



ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2018; 4(5): 493-498
www.allresearchjournal.com
Received: 21-03-2018
Accepted: 27-04-2018

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Impact of armed conflict on environment in Jammu and Kashmir: An overview

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Abstract

United Nations showing its concern towards this issue had declared November 6th of every year as International Day for Preventing the Exploitation of the Environment due to War and Armed Conflict. This study aims to bring out the damaging effects of war and armed conflict on the environment but people living in this part of the world i.e. Jammu and Kashmir do not fully acknowledge this fact that conflict in Jammu and Kashmir state from 1947 till date has not only led to death and destruction of people and their properties but the fragile environment of the state also has been a direct victim of the heavy military concentration in Jammu & Kashmir and conflict between India and Pakistan. The wildlife population throughout the valley is rapidly declining because of extensive areas of deforestation resulting in the loss of natural habitat for wildlife. Conflict destroys environmental, physical, human and social capital. It results in the loss of lives, livelihoods and opportunity, as well as of human dignity and fundamental human rights. Habitat destruction and the accompanying loss of wildlife are among the most common and far-reaching impacts of conflict on the environment in Jammu and Kashmir. Another serious environmental impact of armed conflict is pollution. Depletion of biodiversity and the natural resource base because of armed conflict can weaken the chances of lasting peace and sustainable livelihoods for a region's long term residents. Increased urbanization can be a factor. A combination of these war-related factors in Kashmir resulted in rapid and unplanned urbanization. Current armed conflicts between two nations have fragmented societies, disrupt traditional natural resource management systems, divert resources away from development and conservation, and lower the priority of conservation in general. Both India and Pakistan's governments should make a serious commitment for their armies to comply - in peacetime and in wartime - with international standards designed to safeguard natural resources.

Keywords: environment, armed conflict, wildlife, habitual destruction, pollution, urbanization

Introduction

When a conflict or crisis hits, the immediate priority is to save lives and minimize human suffering. The focus is on immediate, short-term, human-centered needs. Environmental concerns are relegated to secondary importance. But, although it may seem that environmental concerns should remain a low priority during wars and human crises, the high degree of dependency on natural resources of most communities in Africa and in many parts of the developing world makes it essential that the environment remain a high priority. A degraded environment puts people's future livelihood security at risk, setting the stage for further political instability and conflict. Conservation activities can suffer severe consequences in times of armed conflict. Armed units and local people may target buildings, vehicles, and equipment (Kalpers 2001, Hillman Smith *et al.*; 1999) [7, 5]. Park headquarters buildings, patrol outposts, field equipment, ranger vehicles, and fuel may all be pillaged or systematically destroyed. This destruction contributes to a general weakening of the organizations, as well as vastly impeding management and surveillance programs in protected areas (Kalpers; 2001) [7]. Pollution may sometimes be exacerbated by humanitarian agencies operating in the field during a refugee crisis. Because the primary objective of humanitarian operations is to improve the welfare of refugee or displaced populations, environmental considerations may fall by the wayside. One common consequence is that the facilities and infrastructure in some refugee camps may not meet long-term requirements for protecting the environment (Kalpers; 2001) [7]. The relationship between natural resource scarcity, environmental degradation, and armed conflict is rarely so clear, however.

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While links between resource scarcity and conflict may exist, these links may be circumstantial and may not directly follow from the scarcity itself. In many cases, natural resource scarcity and environmental degradation may be more accurately understood as symptoms of larger societal problems, rather than as direct causes of conflict itself (Uvin; 1998) ^[14]. Indeed, armed conflicts often exacerbate existing problems as much as they create new ones.

In addition to understanding the impacts of armed conflict on the environment, it is critical to appreciate the broader political, social, and economic context within which conservation is taking place, and how this influences the distribution and use of natural resources and affects the ability of conservation organizations to work effectively in an area. During and following armed conflict, an armed and lawless society can have both direct and indirect impacts on the environment. These impacts occur for subsistence, strategic, or commercial reasons, and often have political, social, and economic root causes. The main impacts of armed conflict on the environment occur through habitat destruction and loss of wildlife, over-exploitation and degradation of natural.

Statement of Problem

Environmental activists, civil society groups, and media across the globe have been raising issues related to climate change, greenhouse gas emission, construction of dams, melting of glaciers etc., from the last couple of decades, but most of them have not touched Armed Conflict and heavy military concentration which also is very much responsible for destruction of environment in many parts of the world. The armed conflicts, wars and heavy military concentration have very serious effects on the environment. In the last two decades of Kashmir conflict, security forces had allegedly cleared vast tracts of forestland to target militants. They also used forests as an artillery firing range, converting them into military garrison. All these have been happening when the heavy presence of soldiers on both sides of Kashmir was fast destroying the natural resources. So, the present study focuses on the impact of armed conflict on environment and to suggest how possible to save our environment from the armed conflict in Jammu and Kashmir.

Kashmir Conflict and Environment

“A study by the scientific journal ‘Conservation Biology’ has raised alarm bells with its findings that 80 percent of the world’s major armed conflicts from 1950-2000 have occurred or are occurring in the most biologically diverse and threatened places on the earth. The study points out 34 bio-diverse hotspots in the world and one among them is the Himalayan region with its multiple conflicts - Afghanistan, Kashmir, Tibet and North-East India” (Kashmir Times, 2009) ^[6]. Armed conflict remains a critical concern in many parts of the world and it is also very serious problem in parts of Jammu and Kashmir today. The conflict has wrecked havoc on the forests and water resources of Jammu and Kashmir. Though there may be other reasons for the threat to the environmental degradation of the Himalayan region including Kashmir, the two decade long conflict has only doubled up the speed of destruction. The highly militarized space has not only usurped agricultural lands and residential areas; it has also taken a heavy toll of the forests (Kashmir Times; 2009) ^[6].

Kashmir is located in the heart of south-central Asia amongst the most populace countries of the world. It shares a border with China, Afghanistan, India and Pakistan. Kashmir once known as “paradise on earth,” and home for many species of rare and endangered wildlife and wildlife reserves. Some species so rare they existed only in Kashmir (Crook; 1998 and Pervaiz; 2009) ^[2, 10] but it has been affected by many years of war (Shambaugh, *et al.*; 2001 and Pervaiz; 2009) ^[12, 10]. The conflict between the military and the militants in Kashmir is indirectly contributing to the increase in the number of man-animal conflicts (Pervaiz; 2009) ^[10].

Kashmir has many problems with its environments stability (Crook; 1998) ^[2] and has had grave social, economic and environmental impacts (Saundry; 2008) ^[11]. The India-Pakistan armed conflict has greatly disturbed the flora and fauna of the region since the mid-eighties when the icy heights were first militarized. Besides, the huge pressure of the soldiers on both sides is fast reducing this glacier, which is a major source of water of the Indus river to just a trickle at many place (Kashmir Times; 2009) ^[6]. While the human toll as a consequence of the militancy in Jammu and Kashmir is well known, little is known about the wildlife plight and environmental situation in the valley. Army and paramilitary forces have set up camps in forests to target militants hiding in the area. Often, wildlife is target of the combat (Shambaugh *et al.*; 2001) ^[12]. Wild life species are now quickly falling victim to the desolation which has encompassed much of this piece of land.

The effects of military action in Jammu and Kashmir in terms of toxicity or other hazards pose a problem during the conflict. It is very true that environmental protection is not foremost in peoples' minds when human lives are at stake, it is essential to give thought to the environmental repercussions of military intervention both Indian and Pakistani military forces, which in certain cases can be even more catastrophic than those of the war operations themselves in terms of the devastation of ecosystems and infrastructure, contamination of soil and disruption of agricultural cycles, and the resulting famine, drought, displacement of populations and political destabilization (Silvestri; 2008) ^[13]. It is of particular concern in Jammu and Kashmir, which has experienced three wars since 1947 and still continues conflicts between India and Pakistan on the line of control. This conflict is driven by a variety of motives with a wide range of contributing factors, among them ideology, access to resources, ethnicity, religion, greed, distribution of power between India and Pakistan., This conflict is driven by some combination of these factors in these weak states, and also lack of leadership. Moreover, these conflicts are usually fueled by patronage systems and the hegemonic desire of political elites or military strong men to control and exploit valuable natural resources (Shambaugh *et al.*; 2001) ^[12].

During this continue armed conflict, an armed and lawless society can have both direct and indirect impacts on the environment. These impacts occur for subsistence, strategic, or commercial reasons, and often have political, social, and economic root causes. The main impacts of armed conflict on the environment occur through habitat destruction and loss of wildlife, over-exploitation and degradation of natural resources (Shambaugh *et al.*; 2001) ^[12]. Due to human movement in the forests and the fencing of the LOC, the natural habitat of the wild animals has got disturbed; this is

one of the reasons that they stray into human settlements (Pervaiz; 2009)^[6]. The relationship between environmental devastation and armed conflict has only come to the awareness of public opinion over the last few decades but region of Jammu and Kashmir lacks this (Silvestri; 2008)^[13]. At this time there is no effective legislation in force to prevent environmental and ecological damage which is being inflicted upon the natural resources of these beautiful Himalayan regions by the presence of military forces and constant fighting (Crook; 1998)^[2].

Wildlife Plight

The wildlife population throughout the valley is rapidly declining because of extensive areas of deforestation resulting in the loss of natural habitat for wildlife. For the past seven years widespread use of high velocity rifles by security forces in villages and forests surrounding the Himalayan Valley in their pursuit to apprehend the Kashmiri Freedom Fighters, have further added to the total loss of specie lives lost in an already precarious situation (Crook; 1998)^[2]. Rare species like the Snow Leopard frequently hunted by military officials and poachers for its precious skin and teeth has now almost become extinct. Similarly, the world famous Kashmiri Otter are now rarely seen in the valley (Crook; 1998)^[2]. The massive deployment of Indian and Pakistani armies on the borders of Kashmir in 1947, resulted in large scale poaching as the troops living in the border areas indulged in killing rare species like the Ibex, Blue Sheep, Urian, the big horned sheep, Antelope and Snow Leopard. At first, the soldiers were killing the animals for food needs but when the poorly paid soldiers realized how valuable the animal furs and skins were, in the international markets, they started to slaughter the Kashmiri animals with much greater zeal. The consequence has been that some of the rare species like the Snow Leopard, Flying Squirrel and Long Tailed Himalayan Marmot have been pushed to being on the verge of extinction. Barking Deer, Cheetal, Nilgai, Musk Deer, Himalayan Black Bear, Shapu, Ibex, Blue Sheep, Marmot and Lynz may soon become extinct if their unrestricted slaughter is not checked (Crook; 1998)^[2]. Over 300 species of birds which included Pheasants, Quills, Partridges, Vultures, Kites, Eagles and a large number of colorful birds, all of which use to reside in the lush forests of Kashmir have virtually disappeared. Today those forests stand naked and void of any visible sign of bird life. Along with loss of forest, Kashmir has also lost a number of wildlife sanctuaries. A rich variety of birds, Ducks, Geese, Cranes, Crows, Terns and water-fowls however still nest in the wetlands, lakes and streams in Kashmir (Crook, 1998)^[2]. According to Pervaiz, 2009^[6] “in the winter of 2006 a frenzied mob burnt a bear to death in a hamlet of Kashmir’s Tral Township. Over the last few years there have been many such incidents where people have tried to capture the animals or kill them”. Endangered or vulnerable species can also be directly affected by landmines. In some cases, landmines have even been used by poachers, as a field of mines can kill or wound an entire herd of animals. Conflict may also have negative impacts on biodiversity in neighbouring countries (Saundry; 2008)^[11].

Habitat Destruction

Habitat destruction and the accompanying loss of wildlife are among the most common and far-reaching impacts of

conflict on the environment in Jammu and Kashmir. Habitats are sometimes directly affected during armed conflict. Vegetation may be cut, burned, or defoliated to improve mobility or visibility for troops. With habitat destruction, certain plant and animal species may become locally threatened, or even extinct. Naturally when large numbers of displaced people (refugees) are migrated from Line of Control and temporarily resettled in Azad Kashmir, they often clear away vegetation, to farm and to obtain firewood—practices that swiftly lead to deforestation and erosion (Shambaugh *et al.*; 2001)^[12].

The displacement of people is a major social and economic cost of serious conflict, in the short term as well as in post-conflict periods. Displacements of people also have direct impacts on receiving communities and countries. The burden placed on local infrastructure such as schools, hospitals and sanitation facilities may be considerable and difficult to bear (Saundry; 2008)^[11]. Some of the environmental problems associated with landmines in Kashmir include: habitat degradation, reduced access to water points and other vital resources, species loss, alteration of the natural food chain, and additional pressure on biodiversity. When landmines are found they undermine the tourist trade and affect the ability of managers and others to do their work (Saundry; 2008)^[11].

Over-Exploitation of Natural Resources

Steadily decreasing forest cover in Kashmir, a result of legal and illegal logging operations and human encroachments into the forest, is a direct cause for increasing encounters between humans and animals (Pervaiz; 2009)^[6]. The combined effect of deforestation and mismanagement of water resources has resulted in soil erosion which is responsible for frequent flash floods now seen in the state of Jammu and Kashmir (Crook; 1998)^[2]. Environmental stress is a cause and effect of political tension and military conflict between India and Pakistan in the region and they fought to assert or resist control over natural resources of Jammu and Kashmir. If this conflict continues these resources become scarcer (Edie; 2002)^[3]. People around the world are displaced where the military take over the land (and bodies of water) for use as bases, target ranges, weapons stores, training grounds etc. Because of this local people often cannot grow basic crops especially on the line of control. For their survival, they are increasingly forced to depend on wild foods such as bush meat and wild food plants. At the same time, displaced people usually collect firewood, food plants, and other natural resources in the areas they have moved. Such exploitation on a large scale may be unsustainable even in the short term. The situation may be made worse if these people lack local knowledge of optimal resource management practices. When displaced people return to their homelands, moreover, they are often forced to rely heavily on natural resources until they can re-establish their normal livelihoods, including agriculture. In addition both in Indian Kashmir and Azad Kashmir, humanitarian organizations themselves often use excessive amounts of local wood for construction (Shambaugh *et al.*; 2001)^[12]. Armed conflict can have very different effects on timber production. The opening of new roads in remote forest areas permits the expansion of illegal trade in bush meat; while logging methods often reduce biodiversity and have a major impact on the livelihoods of poor, resource-dependent communities (Saundry; 2008)^[11].

Pollution

According to Edie, 2002 ^[3] “The world's military forces are responsible for the release of more than two thirds of CFC-113 into the ozone layer”. Another serious environmental impact of armed conflict is pollution. Pollution can take many forms, and can result directly from actions by military or other armed groups, as well as indirectly from the human and economic crises created by conflict. During continue conflict in Jammu and Kashmir, burning oil, leaked oil products and chemicals into the rivers, spreading extremely dangerous substances into the environment. Biodiversity sites were hit. This pollution can be serious and posed a threat to human health (Edie; 2002) ^[3]. Hundreds of thousands of anti-personnel landmines litter the fields and mountain passes. Military activities often involve the use of fuels, explosives, solvents and other toxic substances. When improperly handled or stored, they can seep into the environment and affect nearby communities. Military exercises often damage farmland and other property, as heavy military vehicles travel over small roads and bridges (Edie; 2002) ^[3]. In refugees camps in Azad Kashmir displaced people often find themselves living in conditions so overcrowded that they become a significant source of potential pollution. In their need to subsist, the displaced may pollute surface water; it leads to infectious diseases. The latter concern threatens not just the health of human populations but also that of the indigenous wildlife. Pollution of rivers and lakes also occurs when human bodies are deposited in them and decompose. Pollution may sometimes be exacerbated by humanitarian agencies operating in the field during a refugee crisis. Because the primary objective of humanitarian operations is to improve the welfare of refugee or displaced populations, environmental considerations may fall by the wayside. One common consequence is that the facilities and infrastructure in some refugee camps may not meet long-term requirements for protecting the environment. Poorly placed or badly designed latrines or medical facilities may contaminate water or soil. In some cases, the environmental impacts of these practices do not become apparent until well after the camps are dismantled (Shambaugh, *et al.*; 2001) ^[12].

Impacts of Conflict on Urban Areas

Conflict can have a distorting affect on settlement and production systems, making a bad situation even worse. Increased urbanization can be a factor. A combination of war-related factors in Kashmir resulted in rapid and unplanned urbanization. Infrastructure deterioration is particularly significant, due to a loss of investment as well as a reduced ability to maintain these structures. This has implications for health, communications, education and overall well-being (Saundry; 2008) ^[11].

Vicious Circle of Conflict Environment Degradation and Poverty

Depletion of biodiversity and the natural resource base because of armed conflict can weaken the chances of lasting peace and sustainable livelihoods for a region's long term residents. Although conflicts may start for other reasons, there is a risk that resource depletion and environmental degradation can drag a region into a vicious circle: poverty, further political instability, more armed conflict, greater environmental degradation, and even greater poverty. In many cases, natural resource scarcity and environmental

degradation may be more accurately understood as symptoms of larger societal problems, rather than as direct causes of conflict itself (Shambaugh *et al.*; 2001) ^[12].

Further Political, Social and Economic Aspects

Current armed conflicts between two nations have fragmented societies, disrupt traditional natural resource management systems, divert resources away from development and conservation, and lower the priority of conservation in general. The conservation sector has relatively little experience in dealing with social, economic, and political issues in armed conflict situations and earthquake disaster has also paralyzed society. If conservation is to remain effective during and following times of conflict, however, conservation organizations must understand the broader context in which they are working, assess how this context hampers their effectiveness, and apply this knowledge to the design, implementation, and management of their activities (Shambaugh *et al.*; 2001) ^[12]. Armed conflict impacts are so swerve and on a larger scale, national economies can collapse for a wide range of reasons, including disruption of trade, loss of outside investment, and loss of tourism revenue. This economic vacuum may swiftly be filled by new illicit trade networks, as various actors exploit natural resources to boost the economy and, often, to finance conflict. In sum, armed conflict often reduces access to resources for many, increases access (often illegal) for a few, and creates a new array of winners and losers.

Spread of HIV/AIDS

In this regions people are more at risk of HIV infection, through the presence of armed forces and from social dislocation and insecurity. The breakdown of social structure and legal protection results in more transitory sexual relationships, involving more partners. Rape is often used as a weapon of war. Women and children may be forced to turn to prostitution when normal livelihood activities become impossible during conflict. HIV education and preventive means during sex are often lacking for both the general population and the armed forces. HIV infection rates in military and peacekeeping forces tend to be up to five times higher than in the general population and much higher during conflict. The increased spread of HIV due to conflict can have serious consequences for the environment (Shambaugh *et al.*; 2001) ^[12].

Recommendations

- During wars and human crises, it essential that the environment should remain a high priority.
- Glaring evidences of destruction and vandalism of the environment in Kashmir need to be taken up more seriously.
- Both India and Pakistan's governments should make a serious commitment for their armies to comply - in peacetime and in wartime - with international standards designed to safeguard natural resources.
- Parliaments of both countries should provide the impetus in this context of legal uncertainty and encourage the adoption of more highly developed standards regarding responsibility, including criminal responsibility, for the environmental consequences of conflicts.

- Submit proposals to the international organizations of which they are members to the effect that advance assessment of the environmental consequences of military action should become the norm for military staff and academies.
- In addition to understanding the impacts of armed conflict on the environment, it is critical to appreciate the broader political, social, and economic context within which conservation is taking place, and how this influences the distribution and use of natural resources and affects the ability of conservation organizations to work effectively in an area.
- Recognizing the nature of these armed conflicts is an important first step in understanding their impacts, both on local populations and on the environment that supports them, and in developing mitigation strategies. In order to develop such strategies, it is important to first understand the impacts of these conflicts and the consequences they hold both for conservation and for the broader political, social, and economic context.
- The environment itself should not be used as a weapon. Destruction of large areas of natural habitat or the poisoning of waterways, for instance, should be prohibited. The use of environmental modification techniques, that is, any techniques for changing, through the deliberate manipulation of natural processes, the dynamics, composition or structure of the Earth, including the biota, lithosphere, hydrosphere and atmosphere, or of outer space, should be banned.
- Weapons that destroy the environment or make it uninhabitable should be banned. Whilst it is recognized that most weapons have some damaging effect on the environment, a clear threshold should be defined at international law, so that weapons whose impact is likely to cause destruction beyond this threshold could be outlawed. Such a ban should include research, testing, possession and use of nuclear, chemical and biological weapons.
- Attacks on infrastructure or installations that result in pollution, the release of poisonous substances or radioactivity be prohibited. Such infrastructure should be clearly marked and identified in accordance with international law.
- National parks and areas of special ecological significance should be declared demilitarized zones and protected by international law.
- An international agency should be established to ensure protection of the environment in times of armed conflict. This should preferably be a part of the United Nations Organization. It should have the powers to prosecute nations, organizations and individuals for crimes against the environment committed during armed conflict. It should also have the ability to monitor activities of combatants, to ensure compliance with international law, and to secure compensation where there has been a breach.
- All military personnel should be educated in international and national 'best environmental practice' and environmental legal requirements. Military manuals should contain clear instructions in this regard. Offences should be punishable by both military and civilian courts.
- Military activities should not take place on land held or claimed by indigenous people without prior

consultation and fully informed agreement; and where their land is presently under military control and until it is restored and returned, respect for their culture and rights should be shown.

- Wildlife authorities should issue advisories to the citizens to try and minimize chances of conflict with the wild animals and have supplemented it with a number of guidelines for them to follow.

Conclusion

The history of Kashmir's environmental degradation is as old as its conflict dating back to 1947 when Indian and Pakistani armies were deployed in the state. Armed conflict is a very serious problem in Jammu and Kashmir, where many countries are at risk of conflict, engaged in conflict, emerging from conflict, or in a long-term recovery phase. These conflicts are devastating. They cause untold suffering and enormous loss of human life; they fragment societies and shatter economies. They also wreak devastating harm on the environment, biodiversity, and the natural resources upon which people depend—impacts that are suffered long after hostilities end. Both India and Pakistan's governments should make a serious commitment for their armies to comply - in peacetime and in wartime - with international standards designed to safeguard natural resources.

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