

International Environmental Law and Trends in the Protection of Environmental Human Rights in Post-Soviet States*

Alexey Pavlovich Anisimov**

Ksenia Sergeevna Levashkina***

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I. INTRODUCTION

The 20th Century, and especially, the 21st, showed the depth and the danger of the ecological crisis that threaten the existence of the Earth. It is obvious that the accident at the Chernobyl Nuclear Power Plant and Fukushima,¹

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** '05 Ph.D. of Laws, Saratov State Law Academy; '94 Volgograd State Pedagogical University, Faculty of History and Laws. The Author is a full-time professor of the Department of Civil and International Private Law in Volgograd State Pedagogical University in Volgograd, Russia. He is also the Lead Researcher at the Research Institute of the Modern Law of the Volgograd Academy of Public Administration.

*** '07 Ph.D. of Law cand., Saratov State Law Academy. The Author is a graduate student in the Department of Constitutional and Administrative Law.

the oil spill in the Gulf of Mexico,² as well as many other environmental catastrophes, influence not only the lives of people in individual countries, but also threaten humanity as a whole. In most cases, it is impossible for one country to overcome the challenges raised by large environmental disasters. This circumstance has led to the birth of international environmental cooperation, centering on the concept of the environment as a human right, which in turn influenced the content of national legislation and established practices in application and enforcement of such domestic laws.³

In connection to this, this Essay's hypothesis is that international "soft law,"⁴ mainly products of international conferences conducted by the United Nations (U.N.), serves as the political, as well as scientific basis, for the development of a system of international cooperation.⁵ For its implementation, there are specific international conventions and agreements on particular environmental issues.⁶ However, hindering full international cooperation is the discrimination against developing countries, manifested by the desire of developed countries to dictate the developing countries' amount of responsibility for the environment, not proportionate to their financial capabilities, in addition to the fact that developed countries pose a

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1. World Nuclear Association, Chernobyl Accident, *available at* <http://www.world-nuclear.org/info/Safety-and-Security/Safety-of-Plants/Chernobyl-Accident/> (last accessed Dec. 2, 2013) & World Nuclear Association, Fukushima Accident, *available at* <http://www.world-nuclear.org/info/Safety-and-Security/Safety-of-Plants/Fukushima-Accident/#.UnDyk4WeAy4> (last accessed Dec. 2, 2013).
 2. New England Aquarium, The Gulf of Mexico Oil Spill, *available at* http://www.neaq.org/conservation_and_research/oil_spill/index.php (last accessed Dec. 2, 2013).
 3. CRISTINA F. ALBERO & SANTIAGO J. RUBIO JORGE, CAN INTERNATIONAL ENVIRONMENTAL COOPERATION BE BOUGHT? 5 (2008).
 4. Soft law is the term applied to measures, such as guidelines, declarations, and opinions, which, in contrast to directives, regulations, and decisions, are not binding on those to whom they are addressed. However, soft law can produce some legal effects. See Eurofound, Soft Law, *available at* <http://www.eurofound.europa.eu/areas/industrialrelations/dictionary/definitions/softlaw.htm> (last accessed Dec. 2, 2013).
 5. NORMAN S. MILLER, PRINCIPLES OF ADDICTIONS AND THE LAW: APPLICATIONS IN FORENSIC, MENTAL HEALTH, AND MEDICAL PRACTICE 118 (2010).
 6. RÜDIGER WOLFRUM & NELE MATZ, CONFLICTS IN INTERNATIONAL ENVIRONMENTAL LAW 161 (2003).

threat to the national environmental systems of other countries as a result of the conduct of hostilities, disposal of hazardous wastes, and other activities.⁷

The norms present and accepted in international law have a strong impact on prospective domestic legislation, but the enactment of such legislation is also dependent highly on the mentality and understanding of environmental problems which lawmakers in each country have.⁸

When talking about how international and national norms of environmental law are applied, the line between developed and developing countries is not the only one to be drawn. Within the two categories lie more variation as to how a state approaches environmental law.⁹ The state of environmental law enforcement in the Russian Federation and post-Soviet countries, for example, can be described as weak, due to the very few cases brought before the courts involving protection of environmental rights, and the seeming inability of courts to link environmental pollutants with criminal responsibility.¹⁰ Much of this is due to the fact that in the Russian Federation, there is a low level of “legal culture” among the citizens, low technical capabilities and equipment on the part of law enforcement, and a lack of political will needed to combat environmental offenses from the government.¹¹

In the situation the Russian Federation finds itself in, the role of international environmental justice, dispensed and symbolized in Europe through the European Court of Human Rights, is increased, as international action makes a significant contribution to the environmental protection of human rights, and influences the formation of domestic jurisprudence.¹²

The Authors note that it is not possible to take the issue of environmental protection away from the realm of scientific study. Thus, the problems of international cooperation and the development of Russian

7. T.R. JAIN, *PUBLIC FINANCE AND INTERNATIONAL TRADE* 215 (2009).

8. United Nations Enable, Overview of International Legal Frameworks: For Disability Legislation, available at <http://www.un.org/esa/socdev/enable/disovlf.htm> (last accessed Dec. 2, 2013).

9. Nazrul Islam, *ISO 14001: Legal Challenges for Developing Countries*, in *ENVIRONMENTAL LAW IN DEVELOPING COUNTRIES* 22 (2001).

10. COUNCIL OF EUROPE, *NATURE AS HERITAGE: FROM AWARENESS TO ACTION: PROCEEDINGS* 44 (2002).

11. *Id.*

12. Briony MacPhee, A New Form of Environmental Justice? The Environment’s Evolving Status as a Rights-bearing Entity, available at <http://www.un.org/esa/socdev/enable/disovlf.htm> (last accessed Dec. 2, 2013).

legislation in the field of environmental protection have been investigated by Mikhail M. Brinchuk, Valentine Y. Donchenko, Elvira F. Pushkarev, Alexander M. Solnzev, and other scientists.¹³ Similar studies were also carried out in relation to other countries of the former Soviet Union.¹⁴ Considerable attention to the development of environmental justice in Russia have been studied by Kishti K. Davaeva, Mikhail A. Knyazev, and A.E. Hawks. Among foreign scholars, the works of F. Antoine, Gro Harlem Brundtland, Adam Roberts, and Johnston Busingye P.J., are notable.

The findings and recommendations proposed in this Essay are based on existing scientific data. They develop and complement each other, and can be used in further international and comparative legal studies of the human rights to environmental protection. Materials and conclusions of this Essay will be of particular interest to the authors engaged in similar studies, as well as scholars from the former Soviet Union.

The research methods used by the Authors in this Essay are historical and based on comparative law and system analysis.

II. INTERNATIONAL COOPERATION IN THE ENVIRONMENTAL HUMAN RIGHTS' REALIZATION AND "SOFT LAW" NORMS' INFLUENCE

A. Stages of Environmental Human Rights Consolidation in International Law

After the Second World War, which was one of the bloodiest wars in human history,¹⁵ there began a process of developing new principles, both in general international relations, as well as in international law. These principles were accompanied by new standards with which to measure the compliance of States with internationally accepted human rights.¹⁶ This

13. See Mikhail M. Brinchuk, *The Concept and Structure of Russian Ecological Legislation*, 3 ARCTIC REV. ON LAW & POLITICS 147, 152 (2012).

14. Stepan V. Vasiliev, *Proof and Evidence in the Case of Damages Caused to the Health of Citizens from the Impact of the Natural Environment in the Civil Procedure of Ukraine*, in STATE AND LAW 79-84 (2000); I.A. Ignatieff, *Environmental Rights and Duties in the Constitutions of States — Participants of CIS*, 11 BULL. MOSK. U. 99, 99-110 (2002); & S.D. Bekisheva, *Legal Challenges to Ensure Environmental Security of the Republic of Kazakhstan*, at 44 (2010) (Dissertation Doctor of Laws, Almaty).

15. Scholastic, World War II: An Overview, available at <http://www.scholastic.com/teachers/article/world-war-ii-overview> (last accessed Dec. 2, 2013).

16. Joan M. Veon, *International Law*, available at <http://www.womensgroup.org/INTERLAW.html> (last accessed Dec. 2, 2013).

movement towards a rights-centered international law dynamic was very much reflected in the Charter of the U.N., which was created in San Francisco on 26 June 1945,¹⁷ and which noted that the people of the U.N. “[reaffirmed their] faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of [men] and women[,] and of the equal rights of nations large and small[.]”¹⁸

Since the earliest U.N. instruments, the international community began to set new standards for civil, political, social, economic, and cultural rights and freedoms.¹⁹ However, these early U.N. instruments did not have many provisions on environmental human rights, due in part to the lack of attention and urgency felt for environmental issues at the time.²⁰ The first documents of the U.N., including the U.N. Charter, the Universal Declaration of Human Rights (UDHR), and the International Covenants on Human Rights (ICHR), did not mention “the right to a healthy environment,” although one did note the connection between the quality of health and the quality of the environment.²¹ Aside from this, such documents also made reference to the “standard of living,” which was necessary for a decent human existence.²² In succeeding years, only certain categories of protection from certain types of environmentally harmful elements were focused on.

However, the situation began to change in the 70s. This decade saw the beginning of specialized U.N. conferences on environmental issues (U.N. Environmental Conference) which continue to be held to this very day.²³ Although most of the output in these conferences fall into the category of so-called “soft law,”²⁴ their status as U.N. issuances did lead to the

17. United Nations (U.N.) Charter, Introductory Note.

18. U.N. Charter, pmbl.

19. Universal Declaration of Human Rights (UDHR), G.A. Res. 217 (III) A, U.N. Doc. A/RES/217(III) (Dec. 10, 1948).

20. *Id.*

21. See International Covenant on Economic, Social, and Cultural Rights (ICESCR), art. 12 (2) (b), *opened for signature* Dec. 6, 1966, 993 U.N.T.S. 3.

22. UDHR, *supra* note 19, art. 25 (1).

23. United Nations, UN Conference on Environment and Development (1992), *available at* www.un.org/geninfo/bp/enviro.html (last accessed Dec. 2, 2013).

24. Eurofound, *supra* note 4.

implementation by Member-States of national legislation focusing on the same topics.²⁵

The first U.N. Environmental Conference was the U.N. Conference on the Human Environment, held on June 1972 in Stockholm (Stockholm Conference).²⁶ The conference adopted the Declaration on the Environment, Declaration of Principles, and the Plan of Radio Activities, which were then consolidated into a single document, called the “Stockholm Declaration.”²⁷ The Declaration of Principles, for the first time in international law, formulated the concept of the human right to a healthy environment.²⁸ The Stockholm Declaration also noted the need for an admission of liability on the part of citizens and society, as well as on the part of enterprises and institutions at all levels, and equal participation for all in the common effort to protect the environment.²⁹ It was in the Stockholm Conference where it was acknowledged that there was an increasing number of environmental problems which were regional or even international in nature, and therefore necessitated extensive cooperation among nations, as well as action on the part of other players such as international organizations.³⁰

Subsequently, the language of environmental human rights has been adopted in the text of the International Convention for the Prevention of Pollution of Dumping Wastes and Other Matter in 1972.³¹ The Stockholm Conference Recommendations stimulated international regulation of migratory species, natural and cultural heritage, and wetlands, among other things.³² Moreover, since the Stockholm Conference in 1972, the process of gradual “greening,” in the form of the inclusion of specific environmental standards in the texts of international instruments relating to regulation of

25. United Nations Environment Program (UNEP), Background, *available at* <http://www.unep.org/delc/EnvironmentalLaw/tabid/54403/Default.aspx> (last accessed Dec. 2, 2013).

26. PHILIPPE SANDS, *PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW* 40 (2003).

27. *Id.*

28. ELLI LOUKA, *INTERNATIONAL ENVIRONMENTAL LAW: FAIRNESS, EFFECTIVENESS, AND WORLD ORDER* 30 (2006).

29. SANDS, *supra* note 26, at 39.

30. PATRICIA W. BIRNIE & ALAN E. BOYLE, *INTERNATIONAL LAW AND THE ENVIRONMENT* 4 (1992).

31. SANDS, *supra* note 26, at 34.

32. LINDA S. SPEDDING, *ENVIRONMENTAL LAW GUIDE* 8 (1999).

very different issues, has evolved.³³ For example, paragraph 9 of the Universal Declaration on the Eradication of Hunger and Malnutrition, adopted on 16 December 1974 by the Universal Food Conference, requires that, to preserve the natural resources that are used or could be used for food production, all countries should cooperate with each other to facilitate the protection of the environment.³⁴

One of the achievements of international cooperation in the field of environmental human rights, which took place in the mid-1970s, was the development of continental human rights systems — something achieved through joint efforts of states themselves and the U.N.³⁵ Of particular note, are the activities of the Commission on Security and Cooperation in Europe, now the Organization for Security and Co-operation in Europe,³⁶ in particular, the Final Act of the Conference on Security and Cooperation in Europe that was signed in Helsinki on 1 August 1975.³⁷

The next major milestone in the development of environmental human rights was the U.N. Conference on Environment and Development, held in June 1992 in Rio de Janeiro (Rio Conference).³⁸ It was in this Conference that the quality of the environment began to be seen as an essential element of sustainable development.³⁹ This approach was dictated by the fact that the environment is “a place of life and development [with] our actions to improve our well-being in it. Both of these concepts are inseparable.”⁴⁰ According to the Principles of the Rio Declaration on Environment and Development, in order to achieve sustainable development, environmental protection should be an integral part of the development process and cannot be considered in isolation from it.⁴¹ This means that the preparation and

33. SANDS, *supra* note 26, at 33-34.

34. World Food Conference, Nov. 5-16, 1974, *Universal Declaration on the Eradication of Hunger and Malnutrition*, ¶ 9, U.N. Doc. E/CONF.65/20 (Nov. 16, 1974).

35. SANDS, *supra* note 26, at 40-43.

36. Commission on Security & Cooperation in Europe, Website of the Commission on Security & Cooperation in Europe, *available at* <http://www.csce.gov/> (last accessed Dec. 2, 2013).

37. *Id.*

38. DAVID HUNTER, ET AL., *INT'L ENV'T LAW AND POL'Y* 181-87 (2007).

39. *Id.* at 200.

40. UNEP, *Environment for Development*, in *GLOBAL ENVIRONMENTAL OUTLOOK 2* (2007).

41. U.N. Conference on Environment and Development, June 3-14, 1992, *Conference Report*, U.N. Doc. A/CONF.151/26 (Aug. 12, 1992).

adoption of environmentally significant decisions in the exercise of economic and other activities which have harmful effects on nature must take into account environmental requirements.⁴² If humanity does not use the concept of sustainable development,⁴³ first, as a methodological basis of the development of environmental law, and later, as an effective instrument of its implementation, it will deprive its children of the future.

In eastern European law, there are several definitions of “sustainable development” as a legal term.⁴⁴ Elvira F. Pushkarev believes that “sustainable development [is both] socio-economic and environmental development, which is aimed at preserving peace in the world, [reasonable to the needs] of [the] people[,] while improving the quality of life for present and future generations, by careful use of the planet’s resources and the preservation of the natural environment for the development of the economy in [] a way that [] [is] not accompanied by dangerous pollution and destruction of the natural environment.”⁴⁵ The representative of Kazakhstan’s legal science, J.S. Yelyubayev, believes that sustainable development is “a society in which the needs of the present generation[,] without prejudice to future generations, is controlled by the balanced development of society without destroying its natural basis and [by] ensuring the continued progress of human civilization.”⁴⁶ In sum, sustainable development is stable socio-economic development, without destroying the natural base from which development is made possible, and is a means of providing continuous progress to society.⁴⁷

Under the influence of the U.N. Environmental Conference⁴⁸ several international law documents relating to sustainable development have been produced. There is, in particular, the Convention on Access to Information,

42. *Id.*

43. Sustainable development is development that meets the needs of the present without compromising the ability of future generation to meet their own needs. See WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE 43 (1987).

44. Elvira F. Pushkarev, International Environmental Law and Order and Environmental Rights, at 12-13 (2008) (dissertation Doctor of Laws, Moscow).

45. *Id.*

46. J.S. Yelyubayev, *The unity of the direct and extraterritorial effects of environmental standards at Baikonur*, in ECOLOGY: THE SYNTHESIS OF SCIENCE, TECHNICAL AND HUMANITIES PROCEEDINGS OF THE III ALL-RUSSIAN SCIENTIFIC-PRACTICAL FORUM 390 (2012).

47. LOUKA, *supra* note 28, at 33.

48. U.N., *supra* note 23.

Public Participation in Decision-making, and Access to Justice in Environmental Matters in Aarhus, Denmark on 25 June 1998, which, however, has not been ratified by the Russian Federation.⁴⁹

Furthering the development of environmental cooperation were the decisions of the World Summit on Sustainable Development in Johannesburg (Johannesburg Conference) in 2002, which was attended by representatives from 196 countries, all U.N. specialized agencies, many non-governmental organizations, and about 20 multinationals.⁵⁰ The Johannesburg Conference was to carry out a comprehensive assessment of the state of the environment and to define a strategy for the future.⁵¹ Following the Johannesburg Conference was the Johannesburg Declaration on Sustainable Development and the Plan of Implementation of the World Summit on Sustainable Development.⁵² These documents on value and validity were highly similar to their predecessors, which were adopted in Stockholm and Rio de Janeiro.⁵³

The 37 points of Johannesburg Declaration are divided into six sections.⁵⁴ They are the official statements of commitment to the principles that have been developed previously in the Rio Declaration of 1992 and the “Agenda for the [21st] Century (Agenda 21).” Implementation of the plan consists of 170 points, specifying the 1992 thesis of the Agenda 21.⁵⁵

The Johannesburg Declaration on Sustainable Development focuses on eradicating poverty, changing consumption and production patterns, and protecting and using natural resources rationally.⁵⁶ It also made note of the needs of sustainable development considered in the context of world globalization.⁵⁷

It is worth noting that the content of the Johannesburg Declaration stressed the need to further explore the link between the environment and

49. SANDS, *supra* note 26, at 15.

50. HUNTER, ET AL., *supra* note 38, at 209-10.

51. *Id.*

52. LOUKA, *supra* note 28, at 38-39.

53. *Id.*

54. World Summit on Sustainable Development, Aug. 26-Sep. 4, 2002, *Conference Report*, U.N. Doc. A/CONF.199/20 (Sep. 4, 2002).

55. HUNTER, ET AL., *supra* note 38, at 199.

56. *Conference Report*, *supra* note 54, ¶ 5.

57. *Id.*

human rights, including the right to development.⁵⁸ The Johannesburg Conference covered a number of other important environmental issues including the number of people without access to clean drinking water, restoration of the fish resources of oceans, changes in business relationships attempting to adapt to the problems of sustainable development, the reduction of production of harmful chemicals, the justification of the role of energy in sustainable development, and other issues.⁵⁹ The Conference also suggested the need for the further development of “environmental justice.”⁶⁰

The current stage of development of international cooperation in the field of environmental protection and realization of human rights is associated with the decisions of the Rio Conference.⁶¹ The focus of the Rio Conference were the issue of poverty eradication and the measures needed to achieve sustainable development.⁶² One of the main ways of achieving these goals has been recognized and labeled as the “green economy.”⁶³ Building a “green economy” in the world means ensuring the rational use of natural resources with the least damage to the environment, improving utilization, and reducing waste production and consumption of resources.⁶⁴

Meanwhile, despite the long-term cooperation in the field of human rights to environmental protection, a general consensus on the actual scope of the term is absent. For example, some Russian scientists expressed human rights to environmental protection as “the need to secure the right to a safe, healthy, and ecologically sound environment at the international level through the adoption of a uniform [and codified] act on the issue of environmental security.”⁶⁵ However, such an approach is difficult to accept, since the category of “healthy environment”⁶⁶ reflects the fact that all the

58. *Id.* ¶¶ 11-17.

59. *Id.*

60. *Id.* ¶ 21.

61. G.A. Res. 66/288, at 1, U.N. Doc. A/RES/66/288 (Sep. 11, 2012).

62. *Id.*

63. *Id.* at 3.

64. *Id.*

65. V.Y. Donchenko, *The United Nations Role in Ensuring Environmental Safety*, at 22 (2008) (Dissertation of the Candidate of Legal Sciences, Moscow).

66. According to the World Health Organization —

Environmental health addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviours. It encompasses the assessment and control of those environmental factors that can potentially affect health. It is

parameters of the environmental regulations, and the category of “safe environment” indicates the presence or absence of threats, but does not disclose the content characteristics of the quality of environmental systems and subjective human rights on their favorable state. In this regard, it seems to the Authors that it is more expedient to speak about the “right to a healthy environment” from the point of view of international law.

The doctrinal definition by the Authors of the right is stated thus: The “right to a healthy environment” is an opportunity for every person and all people of the world to live in a state of a balanced biosphere, which provides the highest standard of physical and mental health and uses systematic tools which eliminate the global threat to the environment caused by human activity.⁶⁷

B. The Contradictions between Environmental Interests of Developed and Developing Countries: Is There a Way to Solve Them?

Despite the overall positive trend of international cooperation in the field of environmental protection, it should be noted that the international community has fallen short in addressing an issue which invariably hinders joint efforts of countries in the fight against environmental risks.⁶⁸ In the opinion of the Authors, this issue is the existence of an objective inequality of economic and technological capabilities of developed and developing countries, as well as a reluctance among developed countries to take into account the interests and capacities of developing countries in the protection of nature. There are several problem areas in which there is tension between

targeted towards preventing disease and creating health-supportive environments. This definition excludes behaviour not related to environment, as well as behaviour related to the social and cultural environment, and genetics.

World Health Organization, Environmental Health, available at http://www.who.int/topics/environmental_health/en/ (last accessed Dec. 2, 2013).

67. U.N. Human Rights, Independent Expert on Human Rights and the Environment, available at www.ohchr.org/EN/Issues/Environment/IEEnvironment/Pages/IEenvironmentIndex.aspx (last accessed Dec. 2, 2013).
68. Brian Seavitt, *The International Community’s “Responsibility to Protect” Should Include Climate Change*, available at http://www.huffingtonpost.com/brian-seavitt/responsibility-to-protect_b_3950694.html (last accessed Dec. 2, 2013).

developed countries and those whose economies are still in the “catch-up” phase,⁶⁹ among which are the next two examples.

I. The Ozone Layer

The ozone layer is a part of the environment recognized as needing protection because it is constantly at risk from pollution, depletion, degradation, damage, destruction, and other negative impacts of economic and other human activities.⁷⁰ The peculiarity of the ozone layer as an object of legal protection is that it is outside the territory covered by the sovereignty of States.⁷¹ The ozone layer is an upper atmospheric layer with a thickness of three millimeters, which lies at a height of about 30 kilometers above the Earth’s surface.⁷² Its main environmental feature is that it absorbs ultraviolet radiation harmful to living organisms coming from outer space and supports optimum temperature range.⁷³ This implies a close connection between the problems of protecting the ozone layer and climate change consequences such as global warming.

At the moment, there are ozone holes in Antarctica and a decrease in the ozone layer over many large cities.⁷⁴ This situation encourages international cooperation in the field of environmental protection, in which Russia and other post-Soviet countries are actively involved.⁷⁵ The Vienna Convention for the Protection of the Ozone Layer in 1985, and the Montreal Protocol on Substances that Deplete the Ozone Layer in 1987 are of great

69. The Catch-Up Effect states that all developing economies grow faster compared to economies with higher per capita income. Thus, in due time, all economies will just converge. See The Economic Times, Definition of the Catch Up Effect, available at <http://economictimes.indiatimes.com/definition/catch-up-effect> (last accessed Dec. 2, 2013).

70. SANDS, *supra* note 26, at 343-44.

71. *Id.* at 344-45.

72. The Ozone Hole, Atmosphere, available at <http://www.theozonehole.com/atmosphere.htm> (last accessed Dec. 2, 2013).

73. *Id.*

74. National Aeronautics and Space Administration (NASA) Earth Observatory, Antarctic Ozone Hole, available at <http://www.earthobservatory.nasa.gov/Features/WorldOfChange/ozone.php> (last accessed Dec. 2, 2013).

75. See also United Press International (UPI), Putin: Russia Committed to Arctic Environmental Protection, available at http://www.upi.com/Business_News/Energy-Resources/2013/09/27/Putin-Russia-committed-to-arctic-environmental-protection/UPI-34171380254700/ (last accessed Dec. 2, 2013).

importance.⁷⁶ They establish a list of substances that negatively affect the ozone layer, useful information on the production and the use of these substances, as well as measures, which can be or have already been taken.⁷⁷

The above-mentioned international documents were signed by 150 countries of the world, mostly consisting of the developed countries and many developing countries, including Russia, Papua New Guinea, Cameroon, Zimbabwe, and several others.⁷⁸ However, a number of states refuse to sign them, including China and India, as long as the more developed countries do not provide them with the technology that can replace ozone-depleting substances.⁷⁹

The Kyoto Protocol⁸⁰ adopted on 10 December 1997 fixed the responsibility of industrialized countries and countries with economies in transition, from 2008 to 2012, to reduce greenhouse gas emissions.⁸¹ It is presumed that the total amount of such reduction, which will stabilize the climate, will be five percent of the level of emissions in 1990.⁸² However, the U.S., as one of the main suppliers of greenhouse gases in the atmosphere at about 19%,⁸³ continues to categorically refuse to join the Kyoto Protocol because of the alleged negative economic consequences it will have on the economy.⁸⁴ Such “selfishness” hinders coordination within the international

76. U.N. Vienna Convention for the Protection of the Ozone Layer, *opened for signature* May 23, 1969, 1155 U.N.T.S. 331 & Montreal Protocol on Substances that Deplete the Ozone Layer, *opened for signature* Sep. 16, 1987, 1522 U.N.T.S. 3.

77. *Id.*

78. *Id.*

79. *Id.*

80. Kyoto Protocol to the United Nations Framework Convention on Climate Change, *adopted* Dec. 10, 1997, U.N. Doc FCCC/CP/1997/7/Add.1 [hereinafter Kyoto Protocol].

81. *Id.*

82. HUNTER, ET AL., *supra* note 38, at 679–80.

83. United States Environmental Protection Agency, Emissions by Country, *available at* <http://www.epa.gov/climatechange/ghgemissions/global.html> (last accessed Dec. 2, 2013).

84. Human Society of the United States, Greenhouse Gas Emissions from Animal Agriculture (A Factsheet published by the Humane Society of the United States), *available at* www.humanesociety.org/assets/pdfs/farm/hsus-fact-sheet-greenhouse-gas-emissions-from-animal-agriculture.pdf (last accessed Dec. 2, 2013).

community in the field of emission reductions and the sale of quotas for greenhouse gas emissions between developed and developing countries.

The conflict between developed and developing countries has most clearly manifested itself in the Johannesburg Conference in 2002.⁸⁵ The main problem was their different understanding of the concept of “sustainable development.” Eco-developing countries of the third world, as the “toys for the rich,” stress that the gap between the richest and poorest countries continues to increase.⁸⁶ In 2002, the per capita income in the U.S. was 350 times greater than that in the African Burundi.⁸⁷ Honorable Jerry Thibedi described developed countries, such as South Africa, as islands of stability, which are surrounded by the sea of poverty, noting that it is the rich countries that have to fight for the environment.⁸⁸ Developing countries, where hundreds of people are dying of hunger, treat the discussion of the Kyoto Protocol as blasphemy.⁸⁹ It is necessary to forgive the debts of developing countries to open their access to the markets of developed countries and to increase the flow of investment to them.⁹⁰ As a result, a final consensus was not reached at the Summit, and its prospects now depend on the political will of developed countries.

2. Environmental Consequences of Modern Wars

The second half of the 20th Century and the beginning of the 21st, have shown that the effect of attempts at settling difficult foreign policy and economic issues is the deterioration of the world's ecological systems,

85. LOUKA, *supra* note 28, at 35-38.

86. Rajesh Makwana, Global Inequality, *available at* <http://www.stwr.org/poverty-inequality/global-inequality.html> (last accessed Dec. 2, 2013).

87. *See* United States — GDP Per Capita, *available at* <http://www.indexmundi.com/facts/united-states/gdp-per-capita> (last accessed Dec. 2, 2013) & Burundi — GDP Per Capita, *available at* <http://www.indexmundi.com/facts/burundi/gni-per-capita#NY.GNP.PCAP.KN> (last accessed Dec. 2, 2013).

88. Hon. Jerry D. Thibedi, African Nation Congress, Address at National Assembly Budget Vote Debate on Parliament (June 11, 2013) (transcript *available at* <http://www.anc.org.za/caucus/show.php?ID=3133> (last accessed Dec. 2, 2013)).

89. Tan Cheng Li, Flaws in the Kyoto Protocol, *available at* <http://www.twinside.org.sg/title/kyt-cn.htm> (last accessed Dec. 2, 2013).

90. World Commission on Environment and Development, *Development and International Co-operation: Environment*, Ch. 3, ¶ 25, U.N. Doc. A/42/427 (Aug 4, 1987).

notably in the context of “environmental wars.”⁹¹ Environmental wars involve the use, in the course of local fighting by one or both of the warring parties, of environmentally dangerous weapons or other technologies that could potentially, and often actually do cause significant long-term damage to the environment of surrounding States.⁹²

a. War in Vietnam

Since the start of military operations in March 1968, U.S. troops have used more than 100,000 tons of napalm — part of a strategy of devastation carried out by the U.S. military.⁹³ This strategy provides for the elimination of forests and plantations, destruction of rice fields, and the practical erasure from the land of entire ecosystems by means of bombing using incendiary weapons.⁹⁴ The disclosure of this information during the 70’s has resulted to the discussion and adoption of the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques.⁹⁵ This Convention imposes on all participants the obligation to refrain from the hostile or martial use of nature, and to avoid measures having widespread, long-lasting, or severe effects on the environment as a means of destruction, damage, or injury to any other State Party.⁹⁶ However, despite these measures, it was impossible to set a limit to “environmental wars.”⁹⁷

b. Iran-Iraq War

91. ERIK KOPPE, THE USE OF NUCLEAR WEAPONS AND THE PROTECTION OF THE ENVIRONMENT DURING INTERNATIONAL ARMED CONFLICT 1–2 (2008).

92. *Id.*

93. The Vietnam War, Napalm & Agent Orange, *available at* <http://vietnamawbb.weebly.com/napalm-agent-orange.html> (last accessed Dec. 2, 2013).

94. David Wessels, The Vietnam War, *available at* http://www.livinghistoryfarm.org/farminginthe50s/life_08.html (last accessed Dec. 2, 2013).

95. U.N. Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, *opened for signature* May 18, 1977, 1108 U.N.T.S. 151.

96. *Id.*

97. *See* Costs of War, Environmental Costs, *available at* <http://costsofwar.org/article/environmental-costs> (last accessed Dec. 2, 2013) & ICRC, Protection of the Environment in Time of Conflict, *available at* <http://www.icrc.org/eng/resources/documents/report/5deesv.htm> (last accessed Dec. 2, 2013).

During the period from 1 May 1980 to 31 December 1987, at least 447 oil tankers located in the Persian Gulf have been attacked.⁹⁸ As a result, 2,035,000 tons of oil had leaked into the sea by 1984.⁹⁹ Not a single oil-producing complex located in either Iran or Iraq stayed safe.¹⁰⁰ It is believed that both belligerent states have caused extensive exposure and severe damage to the natural environment because of this.¹⁰¹

The same methods were resorted to by belligerents during the first U.S.-Iraq war in Kuwait.¹⁰² The total amount of crude oil that fell into the Persian Gulf was not less than 11 million barrels.¹⁰³ By May 1991, some 400 kilometers of the coast of Saudi Arabia and the southern coast of Kuwait were affected.¹⁰⁴ There was damage caused to coastal swamps and fauna, which left more than 15,000 birds, coastal flora, and fisheries, as well as oil displaced in the high seas.¹⁰⁵ The consequences of the destruction of oil installations in Kuwait were no less serious.¹⁰⁶ The oil stream flowing from the wells formed a whole lake and entered the water-bearing layers of soil.¹⁰⁷ Fires resulted and in turn caused large losses of valuable natural resources and the spread of various gases in the atmosphere, including gaseous carbon dioxide facilitating the creation of the "greenhouse effect."¹⁰⁸ After the war in Kuwait, there was a high degree of air pollution, which caused an increase in respiratory diseases and significantly worsened the quality of the soil.¹⁰⁹ It was noted that the smoke also adversely affected the environment of

98. Antoine Philippe, *International Humanitarian Law and the Protection of the Environment in Times of Armed Conflict*, in ENVIRONMENTAL PROTECTION UNDER INTERNATIONAL HUMANITARIAN LAW: THE COLLECTION OF ARTICLES 29 (1995).

99. *Id.*

100. *Id.*

101. *Id.* at 30.

102. Adam Roberts, *Damage to the Natural Environment During the Gulf War in 1991*, in ENVIRONMENTAL PROTECTION UNDER INTERNATIONAL HUMANITARIAN LAW: THE COLLECTION OF ARTICLES 56 (1995).

103. *Id.*

104. *Id.* at 57.

105. *Id.*

106. *Id.*

107. *Id.*

108. Roberts, *supra* note 102, at 57.

109. *Id.* at 58.

neighboring countries, such as Iran.¹¹⁰ In Turkey, Iran, and the Himalayas, black rain poured down.¹¹¹ However, the carbon black after the fires, fortunately, were not high enough to cause global environmental consequences, which so many had feared.¹¹²

c. The War in Yugoslavia

Environmental consequences of the war in Yugoslavia, unfortunately, did not become public knowledge immediately. However, in December 2000, it became a scandal when the war became associated with the negative impact of radiation on the health of the North Atlantic Treaty Organization (NATO) peacekeepers.¹¹³ It was discovered that U.S. pilots used depleted uranium-238 to bomb Yugoslavia and that the U.S. had produced about 31,000 of such bombs and shells, which were incidentally the same ammunition used in the bombing of Iraq during the first U.S.-Iraq war.¹¹⁴ Due to radioactive contamination in the territory, some of NATO's peacekeeping keepers fell ill and went to court to claim compensation.¹¹⁵

According to some estimates, by 2002, it was revealed that more than 100 soldiers developed cancer of the blood, and about 17 of them had already died.¹¹⁶ We do not know yet the approximate number of cases of Serbs and Albanians affected by the consequences of these bombings.¹¹⁷ Just one Yugoslavian hospital from 1995 to 2001 registered 1,126 patients with cancerous tumors, and 370 of them died in 2002.¹¹⁸ According to Yugoslavian physicians, there was a massive surge in cancer during the time bombing of Yugoslavian cities was occurring.¹¹⁹

d. The Second US-Iraq War

110. *Id.*

111. *Id.*

112. *Id.*

113. K. Iron, *Uranium death roams the Balkans*, ROSSIYSKAYA GAZETA, Aug. 1, 2002.

114. *Id.*

115. *Id.*

116. *Id.*

117. See Balkan Insight, *Death Toll From NATO Yugoslavia Bombing Still Unknown*, available at <http://www.balkaninsight.com/en/article/number-of-victims-of-nato-bombing-still-unknown> (last accessed Dec. 2, 2013).

118. *Id.*

119. *Id.*

When NATO armed forces went to Iraq in 2003,¹²⁰ it led to three environmental problems.

First, fire in dozens of oil wells led to the release of a variety of harmful substances in the air, such as “carbon monoxide, poly aromatic hydrocarbons, and polychlorinated-dibenzo-dioxins and furans.”¹²¹ Some possible consequences of this event worth mentioning are the probability of a local greenhouse effect and climate change in the region, the likelihood of cross-border pollution by combustion products of oil, and an increase in morbidity rates, primarily due to respiratory diseases.¹²²

Second, as in the first U.S.-Iraq war in Kuwait, this military conflict is likely to use the anti-Iraq coalition’s ammunition, which is filled with depleted uranium.¹²³ The consequences of this on nature and human health are already mentioned above.

Third, in some accounts, negative effects of high seismic activity have been marked both in the countries of the Middle East and surrounding regions, as a result of the application of super-bomb attacks on Iraq.¹²⁴

Each successive local war has had great negative environmental consequences; if not for the entire ecosystem of the Earth as a whole, then at least for specific regional environmental systems.¹²⁵ For the international community, in the Authors’ view, now is the time to start developing new mechanisms to minimize the negative environmental impacts of local wars. Such mechanisms should include a set of tough economic and political sanctions for countries using “environmentally dangerous”¹²⁶ weapons in the

120. See North Atlantic Treaty Organization (NATO), NATO and the 2003 Campaign Against Iraq *available at* http://www.nato.int/cps/en/SID-oD849120-34DC9268/natolive/topics_51977.htm (last accessed Dec. 2, 2013).

121. UNEP, DESK STUDY ON THE ENVIRONMENT IN IRAQ 73 (2003).

122. *Id.* at 70-80.

123. International Atomic Energy Agency, Depleted Uranium, *available at* <http://www.iaea.org/newscenter/news/2003/13-571089.shtml> (last accessed Dec. 2, 2013).

124. A. Nikolaev, *Bush Orders — on the Richter Scale*, ROSSIYSKAYA GAZETA, Apr. 2, 2003.

125. Lenntech, Environmental Effects of Warfare, *available at* <http://www.lenntech.com/environmental-effects-war.htm> (last accessed Dec. 2, 2013).

126. See Alok Jha, *Climate Threat from Nuclear Bombs*, THE GUARDIAN, Dec. 12, 2006, *available at* <http://www.theguardian.com/environment/2006/dec/12/nuclearindustry.climatechange> (last accessed Dec. 2, 2013).

course of hostilities. The practical implementation of these sanctions will depend on the positions of the political leaders of the world, the presence or absence of democratic mechanisms in the targeted State, and the level of environmental and legal culture of the population of these countries.

C. New Environmental Threats Poorly Estimated by the International Community and Ways to Overcome Them in International Law

Along with the “classic” and the long-discussed problems of international environmental cooperation mentioned above, technological change has spawned the emergence of new threats insufficiently evaluated at both the international and national levels. Among these threats, the greatest attention is given to the environmental consequences of the use of genetically modified organisms (GMOs),¹²⁷ and the environmental implications of the use of nanotechnology and nanoproducts.¹²⁸ We will dwell on the latter type of threat in more detail.

Nanotechnology per se cannot be viewed in an environmentally negative sense. Thanks to nanotechnology, operation of solar cells is made possible.¹²⁹ This could mean the rejection of the mass burning of coal and oil and the reduction of certain environmental risks caused by the greenhouse effect, the destruction of the ozone layer, oil spills, and air pollution by combustible products.¹³⁰ Nanotechnology can contribute to reducing environmental hazards and toxic wastes containing arsenic, mercury, cadmium, and lead through the development and implementation of mechanisms that convert the chemical composition of these emissions into non-toxic substances and elements.¹³¹ Nanotechnology is being used successfully in the manufacture of electronic equipment, construction

127. World Health Organization (WHO), 20 Questions on Genetically Modified Foods, *available at* <http://www.who.int/foodsafety/publications/biotech/20questions/en/> (last accessed Dec. 2, 2013).

128. Center for Responsible Nanotechnology, What Is, *available at* <http://www.crnano.org/whatis.htm> (last accessed Dec. 2, 2013).

129. Taflin Laylin, Researchers Build Nano Solar Cells 1,000 Times More Powerful than Conventional PVs, *available at* <http://inhabitat.com/researchers-build-nano-solar-cells-1000-times-more-powerful-than-conventional-pvs/> (last accessed Dec. 2, 2013).

130. *Id.*

131. Sci Dev Net, Green Nanotech Can Reduce Risks to Poor Nations, *available at* <http://www.scidev.net/global/health/opinion/green-nanotech-can-reduce-risks-to-poor-nations.html> (last accessed Dec. 2, 2013).

materials, food products, perfumes, and cosmetics.¹³² The main problem lies in the possible biological effects of nanomaterials' admission into the human body. There is evidence that a variety of substances, when transformed into a kind of nanoparticle, can significantly alter their physical and chemical properties, and may adversely affect the health of a person while these particles are in the process of assimilation into his or her body.¹³³

Up to now, the impact of the entry of nanoparticles in the reaction with other substances, as well as the cumulative effect this will have on the environment remains undetermined. The impact of nanoparticles on the state of wildlife such as animals, plants, and insects causes biologists some concern.¹³⁴ One of the examples of the indirect impacts of nanotechnology and nanomaterials on the environment and human health is the exposure of plants and animals, as well as humans who consume them, to nanopesticides and other agricultural chemicals.¹³⁵ The effect of these nanopesticides remains unexplored, and the question of how to conduct environmental and hygienic studies to assess the environmental impact of the waste produced by nanomaterials is still largely debated.

In European courts, the first claims of harm to human health from the adverse effects of nanotechnology and nanomaterials are beginning to show.¹³⁶ In Russia, one of the few regulations aimed at ensuring nanosafety is the decision of Epidemiology No. 54 on 23 July 2007, “[o]n the supervision of products made using nanotechnology and containing

132. Guillermo Foladori & Noela Invernizzi, *Social and Environmental Implications of Nanotechnology Development in Latin America and the Caribbean* (A Brochure Published by the Joint Efforts of the Latin American Nanotechnology Society Network, the International POPs Elimination Network (IPEN), and the Center for Nanotechnology in Society) 1, *available at* www.ipen.org/pdfs/Nanotechnology_en.pdf (last accessed Dec. 2, 2013).

133. Alexey P. Anisimov, *Protection of the environment from the adverse effects of nanotechnology: the legal aspect*, BULL. VOLGOGRAD ACADEMY OF INTERNAL AFFAIRS OF RUSSIA, 2012, at 32-36.

134. International POPs Elimination Network's Nanotechnology Working Group, *Nanotechnology and the Environment: A Mismatch between Claims and Reality* (An Unpublished Brief Prepared by the IPEN and the European Environmental Bureau), *available at* www.eeb.org/publication/2009/090713_OECD_environmental_Brief.pdf (last accessed Dec. 2, 2013).

135. *Id.*

136. Committee on Social Affairs, Health and Sustainable Development, *Nanotechnology: Balancing Benefits and Risks to Public Health and the Environment*, at 2, AS/Soc/Inf (2013) 03 (Jan. 17, 2013).

nanomaterials.”¹³⁷ Currently in Russia, there are activities done in order to determine the safety of nanoparticles and nanomaterials.¹³⁸

1. The Classification of Nanotechnology Products Based on the Degree of Danger was Carried Out

The products are divided into those with low, medium, and high degrees of potential hazard to the consumer.¹³⁹ Its meaning lies in the fact that nanoproducts with low environmental risk have no special assessments of its safety for consumers.¹⁴⁰ For nanotechnology products with an average degree of potential danger, it is recommended to conduct toxicological and hygienic assessment of the safety of nanoparticles and nanomaterials.¹⁴¹ For nanotechnology products with a high degree of potential danger, it is recommended that toxicological-hygienic, health, and other biological evaluation be performed.¹⁴²

2. Subject of the Sanitary-Epidemiological Expertise

The sanitary-epidemiological examination is required of all products of nanotechnology, whether manufactured or imported into Russia, where it: (a) is intended for use by the public as a consumer product; (b) may be received in large quantities of nanoscale components that make up the production by the human body during all stages of the life cycle of the product; and (c) has possible effects on the components, which make up the nano, and the objects of the natural environment that have a direct or

137. Chief State Sanitary Doctor of the Russian Federation, Decision of Epidemiology No. 54 (July 23, 2007).

138. On 19–24 September 2011, RUSANO and Lomonosov Moscow State University organized the Second International School for “Nanomaterials and Nanotechnologies in Living Systems, Safety and Nanomedicine.” The School is a multidisciplinary project aimed at advanced training and communication between specialists of various fields (physics and chemistry, medicine and biology, and legislation), involved in research, and assessment of nanomaterials safety, and research and development of medical applications of nanotechnologies. See Eugene Birger, 2d International School Nanomaterials and Nanotechnologies in Living Systems: Safety and Nanomedicine, *available at* <http://www.nanotech-now.com/columns/?article=547> (last accessed Dec. 2, 2013).

139. U.S. ENVIRONMENTAL PROTECTION AGENCY, NANOTECHNOLOGY 6 (2008).

140. *Id.*

141. *Id.*

142. *Id.*

indirect impact on the human body.¹⁴³ Products that have passed sanitary and epidemiological expertise are subject to registration with the Federal Service for Supervision of Consumer Rights Protection and Human Welfare.¹⁴⁴

However, the above proposals are enshrined in regulations, and in most cases, are only recommendations.

The Authors believe that, at the international level, it is suitable to develop a special convention, which should reflect measures to combat this modern environmental threat. That international instrument should contain the minimum required amount of protective measures against real or potential threats to the massive use of nanotechnology and nanoproducts. In particular, it would be recommended for state measures to have products labeled “nano” when appropriate, to undertake the registration of medium and high risk nanoproducts, and to conduct sanitary, epidemiological, and other examinations, depending on the degree of potential environmental hazards of such products. Also, it would be recommended to set up binding national and international research on the nature of the environmental impact of nanotechnology and nano to the environment and human health, which should be the result of changes to the current system of national environmental standards and technical regulations, the development of new methods of environmental control, and new formulations of environmental offenses related to violations of the above-mentioned environmental measures in the field of nanotechnology.

In general, it should be noted that the process of interaction between international and national laws should not be one-sided.¹⁴⁵ The most successful rules of national environmental legislation¹⁴⁶ should be used to

143. Russian Federation, State sanitary — Epidemiological Regulation 4, *available at* 75.rospotrebnadzor.ru/sites/default/files/mu12263610.doc (last accessed Dec. 2, 2013).

144. *Id.* at 6.

145. Greg Shaffer & Mark Pollack, The Interaction of International and Domestic Law: Lessons from the Conflict over Genetically Modified Food, *available at* <http://opiniojuris.org/2010/01/05/the-interaction-of-international-and-domestic-law-lessons-from-the-conflict-over-genetically-modified-foods/> (last accessed Dec. 2, 2013).

146. According to Mary Ellen O’Connell, borrowing from domestic law enforcement mechanisms may be the most successful method for enforcement on International Environmental Law. See Mary Ellen O’Connell, *Enforcement and the Success of International Environmental Law*, 3 INDIANA J. GLOBAL LEGAL STUD. 47, 48 (1995).

develop international acts. In this case, it seems that such development should take place not only through the development of specific requirements to combat environmental threats, such as threats to climate and the ozone layer. One of the promising areas for international cooperation should be “territorial” direction associated with the creation of territories with a special international environmental legal status. This area of thought conveys the idea that each country, while having seemingly “ordinary” natural systems, may avail of an “extraordinary” classification owing to the unique circumstances attending the state of their ecological systems.

At the moment, international cooperation regarding giving individual nature complexes international protection status is well developed.¹⁴⁷ An example of this is the recognition given to the Russian Kremlins, which are considered as World Heritage sites under the protection of U.N. Educational, Scientific, and Cultural Organization (UNESCO).¹⁴⁸ However, the “extraordinary” state of natural complexes can bring both positive and negative effects. The latter is the case when natural systems are in very poor and degraded condition that require intervention and recovery. This direction is not yet developed in International Environmental Law, although the practical need for it is great. An example is the radioactive contamination of territories of three countries: Russia, Ukraine, and Belarus, after the Chernobyl accident in 1986.¹⁴⁹ Despite the fact that these countries have taken steps in the payment of cash benefits to citizens affected, measures to address the environmental consequences of accidents in each of the three countries are not coordinated, and most areas are not given the status of ecological disaster zone.¹⁵⁰ It is regrettable as these measures could help restore the states’ ecology.

147. See U.S. Department of State, A Timeline of Environmental Treaties, *available at* <http://iipdigital.usembassy.gov/st/english/gallery/2012/02/201202171105.html#axzzzkWakMXVz> (last accessed Dec. 2, 2013).

148. U.N. Education, Scientific and Cultural Organization (UNESCO), Russian Kremlins, *available at* <http://whc.unesco.org/en/tentativelists/5517/> (last accessed Dec. 2, 2013).

149. World Nuclear Association, Chernobyl Accident, *available at* <http://www.world-nuclear.org/info/Safety-and-Security/Safety-of-Plants/Chernobyl-Accident/#.UnDyhoWeAy4> (last accessed Dec. 2, 2013).

150. *Id.*

Similarly, the recognition as an international disaster zone of the territory of countries affected by the consequences of “environmental wars”¹⁵¹ would contribute to more effective protection of human rights.

III. THE INFLUENCE OF INTERNATIONAL ENVIRONMENTAL LAW FOR THE MAINTENANCE OF ENVIRONMENTAL STANDARDS AND THE CONSTITUTIONS OF THE WORLD

Comparative legal analysis¹⁵² of the provisions of the constitutions of most countries worldwide shows that while they contain provisions on the protection of the environment, each provision is very different in terms of content and the level of legal technique present.¹⁵³ As a result of this comparison, a number of stereotypes that exist in the science of environmental law in the former Soviet Union can be justifiably denied. In particular, one of them is the claim that environmental regulations began to appear in the constitutions of the world only in the 70’s,¹⁵⁴ leading to the conclusion that, in older constitutions, there were no such rules.

This is partially true. In the analysis of the Constitution of the Argentine nation in 1853, environmental regulations can be found.¹⁵⁵ A number of environmental requirements can also be seen in the Constitution of the Republic of Austria in 1920.¹⁵⁶ On the other hand, the 1990 Constitution of the Commonwealth of Australia mentions only the right to use the waters.¹⁵⁷ This implies the emergence of environmental norms in constitutions of countries due to more complex causes. An analysis of the environmental provisions in the constitutions of the world reveals interesting patterns.

151. See World Watch Institute, War and the Environment, *available at* <http://www.worldwatch.org/node/5520> (last accessed Dec. 2, 2013).

152. Comparative Law represents the theoretical study of legal systems by comparing them with each other. See Point Public Affairs, Comparative Law Analysis, *available at* <http://www.pointpa.ro/comparative-law-analysis.html> (last accessed Dec. 2, 2013).

153. See ALG. CONST. art. 17; ANGOLA CONST. art. 95; & XIANFA art. 9; COLOM. CONST. art. 16; GEORGIA CONST. art. 16; MALAWI CONST. art. 30; & UGANDA CONST. art. 9.

154. E.A. VYSTOROBETS, ET AL., ENVIRONMENTAL PROVISIONS IN THEIR CONSTITUTIONS: THE COLLECTION 23 (2012).

155. ARG. CONST. art. 41.

156. B-VG art. 10, ¶ 9, art. 12, & art. 11, ¶ 7.

157. AUSTL. CONST. art. 41.

First, the text of the constitutions of a number of foreign countries points to the linkage between the need to care for the environment in order that a mutual relation may grow between nature and the people's health.¹⁵⁸

Second, these texts also indicate the acknowledgment that environmental protection involves not only action for the benefit of present generations, but also for future generations, to ensure their quality of life, as well as their right to development.¹⁵⁹

Third, it is interesting to note that in implementing the various environmental provisions in the different constitutions, the idea of public domain and heritage, which includes a variety of natural resources, is taken into account. There are a number of formulations such as public property in Algeria,¹⁶⁰ Angola,¹⁶¹ China,¹⁶² national treasure in Brazil,¹⁶³ Mongolia,¹⁶⁴ and Nicaragua,¹⁶⁵ public domain in Haiti,¹⁶⁶ Iran,¹⁶⁷ Montenegro,¹⁶⁸ and Mozambique,¹⁶⁹ the wealth of the public in Iraq,¹⁷⁰ the common heritage and the heritage of the nation in the Dominican Republic,¹⁷¹ public ownership in Portugal,¹⁷² and national wealth in Uzbekistan.¹⁷³

Fourth, a number of constitutions directly stipulate the obligation of the State in the field of environmental protection, such as in Armenia,¹⁷⁴

158. PHIL. CONST. art. XII, § 1; B-VG art. 11, ¶ 7; & PORT. CONST. art. 66.

159. COLOM. CONST. art. 16; GEORGIA CONST. art. 16; MALAWI CONST. art. 30; & UGANDA CONST. art. 9.

160. ALG. CONST. art. 17.

161. ANGOLA CONST. art. 95.

162. XIANFA art. 9.

163. BRAZ. CONST. art. 225.

164. MONG. CONST. art. 16, ¶ 2.

165. NICAR. CONST. art. 60.

166. HAITI CONST. arts. 36-45.

167. IRAN CONST. art. 50.

168. MONTENEGRO CONST. art. 23.

169. MOZAM. CONST. art. 90.

170. IRAQ CONST. art. 33, ¶ 1.

171. DOM. REP. CONST. art. 64, ¶ 4.

172. PORT. CONST. art. 9, ¶ E.

173. UZBEKISTAN CONST. art. 55.

174. ARMENIA CONST. art. 28.

Azerbaijan,¹⁷⁵ Bahrain,¹⁷⁶ Brazil,¹⁷⁷ Cambodia,¹⁷⁸ Sri Lanka,¹⁷⁹ Dominican Republic,¹⁸⁰ Turkmenistan,¹⁸¹ Ethiopia,¹⁸² and other countries. The most original idea is formulated in the Constitution of Panama, which states that the fundamental duty of the State is to ensure that people live in an unpolluted environment, where the air, water, and food satisfy the needs of the proper development of human life.¹⁸³

Fifth, an analysis of the constitutions of other countries gives rise to rich debate about various concepts, examples of which are as follows: the relationship between a healthy and supportive environment and the surrounding natural environment; the content of the concepts of clean, harmless, safe, fair, balanced, and sustainable environment and ecological balance; the environmental values; the ecological reconstruction; the ecological balance; and the environmental degradation and natural harmony.

Sixth, the maintenance of constitutional norms is greatly influenced by the religious tradition of the respective countries. For example, in the Indian Constitution, it is the duty of citizens not only to protect and improve the natural environment, but also to have “compassion for all living beings.”¹⁸⁴

Seventh, it is also known that the state of natural objects and complexes can be, very relatively, classified into three types: normal; very good, created specially protected natural areas; and very bad, a veritable ecological trouble-disaster zone. If protected areas are mentioned in the constitutions of various countries, such as Russia and Turkey, reference to the other “extreme” is quite rare.¹⁸⁵ But there are positive examples. Thus, according to Article 60 of the 2010 Constitution of Kenya, one of its principles of land policy is “the proper conservation and protection of ecologically sensitive areas.”¹⁸⁶

175. AZERBAIJAN CONST. art. 78.

176. BAHR. CONST. art. 11.

177. BRAZ. CONST. art. 225.

178. CAMBODIA CONST. art. 59.

179. SRI LANKA CONST. art. 27, ¶ 4.

180. DOM. REP. CONST. art. 64, ¶ 4.

181. TURK. CONST. art. 86.

182. ETH. CONST. art. 92.

183. PAN. CONST. art. 118.

184. INDIA CONST. art. 51 (A).

185. TURK. CONST. art. 56 & KONST. RSFSR art. 58.

186. BELARUS CONST. art. 30.

A number of issues, which are the subject of many years of intense debate between Russia's ruling party and the opposition, have found quite a peaceful and unambiguous definition in a number of constitutions of foreign countries. Such issues raise questions as to the ownership of land by foreigners. Thus, under Article 28 of the Constitution of the Republic of Armenia, as a general rule, foreigners and stateless persons cannot own land.¹⁸⁷ In the 1996 Constitution of the Republic of Belarus, agricultural land is owned by the State.¹⁸⁸

There is an interesting position in Philippine law. According to Article XII, Section 2 of the 1987 Philippine Constitution —

[a]ll of the land for public use, water, minerals, coal, oil and other minerals, all the resources of potential energy, fisheries, forests and timber, wildlife, flora and fauna, and other natural resources belongs to the [S]tate. With the exception of agricultural lands, all other natural resources shall not be alienated.¹⁸⁹

The State will protect national maritime wealth in the archipelago waters, territorial sea, and the exclusive economic zone and authorizes the use and possession of only Filipino citizens.¹⁹⁰

In foreign constitutions, there are common legal structures that are simply unacceptable to a lawyer from the post-Soviet States. For example, there is a rule in the Kingdom of Bhutan that every Bhutanese is a trustee of natural resources and the environment.¹⁹¹ Equally interesting and reassuring, is that in Article 5 of the 2008 Constitution of the Kingdom of Bhutan, it states that 60% of the Kingdom will be under tree plantations.¹⁹² The Constitution of Kenya formulated a similar solution, which is much more modest: “to maintain the forest cover of at least 10% of the total area of Kenya.”¹⁹³

The Greek Constitution mentions “private forests,” which is traditionally considered to be unacceptable in Russia.¹⁹⁴ It is the Russians' deep conviction that the efficiency of natural resources and environmental

187. KENYA CONST. art. 60.

188. BELARUS CONST. art. 30.

189. PHIL. CONST. art. XII, § 2.

190. PHIL. CONST. art. XII, § 2.

191. BHUTAN CONST. art. 5.

192. BHUTAN CONST. art. 5.

193. KENYA CONST. art. 69.

194. GREECE CONST. art. 117.

protection does not depend on the form of ownership of the land or forest, but on the efficiency of public administration, corruption, sizes, and other similar factors. In this sense, many of the rules of foreign constitutions cause a mixed assessment, but, of course, require in-depth study and reflection.

The Authors' analysis suggests that the quality of the constitutional and legal regulation of environmental protection is not directly dependent on the level of economic or political development of the country, whether developed or developing. In contrast, the observed diversity of approaches to environmental problems in different constitutions is due to the degree of public awareness of environmental issues and the leadership of the countries. The diversity is also caused by the religious and cultural traditions, the year of adoption of their constitution (since the content of constitutions of environmental human rights are wider), and other factors.

The practical aspect of the above study is that basic environmental law guarantees the state of environmental human rights, which can create conditions for more effective protection of these rights through national and international justice.

IV. ENVIRONMENTAL JUSTICE IN THE POST-SOVIET SPACE: TRENDS, PROBLEMS, AND PROSPECTS

Environmental justice in post-Soviet countries may take many forms, including constitutional, administrative, civil, arbitral, and criminal proceedings. In Russia, the creation of specialized courts for certain issues is not unheard of. An example would be the arbitration courts for intellectual property rights.¹⁹⁵ However, there is no system of special environmental courts, although the necessity to create them in Russia and other former Soviet countries is obvious.

As was noted in 2010, 360 national and regional environmental courts were created in 42 countries.¹⁹⁶ In this case, half of them were created

195. Gowlings, Russia Launches the IP Court, *available at* <http://www.gowlings.com/KnowledgeCentre/article.asp?pubID=2820> (last accessed Dec. 2, 2013).

196. George Pring & Catherine Pring, Specialized Environmental Courts and Tribunals: The Explosion of New Institutions to Adjudicate Environment, Climate Change, and Sustainable Development 3, *available at* <http://www.law.du.edu/documents/ect-study/Unitar-Yale-Article.pdf> (last accessed Dec. 2, 2013).

between 2008 and 2010, such as those in Belgium, China, South Africa, Thailand, and other countries.¹⁹⁷

Environmental cases have very significant characteristics requiring proof of several groups of cause-and-effect relationships: between the fact of pollutant discharge and the actual pollution in the environment; between the incidence of environmental pollution and harm to health, life, and property of the individual citizen or group; and between the fact of injury and the cost of treatment and recovery. The difficulty of proving the causal link¹⁹⁸ leads to Russian lawyers being extremely reluctant to take up such cases, and courts rarely making decisions in favor of citizens affected by environmental torts.¹⁹⁹ This situation may be helped by the creation of specialized courts, because in a few years, these courts would create a substantial body of jurisprudence that could be summarized by higher courts, with recommendations for law enforcement improvement.²⁰⁰ In addition, there would be qualified lawyers with expertise in the field of Environmental Law, representing the interests of the parties. Accordingly, these measures would strengthen and prevent environmental violations.

The lack of fair justice in environmental cases in Russia, as well as in a number of European countries, involves mass appeals of citizens, after exhausting the possibilities of national environmental justice, to the European Court of Human Rights. The European Court of Human Rights is a supranational body whose decisions are binding for the countries who are members of the Convention for the Protection of Human Rights and Fundamental Freedoms.²⁰¹ While it must be pointed out that the Convention for the Protection of Human Rights has no item directly related to environmental rights,²⁰² this does not preclude protection of the latter by

197. *Id.*

198. The nature of causal evidence or proof is that it is the link between the defendant's conduct and the plaintiff's injury that must be proved in every action in tort. See Randy Barnett, Five Issues of Causation and Proof, available at <http://www.randybarnett.com/fiveissues.html> (last accessed Dec. 2, 2013).

199. Damel Aitkhozhina, *Environmental Affairs*, BULL. MEM'L E.H.R.A.C., 2005, at 1-3.

200. *Id.*

201. Ersan Sen & Mahmut Can Senyurt, The Roots of the European Court of Human Rights and Democracy, available at <http://www.opendemocracy.net/can-europe-make-it/ersan-sen-mahmut-can-senyurt/roots-of-european-court-of-human-rights-and-democrac> (last accessed Dec. 2, 2013).

202. U.N. Convention for the Protection of Human Rights and Fundamental Freedoms, opened for signature Nov. 4, 1950, 213 U.N.T.S. 222.

means of an appeal to the other articles of the Convention.²⁰³ There are interesting cases for the protection of environmental human rights in the European Court of Human Rights, which will be discussed for a better illustration of the current situation.

A. Case: Fadeyeva v. The Russian Federation

In *Fadeyeva v. The Russian Federation*,²⁰⁴ the applicant claimed that living in the buffer zone of “Severstal,” a joint stock company in Cherepovets caused substantial damage to her health.²⁰⁵ Consequently, in this respect, there has been a violation of Article 8 of the Convention for the Protection of Human Rights and Fundamental Freedoms by reason of the State’s default in its duty to protect her private life and her home from a serious environmental threat as a result of economic activity by “Severstal,” which was a metallurgical company.²⁰⁶ The judgment of the European Court of Human Rights promulgated on 9 June 2005 found that there was a violation of Article 8 of the Convention for the Protection of Human Rights and Fundamental Freedoms, and the Russian Federation was forced to pay the applicant €6,000.00 as compensation for non-pecuniary damage and to reimburse legal costs.²⁰⁷

After Russia lost the case, measures were taken, such as changes in all of the provisions of the buffer zones.²⁰⁸ Now, citizens cannot go the way of those before them and appeal to the European Court. However, in the sanitary protection zones of enterprises, there are still millions of people in the Lipetsk region, more than 680,000 people in the Chelyabinsk, and around 200,000 in the Kemerovo.²⁰⁹

Hence, the essence of the problem lies in the fact that instead of solving environmental problems and creating conditions for the realization of environmental rights of citizens in the Russian State, the State was merely

203. *Id.*

204. *Fadeyeva v. Russia*, Eur. Ct. H.R. 55723/00, Judgment, (June 9, 2005).

205. *Id.*

206. *Id.*

207. *Id.*

208. Boris Tokarev, Under the Pipe — Not Life, available at <http://www.rg.ru/2005/06/16/cherepovchanka-delo.html> (last accessed Dec. 2, 2013).

209. Federal Service for Supervision of Consumer Rights Protection and Human Welfare, On Sanitary and Epidemiological Situation in the Russian Federation in 2004 (State Report) 9-14, available at 03.rospotrebnadzor.ru/files/docs/doclad/481.pdf (last accessed Nov. 13, 2013).

attempting to evade enforcement of supranational courts.²¹⁰ With this trend, it becomes a much more difficult fight for citizens.

Sadly, there is no other way. Taking into consideration the precedent of the European Court of Human Rights to protect the rights of citizens of Russia, the following cases are of interest, since they were heard by the European Court of Human Rights. These cases are: *Oneryildiz v. Turkey*;²¹¹ *Tatar v. Romania*;²¹² *Nikitin v. Russia*;²¹³ *Sefa Taskin v. Turkey*;²¹⁴ *Ashworth v. The United Kingdom*;²¹⁵ *Hatton v. The United Kingdom*;²¹⁶ and *Lopez Ostra v. Spain*.²¹⁷

Because of the potential of supranational courts²¹⁸ in contemporary political conditions prevailing in the countries of the former Soviet Union, it is currently one of the priorities of environmental justice.

One cannot reduce the concept of protection of environmental human rights to the protection of the health of citizens of one country or a group of countries.²¹⁹ In this sense, international legal positions of courts are quite

210. Boris Tokarev, *supra* note 208.

211. *Oneryildiz v. Turkey*, Eur. Ct. H.R. 48939/99, Grand Chamber Judgment, (Nov. 30, 2004).

212. *Tatar v. Romania*, Eur. Ct. H.R. 67021/01, Chamber Judgment, (Jan. 27, 2009).

213. *Oleg Nikitin v. Russia*, Eur. Ct. H.R. 36410/02, Judgment, (Oct. 9, 2008).

214. *Taskin v. Turkey*, Eur. Ct. H.R. 46117/99, Judgment, (Nov. 10, 2004).

215. *Ashworth v. the United Kingdom*, Eur. Ct. H.R. 39561/98, Decision as to the Admissibility, (Jan. 20, 2004).

216. *Hatton v. the United Kingdom*, Eur. Ct. H.R. 36022/97, Judgment, (Oct. 2, 2001).

217. *Lopes Ostra v. Spain*, Eur. Ct. H.R. 16798/90, Judgment, (Dec. 9, 1994).

218. According to Laurence R. Helfer and Anne-Marie Slaughter, in order to understand supranational adjudication, the term supranational must first be defined. The term supranational is typically used to identify a particular type of international organization that is empowered to exercise directly some of the functions otherwise reserved to the States. One example of a supranational organization is the European Union. Therefore, supranational adjudication is adjudication by a tribunal that is established by a supranational organization that exercises jurisdiction over cases directly involving private parties. See Laurence R. Helfer & Anne-Marie Slaughter, *Toward a Theory of Effective Supranational Adjudication*, 107 YALE L. J. 273, 287-89 (1997).

219. Adriana Fabra & Eva Arnal, Review of Jurisprudence on Human Rights and the Environment in Latin America (A Background Paper Submitted to the Joint UNEP-OHCHR Expert Seminar on Human Rights and the Environment),

interesting. They try to protect human rights and their symbiotic relationship with other components of the environment, such as animals.²²⁰ So, in 4 August 2011, the East African Court considered the case to ban the construction of a highway through the Serengeti National Park.²²¹ The appeal was filed by the Government of Tanzania.²²² It did not agree with the permanent injunction against the construction of a controversial highway across the Serengeti plains.²²³ The decision of the court found that the construction of the road failed to provide the needed protection of the surrounding ecological system.²²⁴ The international environmental community expressed concerns that the highway could lead to the death of the largest remaining migratory system on the planet. In particular, the project jeopardized the annual migration of more than 200,000 wildebeest, zebras, and other wildlife between Serengeti and Kenya.²²⁵ The court regarded this fact as an infringement of the human right to a healthy environment, as the animals are an integral part of the global ecosystem.²²⁶

V. FINDINGS

In sum, the Authors have found that first, the content of environmental human rights, including the right to a healthy environment, is fully recorded in the international standards of “soft law”²²⁷ from the United Nations Conference on Environment in 1972 to 2012.²²⁸ These regulations contain a “program of action” for forward-looking nature protection, which is being

available at <http://www2.ohchr.org/english/issues/environment/environ/bp6.htm> (last accessed Dec. 2, 2013).

220. TIM STEPHENS, INTERNATIONAL COURTS AND ENVIRONMENTAL PROTECTION 51-54 (2009).

221. *Tanzania v. ANAW*, 2011 E. Afr. Ct. J. 1 (appeal taken from Arusha).

222. *Id.*

223. *Id.* at 2.

224. *Id.* at 13.

225. Anouk Zijlma, The Great Annual Wildlife Migration, *available at* <http://goafrica.about.com/od/africasafariguide/a/annualmigration.htm> (last accessed Dec. 2, 2013).

226. *Tanzania*, E. Afr. Ct. J. at 10.

227. Eurofound, *supra* note 4.

228. U.N. Conference on Sustainable Development, The History of Sustainable Development in the United Nations, *available at* <http://www.uncsd2012.org/history.html> (last accessed Dec. 2, 2013).

implemented through bilateral environmental agreements and conventions.²²⁹

Second, the right to a healthy environment is an opportunity for every person to live in such a quality biosphere, which provides the highest standard of physical and mental health, as well as to use the system tools that eliminate the global threat to the environment caused by human activity.²³⁰

Third, one of the unresolved problems of the international community is to find a balance of interests between developed and developing countries. At present, developed countries in multilateral negotiations are trying to impose on developing countries equal responsibility for the environmental consequences, ignoring the differences in financial and technological capabilities.²³¹ Another aspect of ignoring the interests of developing countries is the conduct of hostilities with environmentally dangerous weapons, often causing harm to neighboring countries that are not part of the conflict.²³² The solution to this problem could lie in the planning of the creation of a new concept in international law: an “international zone of ecological disaster.” This is giving international status to other species in ecologically unusual and quality areas of the World Cultural and Natural Heritage. The payment of compensation in this case would come from a fund especially created by the U.N. Foundation, which is similar to the U.S. superfund.²³³ However, this is only possible if there is political goodwill from developed countries, which is lacking currently.

Fourth, an analysis of various constitutions demonstrates the subjective approach of legislators from different countries, leading to differences in how environmental human rights is understood, and consequently what environmental regulations and goals are pursued. These differences are due to a number of objective factors, such as the environmental situation in the country, and subjective factors, such as the experience, qualifications of those in government, and the priority given to ecology.

229. *Id.*

230. Icelandic Human Rights Centre, Right to a Healthy Environment, available at <http://www.humanrights.is/the-human-rights-project/humanrightscasesandmaterials/comparativeanalysis/therighttohealhealty> (last accessed Dec. 2, 2013).

231. Scott Barrett & Robert Stavins, *Increasing Participation and Compliance in International Climate Change Agreements*, in INTERNATIONAL ENVIRONMENT AGREEMENTS: POLITICS, LAW AND ECONOMICS 350 (2003).

232. Lenntech, Environmental Effects of Warfare, available at www.lenntech.com/environmental-effects-war.htm (last accessed Dec. 2, 2013).

233. United States Environmental Protection Agency, Superfund, available at <http://www.epa.gov/superfund> (last accessed Dec. 2, 2013).

Lastly, the most effective level of environmental protection of human rights is not at the level of the U.N., but at the level of regional human rights systems, such as the European Court of Human Rights, the East African Court of Justice, and Inter-American Court of Human Rights in San Jose, Costa Rica.

In order to enhance the security of environmental human rights, the Convention for the Protection of Human Rights and Fundamental Freedoms of 1950 should be added to a special article on the protection of environmental rights.²³⁴ Similar rules should also contain other regional human rights systems, such as African, American, and other systems. This will increase the effectiveness of environmental justice in all countries in all continents.

234. U.N. Convention for the Protection of Human Rights and Fundamental Freedoms, *supra* note 202.