REVISITING THE ENVIRONMENT-SECURITY NEXUS AND PROSPECTS FOR TURKEY*

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ABSTRACT

Environmental degradation has been a significant matter of academic debate and sociopolitical concern in international relations since the 1970s. However the linkage between environmental degradation and security did not receive scholarly attention until 1990s. During the Cold War period, the call for a comprehensive and complementary security agenda encompassing non-military threats was overshadowed by Superpower rivalry as well as realist/neo-realist predominance. Despite heavy criticisms from the orthodox realist school of international relations, environment-security linkage became gradually significant after the disintegration of the Soviet Union by the beginning of the 1990s. This study aims to explore the links between environmental degradation and security by pointing out human beings and the states as the core referent objects of security. Within the framework of this theoretical background, the impacts of environmental degradation on state and human security in the post Cold War period will be evaluated with special reference to Turkey.

Keywords: Environmental Degradation, National Security, Human Security, Intra-state Conflict, Resource Wars

GÜVENLİK-ÇEVRE İLİŞKİSİNE YENİDEN BAKIŞ VE TÜRKİYE İÇİN BEKLENTİLER

ÖZET

Çevresel bozulma 1970lerden bu yana uluslararası ilişkilerde hem akademik tartışmaların hem de dünyaya dair sosyo-politik kaygıların önemli konularından biri olmuştur. Ancak güvenlik çevre ilişkisi 1990'lara kadar akademik çevrelerin çok da ilgisini çekmemiştir. Soğuk Savaş dönemi boyunca kapsamlı ve tamamlayıcı bir güvenlik anlayışının kabulü için yapılan tüm çağrılar, sahada Süper Güçlerin çekişmesi, kuramsal alanda da realist/neo-realist hâkimiyetin gölgesinde kalmıştır. Ortodoks realist okulun tüm sert eleştirilerine rağmen, 1990'ların başında Sovyetler Birliği'nin çözülmesiyle birlikte güvenlik-çevre ilişkisi giderek daha önemli ve tartışılır bir hale gelmiştir. Çalışma günümüzde giderek önemi artan güvenlik-çevre bağlantısını güvenliğin referans nesneleri olan devlet ve

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birey açısından incelemeyi amaçlamaktadır. Devlet ve bireyi merkez alan kuramsal çerçevede, çevresel bozulmanın ulusal güvenlik ve insan güvenliği üzerindeki etkileri Türkiye'ye özel bir vurgu yaparak anlatılacaktır.

Anahtar Sözcükler: Çevresel Bozulma, Ulusal Güvenlik, İnsan Güvenliği, Devlet İçi Çatışma, Kaynak Savaşları

INTRODUCTION

The relationship between environmental degradation and international security had been a matter of concern within the praxis and academic debates of international relations ever increasingly after 1990s. Notwithstanding the fact that the linkage between environment and security has not been completely ignored by the experts during the Cold War (Dixon, 1991: 81), compared with the traditional topics of international relations and particularly security studies such as war, peace and military threats, the interest that the field has already deserved is a relatively new tendency in international relations. Even under the Cold War circumstances, various studies highlighting the environment-security nexus had been conducted and the outputs were promising and encouraging for the future of this specific research area (Report of the World Commission on Environment and Development, 1987: 286).

During the 1970s environmental degradation was usually examined as an issue within the context of low politics and the linkage between environment and security was not considered as an important ingredient of security agenda, since the field was mostly overshadowed by the antagonistic character of Superpower rivalry and the realist/neo-realist predominance. However, after the demise of the Soviet Union, the studies concerning the relationship between environmental degradation and security gradually increased by the contributions of divergent theoretical approaches (Gledistch, 1998: 381; Dabelko, 2008: 23). As the negative impacts of environmental problems became visually prominent on the security perceptions of humans, societies and states, the linkage between environment and security has become a focal point of security studies over the recent years.

Nowadays the world is obsessed with the outputs of Copenhagen Climate Summit since growing global awareness on environmental issues has altered the agenda of international politics. States and individuals perceiving threats from environmental degradation are urging the decision makers to reconsider their formulations about the protection of global commons. Whether men made or not, assuming the fact that environmental degradation poses a significant threat to the security of all

referent objects ranging from human beings to international system, requires an in depth analysis about the unprecedented and unintended consequences of this phenomena. In this respect, the study, by pointing out the practical and theoretical dimensions of environment and security linkage, aims to display the impacts of environmental degradation on various actors of international relations and make future prospects for Turkey. However, due to the broadness of the topic, the individual and the state are chosen as the referent objects to display the consequences of environmental degradation on the actors of international politics.

The intellectual underpinnings of the relationship between environmental degradation and security shall be first explored under the spotlight of the selected references from the security studies literature. Whereas the second part of the study focuses on the probable implications of environmental degradation on the states' security, the third part aims to demonstrate how environmental problems may threaten the physical well being and the dignity of humans. Finally, the study will examine the future prospects for Turkey and analyze the citizens' and the state's vulnerabilities due to the security risks stemming from environmental degradation.

THEORETICAL BACKGROUND OF ENVIRONMENT AND SECURITY LINKAGE

Traditionally, the referent object of security in international relations has been the state and the threat perceptions are usually shaped around the axis of military threats targeting the territorial integrity and regime of the state. Thus security is understood in terms of national security. For some of the advocates of realist/neo-realist approach like Lynn-Jones (1991: 6), considering environmental degradation as a threat to national security is completely irrelevant and in case of extending the scope of security, the field will probably lack of its academic coherence and the boundaries of security studies will become ambiguous. Pointing out the "tendency" invoked by "many liberals, progressives and environmentalists" Daniel Deudney (1990: 469) argues that, rather than placing the issue on a war-like, violence ridden and zero-sum national security sphere, it would be better for all to consider the urge for environmental problems as a normative attempt for the well being of the future generations. Deudney's approach, reflecting the core assumptions of realist/neo realist thought, overemphasizes the fact that sources of instability such as environmental degradation and so forth should only be placed on the national security agenda if they carry

out the potentials of armed conflict which might alter the military and economic capacities of states.

The academic concern on the scope of security and its linkage with environmental degradation had already risen in the 1970s with Richard Falk's (1971) This Endangered Planet: Prospects and Proposals for Human Survival which for the very first time aimed to display the relationship between security and the environment. The argument became more popularized after Richard Ullman's (1983: 134) conceptualization of threats to national security as "degradation of the quality of life or a diminution of the range of policy choices". Despite the Cold War constraints on the attempts for the reconstruction of security, early works in the field invoked a scholarly debate on the ingredients of existing security conceptualizations as well as policy formulations.

After the disintegration of the Soviet Union, the ongoing debates on what constitutes a security matter have accelerated. Broadening the concept of security via the notion of threat diversification became an initial challenge to the traditional realist conceptualizations of security. Yet all of these approaches were completely dealing with the unintended implications of environmental degradation on national security. However alternative approaches such as the Copenhagen School and Critical Security Studies differ from realist/neorealist approach on the significance that they attribute to non-military threats and the referent objects of security.

Copenhagen School is one of the mainstream approaches that championed the widening of the concept of security and the founding fathers of the school, mainly Barry Buzan, Ole Waever, Jaap de Wilde, argued that security was also about political, societal, economic and environmental sectors as well as the military sector. In "Security: A New Framework for Analysis", Buzan, Waever and De Wilde summarize well

¹ Even though the works of Norman Myers (1994) and Homer Dixon (1991) during the late 1980s and early 1990s have been considered as a radical departure from the realist/neo-realist approach, state itself was reclaimed as the primary actor that needs to be taken into account. Thus they preferred to address the relationship between environmental degradation and violent conflict that might destabilize the states. For further information on the work about state-oriented environment-security linkage see Norman Myers, Ultimate Security: The Environmental Basis of Political Stability, W.W.Norton Co., New York, 1994. Thomas Homer-Dixon, "On the Threshold: Environmental Changes as the Acute Causes of Conflict", International Security, Vol 16, No 2, Fall 1991, pp. 76-116.

the political and social conditions that gave rise to the widening of the security agenda (Buzan et al., 1998: 2):

The "wide" versus "narrow" debate grew out of dissatisfaction with intense narrowing of the field of security studies imposed by the military and nuclear obsessions of the Cold War. This dissatisfaction was stimulated first by the rise of the economic and environmental agendas in international relations during the 1970s and 1980s and later by the rise of concerns with identity issues and transnational crime during 1990s.

Evaluating the risks arising from environmental degradation, tantamount to traditional threats was considered as a significant challenge by academic community to the presumed dominance of realist paradigm during the 1990s. However even those advocating the widening of the security conceptualization, proceeded to prioritize the state as the core referent object of any security architecture (Knudsen, 2001: 363). Thus, despite their contributions to the development of security studies, the significant figures of Copenhagen School have been criticized of being state-centric in their approach (Bilgin, 2002: 104).

Critical security studies contributed to the restructuration of a new security conception by proposing a genuine framework focusing on the positivist epistemology and hegemonic discourse of realist predominance in the field.² First and foremost, critical security studies urged for the security needs of various referent objects such as the individuals and societies without ignoring the role and significance of state as an actor. However, the state itself has also been considered as a source of insecurity for many individuals and groups.

Second; critical approach and Welsh School in particular proposed their own security conception by equalizing emancipation with security. In Ken Booth's words (Booth, 1991: 319);

Emancipation is freeing people from the physical and human constraints, together with poverty, poor education, political oppression and so on. Security and emancipation are two sides of the same coin. Emancipation, not power or order

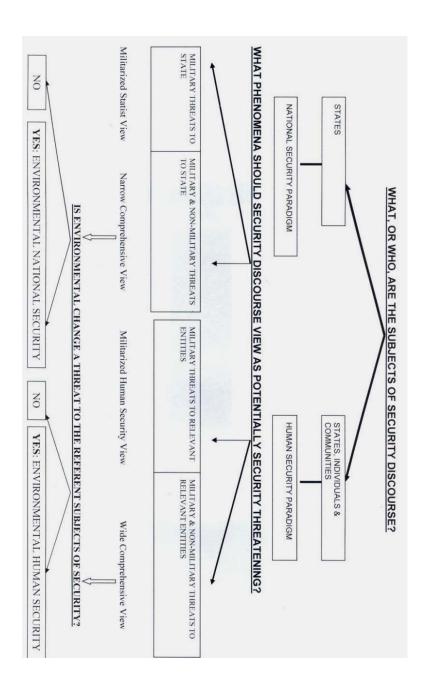
² For the foundational claims of Critical Security Studies see Keith Krause, "Critical Theory and Security Studies", *YCISS Occasional Paper*, No 33, February 1996, p. 6

produces true security. Emancipation theoretically is security.

Thus, in the critical discourse, security is defined in relation with the vulnerabilities of human populations. Even though they have been criticized (Maersheimer 1995: 47) for being normative and non-scientific, their contributions to the development of a new security conception enhanced our understanding of security in terms of actors besides sovereign states. Within this perspective, environmental degradation is considered as a severe threat targeting the physical well being and dignity of the individual rather than the states.

A broad variety of approaches point out the academic diversity in security studies by highlighting the threats and referent objects. Nevertheless they all bequeath the same questions to the next generations: Whose security are we talking about? Security by what means? What kinds of threats target our security? Since the above mentioned questions contain divergent intellectual debates, it might be rather better rendering the whole academic landscape on the issue by using Edward Page's diagram (2000: 40). The diagram also includes the theoretical framework of this study, which aims to examine the linkage between environment and security by underlining the vulnerabilities of both states and the individuals.

Security studies as a sub-discipline of international relations has already got acquainted with environmental issues during the last three decades. Despite the criticisms of traditional realist/neo-realist discourse, the literature on environment and security is still growing and the global awareness in the praxis and academic spheres of environment-security interaction has contributed to the formation of a comprehensive security agenda. Hence an overview of the existing literature shall reveal how environmental degradation might affect the threat perceptions, and policy imperatives of states as well as the vulnerabilities of human beings.



ENVIRONMENTAL DEGRADATION AND NATIONAL SECURITY

Since the 1970s, environmental degradation and related resource scarcity has been a matter of concern within the realist/neorealist approach to the extent that it culminates in an armed conflict. Homer-Dixon is one of the leading experts emphasizing the possibility of violent conflict as a result of environmental degradation and resource scarcity. He argues that besides the possibility of armed conflict between states because of resource scarcity, there are at least four interrelated social implications of environmental degradation which might destabilize the states and escalate the violent conflict (Dixon, 1991: 90). These implications are; rapid decline in agricultural production, economic downfall, immigration and finally disrupted institutions and social problems that may arise from it.

The assumption that "resource scarcity as a result of environmental degradation can directly result with an armed conflict between states" entails an examination of continuous debate over the use of water especially in the Middle East and Africa. The most well-known example to this type of conflict took place between Iraq-Turkey and Syria in the recent years. The resentment of Iraqi and Syrian governments over their share on the transboundary waters of Euphrates and Tigris during the late 1970s was an expected reactionary policy after Turkey's construction of Keban and Karakaya Dams on these rivers.

Taking the waters of Euphrates and the states' share into account, it is noteworthy to mention that, Turkey was the least advantageous state compared to Iraq and Syria until the mid 1970s. Turkey's insistence on the promotion of GAP (South Eastern Anatolia Project) and the complaints of Iraq and Syria had escalated the crisis. Furthermore water issues became the main cause of conflict between Syria and Iraq during 1974 and 1975 and two countries came to the threshold of war because of Syria's construction of al-Thawra Dam. In 1977 Iraq stopped pumping oil to Kirkuk-Yumurtalik pipeline as a response to Turkey's GAP project, but her focus in the region has shifted from Turkey to Iran after the outbreak of Iran-Irag War and Syria replaced Irag in voicing the complaints on Turkey's use of water (Firat and Kürkçüoğlu, 2003: 143). During the period between 1983 and 1999 Turkey has accused both Damascus and Northern Iragi administration of sheltering and tolerating PKK terrorism and bluntly warned the authorities to tackle PKK activities. Within this period, Turkey's rights over the use of Euphrates' and Tigris'

transboundary waters have been closely associated with her neighbors' support to terrorism.

Water scarcity also raised the risk of armed conflict in other regions of the Middle East and the debate over the use of water has already been regarded as a national security issue for many states in the region. As early as 1960s Israeli government declared that water scarcity is a vital issue for Israelis and any challenge against Israeli control over the use of water shall be considered as a serious threat within the framework of their national security policy (Gleick, 1993: 85). Israel's occupation of the lands providing the state's 40% of contemporary water resources during the 1967 Arab-Israeli War is an output of this policy. Ayşegül Kibaroğlu (2007: 146) while explaining Israeli control over the water resources, states that "occupation of the three territories (the West Bank, Gaza Strip and the Golan Heights) gave Israel almost total control over the headwaters of the Jordan river and its tributaries, as well as control over the major recharge region for its underground aguifers". The linkage between water scarcity and national security is also frequently expressed by the Arab actors of Middle Eastern politics. Whereas Egyptian President Anwar Sadat claimed that "Egypt will never go into war except to protect its water resources", Jordan's King Hussein said that he will never go to war with Israel again except over water issue.³

In Africa water scarcity is also regarded as a potentially conflict ridden issue, a factor that may deteriorate the stability of regional politics. Even though Sudan, Ethiopia, Ruanda, Burundi, Uganda, Tanzania and Zaire have had concluded an agreement recognizing each other's shares over the Nile River in 1959, a long-term estimation about the avoidance of the conflict is impossible due to the changing demands of the states concerned. Today nineteen states in Africa and the Middle East depend on the supplies of transboundary waters and this situation displays a hydropolitical landscape which seems to arouse conflicts in the near future (Dimitrov, 2002: 687).

Environmental degradation and related resource scarcity can also cause migrations in massive scales which might have unintended consequences for the states since it carries the risks of escalating ethnic and/or religious tensions; provoking xenophobia and inflating economic crises. For Dixon (1991: 109), ethnic violence between 1980 and 1990 in

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³ Cited in A Lecture by Adel Darwish- Geneva conference on Environment and Quality of Life June 1994. "The Next Major Conflict in the Middle East: Water Wars", http://www.mideastnews.com/WaterWars.htm, Date of access: 12.01.2009.

India's Assam region, that targeted the immigrants from Bangladesh who came to the region as a result of natural disasters and hunger, was an output of conflict over the use scarce resources. The groups of states which perceive threats from immigration and invoke a state of emergency for national security are mostly located in the industrialized world. Even though it is obvious that environmental degradation is not the only single cause of illegal immigration, it is considered as one of the major causes of immigration from the underdeveloped to the developed world, since it breeds economic downfall in impoverished regions.

Relative deprivation as a result of environmental degradation may also inflame intercommunal violence within the states (Dixon, 1991: 110). People agitated with a sense of social inequality may rebel against the state or wage armed attacks against the privileged group which could easily culminate into a civil war. The armed struggle against the central authority in the Philippines which has been conducted by landless peasants and poor farmers is considered as the output of environmental degradation (Dixon, 1991: 111).

The main cause of the peasant uprising in Chiapas-Mexico was regarded as economic downfall as a result of environmental degradation (Howard and Dixon, 1996: 2). Another explicit example which deserves attention is the case of intercommunal conflict in Sudan, where desertification is considered as the most significant source of conflict. It is estimated that, the current conflict in Darfur seems to intensify in the near future and likely to expand besides the region because of rapid desertification of country's arable lands (UNEP, 2007).

Whereas the matter of whether the environmental degradation imposes a threat to national security or not still remains as a controversial issue among the political and academic circles, the general conviction that the impacts of environmental problems shall be much more apparent in the impoverished and developing regions of the world, has been regarded as an undisputable fact. The growing number of field studies regarding the situation in the underdeveloped world seems to confirm this assumption (Maxwell and Reuveny, 2000: 303). Yet, the general tendency towards the adoption of an extended security agenda and global awareness on the fate of global commons, have created such an admittance on the West that environmental degradation should be taken into account as a national security issue.

U.S. is the first among the states that regard the indirect implications of environmental degradation rather than the phenomena

itself as a potential threat to her national security. The concerns that associate environmental problems with national security have already been illustrated during the 1970s. Senator Al Gore's appeal in 1990 urging the state bureaucracy and public to consider environmental issues within the threat assessment policy and the subsequent formation of Strategic Environmental Research and Development Program has shifted the issue from political sphere to the agenda of national security policy. (Benjamin, 2000: 14). Nevertheless, the security conceptualization of U.S governments that identified national security with the citizens' quality of life as Ullman (1983: 133) proposed, enabled environmental issues to appear surprisingly on national security agenda during the 1990s.

Despite Clinton's insistence and Pentagon's support on an extensive national security agenda encompassing environmental problems, Bush administration and September 11 attacks discredited the urge for U.S. involvement in tackling global problems such as poverty reduction, global injustice and environmental degradation which breed insecurity and alleged an excuse for U.S.' military unilateralism (Foster, 2001: 384). As of today, U.S. military experts claim that environmental degradation may appear as a "threat multiplier" triggering already existing determinants of instability including economic disruption, social disorder and mass migration, and urge Pentagon to take the necessary measures to prevent these implications (Maybee, 2008: 99).5 Some analysts go further in pointing out the challenges confronting U.S. national security policy, by claiming that environmental degradation may undermine U.S. efforts to prevent terrorism by instigating intra-state conflicts and debilitate state's authority in Bangladesh, Indonesia and Philippines, a critical region where U.S. is still looking for partners to fight against terrorism (Smith, 2007: 264).

British governments also voiced their concerns over the implications of environmental degradation and placed the issue at the

⁴ John M. Broder reports that, for the first time in history Pentagon and intelligence services seriously focus on the implications of environmental problems by claiming that environmental degradation and climate change in particular, "could topple governments, feed terrorists or destabilize entire regions". New York Times, August 8, 2009. http://www.nytimes.com/2009/08/09/science/earth/09climate.html. Date of access 14.08.2009

For an extensive report prepared by U.S's high ranked military officers see, "National Security and the Threat of Climate Change", CNA Corporation, Virginia 2007, http://www.dtic.mil/cgibin/GetTRDoc?AD=ADA469156& Location=U2& doc=GetTRDoc.pdf. Date of Access: 19.01.2009.

core of their evolving national security agenda. The report prepared by the British Ministry of Defense in 2003, has emphasized the fact that environmental problems are about to become security issues, and their significance is no less than that of ethnic and religious tensions around the world (Forster, 2007: 15). While presenting his party's national security policy to the House of Commons, Gordon Brown (2008) also addressed climate change and competition for national resources as sources of insecurity and emphasized British government's eagerness for reconstructing a comprehensive security agenda.

U.S.' and the U.K.'s perceptions and formulations linking environment and security, expectedly sparked concerns in NATO and a report named "Environment and Security from an International Perspective" was submitted to all member states in 1999. The report in general was based on the adoption of an extensive security approach encompassing environmental degradation. Advocating the inadequacy of traditional security approach in understanding contemporary security problems, the report directly addressed environmental degradation as a threat since the phenomena itself may cause resource wars and can also escalate already existing conflicts (Committee Report on the Challenges of Modern Society, 1999: 23). Under the spotlight of the need for a comprehensive security agenda, NATO established "Science for Peace and Security Programme" to sponsor scientific projects that aim to mitigate the possibility of conflict as a result of environmental degradation and resource scarcity.

For the first time in history, by the efforts of British government, climate change has become an issue that is to be dealt within the framework of UN Security Council in 2007 (Dabelko, 2008: 26). Margaret Beckett (2007) demonstrated the significance of the issue and concerns of international community in her own words;

Resource based conflicts are not new – they are literally as old as the hills. But in climate change we have a new and potentially disastrous dynamic.

The good news is that we have the knowledge and ability to do something about it. Our forebears did not really understand the environmental changes that were happening to them and had little power to control those changes. We do and we can. Science has shown us a clearly identifiable process that is changing our climate and our world. We can

predict the consequences of that change and we have the means to take action against it.

The bad news is the catastrophic and global nature of the threat we face. Again, it is the countries that are already experiencing the damage of an unstable climate that has described that most best. As the representative from the Congo said during that Security Council debate: 'This will not be the first time people have fought over land, water and resources – but this time it will be on a scale that dwarfs the conflicts of the past

The European Union did not remain totally indifferent to concerns of international community pointing out the linkage between environment and security. In March 2008, Javier Solana submitted a report to European Council arguing that climate change might pose a considerable threat to European security (Dabelko, 2008: 26). Even though the catastrophic scenarios seem to address the developing world including the Middle East, West and North Africa, Nile River Basin and Central Asia, it is unfeasible for the Western world to isolate itself from the unprecedented security implications of environmental degradation.

ENVIRONMENTAL DEGRADATION AND HUMAN SECURITY

From the very early days of the state-like political structures, it has been overwhelmingly agreed that ensuring the security of the citizens is the reason d'être of state. Yet, the state's responsibility to promote peace and security for the citizens does not usually denote the security of the individuals, at least because of two reasons. First, associating the security of the individuals with citizenship appears to be a reductionist approach since the term "citizenship" does not provide a safe heaven for many stateless persons. Second, state as an actor has been treated as the only referent object of international relations that is to be secured since it is assumed that security of the state mean the security of the nation. Within this context the boundaries between the nation and the individuals and/or collectivities that make of it became blurred and nation is usually considered as the aggregate of the parts that it comprises. However recent history demonstrated the fact that national security conception constructed around the state does not tackle the problems which increase the vulnerabilities of the citizens or persons.

Human security conception, surfaced during the mid-1990s, has aroused academic and political interest within the international relations

discipline by underlining the security needs of the individuals. Human oriented security approach claims that contemporary threats do not only target the states but the individuals as well, and the role of the state as the main security provider and state's priority in security architecture should be reconsidered. Thus, it deals with a wide range of threats confronting the well being of the individuals without ignoring the significance of the state in any security formulation.

The linkage between security and environmental degradation becomes more profound within the human security framework. Human security notion in simplest terms argues that true security can be achieved through the eradication of two groups of threats: "freedom from want" and "freedom from fear". Whereas freedom from fear addresses "protection from sudden and hurtful disruptions in the pattern of our daily lives", freedom from want means "safety from the constant threats of hunger, disease, crime and repression". 6 The Report considers seven interrelated issues as the potential threats and displays a direct relationship between environmental degradation and human security (UNDP Report, 1994: 28). Taking the long-lasting and chronic characters of environmental degradation into consideration, UN underlines the inadequacy of a state-centric approach in enhancing security and urges international community to take necessary steps in order to tackle the threats stemming from environmental problems (UNDP Report, 1994: 30).

Threat assessment within the framework of human security entails the association of environment related problems with the well being of human beings. Climate change, deforestation, scarcity of fresh water resources, a sharp increase in the number and lethality of natural disasters, losses of arable lands and biodiversity, extinction of species and ozone depletion appear as the threats targeting human security. Compared to the exaggerated threat of nuclear weapons and its exclusive connotation of national security, environmental threats seem more likely to affect the human beings especially in the impoverished world, where the economic capacities of states are mostly inappropriate to deal with the implications of such threats.

Environmental degradation imposes further constraints on the availability of food and brings out human tragedies arising from malnutrition, famine and hunger. Today, 850 million people,

⁶ Compass, A Manual on Human Rights Education for Young People, http://www.eycb.coe.int/compass/en/chapter_5/5_10.html, Date of Access: 18.01.2009.

approximately 20% percent of world's population, is confronted with hunger and famine and UN Food and Agriculture Organization estimates that the number is more likely to increase among native populations if environmental degradation is not controlled (FAO, 2008). Each year 15 million people die because of malnutrition and related illnesses and 20 million children is born under their ideal weight mostly in the impoverished regions of the world (Rourke, 2007: 472).

One of the most significant and apparent impact of environmental degradation on human beings is involuntary migration. It is estimated that, the outgrowing number of 8.4 million refugees in 2006 may increase dramatically in the following years as a result of environmental degradation and these refugees may outnumber the local populations in some areas by reaching out to 100 millions in 2050. (Schefrann, 2008: 22). The reports of Red Cross argue that today more than 25 million people is considered as "environmental refugees" and the numbers shall substantially increase in the next five decades (Reuchlin, 2007: 68). Some analysts go further; depicting environmental degradation as the worst scenario that humanity has ever experienced and argue that in 2050 the number of environmental refugees will swell to 150 million people as a result of unintended implications of environmental problems (Vidal, 2009: 1).

Environmental degradation may also shrink freshwater resources and cause increases on the sea levels. Whereas 1.7 billion people in 2005 was suffering from the difficulties in their access to freshwater resources, UNDP claims that in 2005 this number will exceed 5 billion people (UN Human Development Report, 2003: 125–126). The sea level rise is also considered as a threat targeting millions of people residing in the coastal areas. The 2007 report of Intergovernmental Panel On Climate Change argues that, "in the absence of an improvement to protection, coastal flooding could grow tenfold or more by the 2080s, to affect more than 100 million people/yr, due to sea-level rise alone" (Nicholls et. al, 2007; 339). Recent studies on the socio-economic implications on the sea-level rise estimate that "the numbers showed that low-elevation areas are home to 634 million people" and their location makes them vulnerable to risks imposed by climate change (Nell, 2007: 1).

Air pollution and ozone depletion are other threats to human security stemming from environmental degradation. Since ozone depletion is considered as a risk multiplier on skin cancer and retina disorders, people directly experiencing the impacts of it are in jeopardy. American Environmental Protection Agency (EPA) announced that only in

2000, more than 1.200.000 skin cancer cases were reported by medical experts (EPA, 2008). Compared to 1930 there is a 2000% increase in the cases and American Academy of Dermatology (2009) estimates that "if current trend continues 1 in 5 Americans will have skin cancer during their lifetime". Experts state that if the efforts to recover the ozone layer prove unsuccessful, it is likely to observe a sharp increase in the number of illnesses such as retinal burns, cataract and skin cancer (Environmental Protection Agency Report, 2008).

Above mentioned threats and consequences of environmental degradation directly target individuals rather than the states and increase the vulnerabilities of human beings. National security framework does not address the individuals confronted by a wide range of potential and constant risks. Thus, security agendas are likely to involve traditional threats targeting the state as well as the risks targeting the dignity and well being of the individuals. Within the new security discourse both approaches are considered as the essential parts of a comprehensive security architecture.

PROSPECTS FOR TURKEY

Since the very early days of the Republic, security has been defined in terms of national security and security policy engagements usually encompassed the measures to eradicate or at least deter potential domestic and international threats targeting the territorial integrity and the secular regime of the state. Compared to the civilian governments, Turkish military has enjoyed a privileged and predominant status on foreign and security policy making processes. The peculiarities of agenda setting and policy making process in terms of security, which is intrinsic to Turkish politics, hence culminated in the adoption of a narrow national security agenda, reflecting the military imprint. The increasing role of military on foreign policy making process made its peak

To understand the impact of military on foreign and security policy making process see Ali Karaosmanoğlu, "The Evolution of the National Security Culture and the Military in Turkey", *Journal of International Affairs*, Vol 54, No 1, Fall 2000, pp. 199-216. Nilüfer Narlı, "Civil-Military Relations in Turkey" in *The Evolution of Civil-Military Relations in South East Europe: Continuing Democratic Reform and Adapting to the Needs of Fighting Terrorism*, Springer Pub., Physica-Verlag HD, 2005, pp. 229-257. Gerassimos Karabelias, "The Evolution of Civil-Military Relations in Turkey, 1980-95", *Middle Eastern Studies*, Vol. 35, No. 4, Seventy-Five Years of the Turkish Republic (Oct., 1999), pp. 130-151.

especially after 1990 and the determining initiatives of military bureaucracy became more profound (Uzgel, 1998: 318).

Under the monopoly of military bureaucracy, the national security policies were designed to cope with a wide range of domestic and international threats. Whereas the international dimension of national security dealt with developing the material capacities of Turkey as a response to conjunctural and temporary crises on global and regional scale, the domestic security agenda was overwhelmingly dominated by Islamic fundamentalism and ethnic/separatist terrorism. Due to the systemic changes in domestic and international areas such as the end of the Cold War and democratization process, the security elite had altered the traditional patterns of agenda setting and conceptualization of security. Even though the historical legacy of geopolitics and traditional threat assessments concerning the territorial integrity of the state still prevail in any national security formulation, the content of national security has become more sophisticated.

Turkish Military General Staff was the first amongst a group of security elites to adopt itself to the changing nature of security and emerging threats. Its increasing awareness on the necessity of humanitarian interventions, voluntary participation in coercive diplomacy and peace building efforts conducted by NATO and UN, and its commitments to the War Against Terrorism after September 11 attacks placed Turkish military as an asset and an indispensable ally within the western security community. In the last three decades, Turkish military also reformulated its security agenda under the spotlight of emerging threats.

Taking the changing nature of security into account, high ranks of military bureaucracy regarded the risks arising from environmental degradation as important as traditional threats. During his service in 2007 Chief of General Staff Yaşar Büyükanıt said that climate change and related issues such as health problems, restructuring of economic spheres and mass migration pose significant threats for Turkey's national security. In his threat assessment, Deputy Chief of General Staff Ergin Saygun expressed similar opinions and set forth military's concerns about

⁸ The speech of Yaşar Büyükanıt in "Changing Dimensions of Security and International Organizations" Symposium. http://www.ataturktoday.com/RefBib/GenelkurmayBaskaniSempozyumKonusmasi31Mayis2007.htm. Date of Access: 13.09.2009.

armed conflicts between states because of fresh water scarcity. Euphrates-Tigris water basin still holds its strategic importance in water related conflict scenarios (Eslen: 2009). Turkish military's Military History and Strategic Studies department has also been dealing with strategies aiming to develop Turkey's capabilities and preparedness for unintended consequences of global climate change. Generally, environmental problems have already been placed on the agenda of national security and these problems have been regarded as significant threats which might have a multiplier effect on local and regional conflict prone issues.

Concerns for the impacts of environmental degradation on national security have also been uttered by the Commission on Global Warming in Turkish Grand National Assembly. The commission underlined political, economic and strategic consequences of global warming in various regions of Turkey through catastrophic disaster scenarios and urged legislative assembly to take necessary measures against it. 10 From time to time, members of the parliament submitted motions of censure on the consequences of environmental degradation on Turkey and government's policies to tackle it. Environment and Forestry Minister Veysel Eroğlu in his speech at the assembly stated that the measurable impacts of global warming might appear on various sectors and added "it is estimated that economic and social implications of global warming will be more profound on agricultural sector". 11 Even though the government refrained from making any direct threat assessment related with environment, social consequences of global warming are likely to trigger immigration and economic downfall which might exacerbate inter communal conflicts.

Future scenarios on environmental degradation and global warming in particular point out to some effects that are most likely to occur. These effects are fresh water scarcity, droughts and decrease in agricultural production, sea level rises and mass migration. Kadıoğlu (2008) argues that as a result of rising temperatures, Turkey is being prone to drought seasons, sudden floods and sea level rises which might have serious socio-economic consequences. Similar concerns were voiced by World Wild Life Fund (WWF) by depicting future scenarios which

⁹ Genelkurmay Başkanlığı, http://www.genelkurmay.org/10_ARSIV/10_1_Basin_Yayin_ Faaliyetleri/10_1_7_Konusmalar/2007/kapanis_konusma_sempozyum01062007.htm, Date of Access: 13.09.2009.

¹⁰ Zaman, 20th of October 2008.

Türkiye Büyük Millet Meclisi Tutanak Dergisi, Dönem 23, Yasama Yılı 2, Cilt 3, 10. Birleşim, 23 Ekim 2007.

address at least six significant impacts of climate change in Turkey. 12 Drought and related problems, deforestation and the extension of fire sensitive periods, a sharp decline in agricultural production, economic losses in tourism sector due to the disturbing affects of high temperatures, fresh water scarcity and decrease in biological diversity are amongst the estimated risks within this context.

Due to its geographical location, Turkey is also confronted with the rise of sea levels which increase the vulnerability of coastal areas with high population densities. Taking Marmara region's contribution to Turkish economy, which accounts for "more than 60% of the Turkish Gross National Product (GNP)" into consideration, the economic losses in the long-run seem to be a significant risk (Karaca and Nicholls, 2008: 288). Emphasizing the risks posed by global sea level rises, Karaca and Nicholls (2008: 288) argue that "the preliminary assessment of vulnerability analysis yields about 6% of its GNP for capital loss, and about 10% of its GNP for protection and adaptation costs of the country" if Marmara region and Istanbul in particular experiences one meter sea level rise.

The estimations demonstrate the fact that Turkey's vulnerability to the impacts of environmental degradation in terms of both the individual and the state is increasing. Environmental issues began to appear on national security agenda and necessary measures to tackle them have become a matter of concern for security elites. Thanks to the Cold War experience and unstable geography, Turkey's preparedness for an interstate conflict because of resource scarcity seems to be satisfactory. However unprecedented socio-economic consequences of environmental degradation may inflame the existing tension-ridden issues.

CONCLUSION

Compared to the global awareness on environmental issues, contemporary interest on environment-security nexus is a relatively new tendency in international relations. Environmental degradation does not only pose risks to the states but also increases the vulnerabilities of the individuals. Even though an armed conflict between states as a result of environmental degradation is less likely to occur, global warming, ozone depletion, deforestation, sea level rise, desertification, fresh water scarcity and mass migration might have unintended implications on the

¹² http://www.wwf.org.tr/page.php?ID=26 , Date of access: 02.09.2009.

state, since these events can easily result with intra-state conflicts or act as a multiplier of conflict prone matters. Recent research in the literature demonstrates that poor regions of the world are more vulnerable to the socio-economic implications of environmental problems.

Turkey with its unique geopolitical situation is one of the most sensitive regions to any source of instability. Turkey's awareness on the potential risks of environmental degradation resulted with a considerable progress in developing state responses. However, the linkage between environment and security deserves much more interest in terms of strategies, policies and funding. Despite the weaknesses, legislation aiming to tackle the environmental problems, capacity building for post disaster situations and governments' efforts to develop environmental strategies is not appropriate but promising for the future.

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