initiate or participate in an interstate war. They, however, note that incomplete democratisation may increase the risk of intrastate or civil wars, but are sceptical that the same extends to interstate wars.

It is important to note here that sociologist Micheal Mann in his book 'The Dark Side of Democracy: Explaining Ethnic Cleansing' posit s "*...democracy has always carried with it the possibility that the majority might tyrannize minorities, and this possibility carries more ominous consequences in certain types of multi-ethnic environments*." Ethnic majorities are likely to benefit from democracy, thus creating room for ethnic sub-nationalism, as majorities decide the rulers under this form of government. Ethnonationalism can often turn exclusionist and encourage episodes of *'murderous ethnic cleansing*' by the dominant *ethnos* (ethnic

group). Though Mann (2005) agrees with Mansfield and Snyder (2007) that regimes that have newly embraced democracy are more likely to experience ethnic cleansing, he points out that regimes that experience frequent mass cleansing of minorities are never actually 'democratic'. To sum up Mann's arguments, the likelihood of ethnic conflicts is expected to be higher in a country that is under the process of democratisation or under democracy.

Political scientists Berman (2007) and Carothers (2007) acknowledge the conclusions of Mansfield and Snyder (2007) that countries in transition from dictatorship toward electoral politics are prone to conflicts, they are, however, doubtful about the *sequence* Mansfield and Snyder suggest which entails: building effective state institutions first and then holding free elections to reduce the risk of violence during a democratic transition[4].

3.2 Greed versus Grievance

The major discourse that has traditionally surrounded the conflict literature is the notions related to *greed* as opposed to the notions related to *grievance*. Paul Collier and Anke Hoeffler (2000, 2004) suggest that while political science usually explains conflict in terms of motive, that is, *"the circumstances in which people want to rebel are viewed as sufficiently rare to constitute explanation"*; their econometric model, on the other hand, explains conflicts through the *opportunity* to generate profit out of the very chaos and loot. In their analysis, *greed* is proxied by the availability of what the authors term as 'capturable natural resources'. Berdal and Keen (1997) too, through their analyses of conflicts in several African, Asian and Central American countries find that while the onset of conflicts may be due to political or social motives, the prolonged nature of these conflicts may be due to an economic motivation, which is that— rational economic agents gain by participating in a war that otherwise seems rationally illogical. These studies conclude that *'greed'* or '(economic) opportunity' is likely to motivate a group to initiate and continue to engage in a conflict, comparatively more than socio-political *'grievance'*.

Murshed and Tadjoeddin (2009) contradict this view by stating that neither the presence of *greed* nor *grievance* is sufficient for the outbreak of violent conflict. They point out that these empirical studies are not substantiated with an economic argument that is based on

[4] See "The Debate on *Sequencing"* (2007) by Francis Fukuyama, Thomas Carothers, Edward D. Mansfield, Jack Snyder and Sheri Berman for a detailed debate on the issue.

'optimising behaviour' of the participating economic agents, which may have explained why greed may cause conflict. If economic agents are indeed only motivated by self-interest, Collier and Hoeffler's study does not offer clear arguments as to why war would be chosen by the rational agents over other alternatives. Murshed and Tadjoeddin (2009) conclude that the outbreak of violent conflict requires institutional breakdown and more importantly, *failure of the social contract* between groups. Noteworthy, Edgeworth (1881) too had noted that armed conflict implies an absence of contracts.

Cramer and Hanlon (2006) also criticise this dichotomous nature of the neoclassical debate surrounding conflict between *greed* and *grievance* and question its usefulness. They conclude that it is difficult to separate the two sometimes and that; there are other factors that may cause a conflict, which may not necessarily be categorised within these two classifications.

Fearon and Laitin (2003) find that ethnic or religious diversity does not contribute to the risk of civil war as much as 'diminished state capacity' and poverty does. Many studies like Chandhoke (2005) et al. find violent conflict is a cause of failure of state and political institutions. These studies that look at greed as the cause of conflict when put together tell us that civil wars and ethnic conflicts are likely to occur in poverty-stricken, failed states run by corrupt and inept regimes. However, to draw such an observation may be a bit too simplistic, Murshed and Tadjoeddin, (2009) caution.

Although Collier and Hoeffler (2004) find that the vertical inequality among the homogenous population does not increase the risk of conflict significantly, they ignore the role that inter-group inequality and deprivation may play in fuelling conflicts. Besides, the specific use of 'share of primary commodity exports to GDP' as a measure of dependence on natural resources, to analyse if natural resource abundance increases the risk of civil war too, is questionable. Murshed and Tadjoeddin, (2009) propose alternative variables like 'resource rents', ' diamonds and oil production and their exports' along with dummies for conflicts in which rebel groups derive funds from illicit drugs, as better proxies to capture natural resource dependence, and those that contribute in financing a greed-based conflict.

3.2 Relative Deprivation

On the other side of this neoclassical *greed* versus *grievance* debate, are authors like Gurr (1970) who argue that *relative deprivation* of identities can generate grievances that may fuel intrastate violence through what Olson (1965) terms 'solving the collective action problem'. Olson (1965) in his book, 'The Logic of Collective Action" stresses the 'collective action problem', which refers to the difficulty in organising a large group of people to undertake collective action. However, 'ethnic identity' based on race or language can play a crucial role in creating a group identity, and thus, can motivate a group to undertake organised large-scale violence. While frustration may not always lead to violent conflict, it may, when increased expectations for better social or economic conditions are continuously unfulfilled, that is, when a socio-political *grievance* is felt strongly and in a sustained manner over a long period of time (Gurr, 1970). In that context, inter-ethnic *grievances* among groups can be comparable to what Stewart (2000) terms *'horizontal inequality'*. Horizontal inequality may result from discrimination through discriminatory public spending and tax policies, high asset inequality, economic mismanagement and grievances related to resource rents.

Along with horizontal inequality, polarisation and relative deprivation are the other two related concepts that may be associated with the idea of *grievance.* Polarisation is a social phenomenon that a society experiences when two groups exhibit great inter-group heterogeneity combined with intra-group homogeneity (Esteban and Ray, 1994). Gurr (1970) defines relative deprivation as the discrepancy between what people perceive they deserve and what they actually believe that they can get at best. This gap between aspirations and achievements creates room for a feeling of deprivation among non-dominant ethnic groups who are being discriminated against, thus, increasing the probability of an outbreak of a conflict.

Economic, political, cultural, gender and justice related horizontal inequalities could elevate group grievances and increase the probability of violent conflict (Brinkman, Attree, & Hezir, 2013). These inequalities along with political exclusion and discrimination can create a strong sense of collective injustice among groups (Cederman, Gleditsch & Buhaug, 2013). Kanbur (2007) looks at how poverty and inequality causally interact with conflict and concludes that conflicts may arise when unequal outcomes of economic progress align with socio-political cleavages. Justino P (2009) looks at the direct and indirect effects of conflicts on household

welfare and shows that the indirect effects of such conflicts are channelled through markets, political institutions and social networks. Cocodia (2008) adds that inequity, discriminatory justice, poor literacy levels are key factors, which determine the likelihood of ethnic conflict in some of the African countries facing violent conflict. Goodhand (2001) cautions against treating chronic poverty, politics and violent conflict as separate spheres and argues that they need to be studied using each other. Sen (2008) too cautions that explaining violence through social or economic inequality or deprivation or in terms of identity and cultural factors in isolation with each other may lead us to erroneous results. The coupling of cultural identities along with poverty and deprivation increases the impact of inequality thus creating a higher risk of conflict.

3.2 Empirical Models of Conflict

While empirical models of conflict have become much popular in recent economic literature, very few econometric studies have been undertaken on India so far. Sub-national studies on India hitherto include Urdal, 2008 & 2007; Vadlamannati, 2011; De Soysa & Vadlamannati, 2011; Gomes, 2015; Remoe, 2010; Ghatak & Eynde, 2017. Although these studies analyse the causes of conflicts in India, to the best of our knowledge only *one* econometric study (Vadlamannati, 2011) paid attention to the North Eastern region of India. Given the *extent* of violence the region has seen over the past seven decades or more, and the *nature* of conflict in this region which is very different from the kind of conflict that the rest of the regions in India are facing today, studies that look at the causes of secessionist conflict, insurgencies and ethnic conflict in North East India, is of utmost importance. The present study attempts to fill these gaps by combining econometric estimation with an extensive review of North East India's political economy, and existing insurgencies, secessionist movements and ethnic violence from a local context.

A survey of various econometric techniques that have been used to model ethnic conflict tell us both Logistic and Probit regression models have been commonly used by authors to study the determinants of conflict. Some authors have also used Seemingly Unrelated, Tobit and Binomial regression. Many of them have used pooled probit models to study the determinants of conflict. Often, authors have followed the initial binary dependent variable models with a

system GMM analysis to check for robustness of the results and to address endogeneity related concerns that may arise in conflict models. (Arellano & Bond, 1991).

The extensive survey of literature from various disciplines in this section helps us to identify appropriate variables that are relevant in determining causes of conflict in the North Eastern region in India. The detailed methodology adopted for this study is discussed in the next section.

4. Modeling Ethnic Conflict in North East India

The study attempts to model ethnic and insurgent conflict through a pooled Probit approach under the panel data framework using data pertaining to seven North East Indian states viz. Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland and Tripura for a span of over 27 years (1990 to 2016). Further, we test the robustness of our results and address endogeneity related concerns through a system Generalised method of moments (GMM) exercise. The study considers socio-economic data for the period of 1990 to 2016 for the econometric analysis.

The choice of the specific binary dependent variable model was made after trying out various other binary dependent models, as pooled Probit estimates enable us with greater room for generalisation. Further, fixed effects could not be used, as some of the variables like Total number of languages spoken, Economic and Political discrimination index etc. remain constant over time and thus, may cause collinearity with time and render biased results (Beck, 2001). Appropriate tests of diagnostics to check for Multicollinearity, Heteroscedasticity and Autocorrelation were carried out followed by a system GMM exercise to validate the robustness of our results.

4.1 Empirical Model

We estimate the relationship using the following specification for 6 different models:

$$\boldsymbol{Y_{it} = \alpha + \beta_1(Y_{it-1}) + \beta_2\,(E_{it}) + \beta_3(P_{it}) + \beta_4 D_{it} + \omega_{it}}$$

Where,

Y_{it} =*Occurrence or incidence of conflict at time t*

Y_{it-1} =*Occurrence or incidence of conflict at time t-1*

E_{it} = *Economic Variables at time t*

P_{it}= *Socio-Political variables at time t*

D_{it}= *Dummies*

ω_{it}= *Error term*

4.2 Dependent and independent variables

a) Dependent variable (Y_{it})

Occurrence or incidence of conflict (binary): Codes 1 for a year if there is a conflict in which casualties are 25 and above and 0 otherwise. These are typically classified in the UCDP/PRIO database (Gleditsch et al. 2002) as low-intensity armed conflict (includes riots and ethnic clashes). Horowitz's (1985) definition of ethnic conflict as *"a struggle in which the aim is to gain objectives and simultaneously to neutralize, injure, or eliminate rivals."* provides us with ample justification behind why the ethnic violence is often measured by the number of casualties in such conflicts.

b) Independent variables:

i) Lagged dependent variable (Y_{it-1})

A lagged dependent variable is included in the model. There are two reasons for this inclusion. First, to control for autocorrelation, and omitted variables (Beck and Katz, 1995 and Neumayer, 2005). Second, a theoretical reason based on the idea '*violence begets violence'*, according to which previous episodes of conflict in a state tends to affect the conflicts in the next year (Kaufmann, 1996; Collier and Hoeffler, 1998; Fearon and Laitin, 2003). This is expected to be positively associated with the dependent variable.

ii) Independent Economic Variables (E_{it})

The size of the economy as measured by *Net State Domestic Product (log)* and growth as measured by per capita NSDP growth is expected to be negatively associated with the likelihood of incidence of conflict. However, in a region like North East India, where growth faces many developmental/ sustainability constraints, economic growth may also be observed to be positively associated with the likelihood of the occurrence of conflict in some cases. *Fiscal deficit to GSDP ratio* and *Debt to GSDP ratio* are good indicators of a state's fiscal health. These variables are introduced to check whether a state's fiscal behaviour is associated with conflict. *Social Allocation Ratio (*which is defined as *State social expenditure/Total expenditure*) of a state is also a good indicator of a state's ability to create public goods. Public Expenditures on health, education and other social expenditures are expected to be negatively associated with the likelihood of the occurrence of a conflict. Percentage forest cover is another indicator often used in conflict models related and is relevant for the North East Indian region as the nature of conflicts here are often resource-based. It is expected to be negatively related to the occurrence of conflict. *Population Density* is an indicator of population pressure on land. It is expected to be positively associated with the likelihood of the occurrence of a conflict. Most conflict literature has flagged poverty to be an important determinant of the likelihood of conflict. The variables *poverty rate* and the *Relative Poverty* rates are expected to be positively associated with the probability of conflict.

iii) Independent Socio-Political Variables (P_{it})

The literature on conflict is replete with instances where *police force to people* ratio is used as an independent variable in conflict models. Though usually it may be seen to be negatively related to the probability of occurrence of a conflict, it may even be positively related to conflict if over-policing increases the probability of violent conflict in a state.

In order to check for the *grievance* related causes of ethnic conflict, as suggested by Ted Gurr, (1993), we use Economic Discrimination and Political Discrimination indices from the Minorities at Risk dataset (Minorities at Risk Project, 2009)[5]. *Economic Discrimination and Political Discrimination* indices are essentially macro codings related to the role of public policy and social practice in maintaining or redressing economic and political inequalities of minority groups. Indices are coded on a scale of 0 to 4 in which, the highest value represents

[5] Minorities at Risk Project. (2009) "Minorities at Risk Dataset." College Park, MD: Center for International Development and Conflict Management. Retrieved from http://www.mar.umd.edu/

the highest discrimination. These indices are expected to be positively associated with the incidence of conflict in a state. Following Vadlamannati (2011), we take the average of these scores for ethnicities belonging to each state considered in our study. However, we deviate from Vadlamannati (2011) to use the average scores of only the *non-dominant* ethnic groups in each state to be able to capture the intrastate discrimination to some level. We do this because from our survey of literature it is evident that ethnic conflicts in North East India have predominantly resulted from resource-based or grievance-based antagonisms between the dominant and minority ethnic groups. This is also done because the *Minorities at Risk indices* measure minority risks from each ethnic group's perspective relative to the country and gives each of them a risk score, for example, the risk score for Assamese is essentially the minority risk the Assamese face relative to India. However, in Assam, the Assamese are the most dominant group. Therefore, we do not include them in the political and economic discrimination score for Assam. Rather we take all the other minorities in Assam, such as the Scheduled Castes (SCs), Scheduled Tribes (ST), Muslims and Bodos to arrive at the economic and political discrimination score for the state of Assam. Likewise, the same process is followed for all other states considered under our study.

We use the variable *Total number of languages spoken* in a state to capture the ethnolinguistic diversity within the states, as most of the groups who engage in conflicts with one another in North East India are ethnolinguistic in nature and have at least one or more insurgent groups representing them.[6] Using the database of languages, *Ethnologue* (Simons, Gary F. and Charles D. Fennig eds., 2018)[7], the exhaustive data related to the number of languages spoken (including both scheduled and non-scheduled languages) in each of the North East Indian states under study was constructed.

Further, we also use a variable that captures *distance from the respective state capitals to Delhi* to capture their physical distance from the mainland and to check if it contributes to the increase in the probability of conflict in these states (Vadlamannati, 2011). It is expected to be positively related to the probability of conflict.

[6] See Brahmachari, Deborshi, 2019. *Ethnicity and Violent Conflicts: Trends in Ethnic and Insurgent Violence in North East India.* Strategic Analysis.43(4) DOI: 10.1080/09700161.2019.1623497

[7] Simons, Gary F. and Charles D. Fennig (eds.) 2018. Ethnologue: Languages of the World, Twenty-first edition. Dallas, Texas: SIL International. Online version: http://www.ethnologue.com.

Dummy variables (D_{it})

Neighbours' conflicts: codes 1 for a year if there is a conflict in a neighbouring state in which casualties are 25 and above and 0 otherwise (UCDP/PRIO database, Gleditsch et al. 2002). Since almost all the states in the region share are at least more than one state's border, negative externalities of conflict in a neighbouring state may affect the other states (Fearon, 1998). This variable is expected to be positively associated with incidences of conflict.

A dummy for states with areas under the 6th schedule of Indian constitution[8] is used in some of the specifications. The 6th schedule of the Indian constitution provides special provisions for the indigenous population of the North East Region in respect of land rights, self-governance among other things to safeguard their identity and rights. A dummy with a score of 1 for states under 6th schedule and 0 otherwise is expected to be *negatively* related to the conflict.

A dummy for states with areas under the Armed Forces (Special Powers) Act, 1958 or the AFSPA is also used in some of our models. In states like Manipur where legislation like the Armed Forces (Special Powers) Act, 1958 or the AFSPA[9] has had an adverse effect, the variable may be positively related to the conflict. A dummy with a score of 1 for states under the AFSPA and 0 otherwise is expected to be *positively* related to the conflict.

4.3 Databases

The study is based on secondary data. The data related to variables *Occurrence or incidence of conflict* and *Neighbours' conflicts* has been taken from UCDP/PRIO Armed Conflict Dataset (Gleditsch et al. 2002). *Economic Discrimination and Political Discrimination indices* have been taken from Minorities at Risk database, University of Maryland. The data related to a *Number of Languages Spoken* has been taken from the database of languages, Ethnologue. The statistical software Stata (version 12) was used for empirical estimation.

5. Empirical Results

The economic, sociological and political factors that determine the probability of conflict in these seven states of North East India, for the period under study, are presented in Table 1.

[8] States with areas under the Sixth Schedule include Assam, Meghalaya, Mizoram and Tripura.
[9] States with areas under the Armed Forces Special Powers Act include Assam, Nagaland, Manipur, and parts of Arunachal Pradesh and Meghalaya. It was recently revoked from Meghalaya in April 2018.

The results from the pooled panel estimation show that the *previous level of conflict* in a state is positively related to the *probability of the incidence of conflict*. This confirms one of our previously discussed premises that conflict creates more conflict.

Net State Domestic Product is negatively related to the incidence of conflict. An increase in a state's income is likely to curb ethnic conflicts. This implies that the smaller the size of a state's economy, higher is the probability of conflict.

Pooled panel estimations also show that poverty rate is positively associated with incidence of conflict. Poorer North East Indian states are likely to face higher incidence of for conflict. Both higher levels of *Population* and population pressure on land (*Population Density) (used alternatively in different specifications*) may contribute to the higher probability of ethnic conflict in these states. These results testify that much of the roots of ethnic tensions in northeast India arise from resource-based conflict. (For example, the Bodo-Bengali Muslim violence, and other episodes of ethnic cleansing against the non-indigenous population in Tripura, Meghalaya, Mizoram and other parts of North East India are resource-based or anti-immigrant in nature.) The origins of these sort of ethnic conflicts- which are anti-immigrant and anti-outsiders in nature- lie in the resentment the indigenous ethnic groups face over land, natural resources, economic opportunities and political aspirations.

Further, in regions like North Cachar Hills (Dima Hasao), non-Meitei dominated districts of Manipur and around a few other parts of North East Indian region, numerous tribes co-exist. This often leads to ethnic battles among these many different kinds of ethnolinguistic tribes within a state or a region. This fact is captured in our results through the variable, *Number of Languages spoken in a state,* as these groups are mostly ethnolinguistic in nature. Results also show that the probability of ethnic conflict is higher for states (Like Assam and Manipur) where higher number of languages spoken is higher. Results also show that *Economic Discrimination* within the states towards smaller ethnic groups by the dominant group in the state is highly likely to trigger ethnic conflict in these states.

We also use a few public finance variables that are good indicators of a state's fiscal health and thus to some extent capture governance related achievements like *Debt-GSDP ratio.* Our results show higher previous levels of *Debt-GSDP*, which accounts for the low fiscal

responsibility of the state governments, and can also contribute to the higher probability of conflict.

A higher percentage of *the Total Geographical Area under Forest Cover* in these states reduces the probability of conflict. As mentioned before, the result portrays the very nature of violent conflict in North East India, which is *protectionist* (of natural resources and culture) in nature.

The occurrence of conflict in a neighbouring state can also increase the probability of a conflict in a state. A good example of this fact is the border areas between Assam and Arunachal Pradesh which were used by many of the insurgent groups like ULFA, NSCN among others, as their bases over the years. This result also throws light on the previously discussed issues of ethnic groups or their representative insurgent outfits who have been fighting against each other for years over *conflicting homeland demands*. Manipur and parts of Assam are closest examples of this, where NSCN from Nagaland has waged war against both the Meitei and Karbi outfits over their demands for *Greater Nagalim*.

A dummy for *states with areas under the Sixth Schedule* of the Indian constitution is inversely related to the probability of conflict. This may be interpreted as the Sixth Schedule of the Indian constitution provides special landowning and property rights to the indigenous groups in these areas and thus it may help reduce the probability of occurrence of conflict. However, given the failure of the Schedule to deliver in areas like Dima Hasao and Bodoland areas of Assam and hilly areas of Manipur (as learnt through our literature review), the negative sign gives us unclear results.

It is interesting to note that while the *Police to Population ratio* is negatively related to the probability of occurrence of conflict in northeast India, the dummy for *states with areas under* the Armed Forces (Special Powers) Act, 1958 or the AFSPA is positively related to conflict which means that the probability of occurrence of violent conflict is likely to be higher in states under the AFSPA.

It is also important to note here that the data shows, the size of the police force in some conflict-prone states, across these years, has remained much lower compared to the size of the police force that has been present in relatively peaceful North Eastern states. This gap can be

explained by the fact that in these conflict-prone North Eastern states, often times, a higher share of the army and Central Reserve Police Forces are deployed to maintain civil law and order, as well as, to carry out armed counterinsurgency measures. This may explain a positive sign for the *AFSPA dummy* and negative sign in case of the *Police Population ratio*.

To check robustness of our results and address issues surrounding the endogeneity in our models (if any); we further run these specifications using system GMM. The results of the system GMM are presented in Table 2. We find that many of our results from the pooled probit model hold while tested through system GMM. States that have experienced ethnic conflict previously and have lower levels of Net State domestic product, high population density, high levels of Debt to Gross State Domestic Product ratio, high number of ethnolinguistic groups in a state (languages spoken), depleting forest cover, high levels of Economic Discrimination, and states under the AFSPA are more likely to face ethnic conflict. It may be noted here that Poverty rate and Social allocation ratio were not significant when tested through the GMM (Table 2), though they were significant in pooled panel results (Table 1).

Granger causality[10] test results indicate that Net State Domestic Product has a causal relation with the incidence of conflict, but the occurrence of conflict does not cause an increase or decrease in the Net State Domestic Product, implying a unidirectional causality (See Table 3). Which may be interpreted as - low levels of Net State Domestic Product in a state may cause ethnic conflict.

6. Conclusion

Ethnic and ethnolinguistic conflicts and insurgencies are a complex phenomenon and explaining them comprehensively by pinpointing the exact determinants is rather challenging. Both qualitative and quantitative approaches are needed to understand the causes of ethnic conflicts and insurgencies, especially in the case of a diverse and complex region like the North East India. Some of the major conclusions from our study are mentioned below.

Many of the violent conflict in North East India started as *secession movements,* mainly because of the unwillingness among some sections of ethnic groups in North East to join the

[10] Granger causality for panel datasets as proposed by Dumitrescu and Hurlin (2012)

Indian union after the British departed India. Some states, like Manipur, were even forced to sign the treaty for a merger. Later, large-scale immigration of refugees from East Pakistan during the partition of India in 1947 and during the Bangladesh war of 1971 created high population pressure on land, scarcity of resources and economic opportunities, thus giving rise to different kinds of antagonisms, riots, ethnic cleansing and armed conflicts. These movements and violent conflicts expanded through insurgent outfits and became more violent with their increased troops, the supply of arms and finance from India's neighbours, and with the support of the local indigenous people in these states. However, many of these groups were forced to gradually tone down their demands of *separation* (through violent counterinsurgency measures from the Indian nation state) and adopt the idea of *autonomy*.

The nature of ethnic conflict across all the North East Indian states under study is often resource-based, and sometimes grievance-driven. Many other incidences of conflict, especially those among the indigenous ethnic groups and their representative insurgent outfits, were also stirred from conflicting geographical maps of their aspired sovereign homelands.

Occurrence of previous conflict in a state is positively related to the *probability of the incidence of conflict* confirming our premise that *conflict begets conflict.* The occurrence of conflict in a neighbouring state can also increase the probability of a conflict in a state. A good example of this fact is the border areas shared by Assam, Nagaland, Assam, and Arunachal Pradesh, which were used by many of the insurgent groups such as ULFA, NSCN among others, as their bases over the years. This result also puts light on the previously discussed issue of those ethnic groups or their representative insurgent outfits who have been fighting against each other for years over *conflicting homeland demands*. Manipur and parts of Assam are closest examples of this, where NSCN from Nagaland has raged war against both the Meitei outfits in Manipur and Dimasa outfits in Assam, over their conflicting demands for the sovereign *Nagalim*.

Net State Domestic Product is negatively related to the incidence of conflict. An increase in a state's scale of the economic activity is likely to curb ethnic conflicts. *Debt- GSDP ratio and Density of population* are positively related to the probability of occurrence of conflict. Higher *percentage area under forest cover* is negatively related to the incidence of conflict in the region, as the nature of violent conflict in North East India, is predominantly *protectionist* (of natural resources) in nature.

Diverse ethnolinguistic identities and higher levels of economic discrimination faced by smaller ethnicities from the dominant groups in a state can fuel violent conflict. The results show that the probability of ethnic conflict is higher for states (such as Assam and Manipur) where higher numbers of languages are spoken compared to the rest of the states in the region.

Police to Population ratio is negatively related to the probability of occurrence of conflict in North East India. However, the dummy for *states with areas under the AFSPA* (Armed Forces Special Powers Act) is positively related to the conflict which means that the probability of occurrence of violent conflict is likely to be high in states under AFSPA.

Granger causality test results indicate that Net State Domestic Product has a causal relation with the incidence of conflict, but the occurrence of conflict does not cause an increase or decrease in the Net State Domestic Product, implying a unidirectional causality. Which may be interpreted as low levels of Net State Domestic Product in a state may create a higher propensity if of ethnic conflict.

A mix of primordial and circumstantial, ethnic and institutional, greed and grievance-based reasons may be attributed to explain group formation, and ethnic and insurgent violence in the North East. However, the gains from such conflict are usually economic or political in nature.

While the above-mentioned factors are important determinants of violent ethnic conflict in North East India, there are many other historical, political and sociological issues that may also be the cause of ethnic conflicts that the region has seen over the years. Historically, colonial policies have significantly contributed to the cycle of resentment among groups that resulted in ethnic violence that this region has seen over the last seven decades. Migration from neighbouring East Pakistan (now Bangladesh) also contributed to the insider-outsider antagonism that persists in the region. Similarly, lack of political will, inability to fathom the complexity of the issues that surround the region, and complete apathy of the subsequent Central and State governments over these last 70 years have resulted in drafting faulty policies that could not address the problems which the region continues to face till date.

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8. Tables

Table 1: Pooled Panel Results

Variables	Incidence of Conflict (Model 1)	Incidence of Conflict (Model 2)	Incidence of Conflict (Model 3)	Incidence of Conflict (Model 4)	Incidence of Conflict (Model 5)	Incidence of Conflict (Model 6)
Lag Y(Previous conflict)	0.93*	0.89*				
NSDP (log)	-5.13***				-0.96	-2.44*
Per Capita NSDP growth		1.70		0.66		
Poverty Rate	0.03		0.05**	0.03*		0.04
Relative poverty Rate	-0.71		-1.12			-1.26
Number of workers (log)	1.29*					
Population Density (log)	5.65**				1.57***	
Debt- GSDP ratio (lag)	0.11**					0.03*
Social Allocation Ratio	0.17*		0.09*	0.11		0.05
Fiscal deficit to GSDP ratio			6.20			
Total number of languages spoken by inhabitants (log)	0.41***	6.96				15.07***
Percentage Forest Cover	-2.95*		-1.20	0.71	0.48	0.87
Neighbour's conflict	6.04***			0.53*	0.32	-0.21
Distance to Delhi (log)	-4.97*	-1.78				-11.3
Political discrimination index		-2.85				-0.78
Economic Discrimination index		4.16*		1.31*	-1.08	1.89
Population (log)			2.26***			7.91***
Police population ratio		-1.84**		-2.37***	-2.36***	-1.79*
Sixth Schedule State (Dummy)		4.16	-1.41*	-0.03	-2.80***	-15.3***
AFSPA (Dummy)		2.72**	1.06**	3.13***		1.58
Percentage Net Sown Area			26.9			
Constant	308***	-5.27	-20.37***	6.08	20.8***	119.40*
Number Of States	**7**	**7**	**7**	**7**	**7**	**7**
Pseudo R2	**0.64**	**0.54**	**0.52**	**0.49**	**0.51**	**0.58**
Number of Observations	**189**	**189**	**189**	**189**	**189**	**189**

Source: constructed

Notes: *10 % level of significance, **5 % level of significance and ***1 % level of significance.

Table 2: System GMM (Robust) Results

Variables	Incidence of Conflict (Model 1)	Incidence of Conflict (Model 2)	Incidence of Conflict (Model 3)	Incidence of Conflict (Model 4)	Incidence of Conflict (Model 5)	Incidence of Conflict (Model 6)
Lag Y(Previous conflict)	0.44***	0.30***	0.44***	0.36***	0.31*	0.27*
NSDP (log)	-.026**				-0.14*	-0.02*
Per Capita NSDP growth		0.50		0.43		
Poverty Rate	0.05		0.01	0.01		0.00
Relative poverty Rate	0.09		0.01			0.06
Number of workers (log)	0.02					
Population Density (log)	0.04**				0.21***	
Debt- GSDP ratio (lag)	0.09**					0.01**
Social Allocation Ratio	0.08		0.01	0.01		0.01
Fiscal deficit to GSDP ratio			-0.35			
Total number of languages spoken by inhabitants (log)	0.03*	0.32***				1.08***
Percentage Forest Cover	-0.07*		-0.02*	-0.06	-.06*	-0.06
Neighbour's conflict	0.29*			0.01	0.01	0.01
Distance to Capital (log)	0.07	0.47				0.07
Political discrimination index		0.75				0.37
Economic Discrimination index		0.82***		0.19***	0.14	0.15
Population (log)			0.10*			0.40
Police population ratio		-0.34***		-0.14**	-0.17***	-0.30*
Sixth Schedule State (Dummy)		-0.15**	-0.11	-0.01	-0.36**	-0.75*
AFSPA (Dummy)		0.48***	0.24**	0.31**		0.28*
Percentage Net Sown Area			-0.83			
Constant	1.31	-0.28	-1.57	0.48	2.46*	3.04
Number of instruments	110	102	107	102	119	119
Arellano-Bond test AR(2) {p-value}	0.17	0.18	0.05	0.04	0.10	0.14
Sargan test {p-value}	0.22	0.35	0.46	0.24	0.23	0.12
Hansen test {p-value}	1.00	1.00	1.00	1.00	1.00	1.00
Number Of States	7	7	7	7	7	7
Wald chi2	310.61***	457.71***	702.93***	322.92***	968.42***	76.42***
Number of Observations	170	170	170	170	170	170

Source: constructed

Notes: *10 % level of significance, **5 % level of significance and ***1 % level of significance.

Table 3: Granger Causality Results

```
. xtgcause Y  lnnsdp , lags(1)


Dumitrescu & Hurlin (2012) Granger non-causality test results:
------------------------------------------------------------
Lag order: 1
W-bar =          2.0721
Z-bar =          2.0058   (p-value = 0.0449)
Z-bar tilde =    1.5507   (p-value = 0.1210)
------------------------------------------------------------
H0: lnnsdp does not Granger-cause Y.
H1: lnnsdp does Granger-cause Y for at least one panelvar (state).
```

```
. xtgcause  lnnsdp Y  , lags(1)


Dumitrescu & Hurlin (2012) Granger non-causality test results:
------------------------------------------------------------
Lag order: 1
W-bar =          1.0640
Z-bar =          0.1198   (p-value = 0.9046)
Z-bar tilde =   -0.0495   (p-value = 0.9605)
------------------------------------------------------------
H0: Y does not Granger-cause lnnsdp.
H1: Y does Granger-cause lnnsdp for at least one panelvar (state).
```

Source: Estimated through empirical analysis

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Conflict of Interest Statement

There is no conflict of interest in the content of the paper. All data sources and references used have been credited in the paper. A rudimentary version of the paper at the proposal stage was published in MPRA without the empirical results and conclusion. https://mpra.ub.uni-muenchen.de/75400/1/MPRA_paper_75400.pdf