
UNIT 5 STRUCTURAL VIOLENCE

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5.1 INTRODUCTION

Violence is an endemic problem in the world and captures one's attention like few other human events. People on daily basis hear, see or witness incidents of violence, which victimise millions of people each year with varied degrees of intensities. Violence can come from many sources and can be inter-personal like domestic violence; inter-community or communal violence; violence in armed conflicts; legitimate use of force by the state and structural violence. In this Unit we focus on structural violence.

Violence can be defined from many perspectives such as from an injury perspective, criminal justice perspective, a domestic violence perspective, a medical perspective, and a sociological perspective, among others. If we look at major categories of violence discussed in the literature, we find primarily the crime-related violence, like homicide, robbery, rape and aggravated assault. One also comes across events, which involve firearms, suicides, and domestic violence. There is however, lesser use of the concept of structural violence.

Aims and Objectives

After reading this Unit, you would be able to:

- Define as to what is violence.
- Differentiate between direct and structural violence.
- Understand different dimensions of violence.

5.2 DEFINING VIOLENCE

Violence as commonly thought of is something one party does to another by use of force, an overt, physical act causing injury to a person or property. Nevertheless, such understanding of the forms of violence is inadequate because it focuses only on crime related events like killing, torture, rape, sexual assault etc. That is why the 'status quo definition' of violence was challenged when people understood violence not only as the harmful use of force against persons but also as social structures which cause the oppression of human beings.

Violence as an act or force exerted to impart physical harm or injury on other person becomes inadequate on at least three accounts. First, the standard definition of violence exclusively refers to physical harm or injury and neglects the psychological abuses or attacks. Secondly, it lists only human beings as the potential victims of violence, whereas animals or inanimate objects can also be the targets of violence. Last but not the least, the definition assumes that there is a direct link joining the perpetrator and the victim of violence, overlooking the fact that violence often operates in indirect ways.

These definitional inadequacies of violence over the years have led to many fragmented, diverse perspectives, models and theories that try to explain people's 'commitment' towards conflictive behaviour in general and violence in particular. These perspectives not only led to richer and accurate determinants and standards of violence but also to the conditions of non-violence. For the purpose of our study of structural violence, we shall deal with violence as the direct or indirect physical attack, injury or psychological abuse of a person or animal, or the direct or indirect destruction or damage of the property or potential property.

5.3 TYPOLOGY OF VIOLENCE

It was not until the World War II when the interest grew in the relationship between concurrent process of modernisation and decolonisation, on the one hand, and enlarging expectations, inequality and grievance formation, on the other. Kenneth Waltz (1959), in his book *Man, the State and War*, analytically examined violent conflicts from various viewpoints, from intrapersonal dissonance to interpersonal disputes, civil unrest, interstate war and global conflagrations. The dominant notions of evolutionary social change had come under increasing pressure, and tended to offer functionalist and linear accounts of industrialisation, population growth, urbanisation, education and the increased role of the nation-state in the bureaucratic management of everyday social interactions.

Prominent writers like Talcott Parsons and Walt Rostow, in late 1950s and early 1960s, offered accounts of the societal factors that promote or inhibit the development, industrialisation, population growth, urbanisation, education etc. Their objectives were to understand why some countries adopted them while others did not. Doing so, they noted

a shift from being 'traditional' to being 'modern' from segmented, contained communities to complex societies of greater interdependence and complex division of labour.

The shift further brought newly decolonised nations under the Western bloc's influence. In due course of time, particularly in the late 1960s, the conflict between the West and the Warsaw Pact, along with associated weapons transfers and highly destructive proxy wars nullified much of the possible benefits of economic assistance. It, despite considerable economic growth over the post war period, resulted in a divide between rich and developing countries.

The divide between rich and developing countries combined with vociferous social forces in the West, such as the radicalisation of black consciousness, the anti-Vietnam movement, student protest and industrial unrest, which brought in sharp rise in civil dissent. At the wake of dissatisfaction and frustrations of the sixties, Johann Galtung in 1969 articulated the notion of **structural violence**. He faced some of the conceptual difficulties in trying to present the notion of structural violence as both a response to ascendant radicalism and an attempt to reconcile its iconoclasm with the order of peace.

Some forms of violence are instantly recognisable but there are others, which are unrecognisable, latent and hidden. Galtung, a Gandhian philosopher in his seminal works *Violence, Peace and Peace Research*, clarified the muddling concept of violence. He established that a good typology of violence should conceptualise violence in a way, which brings under the concept of violence phenomena that have something very important in common, yet are disparate. Galtung distinguished types of violence, from 'impairment of fundamental needs' perspective and established the concepts of direct, structural and cultural violence. He reiterated that people have four classes of basic needs as an outcome of extensive dialogue in many parts of the world.

According to his basic needs theory, the first 'need groups' category is survival and its negation is death or mortality. Second category is well-being and its negations are poverty, illness and misery. The third one is identity, meaning or purpose of whose negation is alienation. The fourth 'need groups' category is that of freedom and its negation is oppression or repression. The denial to these basic needs or 'need groups' result in eight types of violence with some subtypes which are easily identified for direct violence but more complex to identify for structural violence.

5.4 DIRECT VIOLENCE AND STRUCTURAL VIOLENCE

5.4.1 Direct violence

Direct Violence is the only type of violence that is acknowledged as real violence. At interpersonal level, direct violence is the act or force, which one or more people use to impart or inflict physical harms or injuries on other people including nature. It is also known as personal violence and is static. These acts insult the basic needs of others. These acts are of war, torture, fighting, arms violence, physical abuse and emotional abuse and are the example of direct violence. Actor or actors are the fundamental ingredient of the direct violence and make it a personal act.

Many forms of direct violence are the result of structure-based inequalities exacerbated by ethnic tensions, environmental degradation, and economic desperation. Sometimes particular expression of direct violence such as armed violence causes damage and promotes conditions for structural violence. It also weakens a society's capacity to resist or adapt

to other life-threatening harm. Thus, armed violence and its debilitating direct and structural effects threaten peace—both negative and positive peace. The mechanisms of direct violence are killing, injury, siege, sanctions, poverty, de-socialisation, re-socialisation, underclass, repression, imprisonment, expulsion, deportation etc.

5.4.2 Structural Violence

Structural violence is a permanent state of violence, which is embedded in the social, political and economic structures that make up a society. Due to the absence of concrete person and its camouflaged nature, it is also known as indirect violence. The structural violence is often accepted as norms in the society. Primarily, structural violence is the result of hierarchical relations within and between societies that privilege those who are on top and oppress, exploit and dominate those who are at the bottom. Johan Galtung describes the mechanisms, and the forms of structural violence, which are: exploitation, penetration, segmentation, marginalisation, and fragmentation. We explain these as argued by Galtung:

Exploitation is based on unjust economic and social relations. It happens within complex structures and at the end of long and ramified legislation chains and cycles. It represents the main part of an archetypical violence structure and means nothing more than just a situation of ‘unequal exchange’ in which the ‘top dogs’ or the elite, draw substantially more profit from the interaction taking place within this structure than the ‘underdogs’ or the people excluded from development. In reality, the ‘underdogs’ might be disadvantaged to such a degree that they starve or die because of illness and disease or are left in a permanent involuntary state of poverty that usually encompasses malnutrition and illness. People tolerate and rationalise structural violence due to important psychological reasons. A structure of violence not only leaves its marks on the human body, but also affects the mind and the soul.

Penetration involves the implantation of agents of the powerful within the collective ‘underdogs’, which create a harmony of interests between the global centre and the comprador (compromising) bridgehead within the periphery. In a nutshell, with the help of penetration, elements of the ‘top dog’ or elite ideology reach the consciousness of the underdog- or exploited sections of society. The penetration of the ideology is linked to segmentation.

Segmentation allows the underdog only a limited view of reality. It acts to obscure the true nature of the relationship between strong and weak. The segmentation is the result of two processes, marginalisation and fragmentation.

Marginalisation and **Fragmentation** exclude the peripheral agents from the centre and from each other. Together, marginalisation and fragmentation serve to create greater level of disharmony within the periphery than within the centre, while simultaneously preventing the interests of the exploited within the periphery from coinciding with the exploited within the centre. In other words, both marginalisation and fragmentation force the ‘underdogs’ to the edge of society, condemn them as insignificant, divide them and keep them away from each other. Here it needs to be stated that while exploitation and oppression might go hand in hand, they are not identical. Galtung stated that ‘these are short-hand formations for complex matters in economic, social and political orders that have consequences such as shortage of nutrition, lack of freedom, lack of togetherness, deprivation of well-being in general’.

In a similar vein, Dr. Martin Luther King Jr. had spoken about the Giant Triplets i.e. racism, materialism and militarism as structural forces that propagate violence or the causes of all violence. Since indirect violence is deeply rooted in pervasive societal forces, its effects are as diverse as racism, poverty, hunger, sexism, violation of human rights and militarism.

Johan Galtung also pointed out that the threat of violence is also a form of violence. He defined violence beyond direct violence and pointed out violence as an 'avoidable impairment of fundamental human needs and life, that lowers the actual degree to which someone is able to meet their needs below that which would otherwise be possible'. He argued that apart from deliberately inflicted harm, economic misery, repression and alienation are also types of violence. Therefore, violence is any physical, emotional, verbal, institutional, structural or spiritual behaviour, attitude, policy or condition that diminishes, dominates or destroys others and ourselves.

Structural violence may be contained through granting rewards and not simply by giving punishments, for instance, immoderate expenditures are readily awarded under capitalism. Structure violence confines the range of options that individuals have available to pursue their objectives and fulfill their potential. It exists even though someone is not hurt. Conflicting behaviour such as the issuing of credible threats to others' interests and values, the destruction of property and forced displacement can lead to people acting violently; obstruct a realisation of the potential, and therefore do violence. Structural violence is present even when there is no subject-to-object relationship or no overt and distinguishable goal incompatibility. It emerges from non-violent intentions and is therefore included in attitudes despite the absence of a self-proclaimed intention to harm. Structural violence is latent as well as manifest. Moreover it increases the latent potential for violence, such as highly tense situations which reduce individual's capacity to pursue their objectives.

5.4.3 Difference between Direct and Structural Violence

Structural violence is both conceptually and empirically separable from direct and behavioural violence in many ways.

Direct violence refers to intentional events that harm or kill individuals or groups. Like direct violence, structural violence also kills people but does so slowly because it manifests in social inequalities. It can be both physical as well as psychological. It may work on the body and soul. The harm is exacerbated by socio-political structures and decisions that deprive people of their access to basic needs necessary for fulfilling their full potentials in life.

In direct violence, the consequences of the act can be traced back to concrete persons as actors. In structural violence, the consequences of the acts cannot be traced back to concrete persons or are no longer meaningful because there may not be any person who directly harms another person in the structure.

Negative peace is characterised by the absence of direct violence. Positive peace is characterised by the absence of structural violence. Both (direct and structural violence) can be expressed through physical and psychological violence, directed at specific objects or not, with acts that are intended or unintended, and expressed in manifest or latent terms. Both (direct and structural violence) are interdependent forces. Although direct violence tends to be more visible and easily perceived, there is no reason to assume that structural violence amounts to less suffering than direct violence.

5.5 DIMENSIONS OF VIOLENCE

5.5.1 Cultural Violence

Before understanding cultural violence, it is imperative that one should know what culture is conceptually. Culture is a dynamic living concept of values and ideas, which reflect the context within which people live and work. It is dynamic because the 'derivation of experiences' are rarely the same for any two persons and, never the same over time. Avruch contends that culture 'to some extent is always situational, flexible and responsive to the exigencies of the worlds that individual confront'. He posits that 'cultural attributes may even vary from person to person within a single culture because of overlapping group memberships'. In nutshell, culture is a totality of values, norms, attitudes, beliefs, gender relations, child-rearing practices, governance, etc. It is an economic, political, social, and spiritual organisation of people's existence.

In the 1990s, Galtung supplemented his violence typology with another category and introduced the concept of cultural violence. Galtung, in the early 1990s, explained how culture could in some instances, constitute a type of violence. He established a sort of triangle between direct violence, structural violence and cultural violence. On cultural violence, he stated that 'by cultural violence we mean those aspects of culture, the symbolic sphere of our existence – exemplified by religion and ideology, language and art, empirical science and formal science – that can be used to justify or legitimate direct or structural violence. Stars, crosses and crescents; flags, anthems and military parades; the ubiquitous portrait of the leader; inflammatory speeches and posters – all of these come to mind...The features mentioned above are 'aspect of culture', not entire culture.'

There is no truly complete violent culture, but within culture, there are certain aspects, which could be used to justify or legitimise structural violence or direct violence, for example, female genital mutilation in some African tribes. Nevertheless, there are cultures, which transmit traditions of nonviolent behaviour and commemorate and honour nonviolent values and qualities. But, nonviolent traditions in most cultures, religions and philosophies most of the time remain dormant due to the prevalence of violent manifestations.

The legitimisation of the culture aspects, which justifies the direct or structural violence, is known as cultural violence. Pierre Bourdieu also states that the 'cultural violence is the unjust distribution of opportunities for determining the symbols and cognitive components prevailing in a society'. The fundamental inequality of differential access to power and resources is justified through the normative and enshrined ideological beliefs, cultural proclivities and equal access. For example, Eurocentric domination has limited the ability of the African Americans to advance and prosper in the United States. The trickled down effect of the massive direct violence against blacks had resulted in colossal structural violence. Structural violence has produced and reproduced massive cultural violence with racist ideas everywhere. The vertical cultural mosaic – result of colonialism, has structured societies in a way that different groups are wedged between the perceived 'truly dominant' and 'truly subjugated'. Similarly caste oppression of the schedule castes in India by upper castes for generations is a form of cultural violence.

This wedging of different groups between 'truly dominant' and 'truly subjugated' has led to the hierarchy of cultures. In the hierarchy of cultures, the indigenous cultures are at the bottom, overlaid by immigrant cultures consisting of those brought over as slaves, indentured labour, and others, and the dominant colonising cultures are at the top. As a

result, the experiences and interpretations of 'truly dominant' - who had more power, relative to other groups or societies, dominated the socio-cultural landscape of the 'truly subjugated'. This domination is endorsed and imposed onto all who rely on societal institutions whereas the experiences and interpretations of 'truly subjugated' - who wield less control, find little support and expression in the broader society and face discrimination.

Throughout the world, cultural practices systematically discriminate against women where they are denied the right to vote, suffer from domestic abuse, and are excluded from employment opportunities. The justification to curtail women's human rights is that the concept of human rights is 'imperialistic' and the 'rights are culture-specific and culturally determined'.

From the above discussion, it is clear that direct violence is an event, structural violence is a process and cultural violence is an evolution. Cultural violence makes direct and structural violence look, even feel, right or at least not wrong. As studied in this Unit the religion, ideology, language, etc not only exemplify the people's symbolic sphere of existence but also are used to justify or legitimise direct or structural violence.

5.5.2 Economic Violence

Economic violence is rooted in the structure of the production relationships and its consequences for workers and consumers. Poverty, unfair hiring procedures, insufficient health care, joblessness and wage dumping etc are the expressions of economic violence. The unjust economic power structures create conditions due to which certain social groups possess more capital than other groups and the materially rich groups utilise their privileged status to exploit other groups. These unjust economic structures are seen as the state's failure to provide people access to basic needs. Poor people suffer from poverty, hunger and malnutrition while the rich of that society live in relative luxury.

All these conditions lead individuals to believe that they have not received a fair share of the benefits and resources available in that society. Thus, the inequalities in wealth create circumstances for conflict and violence. For example, the class conflict within a society and international conflicts between the rich developed countries and poverty-stricken developing countries are the manifestation of economic violence and unjust power relationships. The neo-liberal economic policies of North American Free Trade Agreement (NAFTA), International Monetary Fund (IMF), World Bank, G8 countries and (World Trade Organisation (WTO) lead sometime to severe economic violence.

Globalisation has widened the manifestations of economic violence. There is no doubt that globalisation has resulted in market growth. However, it has also increased the income disparity around the world. Relaxed trade regulations and increased communication networks have created powerful multinational conglomerates that derive huge profits off under-paid labourers in developing countries. The result is horrific structural violence to workers who toil under brutal conditions. It has also created conditions of chronic poverty, food and nutrition insecurity in urban as well as in rural areas. Globalisation has influenced people's incomes and livelihoods and consequently their life style and food habits. As a result, the problems of under-nutrition and over-nutrition are increasing which are putting extra burden on the health care system.

5.5.3 Political violence

Political violence has no single accepted definition. Generally, political violence consists of those types of collective action that involve great physical force and cause damage to

an adversary or violence for political gain. It encompasses naxalism, guerrilla warfare, national liberation movements and sometimes even strikes and demonstrations that turn violent. The state can also be violent in repressing dissent on minority communities that seek political or other rights. Moser and Clark define political violence, as 'the commission of violent acts motivated by a desire, conscious or unconscious, to obtain or maintain political power'. Political violence is about the acquisition of power through violent acts. It is driven by desires for power that lead people to transgress others' private domains. This phenomenon can be seen among guerrillas, paramilitary groups, tyrannical regimes, extremist religious and ethnic groups and others, that aim at undermining the other in order to achieve hegemony over a region, state or a group.

If one leaves aside state or state sponsored violence then political violence comprises of the 'collective attack within a political community against a political regime'. Violence in political movements may emerge intentionally or accidentally as the 'deliberate infliction or threat of infliction of physical injury or damage for political ends' or as violence 'which occurs unintentionally in the course of severe political conflict'. According to Apter, 'political violence disorders explicitly for a designated and reordering purpose; to overthrow a tyrannical regime; to redefine and realize justice and equality; to achieve independence and territorial autonomy; or to impose one's religious or doctrinal beliefs'.

Various forms of political violence have been recognized by state and non-state actors including wars, terrorism and other violent political conflicts that occur within or between states and state-perpetrated violence such as genocide, repression, disappearances, torture, organised violent crimes and other abuses of human rights.

Political violence takes place due to many political, economic, societal, community and demographic factors. For example, the lack of democratic processes, unequal access to power, grossly unequal distribution of resources, unequal access to resources, rapid demographic changes, control over key natural resources and inequality between groups, the fuelling of group fanaticism along ethnic, national or religious lines and the ready availability of small arms and other weapons lead to overt political or collective violence. At times, governments and police forces also engage themselves in terrorism and political violence.

Terrorism is a specific form of political violence that usually has the purpose of creating fear or terror among a population. Political violence may or may not have the purpose of causing fear among a populace. Sometimes it targets a given political figure to remove that individual from power, as in an assassination. Or it may be a more general insurrection or violent protest on political grounds.

5.5.4 Social Violence

Structuralism asserts that the 'individual actors are not completely free agents capable of determining particular outcomes. Rather, individuals are embedded in relational structures that shape their identities, interests and interactions.' Therefore the social location of a person, group or groups is crucial if one wants to understand their vulnerability to violence of all types.

Social structures include sexism, racism, caste system (in the case of South Asia) as well as class-based structures. These structures are the social axis of the structural violence. The relational structures constrain the agency as well as individual choices, which result in the violation of human rights. However, it is still debatable as to how much these

structures constrained agency. The person or group that violently resists structural violence becomes an aggressor because he uses overt or obvious violence. Those who maintain injustice by police or military power are more clearly the aggressors than those who react to them.

Social violence is an important consequence of the abuse of political and economic powers. The manifestations of social violence cover a large spectrum of possibilities that go from the disproportionate increase in robberies and crime, mob rule, revolt and guerrilla warfare that may turn into revolutions and civil wars. Another important factor is rooted in the rapid technological changes that accelerate and stampede social changes, trans-culturalisations that burst traditional norms and leave a void.

An example of social violence is the caste system which forces people to accept a demeaning role from birth or the one which forces them to acquiesce in demeaning patterns of life is a structure maintained by dominant groups in power. Labour riots, race riots, lynching mobs, fights among delinquent gangs, and attacks by organised criminal syndicates are the manifestations of the social violence that have punctuated the history of social change.

5.6 POVERTY AS STRUCTURAL VIOLENCE

Poverty is one of the worst or deadliest forms of structural violence. As a social condition, poverty is prevalent all over the world but with varying expressions. Poverty is extreme, structural, systemic and sustained economic deprivation, which in the first instance typically produces powerlessness. As Amartya Sen has shown, such structural denials of basic freedom result in agency constrained to the extent that individuals become unable or lack the 'capability' to meet their basic needs. It not only denies 'one freedom' to human beings but also amplifies or multiplies the other forms of freedom, which render the poor people disproportionately vulnerable to a whole array of violations. Poverty means a concomitant impairment of access to resources, access to adequate healthcare, water, shelter, etc.

The present day growth of disparity between rich and poor has resulted in an unequal world system. The exploitative and unjust social, political and economic systems have given birth to extensive poverty and hunger, which have become a pressing issue for much of the world. According to one analyst, 'nearly a fifth of all human beings live below one dollar per day.' UNU-WIDER, in its report of 2006, mentioned that 'the richest one per cent of adults alone owned forty per cent of global assets in the year 2000 and that the richest ten per cent of adults accounted for eighty five per cent of the world total.'

Radical disparities in poverty are rampantly apparent among children and women. Even the booming economy has failed to reach them. Women and children suffer from the unjust, harmful, institutionalised inequalities of wealth, social status, and power. Due to poverty, these disadvantaged and socially marginalised groups suffer from disproportionate death, disability, despair, humiliation, and heartache.

5.7 STRUCTURAL VIOLENCE, GENDER INEQUALITY AND SEXISM

Systematic structures of society lead to endemic global sexism that is termed patriarchy, which in turn brings in the patterns of violence, discrimination and exclusion towards

women. Patriarchy is based on gender inequality and male dominance. It thrives on the basis of masculinity associated with the use of force. Nevertheless, violence against women has many forms but it has only one dimension, both in public sphere and private space – that violence is structural. The horror-stricken forms of violence, from domestic abuse, rape, and female infanticide to state violence - all violate women's fundamental human rights. Violence against women is also endemic to patriarchy, class and caste society and power relations that construct society.

Browne posits that 'sexism is a system of beliefs and attitudes based on the alleged inferiority of women; an inferiority which translates into attitudes that hold that women cannot be believed, that women are inferior, and that women are inherently subordinate to men'. Such permeated values of 'sexism' first at home from birth and upbringing are later reflected in or spread out to their public spheres. Here again cultural and customary practices perpetuate structural violence be it in the realm of religion, class or caste or other prejudices.

Socially, in their daily life, women are subjected to a state of affairs where imposed unequal and unfair obligations are accepted as something natural. Scheper-Hughes and Bourgois contend that 'since social structures institutionalize structural violence, social structures therein render that violence invisible'. The social constructs see women as sexual, reproductive and cultural objects. For men, her family, her children, the State and its institutions, as well for the market, the woman is just a sexual, reproductive and cultural object. Patriarchy supports a system of social reproduction based on sexual differentiation and promotes the ideas and values of male supremacy. Besides restraining, trivialising and dismissing women's concerns, patriarchy also re-victimises them.

The lower location of women in the cultural hierarchy makes them extremely vulnerable to structured inequalities and violence because many of the inequalities are gender-based. In the economic sphere, the neoliberal welfare policies and social welfare programmes have further degraded women's human conditions. They suffer severe exploitation because their domestic work is not considered productive and lacks usage and exchange value in the formal and informal labour market outside the home. Especially, rural women are either excluded from the formal labour market or are paid less due to their low level of literacy.

5.8 STRUCTURAL VIOLENCE AND RACISM

Cultural racism categorises groups or societies on the bases of 'negative' and 'positive traits' of their race. Race can be based on an imagined or constructed origin, or on the colour of one's skin, body features, etc. The 'positive' traits, which can be appreciated and controlled in small doses such as food, clothing, music, dance, literature etc, are regarded acceptable because they are considered to be non-threatening to the dominant culture. And, if the 'positive traits' are controlled they shift to 'negative' traits. The 'negative' traits are thought to be signs of maintenance of traditional ways, violation of social norms and law, lack of assimilation and integration into the dominant mainstream cultures.

Based on such perceived negative and positive traits, certain cultures appear to be inferior, deviant, and inherently inassimilable and reinforce certain cultural groups; the dominant mainstream, basically an invisible group, is able to reinforce its sense of superiority and maintain its normative power. To conclude, it is the tendency to focus on

culture rather than violence or power, which allows violence to be enacted, works to the advantage of the dominant, colonially entrenched culture.

5.9 SUMMARY

Systemic structures place populations at a greater risk of human rights violations. The theory of structural violence provides a useful framework for understanding the structural violations of human rights and need for human security. It has been also found that uneven distributions of power lead to economic and social inequality in a society.

Structural violence is a useful theory to locate the origins of structural violations of human rights, that cause human insecurity, which ultimately leads to crime, military conflict, group violence, non-peaceful transfers of governmental power, diseases and public health problems, acute environmental disasters, floods, droughts, earthquakes, environmental changes, global warming, water shortage, pollution, and economic crises.

To secure an over all security from structural violence, one has to look at alternatives that focus on both direct and structural violence and its mitigation. One such concept is that of human security. It is personal security for the individual from violence, access to the basic essentials of life, protection from crime and terrorism, diseases, political corruption, forced migration, absence of human rights, freedom from violations based on gender, rights of political and cultural communities, political, economic, and democratic development, preventing the misuse and overuse of natural resources; environmental sustainability; and efforts to curtail pollution.

5.10 TERMINAL QUESTIONS

1. Define violence and give its typologies.
2. Sum up Galtung's ideas on structural violence.
3. How is poverty a cause of violence?
4. How do racism and patriarchy constitute silent violence?

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UNIT 6 STATE VIOLENCE (TERRORISM, DICTATORSHIP, MILITARY)

Structure

6.1 Introduction

Aims and Objectives

6.2 State Violence: Theory and Types

6.3 State Violence in South Asia

6.4 State Violence in India

6.5 An Overview

6.6 Summary

6.7 Terminal Questions

Suggested Readings

6.1 INTRODUCTION

Since times immemorial political violence has attracted our attention for more than one reason. Often it has multiple forms, perpetrators, victims and purposes. The category of political violence include state and non-state actors; it may originate from internal or external sponsors; take forms that range from terrorism and guerilla warfare to sectarian violence, police actions, riots and assassinations. From Robespierre's 'reign of terror,' to the Irish Revolutionary Brotherhood's motto of 'revolution sooner or later,' 'violence has often been used to generate publicity for a cause, besides attempting to inform, educate and rally masses "behind revolution". The 1880s, 1890s, the 1900s till the First World War saw an outright call for 'propaganda by deed', as a legible weapon to topple an established disorder.

The 1930s, however, witnessed a phenomenal change in protracted terrorist campaigns against governments. It was now used less to refer to revolutionary movements and violence directed against governments and their leaders and more to describe the practices of mass repression employed by totalitarian states and their dictatorial leaders against their own citizens—Fascist Italy, Nazi Germany and Stalinist Russia, to name a few. While Europe wreathed under state-imposed violence against its own citizens, Asia experienced violent outcry for revolt, heralded by various indigenous/anti-colonist groups to oppose continued repression from colonial rule. The appellation of 'freedom fighters' instead of 'terrorists', came into fashion at this time. This position was best explained by PLO chairman, Yasir Arafat when he said: "The difference between the revolutionary and the terrorists lies in the reason for which each fights. For whoever stands by a just cause and fights for the freedom and liberation of his land from the invaders, the settlers and colonists, cannot possibly be called terrorists." By the late 1960s and 1970s, the usage expanded to include nationalist and ethnic separatist groups outside the colonial or neocolonial framework- entirely ideologically motivated organizations- the PLO, Left wing extremists etc.,

This went on till the 1990s, until scholars, since the end of the Cold War, stepped up

their efforts to identify the factors behind the onset, nature and termination of armed conflict in an era of unknown foes and unpredictable situations that now includes state and non state violence and insurgency and terror tactics. Peter Chalk, termed this under 'Grey Area Phenomena,' which he loosely defined as threats to the stability of sovereign states by non-state actors and non-governmental processes and organizations—a setting in which standard military-based conceptions of power and security, have only limited relevance.

Aims and Objectives

This Unit would enable you to:

- define the concept of state violence
- identify the types and theories of state violence
- describe the conditions of state violence in South Asia and India

6.2 STATE VIOLENCE: THEORY AND TYPES

Theory on Greed and Grievances: Though Aristotle once said, 'poverty is the parent of revolution and crime,' globalisation theorists of the present decade have underpinned personal greed and grievances as the major cause of armed conflict. According to them, globalisation represents two processes in greed theories. It brings changes in the state—particularly the erosion of state authority and public goods—which can make societies vulnerable to conflict; the other fostered by increased opportunities from transborder trade, both legal and illegal. As a result, "many civil wars are caused and fuelled not by poverty but by 'resource curse.' Data from Southeast Asia, distinctly show that, even those conflicts that has been categorised as "separatist," "communal", "ethnic" or "ideological," do have a clear element of 'greed' in them. The exploitation of mining opportunities in the Philippines has come into conflict with indigenous land rights and competition over resources, while ongoing violence in Papua, Sulawesi and Maluku in Indonesia, is not just religious or ethnic in character, but a tiff for land and resources exacerbated by environmental degradation. At the same time the greed theories do not talk about the greed of multinational corporations and the greed of the global elite that basis its profits on the extraction of resources from already poor countries. Instead they focus on the 'resource curse' as if just having a resource in a poor country is a curse itself rather than systemic poverty, colonialism and its forms being the curse.

A related set of theories applies the greed motive not to rebel groups but to corrupt governments, arguing that such governments engage in rent seeking and predation in order to enrich themselves, repay the support of allies and pay off potential adversaries. In the process they weaken the state's capacity to fulfill public service requirements and alienate groups that fail to receive the fruits of the government's benevolence. Ergo, groups in the periphery, mobilize in violent opposition to the government. In Indonesia, for instance, the top-down development approach that enabled three decades of rapid economic growth during Suharto's era was one-sidedly driven by the center. Profits from the exploitation of the natural resources of the Outer Islands were controlled by Jakarta, while a relatively small share of the revenue was directly returned to the provinces. The military was used to ensure compliance. As a result, separatist movement in some provinces—East Timor, Timor Lorasai, Aceh, Irian Jaya—carried social conflict to its ultimate extent, calling for the dissolution of natural ties and the founding of new nation-states.

Still other scholars have associated certain types of conflict with instabilities that arise from social change in an increasingly globalized world. Barber, for instance, blames violent resistance to modernity, cultural imperialism, socio-economic exploitation and loss of sovereignty as reasons behind armed conflict. Others focus on economic instability with increasing marketisation as reason behind public dissension. Amy Chua and Michael Mousseau, see the market not as neutral but as one bringing fundamental change and violent opposition.

Grievance theory: Besides, economic and greed factors, a competing set of theorists, see political grievances as one of the most important source of violent conflicts. According to them armed conflicts in Nepal, Sri Lanka, Indonesia, the Philippines, India and Pakistan, among others, cannot be understood without reference to political grievances. Edward Azar, for instance, has argued that civil wars generally arise out of communal groups' collective struggle "for such basic needs as security, recognition and acceptance, fair access to political institutions and economic participation. Other analysts have found political factors arising from weak state capacity to the denial of human needs, as central to many contemporary conflicts, in conjunction with economic motives. Such theorists suggest that sustainable peace requires addressing underlying grievances through direct engagement with the state. However rather than just grievances, the root cause of the grievance which is often the denial of human rights should be analysed as the reason for conflicts.

A second subset of grievances theorists focus on identity-based conflict as the salient catalyst of armed conflicts since the 1980s. Terming it as an acute "ethnic security dilemma," scholars like Ted Gurr, Woodward and Marshall, see ethnic and religious competition as the focal point of civil war in the post Cold War era. Drawing upon the Political Instability Task Force Data, these scholars suggest that ethnic wars are likely to occur when the state actively and systematically discriminates against one or more in the following:

- 1) larger countries with medium to high ethnic diversity;
- 2) when the country is a partial democracy with factionalism;
- 3) when the country's neighbors are already embroiled in a civil war or ethnic conflict;
- 4) when a country has experienced an ethnic conflict or genocide in the previous 15 years;
- 5) when a country has a large youth population.

Samuel P. Huntington, for instance, stressed the threat from countries and culture that base their tradition on religious faith and dogma, identifying geopolitical fault-lines between "civilizations" as reasons behind social dissension. The West's 'next confrontation', is going to come from the Muslim world, traced Huntington. "It is the sweep of the Islamic nations from the Maghreb to Pakistan that the struggle for a new world order will begin. "We are facing," said Bernard Lewis, "a movement far transcending the level of issues and policies and the governments that pursue them. This is no less than a clash of civilizations—the perhaps irrational but surely historic reaction of an ancient rival against our Judeo-Christian heritage, our secular present and the world-wide expansion of both" These theories however are based on a racists ideology. Because civilizations do not go to war with each other, but countries do. Also countries go to war because of specific

reasons that may be territorial, ideological, imperial etc. Thus both Huntington and Lewis have flawed ideas based on an ideology of Western supremacy and phobia against Islam.

However, most scholars find this 'ethnic security dilemma' issue problematic. According to them, ethnic dissention leading to armed conflict occurs only when:

- a) it is juxtaposed with high levels of poverty, failed political institutions and economic dependence on natural resources;
- b) When it is the result of elite manipulation whereby radical leaders exploit the insecurities felt by people in divided societies in situations of political volatility.

Yet another school of thought thinks that *relative deprivation* sparks political grievances and violent mobilisation, as economic inequality within a society, especially across distinct identity groups or communities foment armed conflict. These "horizontal inequalities" appear to be linked with conflict at moments of economic change, sometimes extending to armed confrontation. Conflicts could be initiated not only by the most deprived groups may initiate conflict, but also the relatively more privileged, who fear the loss of their position. Researchers at the Center on Inequality, Human Security and Ethnicity at the University of Oxford found that horizontal inequalities are more likely to provoke conflict when inequalities are sustained and prolonged over time, boundaries between different identity groups are relatively impermeable, there are fairly large numbers in the different groups, horizontal inequalities are consistent across dimensions, where aggregate incomes slacken down and new leaders are not co-opted into the ruling system and the government is not responsive to social grievances.

6.3 STATE VIOLENCE IN SOUTH ASIA

In South Asia, the post-colonial state appears to be especially vulnerable to crisis and internal conflicts often related to the vagaries of their colonial legacy; arbitrary territorial borders; insecure ethnic, religious or national minorities; and post-independence nationalist and sub nationalist movements that deepen rather than transcend divisions. A unique argument here centres on the Weberian assumption that the state monopolises the legitimate use of violence- however such legitimacy maybe understood. Violence in other words becomes a form of politics by other means.

According to Varun Sahni and Tharu, in South Asia, no matter how we define or classify subversive or secessionist groups, the state responds in a similar manner to all of them; in most cases it calls in the military. Faced with a perceived threat to its sovereignty, the state knows only how to respond with force. Only when the military strength of the insurgent group is defeated or considerably weakened does the state begin to negotiate or consider non-violent approaches. The small number of cases of armed insurgencies that ended with negotiated settlement before military defeat—the Mizos, Gorkhas, the Chittagong Hill Tracts, are testament to this argument. The authors weigh in the variation in the quantum of force used by the state and conclude that in dealing with violent insurgencies, while both democratic and non-democratic governments respond with force, and all cases of successful negotiated settlement have involved democratic governments. Democratic states are more likely to "end the cycle of violence," Sahni and Tharu argue, but at the same time democratic states also use the force they possess.

Two case studies explain the above statement- Sri Lanka and Pakistan, as brief recapture of their history shows. **Sri Lanka** attained universal suffrage in 1931 and the island

gained independence from its British colonisers in 1948. Soon after independence, the island's political structure enabled particularistic and ethnic-based groups to hold sway—leading to its triumph over interethnic and minority groups. The Indian Tamils, who came here as indentured labourers were the worst victims of Sinhala 'majoritarian radicalism.' Their systematic 'exclusion' first came to the forefront in the form of the *Swabasha* Movement that made Sinhala the sole national language replacing English (as the Tamil were well-versed in English and held important government posts) as the country's official dialect.

The Sinhala-only Bill was passed on 5 June, 1956. This led to widespread protest by the Tamils who wanted equal representation of their respective languages. The Tamils gathered outside the Parliament to non-violently fast and meditate. The Sinhala Language Protection Council attacked the Tamils and soon their violence killed around 150 Tamil minorities. Around this time, the minister of transport issued a directive calling for the Sinhala '*sri*' to be included on all vehicle number plates. When the Tamils started replacing the Sinhala '*sri*' with the Tamil '*shri*', many Sinhalese protested by smearing tar over Tamil lettering on buses, public buildings and street signs (P Sahadevan and Neil Devotta, 2006).

The majority Sinhala State used various methods to exclude the minority Tamils, that led to the exclusion and marginalization of the Tamil minority. They worked on the principle of a majoritarian state. However they were soon to realize that a democracy is not just based on majority rights. The minorities must be protected and given right in a real democracy. But the Sri Lankan state policies for higher education were designed to lower the number of Tamil students gaining access to higher education. Policies were implemented to ensure that the government hired only Sinhalese for the civil service. Post 1977—the Jayawardene's government resorted to national security legislation and harsh practices to silence its critics and rein amid a growing Tamil rebellion movement. The government passed the Prevention of Terrorism Act of 1979 which retaliated against Tamil insurgency. Cases of rape, tortured and murder of Tamil civilians by the Sri Lankan military were reported. Successive governments in Sri Lanka (except Chandrika Kumaratunga's regime) have used the Tamil issue as a trump-card to a) intimidate, harass and murder opponents who ever spoke otherwise, and b) as a powerful weapon to continue in power in the centre.

Post-1983, the Kumaratunga regime took some bold steps to bring the Tamils closer to her government. She tried to draw a distinction between the Tamil people and the militant group. War was declared as "against the enemies of peace" and not against the people. She partially lifted the economic embargo, offered a rehabilitation and reconstruction package worth Rs 40 billion to the Tamil populated North-East as a goodwill gesture. Restoration of supply of electricity to Jaffna and reconstruction of the Jaffna Library were also offered. The government proposed to supply food, clothes, medicines and other essentials to the people affected by war. A Human Rights Commission was set up by an act of Parliament in July 1996, while the armed forces were given strict instructions to spare the civilians from their attacks. In a bid to restore the democratic process and grass-roots level administration in the war-torn Jaffna peninsula, the government held civic elections in 1998. However, Chandrika Kumaratunga's peace initiatives were only short-lived. The peace process dwindled due to several reasons (P Sahadevan and Neil Devotta 2006). First, there had been steady efforts on the part of the government to dilute the original peace proposals under pressure from the Sinhala hard-liners. Second, the long-drawn-out delay in giving constitutional status to the proposals due to lack of

consensus among the Sinhalese, eroded the Sri Lankan Tamil faith in the proposed constitutional exercise. Third, the continuation of war, persistence of misery, hardship of the people in the North-East after re-imposition of the economic embargo failed to alter the view of the Tamils in favour of the government. The people's continued to rely on the LTTE and the LTTE developed as a strong a dictatorial insurgency force.

Started in 1972 as the 'Tamils New Tigers,' and later renamed as the 'Liberation Tigers of Tamil Eelam' (LTTE) the outfit spearheaded militancy for 37 years, occasionally pausing for peace talks but single-handedly pursuing its goal of a separate state. In its *Eelam* War, the guerilla fighters acquired conventional military capability, building a loyal network of Tamil cadre—the Black Tigers—whose deadly suicide terror attacks made the LTTE one of the most gruesome guerilla fighters in the world. Vellupillai Prabhakaran, its leader, was the product of a generation that felt Tamil rights and equality could not be obtained through moderate politics and **Gandhian** methods. Based on the level of use of violence and the duration of fighting, LTTE's 'war for Tamil *Eelam*' highlighted all the traits of a *total* war, encompassing:

- Intense regular fighting;
- Heavy deployment of forces (above a level of 50,000 men) and use of sophisticated weapons (tanks, artillery, helicopter gun-ships);
- A higher level of battle-related deaths (more than 1,000 people per year);
- Large-scale displacement of people and refugees (over 20,000 people per year);
- Extensive damage to property and economic infrastructure.
- Militarist and masculinist ideology and no tolerance for dissent or moderation from within the Tamils.

The LTTE surge for supremacy was called the war-for-peace strategy and had several distinct phases: the first phase (1983-87) saw highly intense military confrontation between the insurgent groups and the Sri Lankan Army (SLA) that led to the opening up of multiple war fronts. The SLA's counter-insurgency operations during this phase were to wrest control of territories from the LTTE and marginalise the Tigers militarily. The second phase (1987-90) of the war was solely between the Indian Peace Keeping Force (IPKF) and the LTTE: the former with strength of about 70,000 troops supported by heavy tanks and artillery went to the island to implement the bilateral peace agreement signed in 1987. The IPKF, through its counter-insurgency operations, chased the Tigers out of the Jaffna peninsula to the Vavuniya and Mullaitivu jungles and hideouts in the east. But, the IPKF soon withdrew from the island following the assassination of the Indian Prime Minister Rajiv Gandhi. During 1990-94, LTTE entered the third phase of its war with the SLA. The Army regained its hold over the eastern region, while the Tigers, in order to maintain their control over the north, engaged in a series of set-piece battles and hit-and-run operations.

This was followed by the breakdown in any attempt to chalk a peaceful settlement to the dispute, the LTTE having entered its fourth phase of *Eelam* War in April 1995. The Tigers, by this time, shifted their headquarters to Mullaitivu and Kilinochchi and spread their sphere of influence in the east. The LTTE, by this time had also developed the Sea Tiger Wing—a daring guerilla Navy that played havoc with the Sri Lankan Navy. With territorial victory forming the core objective of both the rebel group and the government,

this phase of war continued till 2002 when the government and the LTTE signed a cease-fire agreement and held peace talks facilitated by Norway. Although Prabakaran had demonstrated strategic military capability, he appeared to have failed to analyse two warfront disadvantages: a) there was no factoring the impact of the defection of Karuna, his able military commander from Batticalao on the LTTE's overall military capability; b) the second was in misunderstanding the determination of the Sri Lankan political and military leadership to eliminate the LTTE thoroughly. Ultimately, in its last two phases, (2002-04; 2004-09) when the security forces launched their offensive in the north with huge numerical strength, the LTTE did not have the essential force to face the onslaught. Prabakaran failed to use his superior insurgency tactics to overcome his limitations in conventional warfare. By the beginning of the phase of Eelam War sixth, Prabakaran had lost all the 15,000 sq km of land he lorded over in the east and the north. The government, therefore, fulfilled the promise it has made in its election manifesto to eliminate LTTE terrorism at any cost. The military victory of Sri Lanka came with large scale human rights violations, reported by agencies of the United Nations, the international press and others. Many civilians lost their lives and thousands were displaced as emergency continued even after the victory. A Lessons Learnt Commission was set up but the Tamil minority remain largely without the rights that they struggled for.

Sri Lanka, as one of the oldest democracies among the Third world countries in Asia and Africa, finally pursued the LTTE fighters through the use of force {the government has been accused of engaging in extrajudicial killing, abduction, extortions and the use of child soldiers} to bring an end to one of the bloodiest civil wars in Asia. Brad Adams, Human Rights Watch, Asia director, rightly pointed out: "The government and the LTTE appear to be holding a perverse contest to determine who can show the least concern for civilian protection."

Pakistan is a country where the military has been used as the ultimate guarantor of the nation's territorial integrity and internal security. Islamabad's prolonged tryst with military autocratic rule has seen the role of the army as expanding from;

- Guardians of internal security to defenders of Pakistan's ideological frontiers- the Islamization process that picked-up under Zia-ul-Haq's dictatorship took place on *two* levels: Internally, changes were instituted in the legal system, where sharia courts were established to try cases under Islamic law and second, Islamization was promoted through the print media, radio, television and mosques.
- Externally, this process was used as an instrument to propagate pan-Islamism that would free Pakistan and other Islamic countries from perceived Western and particularly American, cultural and political influence.
- Jihad, support for militancy and cross-border terrorism has become the cornerstone of such a staunch Islamization process (Hussain, 2007).

Despite ritual Pakistani denials, there is now global consensus that the Pakistani army establishment, including the Inter-Services Intelligence (ISI) has led the country to the brink of disaster, by its patronage of these jihadi groups. Analysts have shown that three pre-dominantly Punjab-based sectarian Deobandi/Wahhabi outfits backed by the ISI—the Lashkar-e-Jhangvi, the Sipah-e-Sahiba and the Jaish-e-Mohammed- have joined the Taliban to wage jihad in Afghanistan and taken on Pakistan's army in the North-West Frontier Province (NWFP). They have also waged wars on Shias, destroyed Shia mosques across the country, provoking strong protests from Iran. The majority Sufi-

oriented Bareilvi sect in Pakistan has had its leaders assassinated by these groups. Ominously, even the elite Defence Housing Authority in Karachi has seen the construction of 34 mosques, out of which 32, including the prominent Sultan Mosque, are under Taliban control.

According to Pakistan's foremost expert on Afghanistan, Ahmed Rashid, Pervez Musharraf adopted a "complex policy" of minimally satisfying American demands to act against the al-Qaeda, while giving the Taliban leadership and fighter's havens in Quetta and the tribal areas, bordering Afghanistan. General Musharraf also signed six agreements, virtually surrendering to Taliban groups and abdicating the authority of the Pakistan state. Like Musharraf, his successor General Kayani has pretended he is ready to deal with extremism, while in actuality, retained the army's link with the Taliban for "strategic depth" in Afghanistan and Punjabi groups like the Laskar-e-Taiba, to "bleed" India. These tactics have stifled democracy and democratic institutions within Pakistan as the military tries to influence and control policy making in several key arenas like internal and external security and foreign policy.

Pakistan has long acted as frontline state for US interests. The US occupation and war in Afghanistan and their wars against terrorism have been used by the Pakistan army to increase their own leverage internally. At the same time the Pakistani Army also uses a doctrine of strategic depth, whereby it uses jihadi groups to extend its interests in Afghanistan and India. The US that long ignored this policy realized this only after the capture and killing of Osama Bin Laden in Abbottabad in Pakistan. Since this episode the relations between the Pakistani and US armies have deteriorated. The Pakistani civilian government is also trying to control the army which acts like a state within a state. The Obama administration's clandestine drone attacks on Osama's Abbottabad hide-out, has further proved that a) the days of US-Pak bonhomie is already numbered; and b) that Pakistan is gradually adjusting to the reality of the country's asymmetric tryst with militant radicalism. All indications suggest that civil society across Pakistan has come to a standstill and the state is nearing a "virtual collapse".

India will have to face up to the reality of the growing radicalisation across its western frontier, rather than entertaining illusions that civil society or political parties in Pakistan have the ability or will, to take on the radicals.

6.4 STATE VIOLENCE IN INDIA

A heterogeneous state fragmented by divisive claims of ethnicity, India is a unique case study where most of the theories on state violence seem to have conglomerated. On the one hand it has been viewed as the silent 'recipient country' of cross-border terrorism, while, on the other, in recent years, the state is seen as withdrawing more from delivering public goods and services to the people and failed to redistribute income more evenly. As a result, it has become more repressive in maintaining the supposed stability and integrity of the nation. While mere snapshots are available of the state's growing intolerance towards people's demand in places like Orissa, Chattisgarh or Jharkhand, the real battlegrounds of repression have reached its nadir in the peripheral locations of the north-east or far north (Behera, 2008).

Events on the insurgency front in India's Northeast have shown that rebel groups have often succeeded in neutralising the reverses faced by them by entering into deals with other insurgent groups, where their alliances often act as force multipliers, incapacitating

the state apparatus. In Manipur, for instance, there are about 30 insurgent groups, of which 17 are active. They levy taxes and run kangaroo courts. The government machinery functions from Imphal and from the district headquarters. Government officials seldom go to the districts and *tehsil* or sub-*tehsil* headquarters because of fear of insurgent groups. Law enforcing agencies are ineffective in interior areas due to the presence of large number of undergrounds. The interior areas are controlled by the insurgents. The insurgent groups are the government and they decree 'justice'. These groups are well connected with those in Nagaland, Tripura, Assam and the neighbouring states of Bangladesh, Cambodia and Myanmar (as they are the major conduits for illegal supply in small arms, ammunition, drugs and fake currency).

Pure 'law and order' solutions to ethnic and minority problems has gone hand-in-hand with 'large concessions' in the form of liberal aids and quotas for the educated youths in North-East. Still, the Indian state seems to have found no ways of resolving these insurgencies or even withdrawing measures like the Armed Forces Special Powers Act. Unless and until it strives for holistic systemic change from the core, 'the carrot and stick' policy will just keep on adding to its already insurmountable problems. India's other big 'northern conundrum,' the Kashmir conflict looks almost impossibly intractable. To the citizens of Jammu and Kashmir, whose fundamental allegiance lies with India, the only legitimate unit of governance is India—including Kashmir. To the citizens whose basic identity is with Pakistan, the only legitimate unit of governance is Pakistan—including Kashmir. To the citizens fundamentally committed to the achievement of an independent Kashmir, the only legitimate unit of governance is yet a phantom state of Jammu and Kashmir fully independent of both India and Pakistan. India will have to work out a negotiated settlement for a resolution to the Kashmir problem within a creative framework of competing nationalist claims by looking at the past history and methods of its federal framework.

Of the other outstanding problems, India's post-1991 liberalisation policies has left the nation grappling with its ever widening gap between the rich and the poor and the gap between the privileged and the rest. In huge swathes of India, the most deprived people have fallen sway to radical ideology and have taken to violence. Such civil violence will increase in frequency and scope as more and more citizens fall prey to such disparity.

6.5 AN OVERVIEW

South Asia has been an area multiple types of political violence due to various reasons:

- 1) The structural positioning of borders in South Asia are relatively recent, often arbitrarily redrawn after the withdrawal of colonial empires; thus trampling the hopes and aspirations of many sons of the soil. Not surprisingly, border areas in South and Southeast Asia have been rife with secessionist and recidivist nationalist movements, both within and across state boundaries. Such anti-state contests have taken the form of ethnic and minority struggles for autonomy or been subsumed into low-intensity inter-state conflicts. Ironically, while the colonial masters failed the state, the state has failed the populace owing to short sighted policies and elitist policies that left the mass of people behind.
- 2) The decades long Cold-War, the anti-Soviet Afghan resistance in the 1980s and the very fact of colonialism, de-colonisation and diaspora have all similarly affected the

calculations and strategies of local political actors. Whatever their intended consequences, political actors have failed to adequately address the grievances of many sections of the people.

- 3) Ideational influences—for instance the much-vaunted transmission of radical ideas and literature to India and Southeast Asia, has succeeded in episodes of ‘brain-wash’ activity of young minds and their outright involvement in terrorist activities to kill innocent lives as they seek to capture state power through the use of force.
- 4) The process of rampant globalisation and instant ‘societal change’ that has resulted in self-alienation of ethno-linguistic groups, middle to lower income groups, finding it hard to adjust itself to widening gaps between the haves and the have-nots, more precisely the powerful privileged and the rest.

Outside Asia, even the future of U.S and the rest is being hotly debated. The National Intelligence Council, has projected that in 2025, “The US will remain the preeminent power, but that American dominance will be much diminished.” According to Joseph.S. Nye, “for all the fashionable predictions of China, India, or Brazil surpassing the United States in the next decades, the greater threat may come from modern “barbarians” and non-state actors. In an information-based world, power diffusion may pose a bigger danger than power transition. Conventional wisdom holds that the state with the largest army prevails, but in the information age, the state with the best story may sometimes win (Nye, 2010).” Meanwhile, even as India and Asia are part of the emerging and influential countries in the international system they remain beset with internal conflicts and violence. There is an urgent need for non violent protest, negotiated settlements and sustainable development in a human security frame.

6.6 SUMMARY

Of all the forms of violence, state violence has been of much interest to researchers. As in other forms of violence, it too has multiple forms, perpetrators, victims and purposes. This category of political violence includes state and non-state actors; it may originate from internal or external sponsors; take forms that range from terrorism and guerilla warfare to sectarian violence, police actions, riots and assassinations. Violence is often used to generate publicity for a cause, besides attempting to inform, educate and rally masses. In South Asia, the examples of state violence are cited from Sri Lanka and Pakistan and in India. This violence takes varied forms from violation of rights to deprivation in terms of social and economic causes. Various factors have been identified for the perpetration of state violence and have been dealt with in the Unit.

6.7 TERMINAL QUESTIONS

1. What do you understand by state violence? What are the types and theories of state violence?
2. Analyse the situation of state violence in South Asia.
3. Discuss the extent of state violence in India.

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UNIT 7 NON-STATE VIOLENCE (TERRORISM)

Structure

7.1 Introduction

Aims and Objectives

7.2 Defining Terrorism

7.3 Core Characteristics of Terrorism

7.4 History of Terrorism

7.5 Theorising Terrorism and Its Causes

7.6 Other Forms of Political Violence

7.7 Summary

7.8 Terminal Questions

Suggested Readings

7.1 INTRODUCTION

A sub-classification of political violence, i.e., terrorism is a pervasive phenomenon, which is not only hard to ignore but also a much debated notion in contemporary times. The objective of this unit is to enable the students to gain a comprehensive and much broader perspective on the understanding of non-state terrorism rather than attributing it to a particular religion, geographic location or time line. Very often the mass media carries terrifying news about acts of violence and terror perpetuated by non-state actors or groups. These non-state actors often create a profound sense of fear in the public and anger towards the state machinery. The act of terror is a political statement that particular underground group makes to express its anger. This is done to question the legitimacy of the governments in place by projecting their inability to protect the people from violent assaults of the non-state actors particularly terrorists or militants groups. Therefore, to validate or create this type of sense terrorists and militant groups often stage indiscriminate attacks at public places like theatres, shopping centres, buses, planes, office buildings and streets.

Aims and Objectives

After going through this Unit, you would be able to:

- explain the concept of non-state violence
- understand terrorism as a major threat and its history
- analyse the theorising of the causes of terrorism.

7.2 DEFINING TERRORISM

There is considerable disagreement in academia and policy making bodies regarding the definition of terrorism. Although there exist numerous definitions of terrorism, none of them are clear, concrete or even measurable. Some definitions, though, are legally employable simultaneously, they too lack the definitive parameters for them being politically accepted.

Terrorism is a tactic – a method in the place of direct political action. It is characterised by three important dimensions – political, military and legal – the imprecision, non-uniformity and lack of a discrete and concrete definition not only leads to confusion and misuse, but also fails to ensure consistent and valid conclusions. This apparently makes the study of this phenomenon extremely difficult.

Harvey W. Kushner, in the *Encyclopedia of Terrorism*, notes that, ‘there are as many definitions for the word terrorism as there are methods of executing it; the term means different things to different people, and trying to define or classify terrorism to everyone’s satisfaction proves impossible’. Louise Richardson also documents this confusion in his writings. He writes: ‘The widespread usage of the term terrorism, in many contexts, has rendered the word almost meaningless. Today, it’s only universally understood connotation is so pejorative that even terrorists don’t admit to being terrorists any more. A glance at the current usage reveals child abuse, racism, and gang warfare all incorrectly described as terrorism.’

Poly-semantic nature of defining Terrorism

At the outset, the Oxford English Dictionary defines terrorism as ‘the systematic employment of violence and intimidation to coerce a government or community into acceding to specific political demands’. While the use of violence most definitely is a significant characteristic of terrorism, most definitions also attest to the political motive of its perpetrators and their target/source as being the state. In this regard, G. Pontara’s definition is as good a starting point as any: ‘A terrorist act is any action carried out as part of a method of political struggle, aimed at influencing, or conquering or defending the State power, implying the use of extreme violence (inflicting death, or suffering or injuries) against innocent, non-combatant persons’. This definition includes both the non-state actors as well as state sponsored terrorism.

It needs to be mentioned here that ‘enforcement terrorism’ or ‘terror from above’ is used by governments and authorities to maintain their control to suppress threats to their own power, whereas ‘terror from below’ or ‘agitational terror’ is used by those who wish to replace, transform, or destroy the existing order.

Grant Wardlaw, in his book *Political Terrorism*, defines terrorism as, ‘the use, or threat of use, of violence by an individual or group, whether acting for or in opposition to established authority, when such action is designed to create extreme anxiety and/or fear-inducing effects in a target group larger than the immediate victims with the purpose of coercing that group into acceding to the political demands of the perpetrators’. This view too remains consistent with the three dimensions of terrorism discussed in the preceding section.

Further, the US Department of Defense makes a specific distinction between terrorism and insurgency. It defines terrorism as ‘the calculated use of violence or threat of violence to inculcate fear; intended to coerce or to intimidate governments or societies in the pursuit of goals that are generally political, religious or ideological’, while insurgency is defined as ‘an organized resistance movement that uses subversion, sabotage, and armed conflict to achieve its aims. . . . [and which] seek to overthrow the existing social order and reallocate power within the country’.

Despite terrorism being defined spatially and in terms of identities, state and non-state actors, it is possibly comprehensively defined by the UN Resolution 1566, which refers

to it as, 'criminal acts, including against civilians, committed with the intent to cause death or serious bodily injury, or taking of hostages, with the purpose to provoke a state of terror in the general public or in a group of persons or particular persons, intimidate a population or compel a government or an international organization to do or to abstain from doing any act'. This can be considered a working definition.

Methodological Issues

The definitions of terrorism, as explained above, explicitly posit that despite being an extensively studied phenomenon it remains a largely contested domain. As the famous cliché goes, 'one man's terrorist is other man's freedom fighter'. The inherent assumption herein is apparent, thereby making terrorism an extremely complex phenomenon, not only in terms of definition, but also in terms of context. This has perhaps led Kalliopi K. Koufa to state that there is a 'tendency amongst commentators to mix definitions with value judgments and either qualify as terrorism violent activity or behavior which they are opposed to or, conversely, reject the use of the term when it relates to activities and situations which they approve of'.

7.3 CORE CHARACTERISTICS OF TERRORISM

Nevertheless, certain central tenets of terrorism, generally agreed to by political commentators, can be delineated for our purposes. Use, or threat of use of lethal violence and political nature of the crime (in a sense that the claims of terrorists are for/against political authority) can easily be identified as its two central features, the former being employed necessarily for achieving political ends. While there exists a consensus on the former characteristic of terrorism, the rise of organisations like Al Qaeda, which many claim have millenarian objectives, seems to contest the political argument. However, even organisations like Al Qaeda have immediate political objectives (like upstaging the Saudi regime or destabilising the Western hegemony).

Besides, the threads of terrorism weave some common but recurring themes. Jason Franks clubs them under three areas – functional, symbolic and tactical. All these three attest to claims towards achieving the 'means to the end' of the terrorists. The functional argument suggests that the purpose of terrorism is to 'provoke a response', in fact an exaggerated response, from the established authority/government against the perpetrators, their supporters and even the people in general. The state repression let loose in response to terrorism exposes state authority to claims of illegitimacy and undermines its own legitimate claim to authority. This helps in weaning the legitimacy of the state authority away from the government towards the terrorists. The terrorists, by exposing the general populace to violence, also undermines the capability of state by challenging it on the *raison d'être* of its existence – providing security to its citizens.

The symbolic characteristic of terrorism suggests that use of violence is highly emblematic in order to intimidate and strike fear into those against whom the violence is directed. The violence could be minimal, but is directed to harness it for maximalist propaganda. Thus, violence has a clear demonstrative effect here; the violence being intended for more than just incurring physical damage. In fact, most times it might not even be necessary to inflict physical injury on the intended target, i.e., the government or another community. A mere demonstration of violence is enough. Also, at times, violence is used merely to internationalise (or even nationalise) the issue and thus, open up government's claims of authority to international scrutiny.

The third important component of terrorism is its tactical nature. Terrorism, most analysts argue is neither a pre-conceived strategy nor ideologically oriented, but rather a mere tactic employed by organisations for achieving their political objectives. In this context, it can be used to achieve short-term aims or employed as an approach for demonstrating the attainment of long-term objectives. Plane hijacking to release a particular prisoner could be a useful demonstration of the former, while the use of guerilla warfare would be an instance of the latter.

A major lacunae on understanding terrorism, according to major critical theorists, are that the whole discourse is centered around *what* and *how* aspects of terrorism. No consideration is given to the *why* aspect of terrorism, implying that while terrorism remains universally demonised in the discourse, very little effort is spared to understand its causative characteristics. This, if the analysts are to be believed, is perhaps deliberate, more so to undermine the fact that any thorough scrutiny of the causative factors of terrorism might actually end up justifying *why* it was perpetuated in the first place and at times, even legitimise the means employed by the terrorists. The mainstream discourses on terrorism are, thus, employed with a specific purpose of allowing the state to tackle terrorism without undermining its own legal authority.

7.4 HISTORY OF TERRORISM

‘Terror’ is etymologically derived from the Latin word *terrere* meaning ‘to frighten’. The earliest precedent of the use of the word comes from *terror cimbricus*, which was a state of emergency in Rome in response to the approach of warriors of the Cimbri tribe in 105 BC. Jewish *Sicarii*, *Hashishin* (mythologinised Shia Ismaili sect) and *thuggees* (the Indian cult of Kali worshipers) are some of the historical modes of terrorism. In the modern era, perhaps the first case of the state induced terror could be attributed to the Jacobians after the French revolution in France.

Terrorism, of the non-state variety, could trace its first organised manifestation to, what noted political historian David Rapoport calls, the ‘anarchist wave’ of 1880s. This wave first appeared in Russia and then spread to Western Europe, the Balkans and Asia. The anarchists were rebels against state authority and also against the traditional revolutionaries who, according to them, were mere ‘idle word spillers’. The anarchists believed that dramatic action was required to shake the foundations of state and the most direct way was to assassinate state officials. The first major assassination was of the Russian Czar Alexander II in 1881. The 1890s was the age of assassination as a number of monarchs, prime ministers and presidents were killed by assassins. Perhaps the most notorious assassination proved to be that of Archduke Ferdinand in 1914 which resulted in the catastrophic World War I.

The second wave, according to Rapoport, started after the conclusion of the Treaty of Versailles when national aspirations of many colonies in non-West were not respected. It was the age of Wilsonian idealist principles, but these principles were only applicable to the victors in the West. By now, the domestic nationalist movements in most of the Third World countries had got disillusioned with their elite-petitionist struggle. Moreover, the League of Nations was a bystander to the onset and perpetuation of colonialism in many parts. Soviet Union had emerged as a new beacon of light and Marxist revolutionary ideology became the flavour of the time. This started an ‘anti-colonial wave’ where the colonised resorted to violent action against the coloniser. The colonisers deemed it as

‘terrorism’ and labeled the ‘freedom fighters’ as terrorists. Broadly, this came to end with the decolonisation of Third World states after the Second World War.

Rapoport calls the third wave as the ‘New Left Wave’. The late sixties started a new radical turn in the West as the new post-War generation grew disenchanted with the new liberal order. The economies in the West had become stagnant after the post-war boom and unemployment grew, Vietnam war had exposed the hypocrisy of liberalism in America, Cold War was consuming enormous resources and states were increasingly militarised, the superpowers had initiated a number of proxy wars in the hapless Third World and had supported a number of dictators, and so on. The decadal period of the 1960s marked this radicalisation of the youth across many countries as the youth announced their revolutionary credentials. Many such new left radical student organisations mushroomed in Europe. The American Weather Underground, the West German Red Army Faction, the Italian Red Brigades, the Japanese Red Army, the French Action Directe were many such groups.

This radicalism was combined with nationalist struggles by Vietnamese, Palestinians, Basques, Armenians, Kurds, Irish, Black South Africans and so on. This wave also saw a number of innovative strategies being adopted, like plane hijackings, where the aim of the terrorists was larger than merely killing the state officials or conveying the message to the state government. The urge was increasingly to put the message across to the international community and international legitimisation was seen as a crucial step towards domestic legitimisation.

The fourth wave, and also the current wave, is what Rapoport defines as ‘religious wave’. The 9/11 definitely acts as a point of departure for this. It has also heralded what many call ‘new terrorism’. This wave is greatly different from all previous waves on two accounts. First, the objectives of the terrorists are not very clearly couched in either political or economic coatings. Their stated objectives are ‘religious’, perhaps more aptly captured in Samuel Huntington’s ‘Clash of Civilizations’ thesis. However, many political commentators, as argued earlier, believe that the religious motives of these terrorist organisations merely act as alibi for their strong political aims. Al Qaeda, for example, clearly has a more direct aim of toppling regimes in Saudi Arabia and Egypt. The other difference is the enormous advances in technology. These religious groups, no matter how conservative and traditional they pose themselves to be, are extremely efficient at harnessing technology for the purpose of their activities. With minimum resources, they can inflict maximum damage. Causing maximum damage in the form of huge losses of lives and property as against the highly selective killings of the previous waves has become the chosen strategy of this brand of terrorism. Violence, thus, eschews its symbolism for more physical effects. The technology also allows these organisations to work not as centralised and highly institutionalised formations, but as loosely bound networks. This helps them to spread much more widely without compromising much on the efficiency of execution.

7.5 THEORISING TERRORISM AND ITS CAUSES

The theory of terrorism seeks is explained by a wide range of factors. Major theoretical approaches identify terrorism as having personal, psychological, socio-economic, historical, religious and political underpinnings. At the outset, it must be understood that terrorism is a complex issue with a multi-faceted disposition. Its analysis requires an insight that avoids simplistic causal modelling of social phenomenon. However, for our convenience, we shall

delineate some important factors that have been utilised as analytical tools to enhance academic understanding of terrorism. Broadly, such causative factors can be summarised as under:

1. Personal and psychological causes;
2. Political causes;
3. Economic causes;
4. Religious causes; and
5. Spatial dimension of terror: Domestic and International.

Personal and Psychological Causes

A number of analysts believe that terrorism stems out of personal causes. Theodor Adorno propagated an **Authoritarian Personality Theory** in which he argued that a person is drawn towards the right-wing ideologies and extremist violence due to paranoid worldview, misanthropy and rigidity. He, thus, attributes acts of violence akin to terrorism to psychological abnormality or unique pathological personality.

However, critics argue that terror acts are merely not pathological and cannot be solely attributed to mental paranoia. They are of the opinion that most terrorist acts are committed by extremely sharp and mentally sound individuals. Besides, psychological disorders do not explain why only some people suffering from such disorders commit such acts while others do not. Many analysis shows that the terrorist is educated, employed and not poor. He or she has analysed the world view and calculated the outcomes but is willing to commit terror for martyrdom or cause.

Another theoretical formulation, which could possibly explain the transition of individuals towards political extremism or terror, is the **Social Networking Theory**. According to this formulation, individuals romanticise community ties, familial kinship affiliations, etc. to maintain and continue social interaction, which, in due course, translates into collective action. The process of absorption in this case is not instantaneous, initially being based upon a shared identity and later indoctrination into the group.

Another theoretical underpinning, which seeks to explain why individuals are drawn towards extremism (including acts of terror), is the **Frustration-Aggression Theory**, which posits that in a state of alienation from access to resources or perceived rewards an individual is likely to exhibit a behaviour sequence, which largely negates the existing or established code of conduct. There is also a belief of collective victimhood, which the potential terrorist is willing to kill and get killed for.

Political Causes

Much of the literature on terrorism attests to the political causation of terrorism. Terror acts are committed by some groups/communities/actors against the state with the purpose of making the state negotiate or accept their political demands. Terrorism, such analysts argue, is a deliberate strategy employed by groups using violence as a weapon to convey their grievances (to the state) and simultaneously, negotiate outcomes. Moreover, by directing the violence towards the state and its instruments, these groups intend to expose the vulnerability of the state (the government in power) in protecting its citizenry and thus, rob the state of its legitimacy. Perhaps, the most illustrative instance of this typology of

terrorism is inherent in the anti-colonial movement. In recent times, ethnic violence has emerged as a huge challenge to the state authority.

The anti-colonial movements in various parts of the globe, especially in the twentieth century, had stemmed out of political oppression of the colonised by the colonisers. Although, Marxists have theorised colonialism as an economic system (Lenin's theory of Imperialism), most postcolonial theorists argue that colonialism was predominantly a political system. In the writings of scholars like Jean Paul Sartre, Albert Memmi, Frantz Fanon and Cabral, it becomes clear that colonialism was a political problem and the colonised could only overthrow it through violent means. These writers became prophets and justifiers of many anti-colonial movements that used violence.

Economic Causes

The political and economic causes are usually intertwined in generating acts of terror. Ted Robert Gurr has argued in his **Relative Deprivation Theory** that people would resort to civil protest or political violence when concrete social, economic, or political privileges are withdrawn or denied to them (that they had come to expect as rights). He argues that ordinary crime or political violence is directly or indirectly motivated by perceived or actual conditions of economic, social, and political inequality. Economic inequality leads to acute tensions in the social milieu and the deprived resort to acts of violence to gain access to resources. Moreover, the economically deprived, who according to Marxist literature in turn become politically and socially deprived, also make use of violence to prevent the bourgeoisie from exploiting them further. Naxalite or Maoist resistance in India is an example of using terrorism as a tactic linked to organised resistance because of economic deprivation and marginalisation. The critics of this school, however, have argued that based on this interpretation, terrorism should be most prominent in places of high economic inequality such as Africa and Latin America, which is not the case. They naturally ask why is that 9/11 happens in USA and not in China or Brazil?

Religious Causes

The post-9/11 terrorism has generally been characterised as religious terrorism. This line of reasoning believes that the new terrorism (post-9/11) stems out of rising tensions between two proselytising religions of the world – Christianity and Islam. Islam, having been displaced from its great pedestal in the medieval times, when it was the fastest rising religion and also perhaps the most domineering with its influence spreading from Europe to India, has been trying to assert itself. The fundamentalist elements within Islam believe that Muslims have been greatly marginalised and discriminated against in the new world order and that the nefarious alliance between Christianity, Judaism and Hinduism has been the vanguard contrary to their belief. This thesis, as propounded by Samuel Huntington, in his now famous 'Clash of Civilizations', has been an issue of much criticism and debate.

The fundamentalists in Islam, analysts behind this reasoning argue, seek millenarian objectives and wish to bring back the golden age of Islam. They problematise Western modernity for its morally defunct value system. To remedy this, they seek a complete structural change, which the terrorist groups such as Al Qaeda believe can only be established through unmitigated violence. Other analysts, however, point to the fact that all religions have fundamental elements that believe in such radical ideologies and employ similar methods. Moreover, it is not religion per se but its misuse or misinterpretation by certain individuals/groups within them, which causes terrorism. Also, there is a need to

accentuate that religions are not monolithic homogeneous whole and comprised of multiple belief systems.

Ideological Causes

Most analysts agree that ideological affiliations by far remain the beacon, which not only influence actors but also serve to influence or rationalise the terror acts they continue to commit. The terrorists are generally regarded as irrational actors, who are willing to kill and get killed for their actions. The moot question, often, asked is how can any individual agree to die for a cause, which is largely perceived to be irrational? The answer perhaps lies in the ideological affiliation, indoctrination process and the manner in which irrationality is rationalised. Nazism, fascism, anarchy, Marxism, Leninism, Maoism, even nationalism, etc. have provided the ideological bases to the acts of terrorism. Marx is said to have stated in context of religion – ‘religion is the opium of the masses’. A similar statement could be made with regard to any ideology.

In sum, the factors mentioned in the preceding sections are widely regarded both in academics and policy circles as being causative or explanative of terrorism and also are widely utilised as analytical tools to place terrorism in a proper context. However, as was stated earlier and is evident from the above analyses, terrorism predominantly remains a multi-causal phenomenon. Most instances of terrorism synergise one or more of these factors. They also point out to the fact that terrorism is not a passing fad. It has existed, in one form or other, over the centuries. It also cannot be merely understood in the popular terminology of ‘phases’ or ‘cycles’. However, historical analyses suggests that what is evidently apparent is that it has existed over centuries, but what perhaps needs to be accentuated is that it undergoes changes in its content and manifestations – in the present context it is seemingly sophisticated, employing technological advances both in weaponry and communication. In the past century, political historian David Rapoport has aptly explained terrorism to have ebbed and flowed in different forms. The new terrorism is merely another wave in this cycle.

There are numerous elaborative typologies of terrorism based on place, personality traits, purpose, target and issues. And, most of them include some form of state terrorism (also known as mass terrorism, authorised terrorism, enforcement terrorism, repressive terrorism) as well as individual and group terrorism.

However, in most of these typologies, there is no mention of motive and behaviour. Some of them follow the liberal view and some the conservative view. From liberal perspective, violence against the state and its establishments is justifiable whereas conservative outlook condemns terrorism and justifies ruthless countermeasures. Also, there have been attempts to define terrorism from historical, sociological and psychological perspectives.

While placing their individual purviews, historical, sociological and psychological perspectives fail to integrate the motive and behaviour of terrorism. Hence, in this Unit, for a holistic typology of terrorism, viewpoints from political science have been taken thereby dissecting the problem from various angles.

Terrorism has various strands. Each one of them differs in terms of objectives, strategies, targeting patterns, tactical tendencies, operational areas and operational codes. Such strands, especially the ones with ideological underpinnings (anarchist terrorism, left-wing terrorism, right-wing terrorism, ethno-nationalistic/separatist terrorism) are briefly discussed as under.

Firstly, **Anarchist Terrorism** has its roots in the 19th century's idea of anarchism. Anarchist groups, organisations or individuals believe that the government/state is 'unnecessary and harmful'. Therefore, to make their argument known to the masses they resort to violent means employing the strategy of 'the propaganda by the deed'.

Secondly, another form of terrorism, which gained a very high degree of internationalisation, is known as **Left-wing Terrorism**. Being the 'vanguard of the oppressed proletariat', this form of terror is extremely radical as it intends to bring about political change from a capitalist status quo to Marxist, Leninist, Maoist, Trotskyist, Communist or any other socialist style of government. This form of political violence is deep rooted in ideological underpinnings and the strategies employed are extremely efficient with a strong cadre base. Some instances of left-wing terrorism are the Baader-Meinh in West Germany, Italian Red Brigades, Weather Underground and Symbionese Liberation Army of the US, Naxals in India, Communist Party (Maoist) of Nepal, etc.

However, after the dissolution of the Soviet Union, a new form of left-wing terrorism emerged known as the **New-left Terrorism**. Contrary to the left-wing terror, this form of terror largely consists of a loosely organised cadre, which is rarely full timer. The issues circumventing this form of violence range from radical environmentalism, anarchism and anti-globalism.

The third strand of ideologically motivated terrorism is the **Right-Wing Terrorism**. It consists of acts of violence perpetrated by outlawed groups that do not seek a social revolution, but resort to violence as a way to express and advance their political goals, such as ultra-nationalism and anti-communism. For the same, such groups utilise policies of Xenophobia, racism, anti-semitism and conservatism. Sturmabteilungen in Weimar Germany (SA), Ku Klux Klan of 1930s, Neo-Nazis and skinheads in Europe, Patriot Movement groups of the US, Neo-Fascism in post-war Italy etc. are few examples.

Finally, the fourth form of terrorism in the spectrum discussed above is that of **Ethno-Nationalist/Separatist Terrorism**. Its resurgence is a relatively recent phenomenon and is largely based on disagreements and dissidence among ethnic and national communities. This form of terror – having clearly demarcated political cause (s) – seeks to establish autonomy, self-determination or even complete independence from the existing political order, for example, Chechen separatists in Russia.

Spatial Dimensions of Terrorism

Spatially, the most distinguishable forms of terrorism are **Domestic** and **International**. The former intends to further a domestic and political social agenda and is primarily located in the host country and its organisation (in terms of membership, finance, and logistics), victims and targets too consist of the host country. Correspondingly, the international form of terrorism, synchronous to contemporary conflicts, differs from the former with regard to its spatial dimensions, membership, victims, finance and related logistical support. Unlike domestic terrorism, it is not localised with regard to its ideological affiliations or intended objectives. Also, the externalities in this case differ considerably.

7.6 OTHER FORMS OF POLITICAL VIOLENCE

As is evident from the discussion in the preceding sections, the boundaries between terrorism and other forms of political violence overlap considerably. Nevertheless, none of

the groups/individuals indulging in acts of terror admit to the label of being ‘terrorists’; secondly, most use terminologies which are self-preferred (freedom fighters, warriors etc.); thirdly and unambiguously, most militant groups are driven by more than one motivation (the overlap is elucidated in them internalising and synthesising right-wing extremism and religious fundamentalism; nationalism and left-wing radicalism or religious extremism and radical nationalism).

Nevertheless, it is still important to distinguish between acts of terror and other forms of political violence. This is necessitated on two accounts. First, not all forms of political violence can be termed under the broad umbrella of ‘terrorism’; and second, if the first assertion is logical then what are the forms of political violence that differ from terrorism and how so?

The dominant forms of political violence that cannot be juxtapositioned within the broad ambit of terrorism are **Guerrilla Warfare** and **Insurgency**. Both these forms constitute ideologically oriented legitimate typology of protest. Principally, these forms differ from terrorism in the following manner. First, the very nature of the act differs considerably – terrorism is deliberate, indiscriminate, sporadic and a highly visible form of violence to inflict casualties on non-combatants; while guerrilla warfare and insurgency are not so. Secondly, terrorism and guerrilla warfare and insurgency differ in their contexts.

Thirdly, the intended targets of terrorism and guerrilla warfare and insurgency differ. While in the former, the targets are indiscriminate, in the latter, the targets are usually the government and its institutions. Fourthly, the goals of terrorism shuffle from specific to abstract, while those of guerrilla warfare and insurgency are largely specific. Fifthly, while the support base of terrorism is ambiguous, that of those indulging in guerrilla warfare and insurgencies is highly localised. Finally, terrorism is asymmetrical in nature while guerrilla warfare and insurgencies are somewhat symmetrical in comparison.

7.7 SUMMARY

One of the forms of non-state actor violence is terrorism that involves the use of a violent strategy for essentially political reasons. It is a tactic that has no specific independent ideology, but an ideological or religious group can use it to further its end. Terrorism targets the state and particular communities but ends up killing and damaging innocent people who may have nothing to do with the idea that the terrorists target. There are different causes for the employment of this method. Even guerrilla warfare and insurgency are considered as forms of terrorism. States and government need to address the causes for terrorism as well as to make their citizens secure from this threat.

7.8 TERMINAL QUESTIONS

1. Critically comment on the non-state aspects of terrorism.
2. How does terrorism undermine the governmental credibility, legitimacy and how does it destabilise the social fabric of society?
3. Terrorism is an asymmetrical form of political violence. Explain.

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UNIT 8 DISASTER AND DEVELOPMENT

Structure

8.1 Introduction

Aims and Objectives

8.2 Development and Global Warming

8.3 Stabilisation Wedges

8.4 'Green' Ways to a Cleaner World

8.5 Fuel-Food Debate

8.6 Precision Farming

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8.8 Summary

8.9 Terminal Questions

Suggested Readings

8.1 INTRODUCTION

We have been facing natural disasters since ages but the present decade has seen significant variations in seasonal patterns of climate variations that impact differently in terms of time and place. Unpredictable heavy rains causing floods and deluges, earthquakes of greater intensity and magnitude with huge death rates, massive landslides, delayed monsoons have overwhelmed the developed and developing countries of the world. Areas having good rainfall have been facing drought. There is worldwide food insecurity and there is water crisis and conflict between communities and states over water in many parts of the world. Research and science have indicated the threat of global warming as the reason for such crises. Therefore, this Unit attempts to discuss the issue of global warming and the steps taken by the countries around the world, especially India in reducing it. The handling of disasters is part of ensuring human security as the entire system is involved in extending a helping hand to the victims in times of crisis and having sustainable development.. This is a different facet of human security that has now come under the ambit of non-traditional security dimension.

Aims and Objectives

After studying this Unit, you should be able to:

- recognize disaster management as part of non-traditional security.
- analyse the relationship between development and global warming;
- describe the initiatives undertaken by countries in handling different forms of crisis.

8.2 DEVELOPMENT AND GLOBAL WARMING

At the turn of the last century, the Earth's atmosphere contained about 280 parts per million of carbon dioxide. This means that the global average temperature is of about 57 degrees Fahrenheit. This was not considered to be adverse. But as fast industrialization and growth started taking place, beginning with the industrial revolution in the Western Countries and followed by the rest of the World, industrial pollution, chemical changes were the outcome. Many experts and researchers showed the negative impact of the process of such development based on high growth rates. As Bill McKibben puts it, with growing developmental needs, we started using more coal, gas and oil to power our lives that increased this 280 number. As industrialisation gained pace, there was a simultaneous growth in the economy as also an increase in the carbon emissions and the green house gases (GHGs) in the Earth's atmosphere owing to the use of fossil fuels, gas and oil. The automobiles that we are driving today are producing and emitting so much of GHGs. Likewise, incessant use of pesticides and fertilisers to boost agriculture productivity are generating and emitting green house gases like methane and nitrous oxide. And it is these emissions that are causing the atmosphere of the Earth to get heated up and become unduly warm. One of the features of the molecular structure of CO₂ is that it traps heat near the planet's surface that would otherwise radiate back out to space. So obviously, with the increase in the CO₂ parts and other GHGs, the Earth's temperature started rising. Now, it is at 380 and increasing by roughly two parts per million annually. The extra heat that CO₂ traps, a couple of watts per square metre of the Earth's surface, is enough to warm the planet considerably. And this is already showing results in terms of receding glaciers, unpredictable seasonal patterns, and sea level rise throughout the world. This is causing an adverse affect on the economy, especially agriculture and industry, more so of the developing world, not to mention the undesirable costs on health.

Based on a number of reports in recent years, scientists argue that the CO₂ parts should not increase beyond 450, as this will lead to the melting of Greenland and Antarctic ice sheets. Therefore, it is necessary and also an obligation on the part of the countries of the world to contain CO₂ emissions. Scientists warn that the current CO₂ emissions should be cut by at least half over the next 50 years to avert a future global warming disaster. The projected emission is of 16 billion metric tons of carbons a year by 2057, if we do not reduce (McKibben 2007).

The industrialised countries have the highest of carbon emissions, and U.S. carbon emissions are a quarter of the world's total, and this is continually and steadily rising. China and India (India's carbon emissions, which currently account for almost 6 per cent of the world total, will more than triple within the next 20 years. According to a report compiled by a number of Indian institutions, the country's emissions will soar from 1.2 billion tonnes today to between 4 and 7 billion tonnes in 2030) have started producing huge quantities of CO₂ and today, China has overtaken U.S. in terms of the carbon emissions that was 6.2 billion metric tons of carbon dioxide in 2006 in comparison to the United States, which produced 5.8 billion metric tons of CO₂, underscoring the pace and speed of industrialisation taking place in the country. With huge populations and rapid economic growth of these countries, the prospect of worldwide decline in emissions seems much more daunting.

It appears very difficult to bring about the differentiated responsibilities with rapid and sustained cuts in emissions by the technologically advanced countries and large scale

technology transfer to the developing world. The question is whether the former can think and act in a manner that is conducive to reduction in emissions on a major scale and transfer of technology that can enable the developing countries to contain emissions without compromising on development and growth agenda. The stabilisation of the current carbon emissions at the present level along with reducing them in future is the need of the hour.

8.3 STABILISATION WEDGES

In the past fifty three years, the global carbon emissions has been rising (3.7 metric tons of CO₂ emissions contains a metric ton of carbon) and today global carbon emissions are estimated at 8 billion metric tons a year. By 2057, the projected emissions will be of 16 billion metric tons of carbon a year. The possible temperature rise will be +9 degree Fahrenheit to the existing temperature of 78 degree Fahrenheit and the atmospheric CO₂ concentration in parts per million will be over 800 ppm as against the current 525 ppm.

There are three possible paths for future carbon emissions:

- First, ‘maintain’ the current rate of increase;
- Second, ‘hold’ emissions at today’s rate by following 08 carbon cutting wedges by 2057 and then reduce further; and
- Third, ‘reduce’ emissions by half over the next 50 years by cutting 04 more wedges and then reduce further.

How is this going to be done?

Princeton researcher Robert Socolow and Stephen Pacala have described 15 ‘stabilisation wedges’ (carbon-cutting wedges) using existing technologies to realise the goal. Adopting any combination of the below mentioned strategies that equals 12 wedges could lower emissions by 50 per cent. Each carbon-cutting wedge would reduce emissions by a billion metric tons a year by 2057. These wedges are:

- 1) Efficiency and conservation
 - improve fuel economy of the two billion cars expected on the road by 2057 to 60mpg from 30mpg
 - reduce miles travelled annually per car from 10,000 to 5,000
 - increase efficiency in heating, cooling, lighting and appliances by 25 per cent.
 - improve the coal fired power plant efficiency to 60 per cent from 40 per cent
- 2) Carbon capture and storage
 - use capture systems at coal driven hydrogen plants producing fuel for a billion cars
 - use capture systems in coal derived synthetic fuel plants producing 30 million barrels a day
 - introduce systems to capture CO₂ and store it underground

3) Low carbon fuels

- replace large coal fired power plants with natural gas fired plants
- displace coal by increasing production of nuclear power to three times of today's capacity

4) Renewable sources of energy

- Increase wind-generated power to 25 times of current capacity
- Increase wind power to 50 times current capacity to make hydrogen for fuel cell cars
- Increase solar power to 700 times of current capacity
- Increase ethanol bio-fuel production to 50 times of current capacity
- Stop all deforestation
- Expand conservation tillage to all cropland

Source: Bill McKibben in the National Geographic

So we can hold emissions at today's rate by cutting 8 wedges and reduce emissions by half over the next 50 years by cutting 4 more wedges and then reduce further.

8.4 'GREEN' WAYS TO A CLEANER WORLD

When we discuss the issue of stabilisation wedges, whether it is the strategy of efficiency and conservation or carbon capture and storage or low carbon fuels or renewable sources of energy, what strikes the goal is making fuel from crops interpreted in this paper as 'green'- specific crops and plants that can contribute towards conservation and preservation of our planet not only by making it cleaner and healthier but also productive by wedging the carbons and other GHGs.

Food crops-green ways to a cleaner world: An analysis

Food crops are being increasingly used as energy suppliers and replacing coal, oil and gas, which are the largest emitters of CO₂. The food crops like corn, sugarcane, soybean, ethanol and such others like jatropha and algae produce large amounts of energy. These crops can help the countries to replace their coal fired energy that is the cause of expansion of the CO₂ parts in the Earth's atmosphere.

Herein, we will discuss some of the food crops and such other plants and how their energy content can replace our carbon generating fuels and thus lessen carbon emissions.

Ethanol

Ethanol can cut our carbon emissions in a very significant way as compared to the fossil fuel and hence can be used as a substitute for gas, oil and diesel. It is made from crops like corn, soybean and sugarcane. It is not only a renewable source of energy but also what it emits as carbon is what the crops get from the sun during the growing season.

In the U.S. there is a boom in corn growing. The U.S. government has provided subsidies for ethanol production and millions of dollars are provided for research with the

goal of replacing 15 per cent of the gasoline use with ethanol and other biofuels by 2017. However, there is need to pay attention to certain aspects. Corn plantation requires good doses of fertiliser and consumes just about as much fossil fuel as the ethanol itself replaces. It is still a gasoline additive (like in U.S. it is 85 per cent ethanol and 15 percent gas). Also, it can replace other crops in terms of cultivation, as it is more lucrative to the farmers. All corn grown will be routed by the farmers to produce ethanol and so we can be bereft of our food crop. Researchers like Nathaniel Greene emphasise on replacing our food crops with plant material like corn stalks, algae, and fast growing trees in producing biofuels. Some of the farmers are now experimenting by using biogas from the cattle manure to burn the corn. The process of burning the corn can be done by biogas that can be generated with the use of bio-digesters. The bio-digesters are fed with the cattle manure.

In Brazil, ethanol from sugarcane is being produced. It has been using ethanol from sugarcane, known as 'alcohol' since the 1920s. From last thirty years ethanol plants have come up in large numbers owing to the subsidies and finances provided by the government. Also, Brazilian car manufacturers were given incentives to design cars that could burn straight ethanol. By the mid 1980s nearly all the cars sold in Brazil ran exclusively on alcohol. Volkswagen introduced Brazil's first 'Total Flex' vehicle in 2003 that could automatically adjust the air-fuel ratio and spark advance for any mixture of gasoline and alcohol. Today, 85 per cent of cars sold in Brazil are Flex. Today, its Sao Martinho plant turns over seven million tons of cane into 300 million litres of ethanol for Brazilian cars. It is also building a three million ton unit exclusively for ethanol in the Goias state.

The benefit of sugarcane is that unlike corn, in which the starch in the kernel has to be broken down into sugars with expensive enzymes before it can be fermented, the entire sugarcane stalk is already 20 per cent sugar and it starts to ferment as soon as it is cut. Cane yields 600 to 800 gallons of ethanol an acre, more than twice as much as corn. The plant where sugarcane is treated to produce fuel does not consume fossil fuel or electricity but uses cane waste known as 'bagasse' for burning the sugarcanes. The experts find that producing and burning cane ethanol generates anywhere from 55 to 90 per cent less carbon dioxide than gasoline. But the process of making the alcohol is very unclean. To kill snakes and to make the cane easier to cut by hand the fields are usually burned before harvest. This fills the air with soot and also releases nitrous oxide, a greenhouse gas. Besides, it makes it very backbreaking for the workers and they sometimes die of exhaustion (Joel K. Bourne, JR.)

8.5 FUEL-FOOD DEBATE

There is a continuous debate on the issue of food security, where the food crops are sent for generating biofuels at the cost of being provided as food to people. We are facing a food crisis and we cannot help watching millions going hungry at the cost of generating biofuels. As crops being supplied as food for the people becomes less and get diverted for production of biofuels, the food prices will shoot up and this will further lead to serious health problems, especially of the poor and it will be a grave violation of human rights.

Greene has proposed several alternate pathways that can address the problem. He says that, we can make use of biomass, that is, shredded corn, sugarcane stalks, leaves, wood, sawdust or even prairie grasses like switch grass instead of food crops. Agricultural residues like husks of crops, stalks, leaves etc.; forestry wastes like wood chips and

sawdust, and tree bark; municipal solid waste like household garbage; and paper products and paper pulp will provide biodiesel that will produce 68 per cent less GHGs as compared to diesel.

For example in the U.S., a small operation at the National Renewable Energy Lab in Golden, Colorado can convert a ton of biomass into 70 gallons of ethanol in a week. Likewise, switch grass can produce as much ethanol per acre, as sugarcane. Cellulose in corn plants can double the ethanol output. Cellulose ethanol derived from prairie grasses grown on land unfit for other crops, could replace up to 13 per cent of the world's oil consumption, if an efficient way to turn cellulosic plant matter into ethanol can be developed. A 2005 study by the U.S. Department of Agriculture and U.S. Department of Energy estimated that by planting 50 million acres of fallow land with perennial grasses and fast -growing trees, the country can produce 1.3 billion tons of feedstock for ethanol. Also, the National Renewable Energy Lab pointed that all plant matter could replace more than half the transportation fuel currently burned each year. As Mike Pacheco, former director of NREL's Bioenergy Centre says, "the green line is what we think we can make on farms and from trees and switch grass- the equivalent of 3.5 billion barrels of oil" (Joel K. Bourne, JR).

Besides biomass, *Jatropha curcas* has a good potential to reduce carbon emissions. *Jatropha curcas* is a drought-resistant perennial plant that grows well in marginal and poor soil with low nutrient content. It is an oil bearing plant. It is also very easy to plant and grows very quickly with minimum inputs of fertiliser, water and pesticides. It has a lifespan of 50 years and spreads very easily.

The non-edible vegetable oil of *jatropha curcas* has the potential of providing a commercially viable alternative to diesel oil, since it has desirable physicochemical and performance characteristics comparable to diesel. Cars can be run with *jatropha curcas* without requiring much change in design. The *jatropha* seeds are rich in oil content of 33% - 37%, which can be combusted as fuel without being refined. It burns with clear smoke-free flame and is being used as a fuel for diesel.

Jatropha has also many comparative advantages over diesel in terms of the environment. The most obvious is that using *jatropha* oil as a fuel creates a closed CO₂ cycle, that is, when the oil is burned CO₂ is given out into the atmosphere. But when the next crop of *jatropha* grows, it takes the CO₂ back out of the atmosphere. Therefore, there is no net release of carbon dioxide. With diesel combustion however, the CO₂ that was locked up inside the fuel millions of years ago is released, but there is no absorption. So, *jatropha* helps to reduce the climate change owing to global warming.

It can be used for multiple sourcing of renewable energies. The kernels consist of oil to about 60 percent and can be transformed into bio-diesel through esterification. Bio-diesel derived from seed is clean and renewable and does not contain sulphur and led, thus producing no hydrocarbon. The shell of the fruits and kernels of the seed or the oil cake obtained after extraction of oil from the seed can be used to generate biogas, bio-electricity, which is one of the best renewable energies. It can help in meeting domestic needs of energy services including cooking and lighting.

The oil cake contains 3.2% nitrogen, 1.4% phosphorus and 1.2% potash and is a good organic fertilizer. The land, where *jatropha* plantation occurs, becomes fertile after 10-12 years of plantation and becomes cultivable for the normal crops. It is also grown around crop fields and gardens to keep out animals, to act as a windbreak and to reduce soil

erosion by wind and water. *Jatropha* hedges reduce the degrading effect of the wind and water, as soil collects at the bases of the hedges and these accumulations reduce erosion by surface runoff. It is very easy to grow, as a cutting taken from a plant, left to dry for 2 days, and simply pushed into the soil will take root. *Jatropha* needs only 400mm of annual rainfall to grow, which means it can flourish even in semi-desert regions. *Jatropha curcas* is a very fast growing plant. Plants grown from seeds take 2 years to produce seed; those from cuttings take just 1 year. This means that *jatropha* plant can be an important weapon in the fight towards desertification.

The planting of *Jatropha* as a hedge has positive environmental effects, as it protects the soil from wind erosion. The roots of the plant bind the topsoil, so it is less vulnerable to the wind that is responsible for 30% of soil degradation. When planted in hedges, the wind blows soil to accumulate at the base of the plants, forming boundaries along the ground. This holds in water, allowing more absorption of water into the soil and consequently less loss of soil carried away by surface runoff. The roots of the plants also break up the earth and allow more infiltration of water into the soil. The production of good quality fertiliser, as a by-product of oil production, can also improve soils and agricultural production, such as small scale gardening. It can be used to reclaim waste lands in the forests and outside.

Other than the above given examples and cases, there is yet another significant ethanol producing agent, the single celled scum, which we call as algae. It is the one that can do wonders as compared to other biofuels crops. For example, an acre of corn can produce around 300 gallons of ethanol a year and an acre of soybean around 60 gallons of biodiesel, but an acre of algae can produce 5,000 gallons of bio-fuels a year (Joel K. Bourne, JR). The starch they produce can be processed into ethanol. Some of the algae produce tiny droplets of oil that can be churned into biodiesel. Algae not only reduce carbon emissions of industrial plants but can also gobble other pollutants. Green Fuel Technologies (Cambridge, Massachusetts) uses algae in plastic bags to siphon CO₂ emissions of power plants. And the best part is that it multiplies within hours, can grow in wastewater, can be harvested every day and does not require more than sunlight and carbon dioxide to grow. The only aspect that requires thinking is to reduce the cost of algae fuel and keep it cheaper than petroleum and diesel to flourish.

8.6 PRECISION FARMING

In precision farming advanced agro-technology and water-efficient irrigation, fertigation systems are used. Seedlings are raised under shaded houses with insect-proof netting. Water and soluble fertiliser are applied precisely to the root zone of the plants using modern drip irrigation, to keep the ideal level of soil moisture and aeration. Weeds are less as the surface of the soil is dry during the cropping season. Rather, this water economic precision farming system brings down the labour cost, usage of pesticides and fertilisers. As root-zone fertigation ensures precise dosage at critical stages, plants grow faster. In the green house system, atmospheric moisture is maintained at the desirable level using mist irrigation. With this technology, about 100 to 150 per cent higher yield is expected for all crops. Besides, quality of the produce is much higher as the crops are grown in a controlled system. Harvesting period, too, can be extended with fertigation.

In India, states like Tamil Nadu, Andhra Pradesh, Kerala and Punjab have farmers who are practising precision farming. They are reaping a bumper harvest of chilli, tomato, banana, capsicum and a variety of fruits and vegetables. "Tomato output with traditional

farming was one tonne but now with precision farming it has been pushed to 3.5 tonnes. Capsicum grown in the 1,000 sq. feet green house has fetched Rs. 2.5 lakh in the last six months” say the farmers. The water requirement has also been brought down by 70 percent. They further reiterate that although the cost of having green house farming (there is open house precision system also) is a expensive at the initial stages, cultivation can be done round the year irrespective of the climatic conditions. Thus, with exactness and accuracy in the fertiliser and water requirement for each vegetation that is derived on the basis of laboratory test of the sample of soil and water of the farmlands, a package of irrigation and fertigation is designed accordingly and provided to the farmers. Thus, precision farming protects the health of the farmers, does not affect the yield and does not pollute the environment.

8.7 ORGANIC FARMING

Organic farming can replace the use of chemical pesticides with a combination of physical and biological measures, including eco-friendly bio-pesticides. Bio-pesticides are locally available. Organic materials that do not harm the health of the farmers, do not affect the yield and do not pollute the environment. They include extracts of chillies and garlic, neem seeds, cow dung and cow urine, milk, ghee, fish, jaggery, yoghurt, lime, eggs, custard apples and so on. Initially, the farmers are taught to cultivate without pesticides, and once this is done, they do without fertilisers too and become completely organic. Some of the crops grown under the organic farming are paddy, red gram, groundnut, cotton, jowar, bajra, sunflower, castor, turmeric, chillies and vegetables. Organic farming is now being practised in many states across the country such as Maharashtra, Punjab and Andhra Pradesh. There is an added advantage that once farmers learn these practices, they disseminate the knowledge to others. The farmers in Andhra Pradesh have also been doing their own research and coming up with original solutions. This is crucial in making the farmers self-reliant in terms of knowledge and inputs.

8.8 SUMMARY

This Unit dealt with the relationship between development and global warming and how with growing developmental needs, the emissions have increased owing to the incessant use of fossil fuels. We have discussed the stabilisation wedges that pertain to efficiency, conservation, carbon capture, storage etc. We showed that biofuels like ethanol and alcohol from corn, soybean and sugarcane have helped in reducing the emissions of carbon from the burning of fossil fuel. Precision farming and organic farming have been good steps in this direction. This is one way of protecting both the man and nature and sustaining in order to survive in the much polluted environment today. Human security does not confine to protecting people from direct and indirect violence; it extends to both latent and active impending disasters. Environmental security is the need of the hour as the world is witnessing excessive pollutants in its atmospheric levels. Eco-friendly measures need to be adopted if we have to achieve human security at all possible levels.

8.9 TERMINAL QUESTIONS

1. How is human security related to environmental security? Are they similar or different in their perspectives?
2. What are the effects of global warming? What are its effects on development?

3. What is stabilisation wedges? How can this be done?
4. Discuss the fuel-food debate for a cleaner environment.
5. Write notes on the following:
 - (a) Precision Farming
 - (b) Organic Farming?

SUGGESTED READINGS

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