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Articles and Statements

Environmental Policy in a Changing World

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Abstract

This article focuses on the question of how the effectiveness of environmental preservation policy can be increased in order to turn to a more sustainable way of human development. The answer was found to lie in the three-fold approach covering normative, economic and political measures. The normative measure is the provision of a proper environmental education, which should help creating a global public concern with the intactness of the natural environment. The economic measure refers to the linkage between the goals of environmental preservation and the goals of the economy as to remove the contradiction between the two domains of human activity. The political measure is the regionalization of environmental policy with a gradual transfer of environmental political functions from the national towards the supranational level of a civilizational bloc. This measure would allow to combine the effective implementation of the state-level with the advantage to cover a greater territory and to reduce the number of global environmental actors.

Keywords: environmental policy, sustainable development, regionalism, civilizations, supranational policy level.

1. Introduction

In its constant evolution, mankind has undergone different forms of societal organization depending on the respective modes of production each echoing the corresponding levels of technological development. Today, technology has interconnected the planet in a network of communication and transportation making societies interdependent through mainly economic mechanisms and 'shrinking' the world through the so-called 'time-space compression' – a concept introduced by David Harvey in his "*The Condition of Postmodernity*" (Harvey, 1990) and referring to a phenomenon describing the decreasing amount of time required to travel and/or communicate from one point to another, by this 'shrinking' the space and 'accelerating' the time.

While technology was required to globalize the domains of society and the economy, the environmental domain has always been "global" and, hence, mankind has always been undeniably and obviously interlinked through the natural environment. Since the beginning of sedentary life, people have started to transform the natural environment. With the technological revolution,

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however, the role of men as a determining factor of the biosphere has significantly increased creating what V. Vernadsky referred to as the 'noosphere' – a concept describing a point in our planet's evolution when the reasoned activities of men become a determining factor in the development of its biosphere (Vernadsky, 1944).

Yet, the reasoned activities of men can be referred to as truly "reasoned" only partly, as their current general course might finally result in the destruction or heavy damage of the biosphere, thus, of life itself. This self-destructive manner of most current human interferences with the natural processes on our planet generally result out of a neglect of the importance of the notion of environmental security, which is – despite any logic – still treated as an issue of low politics.

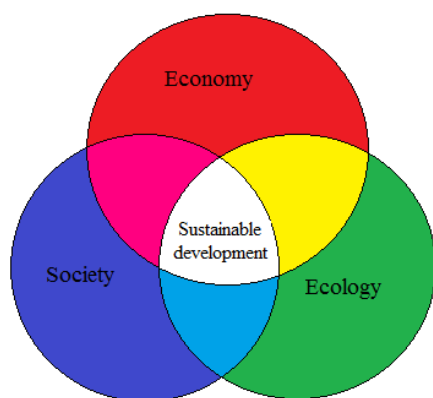
Being the zone of life on our planet, the biosphere should be regarded by mankind as its most valuable resource which is to be protected for the very sake of our survival. As argued by Andrew Hurrell "a political theory of the environment is concerned not simply with the ideas of the "good life", but also with the means to ensure human survival best" (Hurrell, 1995: 130). However, despite the undeniably great amount of requests for an upgrade of the importance of environmental safety from scientific, civil, as well as political circles, when it comes to day-to-day politics, decision makers often tend to rather focus on the immediate issues and irrationally leave out the fundamental long-term problem of how to preserve the intactness of the environment. Given the above elaborations, this article shall be dedicated to the question of what ways mankind has developed to attack the problem of environmental degradation, and whether and how those approaches can be made more effective.

2. Discussion and Results

The concept of sustainable development

The two World Wars fought in the 20th century, certainly, slowed down the general realization of the fundamental and – potentially – fatal role human beings play in the transformation of the properties of its living environment resulting out of the contradiction between the growing needs of the world community and the biosphere's inability to provide those. These topics periodically emerged on the political agenda of the different countries of the world, yet an institutionalized environmental policy can generally be regarded as a product of the 20th century. In Western Europe, for example, environmental preservation started to gain in importance since the 1970s when acid rains fell in Great Britain and environmentalists managed to successfully attract the interest of mass media (Hannigan, 1995). The environment as a policy domain became subject to international discussion and legalization at the 1972 United Nations Conference of the Human Environment (UNCHE) (Keohane et al., 1995).

Yet, the formulation of a global concept of environmental preservation took place only in 1992 when it was institutionalized in the Declaration of the UN Conference on environment and development, informally known as the 'Earth Summit'. During the Conference, virtually all states of the Earth adopted three agreements: Agenda 21 – a comprehensive programme for global action in all areas of sustainable development; The Rio Declaration on Environment and Development – a series of principles defining the rights and responsibilities of states; and The Statement of Forest Principles – a set of principles to underlie the sustainable management of forests worldwide; as well as two legally binding conventions agreed upon during the Conference: the United Nations Framework Convention on Climate Change and The Convention on Biological Diversity. The resulting global regime aimed at what became to be known as 'sustainable development' – a concept consisting of three interdependent building blocks: society, economy and ecology (Figure 1). The social domain referred to the human moral and values, their relationships and institutions. These have to be in favour of sustainable development so that it can function. The economic domain concerned the allocation and distribution of resources and capital in such a way as to make sustainable development possible. The third pillar was ecology and involved the contribution of both the economic and the social domains to the preservation of the environment (Baker, 2006: 7).



Source: based on [Baker, 2006: 10](#)

Fig. 1. Sustainable development: linking economy, ecology and society

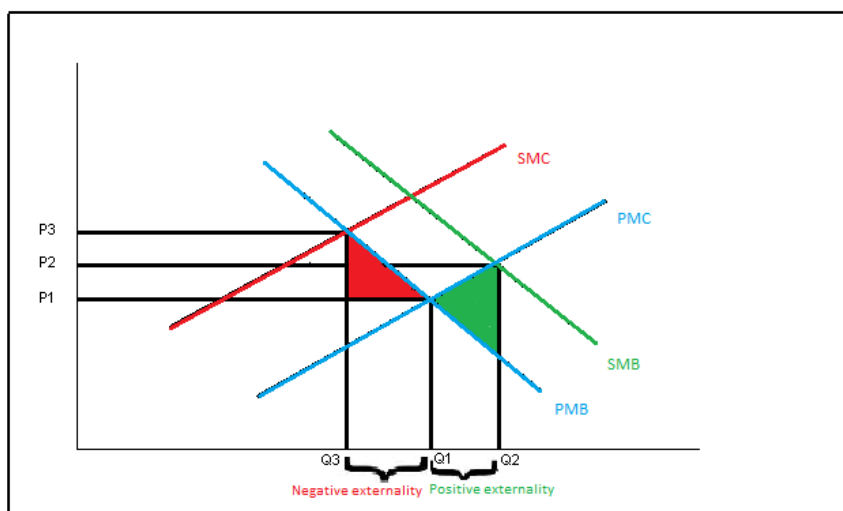
When talking about the preservation of the environment, the main emphasis lies on the attempt to ensure – excluding unpredictable large-scale natural catastrophes – that unlimited natural resources, such as sunlight, air or water, remain unlimited, and on the using of limited natural resources in a way that would provide that those resources remain available for future generations. For clarification it is important to note that limited resources are additionally divided into renewable and non-renewable ones. Renewable resources can be created or re-create themselves after a certain period of time. An example for this category would be mineral resources. Non-renewable resources are, for example, soils or animals – they cannot be renewed or re-created once they are gone.

In most cases, the major obstacle towards sustainable development is a conflict between economic and environmental considerations, whereby in most cases the former outweigh the latter. The free market economy aims at the gaining of maximal profits with the smallest input in the shortest period of time, but it does not take into consideration the environment. However, natural resources, which are necessarily used for production, have their own possibility frontiers. Once they are crossed, the productivity of these factors starts to decrease until their partly or even full destruction. A perfect example here is the degradation of soils, which can be balanced with an increase of the use of another factor of production – of capital (the use of machines, fertilizer etc.), but only up to a certain point. After this, land gets unfertile and can even become so-called 'dead land' which cannot be used for agricultural purposes. Furthermore, capital inputs also have their possibility frontiers. To make an example, phosphorites used for fertilizers belong to the non-renewable resources meaning that someday they will be gone.

Hereby, one should further accentuate that the sole investments into ecological safety may not lead to the desired goal. To make an example, in the 20 years between the UN Conferences on the Environment in Stockholm (1972) and the Earth Summit in Rio de Janeiro (1992), the global environmental situation considerably worsened, although more than 1,3 trillion US Dollar were spent on the conservation of the environment ([Lukina, Lukin, 2011](#)). In order to calculate a realistic "value" of sustainable development, conventional economic indicators such as the growth rate, the GDP or the intensity of the use of resources are not sufficient. In order to gain relevant results, these solely economic indicators should be correlated with ecological and social ones. Those are the employment rate, the costs of environmental preservation, the efficiency of resource exploitation and the use of new technologies to increase environment safety.

The conflict described above can be approached by three main instruments used in environmental policy. The first instrument is of a 'command and control'-type and "entails legislation to fix norms and environmental standards that have to be complied with. This may take the form of a prohibition of certain products or substances, or emission standards combined with requirements to use certain types of technology" ([Senior, 2009: 325](#)). The other instrument is market-based and refers to the carrying out of cost and benefit analyses and to the setting of standards, which determine whether to offer a firm a financial incentive for the compliance with the standards, or to tax the production of negative externalities. Negative externalities are emissions into the environment caused by the actions of an industry. The tax for negative

externalities is also known as the Pigovian tax and can be best described by means of a figure (Figure 2) (Senior, 2009).



Source: based on Senior, 2009: 313

Fig. 2. Negative and positive externalities

Pigou's solution lies in the 'internalization' of the negative externality through a respective tax. On the figure, where private marginal benefits (PMB) intersect the private marginal costs (PMC), there is the market optimum of demand and supply, which the regular economist pays attention to. Through the introduction of the social marginal costs (SMC) and the social marginal benefits (SMB), the identification of negative and positive externalities of a producer becomes possible. Following thereout, where the social marginal costs exceed the private marginal costs, there is oversupply of the activity causing the externality, as quantity 1 is supplied instead of quantity 3. So, there is a negative externality produced. This would mean that this industry should be taxed so that the negative externality is internalized. If, on the other hand, the social marginal benefits exceed private marginal benefits, thus, quantity 1 is supplied instead of quantity 2, there is an underproduction of the activity causing the externality, thus, a positive externality. According to this market determined instrument, in that case, the producer should get a financial incentive to internalize the positive externality.

Another instrument used in environmental politics refers to voluntary agreements between producers to reduce their emissions and to introduce more environmentally friendly technologies. Their motivation is mostly the wish to improve their image or a desired increase in competitiveness (Senior, 2009). Additionally, I would argue that a proper environmental education also constitutes an effective environmental instrument – if not a key instrument –, acting through the normative dimension and addressing the root of the problem, namely, the lack of concern with the intactness of the natural environment.

The three classical levels of environmental policy

Environmental policy is carried out on three major levels – the international, the national and the regional. However, relatively recently, a fourth "supranational" level was created. The following section deals with the advantages and disadvantages of these levels of environmental political activity.

International environmental legislation is created during multinational environmental conferences (MEAs) and can be legally binding upon the member states who are party to the respective MEA (Fauchald, 2011). The body within the United Nations (UN) responsible for the definition of international environmental norms is the Division of Environmental Law and Conventions (DELIC) within the United Nations Environmental Program (UNEP) (United Nations Environmental Programme). The organ itself, though, has no power to create a piece of international environmental law. This power is only with the member states participating in an international environmental conference. There, they can decide whether or not the MEA is going to

be legally binding. In case of a binding agreement, the implementation takes place on the national level. Despite its function to set standards of international environmental laws, the DELC has to support national and regional projects through the provision of resources aimed at a strengthening of local environmental initiatives. Although the economic support might serve as an incentive for a member state and, by this, could be seen as a soft mechanism of enforcement, it is unlikely that it can be regarded as an effective means to ensure implementation due to its insignificance vis-à-vis the possible costs faced by a country during the implementation process. Thus, considering the lack of any hard power in the UN, the only layer that the UNEP has at its disposal is its normative power, which is often and, more or less, successfully used by the UNEP.

Furthermore, it is important to acknowledge that MEAs are negotiated between states, whereby the bargaining position of the state varies according to its relative power vis-à-vis the other states, as well as the current state of affairs in the international system. That means that the outcome of the negotiation might reflect, or, at least, favour the position of the most powerful state, or a group of such, who dominates the respective conference. This fact coupled with the lack of any effective enforcement instruments at the UN's disposal leads to a rather voluntary compliance by the member states. A good example to this state of affairs is the famous 'Earth Summit' that took place in Rio de Janeiro in 1992 ([United Nations Declarations](#)). During this International Conference, the today so popularly used concept of 'sustainable development' was officially introduced. Although the principles of the Earth Summit were recognized by its participants, the threshold for emissions set by the summit was too low to realistically be achieved by the world community of states. In the absence of any enforcement mechanisms available to the UN, its provisions had to be relaxed in the Johannesburg Conference in 2002, during which it was reformulated in such a way that left each member state the freedom to interpret the concept of 'sustainable development' almost freely according to its respective needs.

National environmental politics can be ranked as more successful, because national governments do have means of enforcement at their disposal. However, while theoretically available, the effectiveness of these mechanisms depends on the other two dimensions of human activity: the economy and the society. Thus, society needs to be in favour of protecting the environment, while on the dimension on the economy, environmental concerns need to be given a value and connected to the long-term goals of production. Furthermore, one should keep in mind that any action taken by a state can only affect the respective state's territory, however, nature does not limit itself to national boundaries and, hence, in order to be truly effective, environmental policy should be carried out on the planetary level. Apart from global biosphere with its general problems, single nature objects can be located on the territories of several states, which would require at least some coordination of actions between those states so that these objects can effectively be protected.

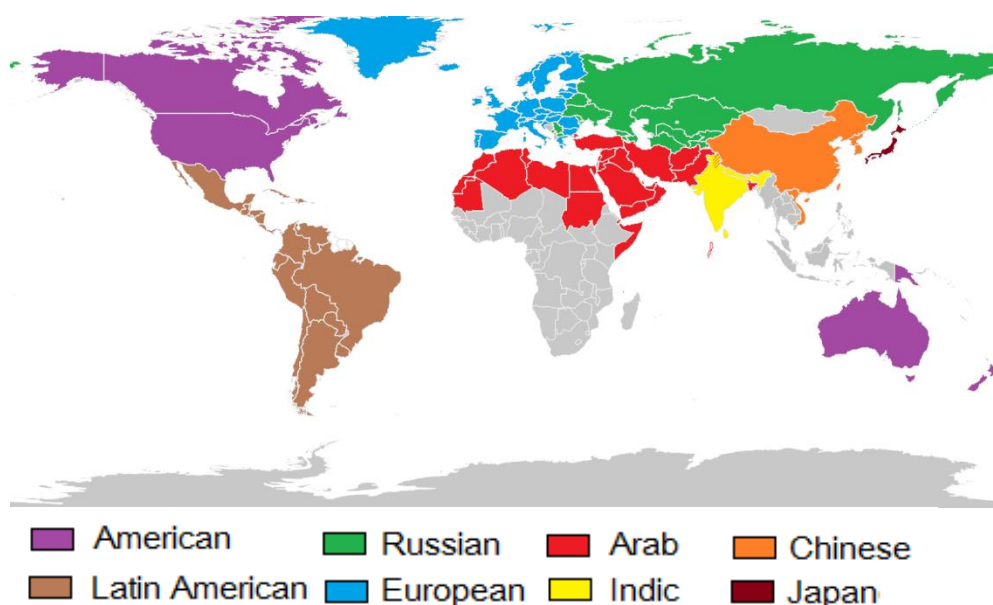
The regional level of environmental policy can mean two things: it either can refer to the local, subnational level, concerning a specific region within a country; or it can mean a region encompassing several countries, thus, be international, and concern, for example, a nature object or a territory located on the territories of several states. The local level certainly profits from the enforcement power of the state, as well as from being carried out "on the spot", which allows formulating the goals of a local environmental undertaking in the most precise way. As for global environmental issues, the local level of environmental policy – when standing alone – is rather insufficient. When, on the other hand, a regional environmental undertaking is carried out by means of bi-or multilateral agreements between states, it can easily become the "victim of sovereignty", as each state will carry out the agreement in a way it finds appropriate, and there will be no way to ensure effective implementation in accordance with the initial intentions of the agreement.

Linking global and local – the fourth level of environmental policy

Thus, the international level of environmental policy meets the needs of globality in tackling environmental issues, while lacks any hard means of enforcement, which would ensure effective implementation of a piece of international environmental law according to its intention; on the national and regional levels, effective implementation is possible in case it coincides with the state's interests, while the problem of spatial limitation does not allow to effectively protect transboundary nature objects, or counteract global degradation processes of the natural environment, such as

global warming, the loss of biodiversity and alike. The problem of how to balance the effective implementation possible at the state-level with the requirement to act transnationally, might be solved, or at least approached, on the supranational level of a ‘civilizational’ bloc (Gordeeva, 2016).

Indeed, when taking into account the global processes of regionalization in international relations coupled with a strong tendency of a strengthening of intra-civilizational ties, a shift in the political center from the national towards the supranational level can be prognosticated. The prototype of such a regional “bloc” was the Soviet Union; the nowadays best example of an economically and politically highly integrated regional bloc can be given on the European Union (EU). Overall, today, 7 civilizations can be separated in the international system, I would argue. These 7 civilizations are the American, the European, the Russian, the Latin American, the Arab, the Indic and the Chinese. If we consider them as “to-be blocs”, we have to take into account that their current levels of economic and political integration differ from civilization to civilization. Japan can be distinguished as a separate player primarily due to its economic power (Figure 3). Some scholars further distinguish several African and even a Buddhist civilization.



Source: Gordeeva, E., 2016, p. 6

Fig. 3. Civilizations

Being currently the only politically highly integrated federative bloc among the delineated civilizations, the European Union provides the best real-life example of the supranational level of environmental policy-making. Hereby, until the Single European Act (1987), there was no common EU environmental policy, but just single directives, which legal basis was sometimes contestable (Barrington, 1993). Since then, EU environmental policy has evolved, most remarkably with the amendments made in the Treaty of Maastricht (1992), and is now an area of ‘shared competences’ between the EU and its Member States. That means that both the EU and the Member States can adopt legally binding acts, however, the Member States can do so only in areas from which the EU has chosen to withdraw. In areas, in which the EU has adopted a legally binding act, the Member State has to comply, and in case it does not, the European Commission may open the infringement procedure and legally enforce its decision through the European Court of Justice. In its action, however, the EU has to follow the so-called ‘subsidiarity principle’ meaning that the EU can take action “[...] only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States [...]” (Treaty on European Union). Despite its complexity, EU environmental policy can generally be seen as successful.

Being politically and economically less integrated than the EU, the other civilizational blocs delineated above have much less harmonized common environmental policies. To make an example, in the Russian civilizational bloc, the Commonwealth of Independent States Free Trade

Area (CISFTA) can be seen as a beginning of bloc-integration. Just as in the EU, initial integration is economy-centred and just as in the EU, it can be expected to deepen and widen its integration from mere economic to increasingly political issues and to include effective and harmonized environmental policy at some point. As for now, there is an Agreement of 2013, the so-called “Agreement on cooperation in the field of environmental protection among the member-states of the Commonwealth of Independent States”. This Agreement, however, is formulated rather vaguely to be effectively followed. Apart from the agreement, there are a number of bi- and multilateral agreements of measures of environmental preservation between the CIS countries (Boklan, 2015).

In the American civilizational bloc, there is a number of bi- and multilateral environmental agreements, such as the US-Canada environmental partnership (US Environmental...) or the joint statements on environmental cooperation between the US and Australia (Australian Government); in Latin America – the Community of Latin American and Caribbean States (CELAC) has formulated a number of statements on environmental preservation (Community of Latin American...); in the Arab bloc, the League of Arab states has signed an Agreement with the UNEP to cooperate on environmental issues (United Nations Environmental), which provides a good example of how regional federative unions can ease the provision of assistance in environmental issues; in the Indic region, it is the South Asia Association for Regional Cooperation (SAARC) which provides evidence for regionalism in environmental policies (South Asia Association); in the Chinese region, the most relevant regional environmental cooperation is that between China and the Association of Southeast Asian Nations (ASEAN) (Association of Southeast...); in Africa, the UNEP supports several regional environmental undertakings, such as the African Ministerial Conference of the Environment (AMCEN) or the African Ministerial Council on Water (AMCOW) (United Nations Environmental Programme).

The supranational level of environmental policy-making certainly increases the overall effectiveness of environmental actions, as it harmonizes environmental policies among the bloc’s member states, provides the monitoring necessary to control effective implementation and counteract deficiencies, be it through the provision of monetary help in case a state’s economic situation does not allow it to effectively implement a law, administrative assistance, or through normative up to legal means of enforcement in case the deficiency derives from a lack of governmental concern with the issue.

Thus, in case the core state within each bloc (or a replacing body as in the case with the European Commission) defines common environmental goals for its bloc and manages to ensure effective implementation, the number of political environmental actors in the international system would significantly decrease from 193 states (official members of the UN) to 7 to 10 regions. The reduction in number of environmental actors will substantially ease the coordination and carrying out of global environmental policy. So, each civilizational bloc would define the major environmental problems within its territory, and its core state (or replacing administrative body) would approach the major obstacles towards implementation faced by the states within its sphere of influence. Then, on the global level, the identification of the main environmental issues of each region and the provision of assistance in overcoming the major obstacles a region may face in implementation will be substantially eased due to a reduction in the number of actors. So, the local and the global levels would be linked in a more efficient way as they are now, avoiding the state level and overcoming the problem of excessive complexity.

The three Pillars of Ecological Safety

In light of the preceding discussion, it can be concluded that in order to increase the effectiveness of global environmental policy and turn to a more sustainable way of development, mankind should focus on three key measures (Figure 4): 1. A proper ecological education starting from an early age needs to be provided for the global population. This normative measure will significantly improve the general understanding of our natural environment and its key role in the maintenance of life on Earth, so that people can develop a more caring attitude towards it. 2. The other measure is an economic instrument for the rise of the effectiveness of measures of environmental preservation and refers to the assignment of a calculable value to environmental preservation and its connection to the goals of an economic actor. This can be done through the introduction of a tax for the production of negative externalities (Pigovian tax) and the provision of economic incentives for the compliance with the ecological standards. 3. The final measure is

political and presupposes a gradual transfer of environmental political functions from the national towards the supranational level of a region. This measure is important insofar as it allows to combine the effective implementation of the state-level with the advantages of having harmonized environmental policies carried out on a greater territory, as well as of a reduction in number of global environmental actors.

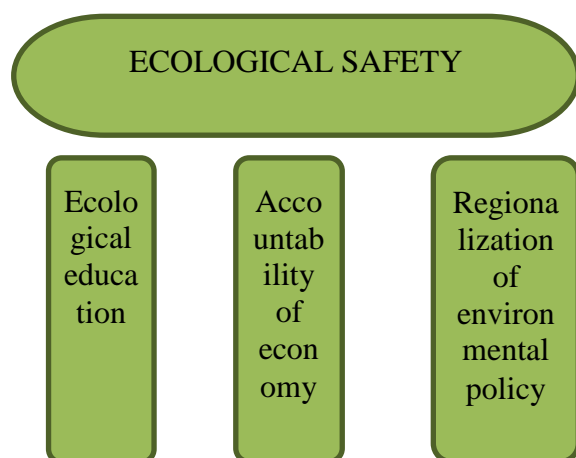


Fig. 4. The Three Pillars of Ecological Safety

3. Conclusion

This article was dedicated to the question of how the effectiveness of environmental policy can be increased. For this propose, the concept of sustainable development was shortly outlined under consideration of the conflict embedded in the men-nature system and instruments aimed at its resolution, while the different levels of environmental policy were examined with regard to their advantages and disadvantages.

The analysis has shown that the major obstacle towards a more sustainable way of human development is the incompatibility of pure economic and pure environmental goals. The solution to this problem was found to lie in the merging of societal, economic and environmental goals. In practice that means: 1. a proper environmental education, which would allow people to understand the importance of an intact biosphere; 2. the giving of a countable 'value' to environmental concerns and to connect them to the goals of production, which would inspire economic actors to increase resource-efficiency and to reduce emissions; 3. the formulation and implementation of suitable environmental legislation.

The question of how to balance the requirement of globality in environmental preservation – given at the international level – with the need of instruments of enforcement to ensure implementation – given at the state-level –, was found to be answered by the supranational political level. Considering the trend of civilization-based region building in the international system, the development of region-based environmental policy can be expected to be not long in coming. Although the only currently effective common bloc-wide environmental policy is to be found in the EU, the other civilizational regions have begun to take initial steps towards a common environmental policy. The regionalization of the domain of environmental policy is also supported by the UNEP, which actively promotes regionalism in environmental undertakings.

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