

The Border Region between Mexico and the United States. ¿Challenge to the Environmental Security?

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The globalization and the decentralization tendencies promote urgency of thinking over about the regions as new developing axis and their conformation in spaces that could guarantee an economical sustained growth. As much globalize is the world economy, more important is the dynamic of the local production, but in all the cases this accelerated production is linked to the environmental development. The accelerated use of the environment damaged the natural conditions but also puts in danger the security of the land, the territory, the air, the carrying capacity of the cities and most important the people that lives in that region. Health and quality of life are in constant jeopardy as a result of the economical pattern.¹

Our intention in this work is to show how, originated from the globalization process and the economic integration, the border between Mexico and the United States have been generated a particular environmental region where the conditions of the economic pattern puts in risk the day by day security of the people that lives in this zone. The approach to the border region will give the opportunity to distinguish the algid points of environmental damage, but also will guide us to quote the environmental challenges that the region faces.

The commercial, financial and personnel interchanges are important factors that allow us to understand the dynamic of the environmental phenomena in these zone; that is why the expansion of investments, the migratory flow, the celerity of the commercial interchanges and the transportation of merchandise are one part of the coin, the other is to analysis the quality of public services, the health problems, the minimal well-being of the residents and also the impact of the insecurity that these region

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1 .The supporting capacity implicates the maximum number of population that can be attended by an

can irradiated to North America.

That is why we will introduce the concept of environmental region, also we'll show the relation between risk and security, and at last but not least we'll analysis the Mexican-USA border region with the intention to show how today environmental security is a key to understand one of the dangers of the new world order.

Environmental Region: Risk and Security

Nowadays the concept of environmental region adopts a new dynamic in the scheme of globalization. It is known that most immediate antecedent that the globalization process incubated was the internationalization and segmentation of the productive processes of the corporations, choosing determined regions of the world to reproduce themselves (Vázquez Ruiz, 1997).

The economical growth of certain regions opened the way not only to the economical strengthening but, at the same time, generated in some areas, the exhaustion of natural resources and pushed to the limit the environmental conditions of them. In certain regions, again, preferred the economical growth over the environmental care. The growing rhythm, the economical apogee an the industrialization processes generated environmental damages. If we add to this the productive acceleration, the frequently use of resources and the energetic consume (entropy) the exhaustion and pollution are imminent (Daly, 1989).²

The rational instrumental vision of region, where the use of the environment becomes in one more element propitiates and generates comparative advantages that are profitable for the investors (today out of cheap workmanship the capital looks for new incentives to propitiate an increase in profits). The laxity and no complement of the environmental laws and the predator vision of the

ecosystem.

2. The second law of thermodynamic points out that is impossible to recycle the energy and that all of it will end as a thermal waste. Besides, is important to recycle the material totally. In each cycle there is some loss of

resources and energy, favor the world investors with the called “green paradises”.³

It is valid to point out that the globalization doesn't grow in the same way and rhythm in every space. There are regions more exposed to the damage and pollution than others. The grade of deterioration doesn't depend only on the adopted productive processes, but also on the cultural perception about nature, the dominion over it or the satisfaction of necessities. In some cases, the globalization processes and the economical integration can also influence in the nature care and the recovery of the environmental space, demanding common standards, clear rules clean processes. For that reason, it is not possible to say that globalization is an homogeneous process of identical consequences. “The globalization is, in any case, a phenomenon that appears in a dissimilar way for every country, internal regions, activity sectors, industries and corporations. This is exactly one of the limits or the paradox of the globalization itself, because its reach is not generalized”. (Bendesky, 1993:10)

But we can deny that the environmental deterioration is one of the imminent problems that our global world has to face, as Anthony Giddens and Ulrich Beck points out, the accelerated industrialization has created a world in a constant risk, where we all are exposed to the perverse consequences of Modernity. The mass destruction of the environment, the bad use of all the resources, the image that the world is infinite are questionable, and today all the certainties and the social order lived between options and risks. “In the structure of the damages produced as a consequence of some decisions, we have to distinguish, in the modern societies, two major aspects, the ones that decided about a course of action, and in the other hand the ones that are affected by these decisions.” (Bauman, 1996: 17)

the material forever.

3. Some theoretical specialists in environment establish the necessity of a new axiomatic frame that would let change the rationality of our societies. To amplify and modify the environmental values under a new logic where the environmental care would be a highly valued factor that's why is planned a new environmental rationality. Leff, E, (1994) *Ciencias Sociales y Formación Ambiental*, Gedisa, UNAM, México.

The environmental risks appears like an externality, but in fact is a result, a sum of the consequences of the decision making process. The game now is all or nothing at all, because we are in the same boat, living each day in a danger world. Beck has said that the industrial societies causes serious environmental risks (chemical contamination, toxic waste, worst use of biotechnology, and so on) not only in the development world but also in the emergent economies. This matter is a global issue that causes auto-precaution in front of the imminent progress of the industrial societies and the anguish that the man can feel in the way adopted. The result: risk societies and global uncertainty. “The men has to understand their lives, from now on, linked and submitted to a lot kinds of risks types, because these risks have a personal an global approach” (Beck, 1997: 205)

For Beck and Giddens risk and its twin concept of security have entered the discourse of other fields of social and cultural theory. Their studies of risk and security highlight how damages, losses, fears, worries- threats to security or insecurity- are simultaneously produced by and affecting human life and social structure in late modernity. They address the risks and insecurities as ontological issues, assuming increased riskiness and insecurity in global life: expanding tras-national interaction, connectivity and reflexivity have been seen as a giving rise to, or perhaps expressing the consequences of, the sweeping changes in the role of the state as well as the accompanying shifts in social structures, institutions and process.

The reality today imposes to consider the regional matter from two different groups of factors: by one side, those related with the environmental, historical, economical and political characteristics of a group of states, which all of them configure a determined level of development, expressed in the levels of well-being, security and life quality. In the other side, it is important to point the articulation that the group of entities have with the national and international division of work, specially in the relation with how the globalization process affects them and how they faces the environmental crisis and the uncertainty. (Bracamontes y et.al., 1997:218)

The point is that, with the emergence of a different world order since the late 1980s, discussions have taken new turns that challenge conventional understanding of security, because the security of the nation is no longer seen as depending mainly on a military defense of its borders and institutions. Instead, the maintenance of national and international order as well as the management of the physical environment is present as crucial tasks for the reproduction of security.

Few countries have an official definition of environmental security that unifies thought and action. Among the countries that do have definitions are: The Russian Federation and the Commonwealth of Independent States; the United States which has several working definitions and China that considers environmental security under the umbrella of *environmental protection*.

Also the relevant international organizations have not created a definition to guide policy. For example, the United Nations Environment Program and the World Health Organization do not have definitions for environmental security and the United Nations Development Program only refers to it briefly in its 1994 annual report on human development on page 28: "Environmental threats countries are facing a combination of the degradation of local ecosystems and that of the global system. These comprise threats to environmental security."

There are a range of views about environmental security reflected in official statements, policies, and international agreements. We need new definitions of security to replace Cold War concepts predominantly rooted in Realism. For us, environmental security is the relative public safety from environmental dangers caused by natural or human processes due to accident, mismanagement or design and originating within or across national borders. But at the same time, as Barnett shows, is important to emphasize that also environmental security is the proactive minimization of anthropogenic threats to the functional integrity of the biosphere and thus to its interdependent human component. (Barnett, 1997)

In this view it is significant to note that States and non-state actors should guard against

environmental degradation, because local and regional environmental degradation and/or resource scarcities (exacerbated by population growth, inequitable wealth distribution, and global environmental changes) are an important contributing factor to sub-national political instability and violent conflicts. This definition acknowledges the complexity and the long time scales involved in cause-effect processes to foster appreciation of risk, uncertainty and longevity. It stressed justice issues between and among generations.

So, the term environmental security refers to a range of concerns that can be organized into three general categories:

a) Concerns about the adverse impact of human activities on the environment - the emphasis here is on the security of the environment as a good in itself, for the sake of future generations, as the context for human life.

b) Concerns about the direct and indirect effects of various forms of environmental change (especially scarcity and degradation) which may be natural or human-generated on national and regional security. Here the focus is on environmental change triggering, intensifying or generating the forms of conflict and instability relevant to conventional security thinking.

c) Concerns about the insecurity individuals and groups (from small communities to humankind) experience due to environmental change such as water scarcity, air pollution, global warming, and so on. Here the focus is on the material well-being of individuals and there is no presumption that this is a traditional security issue or that traditional security assets will be useful.

Combining these we might conclude that the condition of environmental security is one in which social systems interact with ecological systems in sustainable ways, all individuals have fair and reasonable access to environmental goods, and mechanisms exist to address environmental crises and conflicts. Security in Chinese is "An-Quan," "An" means safe confidence and "Quan" is total or system. So environmental security should be a kind of confidence of the target group in surrounding physical

conditions of its safety and health (individual and ecosystem), wealth (economic and natural assets or stock), and social, national or global stability.

The Mexico-United States Region: Economic Integration vs. Environmental Security.

Our work covers mainly what's happening in the Mexican bordering cities, we've also established comparative indexes with their north American opposite sides, the called north American twin cities, that show that far from getting closer to their development plans and beneficial results in social matters, the distance from them grows every time. Consequently the notions, results and realities about the adopted development in the region, are totally divergent. It's important to point, that even though the concept of twin cities was used before signing the North American Free Trade Agreement (NAFTA), is because of it and its own nature, that the realities that this region combines are exposed in a colder, desolated and distant way. It's known that a break of any barrier is essential in the globalization process; the NAFTA is based on these parameters and assure an interdependence between the nations that sign it but far from being fair or equably, assume characteristics of asymmetry, inequality and advantage of the comparative benefits that stirs up this interdependence, "The interdependence relations can't distinguish themselves as a 'mutual benefit'. These involve the concept of power and competitively. Being the power the possibility of control the resources or the potential that can affect the results." (Keohane, 1997: 79)

There are a lot of articles that have sited the significance of NAFTA with the access of Mexico of the globalize market: the end of the tariffs barriers, the success of the exportations, the possibility of greater expectations for the Mexican products, the macroeconomics advantages, etc. However, we should stand out that the frame of the NAFTA, also exposed the discussion of an infinity of new problematic conditions of regional type, new situations that had to be concerned about. Health, quality of life and also the security.

One of the key matters that NAFTA uncovered, was the terrible environmental damage that presents the bordering band between USA and Mexico.⁴ According with an investigation elaborated by the “National Toxics Campaign Found” there were found serious levels of contamination in the plants of north American firms that operate along with the Mexican border, concluding that the maquiladoras have transformed the border in 2000 miles of wastes.⁵

Frame 1. North American companies with subsidiaries in Mexico contains in the USA-NAFTA*

<i>Industries</i>	<i>Place in the USA related to toxic waste 1992</i>
Asarco	7
General Motors	9
AT&T	10
IBM	212
General Electric	24
Du Pont	1
Procter & Gamble	50
ITT	113
United Tecnologies	95
Eastman Kodak	12
3M	8
Allied Signal	30
Cartepillar	338
Alcoa	87
Textron	165
Monsato	3
Eli Lilly	43
FMC	158
Phelps Dodge	15

*USA-NAFTA is an Independent Organization in favor of the NAFTA in the USA Source: Own elaboration based on information from: Anderson, Sara y ET. Al. Nafta’s Corporate Crade. An analysis of the USA-NAFTA State Captains. The Institute for Policy Studies, Washington, 1993.

According to Michael Mc. Closkey, President of Sierra Club: “Liberalizing the commercial relations between the USA and Mexico has created an ecological disaster in the area of the common

4 . More than 1000 northamerican corporations produced toxic waste in mexican territorie and only the 30% of them, maintained the mexican legal requarments. Only the 19% of the corporations that use toxic materials can show that they have the specifics places to disposed it. Donahue, Th.(1991) "The Case against a North American Free Trade Agreement", *The Columbia Journal of World Business*, Summer, p.94.

5 .Ibidem, p98

border. The air and water have the worst quality. Expanding the trade with the previous regulations could only lead to exacerbate the already terrible situation of the bordering cities. A new cooperation, with a new coordinated structure in environmental matters is essential to protect our citizens from the environmental damage that the irresponsible industries produce". (Alfie, 2000; 25) ⁶

The concern about the environmental bordering matters between Mexico and the United States appears from the permanent deterioration in which the region have been immersed, not only because of certain natural resources like water that are insufficient, the uncertainty of certain ecosystems or the probable extinction of some species. When the environmental damage is analyzed there is an close relation between growth and environment. The study of the environment shows the important relation that exists between nature and society; the dissociation of this binomial has valorized certain aspects of the economical growth over the permanent and constant degradation of our physical surrounding (Dryzek, 1997).

That's why the environmental dilemma has its fundamental delineation on the created relations between development and environment. The most devastating processes of ecological destruction and the social and environmental degradation, appear as a result of inadequate practices that depend on technological and consumerist patterns, a predatory model of growth, the highest economical profit in short term, reverting their costs on the natural an social systems. (Alfie, 1998:67)

Therefore, not only the physical and biological aspects are modified in the shared border, but fundamentally the productive processes and their acceleration have quickened the environmental deterioration of the region, that in short time can put in danger the security of each and both countries.⁷

6 . The New Report by the North American Commission for Environmental Cooperation (January 9, 2002) established that North America's natural environments face a "widespread crisis" due to vanishing biodiversity. Half of North America's most biodiverse eco-regions are now severely degraded, and North America now has at least 235 threatened species of mammals, birds, reptiles and amphibians.

7 . As all can see today, the water in the Mexico-USA border is a huge issue and can implied security matters for both economies. The length of the river section which serves as international border between USA and Mexico is 2,000 Km, from Ciudad Juárez (Chihuahua and El Paso (Texas) to the Gulf of Mexico, including states of Chihuahua, Coahuila, Nuevo Leon, and Tamaulipas in Mexico and New Mexico, Texas and Colorado in

The accelerated rhythm of industrialization in the north border since 1965 with the maquila program has been a catalytic of the environmental conditions that exist today in this bordering region. El accelerated growth of the Mexican cities along the border is a result of the apogee of the maquiladora industry. At the end of 1995 there were in Mexico 2,139 maquiladora industries for exportation, the 42% where located in Baja California, the 21% in Chihuahua and the 13% in Tamaulipas. Juarez en Matamoros had a highest average of employees per maquiladora plant, while Tijuana the amount of factories but the lowest average of workers per plant.

In 1990 and 1995, the Mexican bordering states absorbed an average of 70% of maquila factories for exportation of the whole republic and the 72% of the personnel dedicated to that activity. The growth of this industry, in those years, in Tijuana, Ciudad Juarez y Matamoros produced almost the 50% of the total national tax and generated the 46% of the utilities registered in the census information. The number of workers hired in the maquiladora industry increased from 70,000 people in 1976, to 500,000 in 1990. In 1995, during the fall, it was the unique productive branch that had grown in a context of a national economical crisis. Between January and October of 1996, the maquiladora industry for exportation generated 78,149 jobs in both, new projects and expansion of other existent. This way the employees working in this sector were 867,164; 9% more than at the begging of the year. Just in October of that year were created 11,324 employs in 45 new factories and expanded projects.

USA. The Mexican side of the watershed has a population of 9 million, of which 89% are located in urban and 11% in rural areas. The water resources comprise a mean annual precipitation of 400 mm. The estimated annual availability is for surface water 6,800 million m³, while for groundwater 2,526 million m³. Of this water an annual volume of 7,890 million m³ is distributed among the following activities: 77% for agriculture; 14% for public-urban; 3% for industries and 6% for other uses such as fisheries .or tourism. About 71% of the total volume of 7,860 million m³ comes from surface and 29% from groundwater supplies. There is a total working storage capacity of 11,000 million m³ in 21 reservoirs in the Mexican watershed; over 9,000 industries are located here, of which 482 are in bond enterprises (usually known in Mexico as “maquiladoras”) located in the main cities of Juarez, Matamoros, Nuevo Laredo and Piedras Negras along the Rio Grande. The watershed also comprises 10 irrigation districts. In the USA side the Rio Grande-Rio Bravo originates in the Rocky Mountains and crosses the states of Colorado, New Mexico and Texas, from the total watershed area of 457,275 Km², 50.5% (231,000 Km²) correspond to USA. The basin economy is based on agriculture, agribusiness, manufacturing, mineral production, trades government and tourism. Only the Texas basin population is estimated near one million. The total annual water use in the Texas part of the basin is currently estimated at 950 million m³. (CNA,1996).

(Alfie, 2000:93)

This vast growth of investment, jobs and plants worked as an attraction pole for continuous migrations from marginal urban areas and rural from the center and south parts of the country looking for new opportunities. Tijuana, Nogales and Ciudad Juarez have concentrated the flowing of migration being the cities with the highest economical growth. These migrations have a double incentive; the first one, staying in the bordering cities to get a job at the maquiladora industry, second, crossing to the United States looking for better salaries (more than 25% of the whole migration crosses the border through Tijuana). The frequent migrations and the natural population growth (excepting Ciudad Juarez, the rest of the bordering population grows in very high percentage between 2.3 and 2.9% yearly) have made deeper the problems in infrastructure and public in this cities.

Environmental Damage

This bordering region presents a strong delay of dwelling-houses, education, health and services. In 1990, more than half a million people that were living in bordering cities of Mexico, didn't have access to the municipal nets of water. In the same year, almost a million people didn't have access to the nets of municipal drainage either. In 1995, in Ciudad Juarez, there was a real deficit of 35,000 dwelling-houses approximately. The defective services and the necessity of infrastructure face the constant migrations and the demands of the new population, generating an infinity of irregular settlements and really bad conditions that diminish the health of the population in the region and exhaust the supporting capacity of the bordering cities. (Torriello, 1996: 10-19)⁸

An additional factor to this situation is the generation of toxic wastes produced by the maquiladora industry. There is no control to manage and dispose of them in a final way. The dangerous toxic residues, the solids from the city and the discharge in water and drainage are treated in the same way. In general, there are no physical disposes, there is no recycling processes and most of the times

8. All the data presented in this section can be consulted in the Institute of Geography, Statistic and History

they never return to their original country. Most of the maquiladoras don't consider the handling and final disposal as an internalization of costs. There is not a strict legislation and either human or material resources to dispose of them conveniently. The 85% of environmental pollution, the discharge of toxic chemical products in the drainage systems and the aquatic canal, the waste of chemical products in dumps are produced by the maquila industry. (Sánchez, 1991:9)

The toxic and dangerous residues generated by the maquila industry represent a serious problem of public health in the different zones of the bordering region. Is possible to say that there are two different types of risks: a) those provoked to the workers and 2) those with an effect on the whole population. In the beginning the maquila industry had concentrated its production on assembling electronic products (24%), but in 1998 it had already a diversification in several production areas, like electronic, auto parts, plastics, furniture and chemical industry, each one of them pollutes and produces diverse residues, specially the chemical industry because of its high levels and dangerous effects. (Tiefenbacher, 1998)⁹

The absence of regulation for residues and discharges through the drainage and water of the city, the detection of clandestine confinement in popular neighborhood, the accumulation of waste and trash in the yards of the factories (95% of them don't have deposits) and the incineration of trash in the open air, have questioned the maquila industry and its production and pollution forms in the region. In 1988 only 30 from 1300 maquiladoras returned their dangerous residues to the originally country and during the last ten years they have generated 8000 tons of toxic residues.

The fact is that in front of this situation there are few factories recycling and using confinement, there isn't a serious record of residues, toxicant levels and emissions and the majority of the times the destiny of the toxic residues is unknown (70%). An additional factor is the different standards between

(INEGI 1998)

9. In the text of Alfie, M and et.al., *Maquila y Movimientos Ambientalistas. Examen de un Riesgo Compartido*, there is more information about sickness that diverse branches of production have provoked.

the environmental branches provoking serious problems. The key is legislation, cause even when it's clear how they should deposit and dispose the toxic waste in a final way, this actions are almost null. The tendency of this situation has increased in the last ten years, the generation of residues, their confinement and exposition are an essential element for the bordering environmental deterioration. (Gonzalez Márquez; 1997)

The absence of resources, the lack of an adequate infrastructure and lax environmental politics, make our country incapable to guarantee acceptable levels of security conditions and environmental protection, such as health for workers in these industries. The increment in using substances like acetone, toluene, dichloride, ethane, etc., in the productive processes of these industries has contributed in a direct way to the deterioration of health of workers and the nearby communities. The employees ignore the kind of materials they work with and the consequences they provoke to their health, so the right to know is not practicable. (Tiefenbacher, 1998: 55-77 y Sanchez, 1990: 305-330)

Analyzing in detail the bordering environmental perspective lead us to list a series of problems that covers an ample spectrum: from the calculation and use of the natural resources, the ecosystems care, the generation of toxic wastes, the exponential growth, the deficient public services, the low municipal economical resources, to the analysis of the supporting capacity of the main cities, health and life quality of residents in the region, the perception about the environmental problems, the social participation and environmental right, among others.

Though the list is large, the truth is that the intense population growth occurred since the forties and the industrial expansion in the last decades, united to a semi-desert physical surrounding (west side of the border) provoked a high environmental impact, a consumption of natural resources and delicate environmental security conditions. The maquila lowered the unemployment indexes, promoted inversions and increased the productive plant, but the exponential growth of population, the deficiency of urbanization to admit an enormous amount of immigrants from the center or south of the country, the lax

environmental legislation and the deficient infrastructure of the factories and the local government, provoked an economical growth separated of the adequate and finite natural resources and threw an infinity of substances to the air, water and ground, originating serious duels and environmental challenges for Mexico and the United States.

It's in the eighty's that the environmental situation of the bordering region becomes a bi-national dimension. The attention on the environmental problems in the agenda of both countries comes from the demands of the bordering communities (Trilateral Free Trade Agreement, La Paz Agreement, PIAF, Parallel Agreements, Border XXI). The environmental degradation provoked not only consumption on the Mexican side, the deterioration effects started to be visualized also on the North American side. The growing model adopted, together with the explosive population growth and the inadequate use of resources were evident at the beginning of the eighty's. The increasing of pollution in the bordering rivers by residual water from the cities, the disasters of Coronado Beach, the pollution of atmospheric basin provoked by factories dedicated to melt metals, brick-yards, kitchens in the open air and mobile fountains, toxic residues, and clandestine dumps found along the border were the evidence of the growing model adopted that also the United States have to face now.

Even the Mexican bordering cities and residents have been those who have suffer the environmental damage with more deficiencies, it is also palpable in the North American communities. This growing model has benefited a wide sector, propitiated big commercial interchanges, generated principal and assemblage plants, increased and modernized communication ways and high road infrastructure, generated high profits, that the sing of NAFTA increased. But at the same time, this model imposed an environmental fragility in the region, that not only some ecosystem are in risk, also this represents today a serious problem of health, life quality and security even to the North American people. Among the several environmental problems that Mexican and North American share stand out: the bad use and exhausting of water, air pollution, final disposing of toxic wastes and the risks on health

and life quality of the residents in the region.

The environmental problems don't have borders, this is a region that because of its own characteristics (industrialization, population growth, deficient federal resources, inadequate use of natural resources, physical conditions, etc.) is exposed to a dangerous and continuous environmental damage. Strengthening the existent bi-national institutions, establishing real programs, making clear and treating the true matters of environmental relevance, enriching new spaces, procuring the organization of both communities, incrementing the support to local governments and making extensive the influence through the mass media are key factors to construct a possible new bilateral agenda of environment.

A special attention would have the environmentalist groups, the ONG and the nets that are conformed by observation, analysis and the experiences lived in the bordering environmental conditions. To denote their actions, their relations with other sectors, their objectives and goals becomes a nodal point of analysis. If the most affected by the conditions of environmental damage are the residents of the region, defining their organizations, going deeper in their discourse and understanding their tactics and strategies, are the key in the development of the bordering environmental situation.

Environmental Security in the Mexican-USA Border Region

These scenario conduced us to establish the importance of the environmental security in the border region as a result of the economic integration between Mexico and the United States.

As we see, the Mexican-USA border region has a lot of environmental problems that can stressed the environmental security of the region. The adverse impact of human activities on the environment, the direct and indirect effects of various forms of environmental change (especially scarcity and degradation) and the insecurity that individuals and groups live across the border (health and life quality) can conduced to sub-national political instability and violent conflicts, not only in Mexico but also in the U.S, or between them.

It is clear that the Mexican-USA border region does not offer physical conditions of safety and health, neither equal wealth and less social stability. The accelerated use of the natural resources, the rapid growth of the cities and the population, the massive and intensive industrialization process and the extensive use of toxic products, between others shows that environmental security will be, in a short term, a strategic point of the bi-national agenda.

Mexico have a really limited national security agenda, the main issue for our government, in these field, it's only an external military threat, or the actions of subversives internal groups. The daily themes like water, pollution, scarcity are the last to touch. "The developing nations have more problems than the environment to worry about. There are too many others variables mixed in, such as inefficient economies, unjust social systems, and repressive governments, any of which can predispose a nation to instability. And thus in turn, make it especially susceptible to environmental problems."(Moriarty, 2002)

We do not have any policy or policies against the permanent damage of our environment. One good example is the water problem in the border region. The waste, scarcity and use of that resource puts in danger the security not only of the region but also the state policy. The destiny is now caught Mexico, we do not have the institutions, the social structure and the vision to incorporated these themes in the national security agenda. We live very near to the United States our asymmetry it is not only economical, it is political, of knowledge, cultural and environmental. We are not prepared for the new rationalities of this global world, and the question of security becomes a problem of how to manage the social order in a way that retains competitiveness towards other localities. The risk factors of unsafe social groups, environmental hazards and economic adversity are something to protect against.

The security situation of the border region is very complex, it is a fast growing extremely unequal, multicultural society where globalization has had some of its most concrete and diversified consequences. In the end of the Cold War and the enactment of NAFTA, there has been a decline in the military presence of national armies, and a turn to more commercial concerns. This has led to a

growth of cross-border problems like smuggling and illegal immigration, an increase in social inequality and sprawling environmental hazards, between others. NAFTA has not yet brought wealth and economic growth, but rather confronted Mexican society with a number of difficult problems one of the most important the environmental deterioration. (Bislev, 2001)

Environmental issues differ as they should rely more heavily on diplomatic and economic instruments of power for long term solutions. A threat to environmental security degrade the quality of life for inhabitants of a state or region. Territorial boundaries, population, government and sovereignty can not preserve without a functioning, healthy, stable environment. No satisfactory long term solutions can be gained from use of military action in this scenario. Long term stability depends on equitable distribution of resources and the care of the environment. As the world becomes increasingly mutually dependent, regional security matters can have reaching impacts in other countries. Regional environmental problems must be review, and as practical addressed as tras-national security problems by the world community.

Conclusions

This analysis allows us to identify that the bordering region that share Mexico and the United States would respond in a first instance to an heterogeneous or nodal model where there are an enormous economical, cultural and political difference and the integration is made by focal or convergence points. In this sense this heterogeneity have favored an economical model and forgotten the environment. In local development terms, there is no doubt about the increment of the employment and the economical apogee of the region. However, this growth doesn't correspond to a real and equilibrated development, the condition of environmental deterioration of the region are shown in the physical, biological and social-economical aspects.

It is true that physical and biological characteristics are shared, but the immediate benefit have

been privileged over the environmental care and protection, there have been a maximum utility from the differences and the comparative advantages that this growth model provoke. For that reason the concept of environmental security permit us to identify a serious deterioration in the shared zone between Mexico and the United States. The bordering environmental region in many of its spaces has become to a green paradise of international investments. The poor concern about nature, the little information and the null environmental culture, in addition to a reactive social participation propitiate a limited vision in long terms of the environmental problem.

If the environmental regions use as their method the calculation of the damage of the physical, biological and social-economical aspects from a region, the case of the border Mexico-United States is a paradigm. The deterioration of big physical areas where the climate, water and geomorphology have been transformed and damaged, joined to the biological damage of species and vegetation, the exploitation of natural resources and production model adopted would establish a terrible environmental damage that can be measure in health and life quality of the residents in the zone.

The bordering environmental region between Mexico and the United States shows, as a laboratory, the deterioration that in more than thirty years have been driven from the model of growth and the conception of infinite nature that prevail as a parameter. Is true that the globalization have made agile, segmented and partial the productive processes, but also in this region have used the environment as a comparative advantage that allows to increase the profit margins.

There haven't been few the answers generated from the civil society demanding a restoration, cleansing and carefulness of the environment, however these are only immediate reactions to the environmental accidents. The formation of groups, ONG or organizations of lasting pursuits and trajectory is in a processes of conformation. The efforts of the two governments have not either given the expected results and the environmental conditions are in a continuous deterioration day by day. The maquila industry continues its expansion in the same patterns of growth, the pressure over the natural

resources, the few public services and the high indexes of sickness are just part of the whole range of the environmental insecurity that exist today on the shared region between Mexico and the United States.

These problems can affect directly the security of all the Americas, because environmental problems has no boundaries, they can damaged and put in jeopardy the resources, the air, the land but, most of all, the lives of the people that share these space. The Mexicans carries the highest cost of the integration, the result of the decision making process, where the industry and the economic grow were more important than the environmental care, with terrible consequences in health and quality of life. As we showed in our paper the environmental security of these region is now in danger, the maquiladora process is going on but also the deterioration of the resources and the lives of the people in the area. That is why environmental security is a challenge for both economies in an uncertain and risk world.

Only a new deal basis in a new form of cooperation can improve the quality of the common environment share in the border region. A tolerant, democratic and equal condition is necessary, important and helpful for building a climate of trust and cooperation in a really constructive environmental policy in the region. Environmental security is clearly an issue to achieve a prosperous long-term future. Cooperation among all parties is essential. No country can solve regional environmental problems on its own due to the scope and costs involved.

The challenge ahead is to identify and prioritize those core interest problems that warrant attention. Mexico and the United States have to review and correct the jeopardize that the environmental problems created. It is necessary a growing commitment to work collectively to solve regional environmental issues. The United States and Mexico have a keen interest in preserving their shared environment. The NAFTA treaty strengthens commercial ties but if we maintain the environmental deterioration there will be no future at all. It is time to work out all the possible solutions in a new world order where risk and security are part of the same global scenario.

Bibliography

- Alfie, M y Luis Méndez, (2000) *Maquila y Movimientos Ambientalistas. Examen de un Riesgo Compartido*, UAM-A, CONACYT, Eón Editores, México.
- Alfie, M, (1995) "Ecología: a un año del TLC" en *El Cotidiano*, núm. 67, UAM-A, enero-febrero, México.
- Alfie, M, (1998) *...Y el Desierto se Volvió Verde. Movimientos Ambientalistas Binacionales*, UAM-A, UIA, Fundación Miguel Alemán y Eón Editores, México.
- Barnett, J, (1997) 'Environmental Security: Now What?', *seminar, Department of International Relations*, Keele University, December 4 1997.
- Bauman, Z. (1996) "Modernidad y Ambivalencia" en Beriain, J. (1996) *Las Consecuencias Perversas de la Modernidad*, Antrophos, Barcelona.
- Beck, U (1992) *Risk Society: Towards a New Modernity*, Sage, London.
- Beck, U (1998) *¿Qué es la Globalización?*, Paídos, Barcelona.
- Beck, U, et.al. (1997) *Modernización Reflexiva.* Alianza Universidad, Madrid.
- Bendesky, L, (1993) "La globalización. O de cómo se participa desigualmente en la economía internacional", en *El Financiero*, 22 de octubre de 1993, vol. II, núm.57, México.
- Bislev, S, (2001) *Globalization, Governance and Security Management*, paper for the American Political Science Association Annual Meeting 2001, San Francisco, aug 29-sept 1st.
- Blatter, J, (2000) "Emerging cross-border regions as a step towards sustainable development?", en *International Journal of Economic Development*, vol.2, núm.3, Boston.
- Bracamontes, A, y et.al. (1997) "Lo fronterizo ante los procesos globales: hacia un programa de desarrollo regional", en *Desarrollo Fronterizo y Globalización*, ANUIES, Universidad de Sonora, México.
- Comisión para la Cooperación Ambiental de América del Norte, Novedades, desde junio del 2001 a febrero del 2002.
- Comisión Nacional del Agua (1996), *Reporte Anual*.
- Daly, H, (1989) *Economía, Ecología y Ética. Ensayos hacia una Economía en Estado Estacionario*, FCE, México.
- Donahue, Th (1991) "The Case against a North American Free Trade Agreement", *The Columbia Journal of World Business*, Summer, p.94
- Dryzek, J, (1997) *The Politics of the Earth. Environmental Discourses*, Oxford University Press, New York.
- Flores González, S, (1995) *Desarrollo Regional y Globalización Económica*, Universidad Autónoma de Tlaxcala, Benemérita Universidad Autónoma de Puebla, México.
- Ganster, P,(1997). *Borders and Border Regions in Europe and North America*, San Diego State University Press and Institute for Regional Studies of the Californias, San Diego.
- González, Márquez, J, (1997) *Nuevo Derecho Ambiental Mexicano*, UAM-A, México.
- Hampson, F,O, (2000) *Earthly Goods. Environmental Change and Social Justice*, Cornell University Press, Ithaca and London.
- Herzog, L (1999) *Where North Meets South: Cities, Space, and Politics on the U.S.-Mexico Border*, Center for Mexican-American Studies, University of Texas at Austin, Austin.
- INEGI, Instituto Nacional de Estadística, Geografía e Historia, Annual Report, 1998.
- Jones, C.L, (1997) "Asseting Transboundary Environmental Impacts on the U.S.-Mexican and U.S.-Canadian Borders", en *Journal of Borderlands Studies*, vol.XII, núm 1-2, spring and fall, Arizona.
- Kaldor, M, (2000) *Global Insecurity. Restructuring the Global Military Sector*, Pinter, London.
- Keohane, R y Nye, J.(1997) *Poder e Interdependencia. La política mundial en Transición*. Grupo Editor Latinoamericano, Buenos Aires.
- Leff, E, (1994) *Ciencias Sociales y Formación Ambiental*, Gedisa,, UNAM, México.
- Moriarty, R, (2002) *Environmental Security: What Environmental Issues Impact Regional Stability and Affect United States Foreign Policy with Mexico?*, A research Paper presented to the Research Department Air Command Staff College, USA.

- Mumme, S (1994) *Managing the Border Environment. Advances, Issues and Options*, Anuies/Profmex, México.
- Rosenthal, I(1986) *Regional Impacts of U:S-Mexican Relations*, Center for US-Mexican Studies, University of California, San Diego.
- Sánchez, R, (1990) *El Medio Ambiente como Fuente de Conflicto en la Relación Binacional México-Estados Unidos*, México, COLEF, México.
- Sánchez, R, (1991) “El TLC del Norte y el Medio Ambiente en la Frontera Norte” en *Frontera Norte*, vol. 3, núm. 6, COLMEX, julio-diciembre, México.
- Shapiro, M, et.al. (1996) *Challenging Boundaries*, University of Minesota Press, Minneapolis.
- Suárez y Torriello, E y et.al.(1996). *Perfil de la frontera México Estados Unidos*, México, FEMAP, México.
- North American Commission for Environmental Cooperation (2002), *The North American Mosaic: A State of the Environment Report*, Montreal.
- Tiefenbacher, J, (1998) “La Frontera Química: Toxic Emissions and Spills along the U.S.-Mexican Border”, en *Journal of Borderline Studies*, vol XIII, no. 1, primavera, Arizona.
- United Nations Development Program, Annual Report, 1994.*
- Vázquez Ruiz, M.A, (1997) *Fronteras y Globalización. Integración del Noreste de México y el Suroeste de los Estados Unidos*, Instituto de Investigaciones Económicas, UNAM, México.
- Zender, L, (2000) “The Pursuit of Security” in *Crime, Risk and Insecurity. Law an Order in everyday life and Political Discourse*, Routledge, London.