

Implications of the Mechanism of Change for the Decision-making Process in Environmental Protection

Implikacje mechanizmu zmiany dla procesu decyzyjnego w ochronie środowiska

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Abstract: Activities for environmental protection induce the necessity of adopting specific solutions aimed at their facilitation or enhancing their effectiveness. While implementation of new technological solutions seems quite obvious here, the need to develop specific solutions aimed at improving the decision-making process is frequently overlooked. Hence, proper identification of mechanisms that may reduce or significantly impair the effectiveness of these activities or lead to defined side effects is becoming of vital importance. In view of the above, the article will present selected cases which are subject to the mechanisms of change characterized by Neil Postman in *Technopol*. The first will be a direct reference to the process of generating changes by new technological solutions described by this author. The second, will draw on selected publications by Ulrich Beck and Gernot Böhme dealing with social phenomena or anthropological situations inscribed in that mechanism. The main task will therefore consist in tracing an analogy between the two characterized cases. In particular, the author will make an attempt to analyse the impact of the resulting consequences on the shape and course of the decision-making process, which is the aim of the present study. It seems that the preferences and choices with respect to certain solutions are conditioned by the anthropological profile of the decision-maker, but that at the same time they reciprocally induce his change. This, in turn, has an impact on the way of designing and formulating the principles of conduct in the field of environmental protection.

Keywords: mechanism of change, decision-making process, environmental protection, environmental management

Streszczenie: Działania na rzecz ochrony środowiska wymagają wprowadzania określonych rozwiązań mających na celu ich usprawnienie czy zwiększenie ich efektywności. Dość oczywiste zdają się tu wdrożenia nowych rozwiązań technicznych. Rzadziej bywa dostrzegana potrzeba wypracowania określonych rozwiązań mających na celu doskonalenie procesu decyzyjnego. Stąd istotnego znaczenia nabiera właściwa identyfikacja mechanizmów mogących ograniczyć, istotnie zakłócać skuteczność tych działań lub wnosić określone skutki uboczne. W tym kontekście przywołane zostaną wybrane przypadki podlegające mechanizmom zmiany scharakteryzowanym przez Neila Postmana w książce *Technopol*. Pierwszy z nich będzie wprost odwołaniem do opisywanego przez tego autora procesu generowania zmian przez nowe rozwiązania techniczne. Drugi nawiązywać będzie do wybranych publikacji Ulricha Becka oraz Gernota Böhme poświęconych zjawiskom społecznym czy sytuacjom antropologicznym, które wpisują się w ten mechanizm. Istotnym zadaniem będzie więc ujawnienie analogii występującej pomiędzy dwoma charakteryzowanymi przypadkami. W szczególności zaś podjęta zostanie próba określenia wpływu wynikających stąd konsekwencji na kształt i przebieg procesu decyzyjnego, co stanowi cel opracowania. Jak się wydaje, preferencje i wybory pewnych rozwiązań wynikają z antropologicznego profilu decydenta, ale zwrótnie również powodują jego zmianę. Nie pozostaje to bez wpływu na sposób projektowania i konstruowania metodyki postępowania w zakresie ochrony środowiska.

Słowa kluczowe: mechanizm zmiany, proces decyzyjny, ochrona środowiska, zarządzanie środowiskowe

Introduction

If environmental protection is perceived as an organized system of activities having its defined goals and tasks, it is essential to maintain this system in a good condition as this will directly translate into the effectiveness or efficiency of activities carried out as part of the decision-making process in environmental protection (Embros 2021). One of the factors having an impact on that system can be defined as the mechanism of change, which needs to be taken into account while organizing and conducting this decision-making process. At the same time, the structure of such a process will correspond to the preferences of a decision-maker who is guided by specific principles as it will be discussed later in the article.

Referring to the mechanism of change in the sphere of ecology described by Neil Postman in his book titled *Technopol*, two special cases will be indicated – by analogy to the well-known division into hardware and software. The first one concerns implementation of technological devices. The second, is manifested within, it can be said, social functioning devices. In this context, it may also be possible to indicate the existence of the mechanism described by Postman in relation to environmental technologies and environmental protection instruments. Insufficiency of appropriate identifications in this area, especially analyses of the life cycle or the decision-making process in environmental protection, provides an incentive to study this problem area.

1. The mechanism of change in environmental protection

Postman presents the “Technopoly story, with its emphasis on progress without limits, rights without responsibilities, and technology without cost. The Technopoly story is without a moral center. It puts in its place efficiency, interest, and economic advance. It promises heaven on earth through the conveniences of technological progress. It casts aside all traditional narratives and symbols that suggest stability

and orderliness, and tells, instead, of a life of skills, technical expertise, and the ecstasy of consumption. Its purpose is to produce functionaries for an ongoing Technopoly” (Postman 2004, 214-215). Postman points here to two aspects of technological development. The first is associated with specific benefits brought by the development and implementation of new technologies. The other refers to the fact that each technological application is a carrier of change. This means that the act of eliminating or introducing one element of the ecosystem changes that system as a whole. Postman explains how a new technical solution triggers or generates changes. A new technique or technology changes the entire system in which it is implemented (Postman 2004, 31). It does not, however, lead to a situation in which the old system is complemented with a new technical solution. Postman provides here the examples of writing, printing, the clock, or the computer. Following that, the scientist points to the consequences arising after the introduction of such inventions demonstrating that implementation of a new device is linked with an ideology or methodology. A technical or technological change “changes everything” (Klein 2016). The directions and types of conversions are, according to Postman, unknown and difficult or even impossible to predict. What usually attracts attention is convenience and benefits they bring in a given area of implementation (e.g., development of the economy after the bringing the clock into general use). However, they at the same time often trigger such significant and profound changes (not always intended by the authors) that they destroy the existing structure and order of the area in which they have been implemented. Postman quotes in this context a remark by Karl Marx from *The Poverty of Philosophy*: “The windmill gives you society with the feudal lord; the steam mill, a society of the industrial capitalists.” He then notes: “Marx understood well that, apart from their economic implications, technologies create the ways in which people perceive reality,

and that such ways are the key to understanding diverse forms of social and mental life." (Postman 2004, 35). Ulrich Beck could state here that nuclear, chemical and information technologies produce a risk society (Beck 2002). Following this line of thought, it can be concluded that the global implementation of specific technological devices results in the "global village" and its feudal lords (global feudal village).

In Postman's narrative, the development and functioning of technology directs our attention, just like magic, in the wrong direction. It inspires admiration rather than understanding. "In Technopoly, we are surrounded by the wondrous effects of machines and are encouraged to ignore the ideas embedded in them. Which means we become blind to the ideological meaning of our technologies." (Postman 2004, 116). Moreover, the consequences are often "obscured" by the benefits or conveniences resulting from the introduced technical solutions (Łepko and Sadowski 2020).

Situations related to the, described by Postman, mechanism as a carrier of change can be indicated in the area of environmental protection. It should be noted that technical solutions introduced to the environment with the aim of protecting it are also linked with the discussed mechanism. They can be divided into two groups. To use the accepted terminology, the first will be referred to here as environmental technologies, and the second, environmental protection instruments. This division is of exploratory nature only and is made for analytical purposes. It is not clear-cut, and rather seems to point to a relationship analogous to the hardware-software relationship. Both classes of the adopted division are in a way coupled together and interact with each other. However, for the purposes of this analysis, both groups will be treated separately.

The first group comprises technical devices used to mitigate the effects or prevent negative impacts on the environment. Adopting the perspective of the life cycle,

they will comprise technologies related to the acquisition and effective use of raw materials, their processing (production processes) and the use of products, as well as broadly understood waste management. Currently, there are many examples of implementing this type of solutions, ranging from: energy-saving devices and technologies that allow the use of "waste heat" (reducing fuel consumption) or generating energy in an alternative way to conventional sources (e.g. photovoltaic cells or wind farms), through technologies and solutions limiting the amount of waste generated (e.g. precise dosing of the product in the packaging) to flue gas treatment systems (e.g. technologies of desulphurization, dust removal, nitrogen oxide removal, etc.) and wastewater (reduction of pollutants discharged into water and soil). It seems that, the linking of the mechanism described by Postman with this group is quite obvious and does not require any explanation here or it may provide an incentive for further elaboration in a separate study. A constatation that a wind farm located in a coastal ecosystem will turn it into a completely different system, rather than enrich it with a mere set of wind turbines, is hardly questionable, since apart from affecting the natural relationships prevailing in this system, it will have an impact on its aesthetic values – the scenery, which may then change the life scenarios of the local inhabitants (Dubos 1986, 271).

It should be emphasized that the advantages of the above-mentioned technological applications (especially those promoted as pro-environmental, green, ecological technologies, designed with the intention of protecting the environment, etc.) obscure, sometimes completely, the fact of their being subject to the mechanism described by Postman. The issuing benefits or conveniences seem to hinder our ability to see the entire spectrum of changes effected by them. It is sometimes forgotten that those changes may be negative for both people and their environment.

The second group includes the implementation of organizational and legal instruments. Such instruments are also implemented in relation to particular stages of the life cycle. As in the case of environmental technologies, also environmental protection instruments are used at different stages of the life cycle. Some of them are aimed at reducing resource consumption, others are intended to stimulate cleaner forms of production, still others are aimed at reducing the emission of waste and pollutants. These include: the EU Eco-Management and Audit Scheme Community (EMAS), Environmental Management Systems (ISO 14001), requirements and guidelines for Life Cycle Assessment (ISO 14044), EU programs such as the Circular Economy or the Fit for 55 Program assuming a significant reduction in the amount of waste generated and carbon dioxide emissions. This group also includes legal instruments, starting from the EU directives and regulations (e.g., Directive 2003/87/EC establishing a greenhouse gas emission allowance trading system in the EU), through the Environmental Protection Law, regulating issues related to the use of the environment, to the Waste Disposal Act: on waste regulating in detail issues related to production and processing of waste and the Act on Packaging Management and Packaging Waste, regulating issues related to introducing packaged products to the market. This group also comprises environmental impact assessments, administrative decisions, and financial instruments such as: fees for the use of the environment, environmental protection funds, administrative penalties for exceeding the requirements of environmental protection law or preferential loans.

The link between this group and the mechanism described by Postman is not as clear as in the case of the previous group. However, it seems possible by analogy. Also in this case, we are dealing with positive effects of implementing the above-mentioned instruments. However, it can be expected that they will bring about changes in many

other areas. For example, systems of environmental management affect the management of entire organizations. The necessity to comply with the requirements of environmental law is not without significance for all dimensions of their functioning, not to mention changes mediated by economic mechanisms. As in the first case, the strengths, benefits or accompanying conveniences, however, obscure, sometimes almost completely, the risks or threats posed by changes in other areas caused by the implementation of those solutions.

It is not possible to refer in this study to all cases characteristic of the discussed mechanism. However, it is possible to choose one of them. The case of the Emissions Trading System may serve as a representative and topical example here. Designed with the intention of motivating enterprises to invest in low emission, "green" or "ecological" solutions, it was to provide a stimulus to pro-environmental activities throughout the life cycle, while at the same time serving as a criterion to measure environmental impact. In a global perspective, it was meant to serve as a tool to combat climate changes and, to a certain degree, it fulfilled the hopes associated with it, which in the short term obscured the effects emerging in other areas. However, a long-term perspective allows to notice changes resulting from the functioning of this instrument. In some cases, it led to the emergence of phenomena contrary to the intended ones as the goal of its implementation. Including emission units in the financial mechanism, on the one hand made it possible to impose a pressure on the decision-makers in enterprises which use the environment and have an impact on it (emissions). On the other hand, it created a possibility of speculations as regards emission allowances. Consequently, this mechanism was no longer subject only to the market game, but it entered the stock exchange game, i.e., a certain form of gambling. Thus, the prices of allowances became subject to financial speculations and in turn instead of encouraging investment in

low-emission technologies, it became an incentive to move “dirty” production along with the associated emissions away from Western countries (Klein 2016, 90). This instrument has strengthened the mechanism of transferring both consequences and costs (“external costs”). It should be noted that the “exportation” of emissions and the associated costs simultaneously led to the exportation of jobs (thus exacerbating the problem of unemployment) as well as the production capacity as regards many goods of basic importance for the functioning of modern Western societies. The consequences of implementing such an environmental solution later find their repercussions in the spheres of economy and politics¹.

Identification of the mechanism described by Postman in relation to environmental technologies and environmental protection instruments poses a serious challenge for the organizers of the system of activities carried out in this area. This is of great importance for the fundamental goal of environmental protection, which consists in minimizing environmental risks. The consequences of the change mechanism may exacerbate risks in areas which, at first glance, are not related to the implemented technologies or instruments. Thus, they may hinder or prevent implementation of essential tasks set for the decision-maker in this area. It may also prove impossible to reconcile the above-mentioned type of activities for environmental protection with the requirements of sustainable development. This will relate, for example, to the question of reconciling the transfer of negative environmental impacts in time and space with the demand to meet the needs of the present and future generations or to harmonize the three capitals (Embros 2010, 82-84; Piontek 2007, 57-58).

¹ Cf. Resolution of the Sejm of the Republic of Poland of 20 December 2021 on calling on European Union Member States to suspend the EU Emission Trading System (EU ETS) and take activities at the reform

The importance of the discussed issue calls for its being viewed in relation to the situation of the decision-maker facing the challenges related to conducting the decision-making process in environmental protection, also in the light of his anthropological situation in the social context.

2. Types of the decision-making process in the social environment

The hitherto conducted analyses allow to identify the position of the subject of environmental protection activities. Facing the challenge of implementing a specific type of technology adhering to the requirements posed by environmental instruments, when conducting the decision-making process, it is necessary to take into account their entanglement in the above-described change mechanism. This mechanism has a relative character with respect to the considered, one of the distinguished, groups and its area of influence. Respectively – the implementation of a specific environmental technology brings about a technological change affecting both the natural and cultural components of the environment. On the other hand, the implementation of specific instruments of environmental protection becomes a carrier of organizational changes affecting the same components of the environment. Although the decision-making process is located at the meta-level of environmental technologies and instruments, it is also to some extent influenced by the described mechanism. However, it is subject to this decision-making process through the intermediary of the decision-maker who implements the specific instrumentation of the decision-making process. In line with the above-described situations, the whole decision-making process is subject to changes. The scheme outlined in this way requires appropriate clarification and explanation.

The use of appropriate “instruments” and “conveniences” appearing in the decision-making process, with particular emphasis on the decision-making process related

to environmental protection, will be analogous to the use of technological instruments and the accompanying conveniences. The phenomena referred to as “avoidance” and “transfer” will be considered as a special case, while external costs and the precautionary principle will be their manifestations in action. In this context, particular attention will be paid to the “abandonment” effect. The identification of the aforementioned mechanisms along with their consequences may constitute an impulse to search for a positive proposal, which is a vehicle for overcoming the problems emerging here. It should be emphasized that the discussed decision-making process takes place in a specific environment that is subject to impacts and changes, which are brought about by the implemented technical and organizational solutions. While historically, the human living environment was subject to the application of the above-mentioned solutions beyond the context of its protection and the resulting changes, today, environmental protection technologies and instruments have also been incorporated in this respect. The impact of solutions implemented in the environment of the subject of decisions and actions will manifest themselves at all levels indicated by Zbigniew Hull, i.e., civic, decision-making, and expert (Hull 1995, 24-28). Hence the significant importance in this context of the social component of the environment and its impact both on the civic level and, perhaps especially, on the decision-makers and experts representing this level.

The above-mentioned levels can be considered in the light of the diagnosis proposed by Ulrich Beck in the book *Risk Society*. Quite arbitrarily selected, but corresponding to the current social condition. At the same time, it seems reasonable to perceive the decision-making process in the circumstances so adequately characterized in Beck’s image of a society determined by historical mechanisms founded on change – of the production, work, wealth and risk relations. This change is related to the departure from

traditions typical of an industrial or post-industrial society, located on the grounds of technological progress and modernization. We can find here many similarities with the characteristics proposed by Toffler and related to societies, especially of the second and third “waves” (Toffler 1974, 159, 194; Toffler 1997, 185, 323-325).

Beck calls the phenomenon accompanying this change, detraditionalization. He notices its manifestations in the functioning of individual citizens (individualism), families (departure from “normal biographies of men and women” or from the model of the nuclear family) and a society that he calls a risk society. Defined as a “standardized collective being of isolated mass of eremites” (Beck 2002, 199) it produces a dependent citizen, a lonely individualist, fearful of invisible side effects related to environmental threats (Klein 2008). Such a citizen is “washed out” from the environment and immersed in the urbanized world (Beck 2002, 95-96). Deprived of permanent and stable points of reference (Beck 2002, 252), confused and helpless, having problems with conducting the decision-making process (Toffler 1974, 379), he finds it difficult or impossible to solve any decision-making problems. Helpless, he tries to transfer responsibility or obligation to act to others. Those others are usually experts, scientists, or politicians. Focused on satisfying the need for security, adhering to the precautionary principle, he is becoming dependent on various institutions and their decisions and recommendations. Thus, the citizen is doomed to external control and standardization in certain areas, while other areas (e.g., paid work) are simultaneously de-standardized. Beck sees the paradox of this situation when it appears that at the same time that citizen of the risk society does not have any authorities and does not trust institutions (Beck 2002, 197, 206-231).

It seems reasonable to say that Gernot Böhme’s vision in a way complements the image of a citizen of the risk society proposed by Beck. A citizen who is distrustful

of institutions or authorities, paradoxically involved in the processes of detraditionalization or de-standardization leading to new forms of standardization and the transfer of the decision-making process to institutions. Böhme, in his version of pragmatic anthropology, tries to indicate the next stage reached by a citizen characterized in this way. Anthropology is not founded here on the definition of man (the author contends that it is impossible to define his essence), but on sovereignty guaranteed by the attitude of opposition. It is supposed to be a tool of defence against threats inherent in the "cryptototalitarian" nature of culture and society. (Böhme 1998, XXV, 253-271). Böhme is aware of the importance of historical processes to which society and its citizens are subject, but also indicates those "responsible" for the shape and course of these processes. He mentions, among others, the excessive authority of experts, media pressure, and the omnipotence of the state apparatus. Böhme's philosophical anthropology provides the following description of the mechanism leading to the formation of a sovereign "man of opposition": "Experts in certain fields, such as doctors or lawyers, will try to restrict access to this knowledge, prevent its dissemination and try to expand their own competences. The resulting superiority of experts will lead to increased application of their knowledge, as well as to discrediting and disappearance of its other forms. Experts will do everything in their power to shape society in such a way so that it could continue to function only with their participation. That will favour its bureaucratization, clinicization and excessive role of law in social life." (Böhme 1998, 11-12).

Such a perspective allows us to see some analogies with the phenomenon of using technological conveniences in the sense defined by Postman (Postman 2004, 15-34, 106-113). In this case, however, we are not dealing with the introduction of a new technological device (hardware), but with the introduction of a new solution (software) in the decision-making process aimed

at obtaining specific conveniences in this area. It should be emphasized that we do not take into account forceful implementation (e.g., by means of social engineering) but rather voluntary one. A citizen under the influence of the above-described social circumstances perceives, above all, the attractiveness of certain benefits and conveniences, analogous to those occurring in the case of technological tools. Implementation of certain techniques in the decision-making process occurs naturally and is not forced on the members of the risk society. Techniques that they want and that they use with a sense of benefits.

The above-cited mechanism is well illustrated by transferring unwanted nuisances to institutions, experts, scientists, politicians, or state bodies. They are taken over or even appropriated with all the consequences. One can indicate here, for example, making decisions on behalf of or in the place of citizens on matters of key importance to them. In extreme cases, even imposing certain solutions or actions on them, considering that citizens are not competent enough to decide whether to settle certain issues or that citizens do not want to do it on their own. Especially when diagnoses carried out in this area indicate the prevailing preferences related to escaping from ordinary human difficulties and normal responsibility, along with the readiness to give up certain competences, basic skills, or rights. When it becomes a principle of operation, institutions gain more and more decision-making and causal power (power of command). Thus, citizens are becoming less active, interested, involved (also as regards environmental protection issues) and slowly lose their sovereignty. Successive loops of positive feedback additionally lead to escalation of these phenomena. This results in successive loss of control or power over essential spheres of human life and to the usurpation of that control or power by experts or institutions, and, consequently, their rule over society. This in turn lays a foundation for the formation of a sovereign man with a specific

attitude of opposition (in the sense proposed by Böhme) – striving to change the way in which the decision-making process is conducted, and, consequently, also the attitudes and methods of action (cf. also: Łepko 2018).

It is noteworthy that at the civic level implementation of certain solutions which are associated with avoidance of certain difficulties characteristic of the decision-making process, bears all the features of conveniences or benefits analogous to the introduction of a new solution, a technological device. However, similarly to that case, also here these benefits or conveniences sometimes obscure the accompanying consequences. From this point of view, the effects of the phenomena of avoidance and transfer seem to be crucial for the decision-making process and the decision-maker himself. To put it in general terms, one who divests himself of the skills and competences necessary to lead the decision-making process. It may be manifested in the loss of self-control or sovereignty in decisions and actions as a result of giving up or transferring key stages of the decision-making process to others (e.g., to experts). This may result in losing the ability to identify risks or deal with threats (avoiding the risk rather than managing it). This entails lack of risk management skills, which in turn results in multiplication of other risks, which are taken over by others (e.g., on the principle of the shock doctrine see: Klein 2008). If it is associated with avoidance, and sometimes even loss of the ability to decide, the decision-making can also be taken over. Consolidation of such modes of operation may be manifested in activities, where avoidance, transfer or caution are raised to the rank of principles and extrapolated to almost all areas of activity. In extreme cases, it may lead to avoidance, and sometimes loss of the ability to conduct the decision-making process, and finally to avoiding or losing readiness to act (others should do it as they are more competent). At the same time, the principles of resilience (Scruton 2017), responsibility (Jonas 1996; Birnbacher 1999, 2009; Filek 2003; Broth

2017), subsidiarity (Marczak 2021, 200) or the principles of eco-development (Embros 2010, 84-87) are forgotten.

It should be emphasized here that making choices is entangled in the axiological context. Taking risks along with bearing the consequences of one's actions, and therefore responsibility, is associated with moral issues. The effectiveness or efficiency of activities for the environment is related to praxeological skills (Embros 2020a). On the other hand, the aretological order includes the virtues revealed in human activity. This is manifested especially in relation to the virtue of prudence. If, on the other hand, it is considered as the skill to measure the right goals, methods and means, it mediates the virtue of moderation – so valued in the discussed problem area (Dzwonkowska 2019, 262-337).

Deficits in the considered scope will have a degenerating effect on both the decision-making process and the decision-maker himself. The effects of fundamental importance will be revealed when we recognize the recalled abilities and skills-set as well as the conducting of the decision-making process as inherent human characteristics. Taking them away from him by external factors or relinquishing them on his own, to the point of abandoning decisions and actions, is a form of dehumanization. This leads to the exclusion of agency or sovereignty in action and makes it impossible to identify him as the perpetrator of the act. It is related both to the abandonment of the skills related to conducting the decision-making process and the broadly understood ethical skills. Thus, “washing man out of the decision-making process” (and then out of the environment) transfers the issue to the philosophical and ethical level (Wojtyła 2011, 146-147).

The previously discussed motifs related to Postman's mechanism of change gain on importance in a situation where the decision-making process takes place at the decision-making or expert level. The above-identified problems will also

emerge at this level of environmental protection activities. Transferring the directly mentioned mode of functioning from the civic level to this level will strengthen the phenomena of avoidance and transfer with the accompanying consequences (abandonment) for both the decision-maker and the decision-making process. In consequence, this may result in practices of externalization, transfer and distribution of risks, threats, or liability. However, it is important to highlight here the significant exacerbation of problems in the course of the decision-making process conducted at this level in proportion to the scale of the undertaken actions. The problems emerging at the civic level on the expert level become bigger as if in the magnifying glass. This is mainly due to the type, scale, and scope of the effects of actions taken in this area of competence. It is connected with the necessity to include the conducted decision-making process in a specific framework, for example in formalized management systems (professionalization of this sphere). As it seems, for the sake of the perpetrator of the act or the decision-maker himself, the above-described situation, which is characteristic of the civic level, should not be ignored in this case. However, in the decision-making process conducted at this level, both the consequences of the change mechanism resulting from the implementation of environmental technologies and environmental protection instruments must be taken into account. The consequences for environmental actions in a situation of avoidance, failure to take risk (including risk analysis and management), or even losing the ability or competence to conduct the decision-making process and to take action (in extreme cases, failure to act) are easily predictable. A characteristic example of the above-mentioned mechanism is the phenomenon of risk or threat distribution. In this context, Ulrich Beck points to the global egalitarianism of threats and the inequality of participation in risk. The sociologist substantiates the phenomenon by pointing out

that "The proletariat of the global risk society settles beneath the smokestacks, next to the refineries and chemical factories in the industrial centers of the Third World. The 'greatest industrial catastrophe in history' (Der Spiegel), the toxic accident in the Indian city of Bhopal, has raised this in the consciousness of the global public. Hazardous industries have been transferred to the low-wage countries of the Third World. This is no coincidence. There is a systematic 'attraction' between extreme poverty and extreme risk. In the shunting yard where risks are distributed, stations in 'underdeveloped provincial holes' enjoy special popularity. And one would have to be a naive fool to continue to assume that the responsible switchmen do not know what they are doing. More evidence for this is the attested 'higher acceptance' of an unemployed provincial population of 'new' (job-creating) technologies." (Beck 2002, 55).

It seems that the described mechanism of change does not categorically determine the decision-maker, but rather influences him through the environment in which he operates. Conducting the decision-making process in environmental protection, he affects it, exerts an impact, transforms it, introducing into it environmental technologies or instruments of environmental protection. Even if we ignore the in-depth anthropological reflection, the changes that he experiences in this context involve challenges or tasks that he has to cope with. He is forced to face them, to answer them in some way.

Changes induced by the implementation of environmental technologies and instruments of environmental protection will, through the environment, exert an influence on the decision-maker, and then on his preferences in relation to his decision-making process, along with actions for environmental protection. It should be noted that depending on the decision-maker's attitude to the above-mentioned issues, he will define a specific pattern of conduct, and thus a pattern of the decision-making process,

and then a specific matrix of environmental protection. Postulative decisions may turn out to be superfluous in the development and course of this special case of the process. Risk avoidance inscribed in the decision-making process enables resigning from optimization procedures, with particular emphasis on risk analysis and risk management in relation to context factors. Similarly, if costs or consequences are to be passed on to others in time and space, if the decision-maker transfers not only risks but also responsibility, then there will be no room for reflection on goals or methods of action in the scheme of the decision-making process. Thus, due to abandoning the core competencies in the above-mentioned areas, the implementation stage may be eliminated. In the longer term, it becomes possible to resign from conducting this process independently, to rely on some, even more "external" decision-makers or experts and subject them to guidelines (e.g., global institutions). In view of the above, the importance of the risk assessing of implementation (optimization) increases significantly.

The conclusions from the analysis carried out in this study may provide an incentive to search for such patterns of conducting the decision-making process, which will allow to take into account the identified mechanisms. Above all, however, they may allow to respond in a competent manner to the challenges faced by decision-makers, regardless of the level at which they operate.

Conclusion

The scope of the present study allows to indicate only the major issues appearing in the discussed problem area. Certain doubts also need to be raised in this context. The key question is whether a decision-maker from a society defined by Beck as a risk society identifies certain situations as adverse side effects of the "transfer" phenomenon. Are they not rather perceived by him merely as "minor inconveniences" that inevitably accompany the much greater gains he obtains from "avoidance"? Just as

in the case of accepting the negative effects of implementing specific technical devices (emissions, waste polluting the human environment, environmental risks, etc.) [see also point 1 of this study]. Moreover, are his competencies sufficient to allow him to identify and evaluate the recalled situation?

Beck's vision of the risk society and its citizens may be confronted with the findings of Roger Scruton, who attaches key importance to the motivation of actions for environmental protection, which he called oikophilia. Being guided by oikophilia is also part of the mechanism described in this study. It leads to changes in many areas of human activity. As Scruton contends, the most characteristic will be the systemic approach to the issue of human interaction with the environment. Scruton examines these relations with reference to homeostatic systems. In his book *Green Philosophy*, he highlights the issues related to transferring costs and the effects of actions on others both in time (future generations) and space (geographical or national territories) in the broad perspective of the life cycle. In this context, he presents the principles of caution and resilience related to environmental risk-taking (acceptance), risk-avoidance or risk transfer on others. He examines them in the light of the principle of accountability (Scruton 2017, 100-128; for more, see: Embros 2020b).

The described conditionings of the change mechanism allow us to see the factors of the context in which the decision-making process takes place. This allows for a more precise definition of the type and scope of challenges faced by the decision-maker. Identification and definition of functioning styles becomes of key importance. This is done by advocating or constructing such patterns of the decision-making process that allow slowing down, lessening, or preventing the occurrence of "side effects" typical of the mechanism of change described by Postman, or possibly prepare for its occurrence or shape the field of adaptation to this type of change. Structures having

such properties (e.g., homeostatic systems) use or develop specific patterns of the decision-making process or matrices of the system of activities for the environment. It is conducive to maintaining self-steering ability while adhering to specific guidelines and principles (e.g., sustainable development, resilience, subsidiarity, or responsibility). It will be necessary to include in the decision-making process a stage allowing to reflect on goals or methods of action. Locating operational activities related to risk analyses or contextual factors.

As it seems, such a scheme or pattern of conduct in the decision-making process will significantly affect the shape or arrangement of the organized system of activities for the environment. This system, in turn, seems to be properly constructed to achieve the goals and tasks of sustainable development. Environmental protection constituted as a kind of operational and executive area may in this respect contribute to minimizing the risk of triggering the mechanisms of avoidance or transferring the consequences (costs) to future generations or to those inhabiting other areas of the Planet. Due to its characteristics, with particular emphasis on the optimization of the means of achieving goals, the decision-making process will allow to take into account the limited possibilities and boundaries set by the natural environment for economic or social development (Brundtland 1991). It is all the more important when the decision-makers who conduct the decision-making process in the area of environmental protection are faced with the task of efficient and effective implementation of goals, postulates and tasks formulated within the framework of sustainable development. This requires conducting such a process in which there is a place for and the possibility of harmonizing or balancing the three capitals of sustainable development. The decision-making process conducted in this way, aimed at achieving the goals and tasks of sustainable development within an organized system of activities for the environment, will also

contribute to shaping and developing the efficiency of the decision-maker himself. Especially when it comes to the skills developed in prudent determination of goals, methods and means of achieving these goals.

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References

- Beck, Ulrich 2002. *Spółeczeństwo ryzyka: W drodze do innej nowoczesności*. [Risk Society: Towards a New Modernity] Warszawa: Wydawnictwo Naukowe SCHOLAR.
- Birnbacher, Dieter. 1999. *Odpowiedzialność za przyszłe pokolenia*. [Responsibility for Future Generations] Warszawa: Oficyna Naukowa.
- Birnbacher, Dieter. 2009. „Odpowiedzialność za przyszłe pokolenia – zakres i granice.” [Responsibility for Future Generations – Scope and Limits] *Studia Ecologiae et Bioethicae* 7(1): 96–105. <https://doi.org/10.21697/seb.2009.7.1.05>.
- Böhme, Gernot. 1998. *Antropologia filozoficzna: Ujęcie pragmatyczne*. [Philosophical Anthropology: a Pragmatic Approach] Warszawa: Wydawnictwo Instytutu Filozofii i Socjologii PAN.
- Brundtland, Gro Harlem. 1991. *Nasza wspólna przyszłość: raport Światowej Komisji do Spraw Środowiska i Rozwoju*. [Our Common Future: Report of the World Commission on Environment and Development] Warszawa: PWE.
- Dubos, Rene. 1986. *Pochwała różnorodności*. [A God Within] Warszawa: Państwowy Instytut Wydawniczy.
- Dzwonkowska, Dominika. 2019. *Etyka cnót środowiskowych*. [Ethics of Environmental Virtues] Warszawa: Wydawnictwo Naukowe UKSW.
- Embros, Grzegorz. 2010. “Koncepcja ekorozwoju w ujęciu Stefana Kozłowskiego.” [The Concept of Eco-development as Perceived by Stefan Kozłowski] *Studia Ecologiae et Bioethicae* 8(2): 79–92. <https://doi.org/10.21697/seb.2010.8.2.06>.
- Embros, Grzegorz. 2020a. “Praxeological conditioning of the decision-making process in environmental protection.” *Studia Ecologiae et*

- Bioethicae* 18(5): 203–16. <https://doi.org/10.21697/seb.2020.18.5.18>.
- Embros, Grzegorz. 2020b. “Anthropological Perspective on the Decision-Making Process in Environmental Protection.” *Studia Ecologiae et Bioethicae* 18(4): 5-16. <https://doi.org/10.21697/seb.2020.18.4.01>.
- Embros, Grzegorz. 2021. “Decision-making Process in the Systemic Strategy for Environmental Protection.” *Problemy Ekorozwoju* 16(1): 91–101.
- Filek, Jacek. 2003. *Filozofia odpowiedzialności XX wieku*. [The Philosophy of Responsibility of the XX Century] Kraków: Znak.
- Hull, Zbigniew. 1995. “Filozofia i przyrodznawstwo w kształtowaniu myślenia ekologicznego.” [Philosophy and Natural Science in Shaping Ecological Thinking] In *Człowiek i środowisko. Humanistyka i ekologia: Prace I Olsztyńskiego Sympozjum Ekologicznego, Olsztyn 5-6 maja 1994 roku*, edited by Jan Dębowski, 19–29. Olsztyn: Wydawnictwo WSP.
- Jonas, Hans. 1996. *Zasada odpowiedzialności: etyka dla cywilizacji technologicznej*. [Imperative of Responsibility: In Search of an Ethics for the Technological Age] Kraków: Platan.
- Klein, Naomi 2016. *To zmienia wszystko: Kapitalizm kontra klimat*. [This Changes Everything: Capitalism vs. the Climate] Warszawa: Warszawskie Wydawnictwo Literackie Muza.
- Klein, Naomi. 2008. *Doktryna szoku: Jak współczesny kapitalizm wykorzystuje klęski żywiołowe i kryzysy społeczne*. [The shock doctrine : the rise of disaster capitalism] Warszawa: Warszawskie Wydawnictwo Literackie Muza.
- Łepko, Zbigniew, and Ryszard Sadowski. 2020. “Paradoksalne konsekwencje nowożytnego projektu panowania człowieka nad przyrodą.” [Paradoxical Consequences of the Modern Project of Human Rule Over Nature] In *Paradoksy ekologiczne: Odpady miarą sukcesu i porażki cywilizowanej ludzkości*, edited by Ryszard Sadowski and Agata Kosieradzka-Federczyk, 5-17. Warszawa: KSAP.
- Łepko, Zbigniew. 2018. “W sprawie środowiskowej ochrony człowieczeństwa człowieka.” [On Environmental Protection of Man’s Humanity] *Seminare* 39(1): 69–80.
- Marczak, Łukasz. 2021. *Zasada zrównoważonego rozwoju: Perspektywa społeczno-etyczna*. [The Principle of Sustainable Development: a Socio-Ethical Perspective] Kraków: Wydaw. Naukowe UPJPII.
- Piontek, Franciszek. 2007. “Teoria rozwoju a personalistyczna koncepcja teorii ekonomicznej.” [Development Theory and the Personalistic Concept of Economic Theory] In *Zarządzanie rozwojem: Aspekty społeczne, ekonomiczne i ekologiczne*, edited by Barbara Piontek and Franciszek Piontek, 57–62. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- Postman, Neil. 2004. *Technopol: Triumf techniki nad kulturą*. [Technopoly The Surrender of Culture to Technology] Warszawa: Muza.
- Rosół, Piotr. 2017. *Hans Jonas. O etycznej odpowiedzialności nauki i techniki*. [Hans Jonas. About the Ethical Responsibility of Science and Technology] Kraków: Universitas.
- Scruton, Roger. 2017. *Zielona filozofia: Jak poważnie myśleć o naszej planecie*. [Green Philosophy: How To Think Seriously About The Planet] Poznań: Zysk i S-ka.
- Toffler, Alvin. 1974. *Szok przyszłości*. [Future shock] Warszawa: Państwowy Instytut Wydawniczy.
- Toffler, Alvin. 1997. *Trzecia fala*. [The Third Wave] Warszawa: Państwowy Instytut Wydawniczy.
- Wojtyła Karol. 2011. *Osoba i czyn oraz inne studia antropologiczne*. [The Acting Person and Other Anthropological Studies] Lublin: Wydawnictwo Towarzystwa Naukowego KUL.